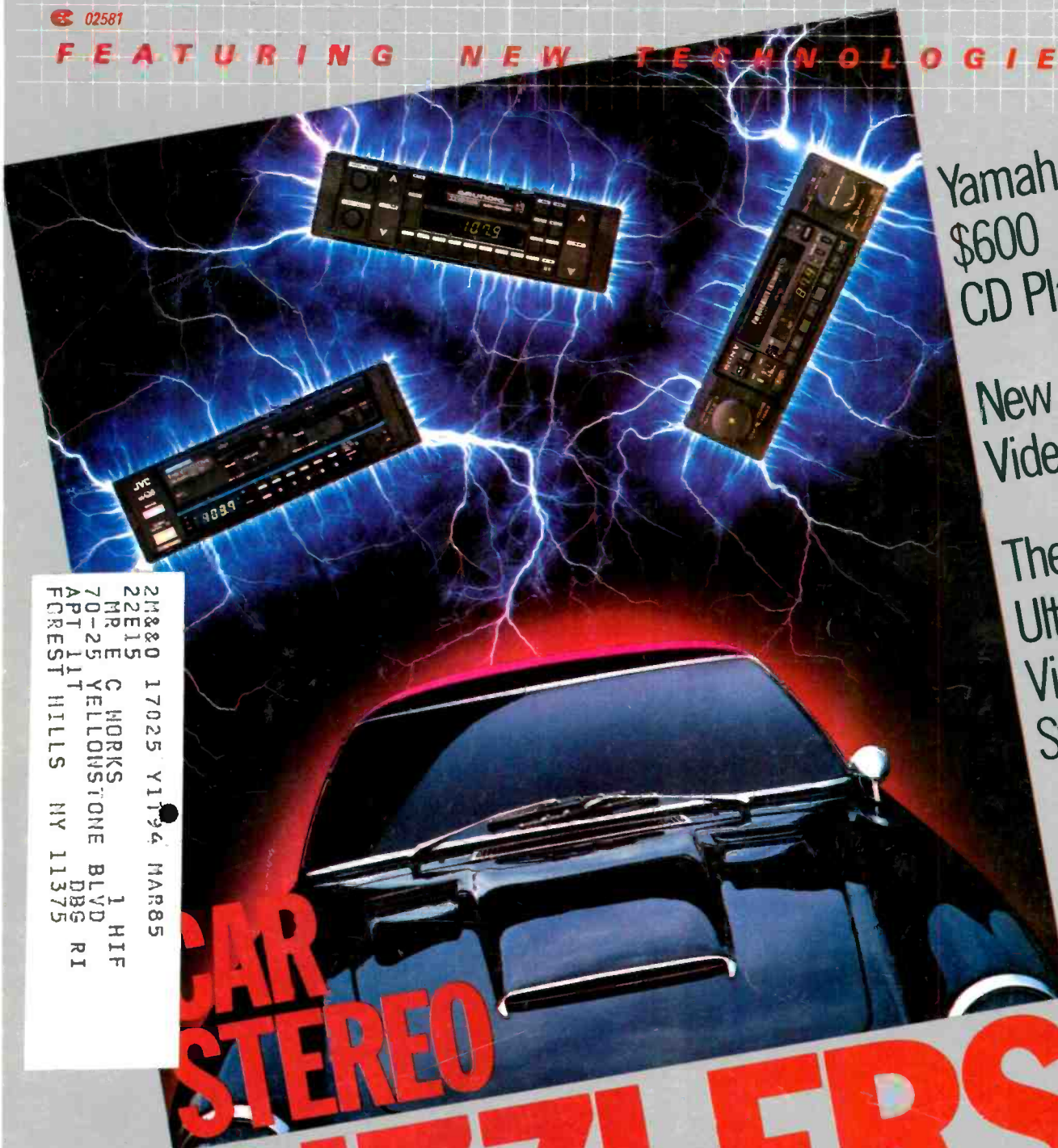


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HIGH FIDELITY™

VOLUME 34 NUMBER 5

MAY 1984

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COVER DESIGN: Skip Johnston

Cover Photo: Grant Roberts. Special effects by Richard Brummet

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Sherwood's new car stereo - Everything you're looking for plus something more: AM STEREO

The broadcast industry has been talking about AM stereo for a long time. But the talk is over. Stations all over are now using this exciting new technique.

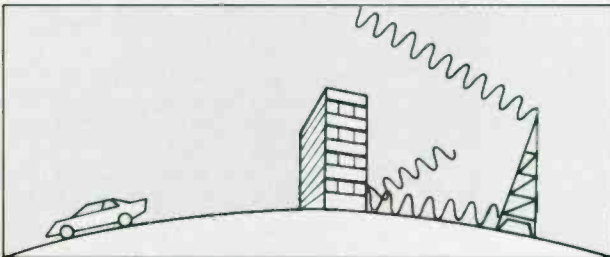
Why AM stereo?

The excitement of AM stereo is revolutionizing AM programming. Music, of course, takes on new realism, but that's just the beginning. Talk radio, a growing trend in AM broadcasting, is more exciting, more intimate in stereo.

What about FM Stereo?

Stereo FM is terrific. The new CRD-150, like all Sherwood receivers, sounds great on FM. But sometimes you can't pull in FM clearly, no matter what receiver you have, because FM signals have short range and travel in straight lines.

This wouldn't matter if we lived (and drove) on a flat, open surface. But since the earth is curved and covered with obstructions, it's difficult to get and hold clean FM where signals are weak or in congested urban areas or moving cars. That's when you need AM stereo.



FM Stereo has short range and is easily obstructed.

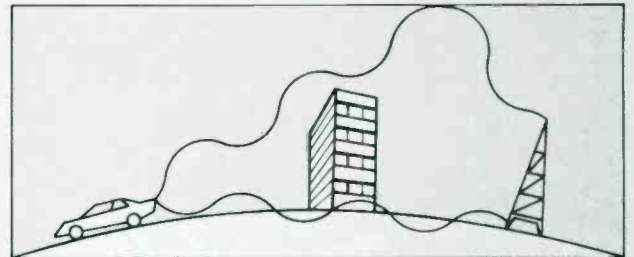
No "fupp, fupp, fupp"

On the edge of clear reception FM makes a "fupp, fupp, fupp" noise, a result of its short range and direc-

tional nature. AM signals bounce off the earth's atmosphere, creating an "energy umbrella" from above. So with AM stereo there's no "fupp, fupp, fupp."

Not just for the boonies.

Because AM stereo is long-range, most people think it's just for remote areas. Not so. In big cities, too many FM stations make for poor selectivity, and high-rise structures make good FM reception even tougher. AM stereo is for the country *and* the city.



AM Stereo has long range and is not directional.

An all new car stereo at a price you can afford.

Now you can enjoy the benefits of AM stereo as well as all the features you would expect in an advanced cassette/receiver. Sherwood's new CRD-150 has digital readout, 10 station presets, Dolby* noise reduction, separate bass and treble controls, metal tape capability, and more. (The radio even plays when the tape deck is in fast forward or rewind.) And, like all Sherwood products, the CRD-150 gives you quality and innovation at a price you can afford.

To experience AM stereo and find out just how good (and how affordable) Sherwood's new CRD-150 is, see your nearest Sherwood auto sound dealer. To find him, call (800) 841-1412 during West coast business hours.

*Dolby is a registered trademark of Dolby Laboratories.

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SOLUTION.

Dear Bob Carver,

I bought a tuner four weeks before you introduced your TX-11 tuner. Now that I've read the *AUDIO, STEREO REVIEW* and *HIGH FIDELITY* reviews and have heard a demo at my audio dealer, I could kick myself. Couldn't you please put that special FM noise reduction circuit into an add-on unit? By the way, I have the C-4000 with Sonic Holography and your M-1.5t and I love them.

"Pleading in Suburbia"

Dear Bob Carver,

I am satisfied with my present receiver except when I try to listen to FM. The stations in this city are fantastic but the noise from multipath interference makes stereo listening almost impossible for me. However, several friends in my building have your TX-11 tuner and they get beautiful stereo FM reception. Is it possible for you to build your special FM circuit as a separate device so receiver owners can benefit from your technology, too?

"Hoping in Manhattan"

Dear "Pleading" and "Hoping,"

I just did it! The Carver TXI-11, Asymmetrical Charge-Coupled FM Decoder, designed to be used in the stereo mode of any FM tuner or receiver, will give you a 20 dB improvement of the stereo quieting (that's 10 times quieter!) and a 10 dB improvement in multipath noise reduction. And you'll still have fully separated stereo FM reception with space, depth and ambience.

Both my TX-11 and TXI-11 use the Asymmetrical Charge-Coupled FM Decoder circuitry which very significantly reduces the multipath noise and distant station hiss to which FM stereo is extremely vulnerable.

To get virtually noise-free stereo FM simply connect the TXI-11 between your tuner and pre-amp or through the tape monitor/external processor loop of your existing system.

Good listening!



Bob Carver



TXI-11

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About This Issue

MUCH OF THIS ISSUE centers around the search for perfection, and whether it is always desirable or necessary.

Take, for example, the field of car stereo. Ever since the first 8-track tape deck was installed in a dashboard in the 1960s, manufacturers have struggled to overcome the many difficulties posed by a mobile music system. One of the most longstanding problems has been that of overcoming fluctuations in FM signal quality caused by the antenna's movement in relation to the broadcast source. The audible result is most often heard as "picket-fencing"—the rapid rise and fall of volume.

An ingenious new approach to controlling this problem comes from Sony, which has developed a "diversity reception" tuner. It uses two antennas, choosing the stronger signal at any moment. Lab and road test evaluations of this unit appear in our special car-stereo section.

Within the past few years, as a sense of quality has emerged in the home video field, more attention has been paid to the crispness of the picture appearing on your TV screen. One step toward the perfect picture has been the development of home video monitors, which offer better circuitry and more control over the set's electronics. But the basis for the TV picture itself—the method of transmitting the color signal—has severe limitations, and interest most recently has turned to an alternative broadcasting system that yields pictures as sharp and detailed as 35mm film. However, the hurdles for worldwide acceptance of high-definition television (HDTV) are high, and it may be that a less elegant digital method will be what we see first. A look at the promises and problems of HDTV appears in "High Fidelity for the Eyes."

Musicians, meanwhile, are casting jaundiced eyes on perfection at any cost. In his article "In Favor of Live Records," Alfred Brendel, one of the world's foremost pianists, argues that "those who consider spotless perfection and undisturbed technical neatness as the prerequisites of a moving musical experience no longer know how to hear music." Many pros and cons of both studio and live recordings are covered in this illuminating story.

And in this month's *BACKBEAT* interview, Sheila Jordan—described by reviewer Crispin Cioe as "undoubtedly one of the greatest jazz singers of the postwar era"—takes a similar stand against perfection in performances. "If I hear something in my head, I'm going to sing it," she says. "I don't give a damn whether it's going to come out 'correctly.'"

Perhaps the message is that perfection has its place, but should not be a goal in itself. —w.r.

Letters



William Grant Still in the early '30s

Setting the Record Straight

We are offended by part of the "Discovering American Music" article [March]. First, the photograph on page 62 is of Ulysses Kay, not William Grant Still. Second, the caption and accompanying article reveal ignorance of, and bias against, minority composers.

Judith Anne Still and family
Mission Viejo, Calif.

The caption for the photograph on page 62 comes from one of the most ridiculous statements in Paul Kresh's article. Choosing to be a classical musician has little to do with race.

For centuries there have been composers who were both black and "classical" or "serious" musicians. For example, the West Indian-born Joseph Boulogne, Chevalier de Saint-Georges (admittedly only half black), wrote the usual operas, violin concertos, symphonies, string quartets, violin sonatas, and songs just like his all-white contemporaries in the 18th century. In our day, do critics fault Jessye Norman or Simon Estes for singing Mahler, Wagner, Berlioz, or Schoenberg? Kathleen Battle for her Mozart and Strauss roles. Leon Bates for playing the standard piano repertory? These examples show how pointless Mr. Kresh's statement is.

Barbara A. Petersen
Manager, Concert Research, BMI
New York, N.Y.

The insensitive remarks regarding William Grant Still in "Discovering American Music" are further compounded in the discography, where Still and Ulysses Kay are joined only by black composers Scott Joplin and Howard Swanson. Overlooked are such major figures as Hale Smith, T.J. Anderson, Talib Hakim, Noel Da Costa, Wen-

dell Logan, Frederick Tillis, George Walker, and Olly Wilson. They too sing America.

Dominique-Rene de Lerma
Executive Director, Sonorities in Black Music
Baltimore, Md.

The misconception expressed by the caption on page 62 might be avoided in the future by writing about Kay (and Still, et al.) as talented American composers of serious concert music who *happen to be black*.

And despite the author's caveat about "his personal tastes and predilections," the accompanying discography is liable to be considered definitive by many. It is unfortunate that so many fine American composers were omitted, but let me mention only one: Gordon Binkerd. His Symphony No. 2 has been recorded on the same disc as a piece by Kay (CRI 139). Also available are Binkerd's attractive sonatas for piano (CRI 201), cello and piano (CRI 289), and violin and piano (Desto 6439). As one of the best and most prolific American choral composers, Binkerd is most seriously underrepresented on disc in that capacity, but his two String Quartets (written for the legendary Walden Quartet) are also masterpieces awaiting first recordings. His music is published by Boosey and Hawkes.

Rudy Shackelford
Severn, Va.

In no way was either the caption or any part of the article on American music meant to denigrate the contributions made by William Grant Still, or any other black musician, and we apologize for any implication otherwise.

Furthermore, High Fidelity Musical America, which covered William Grant Still's opera Bayou Legend when it was presented in 1974 by Opera/South in Jackson, Mississippi, will once again turn its attention to this composer in October, when the Baton Rouge Opera presents the premiere of his Minette Fontaine. Special coverage will include a review of the opera and an in-depth article on the composer's life and art by Dolores Ardoyno, co-founder of both Opera/South and Baton Rouge Opera and one of the country's most informed students of Still's music.—Ed.

To the list of people mentioned in "Discovering American Music" I should like to add Carl Ruggles (1876-1971), a pioneer of modern music in our country. His music has a highly personal vision, often expressed with contrapuntal complexity and raw intensity. I highly recommend the complete two-record set of Ruggles's works on CBS (M2 34591).

William S. Joplin
Newton Centre, Mass.

For Cleaner Discs

For years I have used the same basic record-washing procedure that Alexander Retsoff describes in your December 1983 issue. But I also add a drop of Kodak Photo-Flo to the water along with the Ivory Liquid. Photo-Flo is a wetting agent and seems to help the solution get down to the bottom of the grooves.

Ralph White
Springfield, Mass.

Letters should be addressed to The Editor, HIGH FIDELITY, 825 7th Ave., New York, N.Y. 10019. All letters are subject to editing for brevity.

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AUDIO/VIDEO Currents

News, new products, and new technologies

Grand Central Video



We suppose Akai's description of the AV-U8 (\$350) as an audio-video stereo amplifier is about as accurate as you can get for a product that defies conventional categorization. At heart, it's an integrated amplifier with phono, tuner, and CD (aux) inputs, plus a single tape-monitor loop. Akai rates its power output at a modest 22 watts (13½ dBW) per channel. (The unit also has preamp output jacks for connection to a beefier power amp, if you prefer.) But that's as far as the similarity to ordinary integrated amps goes, for the AV-U8 includes inputs for four video sources and switching to make it easy to record one event while watching another or to dub between two VCRs. A small black-and-white CRT built into the unit lets you monitor the progress of your taping. For more information, write to Akai America, Ltd. (P.O. Box 6010, Compton, Calif. 90224).

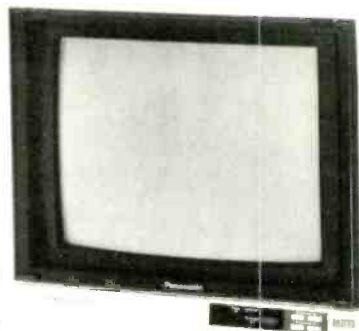
Autoreverse You Can Depend On



A new rotary-head bearing mechanism used in two Technics autoreverse decks is said to provide accurate and consistent head alignment in both directions of tape travel. The \$330 RS-B68R (pictured here) uses a two-motor transport and is equipped with Dolby B, Dolby C, and DBX noise reduction. For an additional \$70, the RS-B78R adds a three-motor transport, an electronic tape counter, and a direct-access music-search function. For more information, write to Technics (One Panasonic Way, Secaucus, N.J. 07094).

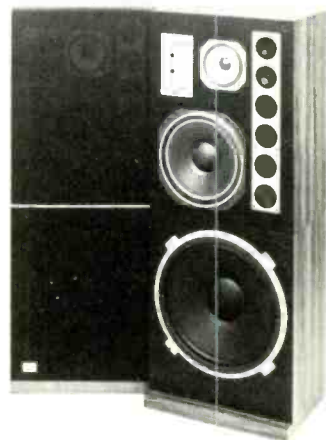
Data Display Plus

Getting the best-possible graphics displays from some personal computers entails the use of video monitors equipped with direct-drive RGB inputs, but such dedicated monitors can be fearfully expensive. Panasonic takes some of the pain out of the



purchase of a computer-grade color monitor by making its CTF-1465R a multipurpose device. Resolution via the RGB input is said to be sufficient for 80-column text displays on its 14-inch flat-corner screen. But when work is done, the unit's built-in 139-channel tuner lets you unwind with normal broadcast and cable reception. There's also a composite-video input for getting the most from your VCR or videodisc player. The CTF-1465R includes a 20-function remote control, a programmable channel scan function, and a sleep timer (with settings at 30-, 60-, or 90-minute intervals). For more information, write to Panasonic (One Panasonic Way, Secaucus, N.J. 07094).

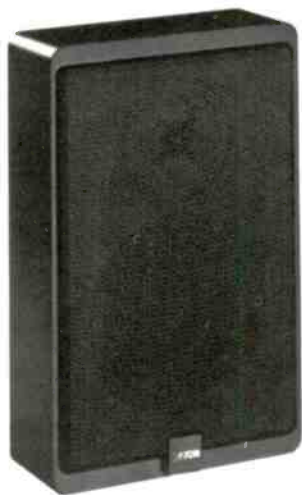
Kenwood's Big Boy



If multidriver systems are your thing, Kenwood's LS-P9000 speaker should be high on your audition list. A three-way design with crossovers at 2 and 7 kHz, the LS-P9000 contains a 10-inch woofer, a 5-inch midrange driver, and six 2-inch cone tweeters. The system is rated at a sensitivity ("efficiency") of 91 dB for a 1-watt (0-dBW) input. The 44-inch-high LS-P9000

weighs 66 pounds and costs \$550. For more information, write to Kenwood USA Corp. (1315 East Watsoncenter Road, Carson, Calif. 90745).

Canton Space Saver



Just 3½ inches deep, Canton's GL-300F speaker system is ideal for wall mounting. The two-way design uses a 6¼-inch woofer crossed over to a 1-inch dome tweeter at 1.7 kHz. Rated at 4 ohms, it is available in a choice of black, white, or walnut finishes and sells for \$375 per pair. For more information, write to Canton North America (254 First Avenue North, Minneapolis, Minn. 55401).

Double Your Portable Pleasure



Though ultras-small headsets come with all personal-portable tape players and radios, opting for a slightly larger set can bring a dramatic increase in low-bass response. That's the concept behind Audio-Technica's new mid-size design, the ATH-20 (\$55). Each earcup has a variable damping control that enables you to adjust bass response to suit your preference. A quarter-inch phone plug adapter is supplied with the ATH-20. And Audio-Technica knows that there are times when not having loudspeakers in a portable player can be a real nuisance. Its answer is the AT-SP5 (\$80), a miniature self-powered loudspeaker. Mea-

Sansui's all-new Midi System.

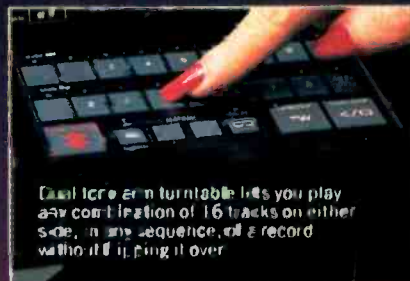
Fantastic! That's the word for Sansui's Midi ensemble. Never before has a music system offered so much pleasure in so little space—with so much ease of operation.

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And because man does not live by records alone, there's a dual cassette deck, high-powered integrated amplifier, and a tuner with 5-band graphic equalizer for tailoring sound that's flat out beautiful.

Of course, all this sensational sound must come out somewhere. And



Dual tone arm turntable lets you play any combination of 16 tracks on either side, in any sequence, all a record without flipping it over.

there's no better outlet than a pair of super-sounding Sansui speakers.

There's also more to Sansui's Midi system than meets the ears. With exquisite looks to complement its incredible sound and features, it adds pleasure to your room on both levels.

You can choose from 3 magnificent Midi systems, and maximize your pleasure in a minimum of space. See your Sansui dealer today. SANSUI ELECTRONICS CORPORATION, Lynhurst, NJ 07071; Carson, CA 90745 Sansui Electric Co., Ltd., Tokyo, Japan

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suring just 6 inches high and 4 inches wide, the speaker uses a single 3-inch driver in an acoustic-suspension enclosure. Power for each SP5 is derived from four "C" cells or via an external 6-volt AC adapter. A cable supplied with the system enables you to route the headphone output of a personal-portable to each loudspeaker. For more information, write to Audio-Technica (1221 Commerce Dr., Stow, Ohio 44224).

Taking Note

The developers of the MusiCalc Synthesizer and Sequencer program ("Currents," February) have come up with a new music-creation utility package for the Commodore 64 computer. Keyboard Maker (MusiCalc 3) enables you to arrange notes on the computer keyboard in any desired sequence, transpose scales to different musical keys,

combine scales, and save new keyboard layouts on floppy disks. MusiCalc 3 also comes with a preprogrammed library of 70 major, minor, and diminished scales. The \$35 program can be used alone or in conjunction with the Synthesizer and Sequencer program. For more information, write to Waveform Corp. (1912 Bonita Way, Berkeley, Calif. 94704).



A Tonic for Tired FM



With a maximum gain of 30 dB, Magnum Electronics Model 105FM antenna amplifier might be just what you need to pull in weak, distant stations. Its ability to capture distant broadcasts is further enhanced by a

tuning stage that is said to add some 30 dB of effective selectivity to your FM tuner. And if a strong local station is overloading your tuner's front end, the amplifier can be set to pad down the antenna's signal by as much as 10 dB. When switched off, a low-loss relay shunts RF directly to the tuner. The 105FM costs \$230. For more information, write to Magnum Electronics (8 Stra-thearn Ave., Unit 9, Brampton, Ontario, Canada L6T 4L9).

Tuning In on Olympus

A component TV tuner with 128-channel capacity, the VR-203 from Olympus Corp. offers fully electronic tuning. Its channel memory enables you to program it with whatever stations are active in your area, and the two-direction scan controls give you quick access to them. The unit's 14-day/eight-event timer gives time-shift recording capability to portable VCRs. There's even a timer-activated turn-off control (with settings in 30-minute increments over a four-hour period) that comes in handy if you have to leave the house after you have started taping a program. The VR-203's price is \$475. For more information, write to Olympus Corp. (Crossways Park, Woodbury, N.Y. 11797).

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AKAI, NAKAMICHI, SONY, TEAC

SPECTRUM ANALYZER ENCOMPASSING MOL DISPLAY—
AKAI



SUPER GX HEADS—
AKAI

AUTO MONITOR—
AKAI

COMPUTER RECORD LEVEL PROCESSING SYSTEM—
AKAI

BI-DIRECTIONAL RECORD/PLAYBACK—
AKAI, SONY, JVC, PIONEER, TEAC

TWIN DIRECT-DRIVE CLOSED LOOP DOUBLE CAPSTAN TRANSPORT—
AKAI, NAKAMICHI

Staying ahead of the competition in auto-reversing cassette decks has been an AKAI tradition for the past 14 years. Now we're introducing the all-new GX-R99, a deck that has so many advanced features you'd have to buy six other auto-reversing decks to get them all.

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display, which displays frequency response with greater accuracy. AKAI's exclusive Auto Monitor. And our super GX heads. So super, they're guaranteed for 17½ years of continuous play.

It's easy to see why the GX-R99, just one of four great AKAI auto-reversing decks, is called the Dragon Slayer. And to find out why it's getting more praise than all the other guys combined, write to AKAI, P.O. Box 6010, Dept. H9, Compton, CA 90224.

AKAI
Hi-Fi & Video. ///

Basically Speaking

Audio and video concepts and terms explained by Michael Riggs

Behind the TV Screen

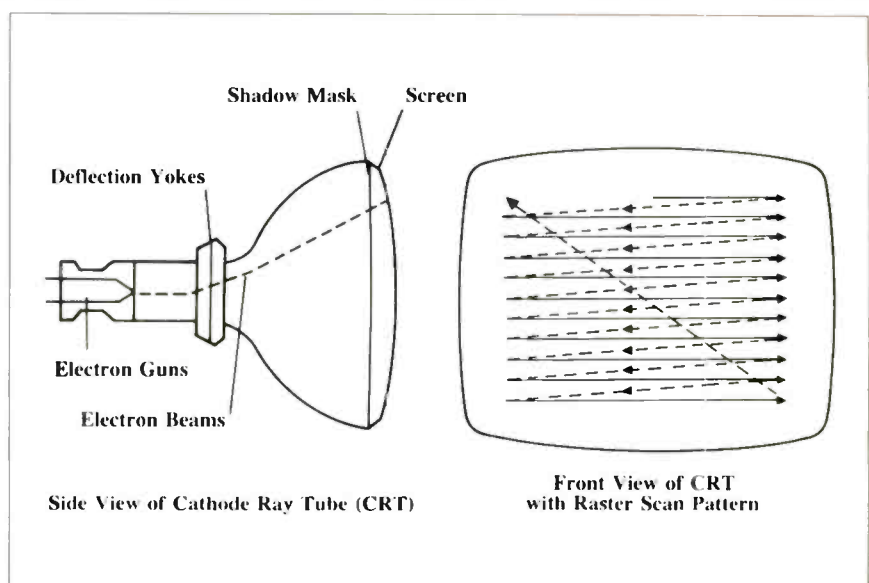
TELEVISION IS A COMPLEX SUBJECT, so I'm going to start here with just a basic overview of how a monitor creates images on its screen. In a black-and-white monitor (to take the simple case first), the back of the screen is coated with a continuous phosphor emulsion. The phosphor glows wherever it is struck by a stream of electrons. The stronger the beam, the brighter the emission from the phosphor. The picture on the screen is a pattern of glowing phosphor, from completely dark to brightly illuminated, yielding a gradation of tones from black through dark gray to light gray and finally white.

The electron beam that makes this pattern is generated by what's called an "electron gun," situated in the back of the picture tube's neck. It consists of an electron source, called a cathode (hence "cathode ray tube," or CRT), and a control grid that serves as a sort of valve for the cathode's output, thereby determining the intensity of the beam. The beam is aimed by a set of deflection yokes around the neck of the tube between the gun and the screen. Essentially, these are electromagnets that pull the beam in the direction necessary to hit the desired spot on the inside of the screen.

To create a picture, the electron beam scans very rapidly from left to right across the screen, turning off and returning to the left side of the screen slightly below where it started before, and then scanning across the screen again. As the beam makes its horizontal sweep, its intensity is modulated by the video signal so that a horizontal line of varying brightness is drawn across the screen. This technique is called raster scanning.

The NTSC broadcast system used in North America, Japan, and certain other parts of the world draws 262.5 of these lines before returning to the top of the screen and starting over. This set of lines is called a field. The next field is drawn so that its lines fall between, or interlace, those of the first. Two such fields comprise a complete 525-line frame. To prevent hum bars in the picture, the field rate is synchronized to the 60-Hz power-line frequency, so that 60 fields (30 frames) are painted every second. This is fast enough that we do not perceive any flicker in the image.

It is important to realize that the number of scanning lines used is not the same as



Simplified side and front views of a b&w CRT at the end of a video field.

the horizontal or vertical resolution, even though they too are specified in lines. However, since vertical resolution is the number of horizontal lines that can be clearly displayed on the screen, it is closely tied to the number of scanning lines broadcast. As long as the interlace is correct, so that lines in the two fields of a frame do not overlap, vertical resolution should be as great as the NTSC broadcast system permits. But because the scanning lines tilt very slightly downward and some are used for a vertical synchronization pulse between fields (which is not displayed), vertical resolution can never equal the number of scanning lines.

The horizontal resolution for a given number of scanning lines per frame is determined mainly by the video bandwidth of the monitor's electronics (and of the source signal). If the frequency response extends to or beyond the NTSC limit of 4.2 MHz, the monitor will be capable of clearly reproducing approximately 330 vertical lines (80 times 4.2). This is the greatest horizontal resolution possible within the NTSC system, though some monitors are capable of better performance if fed non-NTSC signals with wider bandwidth.

The reason for this dependence is that the bandwidth determines how much information can be conveyed in a given amount of time—how many times per second the intensity of the electron beam can be changed. Thus, anything that affects the number of points that must be illuminated (such as the number of scanning lines in a

frame) also influences the frequency response needed to obtain a given horizontal resolution. This is why high-definition television (HDTV) will require so much bandwidth. (See "HDTV: High Fidelity for the Eyes," page 41.)

Finally, we come to the question of color, which further complicates matters. It is fortunate that most of the colors we can see can be generated by combining just a few primary hues in various proportions. For color television, the single phosphor of black-and-white TV is replaced with three-dot clusters that glow red, green, and blue when struck by an electron beam. Most monitors use a separate electron gun for each color dot in a cluster. Thus, it is necessary to focus the three beams so that each one hits precisely on target. If this is not achieved, whites will not be pure and color fringes will appear around images on the screen. It also is important that there be no spillage of stray electrons around the target.

Spillage is prevented by the shadow mask—a perforated metal screen whose holes line up directly in front of the dot clusters. The electron beams are aimed and focused so that they converge at the holes, then diverge again just enough to hit only their assigned color dots. The dots in a cluster are so close together that from a distance you cannot distinguish them. When more than one is illuminated, the eye fuses them into a single composite hue. It is the pattern of these varicolored dot clusters that comprises a color television picture. **HF**

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CrossTalk

Practical answers to your audio and video questions by Robert Long

All in a Name

What is the difference between a receiver and a tuner-amp combination? Does either have any advantages over the other?—John Black, Rochester, N.H.

In my book, "tuner-amp" should mean a combination of two separate components (a tuner and an integrated amplifier) whose aggregate capabilities equal those of a receiver, but a number of manufacturers have, at one time or another, affected the term for all-in-one receivers. If the receiver matches the tuner-amp combination feature for feature and spec for spec, there should be little or no difference except in price. Separates do tend to have extra features and sharper specs, but this does not mean that they will necessarily sound better. The advantage of a receiver is that only one chassis and one power supply are required, reducing the cost for any given level of performance and control flexibility.

Flutter Filter?

My "golden-ears" daughter just bought a Nakamichi BX-1 cassette deck, which she plays through a Magnavox home entertainment center. Everything was lovely until she began collecting mandolin and harpsichord tapes on Odyssey and other budget labels. When she played them with normal bias and 120-microsecond equalization, the wow could be so bad that even I could hear it. Then one evening, by happy chance, she hit the 70-microsecond button. Presto! The wow was reduced, notes faded naturally, and hiss diminished. Can it be that these cheap cassettes are made with chrome tape? Is something wrong in the rerecording procedure?—Sam Hamilton, Ardmore, Pa.

I don't understand why you mention rerecording and bias if it's simply a question of playing back Odyssey or other commercially produced tapes, but I'll proceed on that assumption anyway. Equalization—whether deliberate or serendipitous, "right" or "wrong"—has no influence on pitch as such, and therefore none on wow or flutter. It may have an influence on the perception of wow or flutter, however. And the sort of sounds you specify lay bare any such pitch variations because the instruments produce no inherent vibrato to mask them. They do produce a lot of overtones, which you're

attenuating when you switch from 120 microseconds (the correct EQ for any Odyssey tape I'm familiar with) to 70. Perhaps the "softening" of the overtone structure makes the flutter less obvious.

But I wouldn't expect the wow or flutter to be that objectionable, even on budget tapes, in the first place. So maybe my assumption is wrong. That is to say that if you're copying the tapes via another machine, it is the prime suspect. (Certainly not the Nakamichi, whose wow and flutter is—as our February 1983 test report documents—in audibly low.)

Won't Switch!

About 40 percent of my LPs—which number more than 2,500—are mono. But when I went to buy a new sound system, I found that none of the highly touted amplifiers had a mono/stereo switch, which is essential when playing mono records. (Some have a mono switch for the FM, but not phono.) It really is shameful that this feature has been eliminated from practically all equipment on the market. After all, there are at least a billion mono records out there!—Willard T. Somerville, Locust, N.J.

Probably a great many of that billion are in pretty poor playing condition by now, but basically I agree with you. Nonetheless, a mono switch is not necessary for playing back monophonic records, which will reproduce correctly (though not stereophonically) on any stereo system. However, switching to mono will cancel any output from vertical stylus motion, which with laterally cut mono records must be caused by rumble or surface noise. (Lateral rumble and noise will not be affected.) Mono switching is more commonly available than you think, though much more so among integrated amps and separate preamps than among receivers.

Big Hookup

I have a Kenwood KA-7300 integrated amplifier, a DBX Model 200 program route selector, an Akai GXC-730D cassette deck, a DBX Model 128 dynamic-range enhancer, and a Pioneer SR-202W reverberation amplifier. Can you tell me how to connect these components, and would you recommend that I add a preamplifier?—Lester R. McKissack, Shaw AFB, S.C.

You should be able to figure out a workable setup (and perhaps several) with the help of the DBX 200 manual (abetted, if necessary, by "Taking Control of Your Stereo System" in the March 1983 HF). You don't say why you might want to add a preamp, and that's the crucial question. It might be because you want some features that aren't built into the Kenwood, because you think you can get better performance specs in a separate preamp, or perhaps just because you've taken a shine to a particular model—which is a perfectly legitimate reason in itself. But I don't believe in changing a system without a specific purpose in mind. Otherwise, you have no way of judging whether a proposed change will create satisfaction or just expenditure. In any event, if you do decide to invest in a preamp it should be used with a separate power amp, which together would replace the Kenwood.

Selectivity Discrepancy

Your review of the Pioneer F-90 tuner (October 1983) lists alternate-channel selectivity in the narrow IF mode as 64½ dB. Another magazine found it to exceed 87 dB, and even Pioneer rates it as 86 dB. Furthermore, your report states, "Alternate- and adjacent-channel rejection jump from commonplace to excellent in NARROW," while an article in the same issue ["Selecting the Right Receiver"] says that alternate-channel selectivity should be 70 dB or more to be considered "good." I'm interested in buying the tuner, but I'd like an explanation of the discrepancies.—Jim Anderson, New Orleans, La.

The discrepancy is rather large, perhaps indicating some variation between the test samples (or that the other magazine follows the common practice of realigning review units on the bench for best results). But most of the difference probably is attributable to the way we measure selectivity, which is more stringent and, we feel, more realistic than the standard method. Thus, our selectivity figures rarely match manufacturers' specifications or the test results printed in other magazines. The article you refer to was written with manufacturers' specifications in mind, since that's usually what you encounter when shopping.

We regret that the volume of reader mail is too great for us to answer all questions individually.

AUDIOPHILE FILE™ XL-S

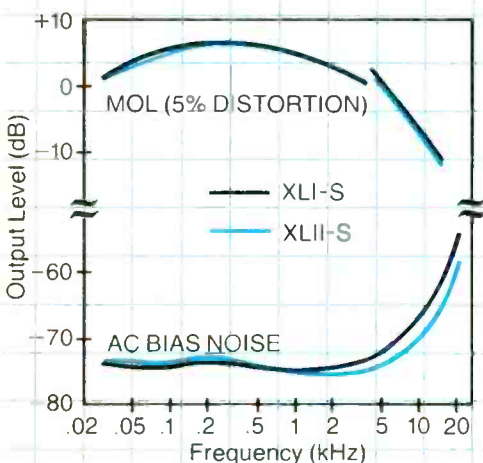
COMPACT DISC COMPATIBLE

Maxell introduces the new XL-S audio cassettes; a series of ferric oxide tapes which deliver a level of performance that can capture the sound nuances found on Compact Discs more faithfully than other ferric oxide cassettes on the market.

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Through a new formulation of our magnetic particles, we were able to reduce the perceived residual AC bias noise level by 1 dB in the critical 2 kHz to 10 kHz mid-frequency range. And simultaneously increase sensitivity and maximum output levels by as much as 2 dB.

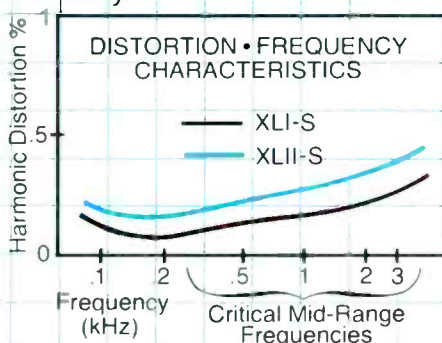


As a result, the dynamic range of each tape has been significantly expanded. So you get a

better signal to noise ratio and a fuller impact of the dynamic transients exclusively inherent to digital CD recordings.

LOWER DISTORTION.

The newly formulated particles also contribute considerably to XL-S's low output fluctuation, as well as its virtual distortion-free reproduction, especially in the critical mid-range frequencies. This, in turn, accounts for our XL-S tape's enhanced sound clarity.



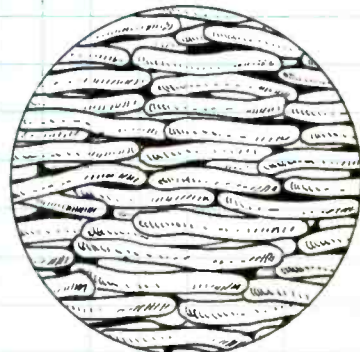
IMPROVED MAGNETIC PARTICLES.

Our refined particle crystallization process is the basis for all of these accomplishments. Maxell engineers are now able to produce a more compact needle-shaped Epitaxial magnetic particle of extremely high uniformity.

This allows us to create a greater ratio of total surface area to unit weight of magnetic particles.

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tapes now have the ability to record more information per unit area than ever before.



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Which is why Maxell high bias XLII-S and normal bias XLI-S are unsurpassed at reproducing the sound qualities found on today's finest recordings. Regardless of whether your frame of reference is analog or digital audio discs.

For technical specifications on the XL-S series, write to: Audiophile File, Maxell Corp. of America, 60 Oxford Drive, Moonachie, New Jersey 07074.



IT'S WORTH IT.

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New Equipment Reports

Preparation supervised by Michael Riggs, Peter Dobbin, Robert Long, and Edward J. Foster. Laboratory data (unless otherwise noted) supplied by Diversified Science Laboratories.

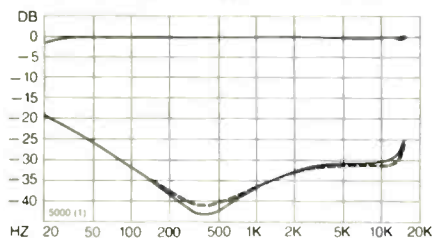


B&O's Elegant Receiver

Beomaster 5000 AM/FM receiver, with Master Control 5000 remote control. Dimensions: receiver, 16½ by 3 inches (front panel), 12¾ inches deep; control, 12½ by 7 inches ("footprint"), 3 inches high. Price: \$1,195. Warranty: "limited," three years parts and labor. Manufacturer: Bang & Olufsen a/s, Denmark; U.S. distributor: Bang & Olufsen of America, Inc., 1150 Feehanville Dr., Mount Prospect, Ill. 60056.

FM tuner section

STEREO RESPONSE & CHANNEL SEPARATION



Frequency response

— L ch +0, -1½ dB, 20 Hz to 15 kHz
 - - - R ch +¼, -1¼ dB, 20 Hz to 15 kHz
 Channel separation
 ≧ 35 dB, 150 Hz to 1.2 kHz
 ≧ 25 dB, 45 Hz to 15 kHz

AN IMPOSING RECEIVER that, in a sense, isn't a receiver, the Beomaster 5000 is designed throughout as the focal component of Bang & Olufsen's Beosystem 5000. That is, it *can* be used as a separate component (and we tested it as such), but some of its properties make little sense outside the context of the system for which it was conceived. This is particularly evident when you consider the Master Control 5000 (delivered with the receiver and required to operate some of its functions), which is studded with controls for a B&O tape deck, a B&O Compact Disc player, and so on.

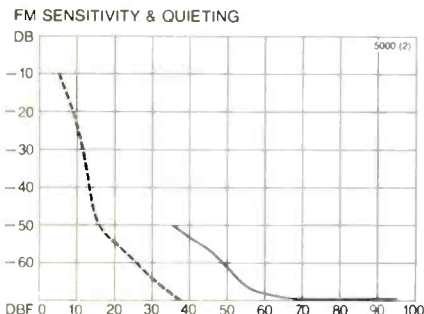
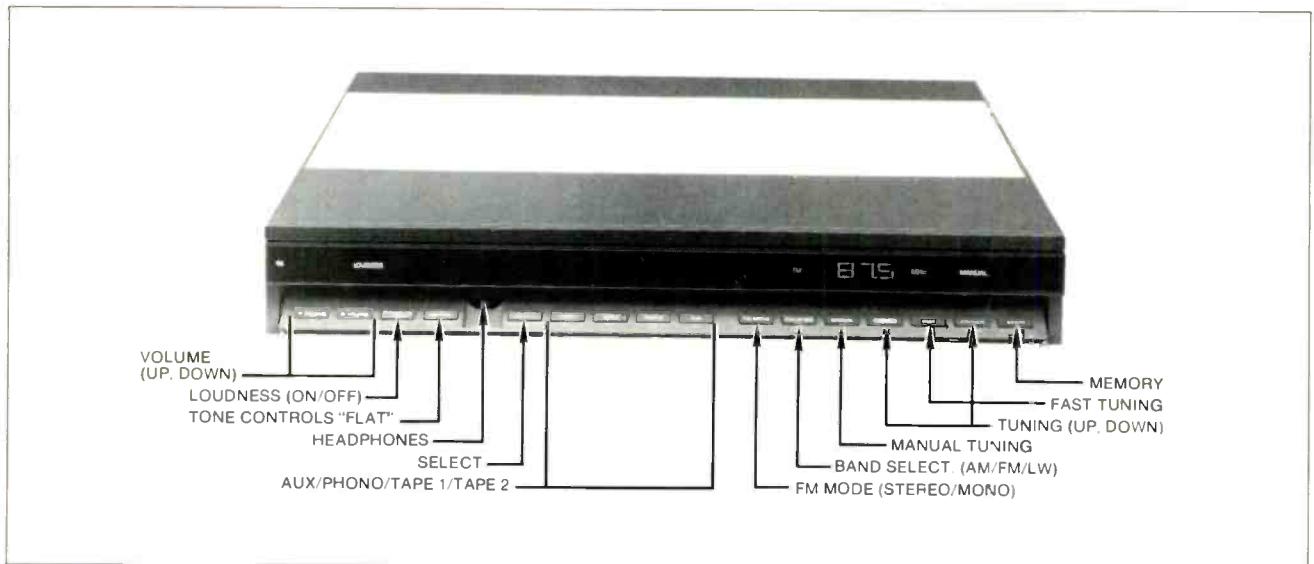
The message is plain even before you begin to use the receiver. Like most European companies, B&O tends to use DIN-style connectors for its home markets but to make certain concessions to American habits in the units delivered to the U.S. You'll find few such accommodations here, and the ones that are provided seem designed to allow use of non-B&O components in a Beosystem, rather than the inclusion of the receiver in a basically heterogeneous complex. You should be able to satisfy your hookup needs at the dealership from which you buy the receiver, though some plugs will be impossible to obtain in most U.S. stores.

There are DIN connections for phono, aux/CD, and two tape decks, but only the phono and Tape 2 connections are duplicated on the pin-jack panel. The antenna inputs (AM, 300-ohm FM, and 75-ohm FM coax) all require nonstandard plugs. The speaker outputs are DIN speaker jacks. In addition, there are pin jacks for preamp output (useful in biamping or in creating speaker pairs with independent volume controls, for use in different rooms) and connections (normally bridged by jumpers) for an equalizer. If you use the appropriate B&O models for these purposes, you can also use two DC relay connections on the DIN panel. One turns the outboard unit on and off with the Beomaster 5000's main power switching; the other also responds to its MUTE. (The receiver has no AC convenience outlets.)

The Beomaster's controls normally are hidden by a flip-down panel along the lower edge, shown open in the photograph. In addition to the functions identified there, nine of the buttons double as presets. The phono selector, for example, also is labeled P3; to choose the station stored in P3, rather than the phono input, you must first press SELECT, which acts like the shift key on a typewriter or computer to alter the function

Report Policy: Equipment reports are based on laboratory measurements and controlled listening tests. Unless otherwise noted, test data and measurements are obtained by Diversified Science Laboratories. The choice of equipment to be tested rests with the editors of HIGH FIDELITY. Samples normally are supplied on loan from the manufacturer. Manufacturers are not permitted to read

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—	stereo quieting (noise)	
- - - -	mono quieting (noise)	
Stereo sensitivity (for 50-dB noise suppression)		
	35½ dBf at 98 MHz, with 0.38% THD+N	
	(36 dBf* at 90 MHz; 35½ dBf at 106 MHz)	
Mono sensitivity (for 50-dB noise suppression)		
	16 dBf at 98 MHz	
Stereo threshold	37 dBf	
Stereo S/N ratio (at 65 dBf)	69 dB	
Mono S/N ratio (at 65 dBf)	73¾ dB	
CAPTURE RATIO	1½ dB	
SELECTIVITY		
alternate-channel	58¼ dB	
adjacent-channel	4¼ dB	
HARMONIC DISTORTION (THD+N)		
	stereo	mono
at 100 Hz	0.70%	0.27%
at 1 kHz	0.32%	0.17%
at 6 kHz	0.40%	0.18%
STEREO PILOT INTERMODULATION	0.37%	
IM DISTORTION (mono)	0.14%	
AM SUPPRESSION	60 dB	
PILOT (19 kHz) SUPPRESSION	68¼ dB	
SUBCARRIER (38 kHz) SUPPR.	>95 dB	

*See text.

Amplifier section

RATED POWER	17½ dBW (55 watts)/channel
OUTPUT AT CLIPPING (at 1 kHz; both channels driven)	
8-ohm load	17¾ dBW (60 watts)/channel
4-ohm load	see text
DYNAMIC POWER (at 1 kHz)	
8-ohm load	18¼ dBW
4-ohm load	see text
DYNAMIC HEADROOM (re rated power, 8-ohm load)	
	+¾ dB

of the key you press next. Similarly, STORE (at the extreme left) not only opens up the presets to memorize the frequency to which you're tuned, but converts the button next to it (marked "advance," for upward tuning) into "sound," enabling the receiver to memorize the VOLUME setting and adopt it automatically at turn-on.

The receiver tunes either automatically or manually. The latter is achieved with some reluctance, evidently because of the very aggressive station-locking AFC (unless you also press FAST, which makes the tuner whiz across the band). The increments are 100-kHz (half-channel) steps on FM and 1 kHz (one-tenth-channel) on AM (identified here, in European fashion, as medium-wave, or MW) and long-wave (LW). The last service doubtless will be terra incognita to most Americans, and few will find anything receivable on the band, though it is popular in Europe. Unless you choose the manual mode, tuning is automatic, seeking the next higher receivable station (or backing down with the "return" button). With nine presets on hand—each capable of memorizing one station and switching to the appropriate band, as well as tuning the station—you normally will use these rather than the manual tuning.

The Beomaster and its remote control form a two-way infrared communications system. The remote, for which B&O sup-

plies a set of four alkaline D cells, both sends and receives signals—relying on information from the Beomaster for its clock/calendar operation (part of the timer modes possible with the complete Beosystem) and its display of VOLUME, BALANCE, BASS, and TREBLE settings. Of these, only the VOLUME can be adjusted at the receiver itself; the others are controlled from the remote, though actually set within the receiver.

The remote's main panel has buttons for source selection, volume, cassette deck functions, and CD player programming. Many of these buttons will also turn on the receiver. You can switch it to standby status with the MUTE or to off with the zero button in the preset group, which also doubles as a numeric keypad for such functions as setting the clock or programming B&O's CD player. STATUS lights the display for about five seconds. (When the receiver isn't plugged in or is out of range, the display reads "no transmission.") The remote's lower panel opens to reveal the other controls: BALANCE, BASS, TREBLE, and those for tape deck and CD player programming and for setting the clock/calendar.

Obviously, the remote is a necessity even if you don't plan to acquire the entire Beosystem. The remote's portability is a big plus in any event, and we found that communications between the two were fre-

About the dBW . . .

We currently are expressing power in terms of dBW—meaning power in dB with a reference (0 dBW) of 1 watt. The conversion table will enable you to use the advantages of dBW in comparing these products to others for which you have no dBW figures.

WATTS	dBW	WATTS	dBW
1.00	0	32	15
1.25	1	40	16
1.6	2	50	17
2.0	3	63	18
2.5	4	80	19
3.2	5	100	20
4.0	6	125	21
5.0	7	160	22
6.3	8	200	23
8.0	9	250	24
10.0	10	320	25
12.5	11	400	26
16	12	500	27
20	13	630	28
25	14	800	29

AUDIO New Equipment Reports

HARMONIC DISTORTION (THD; 20 Hz to 20 kHz)
 at 17½ dBW (55 watts) \leq 0.115%
 at 0 dBW (1 watt) \leq 0.034%

FREQUENCY RESPONSE
 +<¼, -¼ dB, 37 Hz to 23.0 kHz;
 +<¼, -3 dB, 10 Hz to 66.2 kHz

RIAA EQUALIZATION +½, -3 dB, 29 Hz to 20 kHz;
 -21¼ dB at 5 Hz

SENSITIVITY & NOISE (re 0 dBW: A-weighting)
 sensitivity S/N ratio
 aux input 24 mV 76½ dB
 phono input 0.26 mV 75 dB

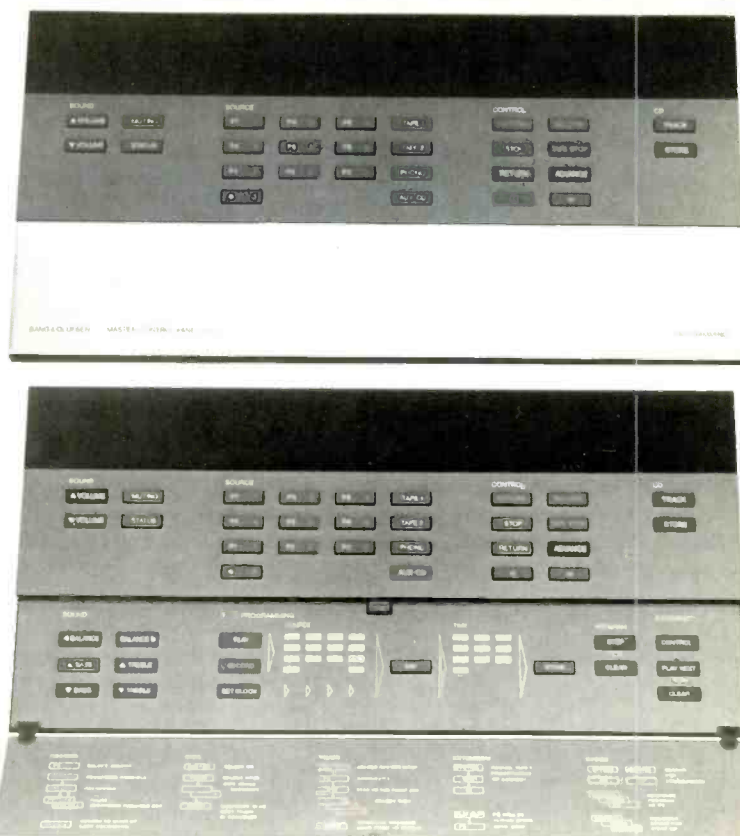
PHONO OVERLOAD (1-kHz clipping) 71 mV

INPUT IMPEDANCE
 aux input 110k ohms
 phono input 51k ohms: complex

OUTPUT IMPEDANCE (to tape) 1,400 ohms

DAMPING FACTOR (at 50 Hz) >100

CHANNEL SEPARATION (at 1 kHz) 69½ dB



B&O's Master Control 5000 remote unit, with lower panel closed (top) and open. It is designed to handle a complete Beosystem 5000.

quently perfect even when we held the remote facing away from the receiver. Relative placement thus seems noncritical, despite admonitions in the rather confusing owner's manual.

All this may sound like a sybarite's dream and an audiophile's nightmare, but B&O has never been one to give short shrift to either. The Beomaster 5000's performance is fine, even if it represents no particular breakthroughs. The tuner section proved as well behaved in the listening tests as it did on the test bench. So adamant is B&O that you shall, wherever possible, suffer no offensive sounds that it has chosen a somewhat higher than usual stereo threshold. The lab had to extrapolate the "50-dB" sensitivity at 90 MHz from the quieting at the threshold (38½ dBf at this frequency). This simply means that you may find some stations at the low end of the band quieter than they would be on most tuners, but in mono rather than stereo.

Output power is greater than you might expect in a European receiver, where 30 watts per side is often considered ample. Our data for 8-ohm loads show that it exceeds its rating and will produce the equivalent of about 18½ dBW (67 watts) on musical waveforms. The data for 4-ohm loads are not shown because their numerical characterization is somewhat problematic. Evidently the overload protection is unusually sensitive to the exact nature of the

instantaneous waveform and can introduce considerable distortion before actual clipping is attained as the signal level advances. That occurs at 17½ dBW (60 watts), for example, with the pulse of the dynamic test. With continuous tones, the protection locks at about 10 dBW (10 watts). The amplifier certainly seems happier with 8-ohm loads, though how unhappy it will be with lower impedances will depend on both the load and the signal.

The impedance of the phono input, too, could pose some question of compatibility in concert with pickup cartridges that are very load-sensitive. It drops with frequency—to 20,400 (20.4k) ohms at 100 Hz, instead of maintaining the standard 47,000 ohms (or the 51,000 ohms measured by the lab at 1 kHz). This doubtless contributes to the measured rolloff in the infrasonic region (to -21¼ dB at 5 Hz), which helps ward off some of the sonic ill effects of warped records. Most pickups (including all high-output moving-coil models) will work well despite the peculiar loading.

Performance is not the main point here, however. The central interest of the Beomaster 5000 is in the system of which it is a part. The ingenuity of its integration and control is what justifies the \$1,200 price of this receiver/remote combination—though it is so intriguing that it will need no justification for many of those who come upon it.

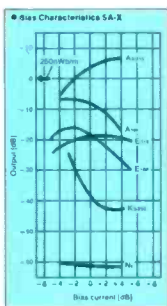
*** TDK AUDIO (MOL) TEST
MODE ***

Sonic Tonic from TDK



What comes out of your audio cassette deck is only as good as what goes in. And if you want unmatched dynamic performance, you need the highest performance audio cassette you can get. You need a TDK Pro Reference Series cassette. Each is designed to maximize the untapped potential of your cassette deck by generating clear, crisp, full-bodied sound.

Take our SA-X high-bias cassette. It offers you a degree of



sound clarity, quality and fidelity virtually unmatched by any other cassette on the market. Its exclusive dual coating of Super Avilyn particles provides optimum performance for all frequency ranges. And SA-X's super-wide dynamic range and higher MOL handle high signal levels without distortion or saturation.

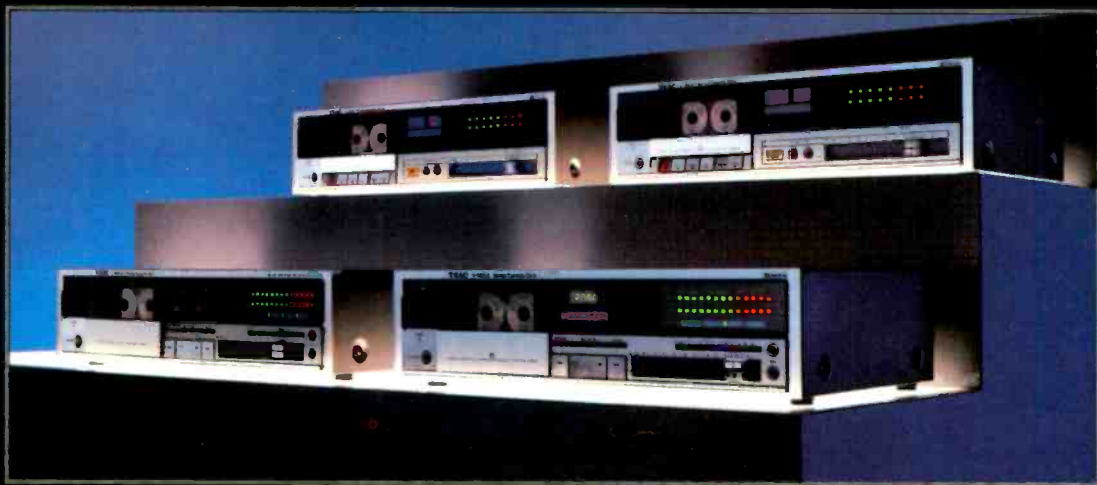
You also get high-powered performance from TDK's famous MA-R metal and AD-X Avilyn-based normal-bias cassettes. And to make

sure the energy never fluctuates, each TDK cassette is protected by our specially engineered cassette mechanisms for reliable, trouble-free performance. Plus a Full Lifetime Warranty.

Before you waste energy on any other brand, put more life back into your cassette deck with TDK's Pro Reference Series cassettes. They're pure Sonic Tonic.

TDK
THE MACHINE FOR YOUR MACHINE

EVEN FANATICS CAN BE REASONABLE.



V-300 — DC Servo Capstan Motor. Soft-Touch Transport Control. Brilliance Circuitry (High End Boost). Dolby B NR. 8-dot LED L & R Peak Meters. Auto MPX Filter. 3 Step BIAS/EQ Selector. Record Mute. Timer Capability. LED Lights for Rec/Rec Mute/Pause. L & R Input Level Control. **V-350C** — Same features as V-300 plus Dolby B & C NR. **V-400X** — DC Servo Capstan Motor. IC Logic Transport Control. dbx NR. dbx Disc. Dolby B NR. 13-dot LED L & R Peak Meters. Auto MPX Filter. 3 Step BIAS/EQ Selector. Memory Stop. Auto Rec Mute to 4 seconds. Timer Rec/Play Capability. L & R Input Level Control. Output Level Control. **V-500X** — Same features as V-400X plus Dolby C NR. Cobalt Amorphous Head. Multi-Electronic Counter w/TRT (Tape Run Time). Memory Play/Stop. Block Repeat.

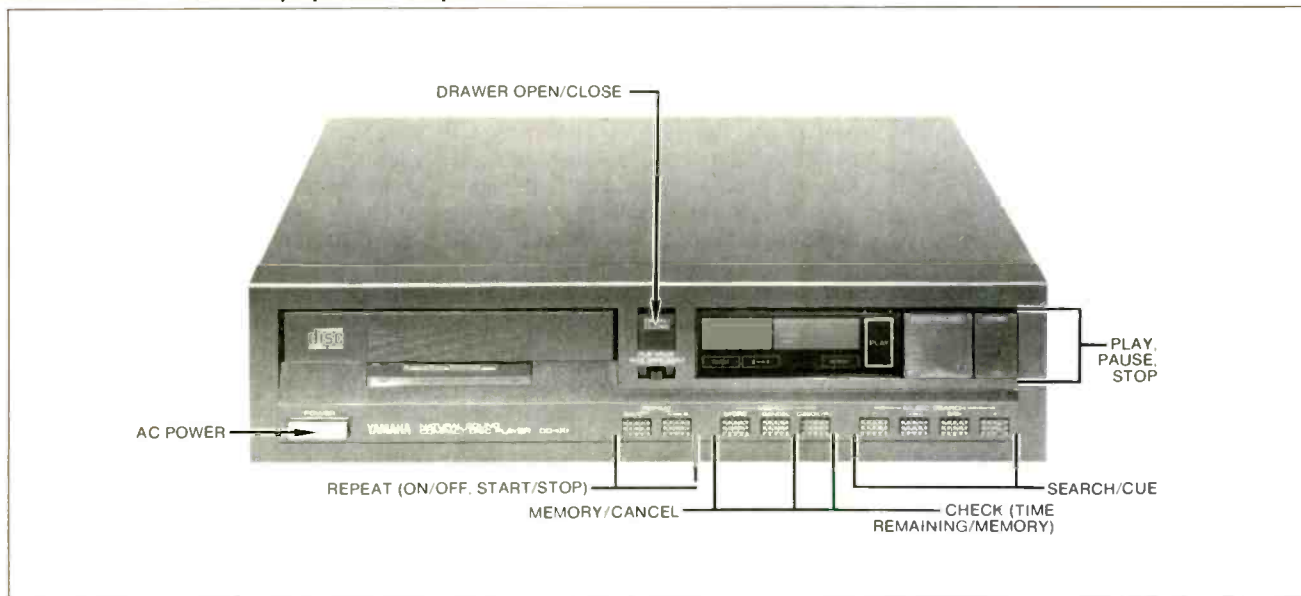
If it were up to us there would be only one Teac model. We would simply build into it every advancement, every feature, and the most impressive specs our unceasing devotion to recording science has made possible.

But even Fanatics have to be reasonable. And if we only built Teacs that encompassed everything we're capable of, you'd have an immoderately magnificent deck only a few could own. Therefore, though we never compromise, we do offer options. You can own a Teac which is merely superb. Or one that is unbearably superb. Each priced in fair proportion.

The marvelous thing about Teac is that you can go as far as you want, but you can never go too far.

TEAC[®] MADE IN JAPAN BY FANATICS.

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*DOLBY[®] IS A REGISTERED TRADEMARK OF DOLBY LABORATORIES, INC. **dbx[®] IS A TRADEMARK OF dbx, INC.

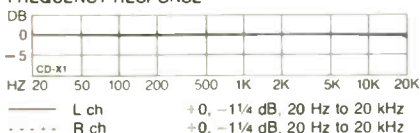


Low Price, Top Performance in Yamaha CD Deck

Yamaha CD-X1 Compact Disc player. Dimensions: 13 1/2 by 3 1/2 inches (front panel), 11 inches deep plus clearance for connections. Price: \$600. Warranty: "limited," one year parts and labor. Manufacturer: Nippon Gakki Co., Ltd., Japan; U.S. distributor: Yamaha Electronics Corp., USA, 6660 Orangethorpe Ave., Buena Park, Calif. 90620.

All data obtained using the Sony YEDS-7, Technics SH-CD001, Philips 410 055-2, and Philips 410 056-2 test discs.

FREQUENCY RESPONSE



DE-EMPHASIS ERROR

left channel +<1/4, -1/2 dB, 1 to 16 kHz
right channel +<1/4, -1/4 dB, 1 to 16 kHz

CHANNEL SEPARATION (at 1 kHz) 98 1/2 dB

CHANNEL BALANCE (at 1 kHz) ±<1/4 dB

S/N RATIO (re 0 dB; A-weighted)

without de-emphasis 95 3/4 dB
with de-emphasis 98 1/2 dB

HARMONIC DISTORTION (THD+N; 40 Hz to 20 kHz)
at 0 and -24 dB <0.01%

IM DISTORTION (70-Hz difference frequency;
300 Hz to 20 kHz)
0 to -30 dB <0.01%

LINEARITY (at 1 kHz)

0 to -60 dB no measurable error
at -70 dB -1/4 dB
at -80 dB -1 dB
at -90 dB +1 1/2 dB

TRACKING & ERROR CORRECTION

maximum signal-layer gap >900 μm
maximum surface obstruction >800 μm
simulated-fingerprint test pass

MAXIMUM OUTPUT LEVEL 2.21 volts

OUTPUT IMPEDANCE 1,000 ohms

ONE SHORT YEAR AGO, we would have considered a \$600 Compact Disc player a prodigy of economy; now, the likes of Yamaha's new CD-X1 are rapidly becoming the norm. Such is the pace at which the brave new world of digital audio is overtaking us. More to the point, perhaps, is that Yamaha has created an attractive, practical, compact design whose performance is in the championship class in some significant respects, despite its modest price.

The disc drawer is among the easiest to use we have encountered, with finger-access cutouts at each side so that you can grasp the CD by its edges with one hand. Just below the open/close button that controls its motion is a little switch marked "auto/norm/single." The automatic mode is comparable to timer playback in a cassette deck: That is, it will start playing at the beginning of a disc as soon as the power is turned on. SINGLE will play one band and then wait for you to press PLAY again before beginning the next—a welcome novelty, in our estimation, because it allows you a breather between disparate bands on, say, operatic recital CDs without requiring you to dash over to the player at the end of each.

One reason this feature is included, no doubt, is that the programming function won't let you sequence your selections: If you ask for Band 5 and then Band 4, it will play Band 4 first. For most purposes, this is no real loss, though you must go to the deck and reprogram it if you're adamant about playing a given track before one that precedes it on the disc. In programmed playback, incidentally, there is a slight "click" and loss of "air" between selections. Where banding is between movements of multiple works on the same disc (which producers shouldn't countenance, but do), the illusion of continuous performance may therefore be compromised when you try using the programming feature as a way of

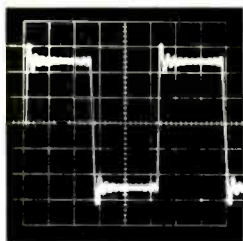
playing just one of the works.

You can repeat either the whole disc or any continuous portion of it, marking the beginning and end points during the first playing. You can go directly to a given band by using the "+" and "-" keys in the cueing bank to step the display to the desired track number and then programming it with the memory key, or by using the search keys toward the center of the bank. Depending on which of these two keys you press, one tap will either return the laser pickup to the start of the current band or skip it forward to the beginning of the next, two taps will move it an additional band in either direction, and so on.

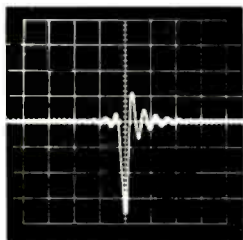
When you insert a disc, the display (like those of many other CD players) tells you the number of bands on the disc and its total playing time. Then it converts to a readout of the currently cued (or playing) band and the total elapsed playing time from the beginning of the disc (even if you start in the middle). If you press CHECK/RT, the display normally will tell you the amount of time remaining on the CD—or in the tracks you've programmed. The exception is when you have programmed the player and then stopped play in the middle of the sequence. In that case, a single tap will elicit the total number of selections in the sequence; continuing pressure will display the programmed selection numbers, in order. When any of these display functions is completed, the panel reverts to current track and elapsed time.

The frequency response is ever so slightly less flat than that of most CD players Diversified Science Laboratories has measured for us. That is, it droops by a fraction of a dB more in the top octave and begins to cut off a hair below 20 kHz, instead of a hair above. The differences are tiny, however, and are more than compensated for (if, indeed, any compensation is needed) by sterling performance elsewhere.

SQUARE-WAVE RESPONSE (1 kHz)



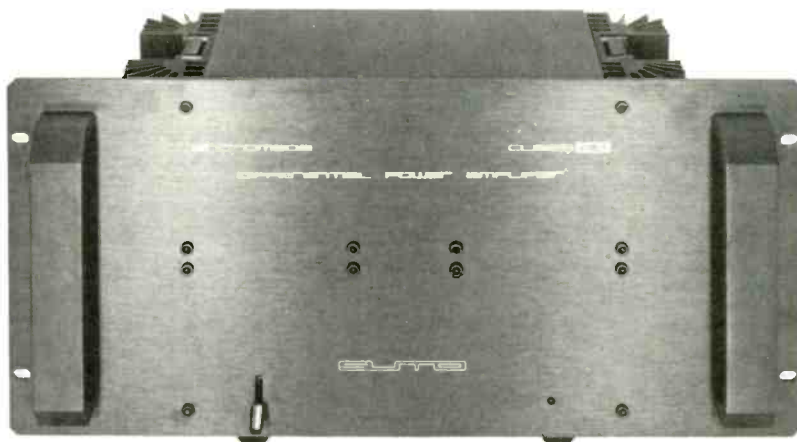
IMPULSE RESPONSE



This is, for example, the first model we've tested in which no distortion measurement at any recorded level greater than -40 dB yielded a figure greater than 0.01 percent. And in the linearity test (where typical models begin to show very slight compression at -70 dB and read about 3 dB high at -90), the Yamaha actually *expands* the dynamic range slightly at -70 and -80 dB before showing compression (of only 1½ dB) at -90. So here, too, the CD-X1 delivers an even closer approach to perfection than we're used to seeing.

But the most significant figures are those for error correction and "tracking."

The Yamaha proved utterly faultless in these tests, which document its ability to make up for disc flaws. Hence, we would expect the CD-X1 to play abused or defective CDs with less audible perturbation than most of the other models we've tested. Its behavior also was above reproach in our listening evaluations. Though it doesn't offer all of the fancy programming capabilities available in some premium players, those it has are so well thought out that there seldom is any reason to think twice about the omissions. At \$600, that almost makes it a case of having your cake and eating it, too.



Sumo Andromeda: All American Superamp

Sumo Andromeda power amplifier. Dimensions: 19 by 8¾ inches (rack panel: feet add 5/8 inch to height), 6¾ inches deep plus clearance for rack handles and connections. Price: \$850. Warranty: "limited," three years parts and labor. Manufacturer: All American Audio, Inc., 31316 Via Colinas, Suite 103, Westlake Village, Calif. 91362.

RATED POWER
into 8 ohms 23 dBW (200 watts)/channel
into 4 ohms 25¾ dBW (375 watts)/channel

OUTPUT AT CLIPPING (at 1 kHz; both channels driven)
8-ohm load 24½ dBW (280 watts)/channel
4-ohm load 25¾ dBW (375 watts)/channel

DYNAMIC POWER
8-ohm load 25 dBW
4-ohm load 26¼ dBW

SOMETIMES AN ANTIC NAME conceals truly impressive electronics—as is the case with the Sumo Andromeda from All American. To qualify as a Sumo, it should be big and powerful, like the Japanese wrestlers. And it is: Not only is the unit bulky (even by superamp standards), but it is rated at a thumping 200 watts per channel. (What the reference to Andromeda may mean, we don't know.)

It is fitted out in professional style, with just a power switch on the black-anodized rack-mount front panel and with pin-jack inputs and banana-jack outputs on the back. Both output jacks for each channel are color-coded red (instead of the usual red hot and black ground). That's because this design uses a bridged circuit configuration. Unlike conventional amplifier outputs, the Andromeda's have no neutral ground. Its "+" and "-" outputs both vary; the output voltage is the *difference* in potential between the two, rather than the difference between a fluctuating "hot" side and an unvarying ground return.

As a result, any speaker hookup that

would require a common ground cannot be used, which rules out some speaker distribution boxes and level controls. Most such devices are essentially incompatible with the high performance and power of the Andromeda anyway, but even with that consideration aside, you should think twice before connecting anything more than a pair of first-class loudspeakers.

Also unusual is the dual power rating in our data column. By Federal Trade Commission fiat, all amplifiers for home use must be specified and advertised according to their continuous power into 8-ohm loads, with the 4-ohm power given (if at all) as a secondary rating. This and the FTC's unreasonably stressful thermal-preconditioning requirement have discouraged manufacturers from listing a 4-ohm specification. Thus, the 8-ohm rating normally is the only one we mention in our reports.

As you can see, the Andromeda's rated power is almost 3 dB higher at 4 ohms than it is at 8 ohms—that is, it is almost double the number of watts. On Diversified Science Laboratories' test bench, however,

DYNAMIC HEADROOM (re rated power)	
8-ohm load	+2 dB
4-ohm load	+½ dB
HARMONIC DISTORTION (THD; 20 Hz to 20 kHz)	
at 23 dBW (200 watts)	≤ 0.045%
at 0 dBW (1 watt)	≤ 0.032%
FREQUENCY RESPONSE	
+0, -¼ dB, <10 Hz to 22.7 kHz;	
+0, -3 dB, <10 Hz to 123 kHz	
S/N RATIO (re 0 dBW; A-weighted)	98½ dB
SENSITIVITY (re 0 dBW)	130 mV
INPUT IMPEDANCE	90k ohms
DAMPING FACTOR (at 50 Hz)	>100
CHANNEL SEPARATION (at 1 kHz)	107 dB

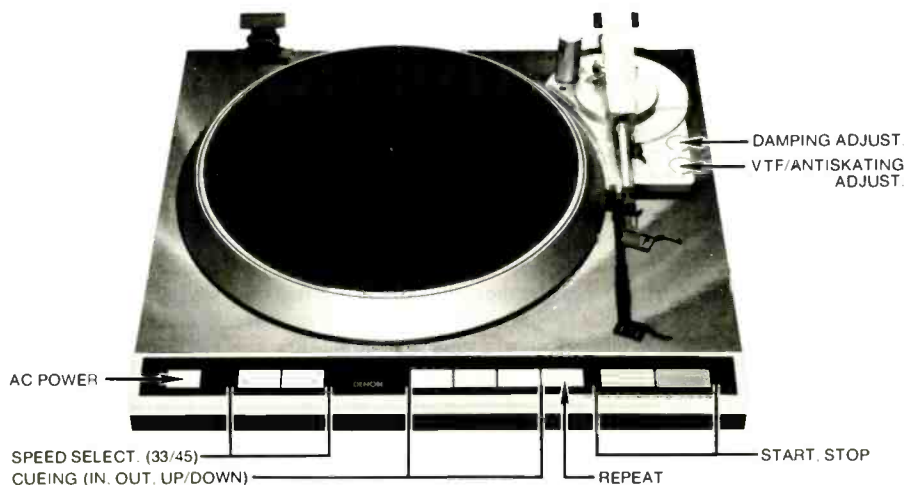
the power capability into 4 ohms proved to be only 1½ dB greater, whether measured as clipping of a continuous tone or "dynamically," with a pulse waveform. But this is not a bad reflection on the amp's 4-ohm power capability, which measures exactly as specified: The reason is simply that it delivers 1½ dB *more* than its rated output into 8 ohms.

Total harmonic distortion (THD) remains less than 0.01 percent to beyond 1 kHz at both test levels and rises only slightly above this figure at higher frequencies. What distortion there is consists of both the second and the third harmonics, with the third predominating only at the higher test level, but the quantities involved are too low to be of any real consequence. The signal-to-noise (S/N) ratio is almost 100 dB, which is excellent. Channel separation runs more than 100 dB at midband and is still more than 90 dB toward the frequency extremes—far more than is needed for proper stereo reproduction.

In overall bandwidth, too, the amplifi-

er is generous almost to the point of extravagance. It is flat within a total "window" of ¼ dB from below 10 Hz to beyond the top of the audio band (at 20 kHz); response is down less than ½ dB at 40 kHz, less than 1 dB at 60 kHz, and less than 3 dB to beyond 100 kHz. The effective bandwidth (between "–3-dB points") therefore extends from deep in the infrasonic range to well into the ultrasonic.

In every respect, then, this is an amplifier that gives the signal plenty of elbow room. That doesn't mean it can be used carelessly, however. It pays to have respect for so much power if your speakers are not to suffer from what might be called the Andromeda strain. Unplugging phono leads without shutting off your preamp is out. Used as it deserves to be, the Sumo Andromeda is a true superamp that sounds as good as it measures. If it ever makes any sense to talk of an analog amplifier as "digital ready," this one qualifies by virtue of its capabilities above and beyond the call of conventional audio duty.



Turntable Deluxe From Denon

DENON FIRST MADE ITS MARK on these shores with a series of top-quality direct-drive turntables. Since then, the company has firmly established itself as a full-line manufacturer of audio components geared mainly to the upper end of the market, and our test reports on its equipment have tracked this development. The last Denon turntable we examined was the DP-32F (April 1982), which was almost the same price as the DP-45F under review here.

The new model is nonetheless quite a step up from the old, both in design and performance. Aside from appearance, the

most obvious change is the incorporation of Denon's Dynamic Servo-Tracer tonearm technology. This electronic control system is designed to reduce or eliminate the usual infrasonic arm/cartridge resonance—and thus prevent the mistracking and distortion that can occur when warped records are played with a cartridge whose compliance is too high for a proper unassisted match with the effective mass of the tonearm.

Also unusual, though not new, is Denon's speed-control system. It employs a magnetic head (much like those used in tape recorders) to detect the passage of magnetic

AUDIO New Equipment Reports

Denon DP-45F two-speed (33 and 45 rpm) automatic single-play direct-drive turntable with Dynamic Servo-Tracer tonearm and rosewood-finish base. Dimensions: 17¼ by 15¾ inches (top), 5½ inches high with cover closed; additional 10¾ inches clearance above and 2¼ inches behind required to open cover fully. Price: \$350. Warranty: "full," four years parts and labor. Manufacturer: Nippon Columbia Co., Ltd., Japan; U.S. distributor: Denon America, Inc., 27 Law Dr., Fairfield, N.J. 07006.

SPEED ACCURACY (105 to 127 VAC)	no measurable error at either speed
WOW & FLUTTER (ANSI weighted peak)	
average	±0.045%
maximum	±0.055%
TOTAL AUDIBLE RUMBLE (ARLL)	-72¼ dB
EFFECTIVE TONEARM MASS	see text
VTF-GAUGE ACCURACY	
reads 0.1 gram higher than actual applied VTF from 0.5 to 2.5 grams, and 0.2 gram high at 3.0 grams	
TOTAL LEAD CAPACITANCE	140 pF

strips precisely spaced around the circumference of the platter. The pulse rate from the head is compared with the output of a reference quartz oscillator; any discrepancy generates a correction signal to the motor, so that the platter never deviates more than a very small amount from the desired speed. Denon says this technique is more accurate than competing systems.

Operation of the DP-45F is as automatic as you want. An optical sensing system detects the size of the record on the platter (12 or 7 inches); it then sets speed and (when fully automatic operation is selected) stylus touchdown position accordingly. But you can override the turntable's decisions by means of the pushbuttons on the front lip of the base. These include speed selectors for 33 and 45 rpm, an arm-lift control, a pair of cueing buttons for moving the tonearm laterally across the record, and a repeat button. All of these are outside the dust cover for easy access.

The electronic cueing is rather slow, which is good when you're trying to zero in on a specific groove but a little tedious otherwise. We found ourselves wishing for a second, higher speed for getting quickly to the general area of interest. However, you can move the tonearm manually as fast as you like, so the turntable's only shortcoming is really no big deal. As the arm moves away from its rest (no matter how it is motivated), the platter starts turning and almost instantly locks onto the correct speed. At the end of the record, an optical sensor triggers the arm return mechanism, and as the arm settles back into its rest, the turntable drive motor shuts off.

Setup is mostly very simple, requiring a minimum of assembly and ingenuity. Our one reservation is with Denon's instructions for setting stylus overhang, which require you to measure the distance from the rear of the detachable headshell to the stylus. An alignment gauge of some sort would simplify this critical procedure. Once the car-

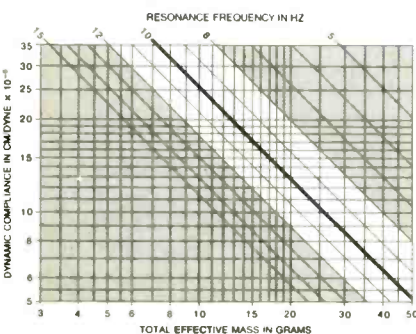
tridge is installed and the tonearm balanced, tracking force and antiskating are dialed in with a thumbwheel on the base of the arm. A second thumbwheel is used to adjust the amount of damping applied by the arm's servo mechanism. (This setting is keyed to the tracking force, on the reasonable assumption that a cartridge's compliance correlates roughly with its VTF requirement.)

Denon says that the DP-45F's platter mat is specially formulated to damp resonances and spurious vibrations within the vinyl of the record and that its base and feet are designed to resist external vibration and acoustic feedback. Because the methods employed are not obviously different from those used in other turntables of this type, we were surprised to find that the DP-45F's shock isolation is indeed above average. In our experience, only well-designed sprung-subchassis models have performed significantly better in this respect.

Diversified Science Laboratories' bench measurements are even more impressive: Speed accuracy is perfect at both 33 and 45 rpm over the entire range of line voltages used for this test, flutter is negligible, and rumble is spectacularly low. Among the many turntables we have reviewed, only a small handful have tested this well. And Denon's Dynamic Servo-Tracer system suppresses the low-frequency arm/cartridge resonance so completely that the lab couldn't even find it. This prevents us from determining the tonearm's equivalent mass, but since the damping is so effective, it really doesn't matter: Just about any good cartridge should work fine.

As must be apparent by now, we think the DP-45F is an excellent turntable—stylish, fully automated, and easy to use, with performance that ranges from very good to simply superb. And the moderate price makes it an outstanding value. Denon surely has created a formidable contender among automatic turntables.

Tonearm/Cartridge Matching Graph



By means of this nomograph, you can quickly and easily determine the compatibility of any cartridge and tonearm we have tested. Ideally, the arm/cartridge resonance frequency (indicated by the diagonal lines) should fall at 10 Hz, but anywhere between 8 and 12 Hz will assure good warp tracking and accurate bass response. (It is usually okay to let the resonance rise as high as 15 Hz, although we don't normally recommend this.)

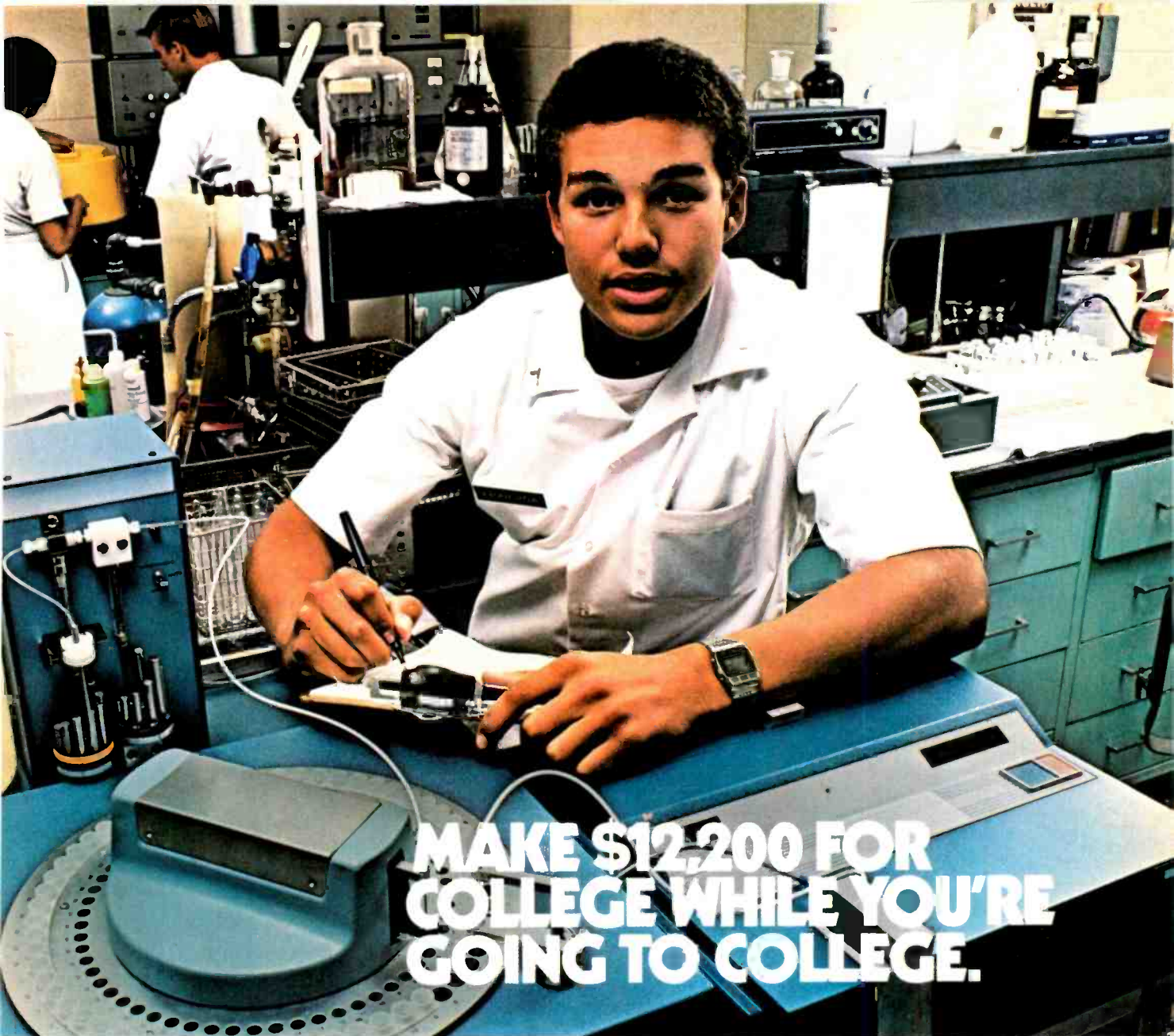
Begin by looking up the weight and dynamic compliance shown in the cartridge report and the effective mass listed in the turntable or tonearm report. Add the weight of the cartridge to the effective mass of the tonearm to get the total effective mass. Then find the point on the graph where the vertical line for the total effective mass intersects the horizontal line for the cartridge's dynamic compliance. For a good match, this point should fall in the white region, between the 8- and 12-Hz diagonal lines.

When necessary, you can back-figure compliances and effective masses for cartridges and tonearms tested before we began reporting these figures directly (in January 1983). For cartridges, look up the vertical resonance

frequency (measured in the SME 3009 Series II Improved tonearm) and the cartridge's weight. Add 15 grams (the SME's effective mass) to the cartridge weight to get the total effective mass. Then find the intersection of the vertical line representing that mass with the diagonal line representing the measured resonance frequency. Now you can read off the compliance from the horizontal line passing through the point of intersection.

For tonearms, look up the vertical resonance frequency as measured with the Shure V-15 Type III cartridge. Find the intersection of the diagonal line for that frequency with the horizontal line representing the Shure's dynamic compliance of 22.5×10^{-6} cm/dyne. Reading down the vertical line on which the point of intersection lies will give you the total effective mass of the arm with the Shure V-15 Type III mounted in it. Then subtract 6.3 grams (the weight of the V-15 Type III) to get the tonearm's effective mass.

Because of differences in measurement techniques, manufacturers' specifications for compliance and effective mass often differ from our findings and may therefore yield inconsistent results if used with this graph.



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COLLEGE WHILE YOU'RE
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training periods. All while you're getting the most out of college. And doing the most you can part-time for your country.

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**ARMY RESERVE.
BE ALL YOU CAN BE.**

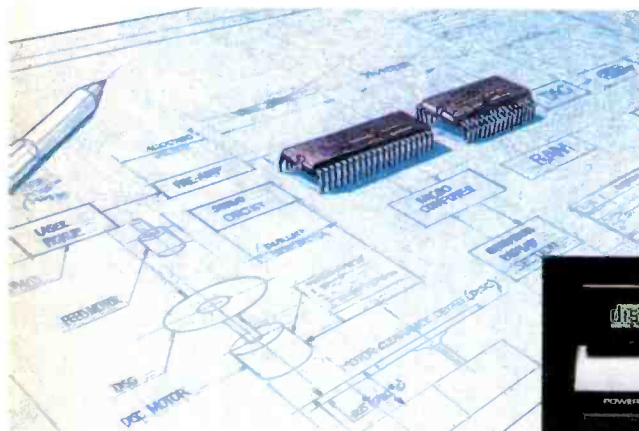
YAMAHA INTRODUCES THE SECOND-GENERATION GAP.

Second generation CD players have come a long way. But none come close to the new Yamaha CD-X1. It is the most technically advanced, user-friendly high-performance CD player you can buy. For two small reasons.

LSI.Q.

Meet the YM-3511 and the YM-2201, two high density, highly "intelligent" LSI's specially developed and patented by Yamaha. Together, they can do the work of many multiple LSI's and integrated circuits. And do it better.

Because of them, the CD-X1 performs better, weighs less, takes up less space. And costs less money.



OUR LASER'S EDGE.

The CD-X1 also incorporates a remarkably compact three-beam laser combined with a super-smooth ceramic bearing in the disc drive motor. This advance, coupled with our proprietary LSI's servo control circuitry, provides exceptionally stable beam tracking for exceptional audio performance.

TRUE CONVERSION.

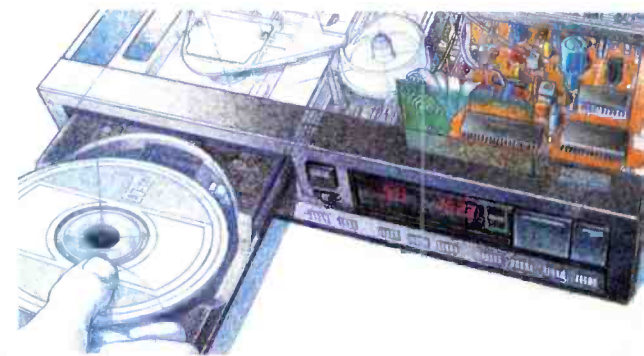
Highly accurate conversion of the digital signal to an analog signal is critical for optimum playback performance. Most CD players perform this conversion at the standard sampling rate of 44.1 kHz. Again because of our superior LSI technology, the digital filter system in the CD-X1 doubles this rate to 88.2 kHz. This over-sampling virtually eliminates phase distortion and greatly improves playback resolution.

AT YOUR CONVENIENCE.

To make using it as pleasurable as listening to it, the CD-X1 has a long list of user-friendly features. Like three different play modes for greater playback flexibility. A multi-function time indicator. Simple and versatile memory programming. And a very convenient music search function that allows you to find selections or individual passages within a selection at the touch of a button.

But perhaps its most user-friendly feature is the \$599* price tag.

The CD-X1 from Yamaha. The others don't have anything like it. But you can have one just like it. At your Yamaha dealer now.



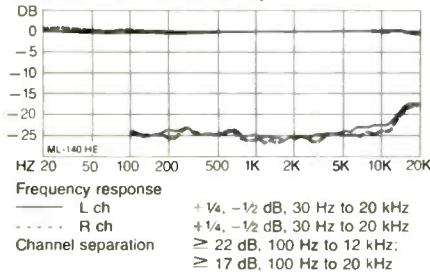
*Suggested Retail Price

Shure's Best-Ever Best-Buy



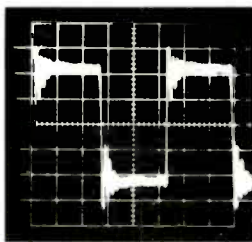
Shure ML-140HE fixed-coil (moving-magnet) phono cartridge, with user-replaceable Hyperelliptical multiradial diamond stylus. Price: \$190. Warranty: "full," one year parts and labor. Manufacturer: Shure Brothers, Inc., 222 Hartrey Ave., Evanston, Ill. 60204.

FREQUENCY RESPONSE & CHANNEL SEPARATION
(test record: JVC TRS-1007 Mk. II)



- SENSITIVITY (at 1 kHz) 1.18 mV/cm/sec
- CHANNEL BALANCE (at 1 kHz) ± < 1/4 dB
- VERTICAL TRACKING ANGLE = 19°
- MAX. TRACKING LEVEL (re RIAA 0 VU; 1.0 gram)
 - lateral > +18 dB
 - vertical > +12 dB
- DYNAMIC COMPLIANCE (vertical)
 - = 16 × 10⁻⁶ cm/dyne*
- RECOMMENDED EFFECTIVE TONEARM MASS
 - optimum = 11 grams*
 - acceptable = 6.5 to ≈ 20 grams*
- WEIGHT 4.5 grams

SQUARE-WAVE RESPONSE (1 kHz)



*With Dynamic Stabilizer up; see text.

TRADITIONALLY, SHURE HAS followed up the introduction of a new V-15 pickup (always the top of the company's line) with an M-series cartridge delivering much the same technology and performance at a significantly lower price. The final degree of engineering polish and individual fine-tuning that goes into the premium product is disproportionately expensive, so giving it up can get you quite a bargain. With the arrival of the V-15 Type V (test report, July 1982), the company has gone this practice one better, taking the opportunity to do a general housecleaning. The result is a thoroughly revamped line of M-prefix pickups, led by the ML-140HE.

The new cartridge boasts virtually all of the Type V's important features, including the Microwall/Be stylus cantilever that is the centerpiece of its design. Shure credits this thin-walled beryllium tube's exceptionally high stiffness-to-mass ratio for the stunning high-frequency tracking specifications of these cartridges. In this respect, the ML-140HE is substantially better than any previous Shure pickup except the Type V.

The stylus itself is Shure's familiar Hyperelliptical line-contact tip, which is said to yield lower distortion than conventional shapes. The company's ultrafine Mäsar polishing technique is applied to the contact patches to minimize record wear, and its Side-Guard stylus-protection system shields the delicate cantilever assembly from accidental damage. Like most other Shure pickups, the ML-140HE is fitted with a viscous-damped Dynamic Stabilizer brush to remove dust and static from the record being played and to reduce the amplitude of the infrasonic arm/cartridge resonance. This should make the cartridge tolerant of an unusually wide range of effective tonearm masses and virtually immune to warp-induced mistracking.

An entirely new feature is the cartridge's streamlined shape, stemming from its use of a new coil configuration designed for high transduction efficiency. And Diversified Science Laboratories' measurements confirm that the ML-140HE delivers above-average output despite its relatively modest weight and low coil inductance. Channel balance is virtually perfect, with nearly identical sensitivity for both left and right.

As the frequency response curves show, this close matching is maintained across the entire audio band. Indeed, with the recommended load termination of 47,000 (47k) ohms in parallel with 250 picofarads (pF), both channels are astonishingly flat—within less than 1 dB from 30 Hz to 20 kHz. Channel separation is likewise very uniform and certainly more than

adequate to maintain a good stereo effect. Square-wave response is well controlled, with just a slight overshoot on the leading edge followed by a few cycles of well-damped ringing caused by the ultrasonic stylus resonance. (The low-level ringing across the top of the wave is an artifact of the test record.)

As measured by the low-frequency twin-tone intermodulation method, vertical tracking angle (VTA) is almost directly on the 20-degree DIN standard. A slightly higher reading obtained using mid-frequency tones suggests that the stylus rake angle (SRA) may be a bit off, but this does not seem to affect the cartridge's performance adversely in any other respect, measurable or audible. Tracking at the recommended 1-gram downforce is superb, with distortion remaining low (by cartridge standards) even on high-level high-frequency tone bursts.

The Dynamic Stabilizer is so effective that DSL could not find a clear-cut low-frequency resonance. The lab therefore found it necessary to disengage the damper in order to measure the cartridge's compliance, which proved to be moderate. This and the pickup's low weight make it suitable for a wide range of tonearms, even without the Dynamic Stabilizer in operation. With the brush down, the ML-140HE should perform well in virtually any tonearm now on the market. This high degree of stability in the groove undoubtedly contributed to the pickup's star-quality test results and to the lab's feeling that it was a remarkably easy cartridge to work with on the bench.

Shure has taken steps to make certain that it is easy to work with in the home, as well. Included with the cartridge are a special alignment stylus, which substitutes for the regular one during installation, and a metal protractor for setting stylus overhang. Together, they make adjusting tilt, azimuth, and lateral tracking alignment a snap. We had our sample ready to go in near-record time.

Listening confirms the numbers: The ML-140HE is a top-notch pickup. Tracking is secure even in the face of severe record warps and extreme groove velocities. The sound is smooth, clean, and detailed, with a stable, convincing stereo image and never a hint of strain or coloration. And because of the cartridge's low output impedance, even relatively large changes in load capacitance have little effect on what you hear. If you insist on the very best Shure has to offer, you will still want the V-15 Type V, but if the best is a little beyond your means, you could hardly do better than the ML-140HE.

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the product, the model number, the manufacturer, and the issue in which the test report appeared. Send your request, your check or money order, and a self-addressed stamped envelope to Test Report Reprints, High Fidelity, 825 Seventh Ave., New York, N.Y. 10019.

From the Driving Force:

**A new angle in
Panasonic speakers
solves some old
problems in
car stereo performance.**

The Panasonic EAB-069 car speaker system and its smaller version, the EAB-049, represent a new and different approach toward improving car stereo performance.

Notice the unusual angle of the horn tweeter. It projects higher frequencies in music directly at the listener; frequencies sometimes lost within the confines of a car. At the same time, a diffuser channels the lower frequencies down the length of the passenger compartment.

Accurate bass reproduction requires a treatment all its own. So an upward firing woofer is used to maximize bass frequency projection.

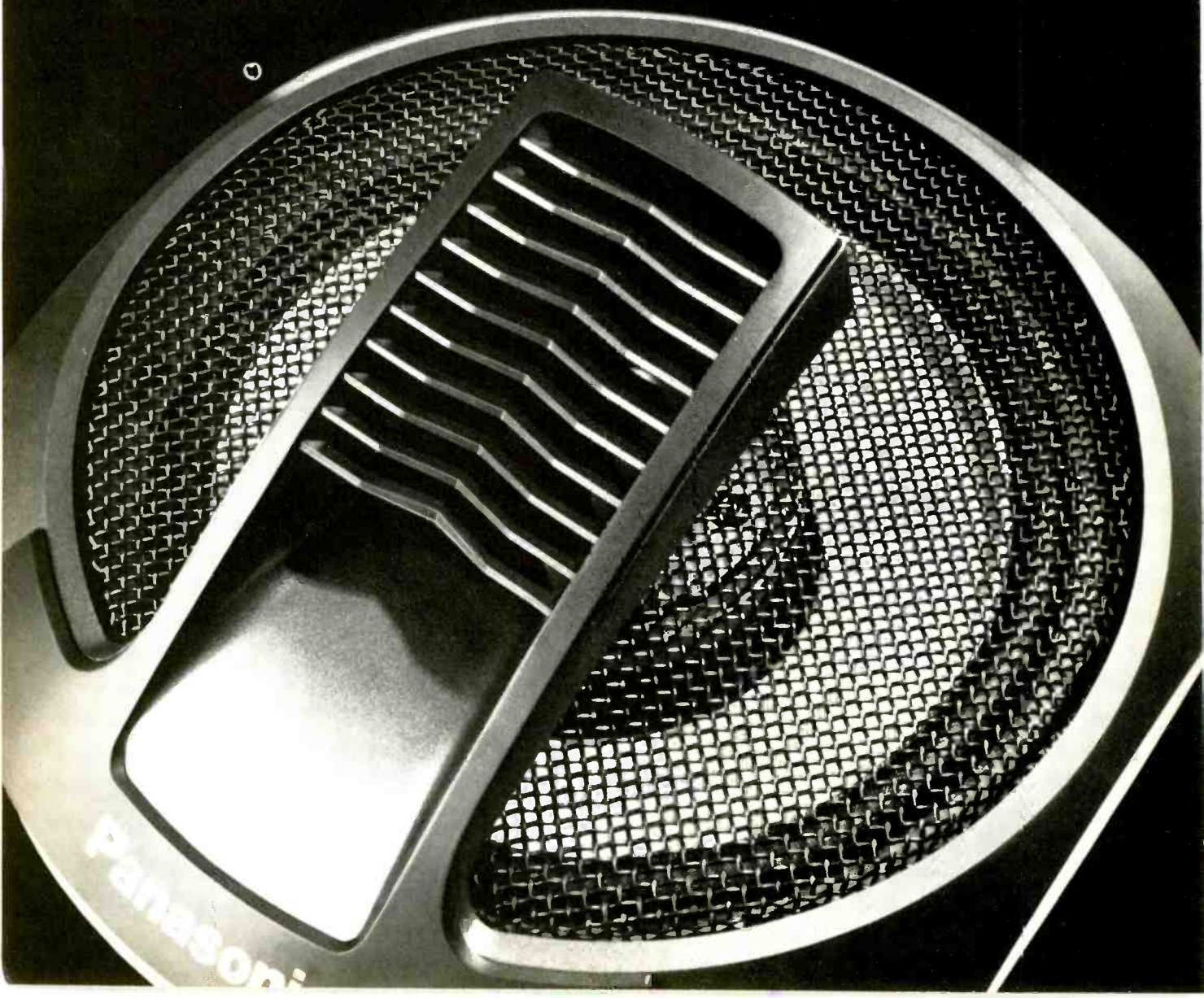
Working together, the angled horn tweeter and upward firing woofer enhance the stereo image and achieve exceptional sound reproduction.

And how much power can these speaker systems take? The EAB-069 handles a hefty 60 watts. The EAB-049, 30 watts. And these compact, low profile speaker systems can be used in separate pairs or as a powerful complementary foursome.

Angled horn tweeter speaker systems. Part of the entire line of high quality, innovative car speakers from Panasonic.



Panasonic car audio
The driving force





CAR STEREO

SUPERCHARGED SOUNDS

The new car-stereo gear introduced at the Winter Consumer Electronics Show should make summer an autosound sizzler.



THOUGH HOME AUDIO and video equipment got the lion's share of attention at the Winter Consumer Electronics Show, we autophiles also had plenty to gape at. Interspersed among the video monitors and megabuck loudspeakers were enough fancy front ends and supercharged triax systems to send the mobile music lover into rapturous reveries.

The biggest news of all: Compact Disc will soon go on the road. When Philips first demonstrated its prototype home CD player six years ago, the company was quick to point out the medium's potential for automotive use. Skeptics in the press were equally quick to dismiss the notion as so much wild puffery. Though I have yet to see a CD player working in a moving car, and consequently still have some doubts about the machine's ability to track a disc under tough road conditions, the number of manufacturers demonstrating prototypes indicates that they may be well along in designing vibration isolation techniques for car players.

Technics, Kenwood, Philips, Fujitsu-Ten, Mitsubishi, and Sanyo showed working samples. (Fujitsu-Ten, in fact, had announced late last winter at the Tokyo Motor Show that its CD player would be offered as a factory-installed option in various '84 Toyota models in the Japanese market.) The

BY

GARY STOCK

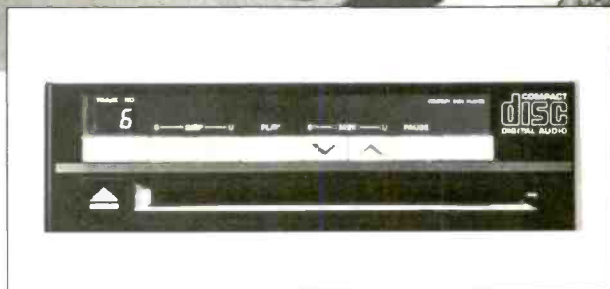


Mobile Compact Disc player

prototypes from **KENWOOD**

(top), **MITSUBISHI** (above),

and **PANASONIC**





C A R S T E R E O

prototypes look a lot like conventional front-end radio/cassette players, except that they have a longer, narrower faceplate. And in specifications, they have the same boringly perfect numbers as home CD players.

Meanwhile, the proliferation of new materials and techniques for autosound speakers continues apace. Ohm Acoustics, long an audiophile

listener. JBL has dubbed its four new speakers the Co-Motional line. Each uses a lightweight piezoelectric tweeter that sits on the apex of the woofer cone. Philips is augmenting its sexy-looking line of Euro-style speakers with a number of rear-deck plate systems. Two-piece affairs, they consist of flat woofers in enclosures about the size of paperback books, plus

model designed to stretch across a rear deck—and sound far, far better than any previous Sparkomatic offerings I've heard.

Even if there had been no activity in car CD players or super speakers, the Winter CES would have been interesting for the range of fresh thinking expressed in autosound electronics. Jensen led the way with a much-talked-about line of new front ends called the ATZ series. (A well-placed source at the company confirms that the initials stand for the design philosophy of including everything from A to Z.) The five models are all shaftless, yet each fits a typical three-hole dash opening; flip-down panels on the sides of the "nosepiece" conceal the shaft openings in the dash and provide additional space for controls. Epicure, known for its home and car speakers, is taking the plunge into electronics with a range of front ends noteworthy for their spacey-looking night illumination rings and generally sleek appearance.

Nakamichi, whose TD-1200 tuner/cassette player with the NAAC automatic azimuth alignment system (test report, July 1983) continues to astound those able to afford it, has broadened its line with two smaller models, the TD-800 and TD-1200II. The latter is said to be functionally identical to the 1200, but is sized for easy installation in European cars; the former has a unidirectional tape transport and a manual azimuth

stalwart, is bringing the rippling-cone Walsh driver to the automotive realm. Sony has introduced a number of component-type speakers made from polypropylene and titanium—the light, stiff metal used in building supersonic fighter planes. Yamaha also favors a titanium alloy for its high-frequency drivers.

Concord, a well-known maker of auto electronics, is expanding its presence in the speaker field with a series of self-powered electrostatic/dynamic hybrid systems. As flat as a pancake, the electrostatic high-frequency driver in the Concord models fires upward into a louvered acoustic lens that directs the sound toward the

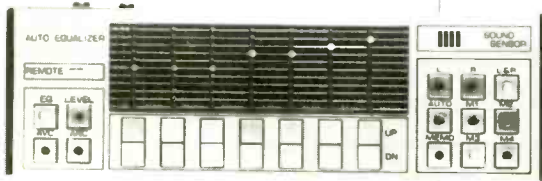
high-frequency drive assemblies that tilt upward like sails to beam sound toward the passengers.

Acoustic Research has strengthened its commitment to autosound with four new systems, including a plate speaker, a coaxial design, and two component models. Sparkomatic, once known for its budget car-stereo systems and gewgaw accessories, wins my Most Improved Line of Equipment Award. Its new internally biamplified speakers come in a range of intriguingly high-tech styles—among them a long, bar-shaped

PANASONIC automates car

EQ with a microprocessor-

controlled equalizer.



HARMAN KARDON enters

the car stereo field with a

power amp (left), and

BLAUPUNKT unveils the

New York look.





Introducing Audia. The result of an uncompromising devotion to absolute performance.

Absolute performance is not just an attitude that can be created overnight. Audia was born out of 40 years of Clarion's expertise and success.

Audia is an entirely new and unique line of high end, no compromise speakers, amplifiers, equalizers, receivers and tuners, that meet the needs of even the most critical car audio purists.



the strongest signal in multipath conditions to virtually eliminate annoying "picket fencing" noise.

Typically, automobile interiors create an undesirable harmonic response in the low frequency ranges. The 180 Hz. Acoustic Compensation Control returns the bass to

its original deep, clean sound, while it allows the amplifier to run cooler.

The Auto Reverse Deck with Dual-Direction Automatic Azimuth Adjustment is more than just a convenience feature. It precisely adjusts the tapehead



to achieve zero-azimuth in both directions so you won't sacrifice high end frequency response.

Extend Your Limits of Perfection.

The entire Audia line represents total flexibility. It will easily interface with other components, allowing you to upgrade at any time and to create the most esoteric sound system.

Audia. A state of the art accomplishment that results from a philosophy of absolute performance.

AUDIA
CAR AUDIO PERFORMANCE

The Art of Sound in Motion.

EXHILARATE

SANSUI, THE LEGEND IN HOME AUDIO, HITS THE ROAD.

Shift into supersound. No other car audio shares the road with Sansui for pure sound, pure status—and pure exhilaration!

Our 36 years of home audio advancement have enabled us to design and produce the most intelligent car audio in the world.

And once you've experienced its performance, you'll feel more at home on the road with Sansui than any other brand.

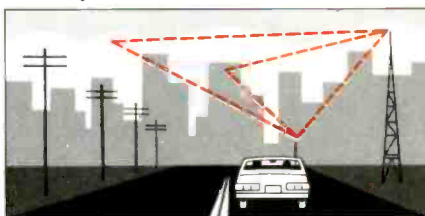
Computer-age integrated circuitry makes Sansui the new super-power in car audio. It delivers total power from amps to speakers like no other unit.

Whether you're mellowing out with Sinatra or reaching exit velocity with Hendrix, Sansui sound will exhilarate you most.

Distortion? Sansui engineers just wouldn't hear of it. That's why we've hit a record low for a car amplifier.

And with our ASRC™ (Automatic

Stereo Reception Control) you're home-free from multipath distortion, fading and drift caused by tall buildings, mountains and tunnels—anywhere you drive.



Sansui's computerized ASRC automatically reduces multipath interference and weak signal problems.

Sansui's car audio is the most remarkable unit you've heard, seen or touched. With advanced ergonomic design and soft-touch, computer-like controls, you can keep your ears on the music and your eyes on the road. Our IC logic-controlled tape transport with tuner/monitor does the work for you. So all you have to do is sit back and enjoy the superior sonic performance.

In addition to better sound quality, Sansui gives you all the features found in other units. Plus instrument lighting in a choice of interior-compati-

ble *Hi-Tech Green* or *Luminary Orange* on two of our top models.



With performance specs comparable to our home audio equipment, Sansui car audio speakers can blow all others off the road.

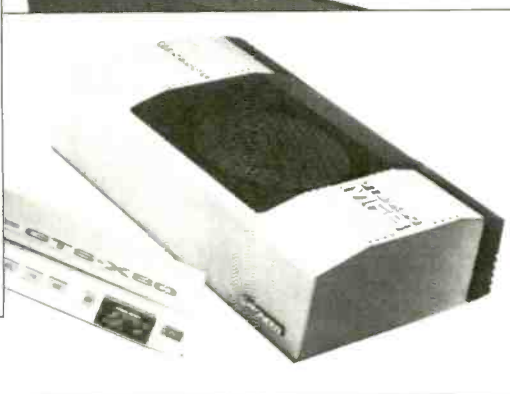
If you believe that hi-tech and high-quality are a way of life, then Sansui car audio should be part of yours. Get it and exhilarate for the ultimate pleasure trip.

For the name of your nearest Sansui dealer, call or write: Sansui Electronics Corporation, Lyndhurst, NJ 07071 (201) 460-9710
Carson, CA 90746 (213) 604-7300.



Putting more pleasure in sound





SPARKOMATIC's *biamped*

speakers are sized to fit (far

left and above). PIONEER's

GTS-X80 *subwoofer*

combines biamplification with

motional feedback.

alignment control. Nakamichi unveiling several electronic goodies, including an electronic crossover, two four-channel power amps, and a line amp designed to eliminate impedance and level-matching problems when you connect components from different manufacturers. And Pioneer, not hitherto noted for car stereo separates,

takes a big step in the high-end direction with the introduction of its Centrate component system, which comprises a separate tuner/cassette deck, a microprocessor controlled equalizer, and an infrared remote control.

On the amplifier and equalizer fronts. Panasonic has come up with something that I've waited years to see: a self-adjusting equalizer/analyzer combination. When put in the diagnostic mode, it plays a series of warble tones, assesses the influence of the car's interior on the sound, and makes complementary corrections. Harman Kardon is marketing a power amplifier designed (as are all H-K components) with high instantaneous current capacity.

A few products and concepts less easily categorized caught our eye as

well. Grundig has an innovative response to car stereo theft: a manufacturer-sponsored insurance plan. The "premium" is only \$15 for two years, and you buy the policy at the same time you buy a Grundig component. The plan won't stop any thefts, but the free replacement unit should compensate nicely. Kenwood is taking a less radical route by joining the assortment of manufacturers offering separable front ends. The KRC-626 can be purchased with an optional chassis mount that enables you to pop the unit out when you leave the car.

And should you be planning to head out to L.A. for the Summer Olympics, you'll be pleased to know that Blaupunkt's ARI traffic-information service should be operating in the Los Angeles-San Francisco corridor in time to help you navigate the freeways. Blaupunkt also has some news for fans of its impressive front ends—a new top model named after the Big Apple. Why New York, you ask? Well, aside from fitting in with the company's program of naming each new component after a large city, it's also undeniably true that Blaupunkt's New York shares some qualities with its namesake. Both are glamorous and exciting to look at—and, judging from the cryptic legends that adorn the autosound version, both take some getting used to.

HF



Andy Petite of **BOSTON**

ACOUSTICS shows off his

two-piece speaker system

with angled tweeter module.

AR offers two-way and

single-driver speakers (right).

And **CONCORD** is first with

an electrostatic for the car.

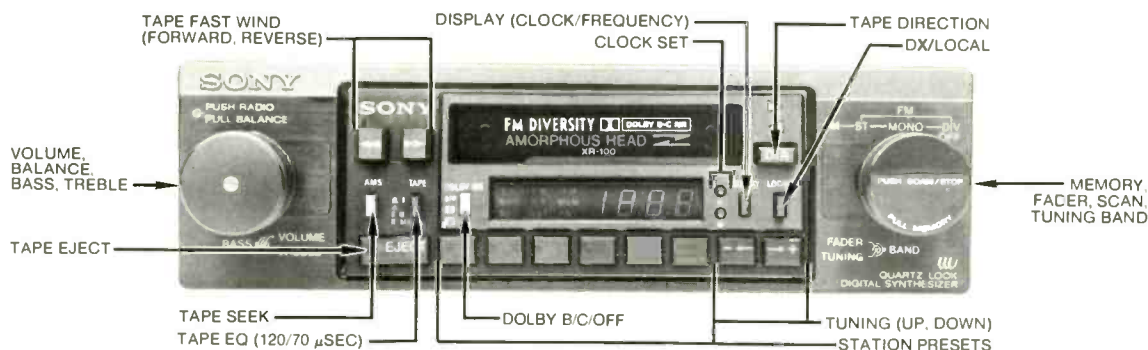




CAR STEREO

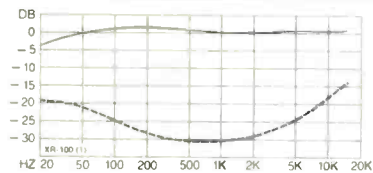
SONY XR-100 TUNER/TAPE DECK

Sony XR-100 AM/FM cassette front end, with Dolby B noise reduction, automatic cassette reverse and ejection, FM diversity reception (dual antenna), and built-in clock. Dimensions: 7 by 7 inches (chassis front), 6 inches deep; escutcheon, 7 by 2 inches; "nose," 4 1/4 by 1 3/4 inches; main shafts 5 to 5 1/4 inches o.c. Connections: round male pins for ignition and battery; round female for power antenna; spade lug for ground. Fuses: 1-amp in both ignition and battery lines. Price: \$650. Warranty: "limited," one year parts and labor. Manufacturer: Sony Corp., Japan; U.S. distributor: Sony Corp. of America, Sony Dr., Park Ridge, N.J. 07656.



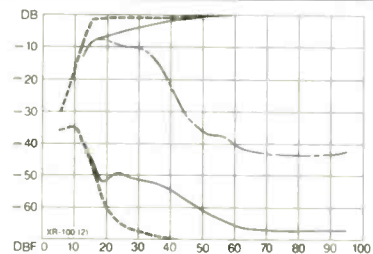
FM TUNER SECTION

FREQUENCY RESPONSE & CHANNEL SEPARATION



Frequency response $+1\frac{1}{2}$, -3 dB, 25 Hz to 15 kHz
Channel separation ≥ 20 dB, 45 Hz to 8.5 kHz

FM SENSITIVITY & QUIETING



— stereo quieting (noise) & output
- - - mono quieting (noise) & output
- - - channel separation at 1 kHz

Stereo sensitivity (for 50-dB noise suppression)
35 1/4 dBf, with 11 1/4 dB separation at 1 kHz

Mono sensitivity (for 50-dB noise suppression) 17 dBf

Stereo S/N ratio (at 65 dBf) 66 1/2 dB
Mono S/N ratio (at 65 dBf) 70 1/4 dB

CAPTURE RATIO 23 1/4 dB

SELECTIVITY (alternate-channel) 66 1/2 dB

AM SUPPRESSION 47 1/4 dB

ALTHOUGH IT'S NOT very flashy, the Sony XR-100 is one of the most interesting front ends around—thanks in part to its novel FM diversity reception system. The technique requires two antennas, taking its feed from whichever is delivering the stronger signal at the moment. But more about that later.

The XR-100 will fit small cars with narrow control-shaft spacing (approximately 5 inches minimum). Snap-out inserts adapt the panel to wide or narrow spacing without creating gaping slots behind the knobs. Like just about any other multifeature model that fits standard dash openings, it relies on small or combined-use controls to get everything done. Each shaft holds two collars in addition to the knob, and each knob has push/pull functions. The left collars are for tone controls, the knob for volume (twist), radio on (push), and balance (pull and twist). The right collars switch radio mode (AM and three FM modes) and adjust the fader, while the knob—

which does not twist—starts and stops the radio scan (push) and activates the memory system (pull).

Instead of using a tuning knob, Sony devotes two moderate-size pushbuttons to that purpose. FM tuning proceeds in 100-kHz (half-channel) steps. For AM, a chassis switch enables you to select either 10-kHz or 9-kHz increments (full-channel, depending on what part of the world you're in). Continuous pressure on either tuning button produces rapid band traversal. There are six presets, each of which will accept one AM and one FM station. The clock, which switches to a frequency display when you listen to the radio, is set with two small pencil-push steppers (hours, minutes), located just to the right. Even when you're listening to the radio, a tap on DISPLAY brings back the time readout.

The display button is quite tiny, as are the local/DX button next to it and the three on the opposite side for tape playback: specifically, for noise

Laboratory data for HIGH FIDELITY's autosound equipment reports are supplied by Diversified Science Laboratories; road testing and text are by Robert Long. Preparation is supervised by Michael Riggs, Peter Dobbin, and Edward J. Foster. All reports should be construed as applying to the specific samples tested. HIGH FIDELITY and Diversified Science Laboratories assume no responsibility for product performance or quality.

Infinity never did recognize the conventional limitations of speaker designs.

We proved it with the \$30,000, 7½-foot-tall Infinity Reference Standard that redefined state-of-the-art in home stereo. And we're proving it again with five car speakers that utilize advanced Infinity technology and cost about \$75 to \$179 a pair.

Our critically-acclaimed EMIT™ tweeter delivers superbly accurate high frequency reproduction.

Our polypropylene woofers apply high tech to low frequencies, handling wild curves and sudden dips in the most demanding musical passages.

And in addition they're impervious to the rotting humidity and destructive heat in your car.

These speakers are designed to reveal all the dynamic intensity and musical subtlety the new generation of car stereo cassette/receivers can reproduce.

So when you can shift into


high fidelity with Infinity, why not travel first class?



Shift into high fidelity.

 **Infinity**®

The New Reference Standard in car stereo speakers.



Infinity

For the driver who will take any route — except compromise.



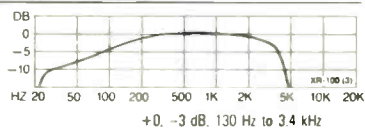
C A R S T E R E O

DISTORTION (THD+N)

	stereo	mono
at 100 Hz	0.82%	0.16%
at 1 kHz	0.51%	0.13%
at 6 kHz	1.50%	0.26%

AM TUNER SECTION

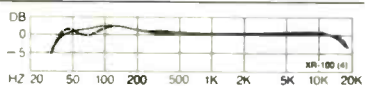
FREQUENCY RESPONSE



SENSITIVITY	5.4 μ V
SELECTIVITY	53 dB
AVC RANGE	56 dB

CASSETTE TRANSPORT SECTION

FREQUENCY RESPONSE



forward	+2½, -3 dB, 33 Hz to 17.5 kHz
reverse	+¾, -3 dB, 33 Hz to 17.5 kHz

WOW & FLUTTER	±0.26% average, ±0.28% peak
--------------------------	-----------------------------

SPEED ACCURACY	0.4 to 0.7% fast, 10.8 to 14.4 V
forward	0.8 to 1.2% fast, 10.8 to 14.4 V
reverse	

PREAMPLIFIER SECTION

BASS CONTROL	+7½, -8¼ dB at 100 Hz
TREBLE CONTROL	+8½, -7½ dB at 10 kHz
LINE OUTPUT IMPEDANCE	830 ohms

reduction, equalization, and music seek. They're all spaced just far enough apart for average fingers to work them without too much trouble, though the tiny labeling on each almost demands memorization if you're to select the right one. And attempts to adjust the outer collar on either control shaft without disturbing the inner collar or the knob found us fairly fumble-fingered at first. All told, the control scheme isn't luxurious, and it's a little confusing until you get used to it (the manual could be more helpful), but it's eminently practical in the long run.

As we said, there are three FM modes: stereo, mono, and stereo without the diversity reception system. In order for diversity reception to work, you must mount a second antenna (which serves only the FM band) at least one meter (about 40 inches) from your existing antenna. Each has its own input. When just the A connector is used (for a single AM/FM antenna), only the left-hand "ANT" indicator on the display panel will light. With the second (FM) antenna in the B socket and the tuner switched for diversity reception, the indicator alternates with a similar one to its right, showing which antenna is receiving the stronger signal at the moment and, therefore, which is feeding the signal to the tuner's front end.

On the road, the alternation often is very rapid, particularly under conditions that would produce picket-fencing with a single antenna. And picket-fencing is precisely what the system is designed to combat. As one antenna moves into the multipath null, the other takes over—only to yield control when it moves into a null itself. Where overall signal strength is moderately high, we observed a significant improvement in reception quality compared to single-antenna reception of the same station on the same stretch of road. When the signal strength gets so low that neither antenna has much to work with, there naturally isn't much improvement. As a result, disturbingly poor FM reception remains disturbingly poor, while moderately annoying performance is upgraded at least to fair and sometimes to good.

The XR-100's basic FM performance with a single antenna is quite good. What "spitting" we encountered had a reasonably soft, unobtrusive quality—due in part, no doubt, to the combination of progressive channel blending and gradual output reduction

as signal strength falls. On our quieting/sensitivity graph, you'll see that the mono mode has very good quieting and very little output attenuation to below 20 dBf and that its output shuts down quite rapidly below about 15 dBf. This acts a little like muting in practice, making very weak stations "flicker" in and out. The effect is not especially annoying, however, because it is not accompanied by severe bursts of noise or distortion. The stereo reception mode, fading away more gradually, is a little more graceful—though the few dB of separation below 25 dBf is hardly real stereo.

You can also see in the graph why we list no threshold values for muting or stereo. Like the vast majority of car units, the XR-100 never mutes—it just fades away. And though the stereo beacon remains lit down to 12 dBf of input, this is below the point where all channel separation vanishes. These might be accounted rather substandard attributes in a home tuner, but in a car unit they are by-products of good design for the handling of rapidly fluctuating signal strength.

Both on the road and on Diversified Science Laboratories' test bench, the performance of the tuner section strikes us as above average. AM response is somewhat attenuated in the deep bass region—perhaps in consideration of the undue bass sound that some stations (and some automotive listeners) affect—but it is unusually flat from the midbass right up to above 3 kHz. Particularly good are the measurements for AM selectivity and FM noise, and there are no disappointments to be found elsewhere in the data.

This is also true of the tape section. Frequency response is better than par among car decks. Wow is a hair better in the reverse direction than the forward figures shown here, and speed accuracy is acceptable. We could detect no additional wow due to road shock, even on the worst potholes. The inclusion of Dolby C as well as B is welcome, though switching is rather confusing on the road because one tiny button selects all three options in succession, stepping from B to C to OFF. It saves one extra control, but you must look at the display panel to be sure which option you've chosen.

As usual in a car deck, the EQ switch calls the 70-microsecond position "metal." Very unusual indeed is the addition of IEC type numbers—II, III, and IV on the 70-microsecond

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position, I on the 120-microsecond option. A table included in the manual helps by explaining which switch position is used with which blank tape type, but in a nonrecording deck the choice of brands seems relatively arbitrary.

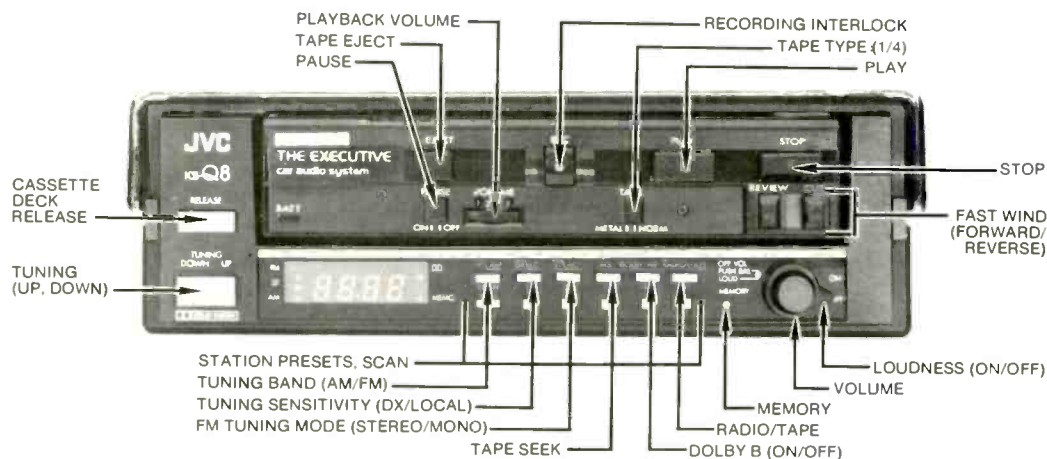
Cassette reversing is automatic, as is ejection when you turn off the power. There is transport SEEK (beginning of next, current, or previous

selection, depending on which fast-wind button you press and when you press it) and tuner SEARCH (each receivable station, in ascending frequency order). However, the most innovative element in the design is the diversity reception; it should prove a genuine plus to the traveler between cities, where many an FM tuner tends to founder. All in all, the XR-100 is a satisfyingly well-conceived product. **HF**



JVC KS-Q8 RECEIVER WITH REMOVABLE TAPE DECK

JVC KS-Q8 AM/FM receiver and removable self-powered (personal-portable) cassette deck, with headphones and Dolby B noise reduction. Dimensions: 7 by 2 inches (chassis front), 5½ inches deep; mounting case, 7½ by 2¼ inches (front); cassette deck, 5½ by 1¼ by 3¼ inches. Connections: bared wires for ignition and battery; round pin female for power antenna; spade lug for ground; pin-jack females for line outputs; round pin male/female pairs for left and right speaker outputs; standard coaxial female for antenna input. Fuses: 6-amp in ignition line, 1/10-amp in battery line. Price: \$500. Warranty: "limited," two years parts and labor. Manufacturer: Victor Co. of Japan, Ltd., Japan; U.S. distributor: JVC Co. of America, 41 Slater Dr., Elmwood Park, N.J. 07407.



THE PERSONAL-PORTABLES boom has encouraged several manufacturers to create car/portable cassette players. Quite rare, however, are front ends like the JVC KS-Q8, whose removable tape deck can also record.

The entire ensemble is housed in a metal "sleeve" that can be mounted

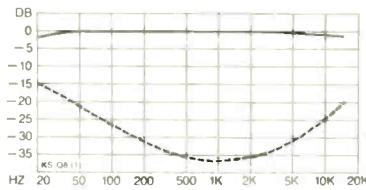
under the dash. To protect the system while you're parked, you unlatch the KS-Q8 and, grasping it by the carrying handle, slip it from the sleeve. After you have unplugged the antenna and wiring harness from the back of the chassis, you can leave the electronics package—with or without the cassette deck—in the car's trunk, beyond range



CAR STEREO

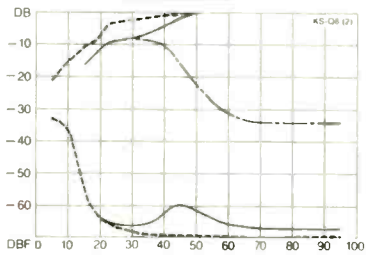
FM TUNER SECTION

FREQUENCY RESPONSE & CHANNEL SEPARATION



Frequency response +0, -1½ dB, 20 Hz to 15 kHz
 Channel separation ≥ 25 dB, 80 Hz to 8.6 kHz

FM SENSITIVITY & QUIETING



— stereo quieting (noise) & output
 - - - mono quieting (noise) & output
 ···· channel separation at 1 kHz

Stereo sensitivity (for 50-dB noise suppression) see text

Mono sensitivity (for 50-dB noise suppression) 17 dBf

Stereo S/N ratio (at 65 dBf) 66¾ dB

Mono S/N ratio (at 65 dBf) 69½ dB

CAPTURE RATIO 3½ dB

SELECTIVITY (alternate-channel) 80 dB

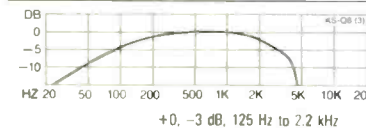
AM SUPPRESSION 55 dB

DISTORTION (THD+N)

	stereo	mono
at 100 Hz	1.4%	0.66%
at 1 kHz	1.1%	0.70%
at 6 kHz	1.2%	0.64%

AM TUNER SECTION

FREQUENCY RESPONSE



+0, -3 dB, 125 Hz to 2.2 kHz

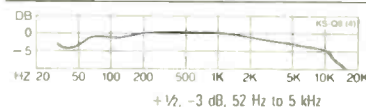
SENSITIVITY 4.4 µV

SELECTIVITY see text

AVC RANGE 63 dB

CASSETTE TRANSPORT SECTION

FREQUENCY RESPONSE



+½, -3 dB, 52 Hz to 5 kHz

WOW & FLUTTER ±0.30% average, ±0.36% peak

SPEED ACCURACY 0.8% fast, 10.8 to 14.4 volts

PREAMP/AMPLIFIER SECTION

LINE OUTPUT IMPEDANCE 1,000 ohms

OUTPUT (per channel into 4 ohms; at 3% THD+N) at 1 kHz 12¼ watts (11 dBW)

of acquisitive eyes. There are plastic "clamps" attached to the back of the sleeve that hold the harness and antenna lead in place with enough slack to permit removal without pulling against the connectors or straining the cables. (For this purpose, JVC provides an antenna-cable extension to go between the car's lead and the usual short input stub attached to the chassis.) In cars with appropriately dimensioned cutouts, you have the option of mounting the unit in the dash.

Because the control edge of the cassette deck takes up about half of the front panel area, the remaining controls are necessarily small and rather cramped. Their functions are fairly straightforward, however, which minimizes the potential for confusion. The knob-and-collar group at the lower right is the most complex. You twist the knob to turn on the unit and to increase volume, pull the knob to adjust balance, and twist the collar to switch the loudness compensation in or out—a modest list by car stereo standards. The five presets (each of which will accommodate one FM and one AM station) are situated along the bottom edge, with various single-function switches above them. The worst that can be said of the latter is that their identification is too small for easy reading, but even this complaint is offset by the pilots in the display panel, which usually show what has resulted immediately after you push one of the buttons.

Tuning ease is about average. (Like some other car units, the KS-Q8 has a chassis switch to convert the 10-kHz AM spacing that is standard in the U.S. to 9 kHz for use outside the Americas.) The sound on AM is serviceable, if not particularly crisp. Sensitivity is good without being exceptional; the same is true for AVC range, the span of RF input levels over which the AM tuner will maintain its audio output level. (No AM selectivity figure is listed in our data because no unequivocal figure could be derived from the standard measurement technique.)

FM frequency response is quite flat, and separation is very good at moderate-to-high signal strengths. Perhaps more important in a moving car is the way separation gradually shades off, followed by the audio output, as signal strength decreases. As a result, the KS-Q8 behaved very well on the road, with only mild "spitting."

Because of the channel blending, there is no true stereo sensitivity point. By the time signal strength has dropped to the rating point—the input at which the signal-to-noise (S/N) ratio decreases to 50 dB (in this case, at about 27 dBf)—channel separation and therefore stereo reproduction have vanished altogether. The remaining measurements bespeak good performance, with the alternate-channel selectivity particularly impressive.

The recorded azimuth of our test tape evidently doesn't match that of the KS-Q8's tape head, judging from the rolloff measured (in playback) at high frequencies. There is switching for both playback EQs and Dolby B noise reduction. The presence of the latter, though certainly welcome, tends to put a premium on somewhat better high-frequency response than we measured. In practice, however, we considered the performance quite acceptable by car stereo standards.

When the tape deck is used independently of the main chassis, it takes on quite a different personality. Far from any distracting automotive noises, we found the player (which takes two AA cells) and its lightweight headset capable of very good performance. (The azimuth of the tapes we use in these tests doesn't necessarily match that of the lab's BASF test tape.) The tape-only Dolby circuitry, however, is in the main chassis and therefore unavailable when the deck is used as a personal-portable. Incidentally, there are mini-jacks for two sets of stereo headphones, so your listening need not be solitary.

And as we mentioned, the portable tape player can be used for recording as well. (There is no connection for recording from the tuner, even with the deck installed in the main chassis.) The easiest approach—and the one that's sure to be used for dictation and such—is via a built-in mono microphone. If you're more ambitious, outboard mikes can be plugged into a stereo pair of mini-jacks, which can also be used as line inputs. An ALC (automatic level control) circuit governs recording in any event, with no manual override.

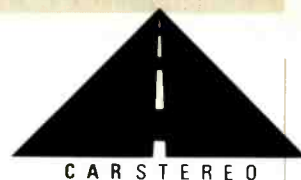
With the deck used as a recorder, the METAL setting really means what it says. The manual specifically tells you that "chrome" tapes are not recommended, and JVC confirms that (like many other companies these days) it simply ignored ferrichromes—the remaining class of tapes that require metal's 70-microsecond playback EQ.

This strikes us as a rather curious choice, for two reasons. First, metals require somewhat more bias current than either Type 2 (chrome and ferricobalt) or Type 3 (ferrichrome) tapes, and because the deck has only two AA cells to call upon, we would have expected JVC to take every possible measure to reduce current drain and prolong battery life. Second, the performance of personal-portables simply doesn't justify the added cost of metal tapes.

The cassette player's most impressive attribute is in immunity from external shock and motion. True, most decks do well on the road, and it's no particular distinction to say that the KS-Q8 took our bumpiest in stride.

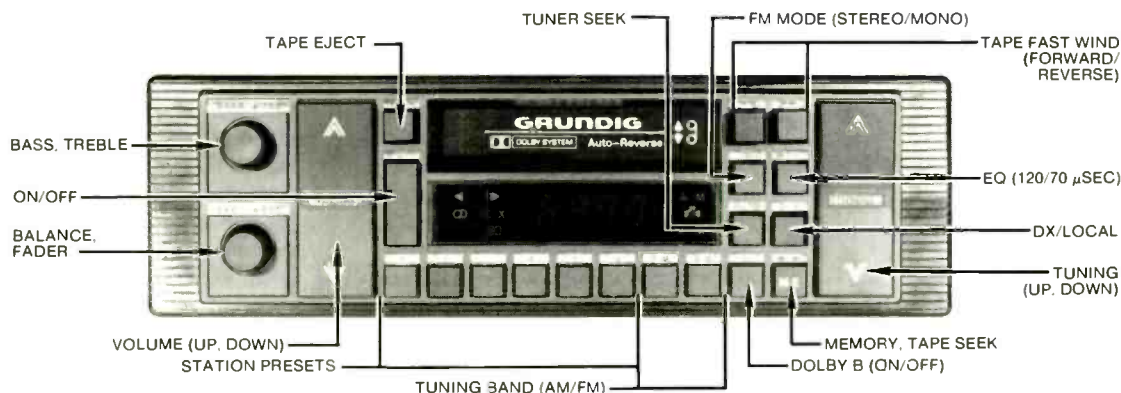
But no matter how we jiggled or twirled or bounced the deck in hand-held operation, it refused to translate the abuse into sonic woes. Inherent wow and flutter (with the deck stationary on the test bench) is not quite as low as that of most of the automotive decks we've tested, however.

In sum, this is an appealing product, and one that's just plain fun to use. You can get the same capabilities—possibly with more features or some performance advantages—by buying a car stereo system and a personal-portable recorder separately. But then you'd miss out on the theft-prevention feature inherent in the KS-Q8 combination. **HF**



GRUNDIG GCE-9900 RECEIVER/TAPE DECK

Grundig GCE-9900 AM/FM/cassette receiver, with automatic reverse and Dolby B noise reduction. Dimensions: 7 by 2 inches (chassis front). 6¼ inches deep; escutcheon, 7½ by 2¼ inches. Connections: flat male for ignition; bare wire for battery; flat female for power antenna; flat male for ground; pin-jack females for line outputs; DIN polarity-coded jacks for front and back speaker pairs, with bare-wire adapters; standard coaxial female for antenna input. Fuses: 5-amp in ignition cable, 0.2-amp in battery cable. Price: \$450. Warranty: "limited," two years parts and labor. Manufacturer: made in Japan for Grundig; U.S. distributor: GR Electronic Corp., 635 Madison Ave., New York, N.Y. 10022.

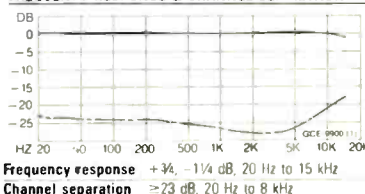


AMONG THE MOST respected names in German radio, Grundig does not necessarily build its products there. The GCE-9900 receiver/cassette deck, for instance, is made in Japan, but it retains a strong Continental flavor. Symbols, rather than words of any particular language, are the preferred form of panel marking in the

multilingual European market, and DIN connectors are the rule (for the speaker leads, in this case). That's not to contend that the GCE-9900 is a parochial product, of interest primarily to one region of the world. On the contrary, its faceplate layout might well serve as a model for designers everywhere.

FM TUNER SECTION

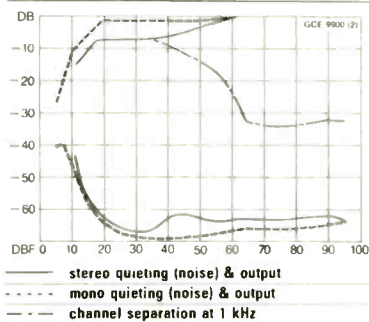
FREQUENCY RESPONSE & CHANNEL SEPARATION





CAR STEREO

FM SENSITIVITY & QUIETING



Stereo sensitivity (for 50-dB noise suppression)

see text

Mono sensitivity (for 50-dB noise suppression)

14 1/4 dB

Stereo S/N ratio (at 65 dBf)

63 1/2 dB

Mono S/N ratio (at 65 dBf)

66 1/2 dB

CAPTURE RATIO

23 1/4 dB

SELECTIVITY (alternate-channel)

67 dB

AM SUPPRESSION

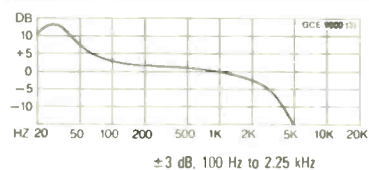
68 dB

DISTORTION (THD+N)

	stereo	mono
at 100 Hz	1.85%	4.9%
at 1 kHz	1.15%	1.6%
at 6 kHz	0.70%	0.5%

AM TUNER SECTION

FREQUENCY RESPONSE



SENSITIVITY

5.7 μ V

SELECTIVITY

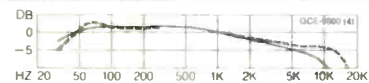
31 dB

AVC RANGE

64 dB

CASSETTE TRANSPORT SECTION

FREQUENCY RESPONSE



forward	+1 1/2, -3 dB, 31.5 Hz to 3 kHz
reverse	+2 3/4, -3 dB, 37 Hz to 3.7 kHz

WOW & FLUTTER

forward	\pm 0.17% average; \pm 0.21% peak
reverse	\pm 0.25% average; \pm 0.32% peak

SPEED ACCURACY (either direction)

0.1% fast at 14.4 volts;
0.5% fast at 10.8 volts

PREAMP/AMPLIFIER SECTION

BASS CONTROL +7 3/4, -10 dB at 100 Hz

TREBLE CONTROL +8, -11 dB at 10 kHz

LINE OUTPUT IMPEDANCE 3,000 ohms

OUTPUT (per channel into 4 ohms; at 3% THD+N)
at 1 kHz 10 watts (10 dBW)

The sense of spaciousness and order belies the sheer quantity of controls, and the avoidance or abbreviation of language in the labeling further reduces the cramping we so often encounter. The buttons are large enough for easy access; you don't need an exquisite touch to hit the one you want. And the two knobs serve only two purposes apiece—BASS/TREBLE and BALANCE/FADER. Because each pairing is clearly related, there's little potential for the sort of confusion we've experienced with typical multipurpose controls. The remaining two quasicontinuous (actually, stepping) controls are the most important: for volume and tuning. They are afforded large rocker panels for easiest possible manipulation in a moving car.

On most of the pushbuttons, the identifying symbol or abbreviation is fairly self-evident. The stereo symbol (two interlocked circles) on the FM mode button may be unfamiliar to some Americans. Additional ambiguity may result from the similarity of "ME" on the memory button to "MTL" (for metal) on the tape equalization button. (The "metal" position also is used with Type 2 chrome and ferricobalt and Type 3 ferrichrome tapes.) The Dolby symbol appears on a button at the end of a row of tuner controls but applies only to tape playback. Outside of these relatively minor points, all is clarity in a product category where clarity is usually the stepchild of physical necessity.

Unhappily, our enthusiasm for the GCE-9900's front-panel design is not matched by our feelings about its performance, which is distinctly more run-of-the-mill. FM frequency response and separation are very good, but sensitivity is not on a par with that of most of the other models we've tested. The Grundig suffers by comparison particularly where weak signals are combined with fluctuating signal

strength and multipath—as they are in part of our road test. Here, the sharp attenuation of the output (visible as the steep descent of the upper lines toward the left of our sensitivity graph) when the net signal strength drops very low causes extreme fluctuations in output level, which we found very annoying. "Spitting" is relatively unobtrusive.

Though the stereo beacon on the GCE-9900 remained lit during much of this test, the output was not always stereo—as our sensitivity graph demonstrates. Below 65 dBf (typical of signal strengths in, say, suburban areas), separation deteriorates rapidly and is nonexistent below 43 dBf, where the lines for the measured channel and the unwanted one merge. This is not all bad, however, because it prevents stereo noise and rapidly alternating expansion and collapse of the stereo image from compounding the low-signal phenomena discussed above.

The AM is distinctly on the tubby side, though our speakers (like the vast majority, even among home models) don't reach deep enough to help us analyze the mountainous hump centered just below 30 Hz on the response graph. The erratic frequency response may contribute to our impression of somewhat fuzzy sound; so may the only fair selectivity. AM sensitivity is not as good as we often see.

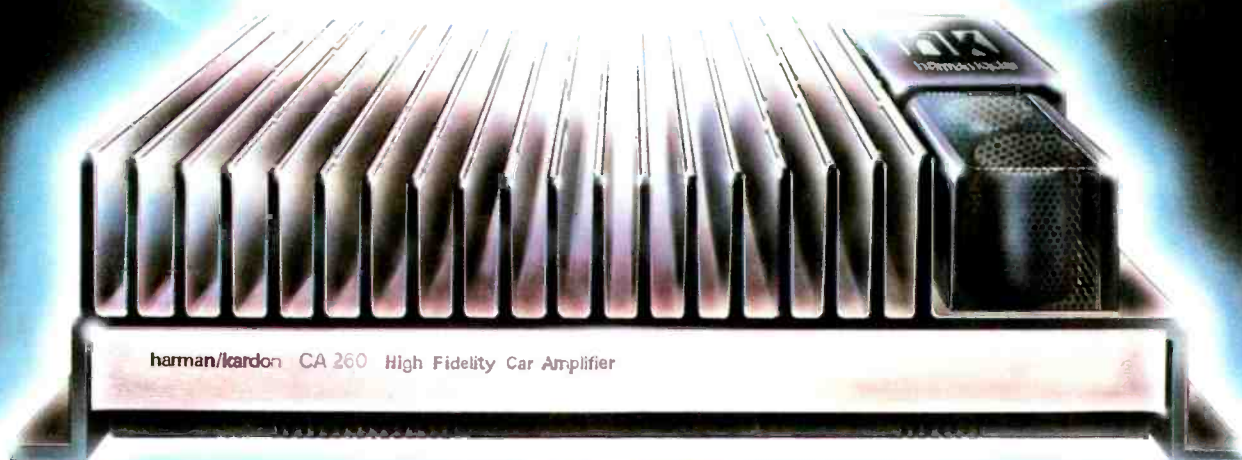
To what extent the falling high-frequency response of the tape section is due to azimuth incompatibility between Grundig's alignment test tape and the lab's and to what extent to equalization error is hard to say. On the road, we judged the sound quite muffled. The built-in amplifier is more powerful than most, at 10 dBW (10 watts) for each of the four outputs. This is one area where performance is a cut above the standard car-radio class. But on the whole, we consider the convenience and clarity of the GCE-9900's outward design more impressive than its performance. **HF**

HOW WE TEST CAR STEREO EQUIPMENT

Diversified Science Laboratories taps line-level outputs to measure tuner, tape, and "preamp" performance; for those front ends equipped with a power-amp stage (what we call car receivers) but lacking line outputs, DSL takes data from the speaker connections. For our road testing, we use an ADS amplifier/crossover/speaker setup, bypassing the power-amp stages of receivers.

AM sensitivity is given in microvolts, and the lower the number, the better. For FM, we plot both the audio signal level and the noise level as a function of RF input. Since car tuners may have various reception modes, a number of curves may appear on the same graph. Finally, some tuners cannot be assigned a 50-dB stereo quieting figure because they are already in mono at that quieting level.

HARMAN KARDON'S STATE-OF-THE-MIND TECHNOLOGY TAKES TO THE ROAD



With the introduction of the CA260 high fidelity car amplifier, Harman Kardon blazes new trails. The commitment to sonic superiority that's synonymous with Harman Kardon home audio equipment is now ready for those who demand the same quality on the road.

At Harman Kardon, we believed that there was a need for quality car audio components for the discerning listener. A car amplifier that would outperform any car amplifier on the market. Harman Kardon's thirty years of audio expertise is unleashed with the CA260.

The unrivaled design technologies that are embodied in the CA260 include: High instantaneous Current Capability, Low Negative Feedback, Ultrawidebandwidth and Discrete Components. The CA260 goes beyond industry standards to set new ones.

Incorporated in the Harman Kardon CA260 is 30 amps of High instantaneous Current Capability to provide 50 Watts of power into 4 Ohms, 90 Watts into 2 Ohms, and 180 Watts bridged mono into 4 Ohms. Two 10,000 μ F capacitors provide full power even at 20Hz.

The CA260 is rugged and reliable enough to perform under any environmental and automotive conditions. It has been designed to overcome extreme humidity, varying voltages in the car's electrical system, mechanical vibrations, intense temperatures and engine noise.

The CA260 is the debut of a line of superior and fundamentally advanced car stereo products from Harman Kardon.

Harman Kardon's state-of-the-mind technology. Unparalleled excellence in advanced audio equipment now journeys with you.

harman/kardon

Our state-of-the-mind is tomorrow's state-of-the-art.

Casio introduces the 16-pound recording studio.



The Casio KX-101.

Casio's new computerized audio system does more than just double on keyboards. It lets you record your own hits.

For Casio has packed a complete audio entertainment center into 16 portable pounds of state-of-the-art wizardry.

The KX-101 is the only sound system around that gives you an AM/FM stereo radio. Detachable speakers. A cassette player and recorder. A three-channel keyboard. And a mini recording studio.

So you can not only tune into some beautiful music—you can make your own. The 37-key keyboard has monophonic and polyphonic channels that let you record melodies, chords, and accompaniment—then dump them

onto a cassette tape for storage.

And the computerized tape recorder's nine different automatic scanning functions allow you to program and play back your tapes in a variety of ways.

Sound too good to be true? Just check out the new Casio KX-101. And discover the lightweight virtuoso that projects the most sound per pound.

CASIO

Where miracles never cease

NEW TECHNOLOGIES

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COMPARING THE READABILITY of the NTSC (top) and HDTV images gives you an idea of the extraordinary resolution capabilities of the new broadcast technology.

OFFERING ULTRASHARP IMAGES WITH THE IMPACT OF FILM, HIGH-DEFINITION TV MAY REVOLUTIONIZE HOME VIDEO.

WHEN COMMERCIAL broadcast television in the U.S. celebrates its 50th birthday in 1989, it's not likely that the current NTSC system will be the sole honoree at the party. A newcomer with resolution and color fidelity rivaling those of 35mm film should steal a good share of the limelight. Named after the improvement it offers, high-definition television (HDTV) is the logical and, say broadcast engineers and receiver manufacturers, inevitable successor to a color TV system whose inadequacies we've so long accepted.

Work on an HDTV system began almost ten years ago in Japan. NHK, the government-owned TV network, developed a system that displays a

picture with 1,125 scanning lines, in contrast to the modest 525 lines of our NTSC system and the 625 lines of Europe's PAL and SECAM techniques. The Japanese network also found that viewers prefer a wider screen than the one offered by the 4:3 aspect ratio of standard television. Its solution is an image width-to-height ratio of 5:3, close to that of movie screens.

But alas, such improvements come at a very dear cost: increased video bandwidth. NTSC system broadcasts occupy channels that are 6 MHz wide, with 4.2 MHz for the video and the

William Mowrer is a Massachusetts-based freelance writer and a frequent contributor to these pages.

HDTV FOR YOUR EYES!

BY

WILLIAM MOWRER

rest for audio and guard bands. NHK's high-definition television will need a bandwidth of 20 MHz just for the luminance information, and perhaps as much as 10 MHz more if the color (chroma) information is kept separate. (Chroma signals could be assigned a subcarrier frequency and combined with the luminance, as is currently done to squeeze a broadcast into the very limited bandwidth capabilities of a videocassette recorder. But such folding-in could cause annoying color interference.) CBS, which already has applied for an HDTV cable franchise in Alameda, California, will be forced to use two cable channels to transmit just one broadcast.

Actually, CBS's involvement in HDTV is symptomatic of another problem facing the new technology—corporate and international competition over standards. At first, Japanese equipment makers dreamed of a universal HDTV standard. This would solve the incompatibility problems stemming from the world's current use of three television systems. But that dream may never become reality. CBS, an early backer of NHK's 1,125-line "standard," has recently deserted in favor of 1,050 lines—which just happens to be twice the number required to make up an NTSC picture. Thus, the CBS technique would allow any existing 525-line receiver to show 1,050-line images simply by ignoring every other line in the transmission. Conversely, a 1,050-line receiver would have no trouble reproducing a low-fi NTSC signal.

However, the Europeans aren't happy with either 1,125 or 1,050 lines. The British have proposed an interim 925-line system they call Multiplexed Analog Components (MAC), but the French and Germans have turned thumbs down on it. Sony and Panasonic are still betting that the Continent will embrace the Japanese NHK approach, but they readily concede that there would be grave compatibility problems with current receivers.

If you think compatibility isn't much of a problem, consider these numbers: There are approximately 500 million television sets in use around the world, not to mention some 21 million videocassette recorders. Engineers might be willing to write these units off in quest of the perfect video system, but politicians can't afford to.

Hence the strong likelihood that whatever system ultimately triumphs in Europe, the Soviet Union, and the Middle East will have to be compatible with the PAL and SECAM techniques.

Even in the U.S., there are two de facto HDTV standards. The so-called production standard, intended for professional users such as movie studios, remains at 1,125 lines because its resolution is even greater than that of 35mm film. For these users, high-definition television offers some obvious advantages over film, including economy, easy editing, and the fact that the director can see what has been shot without waiting for the lab to return processed film. Before his Zoetrope Studios hit the boards, Francis Ford Coppola used production-standard HDTV equipment for some of his projects, and 20th Century Fox is now using the system to tape its TV series *The Fall Guy*.

The other U.S. technique is the 1,050-line broadcast standard, which will be used for HDTV transmissions. Compared to the production standard,

it represents a slight compromise in vertical resolution (though horizontal resolution is improved, provided that the bandwidth remains the same). But most people who have seen the broadcast standard agree that its pictures are a giant improvement over NTSC images. Aside from its entertainment value, HDTV combined with videotext and teletext services would enable viewers to examine a video image of, say, a full page from a telephone book. And with closed-circuit distribution systems, first-run feature films could be delivered to movie theaters for projection on giant high-definition video screens, bypassing the costly and inefficient motor-freight round-robin system now used to ferry movie prints from one theater to another.

Though the wider aspect ratio of HDTV will make home video viewing more like a movie theater experience, broadcasters and receiver manufacturers are curiously silent about the compatibility problems this brings. Though CBS offers the explanations I

DIGITAL BAND-AIDS FOR STANDARD TV

THOUGH MANY INDUSTRY observers are wagering that high-definition TV technology will ultimately replace the NTSC standard, receiver manufacturers are not content to wait for that day and are readying a new generation of 525-line sets with performance rivaling that of HDTV. The key is digital signal processing performed by a handful of VLSIs (very large-scale integrated circuits) developed by ITT.

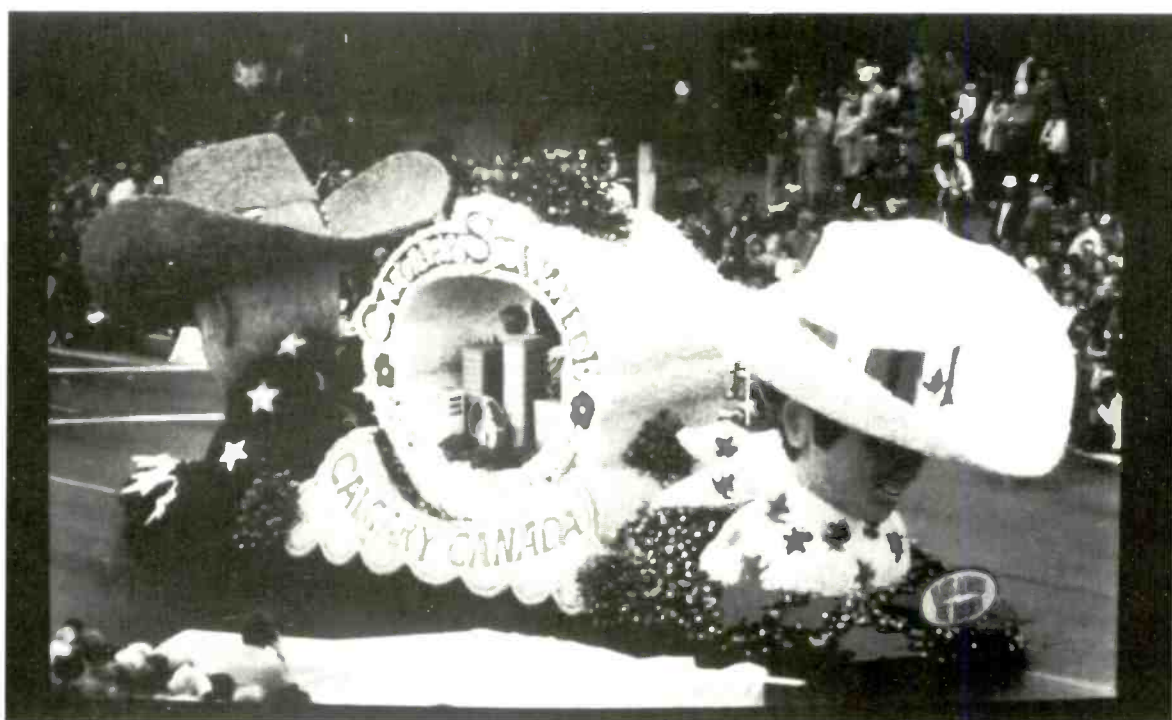
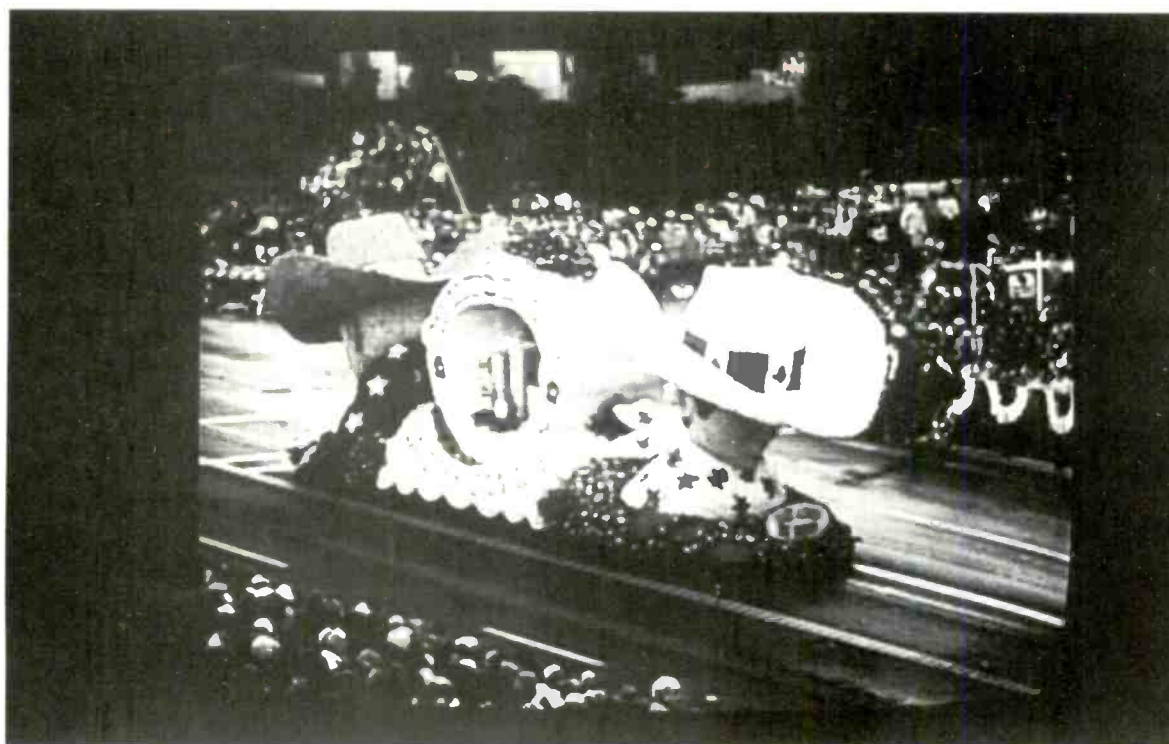
The company says its Digivision chips will be able to enhance picture detail and eliminate ghosts and graininess; with the addition of full-field video memory chips, they also will reduce video noise (snow) and perform a variety of special effects, such as freeze frame, split screen, and zoom. Sony, Sanyo, GE, and Zenith will be among the first to offer "digital" TV sets next year. And though Digivision-equipped models will be more expensive at first than current top units, the VLSIs replace upwards of 300 components in a conventional set and the savings in parts should eventually lead to dramatic price cuts.

In sets equipped with the

Digivision chips, the incoming RF signal is tuned by conventional means, after which its audio, video, and control components are individually converted to digital form. Once in the digital domain, the signal is corrected for color inaccuracies and picture jitter with mathematical precision. Other processors then perform like digital comb filters, separating the color and detail information with far greater accuracy than is possible with analog filters. An optional circuit could also be included to interpolate an additional scanning line between each pair of the standard 525 lines, making a pseudo-high-definition image with 1,050 lines. Ultimately, the digital signals are reconverted to analog form for viewing.

Digivision-equipped receivers can also handle all three broadcast systems (NTSC, PAL, and SECAM), which gives them universal reception capability. And when digital DBS (direct broadcast from satellite) transmissions begin, Digivision receivers should be able to decode the signals without the addition of outboard circuitry.

HF



THE EYES HAVE IT: In this scene from a Tournament of Roses parade, the differences between standard 525-line NTSC video (top) and NHK's 1,125-line high-definition system are immediately apparent. (The original offscreen photos were color-corrected by us to black and white for publication.) The increased width of the HDTV image is appealing in itself, but take a close look at the details in both pictures. In the HDTV image the lettering in the center of the float is clearly readable, and the individual flowers and shapes have increased texture and definition. Note, too, the absence of visible scanning lines in the HDTV picture.

outlined earlier about 525-line and 1,050-line systems, it has no satisfactory solution to the problem of cramming a picture that's 25 percent too wide onto a standard screen.

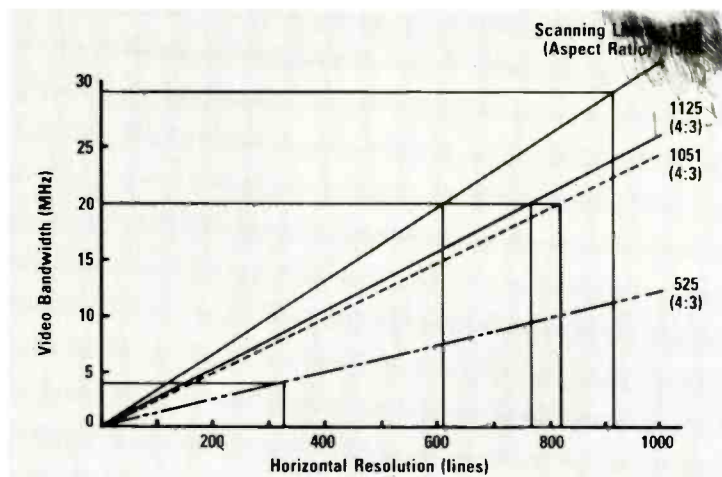
transmissions. The CBS satellite will broadcast three HDTV channels, each of which will demand the simultaneous use of two transponders. One channel will carry traditional network fare,

sees 3-D video with minimum flicker. A viewer not wearing the glasses sees a normal-looking picture composed of the sum of the two images—mono video, if you will.

Dismissing the added appeal of the 3-D video/HDTV combination (no one really believes depth-video will catch on as long as eyeglasses are necessary), what are the prospects for HDTV itself? British market researcher Tim Johnson recently authored a report ("Strategies for Higher-Definition Television," published by Ovum, Ltd.) in which he contends that HDTV will be firmly in place worldwide by the year 2000. Meanwhile, he says, there will be incremental improvements in the existing NTSC, PAL, and SECAM systems and receivers, paving the way for true HDTV. (See "Digital Band-Aids.") Johnson stresses that the trick is to make it possible for viewers to move smoothly from present systems to the new one without requiring everyone to invest in new equipment all at once.

Johnson and CBS agree that satellite transmission is the key to HDTV. When affluent viewers step up to small-dish satellite reception, they may also be willing to invest in HDTV tuners and monitors. Since DBS should be commonplace in North America, Europe, and Japan by the end of the decade, the transition to HDTV should be a fairly easy one. Johnson even goes so far as to opine that the DBS/HDTV combination ultimately might bring about the demise of cable television. Many cable subscribers are vociferous about the poor quality of the picture they receive. Given the immediately evident superiority of the DBS/HDTV picture, he explains, quality-conscious subscribers might desert cable in droves.

Concerning the battle over HDTV standards, Johnson estimates that it should not delay the shift to high-definition television by more than five years or so. However, like anything else in our increasingly high-technology world, his conclusions may be far off the mark. The growing acceptance of component television and the move from film-based photography to video imaging for home movies might raise the general appetite for high-quality video faster than expected. If that does occur in time for the 50th anniversary of commercial television, the birthday cake on the screen really will look good enough to eat. **HF**



THE 525-LINE NTSC SYSTEM yields a horizontal resolution of 330 lines at 4.2 MHz, while NHK's 1,125-line HDTV system gives you more than 900 lines of resolution at 30 MHz and more than 600 lines at 20 MHz. Decreasing the aspect ratio or the number of scanning lines maintains horizontal resolution with less bandwidth.

Stripes could be added to the top and bottom of the picture, thereby reducing its effective height, but anyone who has seen a bootleg video copy of a first-run film knows how awful that looks. The other solution—chopping off the action on either side of a scene—is equally unappealing. Unless the cropping is performed by a skilled technician using computerized equipment, the televised film could end up showing actors at the sides of the screen conversing with invisible partners. What could happen, of course, is that the aspect ratio could be reduced to the NTSC 4:3 standard.

Although HDTV doesn't require satellite transmission, the first signals probably will reach your home in this manner because it's unlikely that the FCC will open up additional channel space in the TV broadcast band. (Cable transmission is possible if your local company dedicates two or more channels to an HDTV broadcast). CBS, in fact, is augmenting its Alameda cable project with a plan to launch a DBS (direct broadcast from satellite) bird in 1985 dedicated solely to HDTV

including advertising. The other two will provide, in the words of CBS's petition to the FCC, "innovative entertainment and educational, cultural, and informational high-definition services to institutional, business, and residential users on a subscriber basis." If some of that sounds like a description of CBS's ill-fated venture into cable TV programming, it's just a coincidence, at least according to CBS representatives.

Just as DBS is not essential to the development of high-definition television, so HDTV is not vital to the development of three-dimensional video. Nonetheless, the two have been linked in various demonstrations. Typical of these is Matsushita's "time-sharing" system, in which signals from two color cameras are combined in a synchronized multiplexer and then recorded on videocassette. During playback, the combined image appears on the screen, along with a synchronizing signal that opens and closes the left and right lenses of a pair of special eyeglasses. If the synchronization is correct, the viewer

"HERE ARE THE DENON REFERENCE CD'S. AND HERE ARE THEIR REFERENCES."



"...the most convincing reproduction of recorded music I've heard yet..."
 "...for a Schubert Ninth that really sounds like an orchestra playing I think this issue has no equal."
Ovation Magazine, November 1983



"For anyone starting a compact-disc collection, I can think of no better release with which to begin."
 "The Smetana Quartet's version of Beethoven's Op. 59, No. 1...one of the most exciting versions of that particular work ever recorded."
Ovation Magazine, November 1983



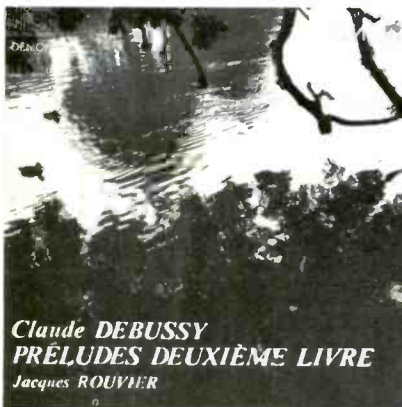
"...a sense of air around the instrumentalists that one ordinarily encounters only in live performances."
Fanfare Magazine, September/October 1983



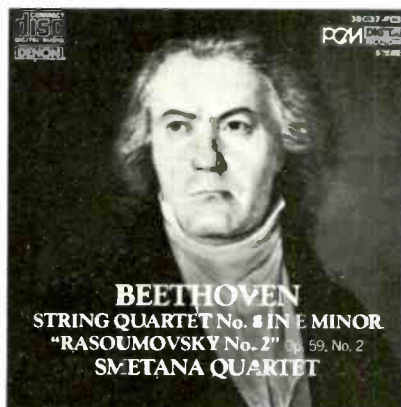
"This is one of the most exciting organ records ever made."
 "...completely hypnotizing."
 "...uncannily like being in Freiberg's beautiful cathedral, listening in person to the splendid organ..."
Ovation Magazine, October 1983



"A superb reading as a digital LP, the bass definition and general clarity are even greater on the CD, with no loss of warmth."
Ovation Magazine, November 1983



"...Jacques Rouvier is a superb technician, with tremendous power and solidity and remarkably precise fingers."
 "The sound is excellent: the overall acoustic is warm, the dynamic range is wide, and the Steinway's bass is reproduced with stunning fidelity."
Ovation Magazine, November 1983

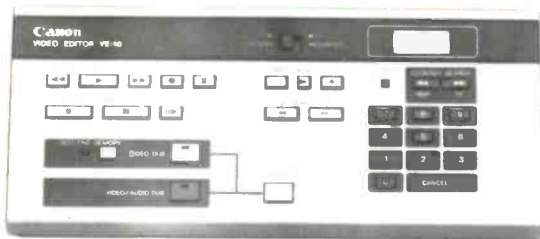


"...compelling... uncommon fire and precision."
 "This excellent performance is a revelation in CD!"
 "...the most natural string-quartet sound I have yet heard on a recording, creating the impression that the players are sitting right in the room with the listener."
Ovation Magazine, November 1983



NEW RELEASE!
 Beethoven: Symphony No. 9 ("Choral")
 Staatskapelle Berlin, Otmar Suitner, cond.

DENON IMAGINE WHAT WE'LL DO NEXT.



Easier Editing

If you own two VCRs, you've probably attempted some sort of video editing—and been disappointed by the “glitches” and inexactness that invariably accompany pause-control editing. What you need is a device like the Canon VE-10 (\$150). It offers remote control of two VCRs' transport functions, switching capability to handle video and audio signals separately, and, most important, digital frame-numbering for more precise edits. Write to Canon USA, Inc. (One Canon Plaza, Lake Success, N.Y. 11042).



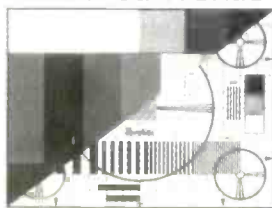
Keep It Clean

Though videotape sheds less of its oxide coating than audio tape, oxide buildup may eventually signal its presence with “snow” on the picture. You could remedy the situation with a solvent and special cotton swabs (not Q-Tips, which shed fibers like crazy), but automatic cleaners housed in cassette shells do a faster, safer job. Most of the modern cleaning cassettes use a wet, nonabrasive technique. You dampen a ribbon in the shell with some of the supplied solution, pop the cassette into the VCR, and press PLAY; a few seconds later, the deck automatically shuts off. Such devices are available from many companies; the Allsop 3 Ultraline VHS cleaner pictured here (\$31) is typical of the genre. Write to Allsop, Inc. (4201 Meridan St., Beltingham, Wash. 98226).

All Systems Go

How well are your video components working? It's easy to tell if you have the necessary alignment aids. For camera alignment, Showtime Video Ventures has a set of test charts for \$10. Included are a color-bar/gray-scale chart for adjusting color and white balance, a flesh-tone chart, a resolution/linearity chart, and a traditional Indian-head chart for fine-tuning focus. Instant Replay's VCR test tape (\$30) offers much the same, plus audio tests. Tacked onto the Instant Replay cassette are several outtakes and bloopers, just for fun. Additional information can be obtained from Showtime Video Ventures (2715 Fifth St., Tillamook, Ore. 97141) and Instant Replay (2980 McFarlane Rd., Miami, Fla. 33133).

Showtime
VIDEO VENTURES



VIDEO ACCESSORIES

BY

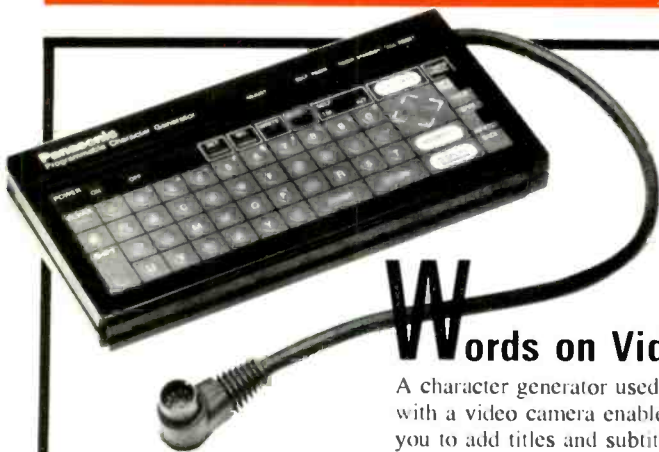
FRANK LOVECE

From test charts to tote carts, here are the gadgets to keep you taping when the going gets tough.



Fine Tuning

If you set out to control every variable involved in getting the best-quality video images on tape, you could end up with a living room full of single-function black boxes—or you could invest in Recoton's V-615 processor (\$330). This multifunction device gives you a four-output distribution amplifier that handles audio and video signals separately, a video gain control for making professional-looking fades or adjusting the contrast ratios of recordings, color and tint controls, and adjustable detail-enhancing circuitry. Furthermore, it has a built-in RF converter, so you can use it with a TV set that lacks direct video inputs. For additional information, write to Recoton Corp. (46-23 Crane St., Long Island City, N.Y. 11101).



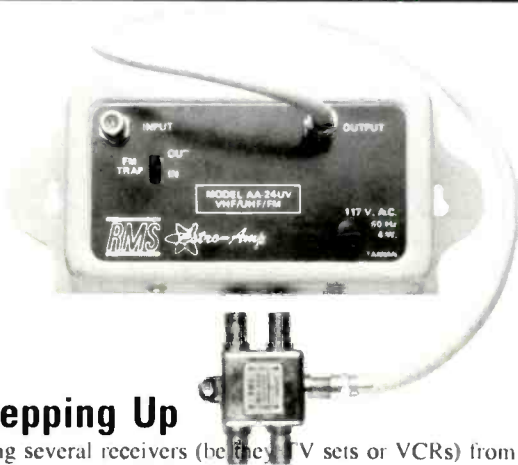
Words on Video

A character generator used with a video camera enables you to add titles and subtitles

to your homemade productions, and one of the most advanced units I've seen is the Panasonic PK-G900 (\$160). It can store 16 "pages" of titles for quick superimposition, and it gives you a choice of four character sizes. It even has a time-lapse camera activator for making those great shots of clouds racing across the sky. For more information, write to Panasonic (One Panasonic Way, Secaucus, N.J. 07094).

Take a Load Off

Even the lightest portable VCR can wear you down when you're carrying it on your shoulder all afternoon. A wheeled cart, such as Acme Light's Kaddy Kart (\$70), eases the strain. It can tote your VCR, extra batteries, and a few accessories. A tripod head is built into the cart's extendable handle. For more information, write to Acme Light Manufacturing (3401 Madison Ave., Skokie, Ill. 60076).



Stepping Up

Feeding several receivers (be they TV sets or VCRs) from a single RF source (antenna, cable, or a VCR in a multideck dubbing setup) can prove disappointing. If the RF level is low to begin with or the number of devices to which the signal is being shunted is excessive, the result will be a noticeable loss of picture quality. To avoid the problem, you can use a distribution amplifier—a step-up device placed between the RF source and the receivers. These amps are available from several companies, but a particularly nice one comes from RMS Electronics. The MA-4UV (\$72) gives you 24 dB of gain and a switchable FM trap, but only one output. Not to worry, though: Just find a signal splitter with the right number of taps for your application, and you're in business. (RMS's four-way MA-4UV splitter sells for less than \$10.) Write to RMS Electronics (50 Antin Pl., Bronx, N.Y. 10462).

Dubbing Helper

Having the right cables and plug adapters on hand can make your video editing and dubbing chores a lot less frustrating. Just try dubbing the audio and video outputs of a VHS deck to a Beta model and see how far you get without the right plug terminations on your cables. Happily, Comprehensive Video has thought out the most common interconnect permutations and offers cable and adapter kits for \$17.50 each. The CVS-15 Kit consists of two 10-foot cables terminating in phono plugs (for direct audio and video), two mini-plug to phono-jack adapters, 100 labels to differentiate the dubbed copy from the original, and instructions for the novice. Additional information is available from Comprehensive Video Supply (148 Veterans Dr., Northvale, N.J. 07647).



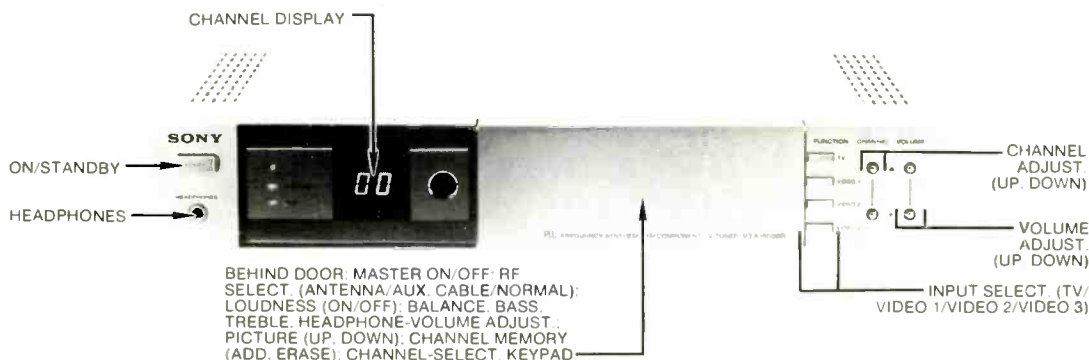
VCR Mods

I wouldn't advise that you try modifying your VCR unless you're an old hand at kit building. However, if you're experienced at prodding about among complex circuits, the modification kits from Vast can help you turn your plain-Jane VCR into a more flexible machine. The Scan Kit (\$35) lets you add forward and reverse visual search in all speeds, while the Scan/Slow-Motion/Freeze-Frame Kit (\$79) offers a couple of additional playback effects. The Recording and Playback Kit adds EP (six-hour) recording to a VHS VCR equipped with just SP and LP speeds. If you have trouble during the modification, there's a toll-free number to call for assistance, and videotaped instructions are available for \$13 per kit. Another company, Instant Replay, has a PAL playback option for some NTSC VCRs. The company also sells pre-converted Panasonic VCRs for \$675. For more information, write to Vast, Inc. (6015 Route 7, Minneapolis, Minn. 55416) and Instant Replay (2980 McFarlane Rd., Miami, Fla. 33133).



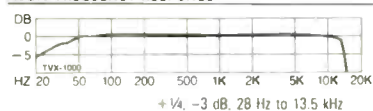
SONY VTX-1000R TV TUNER/SWITCHER

Sony VTX-1000R television tuner and switchbox, with wireless remote control. Dimensions: 17 by 3¼ inches (front panel), 10½ inches deep plus clearance for connections. AC convenience outlets: one switched (200 watts max.), one unswitched (300 watts max.). Price: \$450. Warranty: 90 days parts and labor. Manufacturer: Sony Corp., Japan; U.S. distributor: Sony Corp. of America, Sony Dr., Park Ridge, N.J. 07656.



TV TUNER SECTION

AUDIO FREQUENCY RESPONSE



AUDIO S/N RATIO (A-weighted)

	split carrier	intercarrier
best case	64½ dB	44½ dB
worst case	28 dB	31 dB

RESIDUAL HORIZONTAL SCAN COMPONENT (15.7 kHz)

split carrier	< -80 dB
intercarrier	-77 dB

MAXIMUM AUDIO OUTPUT

0.38 volt

VIDEO FREQUENCY RESPONSE

at 500 kHz	+ 1/2 dB
at 1.5 kHz	+ 1¼ dB
at 2.0 MHz	+ 2½ dB
at 3.0 MHz	+ 3¼ dB
at 3.58 MHz	flat
at 4.2 MHz	-16 dB

LUMINANCE LEVEL

17% high

GRAY-SCALE NONLINEARITY (worst case)

±27%

CHROMA LEVEL

±¼ dB high

CHROMA DIFFERENTIAL GAIN

±25%

CHROMA DIFFERENTIAL PHASE

±5%

CHROMA PHASE ERROR

red	+ 3°
magenta	+ 4°
blue	+ 2°
cyan	+ 7°
green	+ 5°
yellow	+ 6°
median error	+ 4¼°

LIKE MANY OTHER separate television tuners, the VTX-1000R can be used with any standard monitor, but it really comes into its own when connected to a matching Sony Profeel unit. Otherwise, certain features will not work. These include remote powering of the monitor and control of contrast and volume from the VTX-1000R's front panel or its Remote Commander.

The VTX-1000R receives VHF and UHF broadcast channels 2 through 83 and CATV midband and superband channels (A through W). The latter replace UHF channels 14 through 36 when CATV/NORMAL is depressed. In addition, the unit provides an "external processor loop" for a pay or cable TV decoder, which can be engaged via the antenna/aux button on the tuner or Remote Commander.

Cable and VHF inputs are standard 75-ohm F connectors; the UHF terminals are for 300-ohm twinlead. Channels can be tuned from the tuner or the remote either sequentially via up/down scan keys or directly by punching in the desired channel number on a ten-button keypad. The tuner's scan feature is factory set to receive VHF channels 2 through 13 in sequence. You can add UHF or cable

channels and erase inactive VHF channels by selecting the particular channel and pressing ADD or ERASE, as appropriate. Since this is a one-time operation, these controls are only on the main unit. The audio MUTE is only on the remote.

In addition to serving as a TV tuner, the VTX-1000R functions as a three-input (plus TV) audio-video switcher. Four pushbuttons on the main unit select what is presented to the monitor and audio system. Or you can sequentially step through the four functions by consecutively pressing the Remote Commander's TV/video button. Lamps on the main panel indicate the source you've selected. The Video-1 and Video-2 inputs are set for standard video level (1-volt peak-to-peak); the sensitivity of the Video-3 input is adjustable over a ±6-dB range around the standard.

Each video input is accompanied by stereo audio inputs, and the two monitor outputs—both of which can be used simultaneously—are accompanied by stereo outputs. Standard pin jacks are provided for all audio and video inputs and for both sets of outputs. In addition, the Monitor-1 outputs are available via an 8-pin DIN connector that allows single-cable connection of

audio, video, and control signals with a Sony monitor. As an alternative, mini jacks are provided with each output set to carry control signals to a Sony monitor. Another set of mini jacks marked "Control In/Out" is said to allow eventual expansion of your audio-video system, albeit by sacrificing the effectiveness of the VTX-1000R's own remote.

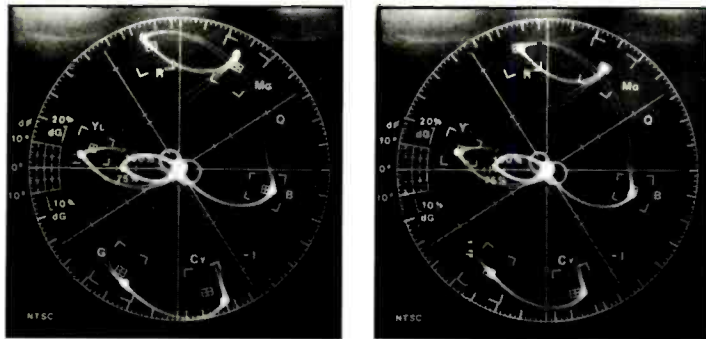
With an eye toward the (we hope) not too distant future, Sony has thoughtfully provided multiplex input and output jacks whereby an external stereo-TV multiplex adapter can be wired into the system. Finally, an additional set of TV video and audio outputs is provided, primarily for a VCR that lacks a tuner. TV video and audio are present at these jacks irrespective of input selector setting, so it is possible to record one program off the air while viewing one of the three direct-video sources. Or you could use these outputs to drive a third monitor and audio system.

The dedicated TV video output also affords a means of selecting FM audio on simulcast broadcasts—the only means of obtaining stereo TV sound today. If you patch the TV video output to one of the regular video inputs, connect a stereo FM tuner to the corresponding audio input jacks, and then select that video input source, you'll get the TV broadcast with stereo FM sound on your audio system.

The VTX-1000R's audio controls include BASS, TREBLE, BALANCE, and LOUDNESS, which affect both of the regular audio outputs (but not the TV-only audio output). The controls are accessible only on the main panel, behind a flip-down door; this may have something to do with why they affect the main audio outputs while the VOLUME (which is on the remote as well) does not unless a Sony monitor is used. There's also a headphone jack with its own level control.

THE VTX-1000R provides a choice of two TV audio reception modes—split carrier or intercarrier—selected by a rear-panel slide switch. In a television broadcast, the sound is on an FM subcarrier, just above the upper edge of the video (AM) signal. In most receivers, video and audio information remain intertwined through the intermediate frequency (IF) stages and are not separated until reaching the video

detector circuit. This is the so-called intercarrier system, which is less expensive to make than the split-carrier system. In a split-carrier set, video and



COLOR ACCURACY of the VTX-1000R is excellent. The vectorscope photo at left indicates very slightly excessive color saturation (chroma level) and an equally small amount of hue (chroma-phase) error. The photo at right—made with a 1/4-dB cut in chroma level and a clockwise phase rotation of approximately 4½ degrees—simulates the best results obtainable using the color and tint controls on a monitor. This puts all six color vectors (white dots) on their targets, which is near-perfect performance.

audio are separated right after the mixer stage and pass through separate IF amplifiers and detectors. This technique minimizes the possibility of video information entering the audio and causing hum or buzz. Sony suggests that split-carrier reception be used for normal broadcasts, with the caveat that the intercarrier mode may provide better results on UHF signals that have been transmitted through several relay stations. The same is true when using a pay-TV unscrambler or when playing video games; for this reason, the intercarrier mode is automatically activated whenever the aux input is chosen.

The tuner's audio response is essentially flat (in both modes) from 50 Hz to 12 kHz, and down 3 dB at 28 Hz and 13.5 kHz. The somewhat truncated high end is due to a sharp notch filter that Sony adds to the circuit to eliminate the 15.7-kHz horizontal-scan component, which in this system is remarkably well suppressed. We'd not quibble with Sony's tradeoff in the least. With typical broadcast material, the split-carrier signal-to-noise (S/N) ratio is excellent—much better than in the (continued on page 52)

Laboratory data for HIGH FIDELITY'S video-equipment reports are supplied by Diversified Science Laboratories. Preparation is supervised by Michael Riggs, Peter Dobbin, and Edward J. Foster. All reports should be construed as applying to the specific samples tested. HIGH FIDELITY and Diversified Science Laboratories assume no responsibility for product performance or quality.

We rest our case.

Aiwa introduces the smallest, lightest Beta hi-fi portable video in the world*

Aiwa's new Beta hi-fi portable certainly is small, but when it comes to perfor-



mance and features, it's definitely in the big time.

For breakthrough sound quality, a single connection to Aiwa's full-featured Beta hi-fi amplifier unleashes this little portable's state of the art audio technology. It actually outperforms open reel audio decks! Both video and stereo sound signals are recorded with spinning recording heads that create a head-to-tape speed 200 times faster than conventional VCR audio recording. No wonder it sounds so terrific.

To match this audio technology Aiwa offers brilliant picture quality and outstanding special effects. There's 2X speed playback with sound, auto program location, insert editing and a 15X or 25X normal speed multi-search feature. And that's not all.

Unlike conventional portable VCRs that require a separate tuner for play-

back, the Aiwa AV-50M video deck has its programmable tuner/timer built-in for *true* portability. It can go from room to room, from house to house. Not just for recording (that's just half the story), but playback too (that's all the fun!). What's more it's already equipped to receive stereo TV broadcasts as soon as they hit the airwaves.

The Aiwa Beta hi-fi video portable is also the perfect match for Aiwa's critically acclaimed S.P.A.N. audio systems. Same convenient size! Same advanced styling. And to make things even easier, the companion Beta hi-fi amplifier/adaptor automatically acts as a pre-amp when connected to any audio system.

Aiwa's new Beta hi-fi video system... a really fresh idea.

*Weight and size comparison does not include AC powered SV-50M Beta hi-fi amplifier/adaptor.

For your nearest Aiwa Beta hi-fi video system dealer call:

800-633-2252 ext. 300

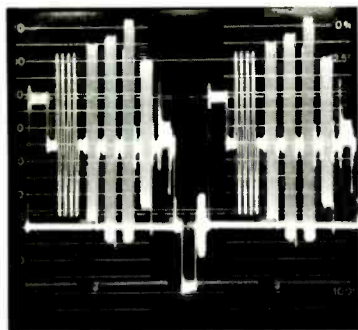




AIWA[®]
SIMPLY ADVANCED

SWITCHING SECTION

MAXIMUM AUDIO OUTPUT	
line output	2.0 volts
headphone output	3.0 volts
AUDIO GAIN	
to line output	1.7 dB
to headphone output	13 dB
AUDIO S/N RATIO (re 0.5 volt; A-weighted)	
	79 dB
DISTORTION (THD; 20 Hz to 20 kHz; 1 volt out)	
	≤0.25%
AUDIO FREQUENCY RESPONSE	
	+0, -1 dB, <10 Hz to 17 kHz;
	+0, -3 dB, <10 Hz to 32 kHz
AUDIO INPUT IMPEDANCE	
	20k ohms
AUDIO OUTPUT IMPEDANCE	
line output	4,700 ohms
headphone output	30 ohms
VIDEO FREQUENCY RESPONSE	
	-½ dB at 4.2 MHz
LUMINANCE GAIN	
	0 dB
GRAY-SCALE NONLINEARITY	
	none
CHROMA GAIN	
	0 dB
CHROMA DIFFERENTIAL GAIN	
	none
CHROMA DIFFERENTIAL PHASE	
	±0°
CHROMA PHASE ERROR	
	0°



MULTIBURST RESPONSE rises over the first four bands—from almost flat at 500 kHz to +3¼ dB at 3.0 MHz—before returning to normal at 3.58 MHz (the color-carrier frequency) and then dropping off sharply at 4.2 MHz (the upper limit of the NTSC broadcast system). The rolloff at the very top is typical of TV tuners. The boost in the middle two bands (2.0 and 3.0 MHz) will add some extra sharpness to the picture or compensate for slightly subpar resolution in the monitor. The VTX-1000R should deliver about 300 lines of horizontal resolution on a monitor capable of displaying that number.

(continued from page 49)
intercarrier mode, where it's just average. We consider the reversal of this situation when receiving a multiburst test pattern essentially irrelevant, since such artificially repetitive signals are not typical of broadcast fare. THD is lower with split-carrier reception, too, but in neither case is it as low as the best we've seen. Audio output level is adequate (though not generous), but the output impedance is needlessly high. Keep the VTX-1000R reasonably close to your stereo amplifier, and be sure the amp has an input impedance of at least 10,000 (10k) ohms (preferably higher).

To get a handle on the audio performance of the switching section, Diversified Science Laboratories measured frequency response, S/N ratio, maximum output, gain, and total harmonic distortion (THD) from line input to line output. Response is 1 dB down at 17 kHz but can be corrected to within +½, -0 dB from 20 Hz to 20 kHz by advancing the TREBLE one notch. Most of the TREBLE's effect is over the range indicated by the first four markings either side of the midpoint. Because at the extreme settings the control produces about a ±12-dB spread at 10 kHz (almost ±15 dB at 20 kHz), we expect most users will keep the control within 90 degrees of center. The BASS acts in a similar way, with a total range that is more than generous. What Sony calls "tone enhance" is essentially a fixed loudness contour with an unusually great amount of bass boost (10 dB at 100 Hz, almost 15 dB at 20 Hz) and a more modest 5-dB treble boost at 12 kHz. You may like it; we find it a bit aggressive for our taste.

Maximum audio output level is limited to 2 volts into a high-impedance load, 1.5 volts into our standard 10,000-ohm test load. This prevented DSL from measuring distortion at our standard 2-volt level; at 1 volt, it is about 0.25 percent across the band and consists of second, third, and fourth harmonics, in descending order of importance. Noise is adequately low, and gain is approximately unity, depending on the load impedance. Into an open circuit, the headphone amp provides a 13-dB voltage gain. Its output impedance is fairly low and its open-circuit output voltage fairly high, but current

availability limits output power to 20 milliwatts into our standard 50-ohm test load. This is more than adequate for personal listening, however.

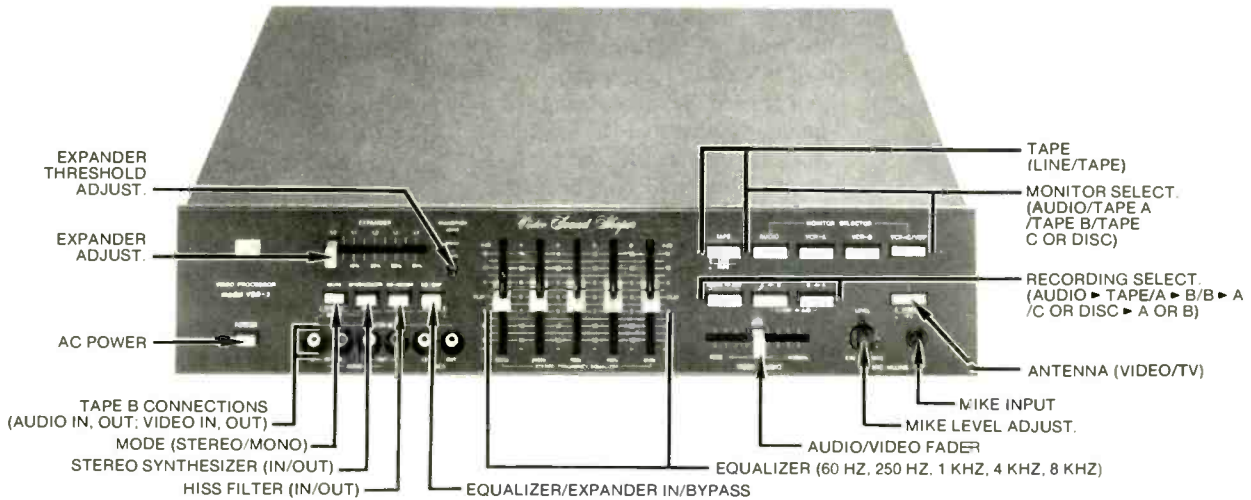
On TV reception, chroma level (color saturation) and phase (hue) are excellent, cyan being the color most off the mark and even then by an acceptable amount. Chroma differential phase also is admirably low, suggesting that hues not only are accurate to start with but remain accurate with changes in scene brightness. Luminance level is greater than it should be, but most monitors can be adjusted for this. Of more concern is the gray-scale nonlinearity and the related chroma differential gain. The former persists over several gray-scale levels and is not correctable. The chroma differential gain is confined mostly to the brightest scenes and is therefore less worrisome. Video response holds up solidly to the chroma-burst frequency (3.58 MHz), with a progressive boost from 500 kHz to 3.0 MHz adding apparent sharpness to the picture. You may find this appealing, especially on a monitor that would otherwise appear "soft." As a switcher, the unit passes video information essentially unchanged.

ALTHOUGH WE DID NOT have the opportunity to use the VTX-1000R with a Sony monitor, we did use it with a model of equivalent quality and a conventional stereo system. Perhaps because the audio system we used was of higher quality than the average TV sound system, we found the tone controls and loudness compensation to have more range than we really could use, but employed judiciously they were helpful in correcting audio deficiencies in the program material. In our fringe area, TV reception was a bit snowier and had more chroma noise than we would have hoped for. This may result in part from the response boost in the region between 1.5 and 3.0 MHz, which emphasizes picture detail and, with it, video noise. In strong signal areas, this should not be an important consideration. Color rendition is excellent, and in the split-carrier mode, there are no annoying buzzes.

If you're looking for a component-TV tuner now and want to be prepared when stereo TV comes to the U.S. (which could very well be this year), the VTX-1000R deserves serious consideration.

ADC VSS-2 SWITCHER AND SIGNAL PROCESSOR

ADC VSS-2 Video Sound Shaper audio-video switcher and signal processor, with dynamic-range expander, five-band graphic equalizer, hiss filter, and stereo synthesizer. Dimensions: 17¼ by 3¾ inches (front panel), 12 inches deep plus clearance for connections. Price: \$400. Warranty: "limited," one year parts and labor. Manufacturer: made in Japan for BSR (USA), Ltd., ADC Professional Products Group, Route 303, Blauvelt, N.Y. 10913.



Except where noted otherwise, all measurements were made from the line input to the main output with all signal-processing functions bypassed.

OUTPUT AT CLIPPING (1 kHz) \approx 4.8 volts

MAXIMUM INPUT LEVEL (1 kHz)

line (clipping) \approx 3.7 volts
 mike (3% THD) 17.5 mV

SENSITIVITY (for 0.5-volt output)

line input 630 mV
 mike input 2 mV

S/N RATIO (re 0.5 volt; A-weighted; line input)

best case 96 dB
 with no processing 92 dB
 worst case 69 dB

HARMONIC DISTORTION (THD; 20 Hz to 20 kHz)

expander off \leq 0.076%
 expander on \leq 0.211%

FREQUENCY RESPONSE

\pm 1/2 dB, 15 Hz to 24.5 kHz,
 + 1/2, -3 dB, <10 Hz to 95.6 kHz

CHANNEL SEPARATION (1 kHz) 62 dB

ONE OF THE MOST versatile add-on audio-video components we've come across is ADC's VSS-2 Video Sound Shaper switcher and signal processor. It can handle both stereo and mono sound, and video monitors as well as conventional television sets. The VSS-2 enables you to create pseudostereo from a mono signal (or mono from a stereo signal), to mix in the output from a microphone, and to expand, filter, or equalize the result. You also can record the signal (raw or processed) on either or both of two VCRs, or copy from one onto the other.

In case you haven't yet made the jump to component television, the VSS-2 has a built-in RF modulator (operating on Channel 3 or 4) for feeding a regular TV set. A switch selects between the output from the modulator and the signal from a cable or VHF-antenna hookup. The RF input and output jacks are standard F

connectors, and ADC thoughtfully includes an external wideband splitter for routing RF signals to more than one receiver. Though the VSS-2 puts both the audio and the video onto the carrier, they remain separate up to the modulator, so you can route the audio through your stereo system and the video to either a monitor (when you get one) or a conventional TV (with its volume turned down). No matter what stage of video development you've reached, the VSS-2 serves a purpose.

Audio and direct-video connections are made through color-coded pin jacks. Those for what ADC calls "VCR-B" are on the front panel, apparently intended for temporary hookups. The remainder are on the back for permanent wiring. Since the third set of jacks (labeled "VCR-C/VDP") includes no outputs, it can be used for playback only.

The audio circuitry is designed to connect into your amplifier's tape-

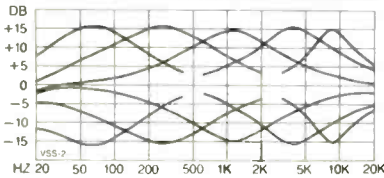
INPUT IMPEDANCE

line	55k ohms
mike	10.5k ohms

OUTPUT IMPEDANCE

main	1,030 ohms
VCR	820 ohms
tape	800 ohms

EQUALIZER CONTROL ACTION (max. & min.)



HISS FILTER -3 dB at 5.5 kHz; 6 dB/octave*

*See text.

monitor loop, which is duplicated on the VSS-2. A tape switch on the front panel is then used instead of the corresponding switch on the amplifier. With this arrangement, you also can record the soundtrack of whatever you're watching onto the audio deck connected to the VSS-2. Every audio feature except the hiss filter affects the signal to the tape-output jacks, so you can expand, equalize, or synthesize a stereo program and record it in that form.

WHAT YOU SEE and hear is determined by five push buttons on the upper right of the front panel. Three (VCR-A, VCR-B, and VCR-C/VDP) are mutually exclusive and choose the video being fed to the monitor output and RF modulator. The other two are AUDIO and TAPE. If AUDIO is released, you hear the soundtrack of the video source you've chosen. If it is depressed, the video soundtrack is replaced with the signal chosen by TAPE. This arrangement sounds complicated, but it provides great flexibility. When AUDIO is pressed, your stereo system operates normally (with the added features offered by the VSS-2), and TAPE serves as a tape-monitor switch. Thus, you can watch a simulcast program while listening to the soundtrack on FM.

Another set of push buttons chooses the signal delivered to the VCR A and B recording outputs. One copies the audio and video from VCR A onto VCR B, another from B onto A. If both are pressed, the signal from VCR-C/VDP is copied onto VCR A and VCR B. Pressing a third button replaces the soundtrack of the program being recorded with the signal from the stereo system so that you can record the audio from an FM simulcast. During normal playback, all the recording buttons must be released for the system to work properly. You can add a mono voice-over to whatever you're recording (or watching) via a microphone input and mixing control, and you can fade audio and video simultaneously—to both the main and the recording outputs—by means of a slider below the recording selector buttons.

With the exception of the fader and RF modulator, the signal processing performed by the VSS-2 is strictly audio. There's a stereo graphic equalizer, with bands centered on 60

Hz, 250 Hz, 1 kHz, 4 kHz, and 8 kHz; a hiss filter with a maximum attenuation of about 10 dB above 17 kHz; a dynamic-range expander; and a stereo synthesizer. The filter can be called into action by itself, but the graphic equalizer and expander are activated by the same button. Either, however, can be used alone by adjusting the other to its neutral setting.

The expander is linear and operates over the entire dynamic range, with a maximum expansion ratio of 1.4:1.0 (that is, every 10-dB change in input level creates a 14-dB change in output). The transition point—the level above which louder signals get louder and below which softer signals get softer—is determined by the "Level" control. Setting isn't critical, but if it is far off, there will be a noticeable change in average volume when the expander is switched in or out. The VSS-2's stereo synthesizer creates complementary comb filters that divide a mono signal into the left and right channels by alternating, closely spaced frequency bands—a better approach, in our opinion, than that of the simple phase-shifting networks often used for the purpose.

With the equalizer and expander bypassed, Diversified Science Laboratories measured essentially flat response across the entire audio band. With them engaged, but set for flat response and no expansion, response does indeed remain virtually unchanged, except for a slight droop at very low frequencies (amounting to about 2 dB at 20 Hz). At a modest expansion setting of 1.2, the response humps by about ½ dB at 1 kHz; with maximum expansion (1.4), it's up by 1 ¼ dB. We doubt that this anomaly can be heard in the presence of the processing that is going on. Separation is 43 dB at 10 kHz and better than 62 dB below 1 kHz. Signal-to-noise (S/N) ratio is also excellent. There is a signal loss of 1 to 2 dB through the system, but this is of no concern in normal operation.

THE WORST-CASE output clipping level is 4.8 volts, which should be more than adequate; the corresponding input clipping level is 3.7 volts through the line inputs, which should likewise be sufficient, especially since it occurs only when the system is in the mono mode. In stereo, clipping

doesn't occur until the input reaches 5.6 volts or more. The microphone input's overload point is on the low side, but it should be okay if you don't bellow into the mike. Input and output impedances are well chosen for mating with ancillary equipment.

Total harmonic distortion (THD) is safely under 0.1 percent at a 2-volt output when the equalizer and expander circuits are bypassed, just tops that figure at 20 Hz when the equalizer is used without expansion, and reaches a little more than 0.2 percent at 20 kHz when full expansion is demanded. Since the expander's distortion rises only at the highest frequencies, we suspect that the circuit is slew-rate limited and that distortion would drop rapidly at lower output levels. In all cases, it consists entirely of the second and third harmonics (predominantly the former with expansion, the latter without) and is too low to cause audible signal degradation.

The expansion slider is calibrated from 1.0 to 1.4 with a detent at 1.2. Tests conducted at the center and the two extremes indicate that what you read is what you get (by no means always the case with devices of this kind). Likewise, the graphic equalizer sliders are gratifyingly more "graphic" than many. Besides a center detent, each has additional mid-travel detents at $\pm 7\frac{1}{2}$ dB. The specified control range is ± 15 dB, and DSL reports a spread of just about precisely that much at very close to the designated frequency in each band. And except very near 0 dB and at $+12\frac{1}{2}$ dB, the 1-kHz slider is accurately calibrated through its full travel.

We auditioned the VSS-2 with a variety of sources—broadcast and tape, music and dialogue—and on the whole we were quite pleased with the results. The hiss filter is less effective than a level-sensitive "noise gate," such as DNR, but it helps a bit. If you're willing to sacrifice some top-end response, turning down the 8-kHz slider will do a better job on tape noise. (A good broadcast will need neither.)

There's no way to accurately restore the dynamics of a musical program recorded on a conventional VCR: The average videocassette recorder's automatic level control is much too aggressive (and unpredictable) for that. But the VSS-2's expander helps. We found we

could tolerate a good deal more expansion on television program material than we'd ever use with a high-quality audio source, and often ran the control wide open. The amount of expansion you'll like will depend on your taste, the program (and how it was compressed or limited), and the actual signal level coming from your tuner or VCR.

The graphic equalizer is useful in correcting tonal balance and provides more than adequate range. ADC's synthetic stereo opens up the sound field and seems to help rather than hinder intelligibility—the complaint we've had with many other



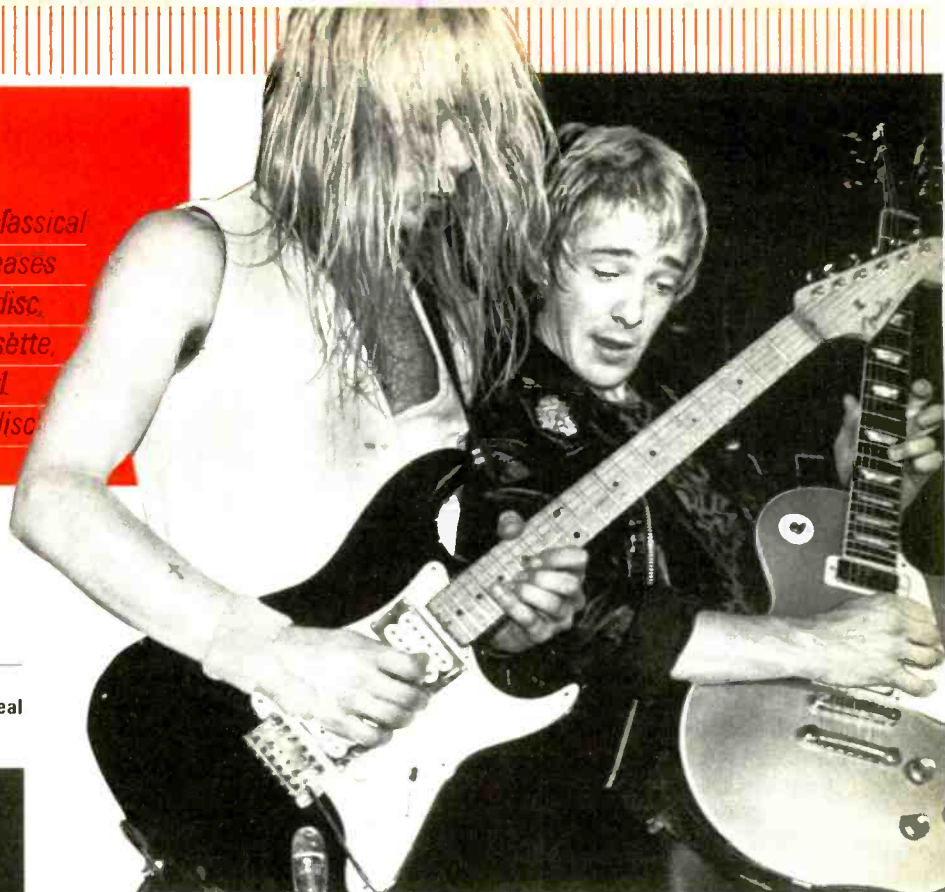
WITH THESE CONTROLS you can monitor the output of three video sources, dub between two VCRs, make two simultaneous copies of a third source, select between two audio soundtracks, perform audio-video fades, and add voiceover.

pseudostereo systems. And with our signal sources and monitor, the audio-video fader was quite effective, although tint shifted as the video signal (and, with it, the chroma-burst level) decreased. How well such a system will work depends on the monitor or TV you use, so we advise you try it for yourself.

ALL IN ALL, the ADC VSS-2 delivers a good selection of useful, well-designed signal-processing and switching functions. These can be important tools in overcoming the limitations of current component video systems, which often provide inadequate switching flexibility and less than high fidelity sound from most sources. So if you want the utmost in quality and convenience from your audio-video system, the VSS-2 deserves serious consideration. **HF**

REVIEWS

Pop and classical music releases on video disc, video cassette and digital compact disc.



HEAVY METAL: Iron Maiden (right), the real thing, and Blotto (below), a funny imitation



For additional reviews of Pop and Jazz recordings, see BACKBEAT.

POPULAR VIDEO

SHEENA EASTON.

Steve Barron & David Hillier, producers. Sony Video 45 Beta 97W00038; VHS 97W50039.

IRON MAIDEN.

David Mallett & Jim Yukich, producers. Sony Video 45 Beta 97050030; VHS 97W50031.

BLOTTO:

Metalhead.

Blotto, producer. Sony Video 45 Beta 97W00010; VHS 97W50011.

DAVID BOWIE.

David Mallett & Jim Yukich, producers. Sony Video 45 Beta 97W00028; VHS 97W50029.

J. GEILS BAND.

Paul Justman, producer. Sony Video 45 Beta 97W00036; VHS 97W50037.

As Phil Spector made abundantly clear in his work with groups such as the Crystals and the Ronettes, the "artist" who makes a hit can as likely be a producer as a songwriter, singer, or musician. Although the equivalent behind-the-scenes role in music video varies between producer (as in records) and director (as in film and television), the function is the same: This is the person who pulls the song, the performers, and the visualization together.

The music video producer/director cannot take a bad song and make it good. But he or she can make it visually stimulating, turning it into either (1) entertaining TV or (2) a hit.

Duran Duran's *Hungry Like the Wolf*, for example, was ignored by radio programmers and consumers alike until the exotic, costly South Seas video appeared on MTV. Now the group is the greatest thing since sliced bread.

All of which is by way of introduction to the new crop of Sony Video 45s (priced at \$16.95). Two are by artists whose music ranges from bland to offensive; this product almost redeems them. And one does a good job of presenting a band straightforwardly and enthusiastically, no mean feat in such a "creative" medium.

Musically, Sheena Easton's pop fluff is too much Australian white bread for me. Nor have I ever understood the appeal of heavy metal, which is what Iron Maiden doles out in stupefyingly generous doses. These videos, though, are for the most part great fun.

Easton is a lifeless performer: attractive, and charming sometimes, but dull. In the live footage, *Morning Train* (9-5), she prances about childishly. To dress her up, producer David Hillier slides screenlike boxes into place at the sides of the stage, flashing our star in various glamorous still poses.

But when she is transformed into a sophisticated young entertainer with a good sense of humor, the difference a

producer (Steve Barron) can make is apparent. *Telefone*, shot in black and white, is the best of the lot. The Frankenstein monster stalks Easton in an old castle as she declares her anger over her lover's failure to call. Striding into a nearby cemetery, she is spirited away in a King Kong-like creature's hand, calmly singing all the while.

In *Machinery*, a boredom-in-the-office/factory clip, the visuals are sufficiently distracting to warrant a mild chuckle. *Ice Out in the Rain* uses too many close-ups of wet leaves to conjure up any serious image of romance or broken hearts; both singer and song come off cold. Even *Ice*, however, shows how a music video producer can overcome total blandness in ways that a record producer cannot.

There is absolutely nothing bland about Iron Maiden. Nor is there anything strikingly original about their video. Producers David Mallett and Jim Yukich have augmented the heavy metal concert clichés—blinding spotlights, leather and studs, a three-man guitar team working in unison at the foot of the stage—and spliced in plenty of classic, sepia-toned cowboy-and-Indian scenes and sci-fi monsters.

The idea is certainly appropriate as the band drones "run for the hills" over and over, but it seems to work just fine throughout the rest of the tape as well. Interestingly, there's little to differentiate between the two producers at work here, apart from the fact that Mallett sticks to the Wild West, Yukich to monsters.

Meanwhile, Blotto handles the 9-to-5-blues theme on *I Quit* with more humor and style than Easton musters on *Machinery*, and parodies Iron Maiden's brand of heavy metal brilliantly on *Metalhead*. The cuteness wears thin the second time through, but the video is worth an overnight rental.

If the Sheena Easton and Iron Maiden videos are examples of what happens when the music you start out with isn't very good, then what happens when you've got David Bowie singing *Let's Dance*, *China Girl*, and *Modern Love*? Or the J. Geils Band doing *Freeze-Frame*, *Angel in Blue*, and *Centerfold*?

Bowie is probably the most notable exception to all music video rules. An actor who has been experimenting with the visual aspects of music virtually since he began performing, he knows what

"presence" means. In short, he is riveting. *China Girl* is the most fully developed cut conceptually; myriad fantasies, magic spells, and some seaside lovemaking are acted out between Bowie and, naturally, a Chinese woman. *Let's Dance* is more of a fairy tale; the story line is built around a few poor kids and a pair of red dancing shoes. And where someone like Easton is at her worst in a concert setting, Bowie struts out as Mr. Charisma in *Modern Love*.

The Geils tape may be the best of all for the retrograde reason that it carries the spirit of the band's music so



DAVID BOWIE: breaks video rules

well. Director Paul Justman has a snare drum suddenly splashing milk. There are paint fights, and a whole classroom full of centerfolds in fancy lingerie. Fun, and the music holds its own. Which, when you get down to it, is how Phil Spector used to handle things, too.

—IRA MAYER

MAKING MICHAEL JACKSON'S THRILLER.

Jerry Kramer, director; Michael Jackson, John Landis, & George Folsey, producers. VESTRON VIDEO V 1000, \$29.95 (VHS stereo) Beta Hi-Fi, VB 1000, \$29.95, CED: VC 1000, \$29.95, Laserdisc: VL 1000, \$29.95.

All during 1983, Michael Jackson had people buzzing. The morning after the *Motown 25* television special

nearly a year ago, the talk centered on his spinning, skating dance to *Billie Jean*. And it was his riveting presence as a peacekeeper/dance-instructor that made the *Beat It* video repeatedly watchable. Excerpts from both of these performances are included in "Making Michael Jackson's *Thriller*," which is based on the ambitious 14-minute video of the album's title track.

The hour-long program begins with the John Landis-directed *Thriller* and then goes on, in some detail, to show how it was put together. (Landis's film credits also include *Trading Places*, *The Blues Brothers*, and *An American Werewolf in London*.) But the documentary footage almost has the effect of undercutting *Thriller*'s impact and demystifying its star. This is the first Jackson video material made available to the home market, and it chooses to show him being fitted for yellow contact lenses, tentatively working out dance routines, being effusively praised by fans and colleagues, and being lifted in the air and tickled (?) by Landis.

Thriller is the most elaborate song-promo video yet, a clever, if not exactly thrilling, pastiche of *I Was a Teenage Werewolf* and *Night of the Living Dead*, with the album track augmented by dialogue and incidental music by Hollywood veteran Elmer Bernstein. (It was screened in a Los Angeles movie theater to be eligible for a short-subject Oscar, as if Jackson doesn't already need a U-Haul to take home his Grammys.) The short is a film-within-a-film, as Jackson asks costar Ola Ray, a former *Playboy* Playmate, to be his girl, then warns her that he's "different." The moon comes out from behind a cloud, and he turns into a werewolf. It's a graphic transformation: Jackson, who had been aw-shucksing it up with Ray, becomes ferociously feral, ready to pounce on her. Their alter egos have been watching this scene and get up to leave the theater as he starts to sing *Thriller* to her; despite the fact that it isn't much of a song, it's a great moment. We've never gotten to see Jackson turn on his charm in a romantic-sexual context before, and in this long dolly shot he's teasingly seductive.

"Making *Thriller*" plugs winningly into Jackson's image as a performer who keeps his audience on the alert. His unpredictability is what makes him exciting, along with his

astounding confidence. There's a clip from a Jackson 5 appearance on *The Ed Sullivan Show* in 1970; at the age of twelve he could belt out Smokey Robinson's *Who's Lovin' You* with that same combination of volatility and



VINCENT PRICE: Jackson got his favorite ghoul for *Thriller*.

poise. You watch him very closely because you don't want to miss the next step, which may come blurringly fast. (People who taped the Motown special have been known to reverse and repeat sections of it over and over, trying to decipher his movements.)

While Jackson comes across as very likable and quietly enthusiastic in the behind-the-scenes material, "Making *Thriller*" does him a disservice by photographing him when he's not doing much. Director Jerry Kramer seems to think that the star in repose is as fascinating as he is in motion. An early segment with him and Landis chatting suddenly cuts to a piece of the *Beat It* video, and it's a welcome jolt. It's the scene where Jackson intercedes in the gang fight, his fancy footwork accompanied by Eddie Van Halen's guitar solo. Landis did something similar in *Thriller*: When the couple is surrounded by hideous ghouls, the camera simultaneously zooms in and tracks out on Ray's startled expression as Jackson becomes one of the zombies and leads them in a Dance of the Living Dead.

One reason why "Thriller" has

become the best-selling LP in history is that Jackson is so telegenic; ironically MTV, which allegedly refused to play *Beat It* at first, was ultimately responsible for Jackson's saturation in the medium. Directors Steve Barron (the *Billie Jean* clip), Bob Giraldi (*Beat It* and *Say Say Say* with Paul McCartney), and Landis have, in scenes such as these, captured his energy. It's odd, then, that this program contains more of Jackson in a makeup chair than on stage. A compilation of the *Thriller*, *Beat It*, and *Billie Jean* videos, the *Motown 25* segment, and Jackson 5 television and concert performances would have been a much more auspicious home-video debut.

—MITCHELL COHEN

CLASSICAL VIDEO

TCHAIKOVSKY:

The Sleeping Beauty.

PRINCIPAL CAST

Princess Aurora	Irina Kolpakova
Prince Desire	Sergei Bereznoi
The Lilac Fairy	Lubov Kunakova
Carabosse	Vladimir Lopukhov
Caialabutte	Gennadi Selyutski
Bluebird	Andrei Garbutz

Students of the Vaganova School of Ballet; Orchestra of the Leningrad Theater of Opera and Ballet, Viktor Fedotov, cond. Choreography by Marius Petipa; staged by Konstantin Sergeev. [Elena Macheret, director; Svetlana Kononchuk, producer.] PIONEER ARTISTS PA 83-055 (CX-encoded laser disc), \$39.95.

MASSENET:

Manon.

CAST

Manon	Jennifer Penney
Des Grieux	Anthony Dowell
Lescart	David Wall
Monsieur G M	Derek Rencher
Lescart's Mistress	Monica Mason
The Gaoler	David Drew
Madame	Gerd Larsen
Beggar Chief	David Peden

Artists of the Royal Ballet; Orchestra of the Royal Opera House, Ashley Lawrence, cond. Choreography by Kenneth MacMillan, music orchestrated and arranged by Leighton Lucas with Hilda Gaunt. [Colin Nears, director; Vic Godrich and Graham Haines, sound producers.] PIONEER ARTISTS PA 83-047, \$34.95.

Tchaikovsky's *Sleeping Beauty* is for many the summit of Russian classical ballet. As Lincoln Kirstein suggests, "it remains academy, ritual, reminder." Its particular historical resonance lies in its subtext, which carries the flattering suggestion (in the "sleep of a hundred years") that the court of the Sun King has been recreated in that of the Romanovs.

A few will find the ballet a bit too crystalline. There's not much suspense in a story whose happy outcome is predicted before the heroine is out of her cradle—predicted, at least, for

those schooled in the baffled intricacies of traditional balletic mime. A dance whose strongest feeling is a pinprick, a hero and heroine whose faces are never crossed by anything as disfiguring as an emotion, will have less appeal for some than the passionate masochism of a *Giselle*.

Yet *Sleeping Beauty* can deeply move those not immune to the clarity of its form. Its stately pace elevates pose over movement, posture over gesture, poise over passion. Its rhythms are those of risk and balance; its signature attitudes and arabesques extend the body in a sort of sculptural legibility that is one of the glories of the danse d'école.

The outstanding *Sleeping Beauty* today is probably the current Royal Ballet version seen occasionally on Metromedia television stations (and whose possible LaserDisc release is effectively forestalled by this Kirov performance). Still, the production here is an important one, the Kirov being the direct heir to the Maryinsky, the Imperial Theater for which Marius Petipa first staged *Sleeping Beauty*. If the court sets seem a bit unequivocal compared to the Bibiena extravaganzas of the Royal, and the frequent blonde wigs ludicrously dispensable, the chance to watch a production of such pedigree more than compensates.

Russian ballet careers develop slowly and last long. Those used to Balanchine's coltish nymphets may be put off by a few of the Kirov's superannuated fairies, their calcified techniques sometimes brittle and unyielding. (Their loyal fans don't seem to notice, bringing them back for bow upon bow after the slightest exertion.) Irina Kolpakova herself was nearly fifty when this was filmed, but if the Kirov's long-reigning prima ballerina no longer commands the liquid ease of youth, her impeccable schooling goes a long way for a role as sharply etched as Aurora. If the working leg doesn't get quite as high as it probably once did, the poses are reached quickly and held securely. Only the rockiness of her bourrées, those hopping walks on point, betrays the weakness in feet and ankles.

The highlight of her performance is not the Rose Adagio, but the Act III grand pas de deux, of a musicality not always so evident elsewhere. (Unexpected reserves of strength suggest that the act may have been

filmed on a different night.) As her cavalier, Sergei Bereznoi is supplely buoyant, while Lubov Kunakova, as the Lilac Fairy, is securely long-limbed, with marvelously expressive hands. A worthy production, if not the freshest today.

Kenneth MacMillan's Royal Ballet *Manon*—set to a score skillfully patched together by Leighton Lucas and Hilda Gaunt using bits and pieces of non-*Manon* Massenet—is a smart addition to Pioneer's line. An honorable contemporary ballet of the kind that audiences like more than critics, its appeal nicely complements that of *Sleeping Beauty*. Part of that attraction lies in the accessibility of its story. MacMillan's deepest instincts have always run toward plot and character; his gift is for ballets whose shifting emotions are easy to read, and here he makes it possible to follow *Manon* without a program.

MacMillan has characteristically been generous in the lush choreography he provides his ballerinas. It's not the novel's hero Des Grieux but Manon herself who is most richly developed—vulnerable, selfish but beguiling, devoted if inconstant. MacMillan is at his most cunning in depicting her sexual allure. She's a tease, but a largely unconscious one, as if seducing men were something she just did by nature. When she gets off the boat at Le Havre, she almost can't help provoking the jailer, with predictably disastrous results.

Elsewhere, MacMillan is not so successful. His consciously restricted palette can become repetitious. The pas de deux (usually one of his strengths) offer some elegant poses but are otherwise rather generalized, emotionally unparticular—the real characterization lies elsewhere. The extensive crowd scenes, whether in town or brothel, don't really illuminate the lovers' story as the feud scenes in MacMillan's *Romeo and Juliet* do. Giving so much of the ballet to Manon does create problems; structurally, after all, this remains Des Grieux's tragedy.

Still, Jennifer Penney's performance redeems everything MacMillan has thrown his heroine, and then some. She eclipses even Anthony

Dowell (LaserDisc's *Swan Lake* Prince), despite the clarity of his line and the nobility of his dancing. Whether in her delicate, almost filmy arabesques, the expressive warmth of her arms, or the supple fluidity of her floating-on-air point work, Penney's dancing clinches her position as *prima assoluta* of the Royal Ballet. It's a breathtaking star performance, on a level she has only hinted at before, and by itself sufficient reason to acquire the videodisc.

The problems of televising ballets are vast, enforcing a series of Solomonic decisions in which all choices are suspect, all victories Pyrrhic. Do you keep the stage composition by staying far away, only to lose focus and personal warmth? Do you come in close, but tantalize us with glimpses of what's clearly just out of the frame?

The former method, so often necessary in *Sleeping Beauty* to embrace the rich tapestry of that ballet's pageantry, reduces dancers to participants in a flea circus, even in the comparative clarity of LaserDisc. The close-in solution gives us in *Manon* the heroine's lover dancing for and yearning toward someone—we can only guess it's her—and in *Sleeping Beauty* the wicked Carabosse casting her spell on Aurora after the pinprick as the director's crosscutting isolates each in separate shots. In neither case do we *feel* the energy, erotic or malignant, traveling from one character to another.

In general, the Covent Garden filming of *Manon* is the more invisible, the camera usually convincing us it's looking where we would choose to. The Russians' technique for *Sleeping Beauty* is less fluent, the transitions jerkier. (The comparative technical leanness of the Soviet cameras does mean that we are spared things like the cacophony of dissolves that so ravaged Baryshnikov's *Nutcracker*, dissolves so frequent they set up their own competitive visual rhythm, entirely independent of that of the music or the dancing.)

The particular drawbacks of this *Sleeping Beauty* are subtle ones; they include shapeless pictorial compositions and full-view cameras set just a shade too low to present any true three-dimensional sense of the stage picture. More important, the often awkward

cutting from one view to another, from a full corps of fairies to a close shot of the Lilac Fairy herself, sets each in a separate *kind* of space. We miss that symbiosis so central to classic ballet, where a ballerina is said to dance not "the swan queen" but *Swan Lake*, her style ideally epitomizing that of the ballet, of the company.

Some problems are the defects of the Russians' rather chaste virtues. The comparative absence of arty



MANON: Royal Ballet's Dowell and Penney in an elegant pas de deux

perspectives puts most shots at something of a middle distance, leaving the eye unsure where to focus. Curiously, offering only half a stage composition, while permitting a closer view, may deprive the eye of precisely those clues the choreographer has provided to direct our attention, particularly in the mannered precision of Petipa's work in *Sleeping Beauty*. Among the brief glimpses we get of the awakened court that ends Act II, it's the long-shot of the whole grouping, some kneeling, some bowing—a symphony of angles—that resonates most deeply. (In *Manon*, MacMillan's more naturalistic, less

For additional reviews of classical recordings, see *Classical Reviews*.

formal groupings offer fewer problems.)

Given the difficulties of recording a pit orchestra in live performance, the sonic quality of the *Manon* is particularly impressive, *Manon's* own theme emerging with remarkable delicacy, first on flute and harp, later in the solo violin. The sound of *Sleeping Beauty*, despite a few odd moments (plucked strings are overprominent, the harp oddly percussive), is only slightly less impressive. It's fuller and more relaxed than many of the Melodiya releases we've all groaned through.

—THOMAS W. RUSSELL III

CLASSICAL COMPACT DISC

VIVALDI:

The Four Seasons, Op. 8, Nos. 1-4.

Simon Standage, violin; English Concert, Trevor Pinnock, cond. (Andreas Holschneider and Gerd Ploebisch, prods.) Archiv 400 045 (fully digital Compact Disc) [price at dealer's option], LP, 2534 003, \$12.98. Cassette: 3311 003, \$12.98.

Trevor Pinnock's performance of *The Four Seasons* is based on a set of manuscript parts held at the Henry Watson Music and Arts Library in Manchester, and presumed not only to predate the published version of 1725, but to more accurately reflect Vivaldi's preferences in matters of accidentals and certain other details. In many cases, these variants are minor, although some will immediately catch the listener's ear—for instance, the four quick ascending scales, rather than two with rests, at bar 45 ("lightning and thunder announce the season") of *Spring's* first movement.

Yet such textual novelties are not what makes this the finest recording of the *Seasons* I've heard: If these players applied the same spirit and impulses to a reading of the standard score, the results would still stand head and shoulders above most of the competition, simply because these thrice familiar pictorial concertos sound thrilling and fresh here. Tempos in the outer movements tend to be quicker than most—or at least the tight, robust playing and brisk attacks convey that impression—and the slow movements are none too dreamy either.

Beyond the surface brilliance of the performance, though, a considerable part of this disc's appeal lies in the carefully thought-out and sometimes chancy performance

decisions Pinnock and company have made. It seems to be standard practice among London-based early music groups these days to add members of the lute family to the continuo sections, and here a theorbo and a chitarrone are deployed in alternation with Pinnock's harpsichord—the latter usually taking the driving forte sections, and leaving the underpinning of the more delicately scored passages to one of the former. The effect can be precious at times, but overall it adds a new textural dimension to the work. Less unusual, perhaps, but as effective, is the addition of grace notes to the string parts at the start of *Winter*, and the antiphonal splitting of the violins—this last nicely conveyed, on both LP and CD, by the sharply focused stereo image.

Simon Standage, as virtuosic a soloist as anyone on disc, is not timid about digging into the strings, or even endowing some of the quick, double-stopped passages with an edgy, rollicking character that leans toward a country fiddling sound. In the first movement of *Winter*, he lets fly with some extraordinarily flashy fingerwork at a breakneck pace; and in each of the slow movements (except *Autumn*, where Pinnock makes the harpsichord's arpeggiations the central feature), his ornamentation is logical, elucidating, and never overbearing. Both Standage, in his solo lines, and Pinnock, in his direction of the full ensemble, take pains to give the score a dynamic profile beyond the straight pianos and fortes of Vivaldi's text, and their sense of phrasing is impeccable.

Presumably, the CD catalog will soon be flooded with *Seasons*

recordings, just as the LP catalog is; indeed, early CD releases from various labels boast no fewer than four versions. The three competitors—Scimone, Toso, and Solisti Veneti, on Erato; I Musici, on Philips; and Schwarz, Oliveira, and the Los Angeles Chamber Orchestra, on Delos—are all modern-instrument performances, and perfectly respectable ones. Particularly interesting among these, simply as a performance (I have not heard the CD versions), is the Schwarz/Oliveira/L.A.—a lush, textured, and extremely slick traversal, but cleverly set forth, attentive to detail, well played, and transparently recorded.

Given the range of LP *Seasons* to choose from, though, Pinnock's is the one I'd take to a desert island. The recorded sound, almost needless to say, is first-rate, as is the reproduction on both CD and LP. My sole complaint relates neither to the music-making nor to the sound reproduction, but to the economics of CD programming. At the moment, an hour is given as the practical range of the CD, and this is being touted as one of the format's drawing cards. So even if we ignore the fact that Sony and Philips are more quietly admitting that a CD can actually hold 75 or 80 minutes, it's hard to consider a CD that weighs in at just less than 38 minutes anything other than short weight. Granted, *The Four Seasons* has been accepted as full-length LP programming for decades now; but with the extra room available, might it not be a good idea to now include the next four (Nos. 5-8) of the dozen concertos in Vivaldi's Opus 8?

—ALLAN KOZINN



TREVOR PINNOCK: a Vivaldi performance both brilliant and carefully thought-out

In Favor of Live Records



CLIVE BARDO/COURTESY PHILIPS RECORDS

A noted performer compares the stage with the studio.

A GOOD DEAL OF DISCUSSION has centered on the differences and similarities between concerts and studio recordings. I should like to offer my own catalog of distinctions, all of which proceed from the player's point of view.

—In a concert the performer plays just once; in the studio, several times if necessary. In one he must convince the audience immediately; in the other it is the accumulated result that counts.

—In a concert the performer must get to the end of the piece and has no chance to make corrections. He must do four things at the same time: imagine the performance, play it, project it, and listen to it. In the studio he has the opportunity to hear a playback of his performance and react accordingly. He can make corrections, learn while he records, and get rid of nerves.

—In a concert it is the broad sweep that matters. The studio demands control over a mosaic; while it offers the performer the possibility of gradually loosening up, there is also the danger of diminishing freshness. The performer is faced with the painful business of choosing between takes.

—In a concert the details must be projected to the furthest ends of the auditorium, just as the whispers of an actor must be heard throughout the theater. Before the studio microphone, the player tries to

Alfred Brendel (above), one of the world's foremost pianists, has written extensively on musical topics. His new recording of Beethoven's Piano Concertos will be reviewed in a forthcoming issue.

by Alfred Brendel

diminish exaggerations, in the search for an interpretation that will bear frequent hearing.

—In a concert the concentration of the audience brings about a mutual influence between the performer and his listeners. In the studio there is nobody who has to be conquered—but there is also nobody to disturb the player. While a fit of coughing or the chirping of the alarm on a watch may break the spell of the most delicate moment of a live performance, silence is maintained in the studio and the player sits as though in a tomb.

—In a concert the performer's ability to convince the public is quite independent of absolute perfection. The studio is ruled by the aesthetics of compulsive cleanliness. Weaknesses in a concert performance tend to result from spontaneity, from a break in concentration, or from nervous pressure, whereas in the studio they may have their roots in excessive critical awareness.

Concertgoers and listeners to records may like to add that a concert involves physical presence, while the "pure music" of the record avoids it. Moreover, concert sound reaches the listener unmanipulated and as directly as the acoustics of the hall permit. The sound of the recording, on the other hand, is decided by the technical staff—the musical effect depending on such factors as editing, balance, reverberation—and by the qualities of the reproducing equipment. Lastly, not only must the concert performer play an entire work, but

the audience must sit still and listen until it is finished. (Respect for the concentration of both musicians and audience is one of the tacit agreements of a cultured public.) When you listen to a record, however, you can turn the music off, hear it in installments, or try out bits here and there; you can move, talk, eat, and groan. In short, you feel at home.

Despite the funeral orations Glenn Gould delivered on them, concert halls continue to be the setting where musical performances happen most vividly. I do not wish to be dogmatic; I admit that there are concerts without a breath of life, and records of electrifying vigor. All the same, it follows from the way they come about that concerts are more likely to be characterized by spontaneity, tension, and risk, and studio recordings rather by reflection and superior method. To quote Robert Musil's *Man Without Qualities* with its *Generalsekretariat für Genauigkeit und Seele* ("Department of Precision and Soul"), I may say that in the studio, precision is more readily attained than "soul."

In conjunction with the influence of modern *Urtext* editions and the demands of contemporary music, the phonograph record has profoundly upset listening habits. Studio recordings in particular have engendered enormously more acute varieties of detailed listening, including that of the musician listening to himself. However, the effect of this on the player may be not only purifying but sterilizing. The interpreter who aims at accuracy risks less panache.



COURTESY PHILIPS RECORDS

"It seems time to turn back and learn from concerts once again."

slower tempos, less self-oblivion. Because the studio sets standards of perfection—mechanical, not musical—that the concert hall seldom confirms, some artists are induced to play in concert as though for a record, in fear that the public is listening as though to a record.

But a concert has a different message and a different way of delivering it. Now that we record listeners and studio troglodytes have learned so much from studio recordings, it seems time to turn back and learn from concerts once again.

For the sake of objectivity, let us consider the straight-take studio recordings of the Thirties, such as those of Alfred Cortot, Edwin Fischer, or Artur Schnabel. One may not have been aware then, in the way modern wrong-note fiends are, of certain imprecisions. Where the leading of voices, the grading of dynamics, the control of character, and the atmosphere, timbre, and rhythm are handled with the mastery of Cortot at his best, it appears to me that momentary lapses of concentration are not only irrelevant but almost add to the excitement of the impact.

In the Thirties, the musician seems to have played in the studio almost as in a concert. But is this really true? Even then, players must have been worried about providing

lasting evidence on a record, unless they could summon up the unbelievable nonchalance of a Richard Strauss. Apart from that, the limited duration of the 78 was basically at variance with the nature of playing longer pieces as a whole. But as Emil Gilels told me about his own early recordings, a side might have had to be repeated 30 times if the producers so commanded, and the musicians had no opportunity to hear the results themselves, because a wax matrix was destroyed by one playing.

Why, if I may believe my own experience as a listener, does an impressive concert tend to leave stronger traces than a record? Because the listener, no less than the player, has had a physical experience, not only hearing the performance but breathing in it, contributing to it by his presence and sharing his enthusiasm with many others. The listener encounters the composer together with the performer and the rest of the audience in one place and at one time.

In the studio the player is alone with his self-criticism and the Argus ears of the producer. Even if he possesses the important gift of playing with all the tension of the concert platform—and however vividly he might imagine the presence of the public—there is still no direct exchange. He will, of course, try to remain as close as possible to his concert performances, using takes of a complete piece when he can. But whoever subscribes to the belief that tape editing is a deception and that only complete takes must be used deceives himself; he would renounce the advantages of the studio and still fall short of the enchantment of the concert, for it is not just the tension of the single uninterrupted performance that counts.

Here the live recording comes in as a connection. What is it able to convey? For me, there is above all the attractive feature that the uniqueness of a concert has been outwitted. The concert took place on a certain day: The public was present, as we can hear in the background, and we can imagine being present ourselves. What we hear and enjoy is an indiscretion, something that was only intended for the audience and that cannot be altogether reproduced. It is not the technical level of reproduction I am referring to; the fact that live recordings cannot always achieve the quality of the best studio products hardly worries me. It is the participation of the public, the aura of physical presence, that cannot be altogether assessed on a live record; and yet, in some happy instances, it leaves its mark in the heightened intensity of a performance, in the increase of the player's vision, courage, and absorption.

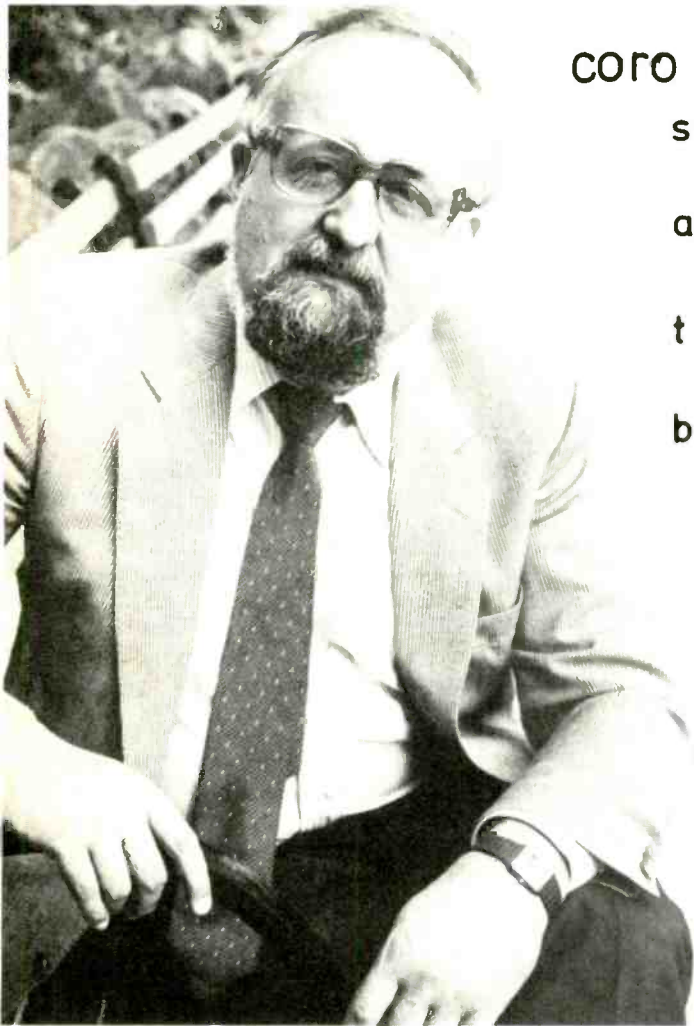
Why, until now, have live records been so rare, except for the historical ones prized by connoisseurs and collectors? First, because a concert becomes more dif-

ficult when it is being recorded. The sight of microphones on the podium does not fill the artist with glee. (Incidentally, one must make a clear distinction between two types of live recordings: those produced in radio studios and intended for broadcast, and those made in concert halls for commercial release. The former are easier to bear, since they will only be broadcast once or twice, while the latter are bound to terrify the player, inasmuch as they are aimed at an international body of critical contemporaries and future generations.) Live productions are therefore worthwhile only in special cases, one of which I shall mention later.

The second difficulty with live records is the prejudice against their alleged technical, and even musical, inferiority. Losses in sound quality and realistic balance, accidental noises, inaccuracies in the playing, and fatigue of the instruments are mentioned as deficiencies that cannot be tolerated. True enough, there is no call to make a commercial record of a performance that has caught the interpreter off-color, the public during a flu epidemic, or a fleet of fire engines passing by. Otherwise, the latest developments in recording technique will sometimes make an expert in electro-acoustics happier than a musician. There are chance recordings that bring a piece of music to life and studio recordings that destroy it. Those who consider spotless perfection and undisturbed technical neatness as the prerequisites of a moving, musical experience no longer know how to hear music.

In pleading for live recordings, I do not by any means wish to turn my back on the studio. I have spent innumerable interesting, and some happy, hours in it, owe it much essential experience, and shall continue to acknowledge my records (though with certain reservations). But in the future, I should like to place more frequent live recordings next to them.

My first live record was devoted to the longest masterpiece of the older piano literature, Beethoven's *Diabelli Variations*. Since then, I have been waiting for a comparable performance of the *Hammerklavier Sonata*, and recently found one in a London concert I gave in April 1983. Why am I drawn, of all things, to the biggest and most dangerous works? Because they best provide evidence of a mastery that is not available to some typical "studio artists," and because works of this scope stand to gain the most in boldness, absorption, and vision. The objection that no player can function equally well for an hour or so, however justified in itself, misses the point of a concert performance. Compared to the evened-out results of the studio, a concert interpretation may show greater dedication and the unexpected success that differs
(Continued on page 84)



30
4
4
CORO quasi da lontano

S Bo - że coś Pol - skę przez tak licz - ne wie - ki
A Bo - że coś Pol - skę przez tak licz - ne wie - ki
T Bo - że coś Pol - skę przez tak licz - ne wie - ki
B Bo - że coś Pol - skę przez tak licz - ne wie - ki

pp

Composer Krzysztof Penderecki and a page from the *Te Deum*

Penderecki's *Te Deum*: Another Milestone from a Modern Master

Reviewed by Paul Moor

PENDERECKI: *Te Deum**; *Lacrimosa*†.

Jadwiga Gadulanka*†, soprano; Ewa Podles*, mezzo-soprano; Wiesław Ochman*, tenor; Andrzej Hiolski*, baritone; Polish Radio Chorus and Orchestra of Kraków, Krzysztof Penderecki, cond.*† EMI/ANGEL DS 38060 (digital recording). Cassette: 4XS 38060.

MUSIC HISTORY SHOWS THAT certain composers, within their own countries, in the hearts of their own people, assume an importance due almost as much to political reasons as to musical ones. Verdi and Chopin, to name only two, exerted a musical influence that took on figurehead significance in unifying, sustaining, and encouraging their respective beleaguered peoples.

Much the same can be said of Krzysztof Penderecki. From the beginning I have followed his career with fascination, and I still regard him (no matter what he may do)

as potentially the greatest creative musician since Igor Stravinsky. In addition, it is increasingly evident that in the hearts of his fellow Poles—the courageous, gifted, at times noble people he loves above all others and for whom he composes—he continues to show signs of becoming, in purely political terms, Poland's second Chopin.

For many years now, ever since his majestic *Passion According to St. Luke* brought him international attention, Penderecki has given us a lengthy list of works for singers and orchestra that are connected directly, in one way or another, with the Christian liturgy. This, among other things, makes Penderecki unique among important contemporary composers—but then no other composer of the very first rank lives in a country where political power is polarized between the Communist party and government, at one extreme, and the Catholic Church (with its first Polish pope in history!) at the other.

Penderecki completed his *Te Deum* on August 4, 1980. It received its world premiere in Assisi at the Sagra Umbria Festival

only 54 days later; true to form, this almost pathologically tenacious composer had let go of the new score only after the musicians who had to learn it began pulling out their own hair, and probably each other's, in sheer desperation. He dedicated it to Pope John Paul II, whom he has known since the days when they both lived in Kraków, the beautiful old capital of southern Poland.

This *Te Deum* raises the psychological issue of association—what memories certain passages will evoke in the individual listener. Charles Ives, for instance, means infinitely more to Americans than to foreigners because he quotes certain tunes almost all of us learned in childhood; he means most to those who also recall the texts of those hymns, because his references take on not only musical but literary meaning. In a characteristic patriotic gesture, Penderecki has interpolated into his *Te Deum* a hymn that begins, "Boże Coś Polskę . . ." ("O God who hath kept Poland . . ."). Everyone else will hear this melody merely as an unexpected chorale-like interlude, but for Poles it assumes the

For additional reviews of classical music on Compact Disc and videodisc, see **NEW TECHNOLOGIES**.

profoundest significance and has the power to move a comprehending audience to tears.

Who, under present-day circumstances, in such an environment, could possibly remain unmoved when the choir softly sings, "O God who through the ages hath girded Poland with power and fame. . . . before thy altars we bring our entreaty: Restore, O Lord, our free country." One learns with utter astonishment that EMI/Angel made this recording in a coproduction with Poland's national, official, state-owned, government-run radio and television organization, which presumably has

released it in Poland as well.

The *Lacrimosa*, which fills out Side 2 (and will be incorporated into a full-length *Polish Requiem*, as yet unfinished), intensifies that astonishment, for it was commissioned by Lech Walesa and the trade union Solidarity, and Penderecki wrote it for the ceremony unveiling the monument in Gdańsk to the workers killed there by government forces in December 1970. To the text of the traditional *Dies irae*, the soprano and chorus sing of "That day . . . on which shall rise again from the embers the guilty man, to be judged." This work almost certainly would not have been performed with-

in Poland had the text not continued, "Therefore spare him, O God, Merciful Lord Jesus, grant them rest."

Penderecki's *St. Luke Passion* followed, as a comparatively reactionary shock, immediately after his orchestral work called *Fluorescences*, certainly one of the wildest, most radically experimental, no-holds-barred avant-garde milestones in recent decades. Ever since, his compositional style has gradually but steadily moved, so to speak, to the right. Orchestral excerpts from his stage work *Paradise Lost* leave one, at times, with the impression that Mahler not only has finished his Tenth Symphony but started an Eleventh.

Tonality, even diatonic tonality, characterizes much (perhaps most) of the music on this new disc. So does perceptible meter, an element many of Penderecki's avant-garde colleagues jettisoned long ago, to their music's impoverishment. In his vocal treatment, Penderecki continues to incorporate everything from whispers to shouts, and his sensitivity to the true prosody of Latin makes one wish Stravinsky had had an opportunity to learn from him.

Almost everyone connected with this recording, whether performer or technician, deserves the highest praise. Scallions, though, to whoever decided where to break the *Te Deum* at the close of Side 1. Instead of letting the music arrive at the magical effect of that patriotic hymn, Side 1 ends; you turn the record over, and only then does the hymn begin, thus spoiling what in live performance is an unforgettable effect.

When someone asked Anton Chekhov his motivation for writing, he replied, "To touch the heart." Krzysztof Penderecki, as no other front-rank living composer, knows how to touch our hearts. Viva Penderecki! Viva Polonia!

BACH: Concertos for Oboe, Strings, and Continuo, in D minor and F; Concerto for Oboe d'Amore, Strings, and Continuo, in A.

Heinz Holliger, oboe and oboe d'amore; Academy of St. Martin-in-the-Fields, Iona Brown, cond. [Wilhelm Hellweg, prod.] PHILIPS 6514 304 (digital recording). Cassette: 7337 304.

COMPARISON: Hammer/Bach Ensemble Pro Arte PAD 153

This is essentially the same repertoire that, in editions prepared by Joshua Rifkin, was premiered on disc just a few months ago by Stephen Hammer and the Bach Ensemble [see February review]. On the front and back jacket covers, the Concertos in D minor, F, and A are identified as S. 1059, 1053, and 1055, respectively, even though in Wolfgang Schmieder's *Bach-Werke-Verzeichnis* those numbers are assigned to harpsichord concertos from c. 1740 that are apparently reworkings of oboe concertos composed two decades earlier.

That these are indeed reconstructions of the "lost" oboe concertos is explained in



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Critics' Choice

The most noteworthy releases reviewed recently

BACH: *Concertos for Oboe, Strings, and Continuo; Concerto for Oboe d'Amore, Strings, and Continuo.* Hammer; Bach Ensemble, Rifkin. PRO ARTE PAD 153, Feb.

BACH: *Goldberg Variations; Chromatic Fantasy and Fugue in D minor; Four Duets, S. 802-5.* Schiff. LONDON LDR 73013 (2), Apr.

BERWALD: *Septet for Clarinet, Horn, Bassoon, and Strings, in B flat.* JANÁČEK: *Concertino for Horn, Bassoon, Piano, and Strings.* PROKOFIEV: *Overture on Hebrew Themes for Clarinet, Piano, and Strings, Op. 34.* Amsterdam Nonet. NONESUCH 71412B, Mar.

COLGRASS: *Déja vu; Light Spirit.* DRUCKMAN: *Aureole.* Starobin; Members of St. Louis Symphony. Comet; St. Louis Symphony, Slatkin. NEW WORLD NW 319, Apr.

CRUMB: *Apparition.* IVES: *Songs (9).* DeGaetani, Kalish. BRIDGE BDG 2002, Dec.

DEL TREDICI: *In Memory of a Summer Day (Child Alice, Part 1).* Bryne-Julson; St. Louis Symphony. Slatkin. NONESUCH 79043, Feb.

FALLA: *The Three-Cornered Hat.* Boky; Montreal Symphony, Dutoit. LONDON LDR 71060, Jan.

HANDEL: *Arias from Rinaldo and Other Operas.* Horne; I Solisti Veneri, Scimone. ERA-TO MUN 75047, Feb.

HINDEMITH: *Concertos for Cello and Orchestra; for Clarinet and Orchestra.* Machula, Pieterse; Concertgebouw Orchestra, Konradshin. ETCETERA ETC 1006, Feb.

MAHLER: *Symphony No. 6, in A minor.* London Philharmonic, Tennstedt. ANGEL DSB 3945 (2), Mar.

MASSENET: *Manon.* Cotrubas, Kraus, Quilico, Van Dam; Orchestra and Chorus of Toulouse, Plasson. ANGEL DSCX 3946 (3), Apr.

MOZART: *Quintet for Clarinet and Strings, K. 581; Quintet for Piano and Woodwinds, K. 452.* Stoltzman, Serkin; Tashi. RCA AGL 1-4704, Feb.

MOZART: *Quintet for Clarinet and Strings, K. 581.* WEBER: *Introduction, Theme, and Variation for Clarinet and Strings.* Meyer;

Philharmonia Qt. Berlin. DG 410 670-1, Feb. **PURCELL:** *Songs (15).* Esswood, Sonnleitner, Medlam. HYPERION A 66070, Mar.

SCHUBERT: *String Quintet in C, Op. 163.* Schiff; Alban Berg String Quartet. EMI/ANGEL DS 38009, Apr.

SZYMANOWSKI: *String Quartets, Nos. 1, 2.* Varsovia Quartet. PAVANE ADW 7118, Feb.

VERDI: *Opera Arias.* Tomova-Sintow; Bulgarian Radio Vocal Ensemble, Sofia State Philharmonia, Raychev. TURNABOUT TV 34786, Jan.

WOLF-FERRARI: *Sty.* Polaski, Bader, Rech; Chorus and Orchestra of Niedersachsischen, Maxim. ACANTA 23.501 (3), Jan.

WOLPE: *Suite im Hexachord for Oboe and Clarinet.* Williams, Randall. CRYSTAL S 355, Mar.

NICOLAI GEDDA: *Anthology of Swedish Song.* BLUEBELL 121, 122, 127, 142, 147 (5), Mar.

CHRISTOPHER HOGWOOD: *Keyboard Music.* OISEAU-LYRE DSLO 609, Apr.

Heinz Holliger's brief liner note essay. Like Rifkin, Holliger took the harpsichord pieces as his basic texts and then worked backwards, using sinfonias from various cantatas (S. 35, 49, 156, and 169) to confirm hunches and, in the case of the D minor Concerto, to supply material that is only fragmentary in the extant version. Holliger's and Rifkin's sources are the same, and by and large so is their musicological logic. Holliger follows much more closely the ornamental details of the solo lines in the harpsichord concertos, and he opts to transpose his equivalent of S. 1053 up a half-step, to F, whereas Rifkin lowers his edition of the same piece to E flat. But in form and basic content, the reconstructions are practically identical, measure for measure.

There are considerable differences, however, in the ethos of the music as projected by Hammer and Holliger. Some of it has to do with the simple fact that Holliger and the Academy play on modern equipment in an amply reverberant room, while Hammer and his colleagues use original instruments or reproductions in a space just resonant enough to warm up the sound without flattering it unduly. Even more striking, though, is the contrast in the two oboists' roles vis-à-vis their respective orchestras. Whereas Hammer is partnered with only a string quartet and harpsichord, Holliger is supported by what sounds like the Academy's full string body: Holliger's solo lines emerge from the accompaniment and generally dominate the proceedings for as long as they last, while Hammer's contributions seem like integral strands of a chamber music fabric.

The oboe playing is just as fine on one recording as on the other, but with the Hol-

liger disc the listener is made more conscious of the fact that there's a virtuoso at work.

JAMES WIERZBICKI

GRIEG: *Lyric Pieces; The Holberg Suite; Other Piano Works**.

Cyprien Katsaris, piano. TELDEC 6.42925 (digital recording). Cassette: 4.42925.

*Morning Mood; Norwegian Dance; March of the Dwarves; Home Sickness; Popular Melody; Remembrances; Norwegian Dance No. 2.

The great Moriz Rosenthal is rumored to have said that if a young pianist came to him for an audition, he would not wish to test him by having him play one of the major masterpieces. No, he would rather hear what could be done with, for instance, one of the *Songs Without Words* of Mendelssohn. Much of the piano music of Edvard Grieg also falls into this category. None of it should be compared to the ordeal of such works as the *Fantasia* by Schumann: however, within a narrower framework, these marvelous miniatures can disclose almost as much about any pianist's innermost gifts.

Such thoughts inspire the welcome we must offer this latest addition in the already interesting discography of the young Cyprien Katsaris. This artist's previous recordings have already embraced several categories, ranging from the Chopin Waltzes to a most exciting and amusing encore recording, the one disc that reveals certain of his Cziffra-like tendencies at their best. (Incidentally, has anyone noticed how few miscellaneous recital discs have been offered of late? Only Leonard Pennario seems to involve himself in such varied programs.)

I have long collected recordings of

Grieg's piano works. I plan to place this one on my shelf, right after Gieseking and Gilels and before Rubinstein. The sound is wonderful, and Katsaris's playing shows a comprehension of Grieg's fragile genius fully equal to that of these other giants. One wonders when someone will have the sense to record him in the Grieg Concerto.

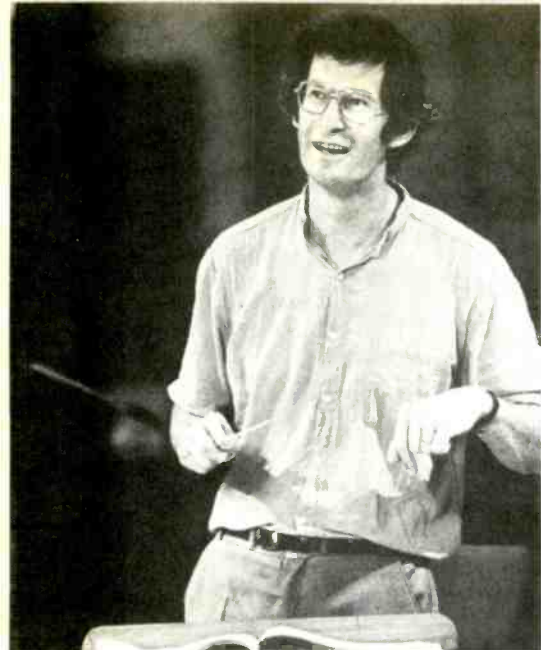
For anyone who might still hesitate, here is a question that could settle the issue: Exactly what is the measure of this young pianist? In a recent article in another publication, a writer was moved to ask where all the great lyric tenors have gone. I could not presume to answer that for a vocal enthusiast, but for anyone as fond of the keyboard as I am, we have found in Cyprien Katsaris a genuine lyric tenor of the piano. His gift is nothing less than that.

THOMAS L. DIXON

Cyprien Katsaris, a keyboard lyricist



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Lichas	Catherine Dentley (ms)
Dejanira	Sarah Walker (ms)
Hyllus	Anthony Rolfe Johnson (t)
Hercules	John Tomlinson (b)

Alastair Ross and Paul Nicholson, harpsichords; Monteverdi Choir and English Baroque Soloists, John Eliot Gardiner, cond. [Dr. Andreas Holschneider, prod.] DEUTSCHE GRAMMOPHON 2742 004 (digital recording; three discs, manual sequence). Cassette: 3383 004.

Handel's *Hercules* is either one of his greatest works or a huge miscalculation. Rarely, if ever, did he strip his musical language of all decorative aspects and place what was left so single-mindedly at the service of the drama. Some Handel scholars have remarked on the degree to which various passages resemble Gluck—and have proclaimed *Hercules* one of the towering works of the English Baroque era.

But did Handel pare away too much for more mortal ears? *Hercules* has been nearly ignored in the concert hall and on disc, and not because the score is full of performance problems. Personally, I have rarely encountered such an elusive Baroque work or one that brings such rewards with close study.

The central character in this pastiche of Sophocles's *The Women of Trachis* and Ovid's *Metamorphoses* is not Hercules at all, but his wife, Dejanira, whose jealousy over an imagined liaison between her husband and the captured princess Iole brings about Hercules's premature death (discounting, of course, the obligatory happy ending tacked on, in which Hercules is summoned up to Heaven).

In setting the somewhat pedestrian libretto by the Rev. Thomas Broughton, Handel used a musical language that was intended to please—or at least to pull its weight at the box office—without making the usual concessions to public taste. Aria after aria is marked *largo* or *larghetto*, and

Handel's usual sense of lyricism is often replaced by a more dramatically flexible but less hedonistically appealing *arioso* style. His use of unison writing in the orchestra was rarely so stark, and his recitatives were rarely so thoughtful and articulate. Vocal melismas are not decorative, but convey desperation and madness. Dotted rhythms become unusually nervous, even forboding. Even when Dejanira expresses joy, it is with a neurotic, obsessive edge.

Uncharacteristically, Handel's spiraling chromaticism prepares the listener for the ensuing tragedy in Dejanira's "The World When Day's Career Is Run" and sardonically comments on Hercules's blustery egotism in "The Gods of Battle." The chorus is used judiciously and in the Greek tragedy style—commenting on but not participating in the action. The choral writing is among Handel's most descriptive and daring, whether in the stabbing rhythms of "Jealousy" or in the fine-graded expression of stunned grief in "Tyrants No More Should Dread."

That Handel did all of this using musical tools already available to him rather than creating new ones (as did Rameau) perhaps explains why *Hercules* was such a disaster at its premiere that Handel canceled several subsequent performances and offered to refund subscriber money. "The note of distress [in the work] mixed with a vital expressive impulse, is too much even for our generation," writes Handel biographer Paul Henry Lang. Only when one is aurally distanced from the bubbly world of the Handel concerts do the somber riches of *Hercules* become apparent.

Under the historically authentic direction of John Eliot Gardiner, the recording generally flatters the work, despite the deletion in whole or in part of seven major numbers—five arias, a chorus, and the Act II prelude. Although all these cuts can be justified from a dramatic standpoint, I miss the music, especially the sections severed from Hyllus's lovely "Let Not Fame the Tidings Spread."

As with all of Gardiner's recordings, the singers are pure and musicianly, though unlike most of his releases, few of them have plumbed the psychological depth of their roles. John Tomlinson's Hercules sounds much the same whether the character is celebrating victory or dying. Sarah Walker (Dejanira) and Jennifer Smith (Iole) both sacrifice theatricality for vocal elegance. Only Anthony Rolfe Johnson's Hyllus offers a genuine characterization.

Gardiner, his Monteverdi Choir, and his English Baroque Soloists are the primary strengths here. Gardiner is one of the few musicians in such close touch with Handel's idiom that the authentic touches sound completely unaffected. In keeping with the Spartan tone of the work, instrumental and vocal embellishments are restrained, and when used are directed at the service of the drama, such as in the wild vocal cadenza

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concluding Dejanira's mad scene. The recitatives are so expressively worked out that they sometimes threaten to upstage the arias.

The simple fact that *Hercules* is again in the catalog in a sympathetic reading makes this one of the most important Handel releases of the year. Indeed, it would be difficult to understand the totality of Handel's musical personality without having an in-depth encounter with this score.

DAVID PATRICK STEARNS

MOZART: *Così fan tutte*, K. 588

CAST:

Fiordiligi	Margaret Marshall (s)
Despina	Kathleen Battle (s)
Dorabella	Agnes Baltsa (ms)
Ferrando	Francisco Araiza (t)
Guglielmo	James Morris (b)
Don Alfonso	Jose van Dam (bs)

Vienna State Opera Chorus; Vienna Philharmonic, Riccardo Muti, cond. [John Mordler, prod.] ANGEL DSCX 3940 (digital recording, three discs). Cassette: 4X3X 3940.

A *Così* to raise flagging spirits, a soaring, radiant performance of Mozart's symmetrical love parable, a recording that goes straightway to the head of the class. That, in brief, is the summary of this reviewer's responses to three successive hearings of this set.

How was it done? A thoroughly top-line international cast of singers—Scottish-born soprano, Greek mezzo, Mexican tenor, Belgian basso. American soprano and baritone—was formed into a notable team under the leadership of an Italian conductor, Riccardo Muti, who turns out to be a Mozart master. The company was put through the rigorous preparation that a Salzburg Festival staging demands, and the result was offered to the summer visitors of 1982. EMI sent a recording crew and an experienced producer, John Mordler, who has been responsible for most of Muti's studio recordings. The public performances of August 8, 15, and 22 were recorded; the best takes were chosen for the final set. In consequence we have here the spontaneity and verve of a red-letter night in the Kleines Festspielhaus, captured with only a minimum of intrusion by the audience—applause at the closing curtains, rustles of appreciation at the funny bits, occasional thumps on stage, but very little coughing and sneezing. (It is worth recalling that two former issues of *Così*, both of notable quality, also took their origins from stage performances: the prewar Glyndebourne set of 1935, still available on Seraphim 6127, and the 1975 Karl Böhm release, DG 2709 059, also done at Salzburg.)

The new set is complete, save for two minor and negligible cuts: a short duet for tenor and baritone, just before the "military" chorus, and Ferrando's "Ah! lo veggio" in Act II. (Böhm omitted from the second act Ferrando's "Tradito, schernito" and Dorabella's "Ladroncello" aria from the '75 set—both disfiguring cuts.)

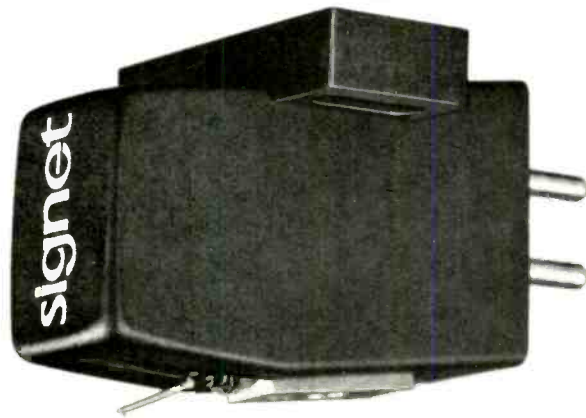
The completeness of the present release is more than an academic virtue: It is part of the harmonious balance that governs the entire enterprise. Mozart and Lorenzo da Ponte planned a careful symmetry in this work, and rough cutting does it grievous harm.

Margaret Marshall, who has ascended in recent seasons to an exalted status in the opera world, is a product of the north British oratorio tradition (in which attribute she resembles Kathleen Ferrier and Dame Janet Baker) with a rich topping of Lieder. Her first big success came in Baroque music, Bach and Vivaldi in particular. By

way of Gluck's *Orfeo*, in which she sang Euridice, her quality came to the notice of the Florence audience and Muti. In her portrayal of Fiordiligi, we hear the silken, honeyed nature of her voice, wonderful clarity with words, and easy control of coloratura. It is an ideal instrument for the Mozart heroines and blends happily into the ensembles, even with the very strong tones of her stage sister, Agnes Baltsa's Dorabella.

Baltsa may lack a touch of smoothness, but she compensates in full by offering a Dorabella of pronounced personality, a decided and positive individual. In this respect she is a satisfying partner to James

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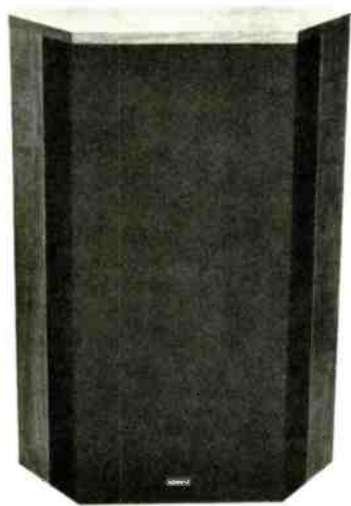
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CLASSICAL Reviews

Morris as Guglielmo, and their "Il core vi dono" duet stirs the senses effectively. In New York we tend to think of Morris as a basso, but he does, after all, sing quite a few Don Giovannis, so the baritone register lies within his compass; and there is nowhere an indication of strain in his assumption of Guglielmo, just a lot of well-phrased and clear-cut singing, along with intimations of a virile personality.

Francisco Araiza is a tenor much improved since I heard him a few seasons ago. He sings with admirable phrasing and, with only very few lapses, accurate intonation; he convinces one easily of his involvement and sincerity.

Despina is a natural progression in Kathleen Battle's career—the ingenue giving way now to the soubrette, pert and mettlesome. She takes to the part with graceful ease—extracting all the humor possible without disturbing the musical flow—and makes a satisfying partner, temperamentally and tonally, to Jose van Dam. The basso is sonorous and suave but not blasé.

The orchestra and chorus have Mozart in their bones. Muti works them rather hard occasionally (and there are times when the singers have problems with his fast tempos), but the overall impression is one of fluid, graceful mastery of the composer and his style. Muti's Mozart is in no way prissy or small-scaled. This is full-blooded, grown-up Mozart, starting in the conductor's musical and theatrical imagination and filling out the theater with heaven-sent sounds and dramatic felicities.

The technical quality is up to the contemporary standard, and the pressings are excellent, when you consider that the total running time is more than three hours for six sides. But very puzzling is the brochure that accompanies the discs. As usual, we have the libretto and a (rather good) translation by William Weaver; he gets a credit, Da Ponte gets none. Then we have a useful article on the place of *Così* in German operatic history. Here the translator gets a credit, the author none. **GEORGE MOVSHON**

MOZART: Requiem.

Margaret Price, soprano; Trudeliese Schmidt, mezzo-soprano; Francisco Araiza, tenor; Theo Adam, bass; Leipzig Radio Chorus; Dresden State Orchestra, Peter Schreier, cond. [Bernd Runge, prod.] PHILIPS 6514 320 (digital recording). Cassette: 7337 320.

During the past several years Peter Schreier, the renowned East German tenor, has begun to conduct as well. His recently released performance of Bach's Mass in B Minor (Eurodisc 301077) marked his recording debut as a conductor. Now we are treated to the Mozart *Requiem*, which indicates that Schreier has real talent in his newly adopted vocation. This is an exceptionally satisfying performance musically, interpretively, and sonically.

Perhaps it is the quality of the Leipzig Radio Chorus that is most immediately

apparent. Schreier must have devoted a great deal of effort to coaching the group, for the result is some of the finest choral singing I have heard in music of this period. All is precisely enunciated; there is never a trace of muddiness. Indeed, the fugal sections benefit from an almost fanatical concern with articulation: The entrances are always clear, and the rapid sixteenth-note passages are cleanly articulated on every note, allowing the individual lines to retain their integrity and sense of direction. Equally admirable is the chorus's ability to juxtapose hauntingly beautiful sotto voce passages with sudden forte ones—without ever a hint of stridency in the louder sections.

Schreier's achievement also extends to the instrumental realization. The Dresden State Orchestra plays with precision and clarity, mirroring the chorus. The string lines, for instance, receive crisp, often staccato articulations; a more on-the-string approach would have lessened the transparency of the whole.

The conductor has evidently given much thought to this *Requiem*. Though he uses conventional instruments and vocal techniques, he pares the choral and orchestral ensemble down to moderate size. His reading is unsentimental, avoiding both the extremes of the original-instrument purists and the excesses of the slobbery Romantics. (In this respect, his approach is akin to that of Karl Richter, with whom he made so many recordings of the Bach Cantatas on Archiv.) Sensitive and original dynamic touches dot this performance: A sudden drop to piano and the ensuing crescendo, for instance, lend a heightened sense of drama to what might otherwise have been a one-dimensional fugal passage. Most important are Schreier's brisk and pleasing tempos, which allow the performance to remain clear without ever appearing hurried. One need only compare this approach to that of Herbert von Karajan, whose old Deutsche Grammophon recording (reissued as 2535 257) is marred by excessively slow tempos and murky, inarticulate phrasings.

Schreier is fortunate to have the assistance of four generally good soloists. Soprano Margaret Price and mezzo Trudeliese Schmidt are especially appealing. Their intonation is flawless; they avoid sliding into pitches, and refrain from applying too much vibrato, though they know how to warm their tone by adding just the right amount when appropriate. Tenor Francisco Araiza sounds a bit strident in loud passages, but in lyrical sections he (like the two women) phrases beautifully and sensitively. Bass Theo Adam is particularly impressive in the "Tuba Mirum," where he exhibits great warmth and solidity of tone.

All involved can thank the coproduction of Philips and VEB Deutsche Schallplatten. This disc offers some of the most satisfying digital sound I have heard yet: warm, full-bodied, never dry. Philips has also provided a virtually perfect pressing.



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Peter Schreier, tenor turned conductor

This *Requiem* can easily take its place among the finest available, and for those who are satisfied with conventional vocal and instrumental approaches, it cannot be recommended too highly.

K. ROBERT SCHWARZ

RACHMANINOFF: Concerto for Piano, No. 3, in D minor, Op. 30.

Jorge Bolet, piano; London Symphony Orchestra, Ivan Fischer, cond. [Peter Wadland, prod.] LONDON LDR 71109 (digital recording). Cassette: LDR5 71109.

Ever since November 1930, when Vladimir Horowitz made the first of his three recorded efforts to conquer this sublime concerto,

there have been roughly 45 other recordings made. I have heard most of them: to be completely candid, only four or five actually stay in my memory as truly outstanding performances.

This account by Jorge Bolet ranks close to the bottom of the list. In fact, it places above only the very poor performance currently offered on Supraphon by Mirka Pokorná, Eastern Europe's highly inadequate answer to Martha Argerich. Pokorná, at least, is occasionally exciting, one absolutely essential quality in this score that Bolet surely fails to project. What is worse, neither the quality of the sound, the conductor, nor the contribution of the orchestra adds anything whatsoever to the soggy proceedings.

Bolet is one of the greatest American pianists. For decades, along with Earl Wild, he was also one of the most consistently neglected by the major orchestras and recording companies. Both men were casually taken for granted. In any sensible country (like Japan, for instance), Bolet would have long been recognized for what he really is—a national artistic treasure. Still, it must be said that he no longer has the full measure of this gigantic concerto, nor anything even close to it. As the late Cyril Smith once so wisely wrote, the Rachmaninoff work is to our century what the Brahms B flat was to the nineteenth. This becomes totally clear, however, only in performances such as William Kapell's (discontinued), or Andrei Gavrilov's, or that of Alexis Weissenberg with Georges Prêtre (certainly not with Bernstein!).

If memory serves, it must have been around 1941 when Rachmaninoff himself ceased performing this concerto, soon after recording it. That was two years before his death, which occurred only days before his seventieth birthday. Since Bolet will soon reach the same age, perhaps he too might

consider withdrawing from the piece. There is still very much else in the piano literature that he could play to far better effect.

THOMAS L. DIXON

SCHUBERT: Piano Sonata in A, D, 959.

Claudio Arrau, piano. [Wilhelm Hellweg, prod.] PHILIPS 6514 368 (digital recording). Cassette: 7337 368.

There is little doubt that Claudio Arrau ranks among the supreme artists of our century, and has for many decades. The only other pianists whose names spring immediately to mind, by way of comparison, are Sviatoslav Richter and Arturo Benedetti Michelangeli. All three are artists who arouse strong, partisan enthusiasms, pro and con.

In the case of Arrau, after listening to his many recordings through the years, and especially to the recent issues and reissues in honor of his eightieth birthday, I am prompted to ask three questions. Who among the greatest pianists is more searching than he, yet more stolid? Who is, on the one hand, more fulfilling, yet also more consistently mannered? What other pianist on his level might do better, on occasion, to authorize the commercial release of his public performances; and yet, who (at least according to Arrau's excellent dialogue-biography) is more opposed to that?

Actually, after such questions as these are asked (along with others that could easily come to mind), there is very little more that needs to be said about this disc, another in Arrau's series of explorations of certain Schubert sonatas. Any Arrau fan will surely need no more incentive than to see the new release. Other interested buyers will find every one of the above-mentioned characteristics represented in this performance in abundance. For those who place the Schubert sonatas among the highest expressions

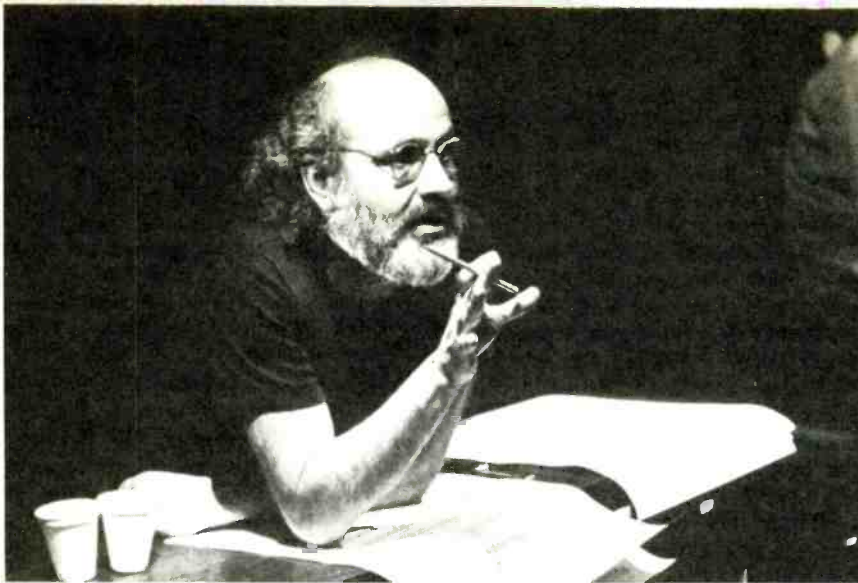
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Composer Morton Subotnick: graciously combining electronics and live sound

in all the piano literature (I do not), they will find in this rich recording much to ponder. For anyone else not so addicted to either Schubert or Arrau, the advice is "caveat emptor!"

THOMAS L. DIXON

SUBOTNICK: *Ascent Into Air; *A Fluttering of Wings*†.**

CalArts Twentieth Century Players, Stephen Mosko, cond.* Juilliard String Quartet†. [Morton Subotnick, prod.] NONESUCH 78020-1.

Morton Subotnick has added another work to a long list of electronic compositions that have been tantalizing new music enthusiasts for more than two decades. The recording public first became acquainted with Subotnick's rich imagination in *Silver Apples of the Moon* (1967; Nonesuch H 71174); since then a number of other recordings have confirmed his leadership in the electronic medium.

Now Subotnick has embarked on what ultimately may be his grandest project to date. Entitled *The Double Life of Amphibians*, this huge composition "is conceived as a staged tone poem . . . a music drama in three parts (Amphibians, Beasts, Angels)." It traces the passage of life on earth in poetic terms—from the murky water environment to beasts on land and in air—and concludes with the ecstasy of the heavens. Parts I and III, both scored for live performers and electronics, are recorded on this disc; Part II is as yet incomplete.

Part I, representing amphibians, is entitled *Ascent Into Air* (1981) and is scored for two cellos, clarinet, bass clarinet, trombone, bass trombone, two pianos, percussion, and computer-generated sounds. It opens with deep, growling sounds lacking any melodic or rhythmic profile; this ominous, turbid section is meant to suggest a "water-based unarticulated environment." The bleak, primeval soundscape soon gives way to more coherent material, replete with wild instrumental and electronic effects including rapid glissandos, fluttering trills and tremolos, and squawking wind and brass interjections. Gradually, the violence subsides and the earlier music returns. Yet

now all is transformed. Instead of the murky intensity of the beginning, we are treated to delicate, airy, clearly articulated material. At the very end, there is a moment of real poetry: an eerie choralelike section that combines string harmonies with electronics. The transition—the "ascent into air"—is complete.

Despite its dazzling sonic effects, *Ascent Into Air* seems a bit aimless, perhaps because it lacks a readily recognizable rhythmic and melodic shape for so much of its length. This is not the case, however, with *A Fluttering of Wings* (1981), Part III of the larger music drama. Representing angels, it is scored for string quartet and an "electronic ghost score" consisting of a "silent digital control system" that automatically processes and transforms the live instrumental music. Thus, the string players create their electronic accompaniment—or bring the "ghost" to life—simply by performing their parts.

A Fluttering of Wings is a convincing work in several clearly contrasting movements that is more focused than *Ascent Into Air* (owing to the use of the string quartet medium). Opening with rapid sixteenth notes that whirl throughout the entire

Hildegard Behrens and Peter Hofmann: heroic pair in new Tristan und Isolde



WERNER NEUMAYER COURTESY PHILIPS RECORDS

ensemble, the piece soon turns to a dance-like section whose wild violin solo seems lodged somewhere between square dance and Bartókian peasant finale. Only in the movement entitled "Halo" does the electronic score become really prominent, taking the widely spaced chords of the quartet and altering them to produce an eerie, shimmering sonic aura. The concluding "Song of the Angel" features intensely lyric, wide-ranging instrumental solos, some throbbing and pulsating as a result of the ghostly processing. Finally, as in *Ascent Into Air*, all ends in an atmosphere of delicate, ethereal splendor.

Subotnick's electronics are remarkable for several reasons, their coloristic attractiveness being only one. Perhaps it is their humanity that is most appealing: Here we have music combining electronics with live performers in a gracious, complementary manner. The electronics don't overpower the performers, but blend with them to produce a vastly expanded sonic continuum in which one hardly knows where the electronics end and the string players begin. And the fact that the performers actually help create the electronic score adds to both its humanity and its ability to merge so unobtrusively into the instrumental textures.

The CalArts Twentieth Century Players and the Juilliard Quartet contribute performances of the highest caliber; these are virtuoso readings that penetrate to the core of the works, illuminating their musical, structural, and poetic aspects. The pressing is silent and the composer's notes are informative.

K. ROBERT SCHWARZ

WAGNER: *Tristan und Isolde*.

CAST:

Isolde	Hildegard Behrens (s)
Brangäne	Yvonne Minton (ms)
Tristan	Peter Hofmann (t)
Melot	Heribert Steinbach (t)
Shepherd	Heinz Zednik (t)
Kurwenal	Bernd Weigl (b)
Steersman	Raimund Grumbach (b)
King Mark	Hans Sotin (bs)

Bavarian Radio Chorus and Symphony Orchestra, Leonard Bernstein, cond. [Erik Smith, prod.] PHILIPS 6769 091 (five discs). Cassette: 7654 091.

Like the Montague boy and the Capulet girl, like Barnum and Bailey, like bacon and eggs, Leonard Bernstein and this opera were meant for each other. The high romantic mode, the raging sexual fever, the surging orchestral tides all serve to bind the man and the work inextricably together. This was apparent as long ago as 1969, when Bernstein led an unstaged performance of chunks of *Tristan* in New York, employing one of the best Isolde voices of the age in Eileen Farrell. For years, there was talk of his recording the opera. And now it has happened.

There is not just one Bernstein at work here but at least three, all of them drawing from the same store of musicality, musi-

chianship (not the same thing), and sheer executant proficiency. There is Bernstein the actor, the protagonist, the Byronic lover. There is Bernstein the showman, the producer, who sees it as his responsibility to make everything go right. And finally there is Bernstein the teacher, who lays out the score in Talmudic detail, like an anatomical chart with multiple overlays.

The famous Act I prelude, which for many music historians is the beginning of modern music, receives this analytical treatment: slow, logical, a musical examination of the nature of yearning. Similarly, Act II opens with a symphonic poem about fevered desire, and the third act prelude says more about suffering than words ever could. Each act's opening leads directly into other facets of the conductor's ethos, though not quite as surely and strongly in the first act as in the other two. Act II is simply overwhelming, with the love duet given its most intense performance on disc; and since it is, to begin with, the most expressive creation in any art on the subject of sexual love, you will likely as not be swept away. The brutal dissonance at Melot's entrance ("Rette dich, Tristan!") causes near-physical pain. The third act, deeply immersed in sorrow and Kurwenal's sympathy at the start, builds securely toward the relief of the concluding "Liebestod."

Bernstein's approach to the score does

not have the binding smoothness and easy proportions of Carlos Kleiber's, as represented by his recent set with the Staatskapelle Dresden. Nor does the Bavarian Radio Orchestra have the plangent tonal appeal of the East German ensemble. But the three Bernsteins are not to be denied, and the Munich players serve all of them well enough.

"Radiant" is an adjective one might easily apply to Hildegard Behrens as she moves into the topmost Wagner roles. In the great love duet, particularly in the day/night portions ("O eiter Tages knecht!"), she certainly radiates a passionate and committed femininity. Not as caustic as Birgit Nilsson in the Morold narration and curge, not as refulgent as Margaret Price (Kleiber's Isolde) in outpourings of sheer tone, she nevertheless handles the notes in a masterly way and the words better than either of them. Her "Liebestod," so human and compassionate a resolution, is not to be resisted.

Peter Hofmann is a workaday Tristan, a reasonable choice considering the current restricted market in Heldtencors. He offers dignity in Act I, something short of searing passion in the *Liebesnacht*, and very moving grief in Act III. He does the best he can with what he has; I cannot think of many others who would do it better.

Yvonne Minton (Brangäne) is a little disappointing. She is a gifted artist with a

luxurious voice, tailor-made to deliver the long-breathed and sensuous warning to the lovers in Act II. But this time it doesn't quite work, and there are hints of small intonation difficulties at other points in the score. Bernd Weikl is a thoroughly rounded and warm-voiced Kurwenal, a pleasure to hear. The part of King Mark is securely in the grasp of Hans Sotin. The beauty of his voice and the majesty of his phrasing shorten the apparent length of the Monologue and are deeply moving.

Since a five-LP set at top-of-the-line prices is a substantial investment for most record collectors, it behooves a reviewer to address one further question: Which is the *Tristan* to have if you're having only one? Three new sets have appeared in the last three years or so—Reginald Goodall with Linda Esther Gray (London LDR 75001), Kleiber with Margaret Price (DG 2741 006), and the present release—and they go into the lineup against such established entries as Furtwängler with Kirsten Flagstad (mono. Seraphim IE 6134), Solti with Nilsson (London OSA 1502), Böhm with Nilsson (DG 2713 001), and Karajan with Helga Dernes and Jon Vickers (Angel S 3777).

This is an imposing array. It takes in a good share of the conductors who have achieved distinction in the Wagnerian repertory during the last three decades and offers the recorded voices of some out-

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standing sopranos.

What are the requisites for a successful *Tristan*? They seem to me to include excellence in the two title roles, outstanding sonics, and masterful conducting. Other things matter, too, but they matter less.

We can dispose of some items quickly. None of the seven sets has a less than competent conductor, though with the passing of time I find that the 1960 Solti (hot and heavy) and the 1972 Karajan (cold and distant) fail to please, each in its different way. Furtwängler, Böhm, Goodall, Kleiber, and Bernstein all offer direction of a very high order. In a comparable way, none of the

seven sopranos is less than acceptable, though Flagstad will be the one many Wagnerites choose to live with.

Nor is the technology much of a problem. The Flagstad/Furtwängler set is now 32 years old—and in mono, of course—but it's a high quality studio recording, good for its time, easy to live with, and newly reissued at a budget price. All the rest are stereo recordings and convey more persuasively the score's details, including, for example, the need to display 16 French horns at the start of Act II. Here the Goodall, Kleiber, and Bernstein sets excel, though none of the other stereo releases is

unacceptable.

We come to *Tristan*, and there's the rub. The search for a satisfactory hero, whether for the stage or the studio, has been going on since the first man to sing the part, Ludwig Schnorr von Carolsfeld, died soon after the 1865 premiere—extinguished, many believed, by the extreme vocal demands of the score. The years of Lauritz Melchior are now seen as an age of Camelot in the performance history of this opera, and you don't get Camelots all the time. On disc there is only one completely satisfactory *Tristan*, and that is Vickers in the otherwise unengaging Karajan recording. Ludwig Suthaus (with Furtwängler) is adequate. So is Wolfgang Windgassen (with Böhm), if you can take his Prussian style of singing and his tendency to run ahead of the beat. All the others are so-so or worse.

The bottom line is this: If technology matters greatly, choose the new Bernstein, a fine recording with a raft of virtues. If you can live with 1952 sound, then Furtwängler remains unsurpassed. GEORGE MOVSHON

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Recitals and Miscellany

THE BARRY TUCKWELL WIND QUINTET.

Peter Lloyd, flute; Derek Wickens, oboe; Gervase de Peyer, clarinet; Martin Gutt, bassoon; Barry Tuckwell, horn. [John Fraser, prod.] NONESUCH 78022. Cassette: 4-78022.

ARNOLD: *Three Shanties*. Op. 4. BARBER: *Summer Music*. Op. 31. IBERT: *Trois Pièces Brèves*. LIGETI: *Six Bagatelles*. MILHAUD: *La Cheminée du roi René*. Op. 205.

Although the 20th-century wind quintet repertoire is enormous, it seems that the really worthwhile material is limited to just a handful of pieces: Nielson's Opus 43, Schoenberg's Opus 26, Hindemith's *Kleine Kammermusik*, Stockhausen's *Adieu*, Ligeti's 1969 *Ten Pieces*, and the five works collected here. For all its diversity of mood, Barber's 1956 *Summer Music* is a serious and substantial composition, as noteworthy for its deft thematic manipulations as for its elegantly blended sound colors and smooth-flowing, idiomatic writing.

The other offerings on this disc constitute the lightweights of the wind quintet's Top 10, and except for the Ligeti *Bagatelles* (arrangements of six of the 1951-53 *Musica ricerata* piano pieces), it seems that at least one of them has appeared on every quintet program that has ever been mounted. Because they're so familiar to wind players, they generally get good treatment when handled by professionals. Tuckwell's newly organized British ensemble gives them excellent treatment, to be sure, but neither the performances nor the sonics make this recording markedly superior to most of the other versions that are still in the catalog. JAMES WIERZBICKI

The Tape Deck

Critiques of new cassette and open-reel releases by R. D. Darrell

Smorgasbord

BEFORE AVIDLY TUCKING INTO this month's widely varied, keenly appetizing tape fare, we well may pause for a—

Sung grace by the angelic trebles of Michel Wackenheim's Strasbourg Cathedral Choir, celebrating the "Four Seasons in Gregorian Chant" (Everest Master Series MK 1834, no notes or texts). Floating buoyantly in a cathedral ambience, the fresh young voices are properly unaccompanied and mostly unharmonized except in a few passages that make the inclusion of the much later *Adeste Fidelis* seem somewhat less anachronistic.

Hors d'oeuvres. What could be more piquantly stimulating—to ears and toes as well as taste buds—than the lilting *Country Gardens* and other Percy Grainger "Favorites" in the still matchless Frederick Fenell/Eastman-Rochester Pops versions (Mercury MRI 75102, no notes). The lightweight but vital c. 1960 sonics show no signs of age. For more substantial and strongly spiced appetizers, pick from a Ravel program: both piano concertos, Fanfare, *Menuet antique*, *Une Barque sur l'océan*, all in idiomatic, digitally recorded versions by Charles Dutoit's Montreal Symphony with pianist Pascal Rogé (London digital/chrome LDR5 71092).

Entrées. There's a well-balanced and differentiated choice of main course in the first two digital recordings of Prokofiev's penultimate full-length ballet, *Cinderella*—a work too-long obscured by its even more magical predecessor, *Romeo and Juliet*. André Previn's London Symphony version (Angel prestige-box digital/ferric 4X2S 3944) is one of his most impressive achievements, both for balletic authority and almost palpable sonic presence. Yet it is curiously impersonal when directly compared with the more spontaneous and passionate Vladimir Ashkenazy/Cleveland Orchestra reading in a scarcely less vivid recording (London oversize-box digital/chrome LH2 410 162-4). I find the latter marginally more rewarding, but both approaches reveal musical riches hitherto unsuspected by, or entirely unknown to, most home listeners.

Still, my admiration here does not reach the intense delight evoked by the only-too-familiar Bach *Orchestral Suites*, S. 1066–69, as metamorphosed into something strangely new and even more wonderful by the savory raw timbres and irresist-

ibly infectious zest of La Petite Bande under Sigiswald Kuijken (Pro Arte digital/chrome 2 PCD 205). Rather than compete with Pro Arte's modern-instrument version [see January "Tape Deck"], the Netherlands complement its virtues with a few of their own—incidentally providing one of the most persuasive arguments yet for tonal and stylistic period authenticity.

Tafelmusik. The synergistic effect of combined aural and gustatory stimulation is variously demonstrated in "dinner music" of different eras. Mozart honored the tradition in such serenades as the *Posthorn* and the so-called "*Gran Partita*" for 12 wind instruments and string bass. Both are available on one Deutsche Grammophon release—the former in the long-admired 1971 account by Karl Böhm and the Berlin Philharmonic, the latter in a less familiar, straightforward 1963 rendition by Eugen Jochum and members of the Bavarian Radio Symphony, which uses contrabassoon instead of string bass and adheres to the corruptions of the pre-*Neue Mozart Ausgabe* score (DG Basics doubleplay 410 721-4). Beethoven charmed a larger public with his hit *Septet*, heard now in the composer's ingenious arrangement for trio (Philips digital/chrome 7337 315), which concludes the Beaux Arts Trio's complete series of Beethoven Piano Trios.

Moving right along into 19th century grand salons, the prizewinning Turkish pianist Meral Güneymen entertains with deft performances of "The Most Popular Chopin" (Finnadar digital/ferric 90116 4G). And I Salonisti's "Serenata" program demonstrates the range both of the genre's latter-day manifestations—here from Toselli, Godard, and Sibelius to Debussy, Enesco, Ravel, and Yoshimoto—and of the transcription potential of only four strings and a piano (Pro Arte digital/chrome PCD 133).

Green Salad. I force down Boccherini's String Quintets only dutifully in the Pina Carmirelli/Boccherini Ensemble's doggedly hearty versions: Nos. 19 and 52 in last year's Vol. 1; now Nos. 23 and 24 in Vol. 2 (Nonesuch digital/ferric 79025-4 and 79054-4). Music, playing, sonics are all just so overtly healthful that I'm driven to the obstinate child's protest, "I still say it's spinach!"

Desserts mit Schlagsahne. Perhaps the most widely popular tonal sweets of all time are Fritz Kreisler's fiddle compositions and arrangements, including the notorious "spuriousities" or "joaxes" long accepted as the genuine work of earlier

masters. The latest to revive them extensively is veteran Oscar Shumsky (with pianist Milton Kaye) in a 30-selection, three-cassette offering, Vol. 1 of a projected complete series (Musical Heritage chrome MHC 236772, \$27.75; \$17.85 to members; plus \$1.95 shipping; from the Musical Heritage Society, 1710 Route 35, Ocean, N.J. 07712; also as Musicmasters 20035-6-7). Is it heretical to claim that Shumsky plays these pieces with more technical security than Kreisler ever did, if, of course, without the unique Kreislerian blend of schmaltz and charisma? But the Old Master never enjoyed such gleaming recording.

Finally, who can resist the intoxicating pulse and lush mellifluousness of Lehár's best waltzes? The isolated *Gold and Silver*, and medleys drawn from *The Merry Widow* and five other operettas are all performed in the authentic Viennese accents of Willi Boskovsky and his Johann Strauss Orchestra (Angel digital/ferric 4XS 38025, no notes).

Soup Kitchen. Only a few of the programs cited above are available at the budget prices that are all some listeners can nowadays afford. For them the latest real bargains are in Philips's new *Classette* reissues (\$3.98 each, no notes). So far, I've heard only the two Grieg *Peer Gynt* Suites in effective, still quite vivid 1960 recordings by the Amsterdam Concertgebouw under Jean Fournet (411 158-4) and a fine 1959–63 sampler of tone poems from Debussy, Dukas, Ravel, and Saint-Saëns by the Concertgebouw under Fournet, Van Beinum, and Haitink (411 162-4).

In addition to the "Gregorian Chant" program mentioned at the outset, at least five more tapes in Everest's re-edited Master Series (\$3.98, no notes) are exceptionally worthwhile regardless of age: Anthony Bernard's c. 1960 Handel *Fireworks Music/Water Music/Messiah* offering (MK 1817); Robert Stolz's Vienna Symphony "Golden Age of Viennese music," featuring works by four Strausses, Kálmán, Komzák, Lanner, Lehár, and Stolz (MK 1839); the Felieja Blumental/Leopold Hager/Salzburg Mozarteum Orchestra versions of Mozart Piano Concertos Nos. 21 and 23 (MK 1819); and the extended excerpts from John Hollingsworth's and Leif Segerstam's accounts of, respectively, Tchaikovsky's *Nutcracker* and *Swan Lake* ballets (MK 1805 and 1822). Many of the other Masters are also much better duplicated and/or labeled than earlier Everest editions. And several eliminate annoying side breaks within selections or movements. **HF**

BACKBEAT[®]

The Sheer Need to Sing

One of the most
gifted artists in jazz:
Sheila Jordan. Who?

by Crispin Cioe



TWO POWERFUL EXPERIENCES from Sheila Jordan's youth shaped the musical vision of this gifted, highly individualistic artist. The first involved what she calls "the sheer need to sing." In Summerhill, the small Pennsylvania mining town where Jordan grew up, "day-to-day life is pretty desolate and painful," she says, "and people tend to just sing as a release. I can clearly remember—I was five or so—singing along with my echo in the mountains." At the age of twelve she moved to Detroit, where she heard a Charlie Parker 78 on a malt-shop jukebox. Her second epiphany had occurred. "On first hearing Bird play his alto sax, I absolutely knew I'd found my life's work and my musical guru, and I immediately started to think about developing my own direction as a jazz singer."

But uncompromising dedication doesn't always pay the rent. After moving to New York City in 1952 and weathering a short, stormy marriage to jazz pianist Duke Jordan, Sheila was on her own with an infant daughter to raise. She found a job as a full-time secretary (eventually becoming a research assistant at a large ad agency, where she still works) and performed occa-

sionally in clubs and at jam sessions.

Partly because she has always had a day job and partly because for many years she was, as she puts it, "very shy and lacking in confidence, mostly due to the hardship and poverty in my background," Jordan has only recorded a handful of albums. That situation may be changing now; her first release for Palo Alto, "That Old Time Feeling" (with bassist Harvie Swartz), marks a turning point. Jordan's harmonic prowess and freedom have widened, her tones are richer, and the playfulness between the two musicians is delightfully telepathic. It has also been several years since Jordan conquered an alcohol problem that, she now admits, once contributed to her other insecurities, and her voice sounds even more vibrant and wonderfully mutable than on her earliest recorded work.

Jordan draws from a profound well of emotion with every phrase; she is undoubtedly one of the greatest jazz singers of the postwar era. Her voice isn't large and rangy, or drenched in a timbral heritage, such as gospel. Instead, she combines the slight twang and keening head tones of a folksy, rural American vocal tradition with

bebop's harmonic and melodic subtleties.

We spoke on a chilly winter afternoon at her comfortable Chelsea apartment. Jordan's Appalachian lilt makes listening to her speak almost as much fun as listening to her sing.

Backbeat: Let's start at the beginning.

Jordan: I was born in Detroit in 1928, and I sang onstage at a Michigan Theater talent show when I was three. But basically I was raised in Summerhill by my grandparents; my mother was just sixteen when I was born, so she couldn't really deal with it.

I sang all the time, including Saturday nights at the beer garden and on the local radio station's talent shows. My mother took me back to Detroit when I was in the ninth grade, and I attended Cass Technical High School, a hip inner-city school, very involved with the arts. The city was cooking in the late '40s, especially with bebop.

Backbeat: So you really did have a "conversion" to jazz?

Jordan: If I hadn't heard Charlie Parker, I'd still be a singer, but quite possibly a country singer! I bought all his 78s and

learned his solos, note for note. I also taught myself the chord changes and substitutions in his songs, and the standard tunes his bop lines were based on; for instance, *Little Willie Leaps* was based on *All God's Children Got Rhythm*.

I went to listen to jam sessions. At one of them (where Bird sat in), I met two young black men, Skeeter Spight and Leroy Mitchell. Well, the three of us struck up a friendship immediately. They were singers who'd written words to Bird's melodies; they liked my feeling, my soul I guess, for the music and began schooling me in singing syllables and improvisation.

We performed around Detroit as Skeeter, Mitch and Jean (that being my middle name). We never made money, but it was great experience, despite the fact that the police constantly harassed me because I'm white and I was singing with two black men. But the three of us were just kids, totally involved with the music—not drugs or sexual things—and somehow we got past the nonsense and stupidity around us and learned. I was already living on my own at seventeen, but by the time I was twenty-four I decided that Detroit's racism would eventually break my spirit for the music, so I moved to New York.

Backbeat: Did you jump right into the jazz scene here?

Jordan: I jammed and worked with musicians like Charles Mingus, Horace Silver, and Duke Jordan, who I knew slightly in Detroit and later married. Through Mingus I met pianist Lennie Tristano, with whom I studied harmony, ear training, sight-singing, and so forth for nearly two years. Then Traci was born and I stopped studying to concentrate on raising her.

A regular gig at Page 3 in Greenwich Village became my main outlet for a couple of years. I played with more wonderful musicians: pianists Herbie Nichols and Steve Kuhn, and bassist Steve Swallow. Composer-pianist George Russell heard me there and helped me record a demo, which led to "Portrait of Sheila." "I have to know where you come from to sing like that," he'd told me, so eventually I took him down to Pennsylvania to meet everyone. At a beer garden one of the old miners asked me to sing *You Are My Sunshine*. They were out of work at the time, and I think George really caught their emotions, all the despair and alienation, in his arrangement. [The song is included on Russell's "The Outer View."]

Backbeat: What was it like working with Charlie Parker?

Jordan: I first met Bird in Detroit, then I knew him in New York until he died in 1955. I always felt in my heart that he wasn't going to be around very long, quite apart from his personal problems. So I feel I was really touched, being able to know him. He knew that some of us would pass his music along, keep it alive. His encouragement thrilled and inspired me; he once

said I had "million dollar ears." Bird exposed me to dance, art (he was a painter himself), and modern classical music. He was like a musical Christ to me.

Backbeat: A lot of people feel that way.

Jordan: He wanted the people who learned from him to go on and do something with that creative knowledge. I think Bird would have wanted me to expand beyond bebop.

Backbeat: But you don't think of the influence of Parker and bebop on your work as something that happened in the past, do you?

Jordan: No. Bebop is timeless because there are always new ways to approach it. It's a very structured form, but it allows for freedom. I think that today a young musician has to have bebop under his or her belt, just as a jazz singer has to study the standards carefully or the original bop players had to know how to play the blues. If your roots are blues and bebop, there's nothing you can't do musically.

Backbeat: Were you happy with your work once you started to diversify a bit?

Jordan: Once I did record more, in the '70s, I greatly enjoyed it, especially when we made "Playground" for ECM. In that quartet, I appreciated being an equal soloing voice, rather than a singer fronting with a trio backing.

Backbeat: What makes your work with Harvie Swartz so special?

Jordan: I've been doing bass/vocal duos for many years, but with Harvie we're really communicating as two voices. We rehearse regularly; Harvie likes to know the songs inside out so that he can keep time, make the chord changes, and embellish all at the same time.

Most of the songs on "That Old Time Feeling" are ones I've lived with and are part of my life; I kind of record them as documents. *Whose Little Angry Man Are You*, for instance, from the musical *Raisin*, is included because on every album I like to do one song about a child. *Quasimodo* is my favorite Parker line, which is based on the chord changes to *Embraceable You*. The lyrics I wrote are a tribute to him. I've always wanted to do that.

Backbeat: What's coming up for you in the near future?

Jordan: Harvie and I will probably be doing some concerts and club dates; I usually tour during vacations from my office job. I'll probably be recording again this year, maybe with a quartet. And I'll continue to teach a vocal workshop at City College of New York, which I've come to cherish. I give my students guidance on the emotional side as well as help with chords, endings, and so forth. I encourage them to learn standards. When all they want to do is scat sing, I say, "Well, Billie Holliday never scats—you don't have to scat to be a good jazz singer."

Backbeat: Your style is so original, yet completely within the jazz tradition. Why

do you think this is so?

Jordan: I'm not sure. I *do* like and listen to contemporary music and singers: The Beatles, Stevie Wonder, Michael Jackson. I love the World Saxophone Quartet, Gil Evans, and Charlie Haden's Liberation Music Orchestra, to mention a few names in jazz. I think Carmen Lundy is great, and, of course, Betty Carter. As a youngster I naturally loved Billie, Sarah Vaughan, and Ella Fitzgerald. But even back then I never wanted to copy other singers. Lennie Tristano used to say "Sing along with Billie's records," but I'd say "No, why do a poor imitation of Billie's emotional depth or Sarah's voice or Ella's timing?"

Singing to me now is like being with a person or people I really enjoy and laughing or getting serious—just going through all kinds of emotions. My music is just very close to how I feel and talk—my voice goes up and down and sometimes cracks with feeling. I guess I'm more open than ever before because I've grown a lot in the last few years. I used to always be concerned with whether I was doing something "right." But I've dealt with a lot of serious problems in myself and come out ahead, so I'm more free and open and adventurous. I'm *singing* more.

Last summer, I did a short tour with an 18-piece big band led by composer George Gruntz. Never having worked with a group that large before, I was terrified going in; but it ended up being a wonderful experience. And especially with Harvie, if I hear something in my head—an interesting little melodic excursion—I'm going to sing it, because I'm just so inquisitive about where it might lead us. I don't give a damn whether it's going to come out "correctly." I don't have to prove myself anymore. **HF**

Selected Discography

SHEILA JORDAN

Portrait of Sheila. Blue Note 9002; 1962.
Confirmation. East Wind EW 8024; 1975.
Sheila. Steeplechase 1081; 1978.

With STEVE KUHN

Playground. ECM 1-1159; 1980.

With HARVIE SWARTZ

That Old Time Feeling. Palo Alto 8038-N; 1983.

JORDAN ON VOCALS

Carla Bley: *Escalator Over the Hill*. JCOA EOTH; 1972.

Roswell Rudd: *Numatik Swing Band*. Jazz Composers Orchestra JCOA 1007; 1974.
Flexible Flyer. Arista/Freedom 1006; 1975.

George Russell: *The Outer View*. Riverside RS 9440; 1962. (Rereleased as *Outer Thoughts*. Milestone M 47027; 1975.)
Steve Swallow: *Home*. ECM 1-1160; 1980.

Reviews

Smithsonian Swings

Reviewed by John S. Wilson

Big Band Jazz:

From the Beginnings to the Fifties

Selected and annotated by Gunther Schuller & Martin Williams
 Smithsonian DM 6 0610 (six discs),
 DMK 3 0610 (six cassettes)
 (\$41.96 plus \$3.50 shipping,
 P.O. Box 10230, Des Moines, Iowa
 50336)

Critics Martin Williams and Gunther Schuller have put together an anthology that stands with Williams's superb "Smithsonian Collection of Classic Jazz" issued 11 years ago. "Big Band Jazz" starts with the 1924 Fletcher Henderson band and concludes with Stan Kenton's somewhat atypical "young bloods" in '55. Thematically, though, these 80 selections are framed by Paul Whiteman's orchestra of 1927 and '28 and by the late '40s Dizzy Gillespie and Claude Thornhill.

Choosing the 1950s as a cutoff point gives the collection a logical sense of unity because until then big bands of all kinds, from Guy Lombardo to Benny Goodman, were dance bands. Except for a few survivors such as Duke Ellington, Count Basie, Woody Herman, and even Kenton, big jazz bands during that decade went the way of the dinosaur. Those that came after—Maynard Ferguson, Buddy Rich, and Thad Jones-Mel Lewis—were (and are) concert bands.

These performances were chosen for what Schuller and Williams consider their "durability," the fact that they remain as outstanding now as they seemed when they were recorded. Numbers that were primarily star vehicles have been eliminated, a ground rule that creates a few oddities. For example, Louis Armstrong's big bands are represented by only one disc on which Armstrong plays briefly at the end. Missing are such classics as Bunny Berigan's *I Can't Get Started* (to cite an overly familiar solo with big band that scarcely needs further display), as well as Jack Jenney's *Star Dust* (a virtually unknown solo that might have received the attention it deserves in this kind of collection).

Despite the restriction, however, "Big

Band Jazz" works as an introduction for younger fans to this great genre, as a set offering several discoveries for those who grew up with the bands, or simply as a memento (although nostalgia per se was not a factor in the selection process). It can be enjoyed for the sheer sybaritic pleasure of letting the sound hit you, or for its instructive worth. The in-depth commentary provided in an invaluable booklet discusses each individual selection and the phenomenon of big bands. It also includes a set of thumbnail biographical sketches of the well-known leaders and sidemen, as well as many arrangers whose behind-the-scenes activities shielded them from the public: Gil Fuller, Bill Challis, Gene Gifford, Sam Lowe, Ed Finckel, Billy Moore Jr., Charlie Dixon, and John Nesbitt.

The work here by Nesbitt, in fact, is a real find. Don Redman has always been considered primary to the success of McKinney's Cotton Pickers as teacher, leader, and arranger. But both selections, *Put It There* and *Stop Kidding*, are ingenious, swinging Nesbitt arrangements that are every bit as good as Redman's charts.

The Cotton Pickers are part of one unusually provocative LP side containing some of the fiercest playing from some of the least known bands. The Luis Russell Orchestra's wild dash through *Ol' Man River* centers on a punching, running bit of cornet virtuosity by Rex Stewart. Jesse Stone's Blue Serenaders play a dark and ominous blues (*Starvation Blues*) with a starkly insistent beat and hauntingly intense high trumpet work by Albert Hinton. The raw, rugged power of the Missourians (who became Cab Calloway's band) is docu-



Jitterbugging at the Savoy Ballroom, 1940

mented in *Market Street Stomp*, a variation of *Tiger Rag*. And the early Casa Loma Orchestra charges briskly through Gifford's riff-filled arrangement of *Casa Loma Stomp*.

Williams and Schuller have done a skillful job of balancing the familiar pieces of well-known bands with cuts that "deserve wider recognition" (to use *Down Beat's* phrase). So Benny Goodman is represented by *King Porter* and *Sing, Sing, Sing* as well as the nonpareil *Ridin' High*, with its burstingly exultant Harry James solos. Basie's *One O'Clock Jump* and *Jumpin' at the Woodside* are here, but so is his totally untypical *Volcano*, a study in brooding, ominous turbulence.

Four Chick Webb selections are of particular interest: *Stompin' at the Savoy* and *Don't Be That Way*, originated in the Webb band but popularized by Goodman's, using the same Edgar Sampson arrangements; *That Naughty Waltz*, adventurous, gutsy, and swinging for 1932; and *Harlem Congo*, one of the most explosive, hard-driving jazz records ever made.

Strengths outweigh weaknesses on Corea's new work



DARRYL PITT

For additional reviews of Pop and Jazz music on videodisc and Compact Disc, see NEW TECHNOLOGIES.

There will be inevitable quibbles about what has been left out and what has been included on "Big Band Jazz." Where, for example, is Bob Crosby's band, the only one to build on a Dixieland foundation successfully and the creator of *South Rampart Street Parade*, an unarguable classic? Why is there room enough for both the Claude Thornhill Band and its near echo, Elliot Lawrence? But these are just cavils; there is too much that is too interesting, and 12 LP sides can't satisfy everyone.

**Chick Corea & Gary Burton:
Lyric Suite for Sextet**
Manfred Eicher, producer
ECM 1260

Chick Corea's new work for piano, vibraphone, and string quartet is both admirable and somewhat derivative. "Admirable" because Corea has tried, in some respects quite successfully, to deal with the problems implicit in mixing jazz improvisations with classical music structures and ensemble textures. "Derivative" because Corea's string writing suggests an obsession with Bela Bartók that is revealed through imitation rather than inspiration.

Overture, for example, begins with Bartókian-styled fourths and asymmetric eighth-note rhythms. Then, curiously, Burton (on vibes) and Corea (on piano) drift into an out-of-context romanticism, traceable in part to the chromatic harmonies on which their improvisations are based—harmonies that have only an elusive connection to the opening of the piece. The duo move easily through *Waltz*, an intricate pattern of interwoven twos against threes, fours against sixes, and so on. But again, abruptly, a brief string section just before the recap of the theme includes virtual paraphrases from the classical composer's Third and Fourth Quartets. *Roller Coaster*, with its *col legno* accents and disjunct rhythms, is reminiscent of Bartók, too. Like much of Corea's string writing for "Lyric Suite," it's a study that should have received a bit more careful consideration and development before it left his sketchbook.

Brasilia, which opens Side 2, explores an uncommon Brazilian style—less rhythmic, more introspective—and the result is quite impressive. The piece also includes some of Corea and Burton's best playing, and its harmonic development is especially colorful: the piece is constantly moving in unexpected directions. As a composition, *Dream* edges disturbingly close to a film score (the slight overdose of diminished chords and some astringent dissonances can easily be imagined as visual "stings"), but the singing, almost sentimental flow between Corea and Burton is appealing, eventually encompassing the entire ensemble.

Finale juxtaposes fast-moving, high-pitched runs against off-balance bass repetitions, clanging eighth-notes, and unison fanfares. The ostinatos are interesting as

techniques, but the improvisations have a less studied, more visceral purposefulness (although Corea's bothersome gear-shifting between themes is too abrupt, like sudden changes of topic in casual conversations).

All this carping, however, must be seen in light of the fact that Corea has taken on a considerable creative task. By aiming high, he has left himself vulnerable on many levels. On balance, the larger strengths of "Lyric Suite" compensate for its obvious flaws; anyone interested in the expansive potential of contemporary jazz composition should listen to it.

DON HECKMAN

**Coleman Hawkins & Roy Eldridge:
At the Bayou Club**

Jack Towers, Jerry Valburn,
& Will Warner, producers
Honeysuckle Rose HR 5002
(P.O. Box 156, Hicksville, N.Y. 11802)

Torrential jazz had been pouring from the horns of Coleman Hawkins and Roy Eldridge for more than 30 years when they found themselves together at Washington, D.C.'s Bayou Club in January 1959. This live recording of what was presumably a casual engagement shows the two veterans in peak form, playing with challenging



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ingenuity and power.

The impeccable first side contains two well-worn ballads—*I Can't Get Started* and *These Foolish Things*—that glow with remarkable freshness. *Bean and the Boys* builds to a dazzling Hawkins solo, a marvel of concentrated, skillfully shaded development that finally goes through the roof. Eldridge joins him in a series of exchanges, but Hawkins, seemingly coasting on overdrive, is so overwhelming that his partner has to struggle to maintain his footing. In the process he calls on his knowledge of

contrast; the result is a riveting finale.

Side 2 is less spectacular: There are even times when the two giants sound bored. But listening to them shake a listless mood compensates; with a sudden spark of energy, they're both off and roaring after their own special muses again.

"At the Bayou Club" is excellently recorded, aside from a piano that is slightly off-mike. The accompanying trio—pianist Don Wilson, bassist Bob Decker, and drummer Bud Dean—gives the two stars exemplary support. JOHN S. WILSON

doesn't show off as much of her deadpan humor. It's a darker record, a more mysterious one. There are moments of wit—a recurring portion of *Sharkey's Day* parodies theme songs from detective movies. But the overriding mood is one of dislocation, inexplicable events, behavior, and relationships. A woman becomes entranced by a snake; an ugly man dies, and at his funeral his friends "were thinking of all the ham-and-cheese sandwiches in the next room"; "strange animals out of the Ice Age" appear; creatures observe a haunted planet. The pieces have the seductive illogic and

Pop

Laurie Anderson: *Mister Heartbreak*

Laurie Anderson, producer
(with Bill Laswell, Roma Baran,
and Peter Gabriel)
Warner Bros., 25077

There's a calm, sensible quality in Laurie Anderson's voice; she could be a radio commentator reporting from a tennis tournament, except for a tinge of wryness in her tone, an awareness of absurdity. On her 1982 debut, "Big Science," she used her voice to evoke all kinds of communications that pretend to be personal but actually are emotionally detached: the matter-of-fact cadences of flight attendants, answering machines, tour guides. On "Mister Heartbreak," she continues to project an amused, but wary, attitude. The characters

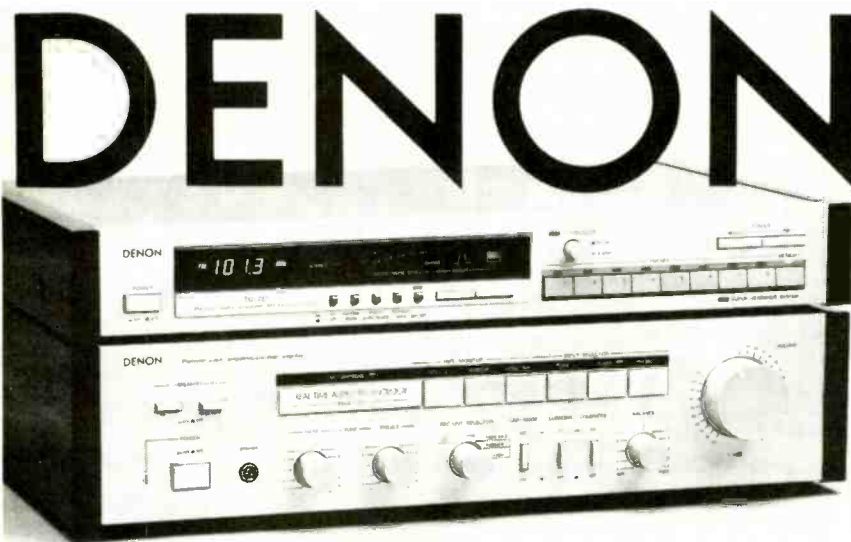
on this LP find themselves in very disorienting circumstances, and Anderson's readings, cool and precise, make them all the more strange.

Anderson doesn't really write songs. She creates panoramic aural collages, musical patterns that clatter and whirl behind her. The lyrics are a mixture of narrative, non sequiturs, literary references, stray phrases, and clichés that become motifs. Her pieces aren't conventionally melodic, or structured like pop songs, but the rhythms borrowed from African, Japanese, and Caribbean sources as well as contemporary rock and funk give them substance; they're alive with color and movement.

"Big Science" was filled with jokes that Anderson delivered with expertly timed pauses. "Mister Heartbreak"



Anderson: Her message follows the beep.



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repetitiveness of dreams. "I'd rather see this on TV," Sharkey says during one harrowing incident. "Why these mountains? Why this sky? This long road? This empty room?" Anderson asks on *Gravity's Angel*. (It may be the only album inspired by both Burt Reynolds and Thomas Pynchon.)

The group of collaborators on "Mister Heartbreak"—including Peter Gabriel, Phoebe Snow, bassist Bill Laswell (from Material), guitarists Adrian Belew and Nile Rodgers—and its increased use of rock instrumentation suggest that Anderson is moving toward a conciliation with the mainstream. But if anything, the new album is more adventurous and quirky.

Even the most straightforward track, the epistolary *Blue Lagoon*, leaves questions dangling in the tropical air: Why is the woman on this island? To whom is she writing? What is the significance of quotations from Shakespeare and Melville? She sounds at peace, but the music swirling around her tells a different story, and the effect is oddly unsettling. The album ends with *Sharkey's Night*, read by William S. Burroughs. "Hey, sport," he says. "You connect the dots." Anderson situates her stories, draws in some details, gives them dimension, but doesn't diagram her moves from one place to the next. She challenges

the listener to connect the dots.

MITCHELL COHEN

Hazel Dickens:

By the Sweat of My Brow

Ken Irwin & Hazel Dickens, producers
Rounder 0200

The singing of Hazel Dickens rings with the raw, craggy beauty of the West Virginia hill country she hails from. There are no slick moves, no studio-trained whoops and warbles, no shimmering glissandos rolling off the tongue. Jarring and jaggedly winsome, Hazel Dickens is not Linda Ronstadt; she's not even Emmylou Harris. Hers is the voice of someone who grew up in coal camps and mill towns, who learned her songs from banjo pickers and miners, whose musical and political sensibilities were forged by what she saw around her.

"By the Sweat of My Brow" is American folk music at its finest. The LP opens with *Beyond the River Bend*, a woeeful, pretty bluegrass ballad that glides along on the twangy interplay of Tommy Goldsmith's guitar and Jerry Douglas's dobro and on the bobbing rhythms of Roy Huskey's bass. Jean French and Phyllis Boyens's background harmonies imbue a soft, sweet air, the pair's gently seductive voices contrasting nicely with Dickens's own piercing timbre. On *Are They Going to Make Us Outlaws Again?*, an angry song about "hard times and bread lines," their support provides a compelling, anthemlike sense of urgency. On other tracks (*Here Today and Gone Tomorrow*, *Only the Lonely*), the Johnson Mountain Boys offer up hearty harmony passages. Throughout, the skills of these keen accompanists and vocalists complement, but never dominate, Dickens's rough-hewn talents.

There are a couple of love songs here—the plaintive *Scars from an Old Love* and the fun, waltzy *Go Away With Me* ("Go and you'll never regret," Dickens wails). Most of the compositions are about social issues: hard labor for no pay ("A worker ain't nothing but a rich man's tool," she sings in the title track); the loneliness of old age (*Old and in the Way*); child labor (*Little Renaldo*); the importance of a strong family figure (*Momma's Hand*).

It's hard to think of anyone since Woody Guthrie whose songs are as powerful and poignant and yet as staggeringly simple. Dickens makes a nod to Guthrie, in fact, when she hoots on *Outlaws*. "Well, I think I know why Pretty Boy Floyd done the things he did," Guthrie penned *The Ballad of Pretty Boy Floyd*.

The Sixties produced a swarm of folk singers croaking protest tunes, but most of them—Baez, Dylan, Eric Andersen, et al.—were middle-class folks; they didn't know about poverty firsthand, hadn't kicked around the country with migrant workers and fruit pickers. One listen to Dickens's voice and you know that she has.

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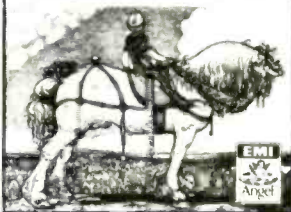
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STEVEN X. REA

Thomas Dolby: *The Flat Earth*

Thomas Dolby, producer
Capitol ST 12309

Even staunch opponents of the microchip school would likely concede that Thomas Dolby's breakthrough hit, *She Blinded Me with Science*, proved that electronic pop can retain both its humanity and its sense of humor. Dolby came by his use of synthesizers honestly enough, having emerged as a journeyman keyboard player for Lene Lovich and other evocative new wave stylists. His first album ("The Golden Age of Wireless," rereleased after *Science* to include the hit) balanced new instrumentation with old and verified that Dolby was hardly limited to techno-pop.

On "The Flat Earth" he seems determined to divorce himself from the rest of the synthesizer brigade, as evidenced by his liner credit ("piano, effects, vocals") and by his emphatic use of acoustic instruments. In addition, Dolby really sings, roughing up his own plain but appealing voice; his exclamatory, half-shouted delivery is no longer a novelty.

However laudable his decision to move against the tide may be, Dolby's new songs seem flawed. The arrangements are more varied, but the melodies are not: the initially enticing r&b feel of the title cut, for example, with its ripe male harmonies and languid syncopation, gradually unravels.

In fact, it might be argued that Dolby's restraint is not a strength but a weakness. His subdued arrangements and somewhat harsh vocal slant invite comparisons with Joe Jackson. But Jackson is more passionate and has also learned the value of a good melody. Dolby sounds content to carry some of these pieces on little more than

mood.

Still, even the lapses here have an admirable sense of adventure. The production values are generally excellent; a varied array of instrumental textures weaves through an expansive acoustic space to evocative effect. Dolby's writing also compensates partially for its structural weaknesses with some ambitious themes—not the reheated romantic ennui and dime store existentialism typical of many of his peers. Despite the unevenness of "The Flat Earth," Dolby still holds evident promise.

SAM SUTHERLAND

Christine McVie

Russ Titelman, producer
Warner Bros. 25059-1

By any sensible standard, this album shouldn't be the soothing pleasure it is: Christine McVie's first solo venture in 14 years is a slick Los Angeles number, produced with serene craft by Russ Titelman and played by a three-piece band that has chops aplenty but little inspiration. McVie shares the songwriting chores five times with one of those band members, guitarist Todd Sharp; their work is facile if heartfelt pop-rock. Guest appearances by Eric Clapton, Steve Winwood, Lindsey Buckingham, and Mick Fleetwood have all the dramatic impact of a series of cameo pool-splashes on an episode of *The Love Boat*.

All that said, I find myself constantly putting on "Christine McVie" to unwind from the rigors of professional listening, and come away each time invigorated and amused. While nothing here pushes McVie the way a great Fleetwood Mac song such as *Think About Me* does, her vocals are nonetheless beautiful throwaways: being laidback becomes her. A great pop instrument, McVie's voice at its best sounds implacably ordinary. Listening to her when she's wrapped up in a lyric is like overhearing an unwary lover's innocent trilling; with her ever-so-slightly flat, earnest tone, McVie conveys perfect seriousness, a self-



LAURA LEVINE

Thomas Dolby, a synth-pop individualist

absorption that has nothing to do with narcissism.

It is this utter guilelessness that makes the peppy pop fodder of *Got a Hold on Me*, *So Excited*, and *Keeping Secrets* such pleasant hackwork. And twice, the album transcends mere excellence: The opening lines of *Love Will Show Us How* ("I don't fool around on my baby/And he don't fool around on me") are stated with such bemused confidence that a whole relationship is conjured up in a few seconds. Then, on the chorus of *Who's Dreaming This Dream*, Buckingham's soprano quivers above McVie's dark alto as the repeated title phrase begins to sound like a romance that has been misunderstood on both sides. Moments such as these will tide me over until the next Fleetwood Mac album—or at least until Buckingham's imminent solo LP.

KEN TUCKER

Dolly Parton: *The Great Pretender*

Val Garay, producer
RCA AHL 1 4940

Look at the glaring, Richard Avedon cover portraits. This woman, who Tom Wolfe once described as "American cheesecake inflated to the trembling prodigiousness of soufflé," is thoroughly, wonderfully unreal. But Dolly Parton, who once was just a simple country girl from Tennessee, has become a cartoonish caricature. As she said herself recently, she feels kind of like "a great pretender," and there's certainly no more apt title for a Dolly Parton record, especially one as unintentionally funny and enjoyably bad as this.

One could cynically conjecture that this "concept" album—a handful of Parton's favorite rock and roll classics—came about because Parton was under contract to make another record and hadn't had time over the last few years to write any songs (what with Burt movies, Sly movies, and everything else a busy media superstar has to cope with). However they came to pass, Parton's readings are glossy, soulless exercises. The awful Val Garay, an insensitive producer, has brought in the same crowd of slickly proficient (or is that proficiently slick?) sidepeople he has employed for projects with Kim Carnes and the Motels, and the results are gloriously disastrous.

This piece of aural kitsch works like Newton's Second Law: As Parton's singing gets more earnest and warbly (and she really gets into this stuff, even the maddeningly wimpy *We'll Sing in the Sunshine*), the music ices over, until it's devoid of any color or character. The ominous synthesizer chords opening *Save the Last Dance for Me* sound as if they belong on the *Blade Runner* soundtrack, not this invigoratingly down-to-earth Drifters' hit. *Turn! Turn! Turn!*, the Book of Ecclesiastes ditty, is treated like some grandiose hymn. The Byrds turned it into a folk-rock anthem by wrapping it in jangling 12-string guitars and high

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harmonies. Here, keyboardist Steve Goldstein (the main musical force on this record) serves up a bombastic grand piano motif, guitarist Waddy Wachtel delivers a typically flatulent solo, and David Plattsch's drums thump out a "dramatic" progression, as Parton belts out her patented quiver on the beat.

And so it goes: Bob Lind's *Elusive Butterfly* is a total howl: Parton chirps out lines such as "I can hear the wind blowing in my mind" and "Across my dreams with nets of wonder" as though they were Shakespearian chunkettes, and the arrangements are just as off-base. Garay even throws in some congas, courtesy of the Motels' Brian Glascock. It's too much! The capper, though, is the updated Platters title track, wherein Parton is accompanied only by Goldstein's churchy organ and the gospel choir of the Waters Family, *ooohing* and *oh-ohhhing* into oblivion.

"The Great Pretender" is a truly bad record. Full of fake and overblown sentiment, tacky melodrama, and some lousy song selections. And, just like a truly bad movie, Parton's LP is lotsa laffs.

STEVEN X. REA

**Elvis Presley:
The First Live Recordings**
Various producers
The Music Works PB 3601

There's a brief interview with Elvis Presley at the start of "The First Live Recordings." Asked how he's feeling, he says, "sick, sober, and sorry." But he's so polite and hesitant that when he lurches into the lascivious *Baby, Let's Play House*, it's as though his personality has simply erupted. That's what Presley brought to popular music, an element of volatility, the sense that within every nice boy was this urge that couldn't stay bottled up. In the transition from reserved deference to demanding carnality, you can hear a key piece of the Elvis myth clicking into place.

Here he was, in 1955 on Shreveport's Louisiana Hayride radio show, a nineteen-year-old kid singing songs associated with black writers and performers for a white country audience. Two of the five numbers on this EP, *Baby, Let's Play House* and *That's All Right*, are blues songs that Presley had cut at Sun Records; another two, *Maybellene* and *Tweedlee Dee*, are covers of then-current hits, and the fifth is *Hound Dog*, recorded after he became a national phenomenon. But it's a mistake to call Presley an opportunistic cultural thief. It was common for white singers to homogenize black music; what Elvis did was bring it over to his neck of the woods.

Some of these cuts are examples of radical transformations, others of songs that resist being molded to the Presley style. Elvis never recorded studio versions of *Tweedlee Dee* (a hit for LaVern Baker) or Chuck Berry's *Maybellene*, so these newly



HIGH FIDELITY ARCHIVES

Presley: speaking for the urge

unearthed tapes add to the Presley catalog, but neither is an inspired interpretation. He flips through Berry's lyrics with a faked breathlessness, and although he tries to bring some of his assertive impudence to *Tweedlee Dee*, it's really no more than a novelty. At the end of *Hound Dog*, he slows the chorus down to a bump 'n' grind beat as the audience's screams build with each repetition: the performance sounds as if it was quite a show, but misses something without Presley's accompanying gestures. It's on *Baby, Let's Play House* and *That's All Right* that Elvis and sidemen, guitarist Scotty Moore and bassist Bill Black, support the widely held opinion that Presley made the most vital music of his career before he hitched up with Colonel Tom Parker. These two tracks are insolent rockabilly at its feistiest, Presley emphatically staking his claim, Presley without restraint.

There's only about twelve minutes of music on "The First Live Recordings," and not all of it is essential listening, but as a document of Presley in his early prime, it can't be dismissed. The title itself may be a misnomer, however; recordings from a March 1955 Houston concert (including two of the same songs) were distributed by Virgin Records a few years ago under the title "Elvis, Scotty and Bill, The First Year."

MITCHELL COHEN

**The Slickee Boys:
Cybernetic Dreams of Pi**
John Chumbris & the Slickee Boys,
producers, Twin Tone TTR 8337

Although "Cybernetic Dreams of Pi" is what the Slickee Boys' record company describes as the band's "first real album," this Washington, D.C., quintet has a sizable catalog to its credit. Since forming in 1976, they've released six EPs, contributed a dozen songs to nine anthology albums, and issued a German 45s compilation.

"Cybernetic Dreams of Pi" confirms

what you might suspect from such a résumé: The Slickee Boys make smart, brisk pop inspired by any number of hip genres, most notably punk and psychedelic music. Cult bands are usually limited to a relatively small audience for a good reason: Too often, the music doesn't transcend its own cleverness, or tell people anything more than they expected to hear.

There are a few cuts here, however, that really reach out. *When I Go to the Beach*, for example, works as an affectionate beach-rock parody of Dick Dale and Jan and Dean, while *You've Got What It Takes* and *Escalator 66* are as bouncily pretty as anything on the radio. Two covers of '60s psychedelic songs, *Invisible People* and *Pictures of Matchstick Men*, are played without camp flourishes, simulating that mind-blown feeling better than the efforts of a more critically esteemed band such as Green on Red.

The Slickee Boys took their name, they say, from a Chinese youth gang, but there is little doubt that they probably wanted to associate themselves with the word "slick" before some grumpy journalist put a negative connotation to it. Nonetheless, it's my duty to report that there is a kind of hollow facility on songs like *Nagasaki Neuter* and *Pushin' My Luck*—the rave-ups are received, the lyrics too self-consciously banal—that necessarily limits one's appreciation. The Smartie Boys, I'd've called 'em.

KEN TUCKER

Womack & Womack: Love Wars
Stewart Levine, producer
Elektra 60293

The men and women that Cecil and Linda Womack portray on "Love Wars" almost never want the same thing at the same time, which makes this one of the most realistic, adult pop-soul albums to come along in a while. A married couple who have known each other since childhood, the Womacks are candid about the tug of sexuality and the traps it can set. Depicting the contemporary love affair as an intricate series of battles, they circle each other, testing out motives, points of vulnerability.

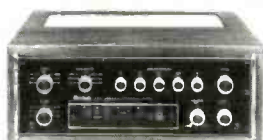
Linda sings, "I'm the kind of woman who deserves all she needs," but she isn't looking for quick gratification. Cecil tries to sweep her off her feet on *Baby I'm Scared Of You*; she's attracted, but holding back. "I need a man," she sings. "I'm available," he answers, and it sounds like a reflexive response. "Mean everything he say," she continues; but he has no comeback. Cecil summons the usual blustery come-ons as Linda repeats, "I need a little more." It looks like a standoff, but by the end they've negotiated a mutually satisfying contract.

While Linda comes off best when she's setting the terms, Cecil's most effective when he plays someone who's a little shell-shocked. On *A.P.B.* (in the tradition

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BRENDEL ON LIVE RECORDS

(Continued from page 62)

from a premeditated result as a poem differs from a timetable.

Although I would not normally wish to make a planned live recording, an exception took place in Chicago last year. On this occasion the effort of performing the cycle of Beethoven Piano Concertos was added to the risks of making the recording. The Chicago Symphony Orchestra, James Levine, and I are old acquaintances. My contact with that splendid orchestra goes back to 1970 and has continued with welcome regularity. The Ravinia Festival of 1977 gave us our initial opportunity to collaborate on the Beethoven concertos. On the first evening, the temperature was around 100 degrees and the humidity about 95 percent, which disturbed the orchestra not a whit; its concentration and control remained virtually unaffected. The cycle was repeated two years later. Finally, in June 1983, two series of the concertos were recorded digitally in Chicago's Orchestra Hall.

This undertaking had a double goal. We intended to examine the works and realize a concept of them, in several stages. The rehearsals were used to go into, among other things, the difference between sforzando and forte piano. Levine and I found ourselves in agreement about what Beethoven's scores communicate, while the musicians of the orchestra never tired of reexamining pieces they had long ago "mastered." At the same time, we hoped to capture the tension that manifested itself more readily before the public, to achieve the kind of spontaneity, within preset borders, that would lead us to discover the music rather than reproduce it.

The confidence of all concerned in one another was the safety factor that made the risk of this live recording a calculable one. But it would have been extremely unwise, not to say foolhardy (if only for technical reasons), to have relied on the tightrope walk of a single series of performances. The availability of two cycles enabled us to combine the benefits of concert hall and studio: the freshness of the moment with the advantages of having a choice. I am not giving away any secrets if I say that live recordings nearly always work in this way, seeking a synthesis or compromise between both worlds.

Still, despite all precautions, the public could have spoiled the lot. Over the years, I can remember concerts with screaming babies (Japan), a barking dog (New York), a mewing cat (Istanbul), somebody falling down in a faint, a maniac clapping in the most improbable places, and a power cut plunging us all into darkness. None of these occurred during the Chicago performances, and the exceptional stillness and concentration of the Orchestra Hall audience filled me with gratitude. I was almost allowed to forget how dangerously the musician lives when recording live. **HF**

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