

BEATLES CDs! VIDEOS!

JUNE 1987 \$2.50 USA \$3.50 CANADA



HIGH FIDELITY

AUDIO • VIDEO • TEST REPORTS • MUSIC

SUMMERTIME SOUND GUIDE

BUYING SPEAKERS?

EXPOSÉ!

13 COMMON
LOUDSPEAKER
SALES SCAMS

6 HOT NEW
MODELS TESTED

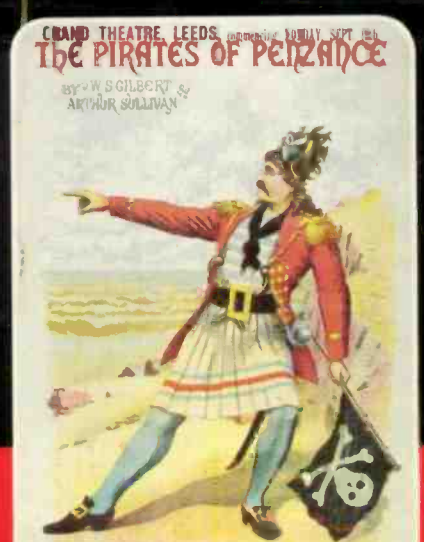
CONSIDERING SURROUND-SOUND?

HOW IT WORKS

HOW SHOULD
IT SOUND?

21 BEST HOME
SURROUND VIDEOS

FIRST LOOK AT
NEC'S AVD-700E
PROCESSOR



#131C*****5-DIGIT 19025
#25333 7JEF45# 16 OCT90
2H514 13337 JEF98 HIF
MR D P HASTINGS
3337 JEFFREY DR
DRESHER PA 19025

VINYLAGE U&S RECYCLED ON CD, LP, & TAPE

Not Evolutionary,

Pioneer's Revolutionary C-90/M-90 Elite High-Fidelity Components.

Audiophiles, take note: The preamp and amplifier you've been waiting for are finally here.

Introducing the Pioneer Elite Hi-Fi C-90 Preamp and M-90 Power Amplifier. Together, they combine the finest in both audio and video to retrieve every detail and nuance found in your cherished records, tapes, compact discs, LaserVision™ discs and other software. Imagine a soundstage spread throughout your entire listening room! Stunning, transparent, three-dimensional music, the likes of which you've never heard, apart from a live performance.

We paid fantastic attention to detail to gain this level of musical truth. One example: the C-90 volume control is a motorized, high precision rotary potentiometer. This permitted us to create the world's first high-end preamp with a no-compromise hand-held "SR"™ remote-control unit.

The C-90 features three separate power transformers—two to power left and right audio channels for vanishingly low crosstalk, and a third transformer to drive the preamp's unique video capabilities, relays, display and microprocessor. All switching functions are accomplished by electronic relays. Thus the signal paths are as short as possible, improving signal-to-noise ratio and channel separation. Anti-vibration measures taken to further the C-90's sonic excellence include a solid aluminum volume control knob, polycarbonate chassis feet, and rubber-cradled PC boards. Soft copper-plated screws insure a snug fit of chassis, transformers, transistors, and help to dampen vibration.

The C-90 Preamp readies you for the video revolution, with six video inputs, a built-in

video enhancer, and two-buss switching (separate "Record" and "View" selectors). The C-90's unique system remote-control unit features volume adjustment, input source selection, and control of audio and video input devices such as Pioneer's "SR" compatible VCRs, CDs, LaserVision players and cassette decks.

The M-90 is a superb high-power stereo amplifier, utilizing dual-mono construction. It is conservatively rated at 200 W/CH into 8 ohms¹ and delivers 800 W/CH of dynamic power at 2 ohms.² The wide dynamic range of digital sources can now be reproduced effortlessly, with any loudspeakers. The M-90's high current capacity of 47 amps can handle the challenge of the most complex speaker loads. To further enhance S/N ratio and channel separation, relay-operated electronic switches and a long shaft volume control keep the length of signal paths down to a minimum. Why include a high quality volume control on a power amp? Simple. To pursue the straight-wire-with-gain philosophy when using a CD player connected directly. Pure sound, redefined.

The exquisite finish of the M-90 and C-90 reflects their quality. Elegant rosewood side panels and front panels with a deep hand-brushed lacquer finish emphasize the care of craftsmanship we've lavished on these two components. The Pioneer C-90 Preamp and M-90 Power Amp. Evolutionary? Hardly. Revolutionary? Most definitely.

For your nearest Pioneer Elite Hi-Fi dealer, phone 1-800-421-1404.

Revolutionary.



 **PIONEER®**

CATCH THE SPIRIT OF A TRUE PIONEER.

The one and only now offers you



the one-of-a-kind 10 disc changer



and the only carousel 5 disc changer.

Sony's two new DiscJockey CD changers give you twice as much to choose from.

There are no two ways about it. Only Sony offers the incredible sound of compact disc with the convenience of either a five or ten disc changer.

Consider the CDP-C10. It lets you sit back and listen for over ten hours. And since it's the only changer with a magazine compatible with the Sony Car DiscJockey, you can get even greater mileage from your CD music library.

Speaking of high performance, the CDP-C10 offers advanced programming, shuffle play and direct disc and track



selection. Then there's the affordable CDP-C5F. Its unique carousel design gives you over five hours of music, with 32-track programming, four repeat modes and the fastest access time of any changer anywhere.

Both changers feature remote control and renowned Sony technology like the Unilinear Converter/digital filter and aspheric lens laser optics for superior CD player performance.

So remember, only Sony offers a choice of changers that play for five or ten hours. But you'll hear how good they sound in seconds.

DiscJockey.® SONY®

THE LEADER IN DIGITAL AUDIO™



JUNE

IN HIGH FIDELITY

VOL. 37 NO. 6 JUNE 1987



COVER DESIGN:
ROBERT V. DELEVANTE, JR., AND
MICHAEL O. DELEVANTE

COVER PHOTOS:
NICHOLAS BASILION (EQUIP-
MENT); UPI/BETTMANN NEWS-
PHOTOS (BEATLES); COURTESY OF
TRUSTEES OF PIERPONT MOR-
GAN LIBRARY ("PIRATES" POSTER)

ON THE COVER:
FROM TOP: ADS L-990 LOUD-
SPEAKER; BOSE AM-5 THREE-PIECE
SPEAKER SYSTEM; NEC AVD-700E
SURROUND-SOUND PROCESSOR

Test Reports

- 24 **ADS L-990** loudspeaker
- 27 **Siefert Research** Magnum III loudspeaker
- 28 **Bose AM-5** three-piece speaker system
- 30 **Paradigm 9se** loudspeaker
- 35 **DCM Timeframe TF-250** loudspeaker
- 36 **3D Acoustics** Cube loudspeaker
- 37 **NEC AVD-700E** surround-sound processor

Audio & Video

- 42 **"I Can Make You an Awesome Deal"**
by Kenneth L. Kantor
A speaker-shopper's guide to deceptive sales tactics
- 49 **Surround-Sound Attractions**
by Robert B. Schuelein
Distinguishing good surround-sound from the so-so and the downright bad

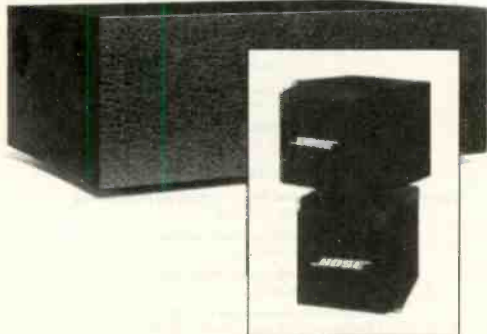
Music

- CLASSICAL**
- 56 **Very Model Records of the Major Gilbert & Sullivan**
by Paul Kresh
The early electric D'Oyly Cartes are reissued.
- POPULAR/BACKBEAT**
- 70 **One, Two, Three, Four!**
by Richard C. Walls, Jim Bessman, Jeff Nesin,
Mark Moses, Ken Richardson, and David Browne
The Beatles on Compact Disc and videocassette

Departments

- 4 **Front Lines** Copy-coding misconceptions
- 5 **Letters**
- 13 **Currents** Yamaha makes more than a bit of a difference; First VHS Hi-Fi camcorder
- 19 **Scan Lines** Rescuing Beta and the videodisc
- 54 **Medley** A call-to-arms for human drummers; RCA Red Seal revival
- 59 **The CD Spread** Symphonies by Mozart, Shostakovich, and Sibelius; Guitar recital from Prévost
- 61 **Classical Reviews** Brendel plays Haydn; Solti conducts Verdi; Tchaikovsky from Karajan and Maazel
- 80 **Advertising Index and Reader-Action Page**

HIGH FIDELITY (ISSN 0018-1455) is published monthly at 825 Seventh Ave., New York, N.Y. 10019, by ABC Consumer Magazines, Inc., a division of ABC Publishing, Inc., and a subsidiary of American Broadcasting Companies, Inc. © 1987 by ABC Consumer Magazines, Inc. The design and contents are fully protected by copyright and must not be reproduced in any manner. Second-class postage paid at New York, New York, and at additional mailing offices. Authorized as second-class mail by the Post Office Department, Ottawa, and for payment of postage in cash. Yearly subscription in the U.S.A. and Possessions \$13.95; elsewhere \$20.95. Single copies \$2.50 (Canada \$3.50). Subscribers: Send subscriptions, inquiries, and address changes to HIGH FIDELITY, P.O. Box 10759, Des Moines, Iowa 50340. Change of address: Give old and new addresses, including ZIP codes. Enclose address label from last issue and allow five weeks for change to become effective. **POSTMASTER: Send change of address to HIGH FIDELITY, P.O. Box 10759, Des Moines, IA 50340.**





B Y
M I C H A E L
R I G G S

COPY-CODING MISCONCEPTIONS

AS I WRITE THIS COLUMN, OUR TECHNICAL EDITOR, DAVID Ranada, is in Washington, D.C., attending a joint hearing before subcommittees of the House and Senate Judiciary Committees. The subject is legislation that would require inclusion of CBS's copy-guard circuitry in any digital audio tape deck sold in this country, to prevent dubbing of appropriately encoded commercial recordings. We've been discussing this legislation for the last couple of issues (April "Currents" and April and May "Front Lines"), and the copy-coding system itself is explained in our April 1986 "Currents" column.

Reader response indicates that there is some confusion about the nature of the proposed copy-code system. The most serious misconception is that the system is digital in nature and therefore applicable only to CD and DAT. In fact, it is entirely analog. Any audio signal can be encoded, and any tape deck (including ordinary analog cassette decks) can be fitted with copy-guard circuits that will prevent it from recording encoded material. In other words, if the legislation that would require copy-code circuitry in DAT machines is passed, you can expect record companies to start encoding LPs, CDs, prerecorded cassettes—the whole works. And I think that we will see them back in Congress next year, asking not only that the restriction on DAT decks be continued, but also that it be extended to analog recorders (perhaps even VCRs), requiring that they, too, be fitted with copy-code circuits. DAT is serving as their Trojan horse.

The other big misconception I find is that copy-coding won't matter to people who don't tape. Unfortunately, it will. There are indications that on some music the encoding—a sharp notch at about 4 kHz—is clearly and unpleasantly audible. (CBS has so far refused to release certain key information on the design of the encoding filter, hampering our ability to draw firm conclusions.) We are working now to determine just how severe this problem is, but any such mutilation of recorded music is a blow against all that we've stood for in the 36 years of HIGH FIDELITY's existence.

Again, we urge that you write your Senators and Congressmen without delay to oppose passage of copy-coding legislation. (The relevant bills are, in the House, HR-1384, HR-1155, and HR-3 and, in the Senate, S-506, S-490, and S-635.) The future of high-quality music reproduction hangs in the balance. ■

HIGH FIDELITY is published monthly by ABC Consumer Magazines, Inc., a division of ABC Publishing, Inc., and a subsidiary of American Broadcasting Companies, Inc. © 1987 ABC Consumer Magazines, Inc. Member, Audit Bureau of Circulations. Indexed in Reader's Guide to Periodical Literature. Current and back copies of HIGH FIDELITY are available on microfilm from University Microfilms, Ann Arbor, Mich. 48106. Microfiche copies (1973 forward) are available from Bell & Howell Micro Photo Div., Old Mansfield Rd., Wooster, Ohio 44691.

ADVERTISING OFFICES

New York: ABC Consumer Magazines, Inc., 825 Seventh Ave., 8th fl., New York, N.Y. 10019. Tel. (212) 265-8360. Peter T. Johnsmeyer, Group Advertising Director; Andrew Eisenberg, Associate Advertising Director; James R. McCallum, Record Advertising Manager; Maria Manoseri, Classified Advertising Manager; Angelo Puleo, Director of Production; Janet Cermak, Advertising Production Manager.

Midwest: HIGH FIDELITY, 580 WatersEdge, Lombard, Ill. 60148. Tel. (312) 691-1165/7. Starr Lane, Midwest Advertising Director.

Los Angeles: ABC Consumer Magazines, Inc., 1888 Century Park East, Suite 920, Los Angeles, Calif. 90067. Tel. (213) 557-7587. Howard Berman, Western Advertising Director.

Editorial correspondence should be addressed to The Editor, HIGH FIDELITY, 825 Seventh Ave., New York, N.Y. 10019. Editorial contributions will be welcomed, and payment for articles accepted will be arranged prior to publication. Submissions must be accompanied by return postage and will be handled with reasonable care; however, the publisher assumes no responsibility for return of unsolicited photographs or manuscripts.

HIGH FIDELITY

Publisher/Editorial Director
William Tynan

Editor
Michael Riggs

Art Director
Michael O. Delevante
Managing Editor
Kathleen Green

Associate Editor
Mildred Camacho

Copy Editor
Stephen Calvert

Assistant Copy Editor
Leslie Billig

Assistant Managing Editor
Jonathan Tesser

Assistant Managing Editor/Special Projects
Sigfredo G. Ferregur

Assistant to the Publisher
Darleen D. Edwards

TECHNICAL DEPARTMENT

Technical Editor
David Ranada

Assistant Technical Editor
Christopher J. Esse

Consulting Technical Editors
Edward J. Foster, Robert Long

Contributing Editors
Larry Klein, Jay C. Taylor

Assistant
Judith Nichols

MUSIC DEPARTMENT

Classical Music Editor
Theodore W. Libbey, Jr.

Popular Music Editor
Ken Richardson

Contributing Editors
Robert E. Benson, Leslie Berman, Pamela Bloom, R. D. Darrell, Francis Davis, Rev. Thomas L. Dixon, Thor Eckert, Jr., Steve Futterman, Edward Greenfield, Thomas Hathaway, Paul Hume, Joyce Millman, Paul Moor, John Morthland, Jeff Nesin, Robert R. Reilly, Thomas W. Russell III, Terry 'leachout, Noah André Trudeau, Michael Ullman, Richard C. Walls, James Wierzbicki

Assistant
Kim Parker-Dumont

ART DEPARTMENT

Design Consultant
Robert V. Delevante, Jr.

Assistant Art Director
Susan Zoppi

Technical Art
Roy Lindstrom

PRODUCTION DEPARTMENT

Director of Production
Angelo Puleo

Advertising Production Manager
Janet Cermak

Typesetting Systems Manager
Michele Farkas

CIRCULATION DEPARTMENT

Vice-President, Newsstand Sales/Consumer Magazines
Dominic Mustello

Director, Circulation/Subscriptions
John Rand

National Sales Manager/Newsstand
Jim Roberts

Circulation Subscription Staff
Ora Blackmon-DeBrown, Charlotte Hart, Andrée Rittenhouse, James J. Smith

Customer Service
Drusilla Randolph

ABC CONSUMER MAGAZINES, INC.

James A. Casella, **President**
Richard J. Marino, **Vice-President, Advertising**
Lucian A. Parziale, **Vice-President, Operations**
Christopher M. Savine, **Vice-President, Finance**
Ernest G. Scarfone, **Vice-President, Graphics/Production**

ONE OF THE **ABC PUBLISHING** COMPANIES
Robert G. Burton, **President**
1330 Avenue of the Americas, New York, N.Y. 10019



Magazine Publishers Association

PRO DAT

I WANT A DAT DECK, BUT NOT TO RECORD MY CDs. Who needs Compact Discs? When pre-recorded DAT cassettes become available, they will definitely be cheaper than CDs. Tape duplication technology is mature, yet still improving. Add to that the advantages of smaller size, slightly better fidelity, and the ability to play them in the car, and I can't find much reason not to go totally DAT in my library. I'll tape all my LPs and toss them. Why would someone buy a \$20 CD and record it on a \$4 tape when he could have bought the thing already on tape for \$12?

As for copy protection, the record companies must be kidding. No scheme will stop me from copying if I go analog between machines. The loss in fidelity will be minuscule; certainly the tapes will be good enough for my car or my digital Walkman. The record companies should give up this copy-coding idea and sell prerecorded DAT cassettes. I don't want to pay an extra \$8 for a piece of music just because Compact Disc is a more exotic medium.

Bill Mauchly
Berwyn, Pa.

Unfortunately, the situation is worse than you suppose. The CBS copy-protection system is analog, not digital. It can be applied to LPs, prerecorded tapes, radio and television broadcasts, the soundtracks of videotapes—anything. And the chips can be installed in analog tape decks just as easily as in digital ones. In other words, recording through the analog inputs of a DAT deck won't get you around the copy-guard. (The DAT standard has always included digital copy protection, to prevent direct, bit-level dubbing of CDs and other prerecorded digital sources, so that's not what's at issue.) Most troubling, however, is the fact that the CBS system can degrade the sound quality of the recordings to which it is applied. That should alarm even nontapers.

Also, your knock on CD seems a little hard. Compact Discs can be played in the car, and their fidelity is every bit as good as you'll get from DAT. Moreover, it's not clear that prerecorded DATs (if we get them at all) will necessarily be cheaper than CDs—particularly in the absence of high-speed duplicators, which may not be available for some time. CD prices will drop this year, and even blank DAT cassettes will be expensive: in the \$10 range.—Ed.

I AM A PERFORMING MUSICIAN AND AN AS YET unpublished songwriter. In addition, I have been a music collector for more than 15 years and have accumulated more than 1,100 LPs, at least 100 prerecorded cassettes, and a small but rapidly growing number of Compact Discs. I have owned cassette decks since the early Seventies and have spent many hours engaged in the very enjoyable hobby of home recording.

When I go to a store and see the prices of records and Compact Discs and the people

standing in line to buy them, I think how ridiculous are the record industry's complaints of losing revenue to home taping. The attitude of the record companies (and their friends in Washington) is infuriating. I resent being put in the position of having to defend my right to tape. When I record at home, it's almost always to combine previously purchased music from various sources for more convenient listening. Consequently, I find the recent development of technology to prevent copying of prerecorded material onto tape very disturbing. If the record companies can get this copy-coding technology accepted for DAT, they will next attempt to get it applied to analog audio tape and probably videotape as well.

If the record industry is so concerned with lost revenues, there are better ways it could spend the hundreds of thousands of dollars it is pouring into Congress to deprive consumers of their right to tape. The money could go toward the construction of domestic CD factories, to catch up with a market that is growing so fast that there are waiting lists for many discs. (Amazingly, the industry seems to be making the same mistake with DAT that it committed in the early days of CD: dragging its heels instead of gearing up for production.) Or how about spending some money to improve prerecorded cas-

settes, many of which are of such poor quality that better sound can be obtained by copying a used LP on a \$150 tape deck.

And I am tired of hearing lip service paid to the idea of "ensuring that the people who make the music get their share" from record-company executives mainly interested in lining their own pockets. One can only hope that equipment manufacturers and other supporters of consumer rights will be able to counter the powerful political pull of the RIAA (Recording Industry Association of America) and prevent a few greedy executives from destroying one of America's most popular hobbies.

Vernon W. Miller
Orlando, Fla.

"I'M A LOSER," SAYS BEATLE FAN

I'M WRITING THIS LETTER TO WARN YOUR readers not to fall into the trap that I have (if they haven't already). Like many others, I have waited four years for the Beatles to be issued on Compact Disc. Finally, the first four titles are released. I plop down my \$60 and take them home, thinking I'm going to get great sound. But when I load each one into the player, I find something's missing: stereo! What a ripoff! Nowhere on the packaging does it say that these CDs are mono; (CONTINUED ON PAGE 11)

1. BUILT-IN DIGITAL SYNTHESIZED AM/FM STEREO TUNER
2. 10 STATION PRE-SETS (5 FM, 5 AM)
3. DOLBY*B NR
4. 3 BAND GRAPHIC EQUALIZER
5. AUTO-REVERSE
6. UP/DOWN AUTO-SCAN
7. ANTI-ROLLING MECHANISM
8. SOFT TOUCH CONTROLS
9. STEREO/MONO SELECTOR
10. DETACHABLE BELT CLIP
11. LIGHTWEIGHT STEREO HEADPHONES

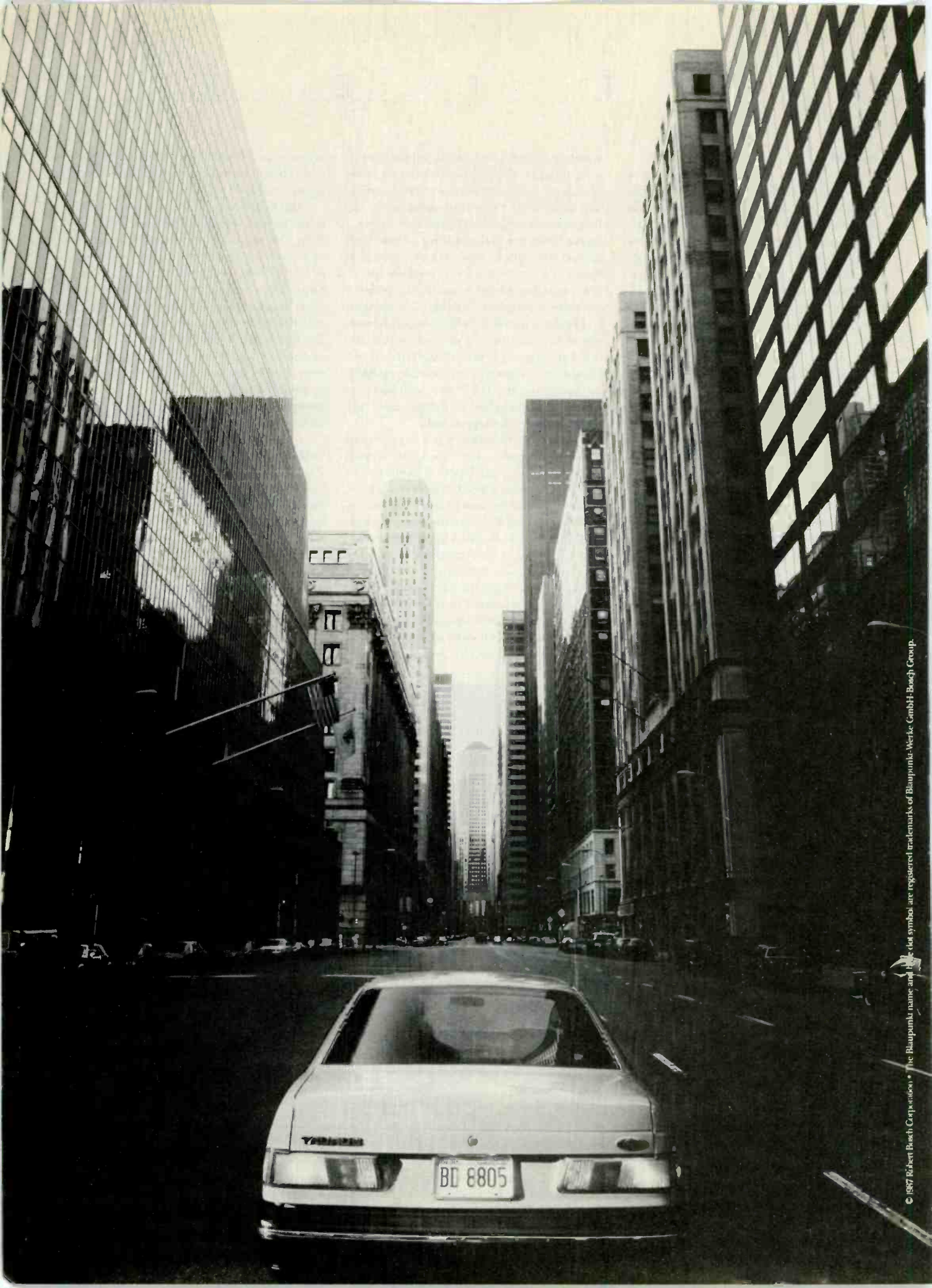
Next year, the kitchen sink.

It's got everything. Including digital synthesized tuning with 10 presets. Auto-reverse. Dolby*B noise reduction. An anti-roll mechanism (so the tape won't shake, rattle or roll). And sound you won't hear from some home systems.

The Toshiba KT-4066. We didn't leave much room for improvement. *TM Dolby Labs

In Touch with Tomorrow
TOSHIBA

Toshiba America, Inc., 82 Totowa Road, Wayne, NJ 07470



© 1987 Robert Bosch Corporation • The Blaupunkt name and the 404 symbol are registered trademarks of Blaupunkt Werke GmbH-Bosch Group.

After the mountains of Europe, the canyons of North America pose no problem for a Blaupunkt.

For a Blaupunkt car stereo, the radio reception difficulties created by big city buildings are no big deal.

Because ever since the first



Blaupunkt was introduced in 1932, our tuners have had to overcome much bigger obstacles.

The Alps.

The Pyrenees.

The Apennines.

These European mountain ranges make even the towering headquarters of modern mega-corporations appear puny by contrast.

Yet thanks to the ingenuity of our 326 car audio engineers in Hildesheim, West Germany, Blaupunkt car stereos are superbly equipped to handle even the most extreme FM reception problems.

You see, a car stereo's ability to capture an FM radio signal is determined by five factors: FM sensitivity. Selectivity. Multi-path distortion. Signal attenuation. And RF intermodulation.

Most car stereo systems do a reasonably good job with two—perhaps three—of these factors.

But due to the persistence of our engineers—and the dozens of patents we've earned in this area alone—Blaupunkt's CODEM III and ORC II dynamic tuning systems do exceptionally well in all five areas.

Which helps explain why Blaupunkt has earned a reputation for engineering the world's finest tuners.

We even take the trouble to design our own antennas.

Something not one of our competitors bothers with.

So if you're an urban motorist frustrated by all those buildings wreaking havoc with the signals of all your favorite stations, pay a visit to your independent Blaupunkt car stereo specialist. (For the one nearest you, please call us at 1-800-237-7999.)

What you hear will be music to your ears.

Without all the static you've been accustomed to.

● BLAUPUNKT
Designed for people with ears.
And something between them.

Matthew Polk's Awesome Sounding SDA-SRS & SDA-SRS 2



SDA SRS 2
\$995 ea.

SDA SRS
\$1495 ea.

Digital Disc Ready

**Matthew Polk's SDA SRS and SRS 2 have both won
the prestigious AudioVideo Grand Prix Speaker of the Year Award.**

"The Genius of Matthew Polk Has Created Two Awesome Sounding Grand Prix Award Winning SDA SRSs"

"Spectacular...it is quite an experience"

Stereo Review Magazine

Now the genius of Matthew Polk brings you the awesome sonic performance of the SDA-SRS in a smaller, more moderately priced, but no less extraordinary loudspeaker, the SDA-SRS 2.

Matthew Polk's own dream speakers can now be yours!

Matthew Polk's ultimate dream loudspeaker, the SDA-SRS, won the prestigious Audio Video Grand Prix Speaker of the Year award last year. Stereo Review said "Spectacular...it is quite an experience" and also stated that the SRS was probably the most impressive new speaker at the 1985 Consumer Electronics Show. Thousands of man hours and hundreds of thousands of dollars were spent to produce this ultimate loudspeaker for discerning listeners who seek the absolute state-of-the-art in musical and sonic reproduction.

Matthew Polk has, during the last year, continued to push his creative genius to the limit in order to develop a smaller, more moderately priced Signature Edition SDA incorporating virtually all of the innovations and design features of the SRS without significantly compromising its awesome sonic performance. The extraordinary new SRS 2 is the spectacularly successful result. Music lovers who are privileged to own a pair of either model will share Matthew Polk's pride every time they sit down and enjoy the unparalleled experience of listening to their favorite music through these extraordinary loudspeakers, or when they demonstrate them to their admiring friends.

"Exceptional performance no matter how you look at it"

Stereo Review

Listening to any Polk True Stereo SDA* is a remarkable experience. Listening to either of the Signature Edition SDAs is an awesome revelation. Their extraordinarily lifelike three-dimensional imaging surrounds the listener in 360° panorama of sonic splendor. The awe inspiring bass performance and dynamic range will astound you. Their high definition clarity

allows you to hear every detail of the original musical performance; while their exceptionally smooth, natural, low distortion reproduction encourages you to totally indulge and immerse yourself in your favorite recordings for hours on end.

Julian Hirsch of Stereo Review summed it up well in his rave review of the SDA-SRS: "The composite frequency response was exceptional...The SDA system works...The effect can be quite spectacular...We heard the sound to our sides, a full 90° away from the speakers...As good as the SDA feature is, we were even more impressed by the overall quality of the Polk SDA-SRS...The sound is superbly balanced and totally effortless...Exceptional low bass. We have never measured a low bass distortion level as low as that of the SDA-SRS...It is quite an experience! Furthermore, it is not necessary to play the music loud to enjoy the tactile qualities of deep bass...Exceptional performance no matter how you look at it."

The awe-inspiring sonic performance of the SDA-SRS 2 is remarkably similar to that of the SRS. Words alone can not express the experience of listening to these ultimate loudspeaker systems. You simply must hear them for yourself!

"Literally a new dimension in sound"

Stereo Review

Both the SDA-SRS and the SDA-SRS 2 are high efficiency systems of awesome dynamic range and bass capabilities. They both incorporate Polk's patented SDA True Stereo technology which reproduces music with a precise, life-like three dimensional soundstage which is unequalled and gives you, as Julian Hirsch of Stereo Review said, "literally a new dimension in sound". Each beautifully styled and finished SRS 2 cabinet contains 4 Polk 6½" trilaminate polymer drivers, a planar 15" sub-bass radiator, 2 Polk 1" silver-coil polyamide dome tweeters and a complex, sophisticated isophase crossover system. It is rated to handle 750 watts. The SRS utilizes 8-6½" drivers, a 15" sub-bass radiator, 4 Polk tweeters and an even more complex crossover. It is rated to handle 1000 watts.

Both the SDA-SRS and SRS 2 incorporate:

- 1.) time compensated, phase-coherent multiple

- 2.) driver vertical line-source topology for greater clarity, increased coherency, lower distortion, higher power handling, increased dynamic range and more accurate imaging.
- 3.) a mono-coque cabinet with elaborate bracing and MDF baffle for lower cabinet read-out and lower coloration.
- 4.) progressive variation of the high frequency high-pass circuitry for point-source

"Literally a new dimension in the sound"

Stereo Review Magazine

operation and wide vertical dispersion. 4.) the use of small active drivers in a full complement sub-bass drive configuration coupled to a large 15" sub-bass radiator for extraordinarily tight, quick and three-dimensional mid and upper bass detail combined with low and sub-bass capabilities which are exceptional. The speakers are beautifully finished in oiled oak and walnut.

Other superb sounding Polk speakers from \$85. ea.

No matter what your budget is, there is a superb sounding Polk speaker perfect for you. Polk's incredible sounding/affordably priced Monitor Series loudspeakers start as low as \$85 ea. The breathtaking sonic benefits of Polk's revolutionary True Stereo SDA technology are available in all Polk's SDA loudspeakers which begin as low as \$395. each.

"Our advice is not to buy speakers until you've heard the Polks"

Musician Magazine

The experts agree: Polk speakers sound better! Hear them for yourself. Use the reader service card for more information and visit your nearest Polk dealer today. Your ears will thank you.

polk audio
The Speaker Specialists

5601 Metro Drive, Baltimore, Md. 21215

*U.S. Patent No. 4,489, 432 and 4,497, 064. Other patents pending.

Where to buy Polk Speakers? For your nearest dealer, see page 75.

**THINK OF IT AS THE
WORLD'S SMALLEST DIGITAL PLAYER.**



Now you can take the dynamics of digital performance anywhere. With TDK HX-S. It captures the purity and nuances of digital sound like no other high-bias audio cassette.

Specifically designed to record digitally-sourced materials, HX-S offers four times the magnetic storage capability of other high-bias cassettes available today. Plus unmatched high frequency MOL (Maximum Output Level) for optimum performance.

With all this going for it, HX-S does more than step-up your pocket-sized player. It also acts like fuel injection for your car audio system. And it can turn a boombox into a portable music hall.

TDK HX-S. One small step for digital. One giant leap for music-kind.

TDK

THE ART OF PERFORMANCE.

TDK is the world's leading manufacturer of audio & video cassettes and floppy disk products.

© 1986 TDK Electronics Corp.

(CONTINUED FROM PAGE 5) not until you open them (at which point you can't return them) do you find out. All of these titles are available in stereo: I know because I have all the imported British LPs.

At the very minimum, Capitol should have mentioned "mono" on the packaging. But there is no excuse for these CDs to be mono in the first place. Why has Capitol dumped these dinosaurs on an unsuspecting public? The best thing about the Beatles is their stereo separation, and now Capitol has robbed us of it.

J. R. Thomas
Reisterstown, Md.

We can't agree that the best thing about the Beatles is their stereo separation, but we do agree that the CD packaging should have included a reference to the mono sound. For full treatment of the mono vs. stereo debate, see our comprehensive coverage of the Beatles on CD and video in this month's BACKBEAT section.—Ed.

NOISELESS FEEDBACK

I RECEIVED QUITE A JOLT FROM MY VERY FIRST subscription issue of HIGH FIDELITY. As a "serious" collector, I take exception to Theodore Libbey's statement that "impor-

tant Furtwängler reissues have infinitely more appeal than Sills bonbons," from "A Little Less Noise, Please" [March].

My interest in Furtwängler is not so insatiable when conductors like Walter, Toscanini, Böhm, and Solti are available on CD reissues. As for Sills, her early recordings of *Manon*, *Lucia*, and the Donizetti queens, as well as a few early recital discs, belong in any serious collection. Furthermore, Ashkenazy, a musician to the core, has recorded some fine symphonic works (including Strauss's) in more straightforward, unmannered interpretations than many other "noted" conductors. Get off your high horse, Ted!

David Glogower
Monroe, N.Y.

We agree that the Sills recordings you mention belong in any serious collection. Unfortunately, they are not the ones Angel has released on CD. Say what you like about Ashkenazy; we continue to believe that he is one of the most underrated musicians currently before the public.—Ed.

IT WAS MOST INTERESTING TO RECEIVE A letter from one of the many music lovers who enjoy the recordings that Philips Classics issues and on the same day read Ted

Libbey's March article on his perceptions of the current state of Compact Discs. While our correspondent, Mr. Hayman, is also asking for more reissues on CD, he is far more objective and positive in his approach than Mr. Libbey. The tone of the HIGH FIDELITY essay was condescending to the point of being insulting. It is disturbing to see Libbey use such a respected publication as yours to vent his very subjective and rather ignorant views.

Both Philips and Deutsche Grammophon have carefully chosen to present on CD a broad array of performances of both warhorses and unusual repertoire. Mr. Libbey should not so lightly cast aside labels whose CD catalogs together have not only all the Beethoven symphonies and piano concertos (the latter by an American orchestra—hardly an inexpensive way to record these days), but also rarities like Haydn's *Seven Last Words* or Rossini's *Viaggio a Reims* (a *Stereo Review* Record of the Month), not to mention Luigi Nono's *Fragmente—Stille, an Diotima* or Liszt's *Via Crucis* (also a *Stereo Review* Record of the Month). And as to playing times, for every short CD Mr. Libbey can find, we would gladly point out extra long ones. ▶



MUSICAL AMERICA

INTERNATIONAL DIRECTORY OF THE PERFORMING ARTS

THE WORLD'S MOST IMPORTANT BOOK FOR PEOPLE INVOLVED IN THE ART AND BUSINESS OF MUSIC AND DANCE

- More than 650 large-size pages in length
- Fully indexed categorically and alphabetically
- Lists every orchestra in the U.S. and Canada, including number of concerts given, *Musical Director and Manager*, seating capacity, phone, address, and more
- Profile of Mstislav Rostropovich, "Musician of the Year"
- Complete listings of Choral Groups, Dance, Opera, and Performing Arts Series
- Opera companies' productions for the next two years
- 850 facilities listed by state and city
- Music publishers, schools, agencies, contests, foundations, and awards
- Addresses, phone numbers of more than 500 newspaper and magazine music critics

ORDER NOW
SUPPLY LIMITED

THE MUSICAL AMERICA INTERNATIONAL DIRECTORY 1987 Edition

Yes, please send me _____ soft-cover 1987 Directories for \$40 each (including postage and handling on U.S. orders. Outside U.S. add \$10 for surface mail, \$20 for air mail). Check enclosed. Charge: Mastercard VISA CARD NO. _____ EXP DATE _____ SIGNATURE _____

I'd prefer _____ copies of the deluxe hard-bound limited edition for \$70 each. (Outside U.S. add \$10 for surface mail, \$20 for air mail. Shipped free in a rugged, custom-designed, corrugated protective box.) CHECK OR MONEY ORDER (IN U.S. DOLLARS ONLY, DRAWN ON A BANK WITH A U.S. ADDRESS) PAYABLE TO MUSICAL AMERICA DIRECTORY. SEND FORM TO MUSICAL AMERICA DIRECTORY, CIRCULATION DEPARTMENT, 8TH FLR., 825 SEVENTH AVE., NEW YORK, N.Y. 10019

I enclose \$ _____ ALL ORDERS MUST BE PREPAID
NAME _____ ADDRESS _____ CITY/STATE/ZIP _____ (IF FOREIGN) PROVINCE/COUNTRY _____ PLEASE ALLOW 4 TO 6 WEEKS FOR DELIVERY FROM RECEIPT OF YOUR ORDER.

Libbey objects to recordings by young artists of frequently recorded basic repertoire, lamenting the apparent insufficiency of historical material (DG has six Furtwänglers, Philips has 12 Mengelbergs). We would like to point out that today's Semyon Bychkov or Giuseppe Sinopoli, both of whom suffered sniveling abnegation from Mr. Libbey, might turn out to be Furtwängler and Mengelberg to Mr. Libbey's successors. One of the best ways to help young artists acquire their place in recording history is to make recordings of their repertoire that can be compared with great performances of the past. And it has been necessary to record basic repertoire during CD's infancy precisely in order to establish the new medium with a broad, paying public (not generally as interested in *Via Crucis* as in *1812*). Incidentally, no record company catering exclusively to the tastes of critics has ever stayed in business for long. DG has stayed in business for nearly 90 years.

From his opinion of the debut recording of young Mr. Bychkov (the recording has yet to be manufactured, so we are uncertain as to the basis of his judgment), we deduce that it's perhaps better that we simply advise your omniscient classical music editor of our recordings in future, but not bother to provide copies for him to actually audition.

Postscript: It is interesting that a magazine that generally devotes so little space to classical recordings can afford to expend so much on a generalized diatribe against them.

Allison Ames
Vice President
Deutsche Grammophon
Nancy Zannini
Vice President
Philips
Polygram Classics
Division of Polygram Records, Inc.
New York, N.Y.

MR. THEODORE LIBBEY'S ARTICLE "A LITTLE Less Noise, Please" makes important points regarding the needs of the consumer in the CD era. However, may I say that in my opinion the "majors" have never been interested in the collector's needs. We are hooked, and they know it. They are interested only in gaining new converts via "crossover" discs of media people: Te Kanawa, Pavarotti, et al.

For decades, they have shortchanged us on the amount of music that could fit on a black disc, and it certainly didn't take the CD era for them to purposely confuse, mislead, or ignore the record collector.

One infuriating example (among how many?) is on an Erato (French RCA) disc. The front cover says POLICE in large black-and-white print. A full-color picture of French actors Depardieu and Marceau stare

at each other in what looks like a visiting room in a prison. In smaller letters, it says that this is Symphony No. 3 by Henryk Górecki. On the back, they say that *Police* is a film, but they don't mention whether this is an actual soundtrack! A few more lines state that the symphony has Chants 1, 2, and 3. That's all. As to who Górecki is or to whom this record is aimed . . . well, I leave that to others.

On another note, I am disappointed that Mr. Libbey uses a Sills/Furtwängler comparison to make a point. Those of us who admire both artists (I happen to own the Furtwängler *Tristan*) might consider his remark that Sills reissues are bonbons to be snobbish—and a cheap shot to boot. Regardless of his opinion of Sills, her reissues (except *Up in Central Park* and *Music of Victor Herbert*) are all of complete operas or opera excerpts.

Kenneth H. Wise
Goleta, Calif.

Actually, nearly all of the Sills reissues are collections of arias, which is why we describe them as bonbons.—Ed.

CONGRATULATIONS TO TED LIBBEY FOR HIS trenchant analysis of the current CD scene. It's regrettable, though, that Libbey's deadline prevented him from actually listening to the new Philips Shostakovich Fifth Symphony release (led by the "no-name" Semyon Bychkov) before dismissing it so quickly. [WNEF-FM, the station for which Mr. Goldsmith works, broadcast the American radio premiere of the new recording on March 15.—Ed.] I can't speak for Philips, of course, but I would suggest that the company, rather than feeling "so little confidence in its new boy," is, in fact, supremely confident that Bychkov and his debut recording will win instant admirers among critics and record buyers alike in spite of the competition from other Fiftths in the catalog. If out-of-the-way repertoire is what you're looking for, there's plenty of it to be found on CD these days: Check out the enterprising Records International label for little-known symphonic gems by Lachner, Spohr, Goldmark, Respighi, and others, not to mention the indefatigable Neeme Järvi and his Berwald, Tubin, and Glazunov cycles cited in your article; but Bychkov's Shostakovich Fifth simply deserves the widest possible circulation.

Those of us here in western New York who have been able to follow his career closely for some time (Bychkov is in his second season as music director of the Buffalo Philharmonic) predict that you'll agree.

Peter Goldsmith
Program Director, WNEF-FM
Buffalo, N.Y.

TED LIBBEY'S INTERESTING ARTICLE IN THE March issue, in which he discusses the ways

that record companies have, to a large extent, bungled the CD format, makes one wonder what qualifies these decision makers to be in charge of the marketing of CDs. I guess they are there to make money, but do we really need 15 versions of *The Four Seasons*? However, I do believe things are changing. As an example, EMI/Angel has digitally remastered nearly all of Ralph Vaughan Williams's nine symphonies. They have packaged them so that all but the Seventh appear on five CDs, each of whose playing time averages over an hour. Sir Adrian Boult's fine interpretations of these hitherto unavailable pieces in the CD format are a welcome addition to the catalog.

Finally, I think that some of the smaller independent companies, such as BIS, Chandos, and Nimbus, are to be congratulated for the excellent job they are doing in maximizing the potential of the CD format with performances not readily available in any other format.

Alec McKay
Lansdowne, Pa.

We agree. By the way, there are now 24 versions of The Four Seasons available on CD, with more on the way.—Ed.

TED LIBBEY'S CD PIECE IN THE MARCH ISSUE told it as it was in a way that everyone could understand, without flinching, without apology, without intimidation. It was a first-class piece of journalism. For an essay that was literature as well as lucid, thanks.

Roger Dettmer
Severna Park, Md.

8mm INCONSISTENCY

IT IS IRONIC (NOT TO MENTION INCONSISTENT) that at the same time the electronics industry is encouraging us to upgrade our TV sets to stereo it expects us to pay a premium to downgrade our VCRs to mono ["Why 8mm?," February]. I find it incomprehensible that a magazine calling itself HIGH FIDELITY is pushing the mono 8mm format. You should push for a stereo 8mm format (or change your name to HIGH VIDEO FIDELITY/LOW AUDIO FIDELITY).

Don Schmick
Atlanta, Ga.

All of the consumer VCR format standards, including the one for 8mm, require a mono audio track and offer stereo as an option. The system used for recording stereo audio on 8mm videotapes was described in the "Why 8mm?" article. And we are not pushing the 8mm format—just reporting on it.

—Ed.

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 and clarity.

EDITED BY CHRISTOPHER J. ESSE

Yamaha's Hi-bit CD Players



SO FAR, THE SMALL DIFFERENCES IN MEASURED audio performance among most of the Compact Disc players that we've tested have been essentially undetectable in normal listening. But this has not stopped Yamaha's engineers from throwing in their two bits on a technique that they claim makes an audible improvement.

Yamaha was an early proponent of oversampling digital filters. Because they sample the digital waveform at two or four times the standard rate (44.1 kHz), the ultrasonic "images" of the audio spectrum that are a by-product of the sampling process are centered higher above the audio band (at 88.2 or 176.4 kHz, respectively). A gentle, rather than a sharply sloped, low-pass filter can then be used in the analog output stage to remove the ultrasonics, thus minimizing the potential for distortion and phase shift of the upper audio frequencies. Yamaha says that oversampling also increases the resolution of the D/A converter (DAC), but it does so only for high amplitude signals; and Yamaha engineers believe that the distortion performance of such a system at low signal levels is limited by 16-bit operation. Their solution is the Hi-bit digital filter, which uses four-times oversampling but is also designed for 18-bit output.

In the CDX-5000 and CDX-1100U, the 18-bit output of the Hi-bit digital filter is fed to the inputs of twin 16-bit DACs. The two most significant bits of the digital data stream are used only for transient, very high-level signals, so normally the input to the DACs can be shifted up by two bits, allowing the bottom two "least significant" bits from the 18-bit digital filter's output to take their place. The analog out-

put is correspondingly reduced by 12 dB. This shifting means that these Hi-bit DACs are, in effect, accepting the entire 18-bit output of the digital filter. When the most significant bits are needed, the DAC input is shifted back to the normal 16 bits and the 12-dB attenuation removed. Yamaha claims that low signal levels are reproduced more linearly and with reduced noise. The claimed signal-to-noise ratio is 115 dB; dynamic range is given as 100 dB.

The CDX-5000 (\$2,500) is Yamaha's flagship CD player and is built from hand-selected, pretested parts. Aside from the new Hi-bit technology, it has all the goodies, including internal optical coupling, gold-plated digital and analog signal output jacks, and 46 pounds of heft. At a savings of about 15 pounds and \$1,400, the CDX-1100U (\$1,100) is functionally identical to the CDX-5000, giving away only the double-floating suspension system and perhaps the mystique of a smaller serial number.

Two other models, the CDX-900U (\$650) and CDX-700U (\$450), have new 16-bit D/A converters (the latter uses a single DAC) that Yamaha says are designed to take

advantage of the Hi-bit digital filter, although at this writing it is not clear whether the extra two bits from the Hi-bit filter output are truncated or rounded off into the least significant bits of the DAC.

Each new Hi-bit CD player offers remote control and a large complement of programming functions and is compatible with the system remotes of Yamaha RS Series components. For more information, contact Yamaha Electronics Corp., 6660 Orangehorpe Ave., Buena Park, Calif. 90620.

HI-FI STEREO CAMCORDER

ZENITH'S VM-7100 FULL-SIZE VHS CAMCORDER differs from all other camcorders of that format in one important respect: It records a VHS Hi-Fi stereo soundtrack, a welcome alternative to the often disappointing sound quality of standard linear-track VHS and VHS-C camcorders.

The Zenith is a bit heavier (5.3 pounds, without battery) and bulkier than typical VHS-C or 8mm models, but it is designed to rest on the shooter's shoulder for steadier operation. Camera features include a 6:1 power-zoom lens with a macro (close-up) setting, automatic white-balance and iris opening (both of which can also be set manually), a fade control, and a monochrome electronic viewfinder that conveys status, operation, and warning information through more than 20 indicators. A 1/2-inch CCD is used to pick up the images in light levels as low as 8 lux.

The recorder section is best compared with that of a home deck, as which it undoubtedly will be used sometimes, especially



THE TOP (CDX-5000) AND BOTTOM (CDX-700U) OF YAMAHA'S HI-BIT LINE OF CD PLAYERS



ZENITH'S VM-7100 IS THE FIRST VHS HI-FI CAMCORDER.

to play prerecorded VHS Hi-Fi movies. It includes HQ circuitry (white-clip level extension and detail enhancement), automatic or manual control of the Hi-Fi audio recording level, an audio dub function for supplanting a linear mono soundtrack (to add narration to an existing home video, for example), and a built-in stereo microphone and external microphone jack. An LCD panel shows the tape counter, Hi-Fi audio levels, and tape-transport mode indicators. Audio-video inputs and outputs are provided to facilitate connection to a monitor or for dubbing with a second VCR.

Supplied accessories include a rechargeable battery and its charger, an AC adapter, an RF output converter (for connecting the camcorder to a standard television), a shoulder strap, an assortment of connector cables, and a pair of mini-headphones for on-location monitoring. The VM-7100 retails for about \$1,795. For more information, contact Zenith Electronics Corp., 1000 Milwaukee Ave., Glenview, Ill. 60025.

REVOX ENCORE

THE B-226 IS REVOX'S SECOND COMPACT DISC player, replacing the B-225. It uses the latest "European" (i.e., Philips) 16-bit, four-times oversampling system along with adaptive error correction, which continually chooses the most appropriate method of correction until interpolation is necessary (which, on an undamaged disc, is unlikely). The die-cast drive mechanism is mounted on a damped suspension that is said to lessen vibration-induced errors.

In addition to fixed and variable analog outputs, the B-226 has two digital outputs that Revox says are for future applications such as CD-I (interactive CD) and CD-ROM (computer data), although interface stan-

dards have yet to be fixed for either of these CD derivatives.

Operating features include 19-selection programming, index search, and repeat modes. An LCD panel shows programming and disc play status, including a bar graph that represents time into a track.

As a Revox 200 Series component, the B-226 can be operated directly via the optional B-205 (\$145) remote control module or from a different room through an optional B-

206 (\$145) infrared transceiver. Contact Studer Revox America, Revox Div., 1425 Elm Hill Pike, Nashville, Tenn. 37210.



THE B-226 CARRIES REVOX'S UNMISTAKABLE LOOK.

NEW CITATIONS

NEW POWER AMP AND TUNER DESIGNS ARE THE highlights of Harman Kardon's latest line of Citation components. Two Dual Voltage power amps, the Twenty-Two (\$850) and the Twenty-Four (\$600), have a back-panel switch for selecting a high or low output-voltage range: The high range is said to more effectively drive loudspeakers with a nominal 8-ohm impedance, while the low range is for lower impedances or bridged-mono operation into 8-ohm loads. The amps are rated identically for 4-ohm and 8-ohm operation, with the Twenty-Two delivering 200 watts (23 dBW) per channel and its smaller sibling 100 watts (20 dBW) per channel. Bridged-mono operation in both models yields twice their stereo ratings. As in other Harman Kardon designs, the Citation amplifiers have a high instantaneous current capability and low negative feedback and use discrete components.

A matching preamplifier, the Twenty-One (\$550), also features discrete components and a low negative-feedback design. The phono section is said to reduce "dynamic dis-

ortion" by performing RIAA equalization with a combination passive/active process. A CD-direct input allows a player's signal to bypass the preamp's filtering and switching sections. And an unusual loudness-compensation circuit is said to eliminate the phase shift of lower midrange frequencies that accompanies standard techniques.

Last but not least is the Citation Twenty-Three Active Tracking AM/FM tuner (\$650), for which the biggest claims of performance improvements are made. The proprietary Active Tracking High Selectivity circuit in the Twenty-Three is said to provide ultrahigh selectivity with little loss of stereo separation or high-frequency response and little increase in distortion. Translation: better reception of both weak

and closely spaced signals. The digital frequency-synthesis front end has 16 station presets, a flywheel tuning knob, and an "analog" fine-tuning control. A wireless remote control completes the package.

All of the new Citation components have anodized brushed-aluminum faceplates with blue and black coloring and molded rubber trim. For more information, contact Harman Kardon, 240 Crossways Park W., Woodbury, N.Y. 11797.

SANSUI'S TOP RECEIVERS

OCCUPYING THE TOP SPOT IN SANSUI'S NEW line of receivers is the 120-watt (20.8-dBW, into 8 ohms) S-X1200, which has connections for a full complement of audio components as well as inputs and outputs for two VCRs. The amplifier section is said to provide dynamic power of 350 watts (25.4 dBW) per channel into a 4-ohm load. A 24-element LED display shows the amplifier's power

THE SUBDUED LOOK OF HARMAN KARDON'S CITATION COMPONENTS





SPEAKERS BUILT UPON THE BELIEF THAT MUSIC IS MEANT TO BE PLAYED, NOT PLAYED WITH.

When we built the first Advent® in 1968, we believed music should sound exactly the way the artist had intended. Nothing added. Nothing taken away.

Just music.

Since then, trends in speaker design have come and gone. But the Advent philosophy has remained the same. You'll know why when you listen to our current line of loudspeakers. They've been designed with the latest technology, yet preserve the clean, accurate sound Advent is known for.

All our speakers feature high efficiency long throw woofers, ferrofluid-filled tweeters and are compact disc ready. The Advent Maestro takes this performance even further with a mica-

filled polypropylene dome midrange, 750 watts of power handling capability and a sound diffraction baffle. (Designed to enhance stereo imaging and broaden the musical soundstage.)

Wherever you put an Advent, you know it will look great. Our famous solid hardwood tops and bases go perfectly with any decor and there's an Advent for virtually any size room.

If you want to hear music with a little something extra, listen to any loudspeaker. If you want to hear the truth, listen to an Advent.



ADVENT®

Sound as it was meant to be heard.



ranges. Bidirectional dubbing is possible between the two sets of tape connections as well as between the two VCR connections. A variable loudness contour compensates for perceived frequency imbalances at low listening levels, and two circuits are intended especially to enhance video sound: An adjustable "sound attacker" adds punch to transients, and a subharmonic synthesizer generates an extended bass response. A switchable processor loop allows access to a connected equalizer or a similar device.

The digital frequency-synthesis AM/FM tuner section has a total of 16 station presets, automatic and manual scanning, and a preset-scan function. A high-blend circuit is said to reduce noise on weak stereo FM signals. Retail price for the S-X1200 is \$1,200. A similar model, the S-X900, provides 80 watts (19 dBW) per channel into 8 ohms but does not include the special sound circuits or the separate processor loop. It retails for \$750. Contact Sansui Electronics, 1250 Valley Brook Ave., Lyndhurst, N.J. 07071.

provement in sensitivity and a minimum power requirement of just 10 watts (10 dBW) per channel, according to the company. A pair of these speakers, available in a number of finishes, retails for \$1,495.

The Sound Cylinder is—you guessed it—cylindrical in shape and, with the standard walnut-grain finish, is Ohm's least expensive Walsh product, at \$550 per pair. Seven custom finishes are available by mail order for an additional \$76 per pair. And if none of those matches your curtains, you can send any suitably flexible material to Ohm and the company will (for \$48) prepare it for wrapping around your Sound Cylinders. For more information, write Ohm Acoustics Corp., 241 Taaffe Place, Brooklyn, N.Y. 11205.



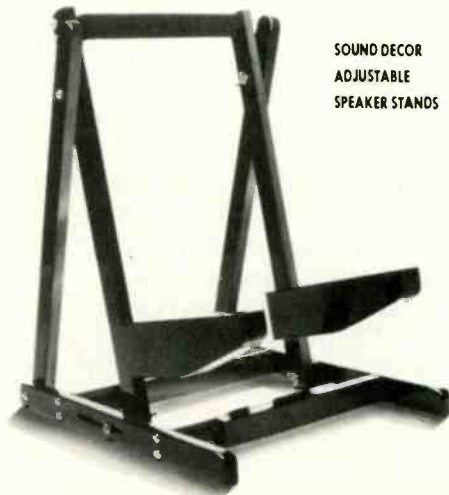
JAMO'S LS-800, LS-1000, AND LS-1400 LOUDSPEAKERS

DANISH SPEAKERS

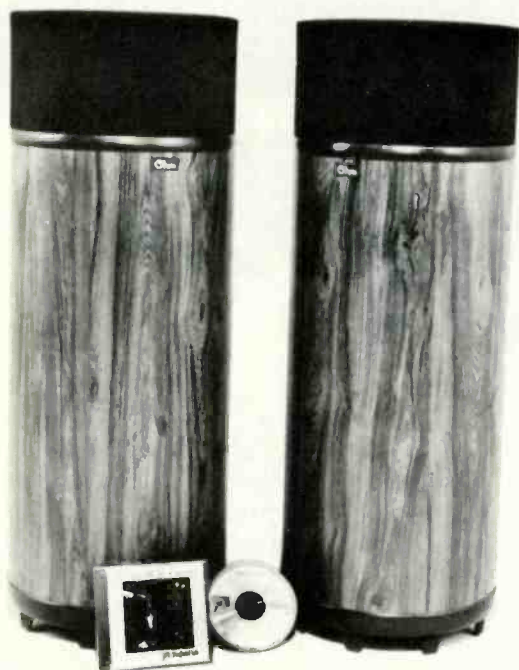
JAMO'S LASER SOUND SERIES INCLUDES THREE three-way bass-reflex loudspeakers, each with a 1-inch dome tweeter and a 5-inch mid-range driver. The largest (23½ inches high) is the LS-1400 (\$520 per pair), which has a dual-magnet 8-inch woofer and is said to handle continuous power of as much as 140 watts (21.5 dBW). The slightly smaller LS-1000 (\$440) has a dual-magnet woofer measuring 6½ inches across, while the LS-800 (\$360) has a standard 6½-inch bass driver. All three models have square honeycomb-pattern grilles covering each driver that are claimed to counteract diffraction distortion; a black or white finish is available. For more information, contact Jamo, 425 Huehl Rd., Bldg. 3A, Northbrook, Ill. 60062.

ADJUSTABLE SPEAKER STANDS

THE SOUND DECOR SPEAKER STANDS HAVE A cradlelike design that can angle a speaker as much as 25 degrees back from its upright position. In addition, the width of the stands is continuously adjustable from 12 to 22 inches. Made of solid oak, and each capable of supporting 200 pounds, they are available with an oiled finish for \$69 per pair or in black, white, red, or gray lacquer for \$89. Contact Montage Marketing, 419 Main St., Suite 14, Huntington Beach, Calif. 92648. ■



SOUND DECOR ADJUSTABLE SPEAKER STANDS



OHM TAKES THE EDGE OFF WITH ITS SOUND CYLINDERS, AVAILABLE IN A VARIETY OF COVERINGS.

NEW AND IMPROVED OHMS

THE SOUND CYLINDER AND THE 3XO BOTH USE Ohm's exclusive Walsh driver, an inverted-cone configuration designed to create an effective stereo image over a large listening area. All but the highest frequencies are reproduced by the Walsh driver, with the remainder handled by a supertweeter that sits above it. The 3XO (XO stands for "extra output") is essentially a more efficient version of the Ohm Walsh 3, with a 6-dB im-

RHOADES CHANNEL-PLEXER

THIS IS AN UNUSUAL SOURCE selector that removes some of the limitations of a conventional switch box. It has three RF inputs, one each for the Channel 3 and Channel 4 RF signal from, for instance, a cable box and a satellite receiver, and one broadband input for a conventional antenna or straight cable feed. It converts the pair of Channel 3 and Channel 4 signals to a pair of unused UHF channels (selectable by the user) and pumps the mixture through a single RF output, which can be distributed ("daisy chained") to all the televisions and VCRs in the house. The idea is that instead of being limited to receiving one chosen source from a master switchbox, each TV or VCR tuner has individual access to either source as a UHF station. And the broadband input allows regular

VHF and UHF stations to be passed through the system as well. The Channel-Plexer costs \$230. Input expansion modules, which contain one set of stereo-audio and video inputs, are available for \$100 each. They also convert a signal to an unused UHF channel for distribution through the Channel-Plexer's main RF output. For more details, contact Rhoades National Corp., P.O. Box 1316, Dept. ZN6, Columbia, Tenn. 38402, or call 615-381-9001.

ULTIMATE POWER.



With a worldwide reputation for sonic excellence, the new Luxman Receivers also deliver more power than even before.


For over 60 years, Luxman audio components have been internationally recognized for their superb sonic quality.

However, the recent introduction of compact discs with wide dynamics and high-accuracy loudspeakers with low impedance ratings has created a need for receivers with "real" output power.

With the tremendous dynamic power of the new Luxman receivers, our reputation for "ULTIMATE FIDELITY" is likely to change to "ULTIMATE POWER"

LUXMAN

A Division of Alpine Electronics of America, Inc. (213) 326-3000



"Vesti la giubba
E la faccia infarina.
La gente paga
E rider vuole qua
E se Arlecchin,
T'invola Colombine,
Ridi, Pagliaccio.
E ognun applaude!
Tramuta in lazzi l'oscurato
Ed il pianto:
In una smorfia
Il singhiozzo e l'dolor...
Ridi Pagliaccio
Sul tuo amore franto,
Ridi del duol
Che t'avvelena il cor!"

PAGLIACCI
Ruggere Leoncavallo

MAXELL. THE TAPE THAT LASTS AS LONG AS THE LEGEND.

It was a grand opera of simple truth. A flight into fantasy that mirrored grim reality. High art that imitated everyday life, most tragically. At Maxell we help you preserve this masterpiece, with tapes that are manufactured up to 60% above industry standards. Tapes that will continue to produce that same magnificent clarity and quality even after 500 plays. So as long as man seeks an outlet for his loves, passions and jealousies, he will be able to find it in the music of Leoncavallo's legendary Pagliacci.



VAIN ATTEMPTS?

HARDLY HAD THE INK DRIED ON MY REPORT ON JVC'S development of Super VHS ["Scan Lines," April] when Sony announced in Tokyo its latest attempt to save, uh, improve the Beta format. And on the very same day (March 17) came news from The Netherlands of Philips's latest—one is tempted to say "only"—effort to inject life into the videodisc system it invented.

Sony's ED (Extended Definition) Beta system does what Super Beta should have done when it was introduced in 1984: make a clean break with the older Beta recording formats in order to greatly increase video quality. The result is said to be a luminance resolution of 500 lines, edging out both the 260-line theoretical maximum of Super Beta and the 400 lines claimed by Super VHS. (A television broadcast's resolution is limited—by law—to only 330 lines.) Although ED Beta machines will be able to play older Beta-format tapes, ED recordings will not be playable on any currently available standard-Beta or Super-Beta deck.

This "downward incompatibility" is a direct result of what Sony calls the Ultra Hi-Band recording system, in which the frequency bandwidth for the luminance signal has been raised from the 4.4-to-5.6-MHz range of Super Beta to between 6.8 and 8.6 MHz. To record such high frequencies, an ED Beta deck uses newly developed sputtered-Sendust video heads and takes special metal-particle tapes. A new tape stabilization system is supposed to reduce time-base instability (which results in jitter and a loss of apparent detail). And separate luminance- and chrominance-signal inputs and outputs eliminate crosstalk between those signals and permit multigeneration copying without severe picture quality degradation (this is a feature of Super VHS, too).

Much of the rest of the system, at least on the basis of the preliminary information released by Sony, remains the same. Dimensions of the Beta cassette are unchanged, as are the Beta II and Beta III tape speeds. Color is still recorded "under" the luminance frequencies and with a carrier frequency of 688 kHz. The prototype demonstrated in Tokyo also included Beta Hi-Fi stereo audio recording, but Sony says that the use of metal-particle tape improves the sound quality of the Beta longitudinal audio track, giving it a wider-than-normal frequency response of 50 Hz to 11 kHz.

Although ED Beta is certainly a convincing demonstration of technological prowess—not to say specsmanship and corporate vanity—Sony is by its announcement both sending mixed signals to the consumer and painting itself into a corner. Until the announcement of Super VHS, the Sony-backed 8mm system was the home VCR format holding the greatest potential for high-quality video (see "Why 8mm?," February). ED Beta can do nothing at this late date to recoup market share for Beta and, if it is indeed superior in picture quality to all previous home VCR formats, it may further undermine 8mm's

current precarious position in the American market. Although no new products were announced in March, it is difficult to fathom the utility of such better-than-broadcast technology unless it were to be used in a camcorder, which could then tape live images with quality equivalent or superior to that of professional video recorders. But then Sony's overwhelming—and very profitable—domination of the professional VCR/camcorder market would be threatened not only by Super VHS but also by its own ED Beta system. The best markets for ED Beta will be industry, education, and other semipro applications, and this is the direction in which Sony's Beta marketers should have headed long ago, if only to keep some marvelous technology alive.

Another video marvel, the laser videodisc system, is also receiving a curious boost, this time in the manner of an exercise in Orwellian "thinkspeak." Philips, inventor of the system that Pioneer has steadfastly promoted here and in Japan under the name LaserVision, is renaming the entire format CD-V (for Compact-Disc-Video, notwithstanding the distinctly noncompact nature of 8- and 12-inch videodiscs). Philips also introduced a new format: a "5-inch" (actually a standard-size 12-centimeter) Compact Disc holding 20 minutes of CD-compatible audio near the center of the disc, with the rest of the disc filled with about five minutes of Laserdisc-format video (with accompanying audio tracks). Yamaha, Sony and Matsushita (Technics and Panasonic) have also announced plans to support the new format with combination CD/CD-V players.

Prime material for the 5-inch CD-V will be the promotional music videos seen on MTV and the like. Record companies have for years been looking for a salable medium for them. I was told by a Philips representative that the CD-V promotional push will also be accompanied by a general reassessment and improvement of videodisc master-tape quality, especially in the picture and sound obtained in film-to-disc transfers of movies. For example, all future CD-V pressings will have a digitally encoded soundtrack in addition to the standard analog one. CD-V recordings will be pressed with gold-tinted plastic and will be packaged in CD-like jewel boxes, in order to help create for videodiscs the "collector mentality" that exists for audio CDs.

Philips freely admits hoping the thus revitalized videodisc system will ride the coattails of the audio CD's popularity. Whether the whole rignarole will really be clear to the average consumer, who is already being bombarded with tales of CD, CD-ROM, CD-I, and DAT, is not obvious to me. And whether after all these years Philips can persuade those couch potatoes satisfied by the generally poor picture quality of home VCRs to invest in the new-old videodisc is also open to question. Goodness knows, we at HIGH FIDELITY (and the LaserVision stalwarts at Pioneer) have been trying to do just that for years. I wish them luck—the technology deserves it. ■



B Y
D A V I D
R A N A N D A

RECOG

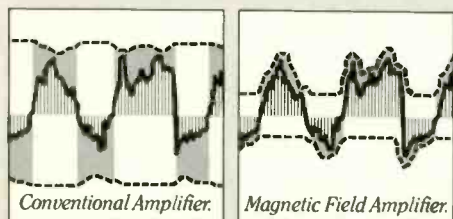
Why the Carver M-500t Magnetic Field Power Amplifier has helped begin an industry trend and how it has stayed ahead of its inspired imitators.



Twice in the last decade, Bob Carver has taught the high fidelity industry how to make amplifiers that give you better performance and value. Both times his bold lead has attracted followers. Still, as evidenced by the current release of the M-500t, Carver sets standards yet unequalled in the audio community.

With its astonishingly high voltage/high output current and exclusive operation features, it is a prime example of why Carver remains the designer to emulate:

- Continuous FTC sine-wave output conservatively rated at 250 watts per channel.
- Produces 600 to 1000 watts per channel of dynamic power for music (depending on impedance).
- Bridging mode delivers 700 watts continuous sine-wave output at 8 ohms.
- High current Magnetic Field power supply provides peak currents up to ± 100 amps for precise control of voice-coil motion.
- Designed to handle unintended 1 ohm speaker loads without shutting down.
- Equipped with infinite resolution VU meters.



Solid line: audio output signal
Broken line: power supply voltage.
Shaded area: wasted power.
Vertical lines: power to speakers.

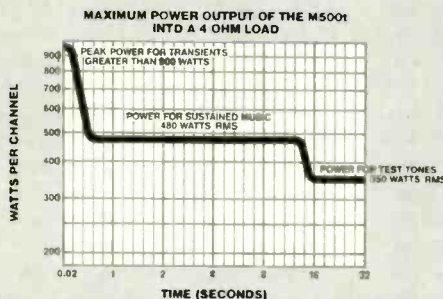
POWER EXPRESSED BY THE DEMANDS OF MUSIC.

The Carver M-500t Power Amplifier responds to musical transients with better than 600 watts per channel of instantaneous peak power through 8 ohm speakers. Well over 900 watts per channel into 4 ohm speakers.

And yet its Federal Trade Commission Continuous Average Power Rating is 250 watts per channel into 8 ohms.

The gulf between the two power ratings represents Bob Carver's insistence that amplifier design should fit the problem at hand. That problem is reproducing music with stunning impact, not simply satisfying a sine-wave test which doesn't even include speakers or sound sources. Hence the seeming gulf between the two ratings.

Bob reasoned that since music is composed of three basic types of power waveforms, those types of waveforms are what an amplifier should be designed to satisfy.



The Carver M-500t delivers massive power at three important output levels.

First there are instantaneous peak transients – the sudden smash of cymbals, drums, or the individual leading edge attack of each musical note. While these waveforms last less than 1/100 of a second, they form the keen edge of musical reality which must be present if you are to realize high fidelity. Though momentary, they also demand a tremendous amount of amplifier power.

Directly following instantaneous transients are combinatorial musical crests of demand that come from multiple instruments and their harmonics. These long term power demands may last up to several seconds but usually come and go in less than a second. And yet they can tax anything but an exceptionally powerful amplifier.

The third type of power demand is represented by the average power contained in the music, and is approximately one third to one half of the FTC continuous power rating.

At extremely high output current levels, the Carver M-500t not only delivers over 700 watts of instantaneous peak power for instantaneous transients, but can deliver over 600 watts

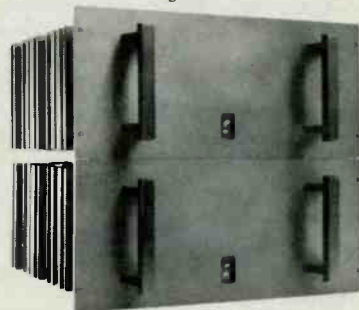
RMS of long term power for demands lasting up to several seconds. The M-500t provides more power, more current and more voltage than any comparably priced amplifier ever offered.

THE MAGNETIC FIELD AMPLIFIER VS. CONVENTION.

Audiophiles, critics and ultimately other manufacturers have each accepted the wisdom of Bob Carver's fresh approach to delivering power in musical terms. Yet only Carver has so elegantly translated theory into practice.

Rather than increase cost, size and heat output with huge storage circuits, Magnetic Field Amplification delivers instantaneous high peak and longterm power from a small but powerful Magnetic Field Coil. The result is an amplifier capable of simultaneous high current and high voltage that can do sonic justice to the dynamics of Compact Discs and audiophile records in a compact, cool-running design. An amplifier costing considerably less than the ultra-esoteric models which figured significantly into the genesis of its circuitry. For a reprint of the full story of its development as well as a catalog of Carver high fidelity audio components please call or write to us.

Figure 1



This \$7,000 pair of esoteric amplifiers figure significantly into the heritage of the M-500 "t" version circuitry.

Figure 1 above shows a \$7,000 pair of ultra-esoteric mono amplifiers. No expense was spared on their admittedly magnificent but still conventional design and construction.

Figure 2 shows the massive toroid output transformers contained in these prestigious audiophile designs. At 10% regulation, their output current is ± 50 amperes.

All conventional amplifiers are condemned to using this type of design.

DEFINITION.

Figure 2 also shows the patented Magnetic Field Coil employed in the Carver M-500t. Its output current is ± 100 amps at 10% regulation!!!!

Figure 2



Over 40 pounds of toroid coils put out half the current of a single six pound, four ounce Magnetic Field Coil.

DISTINGUISHING FEATURES OF THE CARVER M-500t.

Power is mandatory for dynamic impact and musical realism. And yet power requires control and finesse. While the Carver M-500t isn't the only amplifier to deliver adequate output, it is one of the few that tempers force with protection circuits beneficial to both the amplifier and your loudspeaker system.

◆ These include DC offset, short circuit power interrupt as well as two special computer-controlled speaker monitor circuits which protect against excessive high frequency tweeter input and an overall thermal overload.

◆ The Carver M-500t continuously displays power output through dual, lighted infinite resolution VU-ballistic meters. Meters which can react to musical transients as brief as 1 millisecond.

◆ The M-500t is quiet. Inside and out. Its circuitry has the best signal-to-noise ratio of any production amplifier. Better than -120 dB. And, in spite of its massive output capability, the M-500t does not require a noisy fan to dissipate heat. Thanks to the cool running Magnetic Field Amplifier circuitry.

◆ No other amplifier in the M-500t's price or power ranges is capable of handling problematic speaker loads as low as 1 ohm. Whether required by certain brands of speakers, or inadvertently derived by pairing too many low impedance speakers at one set of output terminals, all conventional amplifiers simply shut down or blow their fuses when faced with this condition.

◆ In stereo use, both channels of the M-500t can actually borrow from each other during unequal output demands. In addition, Carver amplifiers have pioneered phase inversion circuitry which takes advantage of the in-phase (mono) characteristics of bass to essentially double available power supply current at low frequencies.

◆ Finally, the Carver M-500t can be used in a bridged mode as a 700 watt RMS per channel mono amplifier without any switching or modification.

MUSIC IS THE FINAL PROOF.

Were you to buy a power amplifier solely on features and performance specifications, painstaking comparison would inevitably lead you to the Carver M-500t.

But we are sure that your final judgment will be based on musicality. It is here that the M-500t again distinguishes itself.

Bob Carver has carefully designed the M-500t to have a completely neutral signal path that is utterly transparent in sonic character. The result is more than just musical accuracy. It means a total lack of listener fatigue caused by subtle colorations sometimes exhibited by conventional amplifier designs, regardless of their power rating.

It means a veil is lifted between you and your musical source as the most detailed nuances are revealed with realism, believability and delivered with stunning impact.

VISIT YOUR CARVER DEALER FOR A SURPRISING AUDITION.

We invite you to audition the Carver M-500t soon. Against any and all competition. Including those who are only now embracing the principles which Bob Carver has refined over the last several years.

We doubt that you will be surprised when the M-500t lives up to the claims made in this advertisement. What will surprise you is just how affordable this much power, musicality and accuracy can be.

SPECIFICATIONS: Power, 251 watts per channel into 8 ohms 20Hz to 20kHz, both channels driven with no more than 0.15% THD. Instantaneous Peak Power, 1000 watts into 2 ohms, 950 watts into 4 ohms, 600 watts into 8 ohms. Longterm RMS Power for Music, 500 into 2 ohms, 450 into 4 ohms, 300 into 8 ohms, 1000 watts bridged mono into 4 ohms, 900 watts bridged mono into 8 ohms. Bridged Mono RMS Continuous Power, 700 watts continuous into 8 ohms. Noise - 120dB IHF Weighted. Frequency Response, $\pm 0-3$ dB 1Hz-100kHz. Slew Factor, 200. Weight, 25 lb. Finish, light brushed anthracite, baked enamel, black anodized.



CARVER

POWERFUL

MUSICAL

ACCURATE

dB PLUS

MEANS SO MUCH MORE

- dB PLUS EFFICIENCY** *Up to 120 dB in a typical sound room (dB Plus 1212 full power.)*
- dB PLUS POWER** *Up to 400 watts RMS (see specification sheets dB Plus 1212).*
- dB PLUS DYNAMICS** *Astounding speed and dynamic range, virtually no ringing.*
- dB PLUS BASS** *Deep, tight, powerful, clean, bass response 23 Hz (dB Plus 1212).*
- dB PLUS TWEETERS** *Unique, fast, smooth, musically very accurate, dB Plus Polyfoam™ Tweeter.*
- dB PLUS OPENNESS** *Wide dispersion for easy listening to a large sound stage.*
- dB PLUS ACCURACY** *Smooth, clean, low distortion, low resonance, high definition.*
- dB PLUS QUALITY** *Designs so pure that we curve and compare each one to the original.*
- dB PLUS WARRANTY** *We're so confident, it's ten years. See warranty cards.*
- dB PLUS CHALLENGE** *We challenge any speaker brand, any price range, to a sound comparison.*



dB PLUS 135 Torbay Road, Markham, Ontario, Canada L3R 1G7 1-416-475-0050



Speakers—of all shapes and sizes—and surround sound are the focus of this month's issue. Pictured here are ADP's new L-990 tower loudspeaker, the three-piece Esco AM'S, and NEC's super-sophisticated AVD-700E digital surround processor. Also tested this month are the Paradigm Dse, DCM Timeframe TT-250, Siefert Research Magnum III, and 3D Acoustics Cube loudspeakers. ▶



REPORT PREPARATION SUPERVISED BY MICHAEL RIGGS, DAVID RANADA, CHRISTOPHER J. ESSE, ROBERT LONG, AND EDWARD J. FOSTER. LABORATORY DATA UNLESS OTHERWISE INDICATED IS SUPPLIED BY DIVERSIFIED SCIENCE LABORATORIES.

ADS L-990 Loudspeaker



DIMENSIONS: 10½ BY 34½ INCHES (FRONT), 11¼ INCHES DEEP. **PRICE:** \$899 PER PAIR. **WARRANTY:** "LIMITED," FIVE YEARS PARTS AND LABOR. **MANUFACTURER:** ANALOG & DIGITAL SYSTEMS, INC., 1 PROGRESS WAY, WILMINGTON, MASS. 01887.

IT'S ALWAYS ENCOURAGING TO LOOK IN THE owner's manual that accompanies a new loudspeaker and find that it tells you precisely how the model is to be positioned in the listening room. It implies that the speaker has been engineered from the ground up for that placement, avoiding the compromises of the usual all-things-to-all-rooms approach. Right off the bat, the ADS L-990 manual says to place the speakers two to four feet out from the back wall or to be prepared for the possibility of overheavy bass, depending on room acoustics, if the speakers are set too near a wall.

The L-990's tower design itself helps avoid compromise, as ADS points out. Unlike so-called bookshelf models that often end up on a table, mounted on speaker stands, or set directly on the floor, an inherently floor-standing design can be set up only one way, which determines precisely how high off the floor all drivers will be. Then, the designer can not only calculate floor-reflection characteristics, but he can be sure that his tweeters won't end up very much higher or lower than the ears of seated listeners.

Accordingly, all three of the L-990's drivers are clustered toward the top of the front panel. The tweeter and midrange units form a sort of flush subpanel whose vertical axis is offset about 1 inch to the left of the baffle's center. The tweeter is a ¾-inch woven soft dome with "proprietary damping," as ADS calls it, apparently referring to the surround composition and not to the magnetic fluid in the gap around the single-layer, wet-wound voice coil. The midrange driver is a 1½-inch dome of similar construction. Its crossover to the tweeter is at 3 kHz, to the woofer at 700 Hz, both transitions occurring with 12-dB-per-octave slopes.

The 10-inch woofer, which is centered on the baffle's vertical axis, has a StiffLite (a proprietary air-filled cellulose compound) cone with a Butyl rubber surround. The two-layer Linear Drive voice coil moves in what ADS calls an extended-pole magnet structure; that is, the company's driver design seeks to keep the forces on the cone linear throughout the long "throw" necessary for

high levels of deep bass. The enclosure is sealed, creating an acoustic-suspension woofer loading.

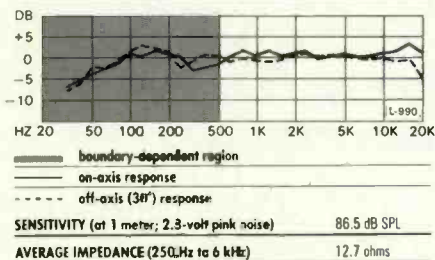
We tested the oak-veneer model (there's also a matte-black option), which is finished on all sides. The black, perforated-metal grille is self-supporting and thus has no frame to threaten diffraction or reflection, either of which can compromise imaging. Connections are made on the bottom of each tower via heavy-duty color-coded multiway binding posts (banana plugs will fit, but some may be too long for the limited floor clearance) with an opening at the back of the enclosure for the wiring; standing the speakers out in the room doesn't result in the inelegance of unfinished enclosure backs spewing cables.

For its tests, Diversified Science Laboratories set the speaker three feet out from the wall behind it. As shown in our graph, the measured frequency response is exceptionally flat. Depending on which curve you consult, there is some dip in the range around 250 or 300 Hz. This is presumably attributable to floor reflection, but it isn't nearly as severe as we often encounter. Even including this dip, on-axis response stays within ±3½ dB from the gradual bass rolloff (at around 60 Hz) to the highest treble. Over most of the midrange and treble it's within about ±1½ dB, relative to average response over the so-called music band.

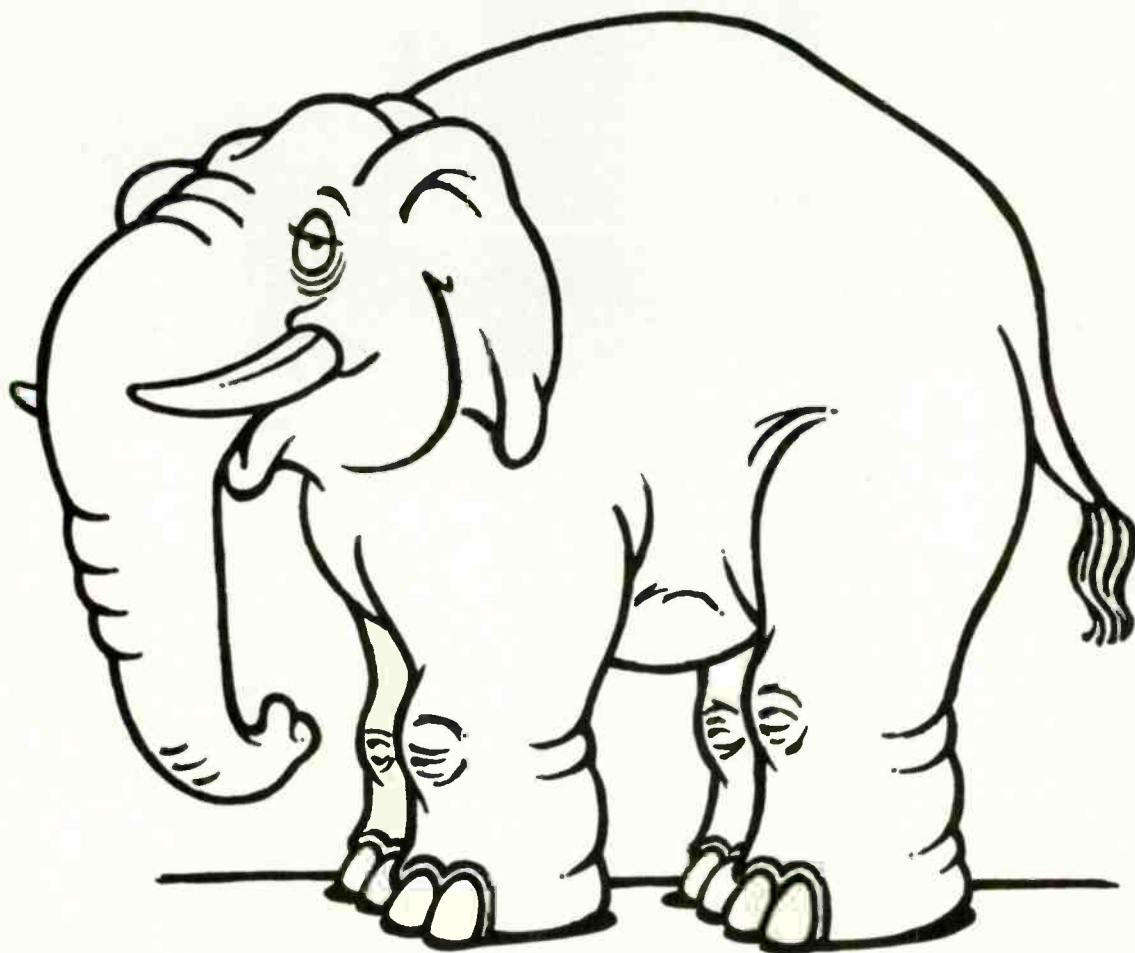
Off-axis response emphasizes the bass rise a bit more, shows a narrower, lower-frequency dip, and rolls off at the very top instead of peaking a bit. Otherwise it's very similar to the on-axis response, suggesting consistent sound distribution in the listening room. The lab also measured the speaker set against the wall. As expected, it produced a heavier bass, peaking at around 60 Hz (and thus emphasizing more the dip above 200 Hz) and rolling off more steeply toward the very bottom.

Sensitivity is well within the average range, though it is a bit lower than we might expect in a fairly large system. The measured distortion proved above normal for a system of this size, although not unacceptably so. The figures average almost 1 percent at the lowest test level of 85 dB sound pressure level (SPL) and rise to well above 1 percent at the maximum (100 dB SPL). In the very deep bass, however, distortion is unusually low. ▶

ROOM RESPONSE CHARACTERISTICS



He's good. But can he remember 785 of your favorite songs?



This Magnavox compact disc player can. In fact, the top-rated CDB650 is the *only* CD you can program to play 785 selections. As you build your library, just program in your favorite selections from each disc in any order you want. The CDB650 will never forget them. Because it's the only CD with

Favorite Track Selection. With FTS, the memory remains forever, even during power outages, even if it's unplugged. And it comes with full-function remote control.

With 4 times over-sampling and digital filtering, all you hear is the absolutely flawless reproduction of sound. What else would you expect from the people who invented CD technology?

The CDB650. Unforgettable.



Flawless sound. The ultimate memory.

Nobody puts it together like MAGNAVOX.

Most speaker designers haven't changed their position in 30 years.



Presenting the dbx Soundfield series: Reality Imaging™ and the end of the stereo "sweet spot."

For 30 years, speaker designers have believed that the only way to achieve balanced stereo is to sit directly between and in front of both speakers. If you move out of this "sweet spot," the stereo image collapses and the frequency response is anything but flat.

At dbx, we took a revolutionary approach and developed a new speaker design that achieves stereo balance and frequency response so consistent from any listening position, so close to the real thing, we needed a new name to describe the experience: *Reality Imaging*.

Reality Imaging brings you right up to the stage. It's not only the sound, but the actual spatial reality—the feeling of being there. And it's an image that doesn't collapse if you move around.



Not only can you hear it, you can see it.

Ask your dbx dealer to demonstrate with a sound analyzer (such as the dbx 14/10) how consistently the flat and smooth response—and Reality Imaging—are maintained by dbx Soundfield speakers at every point in the room. Then ask him to do the same with any other speaker at any price.

You're in for a shock.

And we seriously suspect you'll be changing your position on stereo speakers for good.

dbx Soundfield 1A
\$3000 | pair*



dbx Soundfield 10
\$1499 | pair*



dbx Soundfield 100
\$899 | pair*



dbx Soundfield 1000
\$699 | pair*



*Suggested retail prices.

dbx

Beyond stereo

Impedance averages well above the nominal 8 ohms, but the actual values vary considerably with frequency. The bass-resonance rise reaches 14 ohms (at about 40 Hz); the following dip falls to 4.7 ohms at 100 Hz; a maximum in the midrange reaches 23 ohms at 900 Hz; above 2 kHz, the curve lies between 10 and 6.5 ohms. If the L-990 is driven in parallel with another speaker, a very fussy amplifier may have a bit more

trouble with it than the average impedance figure implies, but we certainly wouldn't expect any misbehavior with a competently designed amplifier when it is used alone.

Listening quality, following ADS's placement recommendations, turned out to be very much what you'd expect from these specifics. The sound is very smooth throughout the range. In particular, the bass is extended and solid, without any hint of ex-

aggeration. Imaging is very good. The overall balance is somewhat forward and slightly bright, as has tended to be true of ADS speakers we've auditioned over the years. The effect is rather lean and silvery, so to speak, with excellent transparency. We consider the L-990 very attractive in both appearance and sound and can say nothing more than: Listen for yourself—it's worth your consideration. ■

T E S T R E P O R T S

Siefert Research Magnum III Loudspeaker

DIMENSIONS: 13 BY 22 INCHES (FRONT), 14 INCHES DEEP. **PRICE:** \$800 PER PAIR. **WARRANTY:** "LIMITED," FIVE YEARS PARTS AND LABOR. **MANUFACTURER:** SIEFERT RESEARCH, 31212 BAILARD RD., MALIBU, CALIF. 90265.

THIS IS THE FIRST SIEFERT SPEAKER WE'VE tested. The stated design aims of the company's line are low group delay and excellent imaging combined with low intermodulation distortion and extended bass performance. In the Magnum III, some of the means employed to achieve these aims are fairly conventional, but others certainly are not.

The unit's three drivers are aligned along a vertical axis, offset somewhat to the left of the baffle's center. At the top is a 1-inch Hybri-Dome tweeter constructed of a "soft metal" (aluminum) diaphragm mated to a polyamide plastic surround, a construction intended to supply an optimum combination of dome stiffness and suspension compliance. Below it is a 4-inch polypropylene-cone midrange unit rated for six-octave operation but driven over only about 3½ octaves of that range (250 Hz to 3 kHz) via a third-order (18 dB per octave) crossover network. Last is an 8-inch polypropylene-cone woofer, similar to that used in the midrange, surrounded by a high-compliance nitrile suspension. In addition to the enclosure volume (minus the space occupied by a subenclosure for the tweeter and midrange drivers), the woofer is loaded by a ducted port venting through a slot running across the bottom edge of the front baffle. It is tuned to 33 Hz, following the Thiele-Small B₄ alignment (which here theoretically extends the bass to a -3-dB limit of 36 Hz).

The wood-veneer enclosure is available in three finishes: walnut, natural oak, and black-lacquered oak. Front and back surfaces are plain black lacquer (with no visible wood grain) and there are felt feet on the

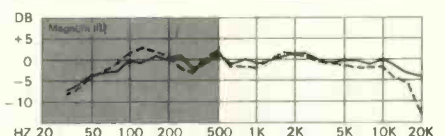
bottom. Three-way binding posts are recessed into the back panel and canted so that bared wires can easily be inserted from one side, banana plugs from the other. The grille is fabric stretched over a cut-out pressboard form, with a slight bevel along the outer edge as the only obvious measure to minimize diffraction.

The drivers are all mounted flush in the front panel. Their axial alignment and, in particular, the design of the crossover are meant to provide good imaging. Not only are the crossover slopes steep, to minimize the ranges in which two drivers operate simultaneously and thus tend to blur localization, but care has been taken to compensate for phase anomalies introduced by the crossover networks, as well. The latter measure no doubt contributes to the unusually flat impedance curve, which falls between 8.1 ohms (near the bottom of the tweeter range) and 3.4 ohms (near 100 Hz) throughout the audio band in Diversified Science Laboratories' measurements. The low values are consistent with Siefert's 4-ohm rating, as is the 5.3-ohm average value shown in our data column. It should present an easier-than-average load for most amplifiers to drive; even paralleled pairs won't faze some amps. Sensitivity is fairly high for a system of this size.

Harmonic distortion measures much like that of other excellent speakers, meaning that it is very respectable but not extremely low. It averages roughly ½ percent at the lowest test volume, a sound pressure level (SPL) of 85 dB, and 1 percent or more at the highest, 100 dB SPL. In the 300-Hz pulse tests, the speaker ran out of steam (specifically, out of midrange suspension "throw"), for an input equivalent to 26.5 dBW (450 watts) peak into 8 ohms. Since that drive level represents a calculated output of 114 dB SPL (threshold-of-pain territory) and involves far more power than most amps can



ROOM RESPONSE CHARACTERISTICS



—	boundary-dependent region
—	on-axis response
- - -	off-axis (30°) response
SENSITIVITY (at 1 meter; 2.8-volt pink noise) 87.5 dB SPL	
AVERAGE IMPEDANCE (250 Hz to 6 kHz) 5.3 ohms	

deliver, this datum has little practical significance. In fact, Siefert's rating of 25 watts (14 dBW) as minimum recommended amplifier power strikes us as much more to the point.

Use of some sort of speaker stand seems called for, if only to raise the drivers closer to ear level. The lab kept the speakers 16 inches off the floor; for the listening tests, we had them a little lower than that. For both, they were out from the wall behind (though data obtained with the test speaker near the wall didn't depart radically from the response shown in our graph). We tried the speakers on the floor as well, but we judged the deep bass a little too heavy with that much floor

reinforcement.

Ignoring the usual floor-reflection dip near 300 Hz, the response graph is unusually flat. On-axis response lies within about $\pm 1\frac{1}{4}$, -3 dB from 80 Hz to 15 kHz, and the spread off-axis isn't much greater. For the most part, the sound was judged very smooth and uncolored. In the context of the high-end speakers with which Siefert would have us compare its products, some program material did seem slightly forward (the prominence of the lower treble in the overall response may account for this), and an occasional bit of flute or other high-frequency source took on a slight stridency, suggesting

roughness in this region. There was also an occasional hint of congestion in the deep bass.

But these considerations were largely swamped by the overall excellence of the Magnum III's sound, the unusual bass extension for a model of its size (and price), and its superior imaging. It is, as Siefert claims, one of those models that's easy to forget about, so that you end up simply "listening through it" to the music. The price has gone up somewhat since the speaker was first announced, but to our ears, it still represents an excellent value. By all means, audition it. ■

T E S T R E P O R T S

Bose AM-5 Three-Piece Loudspeaker System



DIMENSIONS: SATELLITES, 3½ BY 7½ INCHES (FRONT), 4½ INCHES DEEP; BASS MODULE, 20½ BY 12½ INCHES (TOP), 7½ INCHES HIGH. **PRICE:** \$700; OPTIONAL TRIPOD SATELLITE STANDS, \$50 PER PAIR. **WARRANTY (SPEAKER SYSTEM):** "FULL," FIVE YEARS PARTS AND LABOR. **MANUFACTURER:** BOSE CORP., THE MOUNTAIN, FRAMINGHAM, MASS. 01701.

LEAVE IT TO BOSE TO DO THINGS A BIT differently from everyone else. Though the basic concept of the AM-5 Acousti-mass System isn't particularly novel—two small satellites plus a woofer module/crossover—just about everything else in the system is. The configuration of the bass reproducers is, in fact, the subject of a Bose patent.

Completely enclosed within the bass module are two 6-inch woofers, one for each channel. The front waves of both radiate into one vented cavity within the module, the back waves into a second. The cavities are different in size and effective vent length, so their resonant frequencies are different. Front and back diaphragm surfaces obviously are 180 degrees out-of-phase, so the two waves would cancel each other if it were not for the fact that the values of cavity and vent loading produce vent outputs that are in phase in the range between the two resonant frequencies. Equally important for the AM-5, the resulting signal summation delivers a *band* of frequencies, making the woofer unit, in effect, an acoustic bandpass filter.

The vents both open at one end of the module, which sits on rubber feet and contains spring clips for connecting cables from the driving amplifier and to the two satellites. (Bose supplies color-coded cable for

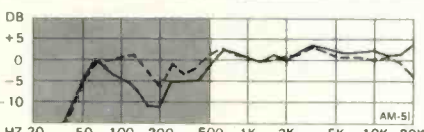
both purposes, and the manual gives directions for choosing wire if longer runs are needed.) Placement and orientation of the module aren't supremely critical, according to Bose, though if the ports are very close to any surface, the bass won't sound as it should, and placement near walls or in corners will emphasize bass output, as with any speaker.

Each satellite is comprised of two nearly identical miniature enclosures, each housing a 2½-inch mid/high driver. Electrical connections are made to spring clips at the back of the lower enclosure, which is intended as the main radiator. The upper one can be used in either of two ways. To reinforce and broaden the angular coverage of the main driver, you can swivel the two drivers so that their axes diverge only slightly. But you also can aim the upper driver well away from the primary listening area, turning the ensemble into a traditional Bose Direct/Reflecting design.

Several basic placement configurations are suggested in the manual. If the speakers are well out from the wall behind, you can direct the upper satellite drivers back at that wall (a scheme to which we gave a slight edge in our listening tests). If the speakers are close to the rear wall, you can aim the upper elements outward to reflect from the side walls. A switch labeled DIRECT/REFLECTING tailors the top end of the upper driver's response, either leaving it flat for reflecting operation or rolling it off slightly for direct radiation, which might otherwise suffer from an excessively hot high end.

The satellites can be set on any convenient surface, though careless placement will

ROOM RESPONSE CHARACTERISTICS



—	boundary-dependent region	
- - -	on-axis response	
· · ·	off-axis (30°) response	
SENSITIVITY (at 1 meter; 2.8-volt pink noise)		90 dB SPL
AVERAGE IMPEDANCE (250 Hz to 6 kHz)		7.5 ohms

surely cause close-in reflections that can compromise performance. To avoid this, you can use the optional adjustable tripod stands, which elevate the satellites by as much as a foot. In our listening tests, we confirmed that these stands do make it easier to get good results.

Bose claims some technical advantages for the overall design (greater efficiency than conventional ported systems and, especially, the suppression of any high-order distortion products by the woofer module's acoustic-filter design), but the overriding consideration is the creation of a "big" sound without corresponding enclosure bulk. Perhaps this is most important for stereo television (the satellites are magnetically shielded for such use), where the tiny satellites are easy to position and their swivels make a range of acoustic possibilities available at the twist of a hand.

Any listening system in a room where decor or practical considerations inhibit conventional speaker locations will also profit from the AM-5's compactness and positioning flexibility. The woofer module, for example, is cloaked in a self-effacing black finish: In an audio-video system, it might be stashed at the bottom of the TV rack. Bose suggests hiding it under a chair and even indicates that it might be located behind the listeners.

We found that such exotic placements can be acceptably undetectable—we localized no sound at the bass module. Depending on the program material, we could localize some sounds in the bass module when we moved it out into the room, in front of the satellites. However, this probably is the worst possible position psychologically because of its visual obviousness—and moreover, it's one that defeats the AM-5's whole purpose.

Because of the multitude of possible setups, Diversified Science Laboratories had to use a relatively arbitrary positioning for its measurements. It placed the bass module on the floor, 4 inches out from the wall, with the vents firing to the left. With the satellites on stands, 28 inches off the floor, the upper tweeters were turned 45 degrees outward, to reflect off the near side wall. The right-channel satellite was located above the woofer module and its main tweeter was aimed straight out toward the "on-axis" microphone. This follows fairly closely one of Bose's suggested configurations for reflected sound, and the satellite switch was accordingly set at REFLECTING.

DSL's data and our graph show a decided dip in the crossover region, where the high- and low-frequency bands don't quite overlap enough. Other setups could have rearranged the contour of the dip somewhat, but near-field measurements of the module ports and the satellite drivers confirm that nothing is likely to make it disappear altogether. From the midrange (about 500 Hz) up, on-axis response remains $\pm 3\frac{1}{2}$ dB or so, and off-axis response is very similar. There



THE AM-5'S SINGLE BASS MODULE PERMITS FLEXIBILITY OF PLACEMENT.

is a noticeable prominence near 3 kHz in both curves, but it isn't severe.

With the weak fundamentals in the crossover region, we weren't surprised to find that distortion in this region measures proportionately higher than it does in most of the rest of the frequency range. At the lowest test level—85 dB SPL (sound pressure level)—harmonic distortion at 200 Hz was $3\frac{1}{2}$ percent. For the remainder of the range, distortion averages only about $\frac{1}{2}$ percent at that level and is much lower than that in the upper treble. Distortion rises with test level, of course, but it still doesn't average much more than 1 percent at the highest measured level of 100 dB SPL (again, ignoring the crossover region, where it reaches almost 11 percent). In most of the audible range, therefore, distortion figures are very good.

In the 300-Hz pulse test, which in this case exercises the bottom end of a satellite, the system accepted an input of 22 volts (the equivalent of 17.8 dBW, or 61 watts, into 8 ohms) but at that point showed marked signs of incipient overload. The crossover network includes a self-resetting overload-protection circuit, and the lab could have been detecting a by-product of this protection rather than actual speaker misbehavior. Either way, even though a limit was encountered, calculated output at that point was a fairly hefty 107.8 dB SPL, a maximum level high enough for most normal listening.

The AM-5 is rated at 4 ohms. Its impedance never actually drops quite that low: Through most of the range, it varies between about 9 ohms (slightly higher at 20 kHz, with the DIRECT setting) to 4.8 ohms near 175 Hz. Below 70 Hz, it rises sharply to dual peaks: 11.9 ohms near 60 Hz and 20 ohms near 28 Hz. Even so, the impedance variation is not at all extreme, making this a relatively easy load for most amps to drive. Many would even accept an AM-5 in parallel with another (preferably 8-ohm) speaker pair.

For our listening tests, we could explore only a few of the possible system configurations, particularly since different source material tended to favor one or another of the possibilities. As the manual suggests, imaging is tightest and most unequivocal in the direct-aimed mode (which is suggested for TV use). But if you want the spaciousness

that is a hallmark of Bose speakers, you'll doubtless choose a reflecting setup.

Either way, however, a sense of "bigness" was among the factors that appealed to us in our listening. By contrast, most mini or satellite models we've tested seem to compress peaks somewhat, betraying how hard they must work in their little boxes to achieve high levels. Perhaps this highly subjective assessment is attributable to the AM-5's remarkably low distortion at high frequencies. Another contributing factor could be the unusually high sensitivity for such a small system. But for whatever reason, this characteristic was frequently apparent.

Other traits appeared less consistently. The bass is quite extended for a speaker of this size, but, depending on source material, it usually isn't as clean and distinct as the treble, which often is exceptional. Predictably, the weakest range is that around the crossover frequency (which is near middle C, a region where there is a lot of energy in most music). Still, some instruments reproduce extremely well, with timbres (of the woodwinds, in particular) very forward and thrillingly alive. This same quality (which we would attribute to the response prominence near 3 kHz) can have a less stimulating effect on voices—especially high ones—which sometimes sound a trifle "pushed."

It's a remarkable system. If you want to avoid the big, bulky boxes that usually go with good sound, the AM-5 will do so more compactly than many other three-piece designs. And thanks to the swiveling-satellite design, it also provides the Bose Direct/Reflecting concept's spacious sound quality in an exceptionally flexible form. ■►

REPORT POLICY

EQUIPMENT REPORTS ARE BASED ON LABORATORY MEASUREMENTS AND CONTROLLED LISTENING TESTS. UNLESS OTHERWISE NOTED, TEST DATA ARE PROVIDED 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 REPORTS IN ADVANCE OF PUBLICATION, AND NO REPORT OR PORTION THEREOF MAY BE REPRODUCED FOR ANY PURPOSE OR IN ANY FORM WITHOUT WRITTEN PERMISSION OF THE PUBLISHER. 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.

Paradigm 9se Loudspeaker



DIMENSIONS: 28 BY 11½ INCHES (FRONT), 13¾ INCHES DEEP. PRICE: SPEAKERS, \$599 PER PAIR; M-20 STANDS, \$99 PER PAIR. WARRANTY: "LIMITED," FIVE YEARS PARTS AND LABOR. MANUFACTURER: PARADIGM ELECTRONICS, INC., 4141 WESTON RD., SUITE 5, WESTON, ONT. M9L 2S8, CANADA; U.S. DISTRIBUTOR: AUDIOSTREAM CORP., BOX 1099, BUFFALO, N.Y. 14210.

AS A RELATIVELY YOUNG LOUDSPEAKER company, Paradigm has not had time to establish a reputation, at least in the U.S. But if our reaction to the Model 9se loudspeaker is any indication, a good reputation should not be long in coming. For once, we wholeheartedly agree with the conventional puffery on the data sheet: The Paradigm 9se is most definitely "a no-compromise two-way design capable of outperforming systems costing several times as much."

Actually, in electroacoustical design, the Model 9se is a rather conventional vented system. The tweeter is a Ferrofluid-damped, 1-inch, polyamide-dome unit with a high-temperature voice coil wound on an aluminum former. The tweeter diaphragm is said by the data sheet to be "replaceable," although we cannot fathom any reason that you'd need this feature in normal use. Perhaps the most unusual aspect of the speaker is its use of two woofers driven in parallel to increase speaker sensitivity and power-handling ability and to reduce low-frequency distortion at high sound levels. Each is 7¾ inches in diameter and has a polypropylene diaphragm with a high-compliance synthetic ABS Butyl suspension. The crossover is a Butterworth network using air-core inductors and Mylar capacitors. Crossover frequency is 2 kHz.

The two ports for the woofers are located on the back panel, which on our samples was painted black to match the black-ash vinyl veneer of the rest of the enclosure. A natural walnut vinyl finish is available as well. Also on the back panel are the two binding-post connectors accepting bare wire, lugs, and dual or single banana plugs.

Although it is tall enough to provide acceptable results when sitting directly on the floor, the 9se's instruction sheet recommends placing the speakers so that they are totally freestanding—away from walls and the floor. It also says that "speaker stands that bring the tweeter to approximate ear level are essential." However, Paradigm's screw-together M-20 metal stands elevate the speaker only 8 inches above the floor,

whereas bringing the tweeters up to ear level requires a stand about 15 inches high.

Diversified Science Laboratories obtained its test results with the speaker on an 8-inch stand located 35 inches from the wall behind. The on-axis frequency response is a very respectable ± 2 dB from about 100 Hz up to about 20 kHz. Off-axis, the response is not quite so flat, with a distinct dropoff in response above 10 kHz and with slight dips in the crossover region and around 300 Hz (a floor-reflection aberration that does not show up in the close-miked woofer or port responses). The latter dip tends to make the slight rise centered at 160 Hz more prominent, both on the graph and to the ear. At DSL, response rolled off at a comparatively gentle 6 dB per octave below 125 Hz.

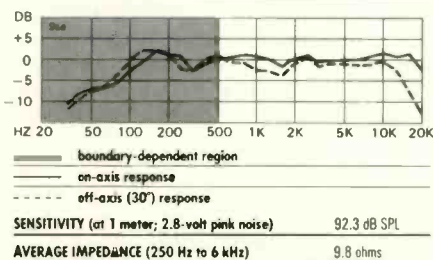
The average measured impedance over the audio band is 8.1 ohms. But because the impedance curve dips to 3.8 ohms at 30 Hz and 200 Hz, the 9se's rated impedance of 4 ohms is justified. The impedance curve also has peaks of 7.2 ohms at 70 Hz and 18 ohms at 1.4 kHz. The measured sensitivity is, as claimed, relatively high at 92.3 dB sound pressure level (SPL) with a 2.8-volt pink-noise input. The speaker, providing the dynamic range the data sheet promises, accepted a full-output (67-volt) signal from the test amplifier during DSL's 300-Hz pulse test. With this signal—equivalent to a 561-watt (27.5-dBW) input—the speaker delivered a deafening calculated peak SPL of 119.9 dB.

Distortion at more sensible levels remained quite low. For frequencies above 60 Hz, it averaged well below 0.6 percent at an 85 dB SPL test level and well below 0.8 percent at 90 dB SPL. At the highest test level (100 dB SPL), distortion above 60 Hz was at worst 3.5 percent at 250 Hz. Even at 50 Hz, distortion was only 5.9 percent, and above 500 Hz, it was still less than 0.7 percent.

All this backs up our listening-session evaluation of the 9se as a speaker that plays plenty loud and yet manages to avoid any sense of strain or diminution of clarity in loud, complex music. The only time we heard the effects of the measured low-bass rolloff was when the music had substantial amounts of signal in the lowest octave (say, 20 to 40 Hz), but these frequencies are difficult even for larger and costlier systems, in addition to being somewhat rare in music.

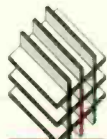
When the speakers were placed in our lis-

ROOM RESPONSE CHARACTERISTICS



Your loudspeakers may well have some of the most advanced drive units and crossovers in the whole world.

Even so, something is still standing between all the natural sound they produce and your ears.



MATRIX
B&W
DIGITAL MONITORS

The loudspeaker cabinet walls.

When the drive units vibrate, they will make the cabinets vibrate as well. Stopping the complete sound spectrum that comes from the drive units from ever reaching you.

This effect is known as colouration. And it's the reason you're always conscious that you are listening to music produced by two loudspeakers rather than a truly live concert performance.



INSIDE EVERY BOX IS THE NATURAL SOUND STRUGGLING TO GET OUT

Colouration is a great barrier to pure sound reproduction. Loudspeaker manufacturers all over the world have been searching for a way to break through it.

Now B&W have finally done it. With an invention that's the most exciting and important breakthrough in loudspeaker technology that even they have made in the last 20 years.



It's the Matrix series of new digital monitors. The first ever loudspeakers to totally eliminate the colouration from the loudspeaker cabinet.

The bass has depth and body and no resonant boom.

The mid- and high-frequencies have a new sparkle and definition.

And, for the first time ever, the natural decay of reverberation is heard exactly as it's heard in a live performance.

The familiar, but greatly unloved hangover effect is dead. Long live the Matrix.

This revolution was achieved with an idea so very simple that B&W practically invented the Matrix by accident.

They discovered that all that

is required to virtually eliminate unwanted sound radiation from the cabinet is a honeycomb-like structure of unique design inside it.

They also discovered that this so improved the performance of the cabinet that they also had to improve the quality of all the drive units.

Consequently, as well as the drivers with homopolymer cones manufactured under licence from CBS Inc., Matrix also features a newly designed ferrofluid tweeter.

The new Matrix series itself features three digital monitors.

Matrix 1, 2 and 3.

Each has a different size, maximum acoustical output and bass extension. All have the same enhanced stereo imagery, improved transient response, low distortion and total freedom from colouration.

The Matrix series takes its place in the B&W range, succeeding loudspeakers that in their time have made history.

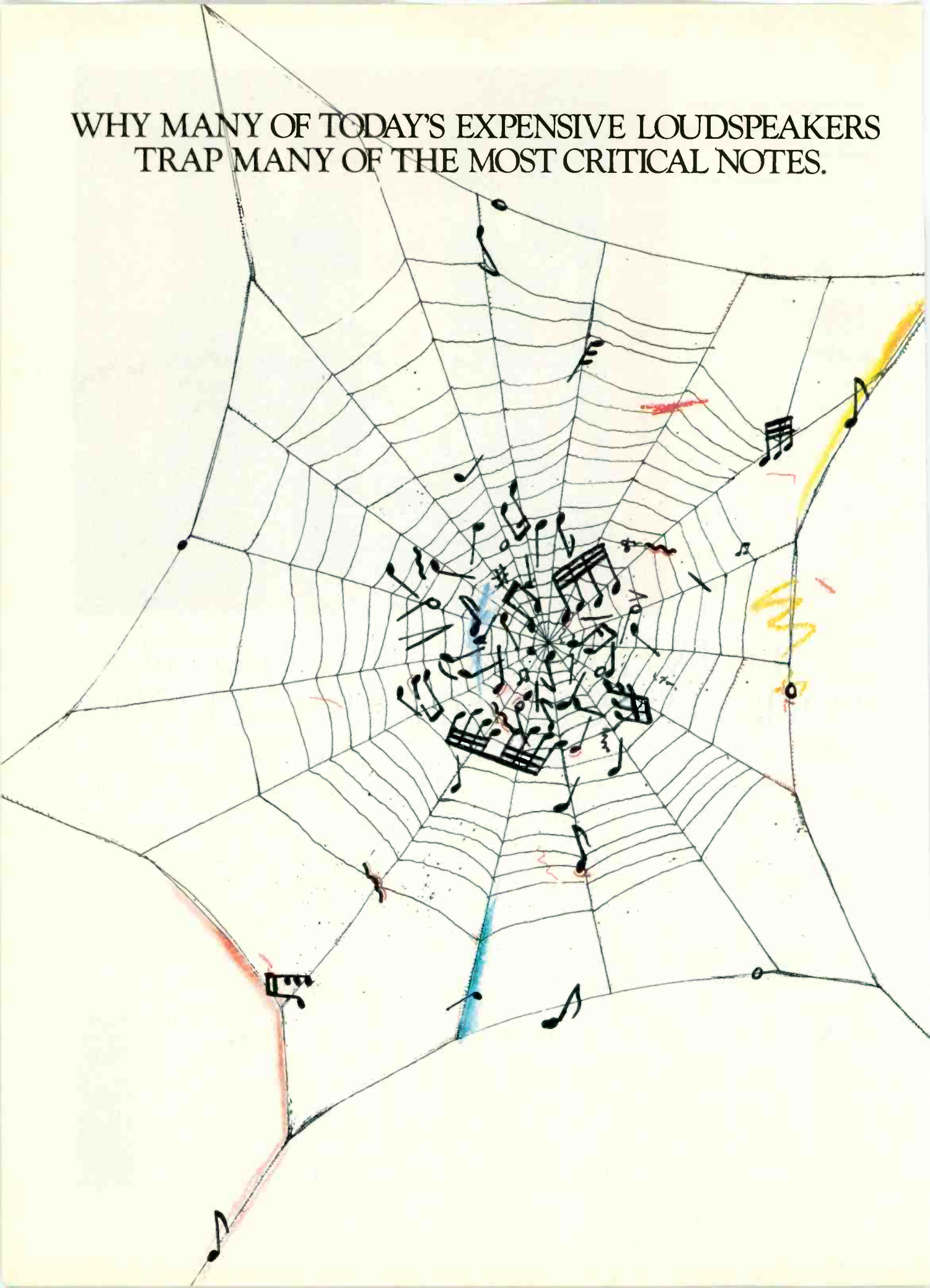
You just cannot miss them at your B&W stockist.

They are truly the only loudspeakers that are seen but definitely not heard.



LISTEN & YOU'LL SEE

WHY MANY OF TODAY'S EXPENSIVE LOUDSPEAKERS
TRAP MANY OF THE MOST CRITICAL NOTES.



The music that goes into many of today's highly priced loudspeakers isn't always the same music that comes out. Many of the finer notes and nuances are often trapped or lost. Why? Because advanced recording techniques and digital processing demand a dynamic range of over 90 dB and an extended frequency response. Demands that are often beyond the limits of ordinary loudspeakers.

The truth is, most people can't hear what's missing from their music—like a broad frequency range—or what's been added—like coloring or distortion. But there are a few who can.

For that select group, listeners with well trained ears, Altec Lansing has engineered a new line of



*Polyimide/Titanium
Mid-range*

loudspeakers to recreate every subtlety of recorded music with a clear open sound and without coloring or distortion. Even the accuracy of CD recordings can be more fully appreciated on these Altec Lansing loudspeakers, prompting Stereo Review to remark "...the bass distortion

was among the lowest we have measured. The speakers have...very good bass, and a warm, extended and unstrained character."

The secret to Altec Lansing's consummate performance? Remarkably sophisticated technology. Like woofers of a woven carbon fiber material (instead of paper or polypropylene) that is extremely rigid yet sufficiently light for maximum transient response and extraordinary low frequency definition. The result is a pure, clean, deep bass that beautifully complements the performance of our mid and high frequency polyimide/titanium

domed drivers. Virtues like these compelled Stereo Review to also comment on Altec Lansing's "...high sensitivity and ability to absorb large power inputs...a



Carbon Fibers in Woofer Cone

speaker that can develop high sound pressure levels in any environment." Even the hand crafted walnut veneered cabinets utilize the latest computer aided design techniques, thick walls and extra bracing to eliminate resonance.

So come hear Altec Lansing loudspeakers. And discover just how much of your music has been trapped by less than extraordinary loudspeakers. Call 1-800-ALTEC 88 for information and the Altec dealer nearest you. (In PA 717-296 HIFI.) In Canada call 416-496-0587 or write 265 Hood Road, Markham, Ontario L3R 4N3.



ALTEC LANSING
LOUDSPEAKERS FOR
THE WELL-TRAINED EAR



Even if college isn't for you, the G.I. Bill Plus the Army College Fund can be.

You can earn \$17,000 for your Vo-Tech schooling with the Army's special Two-Year Enlistment. Or \$25,200 if you serve four years.

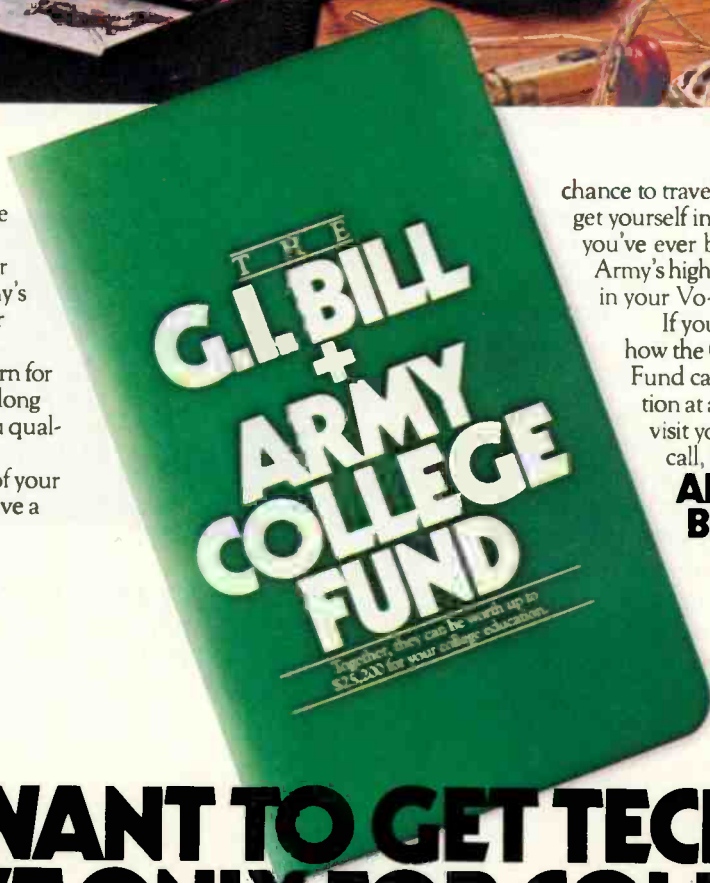
Of course, how much you earn for your schooling depends on how long you serve and which specialty you qualify and enlist for.

But you'll get a lot more out of your enlistment than money. You'll have a

chance to travel. To meet new people. To get yourself into the best physical shape you've ever been in. And, you'll get the Army's high-tech training that can help you in your Vo-Tech major and your career.

If you'd like to learn more about how the G.I. Bill Plus the Army College Fund can help pay for your education at an accredited Vo-Tech school, visit your local Army Recruiter. Or call, toll free, 1-800-USA-ARMY.

ARMY.
BE ALL YOU CAN BE.



**IF YOU WANT TO GET TECHNICAL
IT ISN'T ONLY FOR COLLEGE.**

(CONTINUED FROM PAGE 30) tening room as DSL had them in its lab, we detected a hint of upper-bass heaviness on male vocals (probably due to the combined effects of the slight 160-Hz peak and the 300-Hz floor-reflection dip). But this disappeared when we raised the speakers up to the recommended ear-level height and

moved them a foot closer to the wall. The 9se then passed all of our standard frequency-balance music tests with flying colors (including massed orchestral strings and female vocals). The overall frequency balance in that position proved excellent, as did the precision and depth of the stereo image.

Considering the relative youth of the

company, the conventionality of the design, the fine frequency balance, the very reasonable price, and the fact that the Paradigm 9se can be driven to levels of more than 100 dB SPL with a 20-watt (13-dBW) amplifier, there is no contradiction in saying that the 9se is both a "sleeper" and a speaker that will make you sit up and take notice. ■

T E S T R E P O R T S

DCM Timeframe TF-250 Loudspeaker



DIMENSIONS: 12 $\frac{1}{2}$ " BY 33 $\frac{1}{2}$ " INCHES (FRONT), 5 $\frac{1}{4}$ " INCHES DEEP PLUS CLEARANCE FOR CONNECTIONS AND STAND. **PRICE:** \$249 PER PAIR. **WARRANTY:** "LIMITED," FIVE YEARS PARTS AND LABOR. **MANUFACTURER:** DCM CORP., 670 AIRPORT BLVD., ANN ARBOR, MICH. 48104.

THE TF-250 IS THE SMALLEST AND LEAST expensive model in a line of five new DCM speakers called the Timeframe Series. Until their appearance, the company had been known almost exclusively for its Time Window loudspeakers, which were among the first designed to take phase as well as frequency response into account. And as the name suggests, the Timeframes follow in that tradition.

What distinguishes them is their shape: tall, slender panels, rather than columns (like the Time Windows) or boxes (like most other speakers). The TF-250 is a remarkably light two-way system with a 6 $\frac{1}{2}$ -inch woofer near the top of the front baffle and a $\frac{1}{4}$ -inch plastic dome tweeter just below. Crossover appears to be at about 3 kHz. The woofer is loaded by a transmission line that terminates in a port near the bottom of the panel. A nonremovable brown cloth grille wraps all around the enclosure, which has dark oak endpieces. At the back are color-coded spring clips for the amplifier connections and a short (about 4 inches) piece of wood that can either be rotated under the speaker's base or turned to jut out behind for added stability.

Diversified Science Laboratories tried the TF-250 against the wall behind it and several feet out into the room. As expected, bass output goes 20 Hz or so deeper with the wall placement, but since the overall response was smoother when the speaker was moved forward, DSL left it there for the remainder of the measurements. The curves in our data column are for the away-from-the-wall placement. Under these conditions, the room-corrected, third-octave response is within +3, -4 dB from approximately 80 Hz to 20 kHz on-axis and is nearly as good

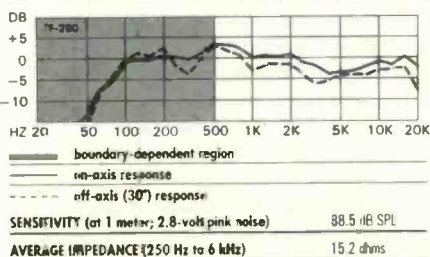
off-axis, though slightly more irregular. The advantage of using a very small-diameter tweeter is evident in the excellent high-frequency extension of the off-axis response, which holds up to approximately 16 kHz. The bump centered at about 600 Hz probably is the result of interference from a reflection off the floor (an effect we commonly see in speakers whose drivers are mounted well above the ground); it is not evident in the lab's near-field measurement of the woofer response.

Sensitivity is moderate. Impedance is on the high side for a modern speaker, with a 7-ohm minimum at 17 kHz and a 24-ohm peak at 2.2 kHz. Over most of the audio range, it is between 7 and 15 ohms. This should be an easy load for any decent amplifier, and we expect that most would accept a second pair of loudspeakers in parallel without any difficulty.

In our 300-Hz pulse power-handling test, the TF-250 accepted the full output of the lab's amplifier, equivalent to 28.1 dBW (648 watts) into 8 ohms, for a calculated peak sound pressure level of 116.6 dB, which certainly indicates more than adequate dynamic range. Distortion, however, measures somewhat higher than average (perhaps because of the relatively small drivers). At 85 dB SPL, total harmonic distortion (THD) averages a little more than $\frac{1}{2}$ percent from 100 Hz to our 10-kHz measurement limit, rising to about 1 percent at 90 dB, 1 $\frac{1}{4}$ percent at 95 dB, and 3 percent at 100 dB. On the other hand, these figures are inflated by a peak in the second harmonic between 200 and 250 Hz (ranging from about 1 $\frac{1}{4}$ percent at the lowest test level to around 11 percent at the highest), and we were never aware of any distortion from the speakers during our listening tests.

In fact, we were mostly quite pleased with what we heard from the TF-250. The overall sound is big and smooth, without even a hint of the brightness or harshness so common in

ROOM RESPONSE CHARACTERISTICS



speakers these days. If anything, it goes a bit too far in the direction of mellowness, taking some of the sparkle and aliveness out of instruments that have lots of high overtones (such as cymbals and woodwinds), an effect probably attributable to the small response dip in the brightness range. The very deepest bass is missing, but this is to be expected

from a speaker of this size and is not a great loss with most music, which seldom contains much (or any) information that far down. The stereo image is broad, yet well focused, and exhibits good depth when the speakers are away from the wall. And though we did most of our listening with the speakers placed much the way they were for the lab

tests, their performance held up nicely when we moved them to other positions in the room.

In sum, the TF-250 is an attractive loudspeaker that delivers good sound together with distinctive styling at a very reasonable price. If you're looking for value, it's a fine place to start. ■

T E S T R E P O R T S

3D Acoustics Cube Loudspeaker



DIMENSIONS: 10 BY 9 1/4 INCHES (FRONT), 9 1/4 INCHES DEEP. **PRICE:** \$260 PER PAIR; OPTIONAL ST-3 STANDS, \$65 PER PAIR. **WARRANTY:** "LIMITED," FIVE YEARS PARTS AND LABOR. **MANUFACTURER:** 3D ACOUSTICS (A DIVISION OF DAHLQUIST, INC.), 601 OLD WILLETTS PATH, HAUPPAUGE, N.Y. 11788.

THE CUBE IS THE SMALLEST LOUDSPEAKER made by 3D—and, for that matter, by its relatively high-end parent company, Dahlquist—and the least expensive. In concept, the Cube is also the simplest, with just a woofer, a tweeter, and a crossover housed in a modest, nearly cubical space. But it is quite different from the "quick and dirty" designs that infest the bottom ends of many other loudspeaker lines.

Cubes are sold in mirror-image pairs with tweeters near the upper outside corners of the front baffles and the woofers nearer the lower inside corners. (Left and right speakers are clearly marked on the back.) The tweeter diaphragms are 3/4-inch polycarbonate domes with Ferrofluid damping; the woofers have 5-inch laminated cones. The crossover frequency is 2.5 kHz. The sealed (acoustic suspension) enclosures are finished in satin black, with solid walnut strips flanking the grille. The latter is fabric stretched over a thin pressboard form, held in place with Velcro tabs.

Heavy-duty three-way binding posts for the electrical connections are inset into the back panel in the usual fashion. The holes through the binding posts meant to accept bared wires were all aligned differently in our test samples, making hookup a more onerous task than necessary unless you use spade lugs or banana plugs. But this is a very minor point for people who aren't equipment reviewers and therefore do not often have to confront the inconvenience.

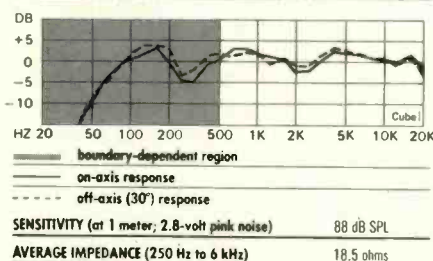
Diversified Science Laboratories' measurements show a fairly typical impedance curve for a simple two-way sealed system. Impedance is rated—justly so—at 8 ohms, but it rises to 27 ohms at bass resonance,

drops to 7.2 ohms (near 200 Hz), rises to 34 ohms near the crossover (actually, around 1.5 kHz), drops to 6.8 ohms in the upper treble (around 7 kHz), and begins rising gradually again at the very top end (to 8.8 ohms at 20 kHz). The only quirk is the bass resonance frequency: just above 110 Hz according to the peak in the impedance curve. That is an unusually high frequency by comparison to most speakers, though a high bass resonance point must be expected with such a small enclosure size.

That the speaker doesn't sound as bassy as that resonance would suggest is even more of a surprise. Obviously, the Cube is no match in the deep-bass department for competently designed larger systems, but it's always surprising when a relatively small, inexpensive model can deliver so plausible an overall balance. The lab measured response with the speaker on a 30-inch stand (similar in height to 3D's optional ST-3 stand) and 4 inches from the wall behind it. The curves confirm that bass resonance is above 100 Hz but show that bass rolloff isn't as steep as it is in some other models. Except for a trough centered near 300 Hz and presumably attributable to floor reflection, on-axis response remains within ± 3 dB throughout the midrange and treble. Off-axis response is a good match over this range—even in the highest treble, where divergence between the two curves normally can be seen as the tweeter becomes increasingly directive. Our listening tests confirm that tonal balance does remain relatively consistent throughout the room.

They also confirm some weakness of the crossover range relative to neighboring frequencies (particularly the octave between 500 Hz and 1 kHz in the upper midrange and around 4 kHz in the treble), which lends some coloration to the sound. But we don't want to overemphasize the matter—particularly in light of the Cube's modest price and the ease with which we adjusted to it during

ROOM RESPONSE CHARACTERISTICS



extended listening.

Distortion measured about what you'd expect for such a small system. At the lowest test sound pressure level (85 dB SPL), the figures average about 1/2 percent over most of the range, except for the deep bass, where they are higher. At the highest test level (100 dB SPL), the average over a similar range is 2 percent or more, which is about par for a

very compact system. However, the lab discovered that the tweeter can't take steady tones at this level—at least, not up in the range above 5 kHz. But unless you like very loud synthesizer rock (in which case, this isn't a speaker you're likely to cherish anyway), the tweeter failure the lab experienced is of almost no practical importance.

It's remarkable what 3D has done with

this very compact enclosure—only about twice the volume of many real minispeakers. It's also remarkable how low the price is—or rather, how high the price of some competing ultracompact speakers can go. We were even surprised how sensitive the Cubes proved to be, despite the miniaturization. So if you're looking for a compact speaker at a moderate price, don't pass this one by. ■

T E S T R E P O R T S

NEC AVD-700E Surround-Sound Processor



DIMENSIONS: 17 BY 3 1/2 INCHES (FRONT), 13 1/2 INCHES DEEP PLUS CLEARANCE FOR CONNECTIONS. **AC CONVENIENCE OUTLETS:** ONE SWITCHED (100 WATTS MAX.), TWO UNSWITCHED (100 WATTS MAX. EACH). **PRICE:** \$729. **WARRANTY:** "LIMITED," TWO YEARS PARTS AND LABOR. **MANUFACTURER:** NEC CORP., JAPAN; **U.S. DISTRIBUTOR:** NEC HOME ELECTRONICS (U.S.A.), INC., 1255 MICHAEL DR., WOOD DALE, ILL. 60191.

YOU CAN SPEND WEEKS EXPLORING NEC'S AVD-700E surround-sound decoder. It's that versatile and that imposing. We haven't seen a comparable consumer audio-video control center with as many inputs, outputs, and connection possibilities as the AVD-700E. In fact, we think it would be a rare application that would come close to taxing the full capability of this device!

There are five stereo audio-video inputs (VIDEO 1 through VIDEO 4 plus one for a television tuner), four line-level audio-only inputs (CD player, tuner, and two auxiliary sources), and connections for an audio tape deck. Of the audio-video array, two inputs (VIDEO 1 and VIDEO 2) have corresponding audio and video outputs so you can record on two VCRs simultaneously or dub between them in either direction. Furthermore, NEC's switching arrangement is such that you can combine the audio from one

source with the video from another. The possible applications of this are many, but simulcast recording springs immediately to mind.

You can connect video-processing equipment to a set of adapter input and output jacks (which are activated by a rear-panel slide switch), and you can insert external audio-processing equipment into the system by removing a pair of back-panel jumpers that also allow direct access to the internal delay circuits. There are two video-monitor outputs, left and right front-channel audio outputs (OUT 1), two sets of left and right back-channel audio outputs (OUT 2), and two mono center-channel output jacks. All connections are through pin jacks.

The NEC AVD-700E provides four audio-processing modes, in addition to bypass, which takes the processor out of the circuit. All four—Dolby Surround, Hall, Matrix, and Creation—make use of the AVD-700E's dual 16-bit digital delay lines. The delays of the left and right channels are independently adjustable in 1-millisecond increments from 1 to 92 milliseconds, except in the Dolby Surround mode, where the delay time is restricted (per Dolby Surround specifications) to between 15 and 30 milliseconds. ▶

Except where noted, all data are for the Dolby Surround mode.

OUTPUT AT CLIPPING (at 1 kHz)	
main channels	8.0 volts
center channel	4.4 volts
surround channels	6.2 volts
MAXIMUM INPUT LEVEL	
	2.8 volts
S/N RATIO (re 0.5 volt; A-weighted)	
main channels	102 dB*
center channel	98 dB*
surround channels	≥ 75 dB**
DISTORTION (THD; 20 Hz to 20 kHz; 2-volt input†)	
main channels	≤ 0.042%
surround channels	≤ 0.42%
FREQUENCY RESPONSE	
main channels	+0, -1/4 dB, 13 Hz to 24.1 kHz
	+0, -3 dB, < 10 Hz to 78.1 kHz
center channel	+0, -1/4 dB, 16 Hz to 24.1 kHz
	+0, -3 dB, < 10 Hz to 74.4 kHz
surround channels	+0, -1/4 dB, < 20 Hz to 4 kHz
	+0, -3 dB, < 20 Hz to 8.7 kHz
CHANNEL SEPARATION (1 kHz; main channels)	
	82 1/2 dB***
INPUT IMPEDANCE	
	34k ohms
OUTPUT IMPEDANCE	
main channels	1,000 ohms
center channel	150 ohms
surround channels	1,000 ohms

*All modes

**Dolby or Hall mode, 75 dB; 100 dB in Matrix mode, 96 dB in Creation mode

***Bypass mode



THE AVD-700E'S REMOTE CAN PRESET THREE SETTINGS FROM THE LISTENING POSITION.

The independent adjustability of the two delay lines offers some intriguing capabilities, especially in the Dolby Surround mode. The Dolby Surround standard provides for only one "rear" (surround) channel; it is mono, though it is usually wise to use a pair of speakers to reproduce it. If you're willing to go the whole Dolby Surround route and invest in a five- or, better yet, seven-speaker theater-style sound system, you can use three in the front (left and right connected to OUT 1 and center connected to a mono output), a pair of speakers roughly flanking the viewing position and derived from, say, the left channel of OUT 2, and a pair in the rear of the listening area driven by the right channel of OUT 2. By separately adjusting the delay time in the "left" and "right" channels, you have independent control over the arrival time of the sound from the side and rear speakers. The unit, however, does not contain any "steering logic" circuitry used in theaters and some other home Dolby-Surround decoders.

Hall is the recommended mode when viewing music videos or non-Dolby-Surround-encoded movies. In some ways, the Hall processing is similar to that used by Dolby Surround, in that a mono blend of the

front channels is delayed and applied to the back. However, in Hall you have the full 92-millisecond delay range at your disposal, and you can simulate the reverberation time of a concert hall by advancing the ECHO CONTROL. Also, the bandwidth of the back channel is not limited in Hall as it is in the Dolby Surround mode. The Matrix mode position is recommended primarily for sports programs.

We think you'll find, as we did, the impressively named Creation mode the most versatile of them all. As the manual says, "This is the best position for music source and other high-presence reproduction." Creation brings to bear the full power of the AVD-700E system. It gives you complete control of the left/right mix, separately in the front and back channels, via separate mix-level controls for the two main outputs. The maximum setting of each control produces complete (1:1) blending of the two channels; at minimum setting, you have normal separation. The twist is that you can invert the phase of the mixed-in channel, again independently for the two outputs, by pressing either or both of the Out 1-Inv and Out 2-Inv switches. The out-of-phase position creates a wider-than-real stereo effect at the expense of precise imaging; the in-phase position shrinks the image toward the center. But since the degree of opposite-channel blend is adjustable, you can create a wide range of effects. The Creation mode's back-channel outputs (OUT 2) are processed by the two delay circuits, and simulated reverberation can be dialed in, as in the Hall mode.

From the front panel, you can change modes (round-robin fashion, by successive taps of SURROUND SELECTOR), activate the delay, and adjust the delay time of both channels simultaneously. If a function is unavailable in the mode chosen, the switch controlling it has no effect and the appropriate LED indicators will not light.

The left and right delay times are indicated by numerical readouts in the display. The front-panel input selector also works in round-robin fashion, and again, the choice is shown by legends in the display. The tape-monitor switch is for an audio deck only, and SS (Sound Selector) permits independent choice of video and audio sources. The front-panel volume rocker-switch affects all channels (including the mono output) simultaneously. The relative settings of the left and right channels for the two main outputs are shown by parallel seven-segment indicators. FULL MUTE does what its name implies, while RESET turns all volume settings to -40 dB.

The final pair of front-panel controls adjusts the input levels to prevent overloading of the input analog-to-digital converters. LEDs above these controls are meant to suggest the danger level, although Diversified Science Laboratories did not find that the LEDs accurately indicated the clipping point: At some settings, they lit well below overload point; at other settings, clipping

occurred without warning. This is less of a problem than it appears, since the minimum input level for overload is 2.8 volts, which should be adequate for normal sources and program material.

The 42-function infrared remote control supplied with the NEC AVD-700E provides even more functions than are available with the front-panel controls. For instance, the handset can store favorite settings in one of three memory presets for system reconfiguration at the touch of a button. The remote also permits direct selection of any mode and any input, simultaneous or independent adjustment of the left- and right-channel delay times, and volume adjustment of all channels simultaneously (as on the front panel). Furthermore, the balance among the channels can be adjusted either independently or in pairs (front, back, left, right). You cannot, however, control the mixing in of echo or the input levels from the remote.

Traditionally, noise has been the bane of components containing delay circuitry, but thanks to the digital approach adopted by NEC, the dynamic range of the AVD-700E is very wide. A-weighted noise is at least 96 dB below our 0.5-volt reference at all outputs under all conditions except in the Dolby Surround and Hall modes, and then only in the back channels. Even in this "worst case" condition, the signal-to-noise ratio of 75 dB is more than adequate because of the normally lower volume of the back channels.

Front- and center-channel frequency response is unusually flat and extended for an audio signal processor, not only in the bypass mode, but in the Dolby Surround and Hall modes as well. Back-channel response in the Dolby Surround mode follows the Dolby specifications quite closely. Input impedance is perfectly adequate for connection with any source, and the output impedances and maximum output levels are equally well suited to drive any amplifier. Unlike many other signal processors that, at most, provide unity gain, the AVD-700E provides as much as 16 dB gain to the front and back outputs and 10 dB from one input to the center-channel output.

Distortion to the front outputs (in the Dolby Surround mode) barely exceeds 0.04 percent throughout the audio band and is entirely second harmonic. Distortion to the back (surround) outputs is an order of magnitude higher and contains some third harmonic as well as second, but this is at a high 2-volt level and, under normal conditions, cannot be heard in program material.

On the nit-picking side, we think a product as versatile as the AVD-700E deserves a better manual than the one that accompanies it. This is one case where the multitude of pictures could have been helped by thousands (well, maybe hundreds) of words. You're pretty much left to your own devices to discover the effects you can get from music and video soundtracks, particularly when using the Creation mode. But that, after all, is part of the fun!

There's only one other way to enjoy so many thrills for so little money.

Fast rides. Lots of excitement. A day at the amusement park is a great way to get your adrenalin going. For the money, there's nothing quite like it.

Unless, of course, you're clever enough to buy Jensen® Classic car speakers or a JS car receiver.



Classic speakers give you big sound for a little price.

All the Jensen Classic speakers are compact disc ready, a feature you'd normally expect to find only on higher priced speakers. Although they're short on price, they're not short on power. Dynamic cone tweeters, long throw woofers and 2½" dynamic cone midranges (on our 6" x 9" model) give you up to 150 watts peak power.

What's more, they're made in the U.S.A. and there's a model to fit any installation.



JS receivers give you features you can really use.

Any car receiver gives you plenty of features. The Jensen JS receivers have features you'll use plenty. Like Auto Reverse. Dolby "B." Seek. Scan. And 40 watts system power.

Two JS receivers even have compact disc player inputs. So, adding a CD player to your system is as easy as plugging it in.

If you're ready for thrilling car sound, but not prepared to spend a lot of money, there's only one thing to do.

Put a Jensen in your car. Turn it up. Then hang on for the ride of your life.



JENSEN®

We make music a moving experience.

COMPACT DISC



© 1987, International Jensen Inc. Jensen® is the registered trademark of International Jensen Inc.



A speaker designed to one standard: Live music.

If you have ever heard music live, you can appreciate what's behind the Bose® 901® Series V Direct/Reflecting® speaker system.

Live music is the complex interaction of direct and reflected sound. Most speakers, however, are not designed with this in mind—which is why they sound more like speakers and less like music.

This was the conclusion reached years ago by a Massachusetts Institute of Technology research team led by Dr. Amar G. Bose. Through extensive research, his team discovered the secret of live music: that it is the precise balance of direct and reflected sound heard during live performances that makes live music sound live. Finally, they designed a product that could put this discovery to work in the living room: the Bose 901 Direct/Reflecting® system.

The Bose 901 Series V speaker: a system of audio innovations.

The introduction of the revolutionary Bose 901 system in 1968 redefined the phrase "high fidelity." For the first time, a speaker was capable of reproducing music with much of the impact, clarity and spaciousness of a live performance. The 901 system's concert hall sound and compact size made it an instant success with both audio critics and audio enthusiasts. Today's 901 Series V system incorporates some 350 improve-

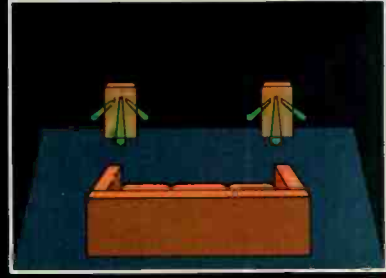
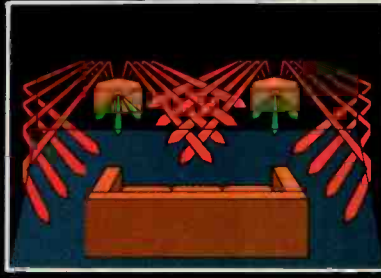
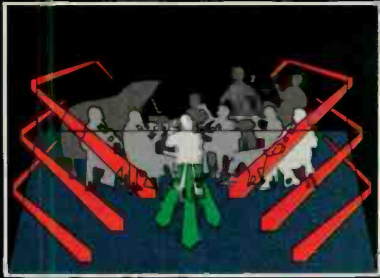


The Bose 901 system's Direct/Reflecting® speaker design turns your listening room into part of your stereo system. You'll hear *full stereo throughout the listening environment*—no matter where you sit or stand.



The 901 system's nine full-range HVC drivers are precisely arranged to re-create live music's natural balance of direct and reflected sound. Each driver is matched and tested by the Bose Syncom® II computer.

The Bose-built HVC driver is made out of some of the strongest advanced composite materials available. The heart of the driver is the Helical Voice Coil, which handles instantaneous peaks of up to 4,000 watts! Multiple HVC drivers give the 901 system unlimited power handling in home applications.



In the concert hall (above left), listeners hear a complex mixture of direct and reflected sounds, arriving from different directions and at different times. Bose Direct/Reflecting® speakers (center) are designed to reproduce music in much the same manner, allowing listeners to hear greater realism and impact. Conventional speakers (above right), on the other hand, reproduce primarily direct sound, causing listeners to miss many of the critical acoustic cues that make live music sound live.

ments over the original. The speaker's innovative audio technology turns your listening room into an essential part of your stereo system. The 901 system works by reflecting most of its sound, instead of aiming all the sound toward you like a conventional speaker. So, anything you listen to over a 901 system picks up a strong sense of concert hall realism, because the system is capable of reproducing the concert hall's natural balance of direct and reflected sound.

The right speaker for the best in audio: digital.

The 901 system's ultra-high efficiency and *unlimited power handling* make it an ideal speaker to use with almost any stereo system. It will help you get the most out of the best *sources* of sound available as well. For example, you'll hear digital compact discs sound as close to live as possible, because the Bose 901 system has been specifically engineered to take full advantage of their superior sound. Digital Dynamic Range® circuitry and Direct/Reflecting® speaker design allow the 901 system to accurately reproduce live music's impact, clarity and spaciousness.

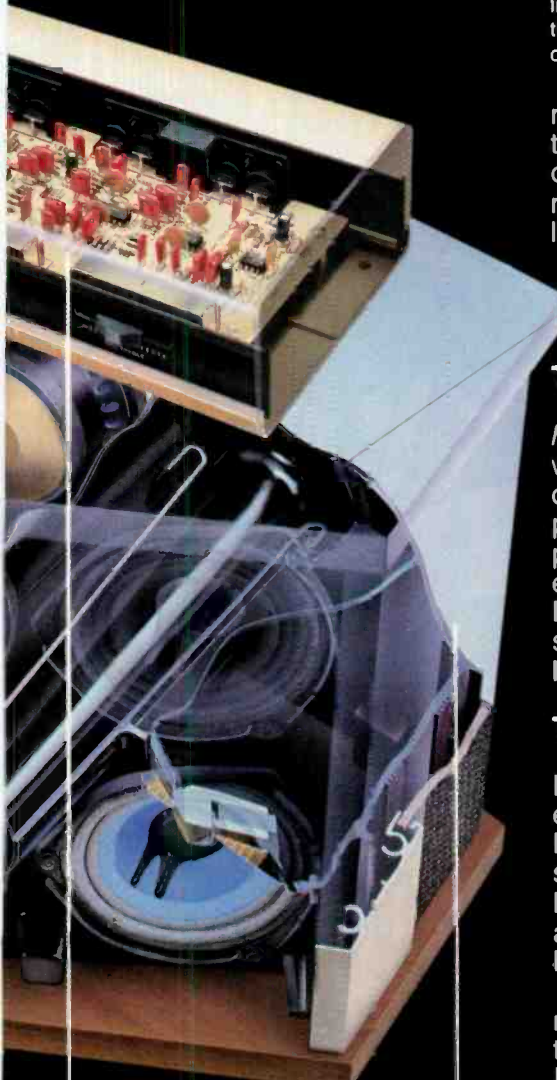
The right speaker for your entire system.

Whether you're listening to digital audio or hi-fi video, the Bose 901 Series V system will let you get the most out of your entire equipment and software investment—because it will let you hear all of the realism that a truly good audio/video system is capable of producing. Audition the Bose 901 Direct/Reflecting® speaker system at your authorized Bose dealer, and judge for yourself. Then take the next step—and invite a legend home.

There is an entire line of Bose speakers that incorporates much of the advanced technology developed for the 901 system. For more information and an all-product brochure, write Bose Corporation, Dept HF, 10 Speen Street, Framingham, MA 01701.

When you write for information, be sure to request a copy of Dr. Amar Bose's *Sound Recording and Reproduction*. This paper describes the research effort behind the original Bose 901 system.

© Copyright 1987 Bose Corporation. All rights reserved. Covered by patent rights issued and/or pending. Features and specifications subject to change without notice. Bose, Direct/Reflecting, Syncom, 901 and Digital Dynamic Range are registered trademarks of Bose Corporation, acoustic Matrix is a trademark of Bose Corporation.



The Acoustic Matrix™ enclosure helps the 901 system control sound by precisely controlling air. Made up of 4 separate acoustic regions, it isolates the drivers and regulates internal air flow, resulting in increased bass and lower distortion.

The Bose 901 active equalizer uses low-distortion electronics to control the system's total frequency response, allowing a compact system to produce full-frequency sound. Digital Dynamic Range® circuitry makes the entire system ideal for use with the best sources available.

BOSE
Better sound through research.



“I CAN MAKE YOU AN AWESOME DEAL”

THIS IS A STORY OF DECEPTION AND GREED, of tragedy and wasted dollars. It is a story of painted-on tweeters, two-ounce woofer magnets, and devious hi-fi store demos. Yes, this is the story of **SPEAKER SLEAZE!**

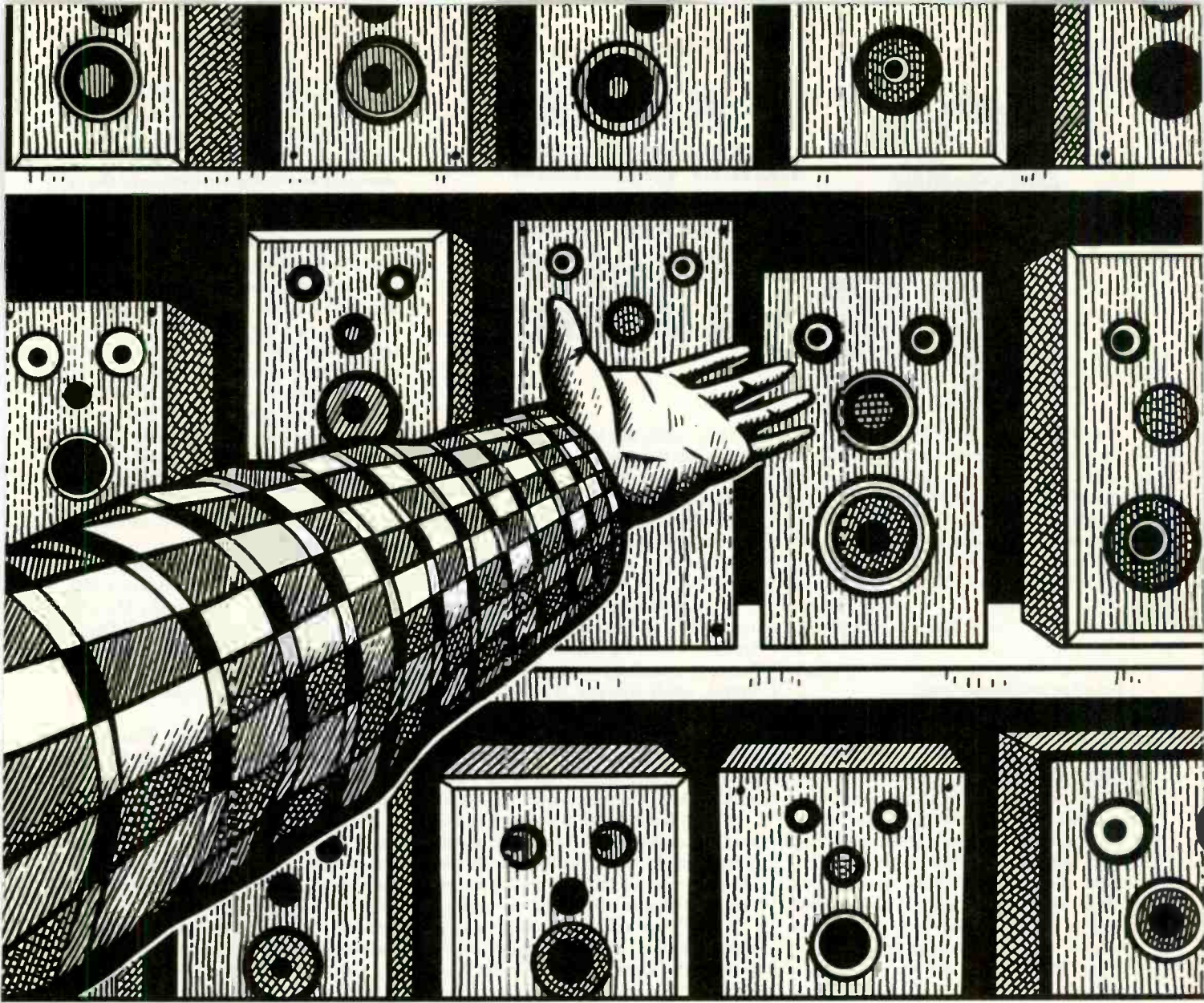
A LIFE GONE WRONG

THERE WAS A BITTER COLD STORM THAT night in Boston, ten years ago. I had just settled in at the local dive, a nondescript

punk hangout on the verge of selling out and going new wave. I remember it like it was yesterday: The Talking Dead were on the jukebox as this guy slides up next to me at the bar and shakes off enough snow into my drink to make a margarita. He was a strange one for that neighborhood, let me tell you. A tie and everything, a pen in his shirt pocket. Weird.

I guess it wasn't his first stop of the evening; he seemed pretty well on the

Real-Life Devious Speaker Selling Practices



ILLUSTRATIONS BY MARK MAZUT

BY KENNETH L. KANTOR

road to cowboy heaven as he laid his gold card on the bar and ordered up. I caught the name Joe Tinear. Well, I figure Joe ain't much for rock trivia, so I turn away to check out the local action when he bellows out at the top of his lungs, "I KNOW HOW TO SELL SPEAKERS!"—and drops his head onto the bar, sobbing. "Hey, Mac," I said, "wanna talk about it?" What I heard for the next five hours, I'll never forget till the day I die.

A FEW ROTTEN APPLES

I DON'T KNOW, MAYBE IT'S THE MONEY, maybe it's the pressure, maybe it's just having to listen to audiophile records all day, but it seems like some people do some pretty nasty things to sell speakers. Joe told me every trick in his book and then some. Ways to pervert our free will. Ways to distort the truth, bend the facts. Worst of all, ways to sell us the wrong pair of speakers.

I was getting scared, I admit. Who wouldn't be scared? You think you know the real stuff from the junk, right? You think you can sit down in a hi-fi store for ten minutes and choose which high-quality speaker sounds best? I hope you can. Joe and his buddies won't make it easy.

TRICKS OF A SORRY TRADE

LET ME TELL YOU SOME OF THE TRICKS I learned from Joe. Some of them seem so simple that they could never work . . . but they do. Like loaded dice, they tip the odds just enough. Let's suppose you're a salesperson trying to sell one particular pair of loudspeakers—we'll call them Model A. In your showroom, you also have another pair, Model B, which are better speakers at a similar price. How can you appear to give your customers a fair demonstration while secretly steering them toward Speaker A? Here's what you might do.

- The "don't give 'em any choice" routine. This approach is based on the idea that a hungry stomach will be satisfied with junk food, if no feast is in sight. Forget Speaker B. Forget comparisons altogether. Play some flashy music, loud, maybe with the bass cranked up, through Speaker A. You confidently announce, "Sounds pretty awesome. Check it out!" The customer replies, "Yeah, wicked awesome!" "I can make you an awesome deal, but like, it has to be before my manager gets back. OK?" "All riiiiight! Thanks, dude!" Presented here in West Coast dialect, this approach has been successful with many customers when applied with speed and subtlety.

- The "don't give 'em much of a

Kenneth L. Kantor is a well-known designer of nonsleazy loudspeakers (AR MGC-1, Proton AL-300, NHT Model 1). He is an eye- and ear-witness to the practices exposed in this article.



“LET ME PLAY YOU A REALLY EXCELLENT RECORDING TO HELP YOU BEST EVALUATE THESE SPEAKERS.”

choice” routine. Here the customer has the illusion of free will. Announce an “objective” comparison (under your control, of course) and play some catchy music through Speaker A long enough for the customer to get used to the sound, a few minutes if possible. Now quickly switch to B for a maximum of 20 seconds, preferably while talking over the music. This can be very effective if done smoothly, since the second pair will tend to sound “wrong” after a reference has been established in the listener’s ear.

- The “loud is beautiful, if it sells” routine. If you can make Speaker A play louder than Speaker B without the customer catching you, you’re home free. They can compare all they want. Unless Speaker A is a real loser, or B is far superior, you have the sale. Sometimes things work out easily, as when Speaker A is a 4-ohm unit and very efficient and B is 8 ohms with low efficiency. Lower impedance or higher efficiency will automatically play louder, all other things being equal. If conditions are not naturally favorable, simply adjust the appropriate volume control settings.

- The “I always wondered what good all those knobs were” routine. In addition to volume controls, others—such as loudness-compensation buttons, balance controls, noise filters, mono switches(!), and even equalizers—can really help screw up a formidable competitor.

- The “special demo disc” routine. Open up with “Let me play you a really excellent recording to help you best evaluate these speakers.” Next, pick the kind of recorded sound you need to make the right sale. If you’ve done your homework, you’re all set. For example, play some harsh-sounding discs and the speaker with the treble rolloff will be the winner. Or use some thumpy old disco tracks to help out the speaker with no low end.

- The “apples and oranges” routine. An even more advanced form of demo manipulation can sometimes be applied. Under the guise of providing the best showcase for each model—or even under no guise at all—you can actually use a different recording for each pair of speakers. Always credit all that amazing imaging

and wonderful top end coming from A to that speaker’s inherent high quality. *Never* admit that the source material has any bearing on the demo. An inexperienced listener will be either very confused or very impressed—or both.

- The “location is everything” routine. If Speaker A needs more bass, put it in a corner. If it needs better stereo imaging, angle it in toward the customer. Put Speaker B too high up or too far down. Better yet, carefully arrange A for the best sound, while placing B’s left-channel speaker in the corner on the floor and the right-channel speaker at the center of your demo shelf. If the customer complains, just say, “Hey, you want ‘em to work anywhere in your room, don’t you?”

- The “hidden wire” routine. Connect Speaker A with a short run of high-quality speaker cable. Connect Speaker B with about 75 feet of cheap 22-gauge stuff. Easy. Just be sure to hide the extra wire.

- The “now tell me that the imaging doesn’t stink” routine. Simply connect the left and right units of Model A in-phase and those of B out-of-phase. Your customer would have to be stone-deaf not to hear the superior bass response and imaging of Speaker A.

THE BIG GUNS

OF COURSE, THE GREATER THE DIFFERENCE in quality between the speakers, the more ammunition you must use to turn the tables. If Models A and B are very similar, you can readily influence all but the most expert listeners. If B really is much better

and your customer has a functioning auditory system (not all do, especially the ones who’ve OD’d on disco), extra effort is called for. When the basic approaches above are not enough to overcome the inadequacies of the brand you’re trying to sell, here are some additional methods that are actually being put to use successfully. Remember, all these approaches can be used alone or in combination—whatever it takes to get the job done.

- The “grille cloth” scam. Carefully remove the grille frame from Speaker B and replace it upside down, or swap left and right grilles in such a way as to block the tweeter sound. While this is not possible with every model, when it is, the approach is guaranteed to work. If the speaker manufacturer has thoughtfully provided individual driver-level controls, ruining the highs of Speaker B can be simplicity itself.

- The “precooked” scam. Early in the morning or late at night, connect a 300-watt (24 $\frac{3}{4}$ -dBW) amplifier to the Model B speakers and play a CD of *Cyndi Lauper Sings Aida* at a gradually increasing volume until the drivers (especially the tweeters) are properly “broken in” for later demos.

- The “subwoofer” scam. This one is obvious. Connect a good subwoofer to A or a bad one to B, whichever is more convenient. They never notice.

- The “gee, I didn’t know these were connected” scam. This effective method is a variant of the subwoofer ruse. Place some small speakers in the back or at the sides of the listening room and connect them to a surround-sound processor. If you don’t have a surround processor, simply wire them into the system however you can. The important thing is to have them go on while A is playing and go off for B. Care must be taken not to overdo it with experienced listeners.

THE PAYOFF

YOU MAY BE WONDERING WHY SPEAKER-sales types might not want you to buy whatever you want. After all, money is money, right? A good salesperson does want you to be happy, even if that means less short-term profit for the store. But



“THESE ARE GREAT— I’VE GOT ‘EM AT HOME.”



'We didn't design our speaker with only one bass response, because we didn't design your listening room.'

—*Ric Cecconi*, KEF SENIOR DEVELOPMENT ENGINEER

ONE STEP IN THE MAKING OF A KEF

All loudspeaker designers make assumptions about amplifier power, room location, and desired bass extension. Unfortunately, these assumptions can never hold true in all cases. And whenever the assumptions are wrong, so is the sound.

That's why we supply our Reference Series speakers with this

device: the KEF User-adjustable Bass Equaliser or "KUBE." For the first time, you can tailor bass rolloff frequency and contour to match your listening conditions perfectly.

With our KUBE-equipped speakers, you can do more than simply hope for the best. You can be assured of it.



REFERENCE MODEL 102

KEF
The Speaker Engineers



“I CAN MAKE YOU AN AWESOME DEAL, BUT LIKE, IT HAS TO BE BEFORE MY MANAGER GETS BACK.”

there may be other, hidden factors. Pick one or more of the following true-to-life deals:

- The store may have so many pairs of Speaker A in the back room that the rest-room door is blocked.

- The salesperson's boss might be eligible to win a new Corvette from speaker company A if the store sells 250 pairs a month for four months.

- Speaker A might be made by the same company that makes a very popular and profitable amplifier. This company will provide the store with only one amplifier for each pair of Speaker A that the store sells.

- The salesperson might get a free pair of Speaker A for every five pairs he sells (this is called a “spiff”). The next time a salesperson says to you, “These are great—I’ve got ‘em at home,” remember that he might really be saying, “The manufacturer gave me one of these so I would try to sell more.”

- Selling Speaker A might give the store more net profit (more “points”) than Speaker B, even if the list price is the same.

- Any one of a dozen other ways that all audio companies use to encourage dealers to sell their products. With literally hundreds of speaker brands available, can you blame them?

DEVIUS DESIGNS

DID YOU KNOW THAT A FAIR NUMBER OF speakers don't even have real tweeters in them? According to Joe, they're just painted on behind the unremovable grille in hopes of fooling some dumb sucker. And other times, you see these monsters that seem to have more drivers than a piano has keys, usually with cheap-looking, shiny tweeters and plenty of chrome-colored plastic trim. It seems like sleazy salespeople are not the only ones around trying to rip off customers. There are some pretty desperate manufacturers out there selling what I would have to call fake speakers. I'm not talking about the established brands here. I mean those boxes that seem to be too inexpensive and lightweight to be real, the ones that never tell you very much about themselves, except

that their printed-on frequency response always seems too good to be true. I figure they oughta have a law like the one for the contents of a box of cereal: “This speaker contains one real 8-inch woofer, one real 2-inch cone tweeter, and a third-order, linear-phase crossover. BHT added to preserve the highs.” Or something like that. (Just what is BHT anyway?)

Joe told me that some of the “bargain” speakers have these flimsy fiber backs on them that don't even make an acoustic seal! “How can you possibly avoid rear-wave bass cancellation like that, Joe?” I needed a reassuring answer, but Joe had none. “A ‘passive woofer’ might just be an excuse for a more impressive appearance, and a bass-reflex port can be disguised as a midrange or tweeter unit,” he said. “Good speakers are expensive to make, and it's easy to wreck the sound trying to cheat in critical areas, like drivers, crossovers, cabinets, grilles, and connectors.”

It seemed to me that, in some ways, we customers have only ourselves to blame. After all, we keep proving to manufacturers that 12-inch woofers sell better than 10-inch woofers, and three-way systems sell better than two-way systems, even if the true quality suffers. I can understand some beleaguered company giving people what they seem to want: big woofers on the outside with tiny (and cheap) magnets hidden away—especially since so many audio customers seem to trust anything that has “20 Hz to 20 kHz” printed on it.

The last point hit home with Joe.



“HEY, YOU WANT 'EM TO WORK ANYWHERE IN THE ROOM, DON'T YOU?”

“Yeah, speaker specs are a sleazy can of worms. Even the big names get into the act. The trouble is that there are no standards. You can find ways to make specs say just about anything you want. I recently saw a small two-way speaker from a pretty high-class manufacturer that was spec'd down to 20 Hz.” “That's impressive,” I said, “and I don't think it's impossible.” Joe was not convinced. “This one had a 4-inch woofer. Seriously, who knows how anyone measures these things? Every company is different. The numbers and curves you see, it's like comparing Pavarotti and Pink Floyd.” I began to see his point.

EPILOGUE

“HEY, FRIEND, MAYBE I SHOULDN'T TELL you this, but the next time you shop for speakers, do yourself a favor: Use your ears and eyes. The tricks I told you about really are used—all too often. Look out for them.” Joe stood up, glassy-eyed. “You wanna be safe, stay away from guys like me. OK? Go find yourself a store that will let you take the time to really examine the products you're considering buying, and take all the time you need to really listen. Track down a place that will let you control the demo arrangements. Ask the salesperson to briefly explain the individual advantages and disadvantages of each of the models you're listening to. This will help you decide, and it may give you some clues about the salesperson's biases. I hate it when they ask me that.” That was the last thing he said to me before he turned and walked out of the place. I never saw Joe Tinear again. I never even found out where he worked.

The word on the street is that most companies really do try to sell a better product than their competition. They try very hard to offer the best performance and value possible. I believe that. I also believe that most salespeople are honest and knowledgeable and want to help. But it only takes one rotten apple like Joe Tinear to spoil your party. I mean, what if your friends found out that your pert little tweeters were just decals? Or that your mammoth 15-inch woofer was short on magnetic flux?

MITSUBISHI DRIVES THE FUTURE.

Mitsubishi believes that mobile electronics shouldn't take a back seat to home electronics. We've created our Diamond Collection® — an exclusive group of advanced components that puts future technology at your fingertips.

From car stereos with some of the industry's best tuners, to Compact Disc systems for the mobile purist, Mitsubishi's DiamondAudio™ products reflect our commitment to superior design.

It's no surprise that a company that was at the forefront of cellular technology developed another technological coup: DiamondTe™ 55. A dramatic downsizing of the transceiver allows it to be inte-

grated into the phone base. The result is a full-featured phone that's both mobile and transporable.

DiamondSantry™ is the complete security system. Custom LSI circuitry provides an abundance of features and functions in a compact unit, delivering superior protection for your vehicle.

Drive the future with Mitsubishi's Diamond Collection Mobile Electronics Products. Experience what's down the road. Today.

 **MITSUBISHI**
MOBILE ELECTRONICS

© 1987 MITSUBISHI ELECTRIC SALES AMERICA, INC.
806 Beermann Court - Mount Prospect, IL 60056 (312) 238-9223
8885 Woodbine Avenue - Markham, Ontario L3R 5G1 (416) 475-7728





A visual representation of 16-bit/88.2 kHz oversampling, the current industry standard.

Yamaha's redefined HI-BIT standard
18-bit/176.4 kHz oversampling.

Yamaha has just redefined the compact disc.

The new Yamaha CDX-1100U brings a whole new definition to the term definition.

It does so by simply integrating the most innovative and advanced CD technologies ever. No doubt exactly what you expect from the leader in digital audio sound reproduction.

But if you think that's all we did to improve our new CD player, listen carefully. Because the CDX-1100U also employs HI-BIT technology no other manufacturer has even thought of.

Like quadrupling the sampling rate to 176.4 kHz, then combining it with our exclusive 18-bit



digital filter and 18-bit dual digital-to-analog converters. This unique combination produces waveform resolution accuracy four times greater than any other CD player on the market today.

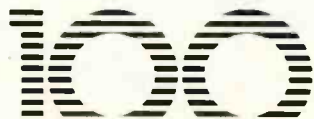
What does all this accuracy mean? For starters, a more precise interpretation of the music that was always on your discs to begin with. A truer, more realistic soundstage, articulated without sacrificing musical warmth or smoothness.

Of course, there are other design features that put the CDX-1100U at the forefront of CD performance. Including a floating suspension system that eliminates vibration-induced signal modulation, and photo-optical couplings for a noise-free digital signal transmission.

And there's more than leading-edge technology to the CDX-1100U. There's also leading-edge convenience. By way of our 44-key wireless remote that has interactive control compatibilities, our 4-way repeat play, and our 24-track random programming that lets you play the music in the order you want it played.

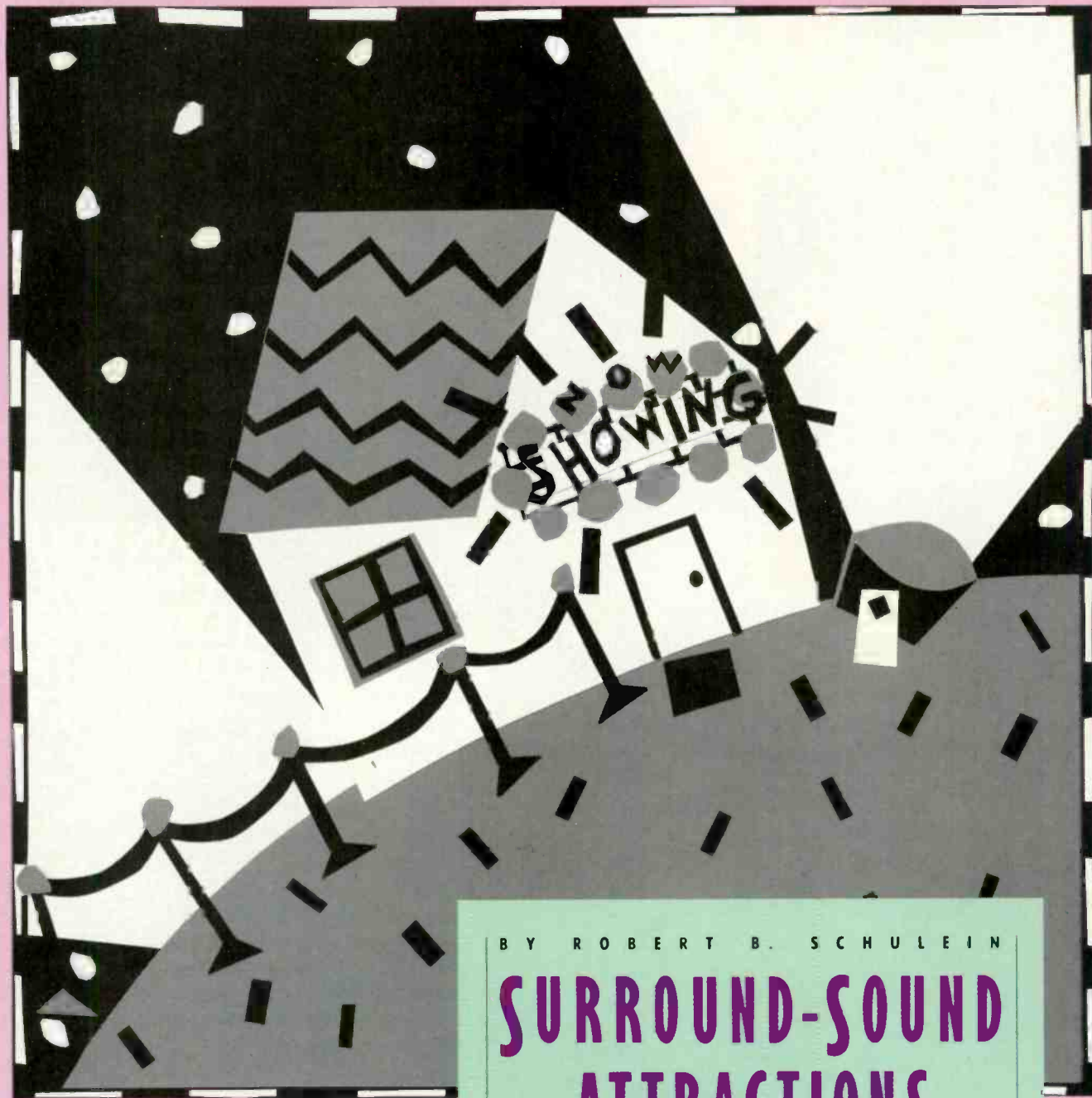
If you'd like more details on Yamaha's latest advances in digital technology, write for a free technical white paper. But for the simplest and best explanation of our technological superiority, slip one of your compact discs into a CDX-1100U and push "Play."

Then you'll know you've finally heard it all.



YAMAHA 1887-1987

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



BY ROBERT B. SCHULEIN

SURROUND-SOUND ATTRactions

GETTING THE BEST HOLLYWOOD HAS TO OFFER

STIMULATED BY TECHNICAL IMPROVEMENTS IN VIDEOTAPE and videodisc hardware and a growing number of exciting motion picture soundtracks, surround-sound is rapidly gaining in popularity. As with any new home entertainment concept, however, there will be some degree of consumer confusion until formats and component configurations become well established and better understood. And with confusion is likely to come disappointment: The viewer/listener may be expecting something that neither surround-sound hardware nor software can deliver. As I

Robert B. Schulein is Chief Development Engineer of Shure Brothers, Inc.



Still don't see it? That's the whole idea behind Koss' revolutionary infrared stereophone system. The Koss Kordless™ Stereophone. Now, you can enjoy all the benefits of stereophone listening with no strings attached. And while the cord may be missing, the great Sound of Koss isn't. The Kordless system is so advanced it provides a full 20-20KHz frequency response at less than 1% distortion. Plus enough signal to fill a large room. Yet it's as easy to use as conventional stereophones. Just plug the Kordless transmitter into virtually any receiver or amplifier and turn it

CAN YOU FIND THE STEREOPHONE CORD IN THIS PICTURE?

on. Roam around the room listening to a record. Dance to a CD. Enjoy stereo or mono TV broadcasts and videos in bed. Or whatever else moves you. Sound impressive? You bet it does. And the best way to appreciate this major advance in technology is to visit your nearest Koss Kordless™ Stereophone dealer. One listen, and you'll never sit still for ordinary headphones again. • Koss Stereophones, 4129 N. Port Washington Rd., Milwaukee, WI 53212. Koss Limited, 4112 S. Service Rd., Burlington, Ontario L7L4X5. Koss-Europe: CH-6855, Stabio-Switzerland.

 **KOSS**[®]
stereophones





hope the following will show, confusion can be lessened by learning some basic surround-sound terminology (mainly concerned with the word "Dolby"). Disappointment can be reduced by knowing the effects that surround-sound techniques can provide, as well as which program material to seek and which to avoid.

SURROUND PHILOSOPHIES

BEFORE DELVING INTO THE DETAILS OF surround-sound programming, it is important to distinguish between the two main surround-sound philosophies: enhancement and decoding. If you are interested simply in increasing the impact and excitement of the audio portion of a video (or music-only) program, a number of techniques and products are available. In general, they involve extra amplifiers and speakers, delay networks, equalizers, or phase-shifting circuits. Regardless of the details, these processes—properly referred to as "surround synthesis"—do not depend on the special encoding of program material. "Stereo synthesis" from a mono source is a familiar example of such techniques. It typically involves splitting up the audible frequency band and sending selected portions of it to the left and right reproduction channels. But because the results of any of these synthesis techniques are under the listener's control only, none of them is capable of consistently and accurately re-creating the sonic experience intended by the program producer, although they may often provide very effective enhancement.

In contrast, the decoding of specially encoded surround-sound programs is a process by which the original sonic experience can be re-created. Although it does have its competitors, there is only one encoded surround-sound format readily available today: Dolby Surround. This format has its roots in the four-channel matrix technology developed by Peter Scheiber in the early 1970s, but it has evolved considerably during the past ten years, first in the motion picture industry

and, within the last three years, in the consumer home audio-video market. In its most basic form, the process involves two channels of sound reproduced from in front of the listener and one channel from behind. More complete systems consist of three channels in front, one behind, and an additional (mono) subwoofer. Known in the motion picture industry as Dolby Stereo, this process has been used in the production of more than 1,000 movies, and because of its inherent compatibility with present-day two-channel videotapes, videodiscs, and broadcast-TV formats, Dolby Stereo program material is now available at home.

SURROUND TERMINOLOGY

DOLBY STEREO, DOLBY SURROUND, AND Dolby noise reduction are related technologies, but aside from their names, their interrelationship is not obvious. "Dolby system" is most commonly used to describe various noise reduction techniques developed by Dolby Laboratories (including the professional Dolby A and SR systems and the consumer Dolby B and C configurations). "Dolby Stereo" is specifically a cinema process that grew out of the use of Dolby A noise reduction to lower the distortion and noise of a movie soundtrack and to extend its frequency response. In addition to these improvements, Dolby Stereo involves an encoding technique that is capable of increasing the number of effective audio channels on a movie soundtrack from two to four. Other forms of signal processing are added to Dolby Stereo productions to compensate for the deficiencies of motion picture optical recording and of movie theater acoustics.

Since many of these Dolby Stereo processes are unique to motion pictures, Dolby Labs defined another term, "Dolby Surround," to describe those portions of Dolby Stereo that apply to home playback. Specifically, these include the four-channel matrixing process, equalization and delay for the surround channel, and a

variation of the Dolby B noise reduction process. All licensed home components carrying the Dolby Surround logo meet or exceed Dolby Labs' minimum performance requirements for each of these processes. You can choose between basic decoders meeting the minimum standards and more-sophisticated decoders capable of more accurately duplicating the performance of the professional Dolby Stereo decoders used in theaters and production studios.

Software derived from motion pictures produced using the Dolby Stereo process has, unfortunately for consumers, not been consistently labeled as such. Proper identification, which has only recently been appearing on videocassette and videodisc packages, consists of a rectangular box containing the Dolby double-D logo followed by the words "Dolby Surround." Another form of notation that has appeared on some videodiscs is "This videodisc contains a matrixed surround-sound audio track." Many programs actually containing surround material are not marked as such and are simply identified as being in stereo.

Some VHS tapes containing stereo linear (longitudinal) soundtracks (as opposed to VHS Hi-Fi soundtracks) are marked only with the double-D logo. This refers to the use of Dolby B noise reduction on the linear soundtracks and should not be confused with the Dolby Surround process. The fact that the stereo soundtrack may contain Dolby Surround material is a separate issue altogether. However, if the original movie was produced in Dolby Stereo and the software copy is in stereo, then the original encoded surround information usually has survived the transfer.

PERFORMANCE CAPABILITIES

ONE OF THE MOST EXCITING ASPECTS OF the Dolby Stereo and Dolby Surround process is the surround channel, which contains sound meant to come from the sides and behind the listener. It is not

commonly known, however, that theaters equipped with a full Dolby Stereo system are capable of producing additional localization, ambience, and motion sonic effects. These capabilities depend greatly on the use of three loudspeaker channels behind the screen as well as speakers in the surround locations. With the right decoding and loudspeaker setup, the Dolby Stereo process can produce:

1. Discrete image localization from the three front loudspeaker positions (left, center, right) and one rear location (surround). Used for principal dialogue, off-screen voices, music, and sound effects.

2. An interior-scene or "all around" image produced simultaneously by all loudspeakers. Environmental sounds (wind, rain, surf) intended to create an atmosphere or mood or to establish a location (building, car, or airplane interior, for example) are sometimes encoded in this way.

3. Sounds in motion across the front soundstage or from front to back speakers. This is commonly used for rapidly passing objects, like cars, trains, airplanes, and, of course, spaceships of the Rebellion being chased by those of the Empire.

4. Simultaneous left and right or front and back sounds. Stereo music and sound effects, simultaneous dialogues, and background sounds are often encoded in this format.

Without getting into the technical details of how these effects are encoded and decoded from a two-channel soundtrack, suffice it to say that the decoding process uses the amplitude and phase differences between the two soundtrack channels. For example, sounds that are supposed to appear directly in front of the listener are recorded with identical amplitude and phase on both channels, whereas sounds from behind are recorded with equal amplitude but opposite phase. The function of a Dolby Surround decoder is to correctly interpret such signals and assign sounds to the proper loudspeakers. Depending on the sophistication of their decoder circuitry, various surround-sound units differ primarily in localization accu-

racy. The most sophisticated are capable of creating very discrete images over a wide listening area, whereas basic units limit the size of the ideal listening area and produce more diffuse images.

GOOD SOFTWARE

FROM THAT BRIEF TECHNICAL DESCRIPTION, it is logical to conclude that excellent surround-sound software not only must have wide dynamic range and low distortion but must maintain the precise amplitude and phase relationships of the original two-channel production. Indeed, errors in relative amplitude and phase are the most common problems limiting the performance of Dolby Surround software.

But a fundamental difficulty in judging surround-sound software is establishing a point of reference: The engineer responsible for mixing the final soundtrack is seldom available for comments. In addition, the excellence of many soundtracks is diminished in the process of duplication by equipment errors and miscalibration. And, depending on the accuracy of the consumer decoding equipment being used, many software problems are difficult to perceive.

Movie-based software does have one thing going for it, however. If the soundtrack mixer has done his job well, the direction and location of any sound effect should usually be obvious from the picture. Poor performance anywhere along the line usually ends up being heard as a localization error, with the sound not matching the picture. Center-channel dialogue provides the most common example. With a properly configured Dolby Surround system, using a decoder capable of matching the motion picture experience (in this case meaning a surround system with a front-center-channel speaker), dialogue should be tightly focused at the middle of the stereo image. Extremely low level speech should not be reproduced by the surround channel even if you put your ear near the surround loudspeaker. In addition, very little dialogue should be reproduced by the front-left and front-right channels. Even for listen-

ers seated at an extreme left or right, dialogue should originate from the center loudspeaker.

If this is not the case, and dialogue is heard coming from different locations, a number of factors may be responsible. A very common source of error is a mismatch in the amplitude or phase characteristics between the two soundtrack channels somewhere in the duplication chain. Without proper calibration, the professional equipment used in the videodisc or videocassette duplication processes can create these problems. A more subtle but nonetheless disturbing problem has been found in some software in which Dolby A noise reduction has been used on the master tapes. Since Dolby A decoding must be performed just before such a master is copied onto a consumer format (videocassette or videodisc), dynamic localization errors occur if one of the two channels is not decoded. On programs with this fault, low-level dialogue tends to shift toward the undecoded channel and then jump to the center when it gets louder. Movies that suffer from these problems—and many that decidedly do not—are listed in "The Good, the Bad, and the Ugly," p. 53.

From both subjective and theoretical standpoints, the matrix audio technology that is an integral part of the Dolby Stereo process has a lot to offer the consumer. Based upon laboratory studies and a large number of demonstrations to professional and consumer groups, I believe that this process, properly decoded, has considerable potential for growth beyond motion pictures. Made-for-television dramatic productions, sports events, on-location news reporting, and music videos are several genres that could gain immensely from the creative use of surround-sound. All of this is possible today because of the widespread availability of two high-performance audio channels on videocassette, videodisc, and cable and broadcast television, and of cost-effective matrix-processing techniques. It's only a question of time before consumers will regularly benefit from this logical and exciting extension of two-speaker stereo. ■



THE GOOD, THE BAD, & THE UGLY

EACH DEMO-QUALITY FILM LISTED AT right is available on both videotape and videodisc, and some have even been broadcast in stereo or transmitted in stereo over cable. Those films marked with an asterisk are available on videodisc with both digital and analog soundtracks. The most impressive audio-video demonstrations are those stemming from such videodiscs. In all cases, the videodisc version (the one on which the listing here is based) is to be preferred to the equivalent tape, if only for its lower video noise and greater resolution.

It is possible that different master tapes have been used for disc and tape versions. It is also possible that best-selling titles might, as a result, be remastered, which could either improve or degrade the sound or the picture. For a complete list of movies that have been produced in Dolby Stereo, write to Dolby Laboratories, 100 Potrero Ave., San Francisco, Calif. 94103.

Not all Dolby Stereo productions are as well done as those listed above. Inattention to detail in the software-mastering process has led to problems with the following movies:

Twilight Zone—The Movie: Severe phase error between channels makes it difficult to localize individual sounds.

Ghostbusters and **Body Double:** They suffer from a right channel recorded without Dolby A decoding during the duplication process. Dialogue localization varies, depending on signal level, from right channel to center channel.

Silverado and **Pee Wee's Big Adventure:** A mild phase error between channels causes the dialogue to be less firmly focused than it should be.

For Your Eyes Only: Excessive phase errors at high frequencies result in dialogue leakage into the surround channel during sibilant program peaks.

Escape from New York and **The Money Pit:** Their channels were reversed during the transfer process. ■

Back to the Future

Brewster's Millions

D.A.R.Y.L.

The Empire Strikes Back

Fletch

Gremlins*

Indiana Jones and the Temple of Doom*

Ladyhawke*

The Last Starfighter*

Miami Vice*

The Never-Ending Story

Out of Africa*

Prizzi's Honor*

Raiders of the Lost Ark*

Return of the Jedi*

Rocky IV

Rustlers' Rhapsody*

Starman

Stick

Streets of Fire

Witness



WANTED: SNARE DRUMS

WHEN THE GO-GO'S WERE ABOUT to make their final album, *Talk Show*, producer Martin Rushent suggested that drummer Gina Schock give way to a drum machine. Schock promptly told him where to go: back to the board to get a tough sound out of her kit. In my book, that makes Gina a musical Joan of Arc: Her rebel yell against the occupying army of Linn machines was a rally cry for fellow drummers. Three years later, there's evidence that her revolutionary idea is taking hold. Peter Gabriel: "When I hear so many

bands basing their music on drum machines, I long to hear some human imperfections." Jimmy Bralower, programmer for Gabriel and Cyndi Lauper: "When the music is fighting the technology, then it's time to say to yourself, 'Maybe we should use a real drummer.'" Music critic Stephen Holden: "The relentless mechanization of pop is a disquieting example of how, once a quicker way of discharging a task is devised, it is put to use, regardless of how well it really works." But it's a long way yet to the coronation of the drummer. Gabriel still employs a host of machines on *So*—and even when he uses real drummers, the production often makes them sound as metallic as their mechanical counterparts. Meanwhile, drummerless bands continue to flourish: The Dream Academy, for example, prefers to have someone playing oboe and cor anglais.

To be sure, there's an important economic issue here, what with untold numbers of drummers reduced to drumming their fingers while machines get all the work in the studio. But the main reason I'm writing these lines is because, quite frankly, I'm sick and tired of the *sound* of explosive drum machines keeping time. I long for the swift, hollow crack of a snare drum. Listen to Jerry Marotta on the second *Peter Gabriel* and Ian Paice on *Machine Head*, and you'll hear how a lively drummer on a snappy snare *commands* a band. Even the heavy-handed John Bonham, on a percussive tour de force like *Physical Graffiti*, sounds better than anything governed by an on/off button. Listen also to peak Ringo Starr on *Abbey Road* and peak Charlie Watts on *Exile on Main Street*, two musicians who defined the art of rock drumming for generation upon generation. Some current American bands are listening, thankfully. Producers like Jimmy Jam and Terry Lewis should, too. Throw away those machines, turn off those effects. Let's hear sticks and skins. Let's hear somebody *play*.

Ken Richardson

RED SEAL REVIVAL

THERE HAVE BEEN ENCOURAGING signs of life at Red Seal since Michael Emmerson took over as president of RCA's classical division eight months ago. A number of projects are under way, and the eagerly awaited reissue on Compact Disc of treasures from the Red Seal vault is taking place at an accelerated tempo. In some ways, however, the most significant development of recent months was the signing in March of the Danish recorder virtuoso Michala Petri to an exclusive long-term contract. Petri thereby became the first established recording artist since the new regime took charge to leave a major label for Red Seal. Emmerson emphasized that Petri's recordings with RCA would reflect the full scope of her activity as a recitalist and orchestral soloist—in particular, that her large repertoire of contemporary works, many of which were written for her, would be tapped in upcoming recordings, along with the Baroque and Classical items for which she is best known.

To start things off, Red Seal will record Vivaldi's *The Four Seasons* with Petri and the Guildhall Strings this summer in London. Emmerson intends to have the recording on the shelves by September. Other Red Seal plans call for the violinist Joseph Swenson, also recently signed, to debut with the Beethoven Concerto in D, with André Previn and the Royal Philharmonic. The symphonies and piano concertos of Rachmaninoff are on the way from Paavo Berglund and the Stockholm Philharmonic, and Martinů's symphonies and piano concertos will be newly recorded in East Berlin with Rudolf Firkušný as the soloist, Claus Peter Flor conducting. A number of important Heifetz reissues are slated for CD release, and there will be a steady stream of Toscanini as well . . . once the masters are found. "There is a problem with the Toscanini masters," Emmerson admits. "We are going back to try to find the best originals we can." Finally, William Kapell's accounts of the Chopin Sonatas in B flat minor and B minor (recorded live by the Australian Broadcasting Company shortly before the pianist's death) will soon be out on CD.

Meanwhile, Deutsche Grammophon has renewed its contract with violinist Anne-Sophie Mutter. On tap are couplings of the Tchaikovsky and Sibelius concertos with Karajan and the Berlin Philharmonic, the Berg and Bartók with Ozawa and the Boston Symphony, a Paganini concerto disc, and a Lutosławski/Stravinsky pairing.

Ted Libbey



EDITED

BY

TED

LIBBEY

EDITED

BY

KEN

RICHARDSON



In speakers as in cars, the make is everything.

Amazing but true: people can spend hours choosing a car receiver—and then pay no attention to the speakers. Obviously, they've never heard what a difference really good car speakers can make. They haven't experienced the muscular punch of deep bass or the breath-taking intimacy of clear treble.

In short, they've never heard AR car loudspeakers.

At some companies, speakers are an afterthought. At AR, they're a way of life. This attitude is amply demonstrated in the superior power handling of our liquid-cooled tweeters. It's evident in AR's preference for full crossover networks. It's expressed in every mica-filled polypropylene driver, every solid steel frame, every wire-mesh grille. AR even created a car amplifier to make these speakers sound their best.

AR car speakers range from most affordable to most luxurious. They're easy to install. But once they're in, you'd no sooner change them than change your car.

Acoustic Research. We speak from experience.



TELEDYNE ACOUSTIC RESEARCH

330 Turnpike Street, Canton, MA 02021

For the name of the nearest authorized AR dealer call 1-800-345-8112.

GLAS



STOIC

BY PAUL KRESH

VERY MODEL RECORDS OF THE MAJOR GILBERT & SULLIVAN

*The celebrated early electric D'Oyly Carte performances
are reissued by Arabesque*

PART OF THE FOLKLORE OF SERIOUS RECORD COLLECTING IS THAT OLD is always better. I met a collector once who was still spinning 78s on an ancient record player, not only because he believed that no company had made a conscientious recording of anything since 1925, but because he was also firmly convinced that the energy he expended changing the discs every four minutes helped him to concentrate on the music. Otherwise, he insisted, it would be too easy.

When it comes to Savoyards—which I think is how Gilbert and Sullivan addicts still describe themselves [The Savoy was the London theater into which the D'Oyly Carte company moved in 1881 and in which the premieres of *The Mikado* and *The Gondoliers* took place—Ed.]—they are always talking about how much better, say, Sir Henry Lytton was as the Duke of Plaza Toro in *The Gondoliers* or as the Rt. Hon. Sir Joseph Porter, K.C.B., in *H.M.S. Pinafore* than anybody who followed him. (After all, they tell you, it was Lytton who played Robin Oakapple in the original production of *Ruddigore*, toured in *Princess Ida* back in 1884, and took over all the comic leads originated by George Grossmith himself!) They are always asking if you have heard Nellie Briercliffe's Lady Angela or Bertha Lewis as the silver-haired Lady Jane at her cello in *Patience* or whether any Mikado today can hope to terrorize the gentlemen of Japan as could Darrell Fancourt. Yet the old records they still talk about have only grown scratchier with age—and harder to replace. And all the while (until its untimely disbandment a few years ago), from

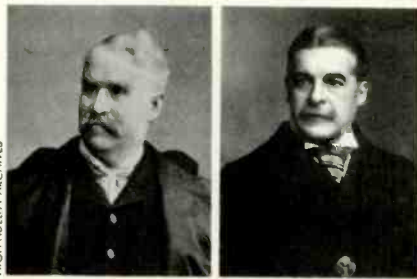
acoustic to electric shellacs to LPs and stereo, D'Oyly Carte kept right on recording and rerecording the works of Gilbert and Sullivan, sometimes even with complete dialogue. Ultimately, under Roysten Nash, even the unfairly neglected final G&S efforts—*Utopia Limited* (a political satire more timely today than when it was first performed in 1893) and *The Grand Duke*—made it onto disc, released in the U.S. on the London label. These two crowning achievements, which the pundits still dismiss as negligible, are in reality utterly delightful works.

With each technical advance, from one recorded version to the next, Sullivan's scintillating orchestrations came to resound more brilliantly. I remember one day when the chorus of peers in *Iolanthe* sprang to life and marched across my living room from one loudspeaker to another with a *hauteur* to make the lower middle classes cringe for miles around; another time when the casta-

Paul Kresh reviews recordings of classical music and the spoken word for The New York Times and other publications.



nets in the "Dance a Cachucha" clicked and clacked through the halls of the Palace of Barataria in *The Gondoliers* with such ear-bracing vigor as to frighten my terrier under a table; and yet another when the ghosts of Sir Rupert Murgatroyd's ancestors stepped out of their frames in *Ruddigore* and sent a stereophonic scare through the whole apartment building. Moreover, in its later recordings, the D'Oyly Carte company maintained the style, precision, elegance, and timing it had developed over the course of a century. If John Reed as the comic lead in the later albums could never hope to match the *élan vital* of a Martyn Green, a Peter Pratt, a George Baker or—let's face it—a Sir Henry Lytton, he certainly was able to stand up to them as a master of the tongue-twisting lines in the patter songs, and he managed somehow to grow into his roles with the years. If it was fine singing I wanted, there were always the excellent EMI recordings under Sir Malcolm



THE PAIR WHOSE MISCHIEVOUS MUSICALS MADE THE D'OYLY CARTE FAMOUS: SIR WILLIAM S. GILBERT AND SIR ARTHUR S. SULLIVAN

cable are Bertha Lewis, Dorothy Gill, and Josephine Curtis, the women who portray those forbidding, indomitable ladies of uncertain age who were frequently the butt of Gilbert's sometimes rather sadistic skill at caricature.

As for the clowns in the company—Sydney Granville, Darrell Fancourt, George Baker, Leo Sheffield, and Martyn Green (as Kodo in *The Mikado*, a role he was to record over and over again, seemingly forever)—well, they are all superb. Even poor Derek Oldham no longer sounds to me quite so strangulated in his tenor roles as I remember him from my earlier, more fanatical and exacting days of devotion to this repertory.

The singers in this series (perhaps because they were closer to 19th-century Italian opera and shared more readily the Englishman's amused contempt for its emotional excesses) also seemed to comprehend better than the performers who succeeded them the element of parodistic humor in Sullivan's scores—in "A Nice Dilemma" from *Trial by Jury*, for example, where the composer is twitting the florid complexities of the quartet in Verdi's *Rigoletto*. On the other hand, the orchestra—whether under

Sir Malcolm Sargent, Isidore Godfrey, or Harris Norris—sounds to these pampered ears cramped, dry, and constricted, and the choruses never exactly reverberate. Oddly, though, the closer one gets to the period when Gilbert himself was imposing his personal directorial imprint on the company, the more distinct the enunciation of the principals seems to sound. Even though he wrote, in *Ruddigore*, "This particularly rapid, unintelligible patter isn't generally heard and if it is it doesn't matter," Gilbert really wanted every word to be comprehensible. Seldom with the present recordings is it necessary (as it often is with the more recent stereo recordings, for all their sonic realism) to consult a libretto. Nevertheless, complete texts are supplied with each recording, and the new cassette packaging from Arabesque, far less cumbersome than the earlier cardboard contrivances with the unmanageable flaps, provides a neat pocket for the text and notes—drawn from Reginald Allen's diverting and informative volume *The First-Night Gilbert and Sullivan*—as well as room for discographic documentation. In a number of the albums, a side is devoted to selections from another G&S score in some alternative version. With *Ruddigore*, besides the improved digital sound, you get a generous potpourri of highlights reaching all the way back to acoustical times, when Isidore Godfrey was probably still in knee pants. And *Pinafore* not only comes with *Trial by Jury* as the curtain raiser—as it frequently does on stage—but leads off with the voice of Sir Arthur Sullivan himself, expressing to Thomas Edison his astonishment over the invention of the phonograph and "the wonderful power that so much hideous and bad music may be on record forever." He need not have feared for the future of his own music. ■

For authenticity and sheer Gilbertian edge, the vintage D'Oyly Carte recordings have been dear to tradition-bound collectors . . .

Sargent (still available on the Angel label over here); but for authenticity and sheer Gilbertian edge, I stuck—and still stick—with the D'Oyly Carte.

Recently, the vintage electrical recordings that the company made between 1927 and 1932 "under the supervision of Rupert D'Oyly Carte himself"—the very ones so long dear to tradition-bound collectors—were reissued on both vinyl and cassette by Arabesque. [*H.M.S. Pinafore*, *The Mikado*, and *The Pirates of Penzance* are also available on CD, with the rest of the series to follow at a later date.—Ed.] I have been listening, transfixed, to one after another. To pretend I didn't enjoy the experience would be to sacrifice simple honesty in order to maintain a proper critical stance. Granted, with the exception of the digitally remastered *Ruddigore*, the sound is as scratchy and click-ridden as I feared it would be. Still, I must confess that Sir Henry—especially as the misanthropic King Gamma in *Princess Ida*—lives up to his legend; Nellie Briercliffe vindicates the claims of her doddering fans as the dearest Iolanthe ever to rise from a well; Winifred Lawson—with that little catch in her sweet little voice—oozes English charm in the role of Elsie Maynard, the "strolling singer" in *The Yeoman of the Guard*; and Elsie Griffin proves a masterly mistress of coloratura as the Major General's coy daughter Mabel in *The Pirates of Penzance*. Also impec-

**GILBERT AND SULLIVAN:
The D'Oyly Carte Recordings
(1927-32).**

**Rupert D'Oyly Carte, original producer/
Ward Botsford, reissue producer.**

The Gondoliers.

Lytton, Sheffield, Oldham, Baker, Lewis, Bennet, Lawson, Davies; Norris. Arabesque 8058-2 (2, A). □ (2)

H.M.S. Pinafore*; Trial by Jury†.

Lytton, Granville, Baker, Oldham, Lewis; Sargent*, Norris†. Arabesque 8052-2 (2, A). ○ (2). □ (2)

Iolanthe.

Lewis, Oldham, Fancourt, Granville, Baker; Sargent. Arabesque 8066-2 (2, A). □ (2)

The Mikado.

Green, Fancourt, Oldham, Rands, Bennett, Granville; Godfrey. Arabesque 8051-2 (2, A). ○ (2). □ (2)

Patience*; The Gondollers (excerpts)†.

Oldham, Baker, Lawson*, Rands*, Briercliffe*, Fancourt*, Booth†, Granville†,

Walker†; Sargent. Arabesque 8095-2 (2, A). □ (2)

**The Pirates of Penzance*;
The Sorcerer (abridged)†.**

Dawson*, Oldham*, Griffin*, Baker*, Sargent*. Rands†, Fancourt†, Bethel†; Godfrey†. Arabesque 8068-2 (2, A). ○ (2). □ (2)

Princess Ida; Pirates of Penzance (abridged).

Oldham, Lytton, Dickson, Fancourt, Lewis, Granville, Baker, Briercliffe; Sargent. Arabesque 8129-2 (2, A). □ (2)

Ruddigore; Various Works (highlights from The D'Oyly Carte acoustical recordings).

Fancourt, Green, Oldham, Baker, Rands, Granville, Briercliffe; Sargent. Arabesque 6548-2 (2, A). □ (2)

The Yeoman of the Guard*;

The Mikado (excerpts)†.

Oldham*, Baker*, Sheffield*, Lawson*, Griffin*, Briercliffe*; Sargent*. Fancourt†, Oldham†, Griffin†; Norris†. Arabesque 8067-2 (2, A). □ (2)

THE CD SPREAD

MINI-REVIEWS OF THE LATEST COMPACT DISCS

BY ROBERT E. BENSON, PAUL MOOR, ROBERT R. REILLY, TERRY TEACHOUT, AND JAMES WIERZBICKI

SHOSTAKOVICH "BABI YAR": CONCERTGEBOUW, HAITINK

SHOSTAKOVICH'S 13TH SYMPHONY (1962), ONE of a handful of artistically successful musical works with an overtly political aspect, combines early poetry of Yevgeny Yevtushenko with a starkness borrowed from the musical language of Mussorgsky to create an extraordinarily moving testament to the power of the creative spirit under oppression. Bernard Haitink's new account with the Concertgebouw Orchestra is in certain ways the best recorded performance of the symphony yet. Although Marius Rintzler's handling of the bass solo is somewhat phlegmatic at times (this is a "role" for a Kipnis or Chaliapin), the men of the Concertgebouw's chorus provide a plausible simulation of the depth and fervor of a Russian choir, and Haitink's interpretation is direct and unaffected. Andrew Cornell's digital sound is very good. Playing time: 64:30. (London 417 261-2.)

T.T.

DELIUS VIOLIN WORKS: HOLMES; ROYAL, HANDLEY

ALTHOUGH THE WORKS OF FREDERICK DELIUS aim at native English ears, Delians of any nationality won't want to pass this rare collection by. Recorded under the auspices of the Delius Trust, it offers Delius's Violin Concerto (1916), the Suite for Violin and Orchestra (1888), and the *Légende* for Violin and Orchestra (1895).

I confess ignorance up to now of the English violinist Ralph Holmes, who died soon after making this 1984 recording. But in his own country, he enjoyed acclaim not only in the traditional repertory but also as a champion of such resident composers as Hamilton Harty, Arthur Bliss, Andrzej Panufnik, and William Sterndale Bennett.

Using a 1736 Strad borrowed from London's Royal Academy of Music, Holmes plays without flash but with true proficiency and tenderness. Vernon Handley and the Royal Philharmonic Orchestra collaborate with him handsomely. We shouldn't expect another good recording of the Delius concerto any time soon, and will probably never again see one of all three works together. Playing time: 53:25. (Unicorn-Kanchana DKP 9040. Distributed by Harmonia Mundi, U.S.A.)

P.M.

SIBELIUS SYMPHONY NO. 1: PHILHARMONIA, ASHKENAZY

SIBELIUS NOTED IN HIS DIARY IN SEPTEMBER 1915, "God opens his door for a moment and His orchestra plays the Fifth Symphony." The composer was already knocking at that door with his audacious Symphony No. 1 in 1899. Whatever traces of Tchaikovsky he may have assimilated, they are subsumed by the confident, heroic, heaven-storming idiom that he forged in this work. Vladimir Ashkenazy and the Philharmonia Orchestra give an exhilarating performance with sound from London that is absolutely visceral. This may not be the most organic Sibelius ever recorded, except in the sense that the sound will shake you to your bones, but the clarity and detail of the orchestral texture are stunning, making this a revelation for Sibelians and a plum for audiophiles. The disc has as a bonus a fine performance of the *Karelia* Suite. I venture to say that this, the last installment in Ashkenazy's Sibelius cycle, is also the best. Playing time: 56:20. (London 414 534-2.)

R.R.R.

RAVEL WORKS: LONDON, ABBADO

THIS NEWLY RECORDED RAVEL COLLECTION is only intermittently successful. Best of all is the evocative treatment of *Ma mère l'oye*, a gentle score for which Abbado seems to have a special affinity. The haunting *Pavane pour une infante défunte* is also sensitively done. But *Bolero* is taken at too fast a clip (it's over in 14:20), and the performance of the *Rapsodie espagnole* barely suggests the sensuous beauty of the score. DG's sound, which is very close-up and unatmospheric, offers surprisingly subdued brass, but the sound tends to blast during loud passages. For some reason, the important castanet part in the *Feria* is barely audible. Playing time: 64:50. (Deutsche Grammophon 415 972-2.)

R.E.B.

SAUGET, MIGOT GUITAR WORKS: ALAIN PRÉVOST

THERE IS NO DENYING THE VALUE OF THE enormous amount of music for classical guitar produced by Iberian and Latin American composers; indeed, where would the instrument be today without the likes of Francisco Tárrega, Joaquín Turina, Fernando Sor, et

al.? Yet the typical guitarist's bread-and-butter repertoire is so overloaded with Spanish-flavored works that one is sometimes lulled into forgetting that composers of other ethnic backgrounds also wrote effectively for the instrument. I first encountered Alain Prévost's fine new CD recording of works by the French composers Henri Sauget (b. 1901) and Georges Migot (1891-1976) after getting massive doses of the Spanish stuff in the concert hall, and doubtless that's why it seemed such a balm for the ears. But this intriguing music held up long after its novelty wore off.

Migot's 1924 *Pour hommage à Claude Debussy* is an intensely introspective *tombeau* whose deliberate tempos belie its extraordinary technical challenges. His 1960 *Sonate* is equally probing, but it is occasionally leavened with dance rhythms and is often illuminated with Messianesque harmonies. The Sauget selections consist of the 1958 *Soliloque* (an homage to Falla), the 1970 *Préludes*, two sets of incidental music (*Musique pour Claudel*) from 1973, and a 1985 *Cadence* written for Prévost. In general, this is haunting, detached music that stands in sharp contrast to the effervescent ballet scores for which Sauget is best known. As with the Migot pieces, Prévost responds seriously and beautifully to its very considerable interpretive needs. Along with substantial musical virtues, the disc features some of the most noise-free guitar sound lately recorded. Playing time: 54:05. (Cybelia CY 811. Distributed by Qualiton Imports.)

J.W.

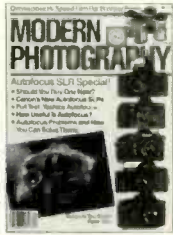
MOZART SYMPHONIES: CLEVELAND, SZELL

GEORGE SZELL AND THE MEMBERS OF THE Cleveland Orchestra played Mozart with a distinctive blend of precision and restraint that listeners raised on Bruno Walter typically found tight and overcontrolled. Younger listeners who have grown up with more modern approaches to Mozart (particularly that of Christopher Hogwood and the Academy of Ancient Music) will doubtless find these performances of the G minor and *Jupiter* symphonies far more sympathetic—if almost as anachronistic. The digitally remastered analog sound is clean and luminous. Playing time: 53:11. (CBS Masterworks MYK 37220.)

T.T.

New and Alive.
MODERN PHOTOGRAPHY VIDEO MAGAZINE

Now, the best and most exciting features of Modern Photography come alive in full-life sound and motion.



Each issue holds sixty minutes of useful information and entertainment on the techniques, personalities and equipment that'll make you a better photographer. Each issue brings Modern Photography's staff of experts into your home taking you through what's newest and finest in serious photography.

Besides all that, there are lab reports, professional recommendations, interesting collectibles, tips on film, lenses and accessories and a look at the latest in video technology and techniques.

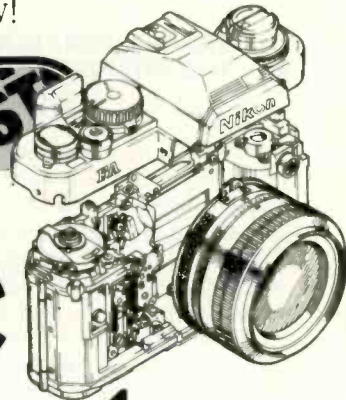
A subscription to Modern Photography Video Magazine is the newest, brightest way to stay in touch with your passion. A perfect complement to your regular monthly magazine.



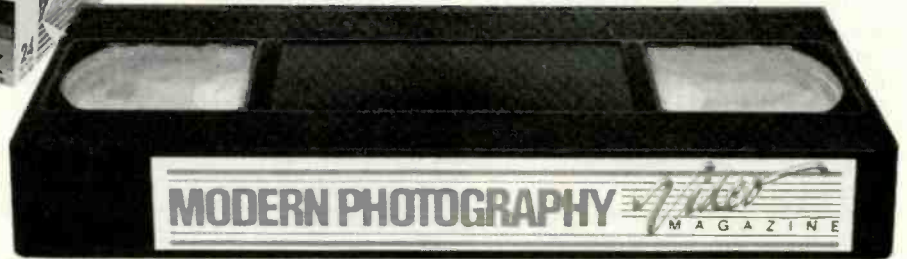
Now, during our introductory six months, order your subscription and get 20% off our regular yearly price. Four quarterly issues for just \$79.95, including shipping and handling.

And if you're not completely satisfied, return the first issue within 30 days of receipt for a full refund.

Is Modern Photography really live? You bet—on Beta or VHS. Order now!



Live From Modern Photography



Order with VISA or MASTERCARD or call **1-800-247-5470** or send this coupon to:
 Modern Photography Video, Box 11368, Des Moines IA 50340-1368
 Send me 4 issues at your low introductory price of \$79.95. *I save more than 20% off the single copy price!*

Name _____
 Address _____
 City _____ State _____ Zip _____
 Phone # _____
 Bill Me VISA MASTER
 Card Number _____ Expiration Date _____
 Signature _____
 Beta VHS
 Allow 6 to 8 weeks for delivery

G67H6

© 1987 ABC Video Enterprises, Inc.



DIETRICH FISCHER-DIESKAU, WITH THE LATE GERALD MOORE AT THE PIANO, PRIOR TO A 1956 SALZBURG FESTIVAL RECITAL

HIGH FIDELITY ARCHIVES

NOT VERY MANY new commercial recordings qualify for inclusion in a time capsule. I rather think that this set does.

Dietrich Fischer-Dieskau did not, of course, originate the Lieder recital. Earlier great practitioners, saved from auditory oblivion by their 78 rpm recordings (some of them in LP reissues), included Elena Gerhardt, Heinrich Schlusnus, Lotte Lehmann, Aksel Schiøtz, Kathleen Ferrier, and Peter Pears. After World War II, though, Fischer-Dieskau—even in Germany, the homeland of the Lied—gave the *Liederabend* (evening of songs) a new lease on life. He was born in Berlin in 1925 and, as a teenage German conscript, was taken prisoner by British forces in Italy, where his song recitals as a P.O.W. impelled his captivated captors to postpone his release and repatriation just as long as they feasibly could. Wilhelm Furtwängler, an early discoverer and admirer, conducted at Fischer-Dieskau's Salzburg Festival debut (in Mahler's *Songs of a Wayfarer*) in 1951, when the baritone was only twenty-six. Beginning in 1955, a Fischer-Dieskau *Liederabend* at Salzburg's hallowed Mozarteum became an almost annual high point of the summer festival programs, and for the first ten years, he sang them only with Canada's unique pianist Gerald Moore as his partner. [As this review went to press, HIGH FIDELITY learned of Gerald Moore's death in London. He was eighty-seven.—Ed.] These five CD releases, made from the Austrian Radio's tapes of live performances between 1957 and 1965, preserve five of those events in all their vibrant immediacy.

Between 1951 and 1981, I attended the Salzburg Festival a number of times, and in

LIEDER EVENINGS WORTH REMEMBERING...

spite of the extraordinarily high artistic standards, one aspect of the festival troubled my liberal American social conscience, in the same way such kindred phenomena as Bayreuth or opening nights at the Met do. Engaging the greatest talents in the entire world makes it necessary to sell tickets at astronomical (or, as some Germans would say, whorehouse) prices, within the reach only of a social class substantially less rich in intellect, cultivation, and the spontaneous, sympathetic ability to appreciate music than in material, worldly goods. Remembering my own impoverished Juilliard days, I wished that some miracle could have replaced those society page jet-setters and phonies in Salzburg with the genuinely deserving, understanding auditors musicians prefer. A Salzburg Festival performance—at the pinnacle of the entire musical world—usually brings out the very best in a musician, who (presumably for the cosmopolitan army of critics on hand) will take extra risks and press to the absolute limit, much more so than in the relative sterility of a recording studio. These CDs convincingly document that important difference, that little bit extra that comes across in the best live performances, for here both singer and pianist truly give their all. Because of that quality, these discs (available individually) offer the next best thing to Mozarteum tickets on the evenings these powerful performances took place.

demands of Lieder singing with the inimitably skillful alternation of registers; his musicality and his versatile musical intellect, which go far beyond the narrow field of vocalism; his cultural heritage and his familiarity with the tradition of German musical culture, which enable him to recognize and solve stylistic problems; and certainly also a particular gift for pointed expression and even occasionally exaggerated dramatic effects that help to unveil the imaginary scene for the listener."

Native German speakers will hardly need to refer to the printed poems, thanks to the singer's exemplary diction, and others with a knowledge of German will derive enormous benefit from paying close attention to the texts, for Fischer-Dieskau's remarkably expressive transmission of poetry evokes that of even such a dramatic magician as John Gielgud when he recites poems from memory. Even if you have no German at all, I urge you (in spite of a typeface to put your eyes out) to follow the translations line by line, for it will make a vitally important difference in your aesthetic reward. Unfortunately, the quality of the translations here varies widely from disc to disc. In some instances, Orfeo seems to have chosen the lazy solution of reproducing whatever happened to appear in the vocal score, which means that it shows primary fidelity to prosody rather than to the poet's meaning. ►

DIETRICH FISCHER-DIESKAU:**Salzburg Festival Live Recordings.**

① Fischer-Dieskau; Moore. Jörg Polzin, production editor. Orfeo C 140 101*, 201f, 301°, 401°, 501** (5, A). © 140 855 (5)

Vol. I (1957)*: SCHUBERT: Dem Unendlichen; Der Kreuzzug; Wehmut; Totengräbers Heimweh; An Schwager Kronos; Meeresstille; Prometheus; Über Wildemann; Der Wanderer an den Mond; Nachtviolen; Der Zwerg; Raslose Liebe; Geheimes; Frühlingssehnsucht; Im Frühling; Abschied.

Vol. II (1958)†: BRAHMS: Vier ernste Gesänge (Denn es gehet dem Menschen wie dem Vieh; Ich wandte mich um und sahe an alle; O Tod, wie bitter bist du; Wenn ich mit Menschen- und mit Engelszungen rede); Wie rafft' ich mich auf in der Nacht; Es träumte mir; Der Strom; Herbstgefühl; Auf dem Kirchhofe; Wehe, so wilst du mich wieder; Abenddämmerung; Salamander; Geheimnis; Wir wandelten; Der Gang zum Liebchen; Ständchen; Meerfahrt; Mondenschein; Auf dem See; Wie bist du, meine Königin?; Botschaft.

Vol. III (1959)°: SCHUMANN: Twelve Songs, Op. 35, to poems by Justinus Kerner (Lust der Sturmnacht; Stirb', Lieb' und Freud'; Wanderlied; Erstes Grün; Sehnsucht nach der Waldgegend; Auf das Trinkglas eines verstorbenen Freundes; Wanderung; Stille Liebe; Frage; Stille Tränen; Wer machte dich so krank?; Alte Leute); Liederkreis, Op. 39, to poems by Joseph von Eichendorff (In der Fremde; Intermezzo; Waldesgespräch; Die Stille; Mondnacht; Schöne Fremde; Auf einer Burg; In der Fremde; Wehmut; Zwielficht; Im Walde; Frühlingsnacht).

Vol. IV (1961)*: WOLF: Twenty Songs to poems by Eduard Mörike (1888): Der Genesene an die Hoffnung; In der Frühe; Fussreise; Neue Liebe; Der Feuerreiter; An den Schlaf; Um Mitternacht; Jägerlied; Storchbotschaft; Im Frühling; Auf einer Wanderung; An die Geliebte; Peregrina I; Peregrina II; Lebe wohl; Begegnung; Der Jäger; Bei einer Trauung; Zur Warnung; Abschied.

Vol. V (1965)**: BEETHOVEN: In questa tomba oscura; An die Hoffnung; Sechs Gellert-Lieder (Bitten); Die Liebe des Nächsten; Vom Tode; Die Ehre Gottes; Gottes Macht und Vorsehung; Busslied); Der Wachtelschlag; An die ferne Geliebte; Adelaide; Wonne der Wehmut; Mailed; Sehnsucht; Neue Liebe, neues Leben; Me-phistos Flohlied.

Fischer-Dieskau's own writings have long since established him as probably the most intellectually searching major singer of his time, and that musicological diligence manifests itself in his programming here. Unless you are an expert on one or more of these five composers, you will almost cer-

tainly encounter some songs here for the first time ever—an important bonus.

Seventeen of the 20 Wolf songs here overlap the 18 that Deutsche Grammophon recorded at Fischer-Dieskau's 1973 recital in Innsbruck with the remarkable Sviatoslav Richter as his pianist (DG 2530 584), and Schwann lists a two-CD, three-LP set (2-DG 415 192-2 and 3-DG 2530 584, respectively) with an audibly older Fischer-Dieskau singing all of Wolf's settings for male voice of Mörike poems, with Daniel Barenboim a superb partner at the piano. Moore, for all his musicality, for all his phenomenal ensemble sense and ability, simply could not compete pianistically with Richter, or even with Barenboim, in such taxing songs as *Der Feuerreiter* or, for that matter, in the mischievous, nose-thumbing Viennese waltz conclusion of the *Abschied*. The Innsbruck LP seems to have lapsed out of print. If you love Wolf, you ought to try to track it down.

The degree of perfection shown here—no retakes, remember—makes the mind boggle, particularly in view of Fischer-Dieskau's admirable recital custom of singing even the long strophic songs from memory. One heaves a sigh of relief over a very few reassuringly human lapses (in Beethoven's *Sehnsucht*, for instance, at "*Die scheidende Sonne . . . Die sinnende Schöne*," he interchanges Goethe's adjectives, resulting in nonsense), but they will probably go entirely unnoticed except by those of us who pick such nits professionally.

Orfeo's packaging doesn't flaunt the fact, but the Austrian Radio, astonishingly, recorded all these recitals monaurally. I doubt that this will bother you; it certainly doesn't me, particularly as the tapes have been digitally remixed and mastered into such brilliant CD form.

At the Munich Festival one year, with only two days intervening, I heard Fischer-Dieskau and Jörg Demus in a Schumann recital and Hermann Prey and Alfred Brendel in Schubert's cycle *Die schöne Müllerin*—a rare occasion for comparing those two fine singers, the one so refined, studied, and Apollonian, the other so natural, spontaneous, Dionysian. I concluded from that occasion (and many others) that, generally speaking, live, I prefer Prey, and recorded, Fischer-Dieskau—by the slightest of margins. And here, superbly recorded, you have Fischer-Dieskau in his prime . . . and at his very best.

Paul Moor

HAYDN:**Sonatas for Piano (3); Andante and Variations, in F minor, Hob. XVII:6.**

☐ Brendel. Philips 416 365-4 (D). © 0

Sonatas: in E flat, Hob. XVI:52; in G, Hob. XVI:40; in D, Hob. XVI:37.

Comparisons: Sonata in E flat, Bilson (Nonesuch 78018); Variations in F minor, De Larrocha (London 7008).

ALFRED BRENDEL IS JUST ABOUT THE ONLY pianist who can shake my faith in the forte-piano as the most rewarding medium for the



ALFRED BRENDEL: HAYDN PLAYING THAT IS A PARADIGM OF WELL-NIGH IDEAL PIANISM AND INTERPRETATION

performance of Haydn's keyboard music. As in his four earlier Haydn recitals, Brendel's playing here is a paradigm of well-nigh ideal pianism and interpretation, captured in gleaming, ultrarealistic recorded sonics. It is a sheer delight to hear such attractions enhancing those of the music itself.

The program features the last (and arguably the greatest) of Haydn's solo piano works, along with two charming lighter-weight examples. The great Sonata in E flat, Hob. XVI:52, long has been a recording and concert favorite, but rarely if ever have its bold impetuosity and imaginative daring been articulated so eloquently. Only the odder but more authentically pungent forte-piano timbres—like those in Malcolm Bilson's admirable Nonesuch recording—are missing. The great Andante and (double) Variations in F minor are perhaps even more successful here, at least in contrast with the too numerous versions in which the music's seeming simplicity has trapped performers, professionals as well as amateurs. Among the few really good earlier readings, my personal choice, the idiosyncratic one by Alicia de Larrocha for London, is now supplanted by Brendel's more radiantly expansive version, especially notable for its fluidity and its freedom from the usual ponderousness in the funeral march rhythms.

One of three sonatas dedicated to the Princess Maria Hermenegild Esterházy in 1784, the Sonata in G, Hob. XVI:40, is a highly ingenious exercise in double-variation techniques and the sophisticated development of contrasting *semplice* material. The first movement is marked *Allegretto e innocente*, a characterization perfectly realized by Brendel. Even the more orthodox (but with Haydn, never entirely so) Sonata in D, Hob. XVI:37, dating from 1780, is delectably surprising in its seemingly limitless verve and humor. Its high-speed finale, like that of the G major Sonata, suggests what superb film scores Haydn could have written for the Keystone Kops and Charlie Chaplin.

The presentation includes stimulating notes, "Haydn As a Master of Surprise," by Monika Mollering. R. D. Darrell ▶

HEAR TODAY.



HEAR TOMORROW.

 **Clarion® Made to last in the first place.**

Clarion Corp. of America, 5500 Rosecrans Avenue, Lawndale, CA 90260 (213) 973-1100

MARTINŮ:**Po ní mše (Field Mass).****JANÁČEK:****Amarus.**

● Němečková, Vodička, Zítek; Czech Philharmonic Chorus and Orchestra, Mackerras. Supraphon 33C37 7735 (D).

LEOŠ JANÁČEK HAD A PENCHANT FOR BIZARRE subjects, as his operas show. His relatively early cantata *Amarus* (1897) already points in the direction he would take later on. It is based on a poem about an illegitimate child, sequestered in a monastery, whose adolescent heart is fatally stirred by the loss he feels upon seeing, for the first time, two lovers embrace. As with the other strange subjects Janáček set to music, this one succeeds beautifully, albeit not on the grand scale of his later masterpieces.

The composition is well beyond the



SIR CHARLES MACKERRAS DEMONSTRATES ONCE AGAIN THAT HE IS A SUPERB INTERPRETER OF CZECH MUSIC, ESPECIALLY JANÁČEK'S.

Dvořákian idiom of Janáček's youthful *Idyll* (1878), but it does not quite carry the stamp of his later, inimitably bold and beautiful style. It comes close enough, however, to be indispensable to any admirer of Janáček's music. Indeed, the cantata's wonderful epilogue is almost the stuff of the *Sinfonietta*.

While Bohuslav Martinů's *Field Mass* is a hybrid that I admire, I have never been moved by it. Written in 1939 in tribute to the Czechs who volunteered for the French army, it is really an outdoor cantata, scored for the interesting combination of baritone, chorus, wind and percussion instruments, bells, and harmonium. Only occasionally does Martinů's highly individual language seem to emerge from the proceedings; strangely enough, several passages sound as though Kurt Weill had gotten religion and written a Mass. Listen to "O, Pune můj!" (O, my Lord) for those Weill-like syncopations. In spite of its originality, the work does not achieve as moving a statement as one would expect, given the subject matter.

Sir Charles Mackerras demonstrates once again in the present recording what he has proven many times: that he is a superlative interpreter of Czech music, especially Janáček's. Thanks to him, the superb support of the Czech Philharmonic Orchestra and Chorus, and the excellent work of Supraphon's recording team, this release is a clear winner. Playing time: 54:29.

Robert R. Reilly

MESSIAEN:**Turangalila Symphony*.****LUTOSŁAWSKI:****Les Espaces du sommeil, for Baritone and Orchestra†; Symphony No. 3‡.**

● Shirley-Quirk†; Philharmonia Orchestra*, Los Angeles Philharmonic†, Salonen. David Mortley, prod. CBS Masterworks M2K 42271 (2, D). □ (2). □ (2)

OLIVIER MESSIAEN'S MASSIVE *TURANGALILA* Symphony (1946-8) is a work that almost drowns in its own contradictions. A sprawling, ten-movement, 75-minute canvas, *Turangalila* functions within a grandiose Wagnerian time span and embraces a Tristanesque attitude toward the transfiguring power of love. Its ecstatic climaxes revel in rather un-French excesses, and at times its cloying diatonic themes turn embarrassingly sentimental.

Against this voluptuous background, however, Messiaen projects a distinctly non-Romantic sonic and aesthetic message. Static, repetitive, polyrhythmic sections constructed of densely layered, unrelated materials betray Messiaen's non-Western leanings, as does his penchant for nondevelopmental juxtaposition. And the score's ferocity and angularity remind one that during the very years of *Turangalila*'s composition, Messiaen—in a more modernist guise—was busy extending the rigors of serialism to areas other than pitch.

Given its inherent fragmentation, it is no easy matter to create a coherent view of *Turangalila*. Remarkably, Esa-Pekka Salonen succeeds in achieving precisely that. Salonen is able to negotiate the symphony's complex tempo relationships convincingly, and he communicates *Turangalila*'s rhapsodic edge without ever losing headway. The Philharmonia Orchestra offers a virtuoso performance, and the recorded sound is both painfully brilliant and of astonishing dynamic range.

After the onslaught of *Turangalila*, the far greater subtleties of Witold Lutosławski demand special attention. Both *Les Espaces du sommeil* (1975) and the Symphony No. 3 (1983) inhabit the same coloristic world as earlier works by Krzysztof Penderecki and György Ligeti, with their intertwining, swirling sonic densities. Lutosławski's effects are more delicate, however, and his rhythmic animation and sense of line create a clearer melodic and metric profile. Although the symphony seems to lack a clear goal and too often lingers over textural details, much grim power and impassioned lyricism is contained within its pages. John Shirley-Quirk is the emotionally gripping baritone soloist in *Les Espaces*. Playing time: 124:38.

K. Robert Schwarz

MOZART:**Concertos for Violin and Orchestra: No. 1, in B flat, K. 207; No. 4, in D, K. 218.**

● Zimmermann, Württemberg Chamber Orchestra, Faerber. Gerd Berg, prod. Angel EMI CDC 47431 (D).

MOZART:**Concertos for Violin and Orchestra: No. 2, in D, K. 211; No. 4, in D, K. 218.**

● Perlman, Vienna Philharmonic, Levine. Steven Paul, prod. Deutsche Grammophon 415 975-2 (D). □ □

MOZART'S FIVE INDISPUTABLY AUTHENTIC violin concertos were written in rapid succession between April and December 1775. During those few months, the nineteen-year-old composer, then concertmaster to the Archbishop of Salzburg, underwent remarkable growth in his approach to the concerto: The form developed from a quasi-Baroque to an almost Classical one, and the thematic substance blossomed from the conventional into the intensely personal.

This recording by the twenty-two-year-old West German violinist Frank Peter Zimmermann combines the Concerto No. 1, in B flat, K. 207, with the famous Concerto No. 4, in D, K. 218 (playing time: 45:39). Accompanied by the small and lively Württemberg Chamber Orchestra under Jörg Faerber, Zimmermann offers polished readings that avoid burdening this music with excessive interpretive mannerisms. Articulations are crisp and precise, and textures remain a model of clarity.

Yet Zimmermann's approach is uncomfortably inconsistent. Into this reserved, understated context, he injects a wide vibrato (disturbingly throbbing in the Adagio of No. 1), needlessly audible shifts, and (in No. 4) the Romantic, overblown cadenzas by Joseph Joachim. The result is jarring rather than refreshing.

At least Itzhak Perlman, whose cycle of the concertos for Deutsche Grammophon reaches completion with this latest release, is consistent in his stance. He remains a Romantic, although never a tasteless one. Performing the Concerto No. 2, in D, K. 211, and the Concerto No. 4 (playing time: 42:38), Perlman and conductor James Le-

FORMAT KEY

- Ⓛ LP
- Ⓛ Cassette
- Ⓛ Compact Disc
- Ⓛ Videocassette
- Ⓛ Videodisc
- Ⓛ Open reel

RECORDING INFORMATION

- (A) analog original
- (D) digital original

Large symbol beneath title indicates reviewed format. Small symbols following catalog number of reviewed format indicate other available formats (if any).

Catalog numbers of all formats of a particular recording usually are identical except for differing prefixes or suffixes. Catalog numbers of formats other than the reviewed format are printed only if their basic numbers differ substantially from that of the reviewed format.

Arabic numeral in parentheses indicates number of items in multi-item set. Unless otherwise indicated, all multi-LP sets are in manual sequence.

vine turn occasional stylistic anachronisms to their advantage in personal, insightful readings. The Vienna Philharmonic's statement of the opening ritornello of No. 4 has more character than an entire movement in Faerber's account, which only proves that supposed historical accuracy is no substitute for interpretive personality. In this context, Perlman's lush portamentos, occasionally brusque articulations, and elaborate cadenzas seem entirely appropriate. It may not be Mozart for purists, but at least it is Mozart with a unified point of view.

K. Robert Schwarz

MOZART:

Quartets for Piano and Strings: No. 1, in G minor, K. 478; No. 2, in E flat, K. 493.

Solti, Members of the Melos Quartet, Michael Hoas, prod. London 417 190-4 (D). ☉
 THESE ULTRABRILLIANTLY PLAYED AND recorded versions of the Mozart Piano Quartets remind us that Sir Georg Solti began his career as a pianist and prove that he has lost none of his keyboard technique. There is an old tradition of famous conductors doubling as piano soloists; in these particular works, the long-preferred and near-definitive accounts were those by George Szell and the Budapest Quartet for Columbia. These more dazzling readings by Solti and members of the Melos Quartet will no doubt be prized by the conductor's fans, but Mozart connoisseurs will be far less satisfied.

Because I have just had my first, bewitching encounter with period-instrument recordings of these works (featuring James Weaver's c. 1795 Dulcken fortepiano), I find the present, modern treatment about as far from what the composer must have had in mind as is possible where the same scores are concerned.

R. D. Darrell

REICH:

Sextet; Six Marimbas.

Steve Reich and Musicians, Nexus, Manhattan Marimba Quartet. Steve Reich, prod. Nonesuch 79138-2 (A). ☉

COMPOSER STEVE REICH IS BACK—AND WITH A vengeance. Not that he ever disappeared; it was simply that some members of his audience were alienated (I was not) by the grandiose pretensions of *The Desert Music*, seemingly far removed from his austere minimalist heritage. With *Sextet* (1985), Reich has returned to his roots, yet his music has been vastly enriched by the lessons that *The Desert Music* taught.

Sextet, scored for four percussionists and two keyboardists, focuses on the primal forces that have long been the hallmark of Reich's musical language: repetitive rhythmic patterns, steady pulse, and interlocking contrapuntal processes. Although the long-spun melodies and timbral variety of *The Desert Music* are absent, the piece has inherited that work's pungent, dissonant harmonic language, its arch-shaped structure, and its pulsing chordal cycles. *Sextet* still refers to Reich's earlier music in its unflagging rhythmic energy and percussive exuberance, but without sacrificing the harmonic enrichment of recent years. It is a sheer joy to hear, sounding as if Reich—fresh from the exertions of *The Desert Music*—had approached his familiar percussion ensemble with a mixture of relief and renewed enthusiasm, which seems to have been contagious. *Sextet* is Reich's finest chamber work since *Octet* (1979), and its performance by members of Steve Reich and Musicians and of Nexus is a labor of love.

Sextet is paired with *Six Marimbas*, a re-scoring of *Six Pianos* (1973). *Six Marimbas* is a genuinely minimal work—shunning melodic or coloristic development and possessing

very little harmonic movement—and it serves to demonstrate both the long road that Reich has traveled and the satisfying links his more recent music retains with its past. For despite the fact that *Sextet* can no longer be described as minimal—its harmonic language, tonal range, and melodic expansion are too complex for that—it remains faithful to the minimal idea of clarity of contrapuntal process that is broached so successfully in *Six Marimbas*. Ultimately, Reich's greatest achievements may lie in small chamber works such as these, which allow his innate tendencies to blossom in an unforced manner. And it is always a pleasure to watch those very personal inclinations de-

Electronic WHOLESALERS

1160 HAMBURG TPK., WAYNE, N.J. 07470

FOR MORE INFO CALL: (201) 838-5808

CALL TOLL-FREE 800-247-4654

WE WILL MATCH OR BEAT ANY LEGITIMATE PRICE
 HOURS: Monday—Friday 10 am—8 pm; Saturday 10 am—5 pm

Minolta CR-8000AF (8mm)



SANSUI AV99

VHS-C CAMCOROERS

GE 9710	\$995
HITACHI VMC 50A	CALL
JVC GRC7U	\$1089
JVC GRC9U	ORDER NOW
MINOLTA CR3000A	\$899
ZENITH VM 6150	NEW
ZENITH VM 6200	\$888

VHS CAMCOROERS

GE 9610	\$1199
HITACHI VM5000A	\$1150
MINOLTA CR1200S	IN STOCK
OLYMPUS VX404	NEW
PANASONIC AG160	\$1395
ZENITH VM7100	\$1289

PIONEER LASER VISION CLD-909 & LD838

IN STOCK

SONY BETA HI-FI

SLHF450	\$399
SLHF750	\$699
SLHF1000	\$1150
SLHFT7	\$439

SONY BETA MOVIE BMC-1000K

ORDER NOW

CANNON VC50A CAMERA

\$995

ACCESSORIES

SANSUI AV99	CALL
SANSUI VCG99 CHARGEN	CALL
SONY Camcorder Battery	\$35
HITACHI Camcorder Battery	\$50
JVC Camcorder Battery	\$50
JVC CGP50 CHARGEN	\$99

MTS HI-FI STEREO 4 & 2 HEAD VHS

JVC HRD 570	LOW PRICE
TOSHIBA DX7	CALL
TOSHIBA M5900	IN STOCK
CANON VRHF720	LOW PRICE
CANON VRHF710	IN STOCK
MINOLTA MV60S	IN STOCK
JVC HRD470U	\$559
SANYO VHR1900	\$499
FISHER FVH980	IN STOCK
FISHER FVH990	CALL

AUDIO RECEIVERS

JVC RX9V	\$450
SONY STRAV880	\$450
SONY STRAV780	\$299
SONY ST7TV	\$210
PIONEER VSX5000BK	CALL

SPECIAL QUASAR

Model VM21AC Full size VHS Camcorder 6-1 Zoom with Electronic Shutter \$1069

TV'S

SANSUI, PIONEER, HITACHI, JVC, SONY, SYLVANIA, & TOSHIBA.

PHONES

BELL FF1700	\$129
SONY ITA600	\$179
SONY SPP100	\$139
SONY SPP300	LOW PRICE



SONY SPP100

8MM CAMCORDERS

CANON VME2	IN STOCK
MINOLTA CR8000S	LOW PRICE
PENTAX PVC800A	CALL
OLYMPUS VX801	IN STOCK
CHINON C8-80	CALL
KYOCERRA KD1100U	IN STOCK
SANYO VISION 8	\$850
SONY CCDV8AFU	\$950
SONY CCDV3	\$969
SONY CCDV110	\$1259

SONY 8MM HOME DECKS

EVS700U	\$689
EVA300	\$399

CASSETTE DECKS

SONY TCWR950	\$399
SONY TCWR750	\$255



SONY CCD-V110

SPEAKERS

AR POWERED PART	\$199
ADVENT BABY	\$129
ADVENT LEGAGY	\$299
ADVENT MAESTRO	\$399

CD PLAYERS

JVC XLU440	\$215
JVC XLM 700	\$379
PIONEER PDM70	NEW
SONY CDPC10	\$500
SONY CDP510	\$259
SONY CDP 203	\$299
MAGNAVOX CDB650	\$319

3 HEAD VHS

HITACHI VT1370A (PNP)	LOW PRICE
HITACHI VT1570A (PNP)	CALL
HITACHI VT1450A (PNP)	IN STOCK

4 HEAD VHS

TOSHIBA M4220/30	IN STOCK
TOSHIBA M4330	CALL
FISHER FVH920	\$399
FISHER FVH950	\$459

We Accept AmEx, Visa, MasterCard, and Discover. C.O.D. welcome.



We ship within 24 hours. All prices quoted included manufacturer's standard accessories & U.S. Warranty. All units are factory sealed. Shipping & handling extra. Not responsible for typographical errors.

velop, yet remain identifiably Reichian. Playing time: 42:43.

K. Robert Schwarz

TCHAIKOVSKY:

Symphony No. 1, in G minor, Op. 13 ("Winter Dreams"); Waltz and Polonaise from Eugene Onegin, Op. 24; Marche slave, Op. 31.

● Berlin Philharmonic, Karajan. Deutsche Grammophon 419 176-2 (A).

Symphony No. 2, in C minor, Op. 17 ("Little Russian"); 1812 Festival Overture, Op. 49.

● Berlin Philharmonic, Karajan. Deutsche Grammophon 417 177-2 (A).

Symphony No. 3, in D, Op. 29 ("Polish"); Capriccio Italien, Op. 45.

● Berlin Philharmonic, Karajan. Deutsche Grammophon 417 178-2 (A).

HERBERT VON KARAJAN'S WAY WITH THE FIRST three Tchaikovsky symphonies will appeal to those who do not like their Tchaikovsky intense; under his baton, the Berlin Philharmonic gives magnificently played, but rather placid, interpretations. Symphony No. 1 (*Winter Dreams*) unfolds in a leisurely fashion, and in the delightful Symphony No. 2 (the so-called *Little Russian*), Karajan succeeds in capturing the folksy playfulness of the score. But the account of Symphony No. 3 (*Polish*) never catches fire, in spite of the extraordinarily fine playing of the Berliners; even the final *polacca* fails to excite. It is unfortunate that Karajan was not in a more vigorous mood in 1979, when all three were recorded.

The couplings are fairly generous (Symphony No. 1, etc.: 66:10; Symphony No. 2, etc.: 50:38; Symphony No. 3, etc.: 63:33), but I find this rendition of the *1812 Festival Overture* disappointing. The Don Cossack Chorus sings the opening chorale impressively, but the cannon in the final pages are blurred and ineffective. All of the fillers date from 1967, and like the three symphonies, they did not seem to have particularly outstanding sonics when originally issued. The CD transfer has helped slightly. All three discs would have made fine entries in a budget-price series; at full price, they're harder to recommend.

Robert E. Benson

TCHAIKOVSKY:

Symphony No. 2, in C minor, Op. 17 ("Little Russian").

RIMSKY-KORSAKOV:

Symphony No. 2, Op. 9 ("Antar").

● Pittsburgh Symphony Orchestra, Maazel. Robert Woods, prod. Telarc CD 80131 (D).

THIS IS LORIN MAAZEL'S FIRST RECORDING AS music director of the Pittsburgh Symphony, and one scarcely need add that he has come a long way in the four decades since he was a violinist in the same orchestra. He presides over solid, capable performances of both of these Russian Romantic symphonies, with Tchaikovsky's *Little Russian* the more successful of the two, moving at a brisk pace that seems just right. The *Antar* Symphony, however, requires more imagination than Maazel possesses if it is to succeed. The second movement ("The Delight of Vengeance") would have benefitted from a more mysteri-

ous, menacing treatment; the third ("The Delight of Power") plods excessively; and the finale ("The Delight of Love"), while as exotic as any of the pages of *Scheherazade*, here seems decidedly unsensuous.

The orchestral playing is excellent, however, and Telarc's reproduction offers a new sonic approach for the label. Recorded in Calvary Episcopal Church in Pittsburgh, these performances have a very resonant acoustic, with more "air" around the orchestra than is usually heard on Telarc discs. Because of this, there is some loss of clarity and solidity in the low percussion, but the overall effect is very pleasing. I look forward to future Pittsburgh/Maazel/Telarc recordings. Playing time: 67:31.

Robert E. Benson

VERDI:

Un ballo in maschera.

● M. Price, Battle, Ludwig, Pavarotti, Bruson, Lloyd, King, Weber; London Opera Chorus, National Philharmonic Orchestra, Solti. Christopher Raeburn, prod. London 410 210-2 (2, D). ©(3). □(3)

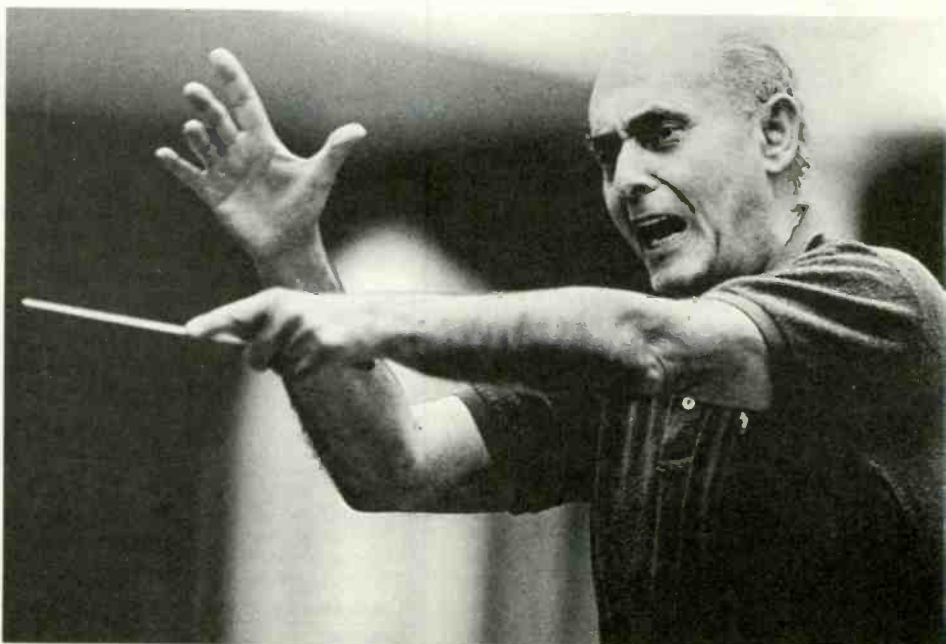
EVEN THOUGH VERDI'S *UN BALLO IN MASCHERA* has been frequently recorded—ten commercial releases come to mind—few can be heartily recommended. It is not for lack of stellar names. Beniamino Gigli's extraordinary performance (Seraphim 6026) is well worth having, both as an example of the tenor in his top form and for Fedora Barbieri's impressive Ulrica. Among the others who have sung the role to great acclaim, and recorded it at least once commercially, are Giuseppe di Stefano (with Maria Callas and Tito Gobbi), Carlo Bergonzi (first with Birgit Nilsson, Cornell MacNeil, and Giulietta Simionato, later with Leontyne Price and Robert Merrill), Luciano Pavarotti, Plácido Domingo, and José Carreras. Alcohol and, finally, death, kept Jussi Bjoerling from re-

ording the role on two different occasions (first with Toscanini, whose performance is still the best conducted, then later with Georg Solti). And yet, the whole of most of these sets is considerably less than the sum of their often illustrious parts.

Thus, this new Solti-led performance—with Luciano Pavarotti, Margaret Price, Renato Bruson, and Kathleen Battle, all in representative form—is particularly welcome. This third try at the opera for London is not exactly definitive, but it has the flavor of a full-fledged operatic venture, a flavor that is rapidly being chased out of the studios and even the opera houses by directors and conductors (and in the case of recordings, producers) who believe that all that matters is note-to-note accuracy.

Solti is not known for being the warmest of maestros, and surely his early account of the opera (London OSA-1328) was a perfect specimen of his sort of over-emphatic stressing that lent a brutal edge to so many of his recorded performances. He has relaxed to such an extent that some moments lack the grand sweep we expect to hear. But there is a mellow, sensitive ear at work here, stressing the orchestral marvels of Verdi's score, while at all times allowing the singers to make their individual musical points and sing thrillingly.

Of course, the major reason for this set is the second go-around for Pavarotti as Riccardo. His earlier London set (released in 1971) had very little to recommend it, apart from his impetuous, rather small-scale contributions. London was far more careful, even thoughtful, in its casting this time around. Also, Pavarotti has hundreds more performances of the role under his belt, and though the voice no longer has the exuberant sheen and heady abandon of the earlier effort, it has gained weight and a very specif-



SIR GEORG SOLTİ STRESSES THE ORCHESTRAL MARVELS OF VERDI'S "UN BALLO IN MASCHERA," WHILE AT ALL TIMES ALLOWING THE SINGERS TO MAKE THEIR INDIVIDUAL MUSICAL POINTS AND SING THRILLINGLY.

ic communicative thrust.

Margaret Price had not as yet performed the role of Amelia on stage, though one would hardly know it, so committed and thoroughly worked into the throat is her performance. Her ripe, effulgent lyric soprano has rarely sounded more appealing and seductive on records. If Verdi is now in the cards for a singer who made her career as an outstanding Mozartean (everywhere except at the Metropolitan Opera, which has become interested in her only very recently), the future looks promising indeed.

The impact Solti had on these sessions is nowhere more evident than in the Renato of Renato Bruson. His earlier performance for Claudio Abbado (on Deutsche Grammophon) showed up all the unappealing facets of the voice—the throttled, dry top and the inability to expand into a phrase and infuse it with the grandeur the music demands. With Solti, the performance has a candor, a directness, that makes it deeply satisfying. His voice sounds even more congested than usual, but the sense that Bruson is being allowed to give his own performance of the part, tailored to his strengths and weaknesses, is everywhere tangible.

Kathleen Battle's soft-grained soprano prevents her from really commanding attention throughout Oscar's ensembles, but her innate soubrette charms hold her in good stead throughout the performance. Only Christa Ludwig's Ulrica is out of the running. Even in her prime, hers would have been the wrong voice and temperament for such an unstintingly Verdian mezzo role; nowadays, she simply can't find a way to make the character project.

The recorded sound is natural and unfussy, and the voices—especially those of Price and Pavarotti—have been well caught. The National Philharmonic Orchestra responds well to Solti's guidance and prodding, though at times a certain lack of theatrical tenseness belies its non-opera-orchestra status. It is a pity that so few opera orchestras are brought into the studio anymore. The loss of minute details of ensemble, awareness, and the vibrancy that only come from a group that feels this stuff from years of playing it is considerable.

Compact Disc buyers need search no further for a *Ballo*. Surely DG's with Abbado, the only other account currently available, is one of that conductor's worst efforts in the studio. If Philips gets around to reissuing its Colin Davis read-through with Carreras and Montserrat Caballé, it may appeal to diehard fans of those singers, though only Carreras is worth a hearing, and Davis's way with Verdi is, when all is said and done, distinctly uninteresting.

The Callas/Di Stefano/Gobbi reading for Angel EMI will surely be out before too long, and while it is an interesting performance, I would recommend it only as an alternative, rather than as the sole *Ballo* in a collection, since Antonino Votto's conducting, wedded to the thin mono sound of the

period, cannot do full justice to the specific riches of this score, no matter how dramatically effective the singing. Playing time: 1:30:29. Thor Eckert, Jr.

VIVALDI:

Concertos for Bassoon, Strings, and Continuo (6).

☐ Thunemann, I Musici. Philips 4 16 355-4 (D). ☉☉ Concertos: in F, RV. 485; in B flat, RV. 503; in E flat, RV. 483; in A minor, RV. 497; in C, RV. 473; in G, RV. 492.

AS A ONE-TIME AMATEUR BASSOONIST WHOSE supreme moments were as third bassoon in a Boston settlement school pro/am orchestra performance of the Prelude to Act I of *Lohengrin* (in which the lowly third is entrusted with the score's bass line for a dozen or so bars), my enthusiasm for the instrument biases my reporting on any program that features a bassoon soloist. But Klaus Thunemann is an extraordinary one, apparently the leading European practitioner nowadays. And although he has been featured in a number of earlier recordings, including several with the Academy of St. Martin-in-the-Fields, this is the first major solo program of his that has come to my attention.

It's a fine one: From his first notes, Thunemann demonstrates a mastery of his ungainly but versatile instrument, as well as a notably big and eloquent tone. He combines with effortless skill its dual roles to be, as Michael Talbot's perceptive notes put it, both a songful tenor instrument and a bass instrument that doubles the continuo part, with occasional elaborations that demand the agility of a heavyweight gymnast.

Effectively, if a bit heavy-handedly, accompanied by I Musici and exceptionally well recorded, this set of six of the best of Vivaldi's 39 bassoon concertos is surely one of the very finest in the discography to date. And if you cling to the notion that Vivaldi did not write countless individual concertos but only innumerable versions of the same one, the variety of materials and treatments here should speedily teach you better!

R. D. Darrell

WEILL:

Songs (15).

☉ Stratas; Y Chamber Symphony, Schwarz. Robert Hurwitz, prod. Nonesuch 79131-2 (A). ☐☉ ANDERSON: Knickerbocker Holiday: It Never Was You. BRECHT: The Rise and Fall of the City of Mahagonny: Havanna-Lied, Denn wie man sich bettet; Happy End: Surabaya-Johnny; Das Lied von der harten Nuss; Der kleine Leutnant des lieben Gottes; The Threepenny Opera: Das Lied von der Unzulänglichkeit menschlichen Strebens. DEVAL: Marie Galante: J'attends un navire; Le Roi d'Aquitaine; Le Train du ciel. GERSHWIN: Lady in the Dark: One Life to Live. HUGHES: Street Scene: Lonely House. KAISER: Silverlake: Ich bin eine arme Verwandte (Fennimore's Song). NASH: One Touch of Venus: I'm a Stranger Here Myself; Foolish Heart.

RIGHT AFTER TERESA STRATAS RELEASED HER first Kurt Weill album, one hardly could

have imagined a real competitor to surface. Tiny, tortured, and driven, she emerged, with Lotte Lenya's blessing, as the quintessential Weillian female: a whirl of destructive vulnerability momentarily sanctified by the classical technique that encased it. Like that of George Balanchine's Gelsey Kirkland, Stratas's energy fed on the tension between the sacred and the profane—a cutting edge that Hal Willner's rock musicians in his Weill-redux sampler, *Lost in the Stars* [see June 1986 review], had to discover from a different perspective. Stratas's first Weill collection was shocking and erotic, disturbing yet somehow liberating. And it pointed to wells of inner Weillian wisdom that perhaps even Lenya herself hadn't fully fathomed.

Sequels, however, are often disturbing in other ways. *Stratas Sings Weill*, 15 show tunes with instrumental accompaniment, contains glorious singing—Stratas has perhaps never sounded so beautiful. But what's generally missing is the almost paralyzing emotion—the Anna Karenina calm *cum* hysteria—heard in the first edition's "Wie lange noch?" There, Stratas lived dangerously; here, she makes choices, brilliant ones maybe, but choices that tend to clothe the very thing we've come to long for in her. "Surabaya-Johnny" is chock-full of color changes, verse to verse, but they don't add up to one fleshed-out character capable of surviving in the imagination. Superficially charming songs like "One Life to Live" and "Foolish Heart" are merely petticoat patter for Stratas—an affront to her savage soul—while the humor of an Ira Gershwin line like "This is my thesis: Why go to pieces?" completely passes her by.

Stratas, however, is full of other strata, and she remains the mistress of the small gesture and the big swell. In "J'attends un navire" ("I'm Waiting for a Ship"), she paints the rise and crest of ocean waves with the exquisite pianissimo glissando that is the secret of her legato, while in "Lonely House" (a masterful composition), she hugs the word *alone* to her breast as if it were her last crumb of bread. "Le Train du ciel" ("The Train from Heaven"), however, is one of the few songs here that seems to hurl itself forward, beginning to end, from inside the singer. A mixture of Gershwin gospel, Mahler morbidity, and Schubert terror, it is transformed by the Stratas fever into a timeless hymn of salvation from hell.

Perhaps Stratas's real competition is her own ghost—past, present, or future. On the back of the album cover is the saltiest, most intimate and intelligent interview she has ever given; her performance inside almost pales by comparison. This artist is an elemental force, and to listen to her has never been safe. But on this disc, one feels her standing *above* the abyss of intuition, so wide-eyed and haunted, holding on to intellect by one small thread. How I long for her to let go—and jump. Playing time: 53:58. Pamela Bloom



TEAC CASSETTE DECKS



Teac V-538X
Dolby dbx Stereo Cassette Deck
• Dolby B/C and dbx • Soft touch control • Bias fine tuning • LED meters • Black finish
Sale Price **\$99⁹⁵** LIST \$199



Teac V-850X
Three Head Cassette Deck
• Dolby B/C and dbx • 2-motors • Full logic control • Programmable music search • True tape monitoring
Sale Price **\$349⁹⁵** LIST \$579



Teac W-310C
Dolby Double Cassette Deck
• Dolby B and C noise reduction • High speed dubbing • Bias fine tuning • LED peak meters • Continuous playback • Direct transport
Sale Price **\$119⁹⁵** LIST \$199



Teac R-425
Auto Reverse Cassette Deck
• Dolby B & C • Bi-directional record/play • Rotating head design • Mic inputs • LED peak level meters • Soft touch operation
Sale Price **\$119⁹⁵** LIST \$199



Teac R-888X
3-Head Auto Reverse Cassette
• 3-motors • Full logic control • Dolby B/C and dbx • Programmable music search • Bias level adjustment • Black finish
Sale Price **\$449⁹⁵** LIST \$449



Teac W-460C
Dolby Double Cassette Deck
• Three motor logic controlled transport • Dolby B & C • Programmable music search • High speed dubbing
Sale Price **\$229⁹⁵** LIST \$499

VHS MOVIE SPECIALS



- Altered States (1980) \$18.95
- Calamity Jane (1954) \$18.95
- East Of Eden (1980) \$18.95
- Mad Max Beyond Thunderdome (1985) \$18.95
- Magnum Force (1973) \$18.95
- Never Say Never Again (1983) \$18.95
- The Outlaw Josey Wales (1976) \$18.95
- Pale Rider (1985) \$18.95
- Superman II (1980) \$18.95
- Them! (1954) \$18.95

Your Choice **\$18⁹⁵** Each

BLUE NOTE JAZZ



Stanley Turrentine
Wonderland
• Featuring the songs of Stevie Wonder
Sale Price **\$6⁹⁹** LP or Cassette Only

- Freddy Hubbard...Life Flight \$13.99 CD/\$6.99 LP or Cass.
- OTB...Live at Mount Fuji \$13.99 CD/\$6.99 LP or Cass.
- Kenny Burrell...Generation \$13.99 CD/\$6.99 LP or Cass.
- Tony Williams...Generation \$13.99 CD/\$6.99 LP or Cass.
- James Blood Ulmer...America: Do You Remember the Love \$13.99 CD/\$6.99 LP or Cass.

VHS HI-FI VIDEO RECORDERS

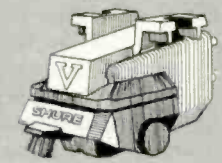


Toshiba M-2700
VHS HQ Hi-Fi Video Recorder
• Outstanding audio/video quality at one low price • HQ video system • Hi-Fi sound • Wireless remote • Cable ready
Sale Price **\$399⁹⁵** LIST \$799



JVC HR-D370U
VHS HQ Hi-Fi Video Recorder
• Experience dynamic hi-fi stereo sound • HQ system • MIS SAP cable ready • Direct access remote • Black finish
Sale Price **\$499⁹⁵** LIST \$799

PHONO CARTRIDGES



Shure V-15 Type V-MR
Micro Ridge Phono Cartridge
• Excellent trackability • Dynamic stabilizer • Side-guard stylus protection • Duo-point alignment gauge
Sale Price **\$149⁹⁵** LIST \$275

- ADC PSX-20 Induced magnet cartridge . . . \$29⁹⁵
- Audio Technica AT-132EP P-mount cartridge . . . \$59⁹⁵
- Audio Technica AT-152MLP Linear contact P-mount . . . \$99⁹⁵
- Audio Technica AT-201EP Universal mount cartridge . . . \$14⁹⁵
- Audio Technica AT-231LP Universal mount cartridge . . . \$39⁹⁵
- Pickering 625DJ Pro disco cartridge . . . \$29⁹⁵
- Shure M104E Universal P-mount cartridge . . . \$29⁹⁵
- Shure M11NE Hyperelliptical cartridge . . . \$49⁹⁵
- Shure V15-IV MR Micro ridge stylus cartridge . . . \$79⁹⁵
- Stanton 500AL Disco cartridge with extra stylus . \$19⁹⁵
- Stanton 680EL Pro disca cartridge w/extra stylus \$49⁹⁵
- Stanton 8815-11S Standard mount cartridge . . . \$69⁹⁵

JVC AUDIO SPECIALS



JVC TDW60JBK
Stereo Double Cassette Deck
• Computer controlled full logic controls • Auto reverse • Dolby B and C • Hi-speed dubbing • Music scan • Black finish
Sale Price **\$299⁹⁵** LIST \$399



JVC RX-8VB
Remote Control Stereo Receiver
• 100 watts RMS per channel • 32-presets • 7-band stereo equalizer • Spectrum analyzer • Black finish
Sale Price **\$439⁹⁵** LIST \$599



JVC XL-M700B
Multi-Disc CD Changer
• 6 disc magazine and single disc tray • Program up to 15 selections from 7 discs • Wireless remote • Black finish
Sale Price **\$449⁹⁵** LIST \$699



JVC XL-V330BK
Remote Control CD Player
• 23-function infrared remote control • Program up to 15 tracks in any order • 3-beam laser pick-up • Black finish
Sale Price **\$199⁹⁵** LIST \$320

TECHNICS AUDIO SPECIALS



Technics SA-290
Digital AM/FM Stereo Receiver
• 50 watts RMS per channel • LED power meters • 16-station preset memory • Tape monitor • Black finish
Sale Price **\$159⁹⁵** LIST \$249



Technics SL-DD33
Fully Automatic Turntable
• Direct drive motor system • Automatically senses disc and selects proper size • P-Mount cartridge connector • Black
Sale Price **\$109⁹⁵** LIST \$169



Technics RS-T10
Stereo Double Cassette Deck
• Dolby B • Synchro start dubbing • Cue & review • Auto tape select • LED peak meters • Headphone jack • Black finish
Sale Price **\$124⁹⁵** LIST \$200



Technics SL-PJ20
Mid Size Compact Disc Player
• Random access programming • Digital filter • Fine focus laser pickup player • Front drawer loading • Black finish
Sale Price **\$139⁹⁵** LIST \$249



ORDER TOLL-FREE **800-221-8180** IN NEW YORK, ALASKA & CANADA CALL: (212) 693-0396
23 Park Row, Dept. HFO687, New York, NY 10038





HEADPHONES



Beyer DT-880

Pro Monitoring Headphones
 • Ultra wide 5-25kHz frequency response
 • Rare earth magnet construction • Lightweight design • Great digital sound
 Sale Price **\$109⁹⁵** LIST \$149

- AKG K-240M Studio monitoring headphones . . . **\$79⁹⁵**
- AKG K-240DF Extra flat frequency response . . . **\$99⁹⁵**
- AKG K-135 Dynamic stereo headphones . . . **\$49⁹⁵**
- Beyer Dynamic DT-550 Lightweight open air headphones **\$79⁹⁵**
- Beyer Dynamic DT-990 Extra wide frequency response . . . **\$139⁹⁵**
- Koss JCK-100 New wireless headphones . . . **\$89⁹⁵**
- Koss Pro4AAA Closed ear headphones . . . **\$38⁸⁸**
- Sennheiser HD-414SL Open air digital ready headphones **\$54⁹⁵**
- Sennheiser HD-430 Wide response open air . . . **\$84⁹⁵**
- Sony MDR-CD6 New lightweight digital ready . . . **\$89⁹⁵**
- Sony MDR-V6 Closed ear digital ready . . . **\$89⁹⁵**

DIGITAL COMPACT DISC PLAYERS



ADC CD-100X Programmable CD Player

• Triple beam laser pickup • 16-track programmable • Metal chassis and transport • Black finish
 Sale Price **\$129⁹⁵** LIST \$299



Teac PD-100 Programmable CD Player

• 16 track programming • Double oversampling • Digital filter • Track repeat • Soft touch controls • Black
 Sale Price **\$139⁹⁵** LIST \$349



Shure SV-40 Programmable CD Player

• 17-function wireless remote with volume control • 15 track programming • 3-beam laser pickup • 5-year warranty • Black
 Sale Price **\$229⁹⁵** LIST \$399



ADC CDi16/2R Remote Control CD Player

• 3-beam laser pickup • 16 track programming • Wireless remote • Advanced error correction • Black finish
 Sale Price **\$169⁹⁵** LIST \$329



Teac PD-420 Remote Control CD Player

• 3-beam laser pickup • Oversampling digital filter • 16 track random programming • Index search • Black finish
 Sale Price **\$189⁹⁵** LIST \$469



Audio Technica CD-20 Remote Programmable CD Player

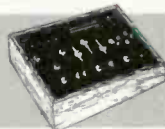
• Random access memory • 3-beam laser pickup • Wireless remote • Double resolution digital filtering • Black finish
 Sale Price **\$249⁹⁵** LIST \$400

AUDIO ACCESSORIES



Terk FM-9500 Indoor FM Electronic Antenna

• Modern high tech style • 24-dB's of gain • LED display • One year warranty • Black finish
 Sale Price **\$79⁹⁵** LIST \$99



Numark DM-1650 Pro Series Mixer/Pre-amplifier

• Two phono line & mic/line inputs • Long throw slider controls • Cross fader • 6-band equalizer • LED peak meters
 Sale Price **\$249⁹⁵** LIST \$379

HOME SECURITY



Schlage "Keepsafe Plus" Electronic Home Security System

• Easy to install, operate and live with • State of the art console • Wireless remote control • 3 transmitters/receivers • Easily to expand
 Sale Price **\$299⁹⁵** LIST \$350

***** ACCESSORIES *****

- Schlage 71-100 Transmitter with sensors . . . **\$22⁹⁵**
- Schlage 71-101 Back-up power supply . . . **\$7⁹⁹**
- Schlage 71-111 Emergency dialer . . . **\$89⁹⁵**
- Schlage 71-112 Glass break detector . . . **\$7⁹⁹**
- Schlage 71-122 House/night lamp module . . . **\$14⁹⁵**

MAGNAVOX CD PLAYERS



Magnavox CDB460 Programmable CD Player

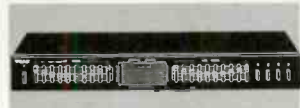
• Program up 20 tracks in any order • 16-bit dual D/A converters • Oversamples at 176.4 kHz • Black finish
 Sale Price **\$179⁹⁵** LIST \$250



Magnavox CDB650 Audiophile Compact Disc Player

• Flawless sound • Program up to 785 selections in permanent memory • 4 times oversampling • Digital filter • Wireless remote
 Sale Price **\$399⁹⁵** LIST \$430

AUDIO EQUALIZERS



Teac EQ-A20 Graphic Equalizer/Analyzer

• 10 bands per channel • Spectrum analyzer display • Two tape monitors • 2-way dubbing • EQ record
 Sale Price **\$99⁹⁵** LIST \$249



ADC SS-525X Computerized Graphic Equalizer

• 12 bands per channel • Automatic room/speaker equalization • Wireless remote • Analyzer/EQ display • Microphone
 Sale Price **\$399⁹⁵** LIST \$599



Teac EGA-30 Spectrum Analyzer/Equalizer

• LED spectrum analyzer with peak hold • 10 band EQ • 2-way tape dubbing • Subsonic filter • Record EQ • Black finish
 Sale Price **\$199⁹⁵** LIST \$299



ADC Sound Shaper SS-VIII Electronic Preset Equalizer

• 10 bands per channel • 15dB control range • Illuminated slide controls • 4 different preset playback EQ's • Black finish
 Sale Price **\$99⁹⁵** LIST \$280

SONY AUDIO SPECIALS



Sony STR-AV31 Digital AM/FM Receiver

• 35 watts RMS per channel • 10-key direct access frequency synthesis tuner • 10 presets
CALL



Sony CDP-31 Compact Disc Player

• Digital filter • Shuffle play • Random music sensor • LCD display
CALL



Sony TC-W31 Stereo Double Cassette Deck

• Dolby B and C • Two motor drive • Timer recording/playback • Automatic music sensor
CALL



Sony CDP-21 Compact Disc Player

• Unilinear converter • Shuffle play • Random music sensor • LCD multi-display
CALL

HOW TO ORDER BY MAIL: SEND MONEY ORDER, CERTIFIED OR CASHIER'S CHECK, MASTERCARD, VISA or DISCOVER CARD (include card number, Interbank No, expiration date and signature.) TO: J&R MUSIC WORLD, 23 PARK ROW, NEW YORK, NY 10038, DEPT. HFO687. DO NOT SEND CASH. Personal and business checks must clear our Authorization Center before processing. \$25 Minimum Order. Shipping, Handling & Insurance Charge is 5% of Total Order with a \$3.95 minimum. (Canadian Orders Add 15% Shipping, with a \$9.95 minimum charge.) For shipments by air, please double these charges. SORRY, NO C.O.D.'s. NEW YORK RESIDENTS PLEASE ADD SALES TAX. ALL MERCHANDISE SHIPPED BRAND NEW, FACTORY FRESH, AND 100% GUARANTEED. WE ARE NOT RESPONSIBLE FOR ANY TYPOGRAPHICAL OR TRANSCRIPTIONAL ERRORS.



BACK



CLOCKWISE FROM TOP: THE BETTMANN ARCHIVE, INC.; UP/GETTMANN NEWSPHOTOS; THE BETTMANN ARCHIVE/RBC HULTON

BREAT

One, Two, Three, Four!

And the way they sound is way beyond compare?

Our critics rate the Beatles on CD and video.

JOHN LENNON, PAUL McCARTNEY, GEORGE HARRISON, RINGO STARR: no introduction necessary. Suffice to say that, at long last, the Beatles have entered the digital age. Accordingly, we are devoting this section to reviews of their first four Compact Discs. We also take a fresh look at their first two films, now on Hi-Fi videocassette. Stay tuned for complete coverage of additional Beatle CDs and videos in the coming months—a splendid time, indeed.

COMPACT DISCS

"PLEASE PLEASE ME"

THE FIRST THING YOU NOTICE IS THE BASS. On cut after cut, there is a distinct sound where before there had often been little more than a subliminal presence. Rock histories may have to be amended, as the proper study of Paul McCartney, bassist, can only now begin.

The second thing you notice is that it really is possible to hear these chestnuts anew. The Compact Disc of *Please Please Me* (Parlophone CDP 46435) is a replica of the

Beatles' 14-song British Parlophone debut LP, which was released in March 1963 and which showed up in the U.S. four months later on Vee-Jay as *Introducing the Beatles*, minus "Love Me Do" and "P.S. I Love You." One cut from the original release, "I Saw Her Standing There," turned up on the group's first American Capitol album, *Meet the Beatles!* (January 1964), and 11 more cuts ended up on Capitol's *The Early Beatles* (March 1965). The two remaining songs from the original release, "Misery" and "There's a Place," effectively disappeared from the American market with the Vee-Jay LP. If this typically labyrinthine sampling of the Beatles' discography hasn't confused you alto-



WISCONSIN DISCOUNT STEREO

ELECTRONICS MOST TRUSTED NAME — SELLING THE FINEST EQUIPMENT

1st IN SERVICE, 1st IN QUALITY, 1st IN PRICE

DISCOUNT HOTLINE 1-800-356-9514 DISCOUNT HOTLINE 1-800-356-9514 DISCOUNT HOTLINE 1-800-356-9514

DISCOUNT HOTLINE 1-800-356-9514 DISCOUNT HOTLINE 1-800-356-9514 DISCOUNT HOTLINE 1-800-356-9514



JVC QLA 75 \$269

- ★ BELOW DEALER COST
- ★ TWO TONE ARMS
- ★ HI-TORQUE DC MOTOR



AIWA ADWX220 CALL!

- ★ DOLBY B + C
- ★ BEST DUBBING DECK
- ★ FASTEST DUBBING DECK



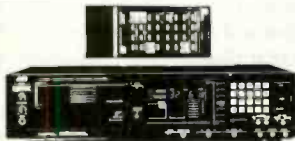
EPI LSR34 \$189

- ★ AUTO-REVERSE CAR STEREO
- ★ DIGITAL, DOLBY B
- ★ MUSIC SEARCH / CD INPUT



JVC DDVR9 \$349

- ★ 3-HEAD CASSETTE DECK
- ★ QUICK AUTO REVERSE
- ★ B.E.S.T. RECORDING SYSTEM



JVC XLM700 CALL!

- ★ STACKING DISC PLAYER
- ★ REMOTE CONTROL
- ★ 6 HOURS OF MUSIC

DISCOUNT HOTLINE
800-356-9514
OR CALL 608-271-6889

- ★ BEST DISCOUNTS ON MOST NATIONAL BRANDS
- ★ PRODUCTS FACTORY FRESH WITH FULL WARRANTY.
- ★ MOST ORDERS SHIPPED WITH 48 HOURS



TOSHIBA XRP9 \$169

- ★ PORTABLE DISC PLAYER
- ★ 14-KEY WIRELESS REMOTE
- ★ 16-TRACK PROGRAMMING



CONCORD HPL550 \$299

- ★ DOLBY B/C/dbx CAR STEREO
- ★ 18 FM + 6 AM PRESETS
- ★ MUSIC SEARCH + CLOCK



NEC 965 CALL!

- ★ 4-HEAD HIFI SPECIAL PURCHASE
- ★ BUILT-IN MTS
- ★ ON-SCREEN PROGRAM



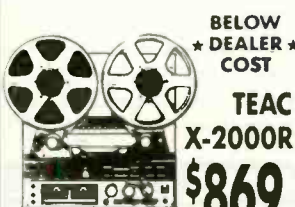
SHERWOOD CRD 301 \$149

- ★ DIGITAL CAR STEREO
- ★ DOLBY, AUTO-REVERSE
- ★ LOADED WITH FEATURES



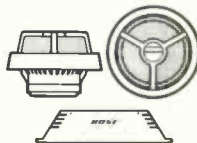
GE VHS HIFI \$379

- ★ HQ CIRCUITRY
- ★ 35 FUNCTION REMOTE
- ★ REMOTE PROGRAMMING



BELOW DEALER COST
TEAC X-2000R \$869

- ★ 10" AUTO-REVERSE REEL
- ★ 6-HEADS with dbx
- ★ ± 12% PITCH CONTROL



BOSE 1201 \$139

- ★ (2) 4.5" FULL RANGE SP.
- ★ 1201 EQUALIZED AMP
- ★ BELOW DEALER COST



JVC HRD170 \$269

- ★ FULL HQ CIRCUITRY
- ★ 4-EVENT / 14 DAY
- ★ WIRELESS REMOTE



BELOW DEALER COST
GE 99610 CALL!

- ★ CCD CAMCORDER
- ★ 7 LUX
- ★ 8:1 ZOOM

★ We Service What We Sell ★
WARRANTY SERVICE 1-800-448-3378

SERVICE HOURS
MON-FRI. 10-9
SATURDAY 10-5

SALES HOURS
MON-THURS 8-8 FRIDAY 9-8
SATURDAY 9-5

WDS

MasterCard VISA or COD

2417 W. Badger Rd.
Madison, WI 53713

SOME ITEMS LIMITED—CALL NOW AND SAVE \$

FOCUS Electronics 1-800-223-3411

A NAME TRUSTED FOR OVER TWO DECADES!
For info & in N.Y.S. dial (718) 871-7600 Send \$2 for new 1987 catalogue.

COMPACT DISC PLAYERS

MAGNAVOX	
CDB850 Highest Rated	CALL
CDB560 Full, Rmt	229.00
CDB460 20 Track	189.00
FD1041 Dig. Itrr	139.00
FD1051 Wrts Rmt	169.00
PIIONEER	
PDM60 Multi Play	CALL
PDM70 Rmt Prog	CALL
PDS030	199.30
SONY	
CDP110	199.50
CDP310	239.60
CDP510	CALL
CDP-C10 Multi Play	CALL
SHURE	
SV-40 Wrts Rmt	289.95
TEAC	
PD-400 Wrts Rmt	199.95
DENON	
DCD-700 Rmt	349.80
DCD-500	289.90
DCD-1700 Top Rated	CALL
DCD-1500 Five Star	CALL
DCD-1300 Great Qual	399.00
YAMAHA	
CD-2000 Top Rated	599.10
CD-1000 Great Deal	459.20
CD-450 Tri Beam	289.90
CD-300 Quality	249.40
CD-500	299.50
NAKAMICHI	
OMS7A11	CALL
OMS4A	799.70
OMS3A	579.80
OMS2A	439.90
JVC	
XLV-220	179.95
XLV-330	199.95
XLV-440	239.95
XML-700 6 plus 1 play	CALL
TECHNICS	
SLP 100	189.80
SLP 310	239.90
SLP 510	339.00

RECEIVERS

PIIONEER	
VX5-5000 100 Wt A/V	CALL
VX4-4000 60 Wt A/V	CALL
VX3-2000 50 Wt A/V	199.95
SX-1600 50 Watts	159.95
SX-1100 25 Watts	129.50
YAMAHA	
R9 125 Watts THE BEST	679.10
R7 70 Watts	CALL
R5 55 Watts	CALL
R3 35 Watts	199.40
NAD	
7125 25 Watts P/C	269.50
7175 75 Watts P/C	CALL
7250 50 Watts Digital	CALL
JVC	
RX9VBK 120 W A/V	CALL
RX5VBK 60 Watts A/V	309.90
RX3VBK 45 Watts	199.00
RX500BK 100 Wt A/V	299.00
RX1 35 Watts Rmt	159.10
RX111 25 Watts	119.10
SONY	
STRAY 880 110W Rmt	CALL
STRAY 580 60 Watts	309.20
STRAY 480 50 Watts	CALL
STRAY 380 30 Watts	219.40
AKAI	
AAV-401 80 W Dig A/V	249.50
AAV-205 60 Watt Surr	239.60
AAV-201 40 Watt Dig	199.70
DENON	
DRA 35 40 Watts	239.95
DRA 55 55 Watts	CALL
DRA 75 75 Watts	CALL
DRA 95 85 Watts Rmt	529.95
ONKYO	
TX 85 80 Watts Dig	379.95

CASSETTE DECKS

NAKAMICHI	
DRAGON Ultimate	1499.95
RX 505 Uni-Direc. A/R	CALL
CR7A-3 Hd Rmt B&C	1189.00
CR5A-3 Head B&C	CALL
BX100 NAK Quality	289.00
BX125	CALL
BX300	579.95
PIIONEER	
CT1370 Top of line Rmt	CALL
CT1270 D/D A/R B&C	219.95
CT1170 D/D Hi speed	159.95
CT2070 A/R B&C DBX	189.95
AIWA	
AD70 Multi Play	CALL
AOF770 3 Hd. B&C	CALL
ADWX220 D/D Hispeed	389.50
AD515 Dolby B&C	99.50
ADF250 Dual Volt	99.50

FOCUS ELECTRONICS, 4523 13th Ave., Bklyn, NY 11219.
All prices in this ad are for mail order only. VISA, MC, AMEX accepted. COD orders OK. Some units carry an exclusive 1 year national warranty from FOCUS. Others carry standard manufacturer's warranty. For information or customer service please call (718) 871-7600. Shipping, Ins., Hand. extra. Not responsible for typos.

YAMAHA	
K-1020 Top of Line	CALL
K-540 HX Pro B&C	CALL
K-340 Two Motor B&C	249.90
K-720 A/R	CALL
K-420 A/R	249.20
K-142	199.90
TEAC	
R425 A/R Rec/Play	99.95
V538X Dolby B&C dbx	109.95
W660R A/R B&C	289.95
W460C 3 Motor/D/D	249.95
AKAI	
GXA5 GX Hds B&C DBX	169.90
HXA351 D/D Dolby	139.50
HXA451 D/D B&C rpg	229.50
JVC	
TDW 60 D/D B&C TOL	CALL
TDW30 D/D B&C	199.50
TDV66 Dolby B&C	309.50
TDX301 Auto Reverse	169.75
TDX501 Top A/R	199.85
NAD	
6130	209.00
6155	CALL
HARMON-KARDON	
TD-292	289.95
TD-392	CALL
CD-491	479.95
SONY	
TCWR950 Top of Line	499.10
TCW 730	CALL
TCW 530	CALL

PORTABLE CD PLAYERS

SONY	
D10 Smallest Best	279.00
D55 w/FM	259.00
D-3 New	199.10
JVC	
XLR10 15 Track	169.20
TECHNICS	
SLXP-5	229.40
SLXP-7	CALL
PANASONIC	
PLEASE CALL	

AUTO AUDIO

PANASONIC	
COE-401 A/R Dig	179.30
COE-302 12 Presets	159.40
COE-650 dbx top	CALL
PIIONEER	
KE-H9020 25W Rmt	CALL
KE-6161 Super Tnr 111	195.50
KE-6181 Super Tnr 111	249.60
KEH-9191 25 Watt	299.70
KEH-5151 25 Watt	199.80
DENON	
DCR 5500 A/R Dig	279.80
DCR 7600 Top	339.90
NAKAMICHI	
TD-1200	CALL
TD-800	739.00
TD-700	659.00
TD-300	299.00
ALPINE	
7163	199.00
7172	339.00
7272	405.00
7273	379.00
7374	CALL
7267	409.00
7900	CALL
KENWOOD	
2000	199.00
636	369.00
838	CALL
424	199.00
525	289.00
4000	IN STOCK
999	CALL

VIDEO

NEC	
DX2000 Top Rated	In Stock
DX1000 Digital	569.95
N915 VHS Rmt Hq	299.95
TOSHIBA	
DX-7 Digital	666.66
MAGNAVOX	
VR-9565 Top Rated	799.95

CAMCORDERS

TOSHIBA		
SK60 VHS/C — Sharpes! Lens	1099.00	
6.1 Zoom Auto Focus CCD Imager	Very Light — Cmpi Pkg	1099.00
MAGNAVOX		
VR-8293 VHS CCD Imager	Auto Focus 8.1 Zoom, Battery, Charger, Carrying Case Included	1399.00
SONY		
CCDV110 Pro 8mm w/7 Color	Character Generator, Auto-Focus 8:1 Zoom, and Time Lapse Recording. Professional Editing Capabilities. Cmpi Pkg	CALL
CCDM94 Compact 8mm Camcorder	water resistant shell. Great for outdoor sports.	859.00

ACCESSORIES

RECOTON	
C.D./TO Cass. Adapt.	19.95
F.R.E.D. 11 MTS Dec.	139.95
Teletone Conv	59.95

BeatlesBeatlesBeatlesBeatlesBeatles



mental backing thins out behind the vocals, only to regain full width and volume a few moments later beside "Woa, woa, woa.") In sum, however, the mono CD of *With the Beatles* proves far superior to its stereo LP counterparts.

Jim Bessman

"A HARD DAY'S NIGHT"

TWENTY-FIVE YEARS AGO, THE BEATLES precipitated an unprecedented, and thus far unrivaled, explosion of pop energy and creativity. Joyously irresistible bursts of optimism were unexpectedly leavened with raunch (the Beatles were seasoned rock 'n' roll veterans by the time they first recorded), wit, pop passion even unto pop paranoia, and exceptional skill. Dissonance and self-mockery undercut much of the schmaltz, the saccharine, and the other somewhat-less-than-revolutionary conventional ingredients. And could they sing! And could they write! Etc., etc., etc.

This superabundance of gifts also precipitated an unprecedented and unrivaled marketplace feeding-frenzy. Because record companies, like nature, abhor a vacuum, Capitol filled the breach with a bizarre and seemingly indiscriminate barrage of product—reshuffled, remixed, and repackaged specially for the American Beatlemaniac. The original recordings were so wonderfully durable—indestructible, actually—that those who even noticed the substantial differences between the American and the British releases responded by creating a small but significant demand for U.K. imports. Though EMI subsidiaries Capitol and Parlophone pretended discomfit, it was literally a no-lose situation.

So sweet a deal, in fact, that it is only now (several neo-repackages, neo-reshuffles, and *Japanese* imports later), with the long-awaited release of Beatles material on Compact Disc in sacred and remunerative observance of the 25th, that Capitol is attempting to untangle the artless marketing mess it started all those years ago by proclaiming the canonical rectitude of the Parlophone LPs (while not quite renouncing the American vinyl versions . . . but that's another story).

Cleaving hard to the new dictum, the CD of *A Hard Day's Night* (Parlophone CDP 46437) pays curious attention to archival reproduction of the original British package, right down to the vapid, uninformative liner notes. This is a bit vexing because the 13 songs here, originally released on British LP in July 1964, are found on four different American LPs from the same year: April's *The Beatles' Second Album* ("You Can't Do That"), June's *A Hard Day's Night* (the former United Artists half-instrumental soundtrack; the CD mercifully does not include "Ringo's Theme," the movie-music version of "This

Boy," to which wistful accompaniment the beloved doofus goes parading), July's *Something New*, and December's *Beatles '65* ("I'll Be Back"). Since all that stands between the consumer and some functional discographic information is a modest budget for research and writing, I'm immediately confused about the priorities, not to mention sincerity, of the anniversary-reunion-reissue project.

But wait, it gets worse: For reasons that aren't entirely clear or sensible, this CD—in fact, all of the first four CDs—can now be heard in crisp, flawless *mono*. The fact that the LPs, particularly *A Hard Day's Night* and *Beatles for Sale*, have been available in quite reasonable-sounding stereo since Day One makes the historical imprimatur of the CD project thoroughly suspect. Careful comparison of the CD of *A Hard Day's Night* with both British and American stereo LPs demonstrates that though noise reduction, clarity, bass response, and vocal and instrumental presence are clearly superior, as they would be on almost any CD, songs as different as "And I Love Her," Paul's sweet, mostly acoustic samba, and "Can't Buy Me Love," a blast of bass-heavy Mersey Beat, still lack the vivid dimensionality they have in even the scratchiest stereo pressing. What was the point, then? After more than 20 years, why go to this trouble and still not get it right?

None of this, it must be said, has much impact on the ultimate efficacy of the music. My daughters, both born long after the Beatles era, stop whatever they're doing and dance whenever I play *A Hard Day's Night*. But that would have been true even if the recordings had been reissued on Edison cylinders. Obviously, any effort that brings meaningful, historically accurate order to such an essential body of work is certainly commendable. But serious scholarship, for which there are very few models in the non-classical major-label world, is an absolute requirement for such a project. The Polygram Hank Williams chronological reissue series is pretty much the only exception that proves the rule. And *A Hard Day's Night*, for now, is no exception.

Jeff Nesin

"BEATLES FOR SALE"

"OH-HO-HOLD ME," LAUGHS JOHN IN THE middle of "Eight Days a Week," and his laugh seems to encompass both the absurdity of the romantic bliss the song describes and his delight in being caught up in it anyway. That chuckle, knowing and jubilant, can stand as the emblem of *Beatles for Sale* (Parlophone CDP 46438). On this collection, the Beatles bid a long goodbye to their storehouse of freewheeling early rock covers and the release they provided, while their original songs show a new maturity and



skepticism that point toward the watershed of *Rubber Soul*. As increasingly comfortable creatures of the recording studio, the Beatles were collaborating more with producer George Martin on ways to stretch and adapt their sonic vocabulary. Perhaps the most brash example of this aspect of their career is to be heard off the record, on the groundbreaking feedback of "I Feel Fine," the single that was released in England one week before the December 1964 appearance of *Beatles for Sale*. But the album holds richer and subtler joys in its breathtaking dynamics: Just one listen to the way the slowly building charge of drums and guitar in "What You're Doing" explodes into the song's cry of "Look!" tells you that.

Listening to the songs in the distortion-less clarity afforded by their mono mixes, little details that had sunk from your memory reassert their primacy. Paul's double-tracked vocals on "I'll Follow the Sun" shimmer against the plucked guitar notes. Entrances and exits of instruments gain drama: "I Don't Want to Spoil the Party" gets a sudden lift from the introduction of Ringo's tambourine during the bridge, and the already explosive "What You're Doing" is kicked up a notch by the intrusion of some bluesy piano chords. Also surprising, yet taken for granted, is how many performances are propelled by acoustic guitars, with George's trusty Gretsch electric used for spare embellishment. Then again, that's entirely appropriate on an album where Lennon-McCartney nod frequently to the paths of c&w: "I Don't Want to Spoil the Party," the Everly-ish melodrama of "Baby's in Black," John's harrowing "I'm a Loser," "No Reply," with its countryish theme of betrayal, strikes light and deep, its acoustic guitars chomping down at the singers' heels, John's voice shifting from a rational purr to an enraged yelp.

Besides the added grain the CD brings to the vocal harmonies and guitars when compared with its Parlophone stereo LP counterpart, it also rectifies the slight overmixing of the lead vocal that is present on the eight corresponding cuts on Capitol's *Beatles '65* (released in December 1964) and the six corresponding tracks on the American label's *Beatles VI* (June 1965). (To be fair, most mid-Sixties pop productions favored a song's grabbier aspects—usually lead singing and guitar hooks—just to get it across on AM radio.) The gratifying result is that the CD retains the integrity of the ensemble performances, reminding you of what you may have forgotten: that the Beatles were a world-class rock 'n' roll band. John's vocal on Chuck Berry's "Rock and Roll Music" is shoved along by some abrupt guitar licks and intermittent piano throbs. And those of us who forgot that Paul once rocked out can delight in the vocal yowl and slashing guitars

of the medley of Leiber (not "Lieber," as the CD package has it) and Stoller's "Kansas City" and Little Richard's "Hey, Hey, Hey, Hey." (The latter song is now credited.)

There are a couple of subpar moments, which, in the case of this recording, simply means moments that don't quite touch heaven. John's vocal is the sole interesting thing supporting the version of "Mr. Moonlight." And the amount of echo masking George's voice is the sole interesting thing about the version of "Everybody's Trying to Be My Baby." As for what's *not* on this CD, you could wonder what is to become of *Beatles '65*'s "I Feel Fine" and "She's a Woman" and *Beatles VI*'s "Yes It Is" and "Bad Boy," which do not appear on regular-release British LPs. But to reassure yourself of the possibility of a perfect world despite such things, cue up "Every Little Thing." John sings the lyrics of everyday contentment without a trace of a boast; what you hear in his clear, ardent voice is an almost prayerful gratitude: "When I'm with her, I'm happy/Just to know that she loves me." Behind him—or, more precisely, with him—instruments enter and add their assent to his. Loose flecks of electric guitar, a piano's descending bass notes, the rumble of timpani—each one speaks its "yes" so surely yet unostentatiously that you can imagine no other configuration for them except the one you are hearing. "Every little thing," John and Paul repeat in twined harmony as the song fades, as if all along the song itself were the utopia they were describing.

Mark Moses

AN OVERVIEW

WHEN THE FOUR COMPACT DISCS COVERED in these pages first arrived at the offices of HIGH FIDELITY, there was certainly no shortage of reviewers eager to pass judgment on them. As editor of the magazine's BACKBEAT section, I decided to distribute the titles among four critics, not simply to include as many writers as possible but to elicit as many opinions as possible. As a Beatle fan since the age of seven, however, I wanted to have my say, too, I confess. And realizing that the four-for-four scheme might not provide an overall statement on the CDs as a set, I resolved to assign myself a piece on (brace yourself) What It All Means.

The dominant issue brought up by the release of the Beatles' first four Parlophone albums on CD is the question of mono vs. stereo. EMI chairman Bhaskar Menon, Beatle producer George Martin, and other principals have given varying explanations as to why these CDs have mono sound, but the basic facts appear to be as follows: *Please Please Me* and *With the Beatles* were recorded on two-track equipment, primarily with vocals on the right channel and instrumental backing on the left. Martin then compressed

Polk Audio

The Speaker Specialists®

Where to buy Polk Speakers

AUTHORIZED DEALER LIST

CANADA: Call Evolution Technology, Toronto for nearest dealer 1-800-263-6395
AL Auburn: Audio Warehouse • Birmingham: Audition • Gadsden: Sound Performance • Hattiesville: Campbell's, Sound Distributors • Mobile: Sound Advice • Montgomery: The Record Shop • Tuscaloosa: Kincad Stereo & TV
AK Anchorage: Shrek's • Fairbanks: Holt's
AZ Flagstaff: Sound Pro • Mesa: Hi Fi Stereo • Tucson: Audio Emporium • Yuma: Warehouse Stereo
AR Little Rock: Lesum Electronics
CA Arcata: Arcata Audio • Bakersfield: Sound Advice • Berkeley: Sounding Board • Campbell: Sound Goods • Canoga Park: Shelley's • Concord: C & M Stereo • Davis: World Electronics • Fairfield: C & M Stereo • Los Angeles: Beverly Stereo • Mill Valley: World of Sound • Mountain View: Sound Goods • Napa: Futurvision • Orange: Absolute Audio • Pingree: California Stereo • Redondo: Systems • Sacramento: World Electronics • San Diego: Sound Company • San Francisco: Stereo Store, World of Sound • San Gabriel: Audio Concepts • Santa Barbara: Creative Stereo • Santa Maria: Creative Stereo • Santa Monica: Shelley's Stereo • Stockton: Guskin's Camera • Thousand Oaks: Creative Stereo • Ukiah: Music • Walnut Creek: Creative Stereo • Victorville: Laser Tech • Walnut Creek: High Fidelity Stereo
CO Boulder: Soundtrack, Wavelength Stereo • Colorado Springs: Sunshine Audio • Denver & Suburbs: Soundtrack • Pueblo: Sunshine Audio
CT Avon: Hi Fi Stereo House • Danbury: Cassini • Fairfield: Creative Design • Greenwich: Al Frankin's • Groton: Robert's • Hartford: Al Frankin's • New Haven: Audio Etc. • Newington: Hi Fi Stereo House • New London: Hobbies • Norwalk: Audiolectrics • DE Wilmington: Bryn Mawr Stereo • DC: Myer • Emco
FL Daytona Beach: Stereotypes • Ft. Myers: Stereo • Ft. Pierce: Sound Shack • Ft. Walton Beach: Audio International • Jacksonville & Suburbs: Audio Tech • Key West: Audio International • Lakeland: Sound Company • Merritt Island: Southern Audio • Miami: Electronic Equipment Co., Sound Advice • Naples: Stereo Garage • Orlando & Suburbs: Audio Spectrum • Pensacola: Radio Hi-Fi • St. Petersburg: Cooper for Stereo, Sound Advice • Tallahassee: Stereo Stereo • Tampa: Audio Vision, Sound Advice • W. Palm Beach: Electronic Connection
GA Atlanta & Suburbs: Hi Fi Boys • Augusta: Stereo City • Macon: Georgia Music • Savannah: Audio Warehouse • Valdosta: Stereo Connection
IA Iowa City: Hawkeye Audio
IL Honolulu: Stereo Station
ID Boise: Stereo Shoppe • Coeur d'Alene: Electracraft • Pocatello: Stokes Brothers • Sandpoint: Electracraft • Twin Falls: Audio Warehouse
IN Aurora: Stereo Systems • Bloomington: Alan's Creative Stereo • Buffalo Grove: Columbia • Carbonate: Southern Stereo • Champaign: Good Vibes • Decatur: J.R. Loyd's • DisKalb: Audio Plus • Hoffman Estates: Simply Stereo • Highland Park: Columbia • Joliet: Stereo Systems • Lansing: Audio Clinic • Mt. Prospect: Simply Stereo • Naperville: Stereo Systems • Normal: Glenn Potts • Northbrook: Alan's • Orland Park: Simply Stereo • Peoria: Team Electronics • Rockford: Columbia • Schaumburg: Hi Fi Hut • Springfield: Sundown One • Sterling: Robert's • Ft. Vernon Hills: Alan's • Wau Park: Hi Fi Audio • Waukegan: Alan's
IN Bloomington: Hoosier Electronics • Evansville: Risley's • Ft. Wayne: Classic Stereo • Indianapolis: Osdon • Lafayette: Good Vibes • Marion: Classic Stereo • Muncie: Classic Stereo • South Bend: Classic Stereo • Terre Haute: Hoosier
IA Des Moines: Audio Labs • Dodge City: Sound World • Fairfield: Golden Ear • Mason City: Sound World • Sioux City: Audio Emporium
KS Junction City: Audio Junction • Overland Park: Audio Electronics • Wichita: Audio Visions • Topeka: Nelson's
KY Bowling Green: Audio Center • Lexington: Stereo Shoppe • Ovation Audio • Louisville: Audio Video Buy Design • Owensboro: Paducal • Risley's
LA Lafayette: Sound Electronics • Lake Charles: Classic Audio Systems • Opelousas: Sound Electronics • West Monroe: Audio West
MI Bangor: Sound Source • Camden: Harter Audio • MD Annapolis: Spaceways • Baltimore: Soundscape • Frederick: Evergreen • Rockville: Myer • Emco
MA Boston: Waltham Camera & Stereo • Fitchburg: Fitchburg Music • N. Dartmouth: Creative Sound Systems
MI Ann Arbor: Absolute Sound • Birmingham: Almas Hi-Fi • Dearborn: Almas Hi-Fi • East Lansing: Stereo Shoppe • Farmington Hills: Almas Hi-Fi • Grand Rapids: Classic Stereo • Iron Mountain: Sound Horn • Kalamazoo: Classic Stereo • Lansing: Stereo Shoppe • Royal Oak: Absolute Sound • Saginaw: Audio Shoppe, Court St. Listening Room • Traverse City: Stereo Shop
MO Duluth: Me's TV & Audio • Manhattan: Audio King • Minneapolis & Suburbs: Audio King • Minnesota: Audio King • Rochester: Audio King • St. Paul: Audio King
MS Columbus: Audio Advantage • Gulfport: Empress • Hattiesburg: McElroy TV • Jackson: Walters • Jefferson City: Stereo Bull • Joplin: The Stereo Bull • Pascagoula: Empress • Springfield: The Stereo Bull • Tupelo: Audio Advantage
MO Cape Girardeau: Stereo One • St. Louis: Sound Central
MT Bozeman: Thrifty Ear • Great Falls: Rocky Mountain Hi-Fi • Missoula: Aspen Sound
NC Asheville: Mt. Todd's Stereo Video • Bonner-Holton • Chapel Hill: Stereo Sound • Greensboro: Stereo Sound • Jacksonville: Southeastern Electronics • Kinston: Stereo Concepts • Moorehead City: Anderson Audio • New Bern: Anderson Audio • Pineville: Stereo Video • Raleigh: Audio Boys, Stereo Sound • Rocky Mount: Microwave Audio • Wilmington: Atlantic Audio • Winston-Salem: Stereo Sound • Yadon: Pacific Sound
NE Lincoln: Stereo West • Norfolk: Mid City Stereo • Omaha: Stereo West
NH Concord: Audio of New England • Exeter: Audio Tech • Southport: Stereo Concepts • New England • Salem: Cuomo's
NJ East Brunswick: Atlantic Stereo • Franklin Lakes: Franklin Lakes Stereo • Maple Shade: Stereo Concepts • New York: Perdue Radio • Raritan: AC Audio • Ridgewood: Sounding Board • Shrewsbury: Monmouth Stereo • Toms River: Rands Camera • Westfield: Perdue Radio • Wall: Time Audio • Alamogordo: D&K Electronics • Carlsbad: Besson's
NV Las Vegas: Upper Ear • Reno: The Audio Authority
NY Albany: Clark Music • Batavia: Unicorn Audio • Buffalo: Soaker Shop • Corning: Chemung • Elmira: Chemung • Fredonia: Stereo • Glens Falls: Stereo Concepts • Huntington: Audio Breakthroughs • Ithaca: Chemung • Jamestown: Studio One • Manhasset: Audio Breakthroughs • New York City: Audio Electronics • Electronic Workshop • Rochester: JB Sound • Scarsdale: Listening Room • Syracuse: Clark Music • Verbal: Art Electronics
OH Akron: Audio Concepts • Cleveland & Suburbs: Audio Craft • Cincinnati: Stereo Lab • Columbus: Stereo Lab • Dayton: Stereo Concepts • Findlay: Audio Craft • Lima: Clark Music • Toledo: Audio Craft
OK Lawton: Hi Fi Stereo • Oklahoma City: Audio Dimensions • Tulsa: Audio Advice
OR Beaverton: Stereo Superstores • Bend: Audio Concepts • Eugene: Stereo High Fidelity • Grants Pass: Shekel's • Medford: Shekel's • Portland: Stereo Superstores
PA Allentown: Bryn Mawr Stereo • Altoona: Sound Concepts • Blakely: Hart Electronics • Bryn Mawr: Bryn Mawr Stereo • Camp Hill: Bryn Mawr Stereo • Erie: Studio One • Johnstown: Gary's Entertainment • Kingston: Hart Electronics • Lancaster: G.T.T. Stereo • Montgomeryville: Bryn Mawr Stereo • Nantona Heights: Stereo Land • Philadelphia: Suburbs: Bryn Mawr Stereo • Pottsville: Audio Junction • Quakertown: Bryn Mawr Stereo • Reading: G.T.T. Stereo • PLEUNING: Stereo Shoppe • Robert M. Spies • PERTRIO RICO Rio Piedras: Precision Audio
RI N. Providence: Eastern Audio
SC Anderson: John Brookshire's • Charleston: Audio Warehouse • Greenville: Music Warehouse • Greenwood: Stereo Shop • Rock Hill: Lantz • Spartanburg: Stereo Shop
SD Rapid City: Team Electronics • Sioux Falls: Audio King
TN Chattanooga: College Hi-Fi • Cookeville: Lindsey Ward • Jackson: New Wave Electronics • Johnson City: Mt. Todd's Stereo Video • Kingsport: Mt. Todd's Stereo Video • Knoxville: Lindsey Ward • McMinnville: Lindsey Ward • Memphis: Ous II • Nashville: Hi Fi Boys
TX Abilene: Sound Effects • Arlington: Sound Idea • Austin: Audio Video • College Station: Audio Video • Corpus Christi: Bob Town • El Paso: Soundquels • Ft. Worth: Sound Idea • Dallas: Island Audio • Houston: Sheffield Audio • Laredo: Males International • Lubbock: Ultra Electronics • Midland: Harro's Electronics • Waco: Goodcents • Spinet Music • Odessa: Harro's Electronics • San Antonio: Bill Case Sound • Sherman: Worldwide Stereo • Temple: Audio Tech • Texas • Waco: World • Waco: Audio Tech
UT Logan store only: Stokes Brothers • Salt Lake City: Broadway Music
VA Bedford: Audio King • VA Bristol: Mt. Todd's Stereo Video • Charlottesville: Sound Machine • Falls Church: Myer • Emco • Leesburg: Evergreen Audio • VA Beach: Gary's Stereo World • Martinsville • Virginia Beach: Digital Sound • WA Bellingham: OC Stereo • Chehalis: Music Store • Oak Harbor: OC Stereo Center • WA Tacoma: Gary's Stereo World • Suburbs: Northwest Audio Video • Spokane: Electracraft (Hart's)
WV Barboursville, Beckley, Charleston, Huntington: Pied Piper • Piedmont: Sound Gallery
WI Appleton: Sound World • Eau Claire: EME Audio Systems • Green Bay: Sound World • Kenosha: Stereo Concepts • Happy Medium • Marinette: Sound Seller • Milwaukee: Audio Emporium • Wausau: Sound World
WY Cheyenne: Electronics Unlimited • Sheridan: Star Video Library

AUDIO/VIDEO SPECIALTY SHOPS

AUDIOPHILES/VIDEOPHILES! We have the widest selection of audio/video equipment available. Adcom, Infinity, Harmon Kardon, Kyocera, JVC Video, Canton, Klipsch, Luxman, Sony ES, Yamaha, NEC. Call for information. CONTINENTAL SOUND, 98-77 Queens Blvd., Rego Park, NY 11374. (718) 459-7507. Immediate delivery. MC/VISA/AMEX/DISCOVER

SOCIAL CLUBS

CLASSICAL MUSIC LOVERS' EXCHANGE. Nationwide Link Between Unattached Music Lovers. CMLE, Box 31, Pelham, NY 10803.

MOVIE & TV SCRIPTS

NOW AVAILABLE! OVER 5000 scripts to your favorite movies & TV shows. *Platoon*, *Mr. Ed* to *Moonlighting*. Send \$1.00 (refundable) for huge catalog... receive FREE offer!!! SCRIPT CITY, 1765 N. Highland # 760HF, Hollywood, CA 90028

NEW PRODUCTS

"IT'S ALIVE"

The Electronic Trophy Fish
—Astounding Reaction!



7" x 15"

Realistic looking small-mouth bass, expertly mounted on trophy plaque for office or home wall. Turn on concealed switch. When fish hears a voice or handclap, the internal microphone will activate it to squirm and flap as if freshly caught. Automatic timer stops fish wiggling in seven seconds. No wires; self-contained. Quality design, years of use. Full warranty.

Money Back Guarantee—Immediate Delivery
\$39.95 Plus \$3.75 (312)
 Shp. & Handl. 679-1566
 Optional: Duracell Batteries—Add \$3.00
S.A.M. Electronics
 Dept. 5112 Weber Skokie, IL 60077



eatlesBeatlesBea eatlesBeatlesBeatle

the tracks together to, in his words, "get a hard impact sound for mono." *A Hard Day's Night* and *Beatles for Sale* were apparently recorded on four-track equipment but similarly compressed to create a powerful mono. Comments Martin, "The first Beatle records were mono records; they were never intended to be stereo." Nonetheless, mono and stereo versions appeared simultaneously on the British Parlophone label and the American Capitol label. To this day, Martin has no idea who "made" those stereo LPs: "Certainly, I didn't mix them in stereo," he told *The New York Times*, "nor did the Beatles."

But when EMI contacted Martin in December 1986 for his input on transferring the four LPs to CD, he discovered the company was planning to use the stereo mixes. Martin disliked the stereo CD test pressings—his language ranges from "I didn't think they were very good" to "I thought they were awful"—and advised that the first two titles be mono and the second two, if they had to be stereo, be "re-equalized" for CD to approximate modern stereo. Apparently, there was no time for such re-equalization, so EMI released all four titles with mono sound.

It seems to me that any new stereo mixes would have to be radically different from the old ones, for Martin has told *Billboard* that the old unintended stereo has been "the bane of my life for the past two decades." And since Martin has also said he is "delighted" with the mono CDs, the following question comes to mind: With mono and stereo Parlophone LPs, mono and stereo Capitol LPs, and now mono worldwide CDs already out there, do we really need yet another way to hear the Beatles? I say no, as do Richard C. Walls, Jim Bessman, and Mark Moses in their separate reviews. But Jeff Nesin, no shabby critic he, says yes, as does Beatle expert Allan Kozinn, who believes the old stereo mixes of *A Hard Day's Night* and *Beatles for Sale* are "bright, spacious, and really quite lovely." We critics never all agree—and that's good. The more opinions, the better. After all, it was Allan himself who compiled a January 1983 HIGH FIDELITY article entitled "HF's Music Critics Take On the Compact Disc," wherein a pack of reviewers launched the magazine's coverage of the digital medium by debating the merits of such titles as *52nd Street* and *Bridge Over Troubled Water*.

Don't get me wrong: The reason I'd balk at stereo CDs of the first four Beatle recordings is not because I want to keep the Beatle market from becoming any more cluttered than it already is, but because I think the mono CDs sound wonderful on their own and considerably better than their stereo LP counterparts. The Beatles did not experiment with stereo effects and heavily exotic instrumentation until later in their career; what's most important on these four CDs is

the song, not the studio. Martin's mono mixes help us focus on the Beatles' burgeoning creativity in writing sensational melodies and harmonies, like those of "Please Please Me," "If I Fell," and the bridges of "Baby's in Black" and "I Don't Want to Spoil the Party." (And remember: The 55 tracks represented here were originally released in the space of 20 months.) Listening to the British Parlophone stereo LPs, however, I more often than not jotted down in my notes the very same word that Jim Bessman calls upon to describe their mixes: "silly." The stereo split is especially bothersome on the *Beatles for Sale* LP, where the vocals and instruments of songs like "No Reply" and "Mr. Moonlight" seem to emanate from different rooms, leaving a gaping hole in the middle. Furthermore, the right channel—the vocal channel—is frequently louder than the left and effectively drowns out the instruments. Prepare yourself for even more trouble if you slap on your American LPs. Capitol did indeed alter production values: Some of its LPs even say the recordings were produced in England by Martin "and in the U.S.A. with the assistance of Dave Dexter, Jr.," so let's blame Dave. In some cases, the results are downright excruciating. "What You're Doing" is unbelievably steely and harsh on *Beatles VI*, with jacked-up opening drums that sound like the advent of Godzilla, and "You Can't Do That" is an out-and-out mess on *The Beatles' Second Album*.

It's a safe bet that some listeners are outraged over the mono CDs because they remember growing up with the Beatles in stereo and resent having something different forced upon them. Well, I'd suggest that these listeners go back and check their old Capitol LPs; when I did so, I was surprised to discover that all of my titles up to *Rubber Soul* are in fact mono. Take yourself back: It's true that record stores of the Sixties did have separate displays for mono and stereo versions of the same LP, but I'll wager that most kids bought their Beatle LPs, as I did, in drug stores or the tiny record sections of sprawling department stores, where if any stereo versions were to be found at all, they were likely mixed in with the mono versions. ("Was he down in the boondocks?" you ask. No: I grew up in Skokie, a large suburb of Chicago.) Besides, what did we kids know of mono vs. stereo? We grabbed the first LP we saw. All of which means that if you do indeed have mono Capitals and you factor out the company's tinkering with sound, then what you grew up with is what's now on CD.

Except that the CDs still sound better. Crystalline details are numerous: the handclaps on "I Saw Her Standing There," George's vocal rasp on "Chains," the descending guitar lick on "It Won't Be Long," the guitar break on "You Can't Do That," the tambourine on "I'm a Loser" (stop me!).

M O N E Y M A K I N G	
HIGH FIDELITY	
Attn: M. Manasari, 7th Floor	
825 7th Avenue	
N.Y., N.Y. 10019	
212-887-8458	
1-800-ABC-MAGS	
Name _____	B U S I N E S S
Add. _____	H E R E
City _____ St. _____	S
Zip _____ Tel. _____	S
Payment: _____ Check	H
M.O. _____ Visa _____	E R E
Mastercharge _____	S
Card # _____	H
_____ exp. _____	E R E
run ad copy for the	S
issue: _____	E

lar flaws in the two films.

With its Technicolor production values, *Help!* seems a natural candidate for home video. Indeed, the film looks magnificent, especially in its brilliant greens and reds. Yet *Help!* has aged much less gracefully than the middle-aged, ever cherubic Paul. Its flaws simply become more apparent on the small screen: the inane nonplot, the interchangeable use of the Fab Four, the lame attempts at spoofing James Bond movies. And as with any big-budget film, *Help!* appears physically diminished on TV: In particular, John's forehead looks suspiciously cropped during "You've Got to Hide Your Love Away." One can enjoy *Help!* as a period piece, a brassy, lively remembrance of mid-Sixties Mod London. But we expected more of the movie in 1965, and now it has let us down again.

How ironic, then, that the low-rent and harried *A Hard Day's Night*—shot quickly in order to get the most mileage from what the industry perceived as the group's fleeting

fame—fares better on home video. The movie may not live up to its time-inflated legend (esteemed film critic Andrew Sarris called it "the *Citizen Kane* of jukebox musicals"), yet it has retained all its charm. The viewer is immediately struck by the quartet's youth (compare this Ringo with the grizzled show-biz veteran hawking Sun Country wine coolers on TV), the group's charmingly amateurish acting, and the quirky, deadpan British humor that predates the similar sensibility of Scottish filmmaker Bill Forsyth's *Local Hero* and *Gregory's Girl*. Even the film's more elaborate "production numbers"—for example, the boys breaking loose from their backstage hell and running down a fire escape to the accompaniment of "Can't Buy Me Love"—haven't lost their power on the small screen.

Ultimately, though, one fact makes it harder to choose between *A Hard Day's Night* and *Help!* on video: Despite its deficiencies, the latter has better tunes. While the earlier

film includes "I Should Have Known Better," "All My Loving," "If I Fell," "And I Love Her," and the title track, the songs in *Help!* come from the Beatles' more hard-edged, pre-*Rubber Soul* era: "You're Gonna Lose That Girl" (presented in an unusually smoky "studio" ambience that looks better than many of today's music videos), "You've Got to Hide Your Love Away," "Ticket to Ride," "I Need You," "The Night Before," and "Another Girl."

Still, there is more to these films than mere rock 'n' roll. For those who want to preserve their memories, paying a grand total of \$110 may seem a worthwhile investment; others not so financially blessed may be content to let the \$30 price difference between the tapes dictate their preference, as *A Hard Day's Night* lists for \$39.95, *Help!* for \$69.95. That's not so bad, though, for when it comes to the Beatles' first two films on home video, less is indeed more.

David Browne

READER - ACTION PAGE

Many advertisers will send you additional product literature free of charge. Write them care of Dept. 6/87, unless otherwise noted, at the addresses below. If no address appears, literature is available only through dealers. Bold-face numbers by company names are page numbers for ads in this issue.

Acoustic Research (55)

330 Turnpike St.
Canton, MA 02021
617/821-2300
ATTN: Dept. HF 6/87

Advent (15)

4138 North United Parkway
Schiller Park, IL 60176
800/323-1566
ATTN: Dept. HF 6/87

Altec Lansing (32,33)

Altec Lansing Consumer Products
Milford, PA 18337
717/296-4434
ATTN: Dept. HF 6/87

Blaupunkt (6,7)

2800 S. 25th
Broadview, IL 60153
312/865-5200
ATTN: Dept. HF 6/87

General Electric (Cover III)

600 N. Sherman Drive
Indianapolis, IN 46206
317/267-5000
ATTN: Dept. HF 6/87

J&R Music World (68,69)

23 Park Row
New York, NY 10038
Customer Service Dept.
ATTN: Dept. HF 6/87

KEF Electronics (45)

14120-K Sullyfield Circle
Chantilly, VA 22021
703/631-8810
ATTN: Dept. HF 6/87

Koss Corporation (50)

4129 N. Port Washington Ave.
Milwaukee, WI 53212
414/964-5000
ATTN: Dept. HF 6/87

Luxman (17)

19145 Gramercy Place
Torrance, CA 90501
213/326-8000
ATTN: Dept. HF 6/87

Magnovox (25)

1-40 & Straw Plains Pike
Knoxville, TN 37914-1810
615/521-4316
ATTN: Dept. HF 6/87

Mitsubishi (47)

879 Supreme Drive
Bensenville, IL 60106
312/860-4200
ATTN: DEPT HF 6/87

Pioneer Electronics (Cover II, I)

5000 Airport Plaza Dr.
Long Beach, CA 90815
213/420-5700
ATTN: Dept. HF 6/87

Polk Audio (8,9,75)

5601 Metro Drive
Bact, MD 21215
301/358-3600
ATTN: Dept. HF 6/87

Sony (2)

Sony Drive
Park Ridge, NJ 07656
ATTN: Dept. HF 6/87

TDK (10)

12 Harbor Park Drive
Port Washington, NY 10050
516/625-0100
ATTN: Dept. HF 6/87

Toshiba (5)

82 Totowa Road
Wayne, NJ 07470
201/628-8000
ATTN: Dept. HF 6/87

Vandersteen (79)

116 W. Fourth Street
Hanford, CA 93230
209/582-0324
ATTN: Dept. HF 6/87

Wisconsin Discount (73)

2417 W. Badger Road
Madison, WI 53713
800/356-9514
ATTN: Dept. HF 6/87

Yamaha (48)

660 Orangethorpe Avenue
Buena Park, CA 90620
714/522-9105
ATTN: Dept. HF 6/87

Advertising Offices

New York: ABC Consumer Magazines, Inc., 825 7th Ave., 8th Floor, New York, NY 10019. Tel: (212) 265-8360. Peter T. Johnsmeyer, Group Advertising Director; Andrew Eisenberg, Associate Advertising Director; James R. McCallum, Record Advertising Manager; Maria Manastero, Classified Advertising Manager; Angela Puleo, Director of Production; Janet Cermak, Advertising Production Manager. **Midwest:** High Fidelity, 580 Waters Edge, Lombard, Ill. 60148 (312) 691-1165. Starr Lane, Midwest Advertising Manager. **Los Angeles:** ABC Consumer Magazines, Inc., 1888 Century Park East, Suite 920, Century City, Calif. 90067. Tel: (213) 557-7587. Howard Berman, Western Advertising Director. **Tokyo:** Japan Advertising Communications, Inc., New Ginza Building, 7-3-13 Ginza Chuo-ku, Tokyo 104, Japan. Tel: (03) 571-8748. Shingeru Kobayashi, President.



SOMETIMES THE MAN WHO HAS EVERYTHING HAS A FEW THINGS TOO MANY.

There's one problem with having all those components in your system. All those remotes in your way. And trying to find the right one when you need it can really test your self-control.

That's why General Electric® created the Control Central® remote. One infrared remote that does the work of three. Even if they're not GE's.

See, we're not afraid to turn off a few competitors. Or turn them on. So Control Central can power a Pioneer® audio system, fast forward a

Fisher® VCR, even supervise a Sony® Trinitron® TV. Simply place it head to head with almost any infrared remote press the matching buttons, and it learns the operating codes in minutes, putting your entire system in the palm of your hand.

And if your system changes, Control Central will change right with it, reprogramming for any new addition.

For those with more components, we present the Control

Central with more functions—model RRC600.

It's time to show your components who's in control. With the GE Control Central remote.

See your nearest GE dealer for more information.

We bring good things to life.



Pioneer, Fisher, Sony and Trinitron are registered trademarks of Pioneer Electronics Corp., Fisher Corp., and Sony Corporation of America, respectively.

® A REGISTERED TRADEMARK OF GENERAL ELECTRIC COMPANY

CONTROLS EVERYTHING.



THE UNIFIER

Today's modern home entertainment systems consist of an audio receiver, CD player, cassette tape deck, turntable, MTS television with cable TV access, and VCR or Laserdisc player, all of which operate with their own remote controls. Unfortunately, this creates a serious problem. What do you do with all the different remotes?

Introducing "The Unifier", Onkyo's RC-AV1 Universal Programmable Remote that puts an end to all of this clutter and confusion forever!

The RC-AV1's comprehensive and complete learning

capabilities allow it to replace every infrared remote on the market. Regardless of maker. Regardless of brand.

The heart of "The Unifier" is an on board microcomputer that reads and copies all the functions of other remotes, eliminating inter-brand incompatibility forever. Over 100 functions can be stored into audio, video, and auxiliary modes, and it's as easy to program as pressing the matching function buttons.

The real marriage of audio and video equipment has arrived with "The Unifier", the Onkyo RC-AV1 Universal Remote. See your Onkyo dealer or write for full details.

Artistry in Sound

ONKYO

200 William's Drive, Ramsey, N.J. 07446 • 201-825-7950