Stereo Review JUNE 1983 • \$1.50

SPECIAL CAR STEREO ISSUE

- How to Get Real Hi-Fi in Your Car
- Julian Hirsch on the Delco-GM/Bose Car Stereo System Jensen RE530 Car Stereo Tests

Lab Tests: rerecorded Cassettes vs. Discs

Equipment Test Reports

- Snell Type J Speaker System
 Toshiba SA-R3 AM/FM Receiver
- Electro-Voice Type 35i Speaker System
- Sony TA-F555ES Integrated Amplifier
- Onkyo TA-2035 Cassette Decl

Disc Specials

Angela Bofill

Phil Collins Moe Bandy • Herbie Hancock Randy Newman

Bob Seger Stravinsky's Pulcinella Strauss's Last Songs Janet Baker's Farewells

> KA 40205 TEXINGION KA 4020 3222 CKOMN CKERL KO НЕ РАУІО ВИСНАИАН 01#90

421500 BCH 2222C031 6411 18486

Extra Special: First Listening Test of the 1984 Corvette!!

Anyway you look at the NEC PJ-4000EN, it's the best looking rear-screen Video Projector around. Its slim 22"depth means that it will look better in your home. Its new dual-pattern screen gathers and disperses light more evenly so more members of the audience can get a

better look at the PJ-4000EN's brilliant picture, wherever they're sitting or standing. (Its 120 degree horizontal viewing angle is the industry's widest; its 36 degree vertical viewing angle, the tallest.)

A full complement of High Video Fidelity features including 134-channel frequency synthesized tuning; two sets of video and



dual-channel audio

inputs/outputs, simulated stereo genuine video component from mono, etc., lets you take full advantage of the PJ-4000EN's outstanding performance.

The PJ-4000EN truly lives up to the "Best in Class" reputation established by the other models in the NEC

REMOTE A wireless full-function remote puts you in control.

line-up. The NEC PJ-6000EN (60" diagonal) one-piece

front screen Projection TV offers greater resolution at a larger picture size than even its most esteemed competitor. The PJ-1000EN (100" diagonal) is the genuine giant screen two-piece Video Projector, not a smaller screen home unit with adapter lenses.

Whether it's picture quality, styling or features—no matter how you look at it, NEC is the one to watch. THE PJ-6000EN AND PJ-1000EN VIDEO PROJECTORS.

A glance at this rear panel indicates that the PJ-4000EN has the flexibility of a

THE REAR







THE FRONT

NEC

NEC's dual-pattern screen design gathers more light and spreads it more evenly over wider viewing angles.

THE SIDE Measuring a mere 22" deep, the PJ-4000EN takes up little more room than a conventional console TV

THE BESTLOOKING PROJECTION TV. FROMALLANGLES.

Radio Shack's Mach One[®] Speaker Sale

in Quan

3-WAY SYSTEM WITH POWERFUL 15" WOOFER NOW \$100 OFF!

Our Mach One Liquid-Cooled Speaker System is a bass lover's dream. You can actually <u>feel</u> the punch of its powerful 15" woofer and massive 2-pound magnet.

We match our rock-solid bass with exceptional clarity in the mid and high frequencies—made possible by sectoral mid-range and heavy-duty tweeter horns. A ferrofluid cooling system helps control voice coil travel for a lifelike response and increases the system's power handling capacity to 160 watts.

And with its genuine oiled walnut veneer finish, you've got a 3-way speaker system that looks and sounds like a million.



Radio Shack

Take it from Mike Love of the Beach Boys and Dean Torrence of Jan and Dean. Dean says...

"I'm putting a pair in my studio. Mike wants a pair for his Bentley."

On sale at 42% off now through June 26. So don't delay, run down to your nearest Radio Shack, and experience the excitement of bass you can actually <u>feel</u>.



Catch Mike and Dean's New Recording, "Rock'n'Roll City", Only \$4.99 on Dolbyized* Cassettes—Exclusively at Radio Shack * TM Dolby Laboratories Licensing Corp.

Stereo Review JUNE 1983 • VOLUME 48 • NUMBER 6

Equipment____

| NEW PRODUCTS Roundup of the latest audio equipment and accessories | |
|--|----|
| AUDIO QUESTIONS AND ANSWERS Digital Disc Broadcast, Ground Terminals, Direct-Drive Damage?, Tone Deaf? LARRY KLEIN | 24 |
| TAPE TALK Pitch Variations, One for the Road, Headphone Overload, Tape-Head Cleaners, dbx Dynamics CRAIG STARK | |
| TECHNICAL TALK The Delco-GM/Bose Music System | |
| EQUIPMENT TEST REPORTS Hirsch-Houck Laboratories test results on the Snell Type J speaker system, Toshiba SA-R3 AM/FM receiver, Electro-Voice Type 35i speaker system, Sony TA-F555ES integrated amplifier, and Onkyo TA-2035 cassette deckJULIAN D. HIRSCH AND CRAIG STARK | |
| CAR STEREO: ROAD AND LAB TESTS Jensen RE530 Christopher Greenleaf and Julian D. Hirsch | |
| AUTOMOTIVE AUDIO The Road to Hi-Fi Car Stereo | |
| TAPE VS. DISC: WHICH SOUNDS BETTER? Lab tests compare the performance of prerecorded cassettes and LP discs | |
| | |

Mu/ic

| THE BASIC REPERTOIRE Recommended recordings of the orchestral essentials | |
|--|---|
| BEST RECORDINGS OF THE MONTH | |
| Angela Bofill: "Too Tough" | Phil Collins: "Hello, I Must Be Going!" |
| POPULAR MUSIC | 76 |
| Moe Bandy: "I Still Love You 78 Jimmy Johnson: "North/South" 82 Randy Newman: "Trouble in Paradise" 88 | Bob Seger and the Silver Bullet Band |
| CLASSICAL MUSIC | 100 |
| Stravinsky: Pulcinella | Dame Janet Baker's Operatic Farewells |

Regular/_

| BULLETIN | CHRISTIE BARTER AND GORDON SELL |
|-----------------------|---------------------------------|
| | WILLIAM LIVINGSTONE 6 |
| LETTERS TO THE EDITOR | |
| ADVERTISERS' INDEX | |
| | |

COVER: Design by Borys Patchowsky; photo by Geoffrey Rosengarten. Shown is a custom car stereo installation in a Porsche 928 by Barry Smith of Ultrasmith; the radio/cassette player is an Alpine and the equalizer/ amplifier is from AudioMobile.

COPYRIGHT © 1983 BY ZIFF-DAVIS PUBI.ISHING COMPANY. All rights reserved. Stereo Review, June 1983, Volume 48, Number 6. Published monthly by Ziff-Davis Publishing Company. Editorial and Executive Offices at One Park Avenue, New York, New York 10016; Telephone; 212 725-3300. Richard P. Friese. President; Furman Hebb, Executive Vice President; Selwyn Taubman, Treasurer; Bertram A. Abrams, Secretary. Also publishers of Backpacker, Boating, Camera Arts, Car and Driver, Computers and Electronics, Cycle, Flying, Popular Photography, Skiing, Stereo Buyers Guide, Tape Recording & Buying Guide, and Yachting. One-year subscription rate for the United States and its possessions, \$9.98; Canada, \$10.98, All other countrles, one-year subscription rate \$14.98, cash orders only, payable in U.S. currency. Second-class postage paid at New York, New York 10016 and at additional mailing offices. Authorized as second-class mail by the Post Office Department, Ottawa, Canada, and for payment of postage in cash. POSTMASTER: Forms 3579 and address changes should be sent to Stereo Review, Circulation Department, P.O. Box 2771, Boulder, Colorado 80302. SUBSCRIPTION SERVICE: All subscription correspondence should be addressed to Stereo Review, Circulation Department, P.O. Box 2771, Boulder, Colorado 80302. Please allow at least eight weeks for change of address. Include old address as well as new —enclosing if possible an address label from a recent issue. PERMISSIONS: Material in this publication may not be reproduced in any form without permission. Requests for permission should be directed to Elizabeth Amado. Rights and Permissions, Ziff-Davis Publishing Company. One Park Avenue, New York, New York 10016.

Now Technics stops distortion before it starts. Introducing Computer-Drive Receivers.

93.

The conventional stereo receiver isn't capable of reducing amplifier distortion before it occurs. Before distortion has become part of your music.

The Technics New Class A^{**} receivers take a more logical approach: With Computer-Drive. This means Technics receivers have a built-in computer in the amplifier section. To give them the intelligence and sophistication to analyze and adjust the internal operating conditions that can cause distortion. Before they cause distortion. So whatever you listen to takes on a clarity that is nothing short of breathtaking.

Technics computer technology is applied to other critical receiver functions, too. Tuning is accomplished with a microprocessor-controlled, quartz synthesis system. The most accurate tuning system in the world. For the kind of locked-in reception only quartz synthesis can deliver.

There's also Random Access Preset Tuning with automemory. It stores up to 16 of your favorite FM or AM stations. And any of these stations can be retrieved and tuned in any sequence at the touch of a button.

And even beyond all of these features and technological achievements, Technics offers more: the future. Because each Technics Computer-Drive receiver is ready for digital. They will be able to reproduce the flawless sound of digital sources soon to come.

Technics Computer-Drive New Class A Receivers. For today, for tomorrow. Hear them for yourself.



CIRCLE NO. 1 ON READER SERVICE CARD



Edited by Christie Barter and Gordon Sell

• TECH NOTES: Matsushita, the parent company of Technics and Panasonic, has developed recordable/erasable optical discs for data storage. The technology could be used in audio/video disc machines, but such applications are still five to eight years away....dbx is getting into the speaker business with a wide-dynamic-range speaker Agreement has been reached on a 1/2-inch video tape standard that would facilitate smaller VCR's for portable video and digital audio use....Warner Communications will begin distribution this month of Compact Discs on the Warner, Atlantic, Elektra/Asylum, and Nonesuch labels. Pressing will be done by PolyGram and CBS/Sony.

• THE RETURN OF THE ANIMALS! A fiveman British rock band whose popularity peaked in the Sixties, the Animals are planning a comeback. After they broke up, Eric Burdon performed and recorded briefly with the group called War, and keyboardist Alan Price got critical acclaim for his music for the movie <u>O Lucky Man</u>, but the members of the Animals have not worked together for seventeen years. Their comeback tour will begin in the United States in July. A live album has been announced, but no label has been specified.

• CD WATCHERS are advised that the first multiple-disc set in this format will probably be a recording of the Mahler Ninth Symphony by Sir Georg Solti and the Chicago Symphony on London Records. The work will occupy two Compact Discs, packaged in a hinged container approximately double the thickness of the "standard" CD boxes.

• MORE COMPACT DISC RECORDINGS will be forthcoming from EMI and associated labels beginning in mid-1983. The company plans to build a catalog of two hundred pop and classical releases from the repertoires of EMI, Angel, and Capitol within the first twelve months. All of EMI's international classical releases have been digitally recorded for the last two years, and a number of these were released in the CD format in Japan last October. • RAGTIME will be formally recognized by the U.S. Postal Service this month with a 20¢ Scott Joplin stamp. Ceremonies observing the first day of issue in Sedalia, Missouri, on June 9, coincide with the beginning of a minifestival honoring the "father of ragtime" in the town he made famous as the birthplace of this American music. For more information, write the Scott Joplin Festival, Box 1625, Sedalia, Mo. 65301, or call (816)826-2271.

• RCA RECORDS is producing for radio a syndicated program, called <u>Red Seal</u> <u>Showcase</u>, devoted primarily to the company's new classical releases. The hour-long show, with music commentator Martin Bookspan, is currently being broadcast on the second Wednesday of every month over WNCN in New York, WCRB in Boston, KFAC in Los Angeles, and KKHI in San Francisco.

• ON CAMPUS: Quincy Jones is being awarded an honorary Doctor of Music degree by Berklee College of Music in Boston. Principal speaker at the school's commencement ceremonies is Arif Mardin, an Atlantic Records vice president and producer. Both Jones and Mardin are Berklee alumni....The Peabody Conservatory of Music in Baltimore will begin offering a five-year course this fall leading to a degree in recording arts and sciences.

• CBS has launched two new classical cassette lines--one drawn from its Odyssey catalog and the other, called "Classical 90's," offering up to 90 minutes of music by a single composer or mainstream CBS artist. The Odyssey tapes are priced to sell for about \$3, the 90-minute tapes for about \$8 each. ... RCA has added some new titles to its popular Victrola line of classical cassettes selling for \$3.98 each and has also introduced its own series of long-playing tapes, Victrola Double Play Cassettes, with a suggested list price of \$6.98 each. Highlighting the tape series are the nine symphonies of Beethoven on five cassettes and the four of Brahms on two played by the Boston Symphony under Erich Leinsdorf.

Speaking My Piece

By William Livingstone



Editor Livingstone behind the wheel of a Magnum 540K. Car stereo by Blaupunkt.

CHOICE

My collection of several thousand records provides me with the luxury of a great deal of choice. I don't really need four complete sets of Beethoven symphonies or eight different recordings of *Aïda*, but I like knowing that when I want to play one, there are several on the shelf to choose from.

It pleases me to know that if I wake up in the middle of the night with an urge to hear guitar music, I have the option of playing records by Julian Bream, Alexandre Lagoya, Christopher Parkening, Angel Romero, John Williams, or Narciso Yepes, among others. Of course, I never wake up with the urge to hear music of any kind, but maybe one reason I sleep so well is that I derive comfort from knowing that all those records on my shelves keep many options open for me.

There's a lot of talk about open options these days. Much of it has to do with changing careers or working and going to school at the same time, but many of us are so constructed psychologically that we crave the sense of being in control of our lives and our environments. We like the process of exercising options, of making choices. We want to determine—among many other things—what kind of music we listen to and when.

I think most record collectors have this fondness for control. We may enjoy tuning in a particular radio station and listening for a while, but most of us become impatient lying back passively and taking what somebody else dishes out. We prefer to be in the driver's seat or, in this case, in the programmer's booth, and we collect records and tapes to be sure we can hear the music we want when we want it.

When the Sony Walkman and similar personal portable tape players supplanted the portable boom box, it was a welcome relief to me not to have to listen to so much music of someone else's choosing. With headphones other people can have music to blot out traffic noises, and I still retain the option to have no music if I wish.

Choosing not to settle for what someone else thinks is good enough may even be behind the audiophile's quest for ever better sound. The urge to make choices is certainly gratified by equipment with more and more variable controls. Video discs and prerecorded video cassettes are attractive to a large segment of the population not just because they enable us to reject network television, but because they increase the number of our options and widen the range of programming that we can determine for ourselves.

As long as it doesn't get out of hand, I think this urge to be the master of one's fate and the captain of one's sonic environment is healthy. One benefit from it has probably been the creation of a new market for car stereo of high quality. People who want the option of music in their automobiles no longer have to settle for sound that is little better than what comes out of a TV set.

Those of us who live in New York are exposed to the world's worst car audio in this city's cabs. I usually ask cab drivers to turn off the radio. Occasionally, a driver will ask, "What's the matter? Don't you like music?" I answer, "No, I love it."

I didn't know how good the sound in a car could be until I heard the Delco-GM/Bose Music System in a Cadillac. Listening to that, to some custom systems of the kind described in the article starting on page 54, and even to some more modest equipment carefully installed has convinced me that it would be foolish to buy a car and not choose to have an up-to-date sound system in it. I say that not because I like music, but because I love it.

Stereo Review

PUBLISHER

EDITOR IN CHIEF WILLIAM LIVINGSTONE MANAGING EDITOR LOUISE GOOCH BOUNDAS ART DIRECTOR BORYS PATCHOWSKY

TECHNICAL DIRECTOR LARRY KLEIN TECHNICAL EDITORS

DAVID RANADA, GORDON SELL

MUSIC EDITOR CHRISTIE BARTER POPULAR MUSIC EDITOR PAULETTE WEISS

ASSISTANT MANAGING EDITOR DAVID STEIN EDITORIAL ASSISTANTS

BARBARA AIKEN, AUDREY CANNING, SUSAN STOLL

LONDON EDITOR HENRY PLEASANTS

CONTRIBUTING EDITORS

CHRIS ALBERTSON IRV COHN RICHARD FREED PHYL GARLAND CHRIS GREENLEAF DAVID HALL JULIAN D. HIRSCH GEORGE JELLINEK IGOR KIPNIS IRVING KOLODIN PAUL KRESH DRS STODDARD LINCOLN ALANNA NASH MARK PEEL LINCOLN PERRY PETER REILLY EBET ROBERTS CHARLES RODRIGUES ERIC SALZMAN STEVE SIMELS CRAIG STARK JOEL VANCE

ADVERTISING DIRECTOR BRIAN E. McCABE ASSISTANT TO THE PUBLISHER JEAN ANDERSON

Editorial and Executive Offices: 212 725-3500 Zlff-Davls Publishing Company One Park Avenue, New York, New York 10016 National Advertlsing Manager: Richard J., Halpern Eastern Advertlsing Manager: Charles L. P. Watson

Midwestern Office, The Pattis Group: 312 679-1100 4761 West Touhy Ave., Lincolnwood, Illinois 60646 Arnold S. Hoffman, David W. Palcek

Western Office: 213 387-2100 3460 Wilshire Boulevard Los Angeles, Callfornia 90010 Western Advertising Manager. Marge Doherty-Wilhite

Japan: Iwai Trading Co., Ltd. J. S. Yaqi

603 Ginza Sky Heights Building 18-13, Ginza 7-Chome Chuo-Ku, Tokyo, Japan 104 Telephone: (03) 586-0165, 545-3908

Circulation Office P.O. Box 2771, Boulder, Colorado 80302

EDITORIAL CONTRIBUTIONS must be accompanied by return postage and will be handled with reasonable care, however, publisher assumes no responsibility for the return or safety of art work, photography, or manuscripts.

Member Audit Bureau of Circulations



CONSUMER COMPUTERS & ELECTRONICS MAGAZINE DIVISION President: Larry Sporn Vice President, Publishing Director: J. Scott Briggs Vice President, General Manager: Eileen G. Markowitz Creative Director: Peter J. Blank

ZIFF DAVIS PUBLISHING COMPANY

President: Richard P. Friese President, Consumer Magazine Division: Albert S. Traina Executive Vice President: Furman Hebb Executive Vice President, Marketing and Circulation: Paul Chook Senlor Vice Presidents: Philip T. Heffernan, Sidney Holtz, Edward D. Muhifeld, Philip Sine Vice Presidents: Baird Davis, George Morrissey Treasurer: Selwyn Taubman Secretary: Bertram A. Abrams

HIGH FASHION COMES TO HIGH TECHNOLOGY. The Alpine 7347 System. A vision of uncompromising, rare beauty. Her sleek design draws your touch. Her sound enchants you. The 7347 System is Alpine's reference standard. combining graceful lines with technological innovations such as integrated dbx nose elimination circuitry and me FIO Tuner that distinctly delive her classic Alpine breecing. The 7347. She'll turn your appreciation of music into a passion. O FALLER O BALINECE • TUNE POIN SEEK FE RET DO COLON & CHA ALPINE 1341 FM AM TUNKA CASSETTE OKOK PROCRAMMANE MUSIC SENSOR KET OFT ESCT -13 O TREBLE · VOLUMME PUSH TUNER O BASS dbx METAL DX For your nearest Nipine Dealer, call P.M.S. ton nee: 1-000 n 2 13 3 2 4 160 In Calicomia call: 1-800 262 4 160 coll free: 1-800-421 13c5 - DOLEY NO HW II Car audio systems - 63 THE PLEASURE WORTH SEEKING. Higher I telly by Alpine Alphne Luxman steet onics of America 10149 Coameres Place Torray chatments that 90501 den and as feeling ered and enaction of ADX. Inc. In There is a terget ered mademark in Alphice Destromes of America, Inc. or Alphice Destromes of America, Inc.

Letter/

Bow Wow Wow

• I object to Mark Peel's completely unfair trashing of Bow Wow Wow's album "I Want Candy" in the April issue. The band's modus operandi of letting a melodic instrument hold the rhythm while the drummer counters it around the beat may not be new, but their reggae injection and powerful drumming within this pattern are. "Doggerel" it is not.

Mr. Peel seemed too concerned with Annabella Lwin's age and dress, conspicuously ignoring mention of her tight, exciting



Annabella Lwin (center) and colleagues

voice, a perfect vehicle for the album's songs. If it's Malcolm McLaren's management he's concerned about, he should have realized that the band fired McLaren well before the review was published. Mr. Peel sounded downright disgusted with the sex present in the songs. Isn't it funny how "sick" turned to "arousing" nine pages later in his review of Prince's latest X-rated offering?

Mr. Peel completely ignored something that other reviewers and listeners have not—Bow Wow Wow's records are wellcrafted pop. No one is being "exploited" by them. The music is fun, catchy, and great for dancing. Dress, manager, and drinking age drop away when the music works. Maybe Mr. Peel should have done this one blindfolded.

HUGH J. KENNEDY Port Hawkesbury, Nova Scotia

Digital Discs

• I read with interest David Ranada's April article on the digital Compact Disc, but I have been somewhat surprised to find relatively few people predicting the failure of this new medium. I will be very surprised if it succeeds. If I am wrong, you can reprint my letter ten years from now and chuckle over it.

Mr. Ranada makes several comparisons between the digital disc and stereo sound, introduced in the late Fifties and early Sixties, but he makes no reference to fourchannel sound, which failed in the Seventies. There is a lesson in the failure of fourchannel sound: audiophiles do not determine the success of a reproduction medium. The question is not whether audiophiles will buy digital discs, but whether average citizens will, by the millions, so that the manufacturers will keep turning out the hardware and software in the variety we want.

The average citizen did not want fourchannel sound; the software did not develop and the whole concept collapsed. I suggest that the reason was that the average citizen did not find the difference between twochannel stereo and quad great enough to warrant an expenditure nearly twice as great. He did, however hear a significant difference between mono and stereo, even when he bought a bottom-of-the-line stereo set at Western Auto. At a time when the recording industry was strong, quad could not make it. Now, when the industry is in poor shape, when millions of listeners are quite willing to settle for sound on prerecorded cassettes that is not as good as even ordinary vinyl discs, why should we assume that the average citizen will suddenly decide he needs to hear Kenny Rogers in digital sound? I don't think he will. He will spend his money on computer games instead-or musical videodiscs, a different matter entirely.

DON RICHARD COX Knoxville, Tenn.

Technical Editor David Ranada replies: Four-channel sound, though few are now willing to admit it, is still a very good idea. In fact, the Compact Disc standard leaves room for four discrete audio channels on a digital disc. At the time of its introduction, however, quad was hampered by misunderstandings by public and dealers alike about what it could do, by various competing and incompatible encoding "standards," and by inadequate sonic performance except under optimal conditions. No wonder consumers rejected the technology.

With Compact Disc digital playback, we have a different story. The CD system, at least at present, should be thought of merely as another program source (as the cassette was just a decade ago), albeit one with superior sonic capabilities. The Compact Disc is, it seems, a de facto standard. And it works! Perhaps the sonically ideal program material is not yet available, but the players seem to work as claimed, and the discs do seem quite able to withstand normal handling. The parameters of the system have been chosen for reliability even with substantial levels of disc damage. Naturally the "average citizen" won't be able to afford it—yet. Prices will come down, however, though maybe not as fast as those for digital watches and calculators. I hope that in a decade the average citizen will be able to afford the system, and CD-system manufacturers are willing to hold on at least until then.

• As one of the lucky few to purchase a Compact Disc player from Sony's first shipment to audio retailers in this country, I would like to offer a few observations.

First, let me thank STEREO REVIEW for doing a fine job of covering the digital-disc story as it has developed over the past six years or so. As I waited in the noisy realm of analog sound, it was good to know that help was on the way.

Second, the audio industry as a whole, and Philips and Sony in particular, deserve a rousing ovation for coming up with such a marvelous system *and* for standardizing it before it reached the marketplace, unlike that most recent of audio fiascos, quad. Do you suppose RCA is still wondering why I don't have four speakers in my listening room?

Finally, the player and Compact Discs themselves have not disappointed me one iota. The improvements over analog LP's in terms of dynamic range, noise, distortion, and convenience add up to a quantum leap forward. And I'm glad to know that, as good as they sound today, my CD's will still sound that way ten, twenty, even fifty years from now! No audio system, no matter how costly, can lay claim to state-of-the-art sound without a digital-disc player. And as the price comes down, no music lover will be able to afford to be without one.

KIRKE W. WHEELER West Henrietta, N.Y.

New York Philharmonic

• The statement in April's "Bulletin" that the New York Philharmonic's forthcoming Beethoven album on RCA "will be the first time the Philharmonic's name has appeared on another label since the orchestra signed its exclusive contract with Columbia Records in 1940" is incorrect. In recent years the New York Philharmonic has appeared on London Records with Zubin Mehta in the Berlioz Symphonie Fantastique, on Deutsche Grammophon with Leonard Bernstein in two suites from his Dybbuk ballet, and on RCA with Vladimir Horowitz and Eugene Ormandy in the Rachmaninoff Third Piano Concerto. In addition, I believe that some original Bernstein/Columbia material has been licensed to and rereleased by CRI. So the Philharmonic's forthcoming RCA appearance is by no means unprecedented.

> ARTHUR S. LEONARD New York, N.Y.

Music Editor Christie Barter replies: My apologies for the oversight(s), and thanks to the several readers who wrote to correct this error. An additional non-Columbia recording by the New York Philharmonic mentioned by a couple of readers is the

PERFORMANCE READY FOR **3 HEAD CASSETTE DECK**₁ THE NEW AIWA AD-F990 THE DIGITAL AGE.

the best means taking the lead, not following. That's why our engineers developed the AD-F990: the first fully automated cassette deck designed to meet the demands of the compact digital disc. At Aiwa, we believe being 20-21000Hz FLAT

performance parameters so Listen to the AD-F990 and you'll be stunned. Do<u>lby</u> HX Professional and Aiwa's exclusive amorphous combination head have extended far that the AD-F990 can faithfully reproduce digitally FREQUENCY RESPONSE!

A TRIUMPH IN HUMAN compromise...or effort. ENGINEERING

recorded programs without

F990 presents its controls on a unique "keyboard." That's shows all tape operation To perfectly integrate man and machine, the Aiwa ADnew! So is our Auto Record Level Control, Auto NR Detector, Auto Dymagnetizing, Auto Tape Selector, Digital Time Remaining Display that modes, and a flourescent display for all functions.

The Aiwa AD-F990: the roady" cassette decks. The top of our new line of "digitalsound of the future, today.

Virtuoso





SIMPLY ADVANCED

AIWA AMERICA INC., 35 Orford Ibriue, Monnerhie, New Jarvay 07074 In Canada, Shriro (Conndo) Ltd. GINGLE NO. 3 ON READER SERVICE CAND New World Records disc of works by Samuel Barber and John Corigliano.

Videophobe

• I was somewhat put off by the inclusion of a report on video-cassette recorders in the April coverage of the Las Vegas CES. The reason that I and several others I know subscribe to STEREO REVIEW is the information we get each month that enables us to keep up with the ever-changing world of audio. In the past, I have canceled my subscriptions to magazines because of their coverage of video. The intentions were good, considering the emphasis on the quality of Beta Hi-Fi sound, but I think most readers would prefer you to stick with music.

> WILLIAM J. NORRISH Colrain, Mass.

Simels on Lennon

• RE Steve Simels's review of "The John Lennon Collection" (April): Right on. ANTHONY L. MARTINS Weston, Ontario

Adam Ant

• We strongly disagree with Mark Peel's April review of Adam Ant's "Friend or Foe." Mr. Peel is obviously living in the Seventies. A critic who cannot change with the times shouldn't be a critic at all. Adam Ant is an exciting performer, not just a sex symbol! He bravely broke the mold of traditional rock performers by openly stating that he doesn't smoke, drink, or do drugs. His personality and style are unmatched!

> JACKIE FESS Lyndhurst, Ohio BUFFY ELPINER, IVY MILLER South Euclid, Ohio

Rush Note

• I must comment on Mark Peel's February review of the most recent Rush LP, "Signals." Of all the reviews I have read in STEREO REVIEW, this one stands out as the most informative and accurate (two qualities many reviewers tend to ignore). Mr. Peel was right on target when he described Geddy Lee's extremely high-pitched voice as being "disciplined." The album is definitely Rush's best to date, the review also a best to date. Keep it up.

> TONY PAINTER Cincinnati, Ohio

Reviewers' Vocabulary

• As a collector of more than 15,000 records of various speeds and sizes, I read STEREO REVIEW's review sections with expectation and enthusiasm. Throughout the years, however, I have noticed something about the critical staff. The classical-music reviewers seem very positive and dramatic, using such words as "lean and sinewy," "a revelation," "polished and rich," etc. Very few albums get panned—"glib" and "routine" are the strongest putdowns. Apparently classical records have never been better.

The popular-music reviewers, on the other hand, are more prone to nix new albums with such terms as "overdressed," "spotty," and "boneless." "Good" or "very good" are used for positive reviews, with an occasional "promising" or "versatile" to avoid the doldrums. The pop reviewers would lead us to believe pop music has never been worse.

It might be interesting to reverse their roles and let Steve Simels and Joel Vance review Liszt and force Stoddard Lincoln to try to capture the essence of Devo.

HY DALEY Corry, Pa.

There are reasons for the discrepancy Mr. Daley points out. Our classical-music critics cover recordings from eight centuries of music, and since space is so limited, we feel there is little point in reviewing releases likely to be of marginal interest or that our critics find very unsatisfactory. Our popular-music critics, in contrast, have more space to deal with a much narrower range of music, nearly all of it new or recently composed. If our classical staff were restricted solely to new music, and if as much of it were recorded as in the pop field, they too might begin to seem predominantly negative and unenthusiastic, since most music produced at any time is ephemeral.

ARM YOURSELF FOR A MUSICAL ATTACK.



The new 4BX with Impact Restoration.

The clash of a cymbal. The blast of a sax.

The new 4BX with Impact Restoration releases these musical attacks, adding punch and clarity to sounds otherwise dulled in the recording process. These musical transients are an essential part of music anticipation—the pleasure of knowing, but not knowing precisely, what will happen next.

The 4BX also incorporates our most advanced multi-band dynamic range expander, bringing out all the drama of the loudest and softest sounds. Music takes on a new presence, a new "liveness," like you've never heard before.

The 4BX's unique remote Logicontrol lets you adjust volume, expansion, transition levels and Impact Restoration—all by push button—from anywhere in the room.

So if you're missing the drums in the distance, and the call of the bugles, don't surrender. Arm yourself for surprise attacks with the new 4BX.

For our full line brochure, call or write: dbx, Incorporated, 71 Chapel Street, Newton, MA 02195. (617) 964-3210.

Music can't live without us.

You Can Afford The Incredible Sound of Polk





Revolutionary SDA-1: \$850

Incredibly Affordable Monitor 4: \$99.95

State-of-the-art technology at every price

all myC

Reviewers and critics agree on Polk

All 7 Polk speakers from the revolution ary SDA-1 to the astonishingly low priced Monitor 4, offer the most sound quality for the money available on the market. Every Polk speaker is built to the same critical and exacting standards of quality You must isten to the Polks and hear the difference for yourself. Write to us or use the readers service card for information on our loudspeakers and the name of your nearest authorized Polk dealer. There is a Polk loudspeaker which is the perfect choice to fulfill your sonic needs. Polk Audio, Inc. 1915 Appapols Ed., Baltimore, MD.

Polk Audio, Inc. 1915 Annapol s Rd., Baltimore, MD 21230. In Canada, Evolution Audio.



Warning: The Surgeon General Has Determined That Cigarette Smoking Is Dangerous to Your Health.

VANTAGE. THE TASTE OF SUCCESS.

Fresh Menthol Taste with Low Tar. That's Success! MENTHOL Low Tar 9 mg

AMPANA

WENTHOL 1005

VANTAGE

DOALN

Latest Audio Equipment and Accessories

Alpine's Car Stereo Equalizer / Analyzer

□ Said to be the first computerized audioanalyzer/graphic-equalizer for automotive installations, Alpine's Model 3015 has seven equalization bands, a memory that will hold up to four preset curves, a sixty-three-LED real-time spectrum analyzer, a pink-



noise generator, and a built-in microphone. Computer analysis of the noise output permits adjusting the equalizer to provide flat response from the car's speakers. The equalizer offers up to 12 dB of boost or cut in frequency bands centered at 60, 140, 320, 800, 1,800, 4,300, and 10,000 Hz. The microphone is also used in an automatic volume-control feature that adjusts the overall playback level to compensate for road noise. Other features include a fader control to adjust the sound distribution between front and rear speaker pairs when the 3015 is connected to two amplifiers. Dimensions are $6^{1/4} \times 2 \times 5^{1/2}$ inches. Price: \$399.95.

Circle 120 on reader service card

Phase Technology Speaker Has Solid, Flat Woofer

□ The Phase Technology PC 65 speaker system features an 8-inch solid-piston woofer and a 1-inch soft-dome tweeter. The design is intended to achieve proper phase



alignment between the drivers in the system. The woofer's solid, expanded-polystyrene piston has a flat surface aligned with the front panel of the enclosure. Woofer phasing is carefully matched to the output of the tweeter. Since the woofer is solid, rather than a honeycomb or a paper cone, there are said to be no nodal effects or "cone breakup." The enclosure, made of walnut solids and veneers, was designed for unusual rigidity.

System impedance is given as 8 ohms; sensitivity is 86 dB sound-pressure level at 1 meter with a 1-watt input. Recommended amplifier power is 25 to 100 watts. Frequency range is 35 to 20,000 Hz; crossover frequency is 1,200 Hz. Dimensions are 12 x 21 x 10¹/₂ inches. Weight is 29 pounds. Price: \$200 each. Phase Technology Corp., Dept. SR, 6400 Youngerman Circle, Jacksonville, Fla. 32244.

Circle 121 on reader service card

Soundcraftsmen Equalizer Has Twenty-Nine Bands

□ The Soundcraftsmen SG3030 singlechannel one-third-octave graphic equalizer employs the company's Differential/Com-(Continued on page 16)



Magnavox's first digital Compact Disc player, the FD1000SL, incorporates new circuitry developed by Philips in its digital-to-analog conversion sections. A combination of fourteen-bit converters—said to be easier to manufacture than the usual sixteen-bit circuits—and digital signal-processing techniques is said to overcome problems associated with analog filters while providing the same effective performance

as a true sixteen-bit system. The Magnavox player uses a technique called "oversampling"---sampling the recorded signal as it comes off the digital disc at four times the usual rate-in order to distribute the noise in the signal over a frequency spectrum four times wider than normal. Digital filtering then removes most ultrasonic components of the signal while maintaining phase linearity up to 20,000 Hz. Finally, the technique of "noise shaping" reduces noise within the audible band while increasing it above the band. The remaining high-frequency noise is then eliminated by simple analog filters. This combination of techniques is said to make it unnecessary to use the more space-consuming analog low-pass filters that usually eliminate ultrasonic conversion products in CD players. Digital signal processing also avoids any phase shifts in the 20-kHz region that may be caused by sharp-cutoff analog filters, "which may be perceived by some individuals as affecting sounds of a transient nature."

The FD1000SL has a frequency-response specification of 20 to 20,000 Hz ± 0.3 dB. Phase linearity is given as ± 0.5 degree, and both signal-to-noise ratio and channel separation (at 1,000 Hz) are greater than 90 dB. Total harmonic distortion (including noise) is less than 0.004 per cent at 1,000 Hz, and out-of-band rejection of frequencies above 24,000 Hz is greater than 50 dB. Wow-and-flutter is unmeasurable. Maximum output level is 2 volts. Minimum load impedance is 10 kilohms. Power consumption is 20 watts. Dimensions are $12\frac{1}{2} \times 7 \times 10\frac{1}{2}$ inches.

Features of the FD1000SL include NEXT TRACK, GO-TO, SEARCH, REPEAT, PAUSE, and MEMORY functions. The last function allows storage and playback of any combination of up to fifteen different selections. The unit comes with a comprehensive information and instruction package as well as a full-length demonstration disc with both classical and popular selections. Price: \$800.

Circle 122 on reader service card





Performance is back at Ford: And Goodyear's there in a big way. The Goodyear Eagle GT HR* high-performance radial is original equipment on Ford's stunning new Thunderbird Turbo Coupe. That Ford should choose the Eagle GT HR

radial for its newest performance car is only natural Eagle GT HR was *born* to perform. Its tread pattern is derived from our World

Champion Formula One racing rain tires. Its tread *compound* is the result of what we've learned in *all* forms of racing. From Formula One to Indy.

Maybe that's why Goodyear radials are the only high-performance tires selected for use by every major American car company.

And why, of all performance cars sold in America — domestics and imports alike — more are equipped with Goodyear highperformance radials than any other high-performance tires.

*Eagle GT HR is an "H" speed-rated radial. Speed rating based on 70 minutes of laboratory wheel testing at speeds running from 106 to 130 MPH.

QUALITY AND INNOVATION

When Ford came back to performance, it came back to Goodyear.



New Product*s*

parator circuit, which enables a user to adjust the input-to-output signal levels to "true unity gain" within 0.1 dB simply by moving a front-panel slider until two LED's glow with equal intensity. Since no aural comparison of equalized and unequalized signal levels is required, this critical adjustment is fast and accurate, and the full gain, or "headroom potential," of the equalizer is always available.

Other features of the SG3030 include front-panel switches for power, EQ defeat, and a range of either ± 6 or ± 12 dB in each of its twenty-nine bands. The bands are cen-



tered at the standard ISO frequencies running at one-third-octave intervals from 25 to 16,000 Hz. Rear-panel input and output jacks may be used in either balanced or unbalanced modes. Front-panel dimensions are $3\frac{1}{2} \times 19$ inches; the unit fits standard racks. Signal-to-noise ratio is 114 dB. Distortion is 0.01 per cent. Price: \$699.

Circle 123 on reader service card

Flush-Mounting Car Speakers from Pyle

□ Pyle Industries' HP523A two-way car stereo speaker system is the latest addition to the company's Horizon Series of speakers. The new system is designed for either



door or rear-deck mounting. When used with the supplied housing-spacer it has a mounting depth of $1^{1/8}$ inches and fits over a $4^{1/2}$ -inch-diameter hole. The $5^{1/4}$ -inch-diameter woofer is said to be especially designed to handle deep excursions. It has a chemically treated polyurethane-foam surround and a four-layer voice coil.

The tweeter is a 1-inch compressionloaded dome. The 12-dB-per-octave "highresolution" crossover network is centered at 4,000 Hz. The HP523A has a rated frequency response of 45 to 20,000 Hz \pm 5 dB and a sensitivity of 103 dB sound-pressure level at 1 meter with a 1-watt input. Overall dimensions are 83/8 x 55/8 inches. It is rated for 55 watts rms input. Price: \$179.95 per pair. Pyle Industries, Inc., Dept. SR, 501 Center Street, Huntington, Ind. 46750. *Circle 124 on reader service card*

Sparkomatic's High-Power Car Radio/Cassette Unit

□ Sparkomatic's SR 308 stereo cassetteplayer/receiver features a digital station memory with five AM and five FM presets,



phase-locked-loop electronic tuning, and a Dynamic Noise Reduction (DNR) circuit. There are controls for tape-equalization selection, FM muting, loudness, local/distant reception, mono/stereo, bass, treble, balance, fading, and tuner scan and seek modes. The auto-reverse tape player has locking fast-forward and rewind modes.

Output power is rated at 45 watts per channel with 10 per cent total harmonic distortion (40 watts with 1 per cent THD). Frequency response is given as 20 to 20,000 Hz. Tuner sensitivity for 30-dB FM quieting is 4 microvolts. Dimensions are $7 \times 1\% \times 51/4$ inches. Price: \$249.95.

Circle 125 on reader service card

Jumetite's Add-On Ribbon Tweeters

□ Jumetite Laboratories' RM-1 ribbon tweeters are meant to augment the highfrequency performance of the many excellent older speaker systems that are deficient in the extreme high frequencies by today's



standards. According to Jumetite, owners of large electrostatic speaker systems with excessively directional high-frequency output can also benefit from use of the units.

The diaphragm of an RM-1 is an aluminum film, 0.00025 inch thick, that weighs less than ¹/4000 of an ounce. The ribbon is driven uniformly over its entire surface and operates into a horn designed for exponential waveform growth. Accurate passivecrossover circuits provide the correct match to the original speaker system. Adding the RM-1 to a system requires disconnecting the main speakers, hooking up the RM-1 in their place, and then connecting the main speakers to the RM-1. Level matching and on/off controls are provided on the back of the unit.

Frequency response is 3,000 to 20,000 Hz ± 1.5 dB in the unit's 30-degree horizontal

"listening window." System impedance is 8 ohms; sensitivity is 90 dB sound-pressure level at 1 meter with a 1-watt input. The crossover frequency is 2,500 Hz; the crossover unit is a quasi-second-order linearphase filter with ribbon-mass equalizer, level control, and in/out switch. Standard finish is oiled walnut with black or white lacquer on the front. Dimensions are $6 \times 10 \times 5$ inches. Price: \$700 per pair. Jumetite Laboratories Ltd., 1300 Richards Street, Vancouver, B.C., Canada V6B 3G6.

Circle 126 on reader service card

Denon's Premium Normal-Bias Cassettes

□ Denon's DX4 cassettes are designed for users who require high performance at normal bias settings (120-microsecond equali-



zation). According to Denon, the broad bias curve of the new tape formulation makes it appropriate for use with a wide variety of different decks. The double-coated, cobaltdoped tape has an outer layer of high-coercivity ferric oxide and an inner layer of high-residual-flux-density ferric oxide, a combination said to give low static and dynamic distortion. Coercivity is specified as 360 oersteds, residual flux density as 1,600 gauss. A-weighted bias noise is -57 dB. Prices: C-60, \$4.35; C-90, \$5.99.

Circle 127 on reader service card

Yamaha Subwoofer Has Built-In Power Amplifier

□ The Yamaha NS-W1 Super Woofer has a built-in power amplifier, a 10-inch woofer, and a number of special features that together are said to extend bass performance down to very low frequencies, improving the performance of "virtually any stereo



AUDICPI-IILE FILE XI-S **GREATER DYNAMIC RANGE**

MOL (5% DISTORTION)

+10-

A

-10-

-20

≈ 40

-50

-60-

+70+

-80-

OUTPUT LEVEL (dB)

Maxel XL I-S and XL II-S are the ultimate ferric oxide cassette tapes. Precision engineered to bring you a significant improvement in dynamic range. XLI-S provides except tionally smooth linear performance characteristics with high resolution of sound and lower distortion. While XL II-S has a areater saturation resistance in higher frequencies resulting in an excellent signal to noise ratio. How did we achieve

this? IMPROVED EPITAXIAL PARTICLES.

Maxell engineers have managed to improve the Epitaxial magnetic particles used on both tapes.

By developing a crystalization process that produces a more compact. smoother cobalt ferrite layer on the gamma ferric oxide core, they've been able to pack the particles more densely and with greater uniformity on the tape surface.

This increases maximum output level and reduces AC bias noise which in turn expands the dynamic range.

IMPROVED EPITAXIAL PARTICLE CHARACTERISTICS MORE UNIFORM COBALT-FERRITE LAYER

470A GAMMA-FERRIC OXIDE

COATING THICKNESS: 10-11A (1A = 1/10,000,000 mm)

· XLII-\$ (EQ: 70 µs)

XLI-S (EQ: 120 µs)

0.02 0.05 0.1 2 5 0.2 0.5 1 10 20 FREQUENCY (kHz)

So you get a better signal to noise ratio, greater resolution of sound and higher output levels.

AC BIAS NOISE

Of course, greater dynamic range isn't the only reason to buy Maxell high bias XL II-S or our normal bias equivalent XL I-S.

Both tapes have more precise tape travel and greatly reduced distortion levels.

You'll see both these improvements dovered in detail in future Audiophile

SMOOTHER PARTICLE SURFACE

Files. In the meantime, we suggest you listen to them. For technical specification sheets on the XL-S series, write to: Audiophile File, Maxell Corporation of America, 60 Oxford Drive, Moonachie, New Jersey 07074.



CIRCLE NO 27 ON READER SERVICE CARD



details ... A DIFFERENT KIND OF RECORD CLUB

You can now own every record or tape that you may ever want ... at tremendous savings and with no continuing purchase obligations. You can get valuable free dividend certificates, you can get quick service and all the 100% iron-clad guarantees you want.

Now you can stop price increases that leave you with less music for your record and tape budget. You can guarantee yourself more music for less money through membership in Discount Music Club.

Look at these benefits:

TREMENDOUS SAVINGS

on every record and tape in printno "agree-to-purchase" obligations of any kind.

DISCOUNTS OF 43% TO 73% off mfg. suggested list . . . special catalog features hundreds of titles and artists.

ALL LABELS AVAILABLE

including most imports through special custom ordering service. If we don't stock it we'll get it for you.

SCHWANN CATALOG

lists thousands of titles; classical, pop, jazz, ballet, opera, musical shows, folk, rock, vocal, instrumental, country, etc.

DISCOUNT DIVIDEND CERTIFICATES

Dividend Gifts—Every shipment carries a dividend gift or dividend certificate. Certificates redeemable immediately for extra discounts.

NEWSLETTERS

happenings in the world of music; concerts, critiques, new releases . . . special super-sale listings at discounts of up to 73%.

DISCOUNT ACCESSORY GUIDE

Diamond needles, cloths, tape cleaners, etc. Discount Music Club is your complete one stop music and accessory buying service.

QUICK SERVICE

same day shipping on many orders rarely later than the next several days. Partial shipments always made in the event of unforeseen delay ... all at no extra cost to you.

100% IRON-CLAD GUARANTEES

on all products and services. Everything is guaranteed factory fresh and free of defects or damages of any sort. Your total satisfaction is unconditionally guaranteed.

Discount Music Club is a no-obligation membership club that guarantees tremendous discounts on all storeo records and tapes and lets you buy what you want ... when you want ... or not at all if you choose.

These are just a few of the money-saving reasons to write for free details. You can't lose so why not fill out and mail the coupon below for immediate information.

| 650 Main Street | JSIC CLUB, INC 9-0683 |
|-----------------------------------|--------------------------|
| P.O. Box 2000 New Rochelle, N. | Y. 10801 |
| NAME | |
| ADDRESS | |
| CITY | |
| STATE | ZIP |

CIRCLE NO. 18 ON READER SERVICE CARD

New Product/

system." The subwoofer connects to the speaker terminals of an amplifier or receiver. There is a choice of cutoff frequencies (70 or 150 Hz) so that the subwoofer's output can couple smoothly with the low-frequency response of the other speakers in the system. A front-panel level control balances the output levels of the subwoofer and main speakers.

A bass-reflex design, the NS-W1 has a frequency response of 40 to 400 Hz with a 40-Hz resonance frequency. Rated input power is 35 watts; maximum input power is 70 watts. Sensitivity is 111.5 dB sound-pressure level with a 1-watt input at 1 meter. The built-in low-frequency (20-Hz) and high-frequency (150-Hz) filters have rolloff slopes of 18 dB per octave. Power consumption is 55 watts at one-tenth maximum output power. Dimensions are $15^{1/2} \times 20^{3/8} \times 15^{3/4}$ inches. Finish is walnut. Price: \$275.

Circle 128 on reader service card

Full-Feature Vertical Turntable from Technics

□ The Technics SL-V5 vertical directdrive turntable uses microcomputers and optoelectronic controls for the automatic lead-in, speed, and disc-size selections as well as the search, auto-return, auto-stop, and repeat functions. The vertical design is



made possible by a dynamically balanced, gimbaled tone-arm suspension. The lineartracking arm accepts any P-mount plug-in cartridge. Effective tone-arm length is $4^{1/8}$ inches, with a tracking error of ± 0.1 degree. The effective mass, including a Pmount cartridge, is 9 grams, and the combination has a resonant frequency of 12 Hz. For tracking accuracy the tone arm is driven by a d.c. motor.

The die-cast aluminum platter is powered by a brushless d.c. motor and automatically revolves at 33^{1/3} or 45 rpm depending on the record size. Manual speed selection is also possible. All controls are mounted on the exterior face of the unit and provide for either automatic or manual operation. Other special functions are side-to-side cueing and muting. Approximately the dimensions of an LP album in height and width, the SL-V5 turntable is only 3 inches deep. Price: \$220.

Circle 129 on reader service card

Graphic-Equalizer / Amp From Jensen Car Audio

□ The Jensen EQA5000 combines a 15watt-per-channel power amplifier (rated for no more than 0.3 per cent total harmonic



distortion into 4-ohm loads from 20 to 20,000 Hz) with a seven-band graphic equalizer. Designed for either in-dash or under-dash mounting, the unit features full electronic protection from reversed polarity and thermal overload, a fused power lead, and precision slide controls. High- and lowlevel inputs make it compatible with virtually any car receiver, radio, or tape player. Other features include LED outputpower meters, an input-level sensitivity control, four speaker outputs, a front-rear fade control, an equalizer-defeat switch, and an illuminated front panel. Specs include an equalizer frequency response of 20 to 50,000 Hz ± 3 dB. The equalizer's frequency bands are centered at 60, 160, 400, 1,000, 2,500, 6,000, and 12,000 Hz with adjustments possible in each band of up to +18 and -6 dB. Signal-to-noise ratio is 80 dB. Price: \$139.95.

Circle 130 on reader service card

Polk Audio's Mobile Speakers

□ Polk Audio's Mobile Monitor series of loudspeakers is intended for automotive, boat, and other installations calling for high-quality compact, flush-mounting speaker systems. The series consists of four models. The top-of-the-line MM V system



consists of three separate units per channel (shown grouped at left in photo): a ³/₄-inch ferrofluid-damped polymer-dome high-frequency radiator (1¹/₂-inch overall diameter); a cast-magnesium-basket 5¹/₄-inch midrange/bass driver with a polymer-impregnated cone (6¹/₂-inch overall diameter); and

a complex 12-dB-per-octave crossover network (3 x 2 x 11/2 inches). The MM IV system (rectangular unit at top in photo) consists of the three subunits of the MM V system combined in a flush-mount housing made of glass-filled Valox 815 ($81/4 \times 6 \times$ 11/2 inches). The MM III system (far right) has a simplified crossover network in a smaller and easier-to-mount 61/2-inch round enclosure. All three systems have a rated frequency response of 40 to 20,500 Hz, a recommended amplifier power of 100 watts, and a mounting depth of 13/4 inches.

The MM I (lower center) is a polymertreated, full-range system that can be either used by itself or combined with any of the other Mobile Monitor systems for a multichannel installation. Its frequency range is 80 to 15,000 Hz; recommended amplifier power is 50 watts. Size is 5³/₄ inches in diameter with a mounting depth of 1 inch. Prices: MM V, \$129.95; MM IV, \$99.95; MM III, \$74.95; MM I, \$34.95.

Circle 131 on reader service card

Radio Shack's Low-Cost Mixer

□ The Realistic stereo microphone/line mixer (Radio Shack part No. 32-1105) can accept up to four microphone and line in-



puts simultaneously. Said to be ideal for adding extra sound sources to tape decks or PA systems, or for DJ use, the unit has four "glide path" slide controls and a stereo/ mono switch. Also included is a battery-test LED indicator. The mixer measures $2^{3/4} \times 8^{3/4} \times 5$ inches and requires a 9-volt battery (not included). Price: \$24.95.

Circle 132 on reader service card

New Woofer Cone In Yamaha Speaker

□ Yamaha's "Natural Sound" NS-2000 three-way speaker system has a 13-inch woofer whose cone is made of pure carbon fiber. The sonic properties of the fiber are said to be very similar to those of the beryllium used in the speaker's 31/2-inch dome midrange and 13/16-inch dome tweeter. Structures made of both carbon fiber and beryllium have light weight and extreme rigidity, characteristics claimed to enhance the drivers' transient response, tonal purity, freedom from distortion, and dispersion.

All three drivers are flush-mounted on the cabinet's rounded-edge front baffle. The slightly off-center, in-line driver mounting and rounded cabinet edges are said to eliminate edge-diffraction effects. Thick internal baffle boards give structural rigidity to the cabinet. Maximum power-handling ca-



lt's magic. Sansui's one-touch high fidelity.

You probably have been depriving yourself all these years of the great pleasure of real high fidelity music because you thought hi-fi was a confusing assortment of too many dials and knobs.

Sansui, one of hi-fi's foremost innovators, has changed all that with a little technological magic. It's the "one-touch" Intelligent Super Compo music system.

Imagine. Just touch a buttonand presto-the "brain" automatically turns on one component: the

turntable, or the tape player, or the AM/FM radio—and switches off another at the same time. It's so simple, it completely takes the work out of play. And only Sansui offers this "onetouch" simplicity.

The Intelligent Super Compo system illustrated includes perfectly matched components: a low-distortion amplifier; a super-sensitive, digital AM/FM tuner; a top performance double cassette deck; robustsounding speakers; and a 24-hour program timer, all displayed in an attractive, space-saving audio cabinet.

With a variety of Intelligent Super Compo systems to meet any need or budget, Sansui has removed your last reason

for denying yourself

quality hi-fi. No other

system offers so much

little effort. That's the

component music

enjoyment with so

magic of Sansui.

the pleasure of



Putting more pleasure in sound.

SANSUI ELECTRONICS CORPORATION, Lyndhurst, N 07071; Gordeno, CA 90248; Sonsui Electric Co., Ltd., Tokyo, Japon CIRCLE NO. 43 ON READER SERVICE CARD

19

New Product/

pability is given as 125 watts. Sensitivity is given as 90 dB sound-pressure level with a 1-watt input at 1 meter distance, and fre-



quency response is 28 to 20,000 Hz. Impedance is 6 ohms. Dimensions are 29% x 17% x 15% inches. Price: \$1,500 each. *Circle 133 on reader service card*

Rockford Fosgate's High-Power Car Amplifier

□ The Power VI four-channel power amplifier from Rockford Fosgate is rated to deliver 75 watts per channel in biamplified car stereo systems. Total harmonic distortion and noise are given as less than 0.5 per cent. A self-contained crossover network for biamplified speakers has switchable crossover frequencies of 100, 250, 600, 1,500,



and 4,000 Hz. Crossover slopes are 12 dB per octave, and a "flat" setting is also available. Input sensitivity is adjustable from 50 millivolts to 2.5 volts. Frequency response is given as 20 to 20,000 Hz \pm 0.5 dB. Each pair of channels may be bridged by changing the connections so as to provide stereo power amplification of 150 watts per channel into 8 ohms. Price: \$680.

Circle 134 on reader service card

Amplified Headset For Airplane Use

□ The Dynalite Jetset from RTR Industries has a plug designed to fit into an airplane-seat earphone receptacle. The plug



has two miniature microphones that pick up the signal, which is then amplified and sent to the supplied *electrical* headphones for higher-fidelity listening. The amplifier module accommodates two pairs of stereo headphones. The supplied collapsible stereo headphone can also be used with personal portable stereo equipment.

The complete Jetset kit includes a battery-powered stereo amplifier module with 30-inch airplane-plug cord, the stereo headphones with mini stereo phone plug, a 9-volt battery, a 6-foot adaptor cord with a ¹/4-inch stereo phone plug for use with home stereo systems, and a carrying case. Price: \$69.95. RTR Industries, Dept. SR, 8116 Deering Avenue, Canoga Park, Calif. 91304.

Circle 135 on reader service card

Denon Receiver Has Low-Distortion Amplifier

□ The new Denon DRA-700 stereo receiver, which replaces the DRA-600, incorporates the company's "Non-NFB 0-dB" amplifier circuitry. This circuitry is said to provide excellent performance under the dynamic conditions of real music without



transient distortions. The receiver also features Direct Distortion servo circuitry to reduce static distortions. According to Denon, it compares the output and input signals and extracts the distortion components, which are then inverted and sent to the amplifier section to reduce distortion without the use of conventional feedback arrangements. The nonswitching output-stage configuration eliminates crossover distortion. Coupling capacitors have been eliminated from even the input stages.

The amplifier section is rated to deliver 60 watts per channel into 8 ohms from 20 to 20,000 Hz with no more than 0.015 per cent total harmonic distortion. Intermodulation distortion is 0.01 per cent. Power bandwidth is given as 5 to 40,000 Hz and damping factor as greater than 50. Phono-input signalto-noise ratio (S/N) is 90 dB referred to a 5-millivolt input. Moving-coil-input S/N is 76 dB. Phono RIAA response is 20 to 20,000 Hz ± 0.3 dB.

The tuner section uses digital frequency synthesis and offers five AM or FM presets, memory retention of the last station tuned, and scanning. Usable FM sensitivity is given as 10.3 dBf. The stereo FM S/N is 80 dB, and distortion is 0.15 per cent. The AM section has a usable sensitivity of 300 microvolts per meter. Dimensions are 17 x 41/2x 16 inches including the wood side panels. Weight is 241/4 pounds. Price: \$549.

Circle 136 on reader service card

Lower-Priced B.E.S. Electrostatic Speaker

□ The new SM-280 from Bertagni Electrostatic Systems is a multidiaphragm system using the company's unique polymer drivers, two high-frequency and two lowfrequency, for "omnipolar" radiation. The



acoustic-polymer diaphragms used in all B.E.S. speakers are made from a specially processed material called Soniflex, which is compressed into patented contoured molds and then heat-cured. The SM-280 is said to approach the performance of the top-of-theline B.E.S. SM-300 in tonal quality. Its rated frequency response is 32 to 32,000 Hz, and sensitivity is given as 93 dB. Minimum recommended amplifier power is 4 watts. Total harmonic distortion is 0.06 per cent at 8,000 Hz with a 96-dB soundpressure level. Dimensions are 441/4 x 21 x 53/4 inches, weight 55 pounds. Price: \$550.

Circle 137 on reader service card

NOTE: All product descriptions and specifications quoted in these columns are based on materials supplied by the manufacturers, who will respond directly to reader requests for further information.

Domestic inflation and fluctuations in the value of the dollar overseas affect the price of merchandise imported into this country. Please be aware that prices quoted in this issue are therefore subject to change.

"Believe Every Rave You've Read..."

Audio Times "A new and revolutionary sound system so far ahead of anything currently available . . . that audio enthusiasts . . . may well be spending more time listening to music in their cars than they do at home."

Car & Driver "Best Sound System: Delco-Bose"

The Detroit News "... it simply spoiled me for anything else."

Modern Recording "This technology is another 'first' in music systems . . . The result, as heard by several of us with unanimous awe and appreciation, is a stereo experience second to none."

Popular Science "It's as good or better than the best home systems I've heard . . . the results are fantastic."

Popular Hot Rodding "Incredible clarity ... a concert hall on wheels."

Motor Trend "The best OEM sound system in the world." "... you need this radio."

High Fidelity "The performance of the Delco-GM/Bose Music System was astounding . . . I can't imagine anyone buying (one of these cars) without the music system."

Chicago Magazine "If your car is this well equipped you won't want to go home again."

Popular Mechanics "... you have to hear it to believe it."

The performance that received these rave reviews can be yours at Cadillac, Buick, Oldsmobile and Chevrolet dealers.*



Sound so real it will change how you feel about driving

Available as a factory installed option on Cadillac Seville and Eldorado, Buick Riviera, Oldsmobile Toronado, and Corvette by Chevrolet.

CIRCLE NC. 4 ON READER SERVICE CARD

Warning: The Surgeon General Has Determined That Cigarette Smoking Is Dangerous to Your Health. LIGHTS: 8 mg. "tar", 0.7 mg. nicotine av. per cigarette FTC Report DEC. '81, FILTERS: 15 mg. "tar", 1.1 mg. nicotide av. per cigarette by FTC method.

Where a man belongs.



Experience the **Camel taste in Lights and Filters.**



COLOTAT

Acoustat electronics bring you dramatically closer to the musical source with startling innovations in solid state technology. Now the limits of bipolar transistors have been overcome with a fundamentally new FET topology. to bring you "tube-like" sound that is astorishingly transparent and pure.

TRANS-NOVA PREAMPLIFIER

Designed to meet the demands of today's audio/video and digital applications, Acoustat's Trans-Nova Preamp is exceedingly neutral yet versatile. With moving coil capability and a vast array of switching functions, the Trans-Nova preamp contains features not normally found in an audiophile preamp while preserving the sonic integrity of the signal path.

TRANS-NOVA* TWIN-200 POWER AMPLIFIER

Two hundred watts per channel never sounded so pure and clean. Unique complement feecback circuitry provides zero output stage distortion and true "dual-mono" construction yields excellent dynamic range and stereo separation. Complex leads are comfortably handled due to infinite damping in a revolutionary output stage design.

HEAR FOR YOURSELF

Find out why the most demanding audiophiles choose Acoustat speakers and electronics for musical enjoyment that is unequalled at any price. Perhaps in time all components will be built this way. Until then, call toll-free for the name of the Acoustat dealer nearest you.

> Revolutionary by Design Telephone 305/462-6700 Toll Free 800/327-3136

Audio Q. and A.

By Larry Klein



WNCN program director Mario Mazza (left) in the studio with Larry Klein

Digital Disc Broadcast

Q. I'm wondering whether the new digital Compact Discs will be difficult to broadcast. Do you have any thoughts on this?

> CARL JACOBS Lynnfield, Mass.

Last February, I participated in three A. one-hour broadcasts of digital Compact Disc material on New York City classical-music FM station WNCN; my role was to be interviewed about the technology and benefits of the Compact Disc format. After the programs, I spoke to about twenty-five listeners who called the station with questions and comments. Aside from the many comments on the excellence of the sound (one listener had intended to trade in his old tuner, but it sounded so good during the digital-disc broadcast that he changed his mind), there were a number of questions about why the average volume level of the music was so low.

The digital CD has an exceptional dynamic-range potential of more than 90 dB, and some of the material we played approached that mark. In order to prevent severe overmodulation of WNCN's transmitter on those peaks, the *average* output level of the CD player used had to be set very much lower than normal. One listener, in fact, complained that he could barely get his recorder's meters to register on some passages of the music. Our live commentary was fed into a compression circuit before broadcast (a normal practice), which made us sound extra loud compared with the uncompressed music.

On the second program, it was decided to try a slightly higher average level and, if necessary, reduce the gain manually if the overmodulation indicator light showed that we were getting into trouble. Several times during the program it was necessary to execute a fast level reduction—which caused several listeners to complain about "gain riding." It appears that it is just not possible, given FM's 75-microsecond preemphasis and its normal dynamic limitations, to broadcast a wide-dynamic-range digital disc without level problems.

In the studio, we were able to monitor the sound of the Compact Discs either directly

from the CD player or as a broadcast signal picked up by a tuner. On certain program material, there was an audible difference in favor of the direct signal. A string quartet, for example, lost some of its inner detail, sounding on the air as though there were a slight veil over the music. In addition, the high frequencies—above perhaps 11,000 or 12,000 Hz—were rolled off slightly. With orchestral works and solo organ material the difference was far less apparent. I don't mean to exaggerate the problem; in general, the direct sound was excellent while the received broadcast sound was merely very good.

Ground Terminals

What, if anything, should be done with the terminals marked "ground" on the rear of most components? Should separate components each be connected to a ground? I've connected my integrated amp to the screw on a wall socket plate with no audible difference.

MIKE DEFIORE, JR. Brownsboro, Ala.

A. Perhaps I shouldn't admit it, but I've puzzled over this one myself. Of course, the separate ground lead from your record player should be connected to the grounding terminal on your amplifier or preamplifier, which is usually found near the phono-input jacks. As far as ground terminals on tuners and tape decks are concerned, however, I'm not sure what the manufacturers intended us to do with them.

Connection to an external ground can be helpful if you live in an older house in which the house-wiring ground connections have become loose or corroded. An external ground connection-which should be made to a cold-water pipe-can sometimes help minimize hum, r.f. pickup, or even shock hazard. Sometimes, though, depending on the a.c. plug orientation, hum may actually be increased by a ground connection. The best advice I can give is that if everything is working fine in a system, ignore the ground connectors except the one intended for the record player. However, if you are suffering from hum, buzz, or r.f. pickup, try reorienting the equipment plugs in the a.c. wall out-



* in-no-vā'-tion (a new idea, method or device)

At JVC, innovation is a philosophy that has always been translated into improved *performance*. Some of the most important improvements—innovations you may take for granted—were introduced by JVC. The list includes the world's first metal-capable cassette deck, quartz-servo controlled turntables, and fine-ceramic speaker diaphragms.

More recently, we've refined the Super-A amp circuitry we originated; it reduces six different kinds of distortion down to imperceptible. You're also invited to consider the Jewel-Lock head assembly, as found in our auto-reverse cassette decks. It sets the standard for the next generation of audio, because it maintains peak performance in both directions of tape travel, while accomplishing reverse action silently and in no more than .4 seconds.

Now imagine a speaker system with a frequency response range from 35 Hz to 100,000 Hz. With a ribbon tweeter element weighing just 22 milligrams. The only word for its output: *pure*. The only



JVC COMPANY OF AMERICA High Fidelity Division 41 Slater Drive, Elmwood Park, N.J. 07407 JVC CANADA INC., Scarborough, ONT. CIRCLE NO. 2 ON READER SERVICE CARD name on its enclosure: JVC.

The list goes on. There's the JVC turntable with a computer controlled linear tracking tonearm, and a doubleservo quartz-control system that's a work of science *and* a work of art.

So is the JVC computer-controlled synthesizer tuner with four tuning modes and a highly obedient mind of its own.

But perhaps the best suggestion of all is to check it all out. Drop in at a JVC listening room.

And listen to the sound of innovation.

lets and also running wires from a good external ground to the equipment's ground connectors.

Direct-Drive Damage?

Q. I own a direct-drive turntable. When using a record-cleaner brush, should I start the motor and allow the record to spin, or should I manually spin the record with the motor off? Which is more damaging to a direct-drive turntable, forcing the platter to spin or applying drag?

STEVEN R. SIEGEL Ann Arbor, Mich.

A. Neither. One of the main reasons why direct-drive turntables are so beloved by DJ's and broadcasters is that they can be stalled or rotated in reverse (for record cueing) without damage to the drive system. Unlike idler or belt drives, which are physically coupled to the drive motor, the coupling in a direct-drive turntable is purely magnetic. Although it is possible that a cheap direct-drive turntable might overheat if physically stalled for a long period, under normal circumstances of use or record cleaning, damage is quite unlikely.

Tone Deaf?

A. My wife says that I'm going deaf, perhaps because I work in the press room at the Fisher Body plant. I keep my bass control just one notch shy of maximum, my midrange control is one notch down from the flat setting, and my treble is at maximum. It sounds a lot better to me that way. Some people come to my house and think my system sounds great; others want me to turn down the tone controls and volume. The latter I ignore. How would you characterize my hearing or preferred control settings?

ROBERT EHRENTRAUT Burton, Mich.

A. Since you are exposed to a high level of occupational noise and do not mention wearing ear protectors, it *could* be that you are suffering from some degree of hearing loss. It's more likely, however, that your chosen tone-control settings reflect your sonic tastes rather than a problem with your hearing.

Unlike many audiophiles, I feel that I need tone controls (actually an equalizer) simply because recordings, phono cartridges, speakers, and listening rooms are not perfect. (In my view the imperfect world we live in could benefit from a great number of improvements and adjustments—*including* the sonic ones provided by tone controls.)

It seems to me, though, that you are carrying your tone controlling to an extreme, far beyond any corrections that your system could possibly need. What you are achieving sonically is unlikely to resemble either live music or what the recording engineers and producers intended. In short, it in no way conforms to any definition of high *fidelity*. But since you make no claim to fidelity—you simply say that it sounds a lot better to you that way—I find your position regrettable but logically unassailable.

Where to reserve seventh row, center.



MONTANA

ARIZONA Audio Emporium – Tucson HiFi Sales Company – Mesa ARKANSAS Walloch's-Little Rock CALIFORNIA Audio Services-North Hollywood Audio Services-North Hollywood Eber Electronics-San Francisco House of Music-San Francisco Pacific Stereo-Los Angeles Pacific Stereo-Barkeley Paris Audio-Santa Monica Roger Sound Labs-Van Nuys Sherman Oaks Camera-Sherman Oaks The Good Guys-San Francisco The Good Guys-San Francisco Tokyo Electronics-San Francisco CONNECTICUT Take Five Audio-New Haven COLORADO Listen Up-Denver FLORIDA Hoyt HiFi-Jacksonville Marc's Electronics-Melbourne Sound Advice-Miami Sound Components-Coral Gables GEORGIA Back Door Stereo-Atlanta ILLINOIS Audio Dimensions-Moline Audio Enterprises-Chicago Heights Good Vibes Sound-Champaign Mills Recording-Chicago Pacific Stereo-Chicago Paul Heath Audio-Chicago Stereo Systems-Aurora United Audio-Chicago IOWA The Audio Room-Cedar Rapids KANSAS Red Baron's Entertainment Center-Wichita KENTUCKY Stereo Shoppe-Lexington LOUISIANA Alterman Audio-New Orleans MAINE New England Music-Portland MARYLAND Audio Buys-Gaithersberg Gramaphone Ltd -Baltimore High Fidelity Center-Baltimore Professional Products-Bethesda MASSACHUSETTS Audio Studio Stereo Lab-Brookline HiFi Listening Shop-Marlboro Q Audio-Cambridge Sound & Music-Northampton MICHIGAN Peerless Electronics-Detroit Stereo Shoppe-Lansing MINNESOTA Sound Center-Minneapolis MISSOURI Sound Enterprise Stereo-Kansas City

Rocky Mountain HiFi-Great Falls NEBRASKA Stereo West-Omaha NEVADA Q Audio-Reno The Upper Ear-Las Vegas NEW JERSEY The Audio Lab-New Brunswick NEW YORK Charos Custom Sound-Southampton Gordon Electronics-Syracuse Grand Central Radio-NYC Lyric HiFi-NYC/White Plains Park Avenue Audio-NYC Sound Chamber-Rochester Stereo Chamber-Buffalo NORTH CAROLINA Sound Ideas-Raleigh OHIO Golden Gramaphone – Akron Phil Reddish Audio – Cleveland Stereo Lab – Cincinnati/Columbus OKLAHOMA The Turntable-Enid OREGON Chelsea Audio–Beaverton Fred's Sound of Music–Grescham PENNSYLVANIA Chestnut Hill Audio-Philadelphia D.S. Audio-West Reading Opus One-Pittsburgh Sassafras Audio-Montgomeryville Stereo Barn-Ephrata The Sound Store-Pittsburgh SOUTH CAROLINA Read Brothers-Charleston TENNESSEE Audio Systems-Nashville Sound Concepts-Johnson City TEXAS Electronic Service Center-Odessa Marvin's Electronics-Ft. Worth Pacific Stereo-Dallas Pacific Stereo-Houston Recorder Center-Dallas Sheffield Audio-Houston Sound Climax-Dallas Stereo International-San Antonio UTAH HiFi Shop-Ogden Standard Audio-Salt Lake City VIRGINIA Audio Center-Roanoke Sound World-Virginia Beach WASHINGTON Magnolia HiFi-Seattle Pacific Stereo-Seattle WEST VIRGINIA Sound Investments-Morgantown WISCONSIN American TV-Madison Sound Stage-Milwaukee Specialized Sound System-Madison





Sony creates seventh row, center. Forever.

INTRODUCING THE SONY COMPACT DISC PLAYER.

The inventor of digital audio processing is pleased to raise the curtain on the CDP-101. Hailed by the discriminating ears at High Fidelity as "the most fundamental change in audio technology in more than eighty years."

There are compelling reasons for such applause

The CDP-101, based on the world's first compact disc system co-developed by Sony and Philips of Holland, offers concert-hall freedom from distortion, wow, flutter, and other sonic gremlins. Plus an awesome dynamic range exceeding 90dB. To bring you the full

beauty of Mahler or the Moody Blues as never before.

This highest of fidelity remains faithful, too. Because the digital discs are read by laser beam, there's none of the physical wear inevitable with tape or vinyl. While the CDP-101 ingeniously ignores scratches, dust, and fingerprints.

Equally ingenious, an infrared remote control even lets you select tracks without budging from your armchair. Yet for all its sophistication, the CDP-101 is thoroughly compatible with whatever sound system you now own We suggest you hear the CDP-10.

soon. For a sound you can't believe, from the audio innovator you assuredly can.



© 1983 Sony Corp. of America. Sony is a registered trademark of the Sony Corp. 1 Sony Drive, Park Ridge, New Jersey \$7656. CIRCLE NO. 5 ON READER SERVICE CARD

Tape Talk

By Craig Stark



Pitch Variations

Cassette decks today will almost start your morning coffee and have memories better than an elephant's, but when I hear tapes made on one deck played on another the pitch can vary as much as a minor third above or below the original pitch. Even budget turntables usually have a pitch (speed) control; why don't cassette decks?

> JOHN SPICKNALL Terre Haute, Ind.

A. Since most cassette decks use motors whose internal speed reference can be varied with a single resistor, providing a pitch control—a variable resistor and knob—is a relatively inexpensive matter. Indeed, only a few years ago a fairly large proportion of the machines I tested *did* have pitch controls.

Few people, however, have perfect pitch, as you apparently do, and in competition for front-panel space on their decks, manufacturers have decided that most consumers would rather have memory-related features than pitch fidelity. But now that tapes allowing the customer to play or sing one part have become popular in the executive bars of Tokyo, perhaps there will be a reawakening to the importance of this humble control. I hope so, for there is available a vast library of accompaniable performances for all kinds of instruments available on cassette (and disc) from a company known as Music Minus One, 423 West 55th Street, New York, N.Y. 10019. As a proud father listening to his daughter learn to solo with the Stuttgart Philharmonic in Grieg's Piano Concerto, I can attest that this is an extremely rewarding use for a tape deck, though it often requires a model with pitch control.

One for the Road

Q. My car's eight-track player has chewed up its last tape—I'm switching to a cassette deck. I'd like to make copies of my home "master" cassettes for car use and am considering using the Hitachi D-W700, which allows automatic sequencing of selections. My question is, can the scanning mechanism that detects the blank spaces between selections hurt the "master" cassette?

> JOHN GUION Baltimore, Md.

A. In a word, no. High-speed cueing, even with the tape pressed tightly against the heads, is routinely practiced on studio masters without any signal degradation, and, unless done to extravagant excess, it doesn't even wear the oxide coating appreciably. At cassette-tape speeds and pressures your concern is unwarranted.

Headphone Overload

Q. Frequently, when I plug either of my cassette deck all the level LED's suddenly light up and the sound becomes horribly distorted. After I unplug the phones everything returns to normal. Any suggestions? ARNOLD ARIAS Glendale, Ariz.

I'm almost certain this will end up as a A. job for a service technician who has a schematic diagram of the unit and the test instruments to help pinpoint the problem exactly. There is one chance for self-service-a slim one, but it costs nothing to try. When the deck is misbehaving, try shoving the headphone plug up and down and side to side in its jack. If this causes the deck to pop back and forth between normal and overloaded operation, it seems likely that the leaf spring of the headphone jack, which engages the tip of the plug when you insert it, is shorting something out or is putting enough pressure on the internal printed circuit board to cause something to open up or short out. If your warranty is still in force, leave the repair to the service tech; otherwise, try opening the deck to see what's happening, then loosen the headphone jack's mounting nut and rotate the jack slightly to get it out of the way when it engages the plug.

That's a long shot, however. It's more likely that the output stage of your playback amplifier is only marginally stable and that the reactive load presented by headphones causes it to become an oscillator. Circuit designers try to leave enough phase margin in the negative feedback loop to prevent instability, and probably 999 out of 1,000 production-line decks of the model you have would have no problem with headphone loads. Occasionally, though, component variations might add together to create an amplifier that needs only the slightest excuse to turn into an oscillator, overloading everything in sight. Tracking this down and fixing it is a service technician's job.

Tape-Head Cleaners

Q. In December's "Tape Talk," you recommended trichlorotrifluoroethane as a cleaning solvent for tape heads. So far so good, but in parentheses after the chemical name was the word "Freon," which is dichlorodifluoromethane. All I could see anyone accomplishing by using Freon (which is a common refrigerant compound) is a bad case of frost-bitten fingers. Moreover, isn't trichlorotrifluoroethane very toxic? While it may not harm tape heads, it doesn't do wonders for human beings when inhaled or absorbed through the skin.

DANIEL A. LARSON Kimberly, Wis.

The name "Freon" is a trademark of A. DuPont, so I checked with DuPont's Freon Products Division. They told me that there are some fifty kinds of Freon, of which the refrigerant dichlorodifluoromethane is only one (it's called Freon 12). The tape-head cleaner trichlorotrifluoroethane, called Freon TF, is widely used as an industrial solvent and gets high marks from the Occupational Safety and Health Administration (OSHA). It is low in toxicity, and, unless applied to the skin frequently for prolonged periods, it is rather harmless. (It dissolves finger oil and so can lead to chapping.) And it is the only safe head cleaner I know that is better than pure alcohol. Read the lists of ingredients on commercial tapehead cleaning solutions and you'll find that many of them contain Freon TF.

dbx Dynamics

Q. Is it possible to record a decoded dbx tape or disc on an open-reel or highquality cassette deck that does not have its own dbx system?

> JOHN ERCEG Saugerties, N.Y.

The dbx noise-reduction system is de-A. signed to permit reproduction of the full dyanamic range of a symphony orchestra-90 dB or more-and many dbxencoded recordings I have heard are designed to demonstrate this capability. Without a digital recorder or, perhaps, a professional studio machine (running at 15 or 30 ips and with Dolby-A professional noise reduction), you're likely to have a tough time recording wide-dynamic-range material. The signal from a decoded dbx disc or tape can best be compared to the studio signal during a live recording session, and fitting it into the limitations of a normal home deck will call for some very judicious "gain riding" (adjusting the recording level while the music is in progress) on your part.



"I restored the outside. Kenwood restored the inside."

A vintage '59 Caddy Coupe De Ville with a re-chromed 390 cubic-inch engine. Seven long months of work. I thought nothing could top what I'd done to the outside, until I heard what Kenwood Ear Conditioning did for the inside.

When I slipped a cassette into the KRC-1022 quartz PLL-synthesized cassette tuner and heard the combination of a high-power amplifier, rear deck mount speakers, 3-way door mount speakers, and equalizer, I found out the meaning of the words, "transcendental experience."

It was a tough decision, considering all the components Kenwood has to offer,

but it turned out to be the right system for my little masterpiece.

Why get your car sound-equipped when you can get it Ear-Conditioned?

Especially when your car deserves the very best.



If you haven't seen Kenwood's line of Ear Conditioning systems, call toll-free 1 (800) 453-9000 for the dealer nearest you. In Utah call 1 (800) 662-2500. CIRCLE NO. 8 ON READER SERVICE CARD Warning: The Surgeon General Has Determined That Cigarette Smoking Is Dangerous to Your Health.



LIGHTS

100's

Join the first team. Reach for Winston.

TH RICH TASTE

Vinston

LIGHTS

3 3 3 3



The Delco-GM/Bose Music System

AST summer a revolutionary advance in automotive sound was announced and demonstrated by Delco Electronics and Bose Corporation, and it has since been widely acclaimed in the audio press. Unfortunately, it was not possible to include the Delco-GM/Bose Music System in STEREO REVIEW's comprehensive test of car stereo units for the January 1983 issue, which was then in progress. All we could do was state in the article that our experience during several days and several hundred miles of driving a Delco-GM/Bose-equipped Cadillac Seville convinced us that this was a true hi-fi system, comparable to many good home installations in overall quality.

The Delco-GM/Bose Music System is unique in having been *designed* as a complete system, from program sources to the listeners' ears. The deficiencies in typical car stereo installations are familiar to everyone, including uncertain and multipath-plagued FM reception, a high ambient noise level (both acoustic and electrical), small, inadequately baffled, and (generally) improperly located speakers, and others too numerous to mention.

Dr. Amar Bose realized that one of the presumed limitations of the car environment—the fixed and not necessarily optimum locations of the driver and passengers—could be converted to a strong asset. Nowhere else in hi-fi (with the possible exception of headphone listening) is there a known, fixed listening environment with a defined physical relationship to the speakers and the audience. This provided the incentive for a group of audio and car engineers to investigate the total car audio environment and try to design a fully integrated system that would take advantage of this defined situation to achieve performance transcending anything previously attained.

The acoustical and technical factors of the Delco-GM/Bose Music System are discussed elsewhere in this issue. I would like to comment here on my reaction to last summer's visits to the Bose and Delco plants and on my subjective impressions of the system in on-the-road experiences with both the preproduction and latest production versions as installed in two different cars. Regrettably, the impossibility of separating the components of the system from their automotive environment makes it impracticable for me to perform any of my standard laboratory tests on them.

When Bose prepared to embark on its research program into auto sound systems, it was necessary to team up with a likeminded automobile manufacturer. This proved to be General Motors and its Delco Electronics subsidiary. Delco may be known to most of the public as the supplier of radios to the GM car-manufacturing divisions as well as other auto manufacturers, but our eye-opening visit to its Kokomo, Indiang, plant gave us a new perspective on this relatively unpublicized electronics giant. I have visited a number of the most modern factories of Japanese electronics companies, and, like most people, I have come away with a powerful impression of efficiency, modernity, and technical sophistication. I found the Bose plant in Framingham, Massachusetts, and the Delco plant in Kokomo to be at least the equal of any of the Japanese factories 1 have visited in respect to overall modernity, sophistication of plant facilities, dedication to quality, and talent of the technical staff.

Delco not only makes car radios, which it is currently producing at the staggering rate of more than 20,000 units a day, it is also one of the world's largest semiconductor manufacturers. The company produces for General Motors the enormous number of computers that are an integral part of today's automobiles. The facilities I saw at Kokomo would be difficult to describe even if I could extend this column by several pages. Let me say only that seeing this enormous plant, with its advanced facilities for the design and manufacture of the most complex large-scale integrated circuits, reinforced my previous reaction to the Bose plant (though that is of course much smaller) and renewed my confidence in the future of the American electronics industry.

In the Delco-GM/Bose partnership, Bose did the basic acoustical research and system design and developed and manufactures the two-state digital-switching-amplifier/ speaker modules that are so important to the system's success. Delco engineered and manufactures the electronically tuned radio/cassette player (ETR) that serves as the system's control center and signal source. The various GM automotive divisions coordinated their new car designs with the system's acoustic requirements. Over a three-year period, the partners in this ambitious project invested some \$12,000,000 in its creation, making it one of the most ex-

Tested This Month

Snell Type J Speaker System

Toshiba SA-R3 AM/FM Receiver Electro-Voice Type 35i Speaker System

Onkyo TA-2035 Cassette Deck Sony TA-F555ES Integrated Amplifier pensive and comprehensive high-fidelity audio developments ever undertaken.

I use the term "high-fidelity" unreserved-ly, for that is what the Delco-GM/Bose Music System is. My listening experiences with two samples of the system make me wish that some of its special qualities were as readily available in a home system. For example, few of us (myself included) are fortunate enough to have a listening room in which the speakers are placed optimally, in which the furnishings are scientifically designed to complement and enhance the sound (actually, it's the other way around, but the result is the same), and in which the listening positions for up to four people are not only acoustically optimized but are equipped with supremely comfortable reclining chairs! In addition, there are no interruptions by telephones or door bells, the heating and air conditioning system automatically maintains any desired temperature in the room, and, as a bonus, this sonic paradise can transport its occupiers in smoothness and comfort to almost any location of their choice.

What I have described, of course, is the Cadillac Seville in which I first experienced the Delco-GM/Bose sound last summer. That car was a modifed 1982 model, and the electronic portions of the system were from pilot production runs. Recently I spent a weekend with a standard production-line 1983 Seville fitted with production-line Bose and Delco components. My earlier impressions were not only confirmed but strongly reinforced. I'm afraid that car stereo will never be the same for me again. One of the most impressive features of the system was its ability to play at full volume, which approached ear-popping levels, with absolutely no harsh distortion, clipping, or other typical symptoms of an overdriven amplifier. Even my wife, who normally prefers music at a more moderate level, enjoyed the experience. The worst result of such heavy-handed operation is a modest compression of the dynamics of the music, never an offensive distortion level.

There is something to be said for sitting inside the speaker enclosure, which is in effect what one does when listening to any car radio. Of course, a Delco/Bose-equipped car is not just any speaker enclosure, for the amplifiers are equalized so that the speakers produce a reasonably flat frequency response at all listening positions. The equalized bass response extends down to about 50 Hz, and, unlike the home listening situation, it is the same for all the listeners because the compact dimensions of a car interior will not support the standing waves that emphasize or reduce bass response in different parts of any ordinary listening room.

Headphone listening shares some of the qualities of an automotive music system. The similarity is largely in the elimination of undesirable room-resonance effects from the listening environment. However, besides freeing the listener from the headphone's umbilical cord, the Delco/Bose system literally surrounds him with stereo (as opposed to binaural) sound, as well as providing the overall body impact that is totally lacking in headphone listening.

As Bose points out, a conventional car stereo installation can at best produce a reasonable stereo balance for one person, but no conceivable balance-control manipulation can extend this balance to both the driver and a passenger (let alone rear-seat passengers) at the same time. The Delco/ Bose system is designed to give a proper left-right balance at any seat in the car, and it neither needs nor has a balance control. From my road experience with the Delco-GM/Bose system (including some time spent listening in each of the seats), I can



... Oh? You say it sounds fuzzy? Well, let me ask this—why does the U.S. government give guns to gangster bandits in Afghanistan?

confirm that the spatial qualities of its sound are essentially as claimed and are in many ways superior to what one hears in a home environment.

I noted with interest the unusual tone controls of the Delco ETR control unit. Since the entire system was designed to have a flat acoustic response, the tone controls have no boost effect. They provide only a moderate amount of cut in the bass and treble ranges in order to correct certain program deficiencies or to satisfy individual listening preferences. With the pilot-run Delco-GM/Bose system I used last summer, I often preferred a slight treble rolloff, especially with "hotter" cassette tapes, but with the regular production system 1 left the controls at maximum and found the frequency balance to be excellent. Unlike the Dolby-B tape noise-reduction system, the DNR (Dynamic Noise Reduction) circuit is switchable. Operating independently of the Dolby system, it gives about as much noise reduction and is usable with any program source. When both systems are used in combination for playing tapes, they reduce hiss very effectively without loss of high-frequency program material.

One of the best features of the Delco-GM/Bose Music System is the Bose modular speaker/amplifier units. Unlike many ported enclosures in which the goal is to obtain the deepest bass response, the Bose design is intended to minimize the speakercone excursion for a given acoustic-output level. This enables the small drivers to handle high power inputs without damage or excessive distortion from suspension nonlinearities or Doppler effects. The two-state switching amplifier, derived from earlier Bose developments in high-efficiency amplifiers, develops little heat and requires no external cooling system. This is vital to its successful operation in an essentially closed environment (the port may provide some cooling, but circulation of air through the enclosure is impracticable).

Even when dealing with car audio systems less completely integrated than the Delco-GM/Bose Music System, it is usually impossible to measure the performance of their subsystems in a manner that permits comparison with conventional separate components. Delco has provided some measurements on the ETR, but, frankly, mere numbers are not adequate to describe the total effect of this mobile music hall. It requires a subjective judgment, and mine is that-in an age when even the least consequential developments are often hailed as major "breakthroughs"-the Delco-GM/ Bose Music System is a truly outstanding advance in automotive sound. I must admit that better overall sound can be had without paying the \$16,000 to \$28,000 price of one of the suitably equipped GM cars. On the other hand, even a no-holds-barred home system in that price class will not be able to transport the listeners literally as well as figuratively! On a more practical note, I have heard a number of home systems costing considerably more than \$900 (the approximate additional cost of the Delco-GM/Bose system) that could not match its sonic spleador.

Test Reports start on page 34

Equipment Test Reports

Hirsch-Houck Laboratories: Julian D. Hirsch and Craig Stark



Snell Type J Speaker System

THE Snell Type J is a compact 8-ohm, two-way speaker system intended to bring the essential qualities of larger (and costlier) Snell speakers to a more popular price range. Although its size and proportions suggest a bookshelf speaker—and it can be shelf-mounted, either vertically or horizontally—the Type J gives its best tonal balance when it is mounted vertically on floor stands (suitable 10-inch stands are available from Snell) about 1 to 3 feet out from a wall.

The Type J speaker measures 23 inches high, 13 inches wide, and 10 inches deep, and it weighs 38 pounds. The cabinet is veneered in genuine oak or walnut and has a dark-brown cloth grille retained by plastic snap fasteners. There are no external leveladjustment controls, and the two five-way binding posts (on ³/₄-inch centers) are recessed into the rear of the cabinet.

The Snell Type J has an 8-inch longthrow woofer, with a polymer-treated cone, crossing over to a 1-inch soft-dome tweeter at 2,300 Hz. The enclosure is ported through a $1^{1/2}$ -inch opening that is vertically aligned with both drivers. The crossover network of each speaker system is individually adjusted to match its woofer and tweeter characteristics. Snell rates the Type J's frequency response at 50 to 22,000 Hz ± 2 dB under home listening conditions (no measurement details are supplied). The nominal system impedance is 8 ohms, and its sensitivity is rated as a 90-db sound-pressure level at 1 meter with 2.8 volts of pink noise. The sensitivity of all production units is said to fall within a 0.5-dB spread. Recommended amplifier power range is 15 to 150 watts.

Price: \$549 per pair for oak finish, \$585 for walnut finish. The optional floor stands (finished in black) are \$50 per pair. Snell Acoustics, Inc., 143 Essex Street, Haverhill, Mass. 01830.

• Laboratory Measurements. The middleand high-frequency room-response curve of the Snell Type J, averaged for the left and right speakers, was very flat over the entire operating range of the tweeter and much of the woofer's range, varying only about ± 2.5 dB from 250 to 20,000 Hz.

The woofer response was measured with close microphone spacing to eliminate room effects and simulate anechoic conditions. It was measured separately at the woofer cone and port, and the two curves were spliced after correction for their relative radiating areas—to form a composite woofer-response curve. Although this measurement is valid only up to about 300 Hz, the shape of the curve was well defined, and it could be spliced to the room-response curve with a minimum of ambiguity. From a maximum between 80 and 100 Hz, the woofer response sloped downward with increasing frequency to -10 dB at 1,000 Hz. The crossover to the port output took place at about 35 or 40 Hz, and the combined bass output fell off below 70 Hz at about 12 dB per octave.

Photos by Roy Sch

The spliced composite response curve showed a smooth but broadly emphasized bass output, peaking at 100 Hz, joined to a very smooth and flat midrange and treble curve. Although the Type J's maximum bass output was about 6 dB higher than its average output above 500 Hz, the low-frequency output of any speaker into a room is strongly influenced by the room's characteristics and the speaker's placement in it. Snell's recommendation that the Type J be mounted on a stand away from the wall conforms to our findings, since this placement minimizes the bass emphasis imparted by the room boundaries.

The Type J's woofer distortion with a 1watt input (based on a 8-ohm impedance) ranged between 1 and 2.5 per cent from 100 Hz down to 50 Hz, increasing rapidly at lower frequencies to 10 per cent at 35 Hz. At 10 watts input, the distortion rose to between 2.5 and 8 per cent from 100 to 50 Hz and increased further at lower frequencies. The sound from the woofer indicated that it was being overdriven at this high level.

The speaker's impedance reached a minimum of 4.5 ohms between 30 and 40 Hz
HOW DOES GENE KELLY GO TO GREAT CONCERTS IN HIS BATHROBE?

WITH HIS RCAVIDEODISC PLAYER.

Whenever he wants, Gene Kelly can see and hear music by Paul Simon, Paul McCartney, Tony Bennett, Diana Ross and even The Who. And he can enjoy it while relaxing in his most comfortable clothes.

That's the magic of the RCA VideoDisc Player — the remarkably simple machine that lets you see great entertainment on your TV. Not just exciting concerts, but musicals, ballet and 600 other great movies, sports shows and more.

All with an extraordinary picture. Many in full-stereo sound. So you don't just see and hear music,



you live it.

Players start at \$299* Discs as low as \$14.98*

And the great music starts whenever you're ready.

See your RCA VideoDisc dealer today. For more information, write: RCA Consumer Electronics, Dept. 32-312J, P.O. Box 1976, Indianapolis, Indiana 46206. *Prices optional with dealer Stereo higher

WE'LL OPEN YOUR EYES. CIRCLE NO. 6 ON READER SERVICE CARD



test reports

and at about 130 Hz, with maxima of 20 ohms at 63 Hz and 28 ohms at 1,600 Hz. Although the impedance was greater than 8 ohms over most of the audio range, it fell well below that value at some frequencies, so parallel hookup of pairs of these speakers should probably be avoided unless the amplifier used is designed to drive low load impedances. The measured sensitivity of the Snell Type J was slightly better than rated: 89 dB sound-pressure level at 1 meter with 2.83 volts input (1 watt into 8 ohms).

The quasi-anechoic frequency response was measured with our IQS FFT analyzer, mostly at a distance of 1 meter. In general, the resulting curves closely matched our room-response measurements. The extended range and very smooth response of the dome tweeter were evident in these measurements, which showed virtually flat response up to 17,000 Hz and a smooth rolloff above that, to -15 dB at 25,000 Hz. The IQS system can plot the difference between two different sets of data, and when we did this with the responses measured on axis and 45 degrees off axis, it showed that the tweeter's polar response was excellent up to 12,000 Hz; the directivity reached its maximum at about 17,000 Hz. The phase response of the Type J was very good, as illustrated by its group delay of 0.2 millisecond, varying between 0 and 0.4 millisecond from 5,000 to 23,000 Hz. Although there were cyclic variations in group delay at lower frequencies, they never exceeded ± 0.35 millisecond over the audio range.

• Comment. The recommended speaker placement produced the most pleasing results from the Type J speakers in our listening room. With them placed on the floor, the bass was a bit heavy; we did not try shelf mounting. From the first hearing, we felt that these speakers produced a very attractive and balanced sound.

Comparison with our much more expensive reference speaker systems revealed a distinctly different spatial perspective as well as spectral differences. The Type J produced a more forward sound and tended to sound brighter and crisper than the other speakers. On the other hand, there was surprisingly little difference in the bass; apparently both speakers exhibit a similar midbass emphasis in our room. Such a comparison cannot positively identify a speaker system's particular merits or faults, but it did show us that the Snell Type J was able to hold its own very well against a very highly regarded system that is both larger and rather more expensive.

We also appreciated the natural-oak veneer on our sample of the Snell Type J, which set it apart from the great mass of walnut-grain vinyl-covered speaker systems. These speakers should make a handsome addition to any listening room. The only measurement in which the Type J fell short of our expectations was its bass harmonic distortion at 10 watts input, a very loud listening level. This is obviously not the speaker of choice for generating leasebreaking sound levels of, say, pipe-organ music, at least if clean sound at that level is desired. But for delivering pleasant, balanced, and natural-sounding reproduced music at normal listening levels, we would have to give the Snell Type J a very high mark. -Julian D. Hirsch

Circle 140 on reader service card



THE Toshiba SA-R3 stereo receiver combines a digital-synthesis AM/FM tuner, a preamplifier with CX decoding in its phono section, and a power amplifier rated to deliver 40 watts per channel to 8-ohm loads from 20 to 20,000 Hz with no more than 0.04 per cent total harmonic distortion. Most of its controls are light-touch pushbuttons, knobs being used only for the tone and balance controls and a vertical slider for the volume control.

Lights show the selected input (AM, FM, phono, aux/video, and either tape or source programs). Like most digitally tuned receivers, the SA-R3's FM-mode selector disables the muting in its mono position. There is also the usual choice of manual or auto tuning modes, respectively advancing one channel at a time or searching for the next receivable signal. Each of the five stationmemory buttons is usable for an AM and an FM channel. Separate buttons connect the two sets of speaker outputs. They are wired in series; pressing both buttons with only one set of speakers connected will silence the receiver.

The CX-decoder circuits are switched in by a button on the front panel. With CXencoded records this provides 15 to 20 dB of noise reduction and an overall dynamic range (depending on the record) of as much as 80 dB. Conventional LP records should be played with the CX system turned off. The CX decoder is level-sensitive, and the receiver must be calibrated to the output level of the system's phono cartridge using two screwdriver-adjusted controls on the rear panel. A flexible test record supplied with the receiver has 1,000-Hz tones recorded separately for the two channels at the CX reference groove velocity of 3.54 cm per second. While playing the record, the CX level control for each channel is set so that a nearby LED glows. Once made, this adjustment need not be repeated unless the cartridge is changed.

Also on the rear apron of the SA-R3 is a hinged, removable AM loop antenna, which can be located a short distance from the receiver and oriented for best reception. The receiver is finished in satin silver with a black-tinted display window containing the frequency readout, signal-strength lights, and other indicators. It is 16¹/₂ inches wide, 13¹/₄ inches deep, and 4¹/₄ inches high, and it weighs 15 pounds. Price: \$400. Toshiba America, Inc., 82 Totowa Road, Wayne, N.J. 07470.

• Laboratory Measurements. Although the Toshiba SA-R3 is a rather lightweight receiver, even for its modest power rating, it did not become unduly warm during our preconditioning or full-power tests. With both channels driving 8-ohm loads at 1,000 Hz, the outputs clipped at 52.5 watts per



channel, for a clipping headroom of 1.18 dB. With 4-ohm loads, the clipping power was 64 watts, although an internal d.c. fuse blew when we drove both channels simultaneously to clipping with 4- and 2-ohm loads. The 2-ohm continuous output was limited by the fuses to only a few watts, and we did not attempt to measure it. The pulsed waveform of the dynamic-headroom test enabled us to drive the amplifier to 63.2, 80, and 104 watts into loads of 8, 4, and 2 ohms, respectively, giving an 8-ohm dynamic headroom of 2 dB.

The distortion of the SA-R3's amplifier section was well within its ratings under any conditions short of clipping. At 1,000 Hz into 8 ohms, it was between 0.0032 and 0.007 per cent for power outputs between 1 and 50 watts. With 4-ohm loads, the distortion was still only 0.0056 to 0.008 per cent from 1 to 60 watts. At the rated 40 watts into 8 ohms, the distortion was typically under 0.01 per cent from 30 to 15,000 Hz, reaching 0.02 per cent at 20,000 Hz and 0.03 per cent at 20 Hz. At half power and less, the distortion was much the same, typically well below 0.01 per cent and never exceeding 0.02 per cent from 20 to 20,000 Hz. The IHF intermodulation distortion, using inputs of 18 and 19 kHz, was a good -82 dB for the second-order component at 1,000 Hz but a relatively high -52 dB for the third-order products at 17,000 and 20,000 Hz. There is no reason to expect that the third-order distortion will be audible (it was not to us). The amplifier was stable with reactive simulated-speaker loads and had a slew factor of 2.5 (with a "rated power" sine-wave drive level, the output waveform became triangular at about 50 kHz).

A reference output of 1 watt required an aux input level of 66 millivolts (mV) or a phono input level of 0.3 mV. The corresponding A-weighted noise levels were unmeasurable for the aux input (less than -90 dB) and a very low -85.5 dB for phono. The phono preamplifier overloaded at very safe levels, from 150 to 170 mV depending on the frequency. When measuring the phono-input impedance, we were surprised to find an extremely low capacitance of 13 picofarads combined with a resistance of 100,000 ohms, not the standard 47,000 ohms. The CX circuits could be calibrated for inputs between 1.15 and 35 mV, a range that encompasses every moving-magnet cartridge made as well as some high-output moving-coil units. The precise CX-level indicator LED lit up within a range of only \pm 4 per cent around the correct voltage.

The tone controls had typical Baxandall characteristics, with a sliding bass-turnover frequency and a hinged treble-turnover frequency. The loudness compensation provided only a modest bass boost (a maximum of about 6 dB) and had a shelved response that was flat below 200 Hz and above 1,000 Hz, with a small level difference between



the two sections. The SUBSONIC (16-Hz) filter had a 6-dB-per-octave slope and affected the response as high as 200 Hz but reduced it by only 3 dB at 30 Hz. The phono equalization was within ± 0.5 dB of the ideal RIAA characteristic from 20 to 20,000 Hz, and it was not affected significantly by phono-cartridge inductance.

The FM tuner section of the Toshiba SA-R3 had a usable sensitivity of 13.2 dBf (2.5 microvolts, or μ V) in mono, and the mono and stereo 50-dB quieting sensitivities were 15.8 dBf (3.4 μ V) and 37.7 dBf (42 μ V), respectively. The stereo (and muting) threshold was 22.7 dB (7.5 μ V). The signal-strength indicator lights were usefully spaced, with the first light coming on at the muting threshold, the next three at approximately 6-dB intervals, and the highest (the fifth) at 54.1 dBf (280 μ V).

The FM distortion at a 65-dBf (1,000- μ V) input was 0.16 per cent in mono and 0.25 per cent in stereo, with noise levels of -77 and -70 dB, respectively. The IHF intermodulation distortion, with modulating frequencies of 14 and 15 kHz, was -62 dB for the second-order (1,000-Hz) component in mono and -68 dB in stereo. The third-order (13- and 16-kHz) distortion components were -67 dB in mono and -72 dB in stereo. The tuner's capture ratio was 1.2 dB at 65 dBf input, and the AM rejection was 57 dB at 45 dBf (100 μ V). The image rejection was 62 dB. Alternatechannel and adjacent-channel selectivity readings were 66 and 7.8 dB, respectively. The 19-kHz pilot-carrier leakage was a low -73 dB, and the power-line hum was -65dB (almost all at 60 Hz).

The stereo FM frequency response was flat within ± 0.8 , ± 1.5 dB from 30 to 15,000 Hz. The channel separation was between 42.5 and 45 dB from 30 to 1,500 Hz, falling smoothly to 30.5 dB at 15,000 Hz. The AM-tuner frequency response was down 6 dB at 36 and 2,800 Hz.

• Comment. The Toshiba SA-R3 proved itself to be a thoroughly competent receiver. Its FM-tuner measurements were all quite good, and for the most part the same could be said for the audio amplifier section. The unusually high phono-cartridge load resistance may have an audible effect on a cartridge's response—some high-inductance (Continued on page 40)



Warning: The Surgeon General Has Determined That Cigarette Smoking Is Dangerous to Your Health.

LIGHTS: 9 mg. "tar", 3.8 mg. nicotine, LIGHTS 100's: 10 mg. "tar", 0.8 mg. nicotine, av. per cigarette by FTC method.

Share the spirit. The refreshment.

MENTHOL FRESH

Salem

100s

9mg TAR

MENTHOL FRESH

Sallem LIGHTS

test reports

cartridges that depend on the usual 47,000ohm termination to obtain their rated response may show high-end peaks—but lower-inductance types should not be affected significantly. In our listening tests, we never heard any coloration that could be attributed to this factor.

The power output of this receiver should be adequate for the great majority of home installations. Like most Japanese receivers, the SA-R3 was not meant to drive load impedances much lower than 4 ohms, and its protective system will not permit such operation, at least at fairly high levels. We never got a chance to find out if it has electronic current limiting, but the power-supply fuses perform that function very nicely without undesirable side effects (and the inconvenience of removing the cover to replace them discourages unnecessary pushing of the amplifier past its limits). It was gratifying to find that the amplifier can deliver a high short-term peak output, even to 2-ohm loads, without apparent distress, and its sound is not likely to suffer from such operation. The series connection of the second set of speakers makes it almost impossible to present the amplifier with too low an impedance accidentally.

On the whole, the compact SA-R3 is attractive and simple to operate. Its built-in CX decoder works well and takes only moments to calibrate. The decoded CX records we heard through it were all that could have been desired, with virtually inaudible noise, clean sound, and no objectionable expansion artifacts. —Julian D. Hirsch

Circle 141 on reader service card



Electro-Voice Type 35i Speaker System

THE Electro-Voice "controlled directionality" (CD) speaker systems are designed to produce time-coherent (phasealigned) sound with a minimum of the diffraction effects said to be typical of conventional cabinet designs. One of the first products in the CD Series is the Type 35i, a three-way floor-standing model.

The walnut-veneered cabinet of the E-V Type 35i is $32^{1/3}$ inches high, $21^{1/3}$ inches wide, and $10^{1/2}$ inches deep, and the system weighs 66 pounds. Its three drivers are vertically aligned on the front panel, and the cabinet is angled backward on both sides of the panel to reduce edge diffraction. Spring-loaded input terminals, which accept the stripped ends of speaker wires, are recessed into the rear panel of the cabinet.

Unsnapping the black cloth grille reveals at the bottom a 12-inch woofer whose clear polypropylene cone gives a view of the supporting basket and the acoustic absorbing material that fills the cabinet. The woofer port is located at the upper left of the front panel. The middle- and high-frequency drivers radiate through square, tapered horn-like structures that E-V calls "Direktors." Their function is to make the radiation patterns of the middle and high frequencies match that of the woofer into a "half space," or forward-facing hemisphere. The 1.5-inch dome midrange driver operates from 1,500 to 8,000 Hz, where it crosses over to the 1-inch tweeter. The front

of the midrange dome is covered by a foamplastic damping disc, and the impregnatedfabric tweeter dome is apparently damped by a rubber disc clamped to its center.

A brass strip across the top front of the speaker, above the grille, hinges downward to reveal recessed knobs for varying the midrange and treble outputs over a range of ± 2 to ± 4 dB. The knobs are identified as PRESENCE and BRILLIANCE adjustments. In the center of this section, visible through a cutout in the brass strip when it is in the closed position, are two LED POWER SENTI-NEL indicators. The left (amber) light flashes to warn that the speaker's power-handling limits are being approached (usually at low or middle frequencies). A

ONLY ONE AUDIO DEALER IN T WENT Y CA RR OCERA R-851 K Y(**UNER/AMPLIFIER** WITH MOS FET AMPS.



Very simply, our R-851 is not for everyone. Not for every dealer. Not for every audio buyer.

Only for those who demand the best. Those who want sound that's pure and distinctive ... who hear subtleties others miss. For those discriminating listeners, the R-851 is well worth the quest.

Hear the silence before you hear the sound.

Switch on the R-851, switch from one function to another. Try Phono. Tape 1. Tape 2. Auxiliary. Back to Phono.

Absolute silence (of course, you'll get sound on AM/FM). The silence is the mark of a great receiver. And great engineering. The kind of quiet an audiophile

loves to hear.

Sound that takes you closer to the source.

We've turned on the R-851 for some very experienced-even jaded- audio ears, and all we can say is it stops em every time. The sound is different. The sense of *being there* is almost overpowering. All this comes from 85 watts per channel of power* (with dynamic power far above this figure) and some of the most sophisticated circuitry in the business. Above all, it uses MOS FET's, the new breed of output transistors, in the amplifier section. They can handle the transients, the power surges, the power requirements of present-day sound (and tomorrow's digital sound) better than bipolar transistors ever couldand give you a sonic purity like no other (many claim MOS FET's have picked up the warm, rich sound of the great tube amps and gone a step beyond!).

Fine tuned for every audio need.

From front end to output jacks, the R-851 offers every feature an audio enthusiast might want. The most commonly used controls are right up front-the more esoteric ones are placed behind a neat flip-down front panel. There's microprocessorcontrolled quartz-locked tuning with 14 station programmable mem-ory (7 AM & 7 FM); automatic station seek; 3-band parametricstyle equalizer; fluorescent display panel; and two-way tape monitoring and dubbing.

If you need some help in finding that one Kyocera dealer in twenty, contact: Kyocera International, Inc., 7 Powder Horn Drive, Warren, NJ 07060 (201) 560-0060.

CIRCLE NO. 7 ON READER SERVICE CARD



*85 watts RMS per channel, both channels driven, at 8 Ohms with no more than 0.015% THD from 20-20,000 Hz.

test reports

more or less constant glowing of this light means that the overall playing level should be reduced or that any bass boost should be turned off. The right (red) light glows when an internal relay in the Type 35i momentarily reduces the input to the middle- and high-frequency drivers. Normal operation is restored automatically when the playing level returns to safe values. Since this light operates in a different frequency range than the low-frequency amber light, either one may be triggered without the other flashing. If both are on more or less constantly, the system is being overloaded and power should be reduced to prevent damage to the speaker (not to mention your ears).

E-V provides exceptionally complete performance specifications for the Type 35i. Its total acoustic power output is rated as "essentially flat" from 40 to 12,000 Hz and up to 30,000 Hz on axis. The dispersion angle is held to 100 degrees from 500 to 12,000 Hz by the Direktor design, the woofercone design, and the crossover frequency. The Type 35i is a sensitive speaker rated to deliver a 92-dB sound-pressure level at 1 meter with a 1-watt input into its 6-ohm nominal impedance. (Minimum impedance is given as 5 ohms.) The suggested amplifier power is 10 to 50 watts, although the speaker can be used with amplifiers rated between 3 and 400 watts (in other words, with just about every amplifier or receiver made). A "time-coherency" specification states that all the drivers are synchronized in output within 0.15 millisecond.

The price of the E-V Type 35i is \$750. The almost identical Type 35, lacking only the balance adjustments and POWER SENTI-NEL protective system, is finished in oak veneer and costs \$650. Electro-Voice, Inc., 600 Cecil Street, Buchanan, Mich. 49107.

• Laboratory Measurements. The room response of the E-V Type 35i speakers was measured with the balance controls set to zero. From the 1,000-Hz reference level the output rose to about 5 dB at 2,500 Hz, falling back to the 1,000-Hz level at 10,000 Hz and continuing down to -7 dB at 15,000 Hz and -12 dB at 20,000 Hz. The closemiked woofer response, measured separately at the cone and port and then combined to yield a quasi-anechoic low-frequency response, was at a maximum between 70 and 90 Hz, falling linearly to -6 dB (relative to



the 1,000-Hz level) at 500 Hz. This measurement is not reliable above that point, although it showed a minor irregularity in the output between 500 and 1,000 Hz. The low-frequency output fell to -6 dB at 50 Hz and -11 dB at 20 Hz.

Since the speaker's midrange irregularity was visible in the room response as well, it served as a guide for splicing the two curves together. The composite frequency response was within ±5 dB from 48 to 16,000 Hz. There was a broad emphasis in the upper midrange, from about 1,000 to 8,000 Hz, a minimum output in the range of a few hundred hertz to nearly 1,000 Hz, and (as noted previously) a maximum bass output just below 80 Hz (though there was substantial output for at least another octave downward). The tweeter output also fell off gradually above 5,000 Hz, with a minor peak at 14,000 Hz in the room-response measurement. The decibel calibrations of the speaker's level controls were approximately correct.

The axial anechoic response, measured with our IQS FFT analyzer, was very similar to the composite response curve. It showed a broad dip in the 500-Hz region, a rise between 1,500 and 3,000 Hz, and a falling treble response with a peak at 13,000 Hz followed by a rapid drop to about -20dB at 16,000 Hz compared to the maximum output at 2,500 Hz. The directivity of the system was measured by using the computerized FFT system to subtract the response 45 degrees off axis from the axial response. There was little difference between the two up to 7,000 Hz and about 8 to 12 dB difference in the range from 10,000 to 15,000 Hz (the off-axis response was lower than the on-axis one). These results are typical of the directivity of a 1-inch dome tweeter at those frequencies. A group-delay measurement on the Type 35i confirmed (within the limits of our measurement ability) the manufacturer's claims for its time-coherent response. Over the measurement range from about 2,000 Hz to 20,000 Hz, the outputs of the drivers were synchronized within 0.2 millisecond overall.

The impedance of the E-V Type 35i reached its rated minimum of 5 ohms at 30, 100 to 150, and 10,000 Hz. Maximum readings were 15 ohms at 67 Hz and just over 50 ohms at 1,300 Hz. The speaker's sensitivity was even higher than rated, with 2.83 volts of noise in an octave band generating a sound-pressure level of 94.5 dB at 1 meter. This is one of the highest sensitivities we have measured from a speaker system, some 6 to 8 dB greater than most highquality home speakers. The distortion of the Type 35i's woofer with a 1-watt input was typically between 0.5 and 2 per cent over the 100- to 40-Hz frequency range and only 5.5 per cent at 30 Hz. Because of the high sensitivity of this speaker, these figures could be compared to the "10-watt" distortion readings of most acoustic-suspension speakers. At 10 watts input, the distortion of the Type 35i was between 2 and 4 per cent from 100 to 50 Hz, increasing to 9 per cent at 40 Hz and 14 per cent at 30 Hz.

• Comment. In general, we felt that the Type 35i had a heavier, more prominent bass than other speakers with which we



Pioneer Laser Disc **IT BEGINS WHERE RECORDS LEAVE OFF.**





Queen/ Greatest Flix



Itzhak Perlman



Bob Marley & The Wailers





Manhattan Transfer



Kenny Loggins/

Pavarotti in London



Little River Band Live Exposure



Swan Lake

For all the improvements in audio recording over the years, something has always been missing: the seeing. Without sight, you could only imagine. The reality of performance was somehow lost.

A new technology has changed that. Sight and sound have come together to give you a sense of "being there" you've never experienced at home before.

Ît's called Pioneer LaserDisc.™ The picture phonograph read by a laser beam.

LaserSound is stereo as good as the best conventional audio records made today. And the picture that LaserDisc puts on your TV is far better than home TV reception has ever been.

The variety of music already on LaserDisc is huge.

For classical buffs, there's Rostropovich's famed Dvořák Cello Concerto. And Perlman's superb Beethoven Violin Concerto. And there's opera from Pavarotti to Domingo.

On a more contemporary note, there's the new Paul McCartney world-tour disc. Melissa Manchester cries out loud, and Olivia gets physical right before your eyes.

If all you want to do is watch movies, LaserDisc is far superior to any other. But if you're truly interested in music, you have no other choice. Because you really haven't heard music until you've seen it.

For the Pioneer Video Showcase Dealer Pioneer Video Inc., 200 West Grand Avenue, Montvale, NJ 07645.*(In Illinois, (800) 972-5855



() PIONEER

Credits: Pioneer Artists[®]. Simulated TV picture of Pioneer Artists' "The Music of Melissa Manchestzr." Available titles subject to change without notice. © 1983 Pioneer Video Inc. All Rights Reserved. CIRCLE NO. 39 ON READER SERVICE CARD

fest reports

compared it, especially when reproducing organ music. On the other hand, its spatial properties were very different from those of the other speakers. Neither sound is necessarily "better"; it is a matter of personal preference.

The laboratory measurements helped to explain some (but not all) of what we heard. The Type 35i does not have the low-bass output (below 40 or 45 Hz) of some other speakers at or above its price, yet it *sounds* as if it did, because so much of what we consider to be "low bass" is really in the range from 60 to 100 Hz. Similarly, a reduced output in the octave from 10,000 to 20,000 Hz is not likely to make a speaker sound "dull," any more than a moderate boost in that range will give it a bright or shrill quality. These effects are rather more subtle than many people appreciate.

What we heard from the Type 35i was always first-rate, clean, wide-range sound. We preferred to set the tweeter levels at

maximum (+2 dB) and the midrange levels at minimum (-4 dB), which tended to smooth the overall response in our room. Nevertheless, the sound differed rather dramatically from that of our more conventionally radiating reference speakers. The difference was largely one of spatial perspective (I hesitate to use the term "imaging" so common in this sort of comparison). With the two different pairs of speakers both placed in the front of the room, as close to each other as possible, and with the system gain adjusted to compensate for the great difference in the speakers' sensitivities, the entire distribution of sound changed when we switched between them. With the E-V Type 35i's the sound was largely confined to the space between the speakers but also extended behind and somewhat forward of the line joining them. Our reference speakers, on the other hand, gave a much wider lateral sound stage, with relatively little sense of projection in front of or behind the speak-

ers. This difference was not apparent with all program material, but it was fairly typical of what we heard with most music in our listening room.

One rather uncommon feature of the Type 35i is its highly effective protection system. We put it to the test and succeeded in lighting both the warning lights, singly and in combination, by driving a high-power amplifier somewhere near its limits (several hundred watts). We could not hear the tweeter's protective relay cut out when its red light came on, but, in all honesty, after exposure to such sound levels we considered ourselves lucky to be hearing anything at all! At any rate, we proved to our satisfaction that besides being a very fine-sounding speaker system, the Electro-Voice Type 35i is one that would be very hard indeed to damage in ordinary home use.

-Julian D. Hirsch

Circle 142 on reader service card



SONY'S TA-F555ES integrated amplifier features what its manufacturer calls an "Audio Current Transfer" system (ACT). A front-panel inscription further identifies ACT as "a current drive amplifier system that has electrically separated the four amplifier sections for total elimination of mutual interference." Elsewhere we are told that this involves the use of completely separate power supplies for each of the preamplifier and power-amplifier sections. According to Sony, the TA-F555ES is intended to meet the special demands imposed by digital Compact Discs, and to this end the amplifier is said to have 100 dB of channel separation at 100 Hz, a 120-dB dynamic range, and a "linear gain control."

The TA-F555ES is rated to deliver 100 watts per channel into 8-ohm loads from 20 to 20,000 Hz with no more than 0.004 per cent total harmonic distortion and into 4-ohm loads with no more than 0.01 per cent

distortion. Its circuits are direct-coupled from the high-level inputs to the speaker outputs, and protective circuits prevent damage to either the amplifier or the speakers from a malfunction or most forms of careless operation. A rocker switch in the rear selects operating modes for loads from 8 to 16 ohms or from 4 to 6 ohms, the latter for use with low-impedance speakers or pairs of speakers wired in parallel.

The inputs (phono, two tape decks, and three other high-level sources, including one identified as "CD") are selected by pushbuttons that have illuminated indicators above them. Red lights below the buttons show which source is being channeled to the tape-recorder outputs. Along the lower edge of the front panel are the usual tone and balance controls, the speaker selector, and a headphone jack. There is also a small knob that selects the recording output, including a tape-copy connection from deck 1 to deck 2. A CARTRIDGE LOAD switch selects either moving-magnet (MM) or moving-coil (MC) amplification, with a choice of either 100 or 330 picofarads of capacitance for an MM cartridge and either 30 or 400 ohms of input resistance for an MC cartridge.

The tone controls can be bypassed with a nearby button. Other buttons select a fixed BASS BOOST and a SUBSONIC FILTER function. The TA-F555ES does not have loudness compensation. Its large volume knob contains a light that serves as an index line, changing from green to red when the protective system has silenced the amplifier (shutting off the power for a few seconds allows the circuits to reset). The rear apron contains heavy-duty speaker-output binding posts and four a.c. sockets (two of them switched) as well as the SPEAKER IMPED-ANCE switch and the signal jacks (the phono jacks are gold plated).

The all-black Sony TA-F555ES is 17

DESIGN INTEGRITY:

WHAT MAKES DENON CASSETTE DECKS UNCOMMON IS HOW MUCH THEY HAVE IN COMMON.

Eenon has never built multi-thousand dollar cassette decks in order to sell unrelated inexpensive machines. Instead, Denon has concentrated its full engineering effort to produce rationally-priced cassette decks that would impress serious music lovers with their sound rather than their features. Now, the new DR-M4, DR-M3 and DR-M2 cassette decks exceed Denon's previous sonic performance levels, while adding significant technological and convenience features.

Cenon's Tape Tension Servo Sensor System has been further refined to provide automatic sensing and correction of tape tension for optimum tape-to-head contact throughout the entire play of each cassette. A new SF combination head extends frequency response to 23kHz (metal) with a 70dB S/N ratio (Dolby C). A new computer controlled silent tape transport mechanism provides entirely quiet and safe tape hardling. An electronic computer digital counter using a laser detector system automatically indicates tape used and tape remaining information.

The DR-M Cassette Decks feature Denon's Flat Twin direct capstan drive; non-slip clutchless, beltless. reel drive mechanisms; Do by B & C noise reduction; direct-coupled amplifier design, and separate ampli mechanical power supplies.

The DR-M3 offers computer tape tuning for bias and sensitivity. The DR-M4 adds programmable random access, stopwatch function and dual-capstan transport. Otherwise, all the Denon DR-M Series Cassette Decks are principally the same - each offering the highest performance and quality at its price in the industry. Ceron products share more than name alone.

> For the best results on the new DR-M Series assette net in that matter. In Denne DT Series Cassette Tave





inches wide, 13³/4 inches deep, and 5¹/8 inches high, and it weighs about 30 pounds. Price: \$600. Sony Corp., Sony Drive, Park Ridge, N.J. 07656.

• Laboratory Measurements. Our test sample of the Sony TA-F555ES (an early production unit) was supplied without an instruction manual or schematic. Curious about its four "separate" power supplies, we removed the cover and found one power transformer (granted, a husky one) and the usual minimum of two filter capacitors. The TA-F555ES seems to have one power supply, and the isolation implied in the spec sheet must come from individual voltage regulators supplying each section.

The one-hour preconditioning at onethird power made the top of the case quite hot, but it never became unduly warm in normal use. Using the 8- to 16-ohm setting of the SPEAKER IMPEDANCE switch, we measured a clipping-power output at 1,000 Hz of 119 watts per channel into 8 ohms. The protective circuit shut down the amplifier at 169 watts with 4-ohm loads and at 36 watts when we attempted to drive 2-ohm loads. The dynamic power output was 150 watts into 8 ohms, 258 watts into 4 ohms, and 142 watts into 2 ohms. With this setting of the SPEAKER IMPEDANCE switch, the amplifier's clipping headroom was 0.76 dB into 8 ohms and 2.28 dB into 4 ohms. The corresponding dynamic-headroom measurements were 1.76 and 4.12 dB, the latter being the highest we have yet measured from an amplifier. We repeated these measurements using the 4- to 6-ohm setting of the SPEAKER IMPEDANCE switch. The outputs were generally lower; clipping occurred at 84.5 and 124 watts for 8- and 4-ohm loads, and the amplifier shut down at 40.5 watts into 2 ohms. The dynamic output was also lower: 94.4 watts into 8 ohms, 158 watts into 4 ohms, and shut-down at 123 watts into 2 ohms. All other measurements were made using the 8- to 16-ohm setting.

The distortion in the TA-F555ES's output was extremely low at all power levels up to the clipping point and over the full audiofrequency range. At 1,000 Hz, the distortion was from 0.0005 to 0.0014 per cent from 1 to 110 watts with 8-ohm loads and from 0.0016 to 0.0025 per cent over the 1to 160-watt range with 4-ohm loads. With 8-ohm loads at the rated 100 watts output and also at power outputs of 50 and 10 watts, the distortion was well under 0.002 per cent over most of the 20- to 20,000 Hz range, reaching its maximum of 0.003 per cent only at 20,000 Hz. The amplifier's outstanding high-frequency linearity was demonstrated by its IHF intermodulation distortion with input signals of 18 and 19



"... To discourage illegal off-the-air taping of this live performance of Verdi's Aïda, we will intersperse fifteen-second recordings of barking seals at random intervals throughout this broadcast. Thank you."

kHz. At 100 watts output, the second-order distortion reading at 1,000 Hz was the same as our test instrument's residual level of -97 dB, and the third-order components at 17 and 20 kHz were at -93 dB.

The TA-F555ES had a very high sensitivity on all inputs. The reference output of 1 watt required only 15 millivolts (mV) at the high-level inputs, 0.21 mV at the MM phono input, and 9.3 microvolts at the MC phono input. The A-weighted noise level was unmeasurable through the high-level input (lower than -90 dB referred to 1 watt); for phono (MM) it was -86 dB, and for phono (MC) it was -81 dB. Out of curiosity, since this spec is of little or no importance in a home music system, we also checked the channel separation using the aux input and terminating the undriven input with 1,000 ohms. Sony's claim of 100 dB at 100 Hz was met (we measured 102 dB). At 1,000 Hz the separation was 88 dB, and at 20,000 Hz it was still a very good 67 dB.

The MM phono input overloaded at inputs of 150 to 160 mV over the 20- to 20,000-Hz range. The phono-input impedance was as specified, 47,000 ohms in parallel with either 100 or 330 picofarads depending on the setting of the capacitance switch. The phono equalization was within 0.5 dB of the RIAA characteristic from 100 to 20,000 Hz, rising slightly in the low bass to +2.5 dB at 20 Hz. It was not affected by cartridge inductance.

The tone controls had a rather moderate effect, with a maximum bass boost or cut of 7 to 8 dB and a turnover frequency of about 500 Hz. The treble curves were hinged at 6,000 to 7,000 Hz, with a maximum range of 7 to 8 dB at 20,000 Hz. Strangely, we found that setting both tone controls to their mid-boost or mid-cut positions produced an almost perfectly flat response, merely varying the overall level by about 2 or 3 dB. Pressing the BASS BOOST button gave a gentle rise in output below about 500 Hz, with a maximum of about 3.5 dB between 20 and 100 Hz. The SUBSONIC FILTER reduced the response by about 2.5 dB at 20 Hz. We could not determine its cutoff slope below that frequency.

• Comment. There can be no doubt that the Sony TA-F555ES is a truly exceptional amplifier. Its low and rather uniform distortion is commendable, even if it is many orders of magnitude below any threshold of

Narhoro

Philip Morris Inc. 1983

Warning: The Surgeon General Has Determined That Cigarette Smoking Is Dangerous to Your Health.

16 mg "tar;" 1.0 mg nicolineav, per cigarette, FTC Report Dec. 81

test reports

audibility. Rather more impressive (to us) was the unit's fantastically low noise level, which was considerably lower than we have ever before measured (or heard) from an integrated amplifier. More convincing than mere numbers was the acid test of turning up the amplifier gain to maximum with a cartridge connected to the MM phono inputs and using speakers 6 to 8 dB more sensitive than usual. We had to come within a couple of feet of the speakers to hear the faint hiss that was the only output of the TA-F555ES. It would have been quite impossible to play a record at that high a volume setting with the cartridge we were using; the volume control had to be turned

below its middle setting before we could even tolerate the sound level.

Everything else about the amplifier worked with total smoothness and silence, from the almost viscous feel of the volumecontrol knob to the operation of the various buttons and switches. We can confirm that the amplifier's protection circuits make it virtually impossible to damage, since they shut it down at the first hint of an overload or other abuse.

Sony makes a point of the special suitability of the TA-F555ES for playing digital audio discs with their tremendous dynamic range and negligible noise content. We can only agree. Although this is not a superpower amplifier by any means, its dynamic headroom may well be the largest of any now on the market, and this factor is especially important for handling the peaks that are inherent in live music and digital discs but are almost never present in an analog record or tape. Similarly, one might argue that the overall signal-to-noise performance of this amplifier represents overkill for analog program sources, but that is hardly the case with properly recorded digital sources. The Sony TA-F555ES certainly has what it takes to do justice to this sonically promising technology. —Julian D. Hirsch

Circle 143 on reader service card



THE Onkyo TA-2035 is a two-head, sin-gle-capstan cassette deck with Dolby-B and Dolby-C noise reduction and a microprocessor that controls both the transport functions and an automatic music search system. The record/playback head of the TA-2035 is made of hardened permalloy. The capstan is belt-driven by a servo-controlled d.c. motor. A second d.c. motor is used for the supply and takeup hubs, and a third is used to operate the head assembly in order to eliminate the jarring shock usually caused by solenoid action. Cassettes are inserted. tape openings downward, into slides on the back of the mildly damped cassettewell door, which is easily removable for head cleaning and demagnetizing. A transparent window in the door provides a clear view of the tape hubs.

Transport modes may be changed without going through stop, and the light-touch record, playback, and pause keys have LED indicators. An AUTO SPACE key can be used to record a blank section of approximately 5 seconds (longer if held down) between selections; after recording each blank section the deck automatically switches into the record-pause mode. The Automatic Music Selection System (AMMS), which operates in either tape direction by use of a rocker switch, permits quick location of the beginning of each recorded selection. The selection is then played for 15 seconds, after which the deck automatically skips to the next selection unless the PLAY button is pressed, which returns it to normal operation. There is also a record/playback TIMER switch that keeps the tape mechanism from being activated until a remote timer applies power.

Four large pushbuttons switch the noisereduction circuitry in or out, select Dolby-B or Dolby-C, insert an FM-multiplex filter, and select either manual or automatic tapetype bias and equalization setting. When the last switch is in the AUTO position the deck uses the standard cutouts on the rear of the cassette to set bias and equalization for ferric, CrO2-type, or metal cassettes. Since a number of metal cassettes do not have such cutouts, the MANUAL switch position is used to set the deck to operate with such tapes. An adjustable ACCUBIAS control permits optimizing recording bias for nonmetal tapes, but since no built-in testing facilities are provided, users without extensive test equipment should probably not move this control from its detented center position except with tapes for which recommended settings are listed in the owner's manual. LED indicators below the meters show the type of tape in use, the status of the AUTO/MANUAL selector switch, and whether Dolby-B or Dolby-C noise reduction is operating

The TA-2035 has a three-digit mechani-

cal tape counter, and a peak-reading fluorescent display is used to indicate recording level. The display has only ten segments per channel and is calibrated from -20 to +6dB. Dolby level is not specifically marked, but we found that it coincided with the 0-dB indication. A large dual-concentric knob is used to set recording level for both line-level and microphone inputs. (Plugging microphones into the front-panel phone jacks disconnects the high-level inputs in the rear.) There is a headphone jack and a switch for external timer-controlled operation, but there is no playback output-level control.

The rear panel contains the usual linelevel input and output jacks as well as a DIN-type socket for attaching an optional remote-control unit (the RC-5T, \$49.95, which has a 13-foot cable and duplicates all of the tape-transport controls). The TA-2035 is 16¹/₂ inches wide, 4 inches high, and 95/8 inches deep, and it weighs approximately 10 pounds. Price: \$300. Onkyo USA Corp., 200 Williams Drive, Ramsey, N.J. 07446.

• Laboratory Measurements. Both the owner's manual and the tapes supplied with our test sample of the Onkyo TA-2035 indicate that it was factory optimized for Maxell UDXL-1 (ferric), Maxell UDXL-II (chrome-equivalent), and Maxell MX (metal) cassettes, though the range of the



The upper curves indicate overall record-playback response at the manufacturer's indicated 0.dB recording level using the tapes designated on the graph. In the center are the same measurements recorded at $-20 \, dB$ relative to the upper curves, a level conventionally used for tape-deck frequency-response measurements. Bottom curves show playback response from laboratory-standard test cassettes and give an indication of the tape deck's frequency response with prerecorded cassettes and tapes made on other decks.

ACCUBIAS control (±5 dB at 15 kHz in our measurements) and the table of recommended settings for other formulations ensure that comparable performance can be obtained with many well-known brands. For our measurements, however, we used the specified Maxell tapes at the detented center position of the ACCUBIAS control.

Playback-only response was measured with our IEC standard BASF 120-microsecond (ferric) and 70-microsecond (chrome and metal) test tapes. Frequency response was +2.5, -2 dB between the 31.5-Hz and 18-kHz test-tape limits in the chrome/metal equalization position; with the ferric test tape response fell to $-3 \, dB$ at approximately 16 kHz (-6.5 dB at 18 kHz), though it remained within the manufacturer's specifications. A somewhat similar difference between the ferric and CrO₂ record-playback frequency response (measured at the customary -20-dB level) is also shown in the graph for the Maxell UDXL-I and UDXL-II tapes. At the 0-dB (Dolby) level, the greater high-frequency capacity of metal-particle tape-nearly a full musical octave-is clearly shown, though at the -20-dB level the response is only slightly extended.

Third-harmonic distortion of a 315-Hz tone at an indicated 0-dB input level measured 0.5, 1.1, and 0.7 per cent with Maxell's UDXL-I, UDXL-II, and MX tapes. Raising the distortion to the 3 per cent point used for signal-to-noise ratio (S/N) measurements required increasing the input levels to +6.2, +4, and +5.3 dB, respectively. Referred to the outputs at the 3 per cent points, the unweighted S/N's without Dolby were 55 dB (UDXL-1), 53.6 dB (UDXL-II), and 55.5 dB (MX). Using IEC A-weighting and Dolby-B increased these figures to 66.8, 65.8, and 67.3 dB, respectively: Dolby-C and CCIR/ARM weighting brought the S/N readings for the three tapes up to 75.1, 74.5, and 76 dB, very impressive figures indeed.

Using our TEAC MTT-111 test tape, wow-and-flutter measured 0.32 per cent wrms and 0.45 per cent DIN peakweighted. The Dolby systems tracked within ± 0 , -2 dB (-2.5 dB for Dolby-C) out to the high-frequency limits of the deck, though the dropoff in response started about 2 kHz lower (1 kHz lower for Dolby-C) than is shown in the -20-dB recordplayback response curves. Fast-forward and rewind times averaged 75 seconds for a C-60 cassette and 112 seconds for a C-90. At the line-input jacks a signal level of 0.056 volt (56 mV) was required to obtain a 0-dB reading; output at this level was 0.5 volt. The microphone inputs required 0.26 mV for 0 dB and overloaded when the input exceeded 26 mV, which is typical for cassettedeck microphone preamplifiers.

• Comment. The single record/playback head of the TA-2035 precluded the kind of direct input/output listening comparisons we like to make, but it was certainly clear that the deck could make excellent dubs of all but the most sonically demanding material using either ferric or CrO₂-type tapes. Program material with extended high frequencies called for metal tape. The additional noise reduction provided by Dolby-C was immediately audible when we dubbed musical material with a wide dynamic range. With prerecorded cassettes the frequency response needed a little treble boost from our preamplifier, but this was noticeable only in direct comparisons with our reference cassette deck. Tape handling was quiet and positive, though we found the transport buttons a little harder to manipulate than on some other machines. The absence of the usual tape-type selector switches was a bit disconcerting at first, but most users should find the TA-2035's automatic selection system very convenient. For those who like to listen only to certain selections on a cassette or to jump around from one selection to another, the Automatic Music Search System is also a great convenience. Overall, we found the Onkyo TA-2035 a very good example of how much performance and operating ease can be built into even a quite modestly priced cassette deck today. -Craig Stark

Circle 144 on reader service card

Become a Recording



Learn in

- Control Room & Console Labs
- Studio Synthesizer Lab
- Audio Fundamentals Lab.
- Digital Logic Lab
- Disc Cutting Lab

Obtain your Diploma in Multi-track Recordina Technoloav

in one year, or credit toward a B.S. Dearee.

Summer '83 Quarter starts Tuesday, July 5th.

Fall '83 Quarter starts Monday, September 26th.

Call or write for 24-pg. illustrated brochure



49





JENSEN RE530

JENSEN'S in-dash RE530 comprises an AM/FM tuner, an automatic-reverse cassette player, a digital clock, a preamplifier, and a power amplifier that can handle both front and rear speaker pairs. The unit can also be used together with any highimpedance, low-level-input external power amplifier that can be connected to its pair of phono-plug preamplifier outputs.

The RE530's front-panel fader control is connected to a rear-panel FLEX FADER switch. When the FLEX FADER is switched in, the fader control varies the balance between the front speakers and a combination of the rear speakers and whatever external amplifier is connected to the preamp output; when it is switched out, the fader control affects only the RE530's own front and rear speaker outputs. Although the RE530's rear outputs need not be used if an external power amplifier is added to the system, using both makes possible a relatively inexpensive biamplification setup with four satellite speakers and a mono or stereo subwoofer. (For our road tests, we used only the RE530's built-in amplifier connected to four 4-ohm speakers.)

The cassette player features an Automatic Tape Search (ATS) function that seeks the next recorded selection on a tape when either of the two fast-wind buttons and the ATS button between them are pushed simultaneously. A tape-equalization selector sets the player for either normal-bias or chrome/metal tapes. There are two noisereduction systems, usable either separately or together. Dolby-B is for tapes only, while DNR works on all three program sources: tape, FM, and AM. A hinged dust flap protecting the cassette bay doubles as a readout for tuner frequency or clock time. When a cassette is inserted, the flap folds back and the read-out cannot be seen. A "soft load" mechanism automatically draws the tape into play position. Both the fast-forward and rewind buttons have direction-indicator lights above them that flank the LED indicating use of the ATS system. Cassettes eject when the car's ignition is switched off or the tuning knob is tapped.

Jensen states that it has incorporated into the RE530 a number of circuits designed to improve FM reception. Pushing the button labeled APC (Automatic Program Control) brings three continuous adjustments to bear on the FM signal: a soft-muting sensor that applies changing amounts of attenuation in fringe areas, a variable high-blend that narrows the stereo separation as the signal degrades, and a high-frequency attenuator to remove the noisiest upper frequencies. The FM section's double-balanced mixer is said to reject interference from adjacent signals. The tuner uses a digitally controlled quartzcrystal-oscillator phase-locked loop.

Manual tuning involves rocking the righthand knob left or right. Quick flicks advance the tuning by single increments; holding the knob turned causes a steady upward or downward progression until it is released. (Used in conjunction with the memory button, the same knob adjusts the clock.) Other tuning options are presets (five each for AM and FM), preset scan (tap the tuning knob to sample each preset station in the selected broadcast band for a few seconds, then tap again to lock it in), and normal scan (tap the volume knob to sample receivable stations, tap again to lock in a chosen station). It is also possible to disengage either scan mode by changing the AM/FM selector, inserting a cassette, or rotating the tuning knob.

Each of the knob shafts has three controls. On the left are volume/scan/on-off, treble, and bass. The right has tuning/ eject/preset scan/clock adjust, balance, and fader. The RE530 has rear-panel connections for power, memory/clock retention power, unit ground, automatic power antenna sensor, and preamp out. There is a standard antenna jack on a 4-inch cable. All four speakers share a common ground and plug into a connector on the end of a short snake. The top plate of the unit bears a sticker that gives the speaker-wire key-which should be standard practice throughout the industry. The brief, well-written manual includes a more comprehensive wiring diagram, the unit's most important specifications, and fairly complete explanations of how to use the unit. Price: \$499.

Lab Tests

Extensive use of pushbutton controls gives the feature-laden Jensen RE530 receiver a deceptively simple appearance until it is turned on and the colorful display of some fourteen brightly lit yellow indicators gives a more accurate impression of its versatility.

The RE530 has no visible mono/stereo switch, but the APC (Automatic Program Control) button handles that function and more. The APC is a signal-controlled stereo-blend system that progressively reduces channel separation at signal levels lower than 40 dBf (which happens to be the unit's stereo 50-dB quieting sensitivity). The channel separation was still about 10 to 15 dB at a 30-dBf input, but the APC improved the signal-to-noise ratio by about 3 dB. At about 20 dBf, the channels were fully blended and the noise was at mono levels. This system should give the user an optimum combination of stereo separation and low noise level without requiring any attention.

The FM tuner of the RE530 is a rather good one by automotive standards. Its AM

Hirsch-Houck Lab Measurements

FM Mono Usable Sensitivity (75-ohm input): 15.3 dBf (1.6 μ V) Mono 50-dB Quieting Sensitivity (75-ohm input): 19.5 dBf (2.6 μ V) Stereo 50-dB Quieting Sensitivity (75-ohm input): 40 dBf (27.5 μ V) Tuner Signal-to-Noise Ratio: mono, 66 dB; stereo, 64 dB Tuner Distortion at 65 dBf: mono, 0.6 per cent; stereo, 0.48 per cent FM Frequency Response: \pm 4.5, \pm 0 dB from 30 to 15,000 Hz Stereo Separation at 100, 1,000, and 10,000 Hz; 30, 30.5, and 35 dB Capture Ratio at 65 dBf: 2.3 dB Alternate-Channel Selectivity: 56 dB Adjacent-Channel Selectivity: 5.2 dB AM Rejection at 65 dBf: 62 dB Image Rejection: 56 dB

AM Frequency Response: ±6 dB from 20 to 4,800 Hz

Tape-Playback Frequency Response (standard BASF test tapes, -3-dB limits): 120 μ s, 50 to 15,000 Hz torward, 48 to 7,300 Hz reverse; 70 μ s, 50 to 15,000 Hz torward Tape Signal-to-Noise Ratio (referred to 250 nWb/m at 1,000 Hz): 53 dB unweighted; 56.7 dB A-weighted; 65.3 A-weighted with DNR; 64.2 A-weighted with Dolby-B 68 dB A-weighted with both Dolby-B and DNR Flutter: \pm 0.15 per cent weighted peak (CCIR) at start of cassette, \pm 0.25 per cent at end; 0.09 per cent weighted rms (JIS) at start of cassette, 0.15 per cent at end

Tape Speed Accuracy: +1.8 per cent at start of cassette, +1.4 per cent at end Fast Rewind Time for C-60 cassette: 95 seconds

Tone-Control Range: +11, -14 dB at 100 Hz; +10.5, -9 dB at 10,000 Hz tuner is better than good, with one of the widest AM frequency responses we have measured in years on a tuner for home or automobile use. The tape deck functioned well, and I liked the automatic tape-handling mechanism. The frequency response of the auto-reverse deck was somewhat different in the two directions of tape motion (this is not at all unusual in bidirectional tape machines).

When the RE530's two noise-reducing systems were used together for playing Dolby-B-encoded cassettes, the signal-to-noise ratio was a most impressive 68 dB. Measurements and listening tests during tape playback revealed a slight loss of high-frequency response with DNR. Since we have used other DNR-equipped car radios that did not appear to sacrifice any highs, this may have been a peculiarity of our particular test sample. —J.H.

Road Tests

As I completed the first circuit of our test route, I began to realize that one word characterizes the Jensen RE530's operation: smoothness. Its ease of operation is in keeping with its quiet, uncluttered look. Frankly, I expect every car stereo unit to succumb, sooner or later, to the demanding conditions of the streets, bridges, and expressways my dauntless Volvo traverses during the tests. Tape burbles, FM hash, or some sort of noisy electrical intrusion into the AM band often show up within a few miles of the start of each trip. With the RE530, I waited in vain for most of these faults.

Though AM reception was usually trouble-free and musical, impulse noises from my purposely loosened #2 spark-plug cable and from a two-cycle moped that pulled up alongside were far louder than I had expected. In fact, my venerable stock Volvo radio was quieter in this respect. Also, adjusting the treble knob often interfered with the bass knob, partially turning it, because the distance between them is small and cannot be shimmed out.

Now for the good news. All units subjected to our road test are clamped to the transmission hump, which affords far less damping of road shocks and vibrations than the average in-dash installation. Nevertheless, the RE530's tape-transport mechanism was never jarred into flutter, chatter, or loss of contact between tape and head. My favorite test spot, a monumental chuckhole near the Brooklyn Navy Yard, failed to elicit more than a very tiny chirp of disruption at 30 mph. Steel divider plates on the Kosciuszko Bridge approaches got virtually no reaction from the RE530 at either 40 or 60 mph.

The ATS tape program-search system works only for constant-volume music with at least 4-second pauses between selections. This obviously rules out much folk, most jazz, and almost all classical music, but with popular music it worked every time I tried it. Both auto-reverse and manual reverse functioned quietly and instantaneously. The Dolby-B and DNR circuits worked as they should, and I found myself using DNR on most music I played. The slight treble attenuation in the quietest passages was not a problem, even with solo vocal music. I played ferric, chrome, and metal tapes with good results, and I was pleased to find that a very "hot" TDK metal tape I recorded live did not overload the playback electronics.

The tuner section gave me even more to rave about. On the notorious Brooklyn-**Oueens Expressway**, multipath interference from numerous light standards, metalsheathed structures, and bridges never succeeded in causing serious FM hash or other racket. The multipath interference was there, but it seldom got in the way of listening to music. Manual and preset station changes were accompanied by a soft fadeup that was easy on the ears. I did not hear a single FM crossmodulation, which can occur when a signal appears elsewhere on the dial in addition to its allotted frequency. Despite continuing improvement throughout the industry, not everybody has licked this problem, so it was a pleasure to hear absolutely no crossmodulation, even in the treacherous masonry-and-steel canyon of West 35th Street.

Given good loudspeaker placement, the main tonal changes in a car stereo's per-

"... I began to realize that one word characterizes the Jensen RE530's operation: smoothness...."

formance should be caused only by the tone controls and noise-reduction system(s). I used DNR as well as Dolby with most tapes (metal excepted) and DNR most of the time for both FM and AM. I used the APC feature only in areas with poor FM reception (most of the route in town), since I prefer small amounts of hiss together with realistic-sounding upper harmonics to the slightly less pleasing effect of a high filter and narrower stereo separation. When I needed the APC, though, its operation was totally seamless. When DNR and/or APC removed some highs, a small treble boost restored a degree of sparkle to the music at the expense of a bit more noise. The loudness button appeared to cover the bass and lower midrange, leaving the more delicate upper frequencies alone. I should stress that none of the filters was unsubtle in its effect, nor was the high blend obtrusive as it compensated for bad signal conditions by eliminating the stereo effect for treble frequencies. A live chamber-music broadcast prominently featuring clarinet and viola retained its demanding tonal balance with little noticeable shift of color as I wove through downtown Brooklyn. The imaging was less defined, but the high blend was tasteful and "soft-edged." Even at fairly high listening levels, the tonal balance tended to remain good, and the unit's integral amplifier remained open and musical-sounding up to the loudest levels I could tolerate.

Once again, smoothness is the RE530's most noticeable trait. From the very gentle cassette loading cycle to the softened tuning-in of each station, this is a carefully designed unit that has many useful features in an elegant little package. -C.G.

TAKE THE ROAD TO HIGHEST FIDELITY



You pick the road, LINEAR delivers the POWER. A high fidelily car audio system will turn a boring crive into an exciting excursion. Nothing is quite so enjoyable as a high fidelity system in your automobile. LINEAR POWER amplifiers range from an affordable 40 watts RMS to an incredible 300 watts RMS. Pictured above, the Bass Vent " subwoofer, lits into virtually any automobile and adds low bass unlike anything you have felt before. Available as a system with the Model 2601, 120 warts RMS blamplifier, the BASS VENT COMBO puts you on the road with highest fidelity.



51

The Basic Repertoire

By Richard Freed



FOR some years critic Richard Freed, a contributing editor of STEREO REVIEW. has listened to all available recordings of the nearly two hundred symphonic works that form the essential core of orchestral programs and classical record collections, selecting those versions he considered the best. We have published his choices in a pamphlet, which we have updated annually, and we are now publishing his selections of the best current recordings of the Basic Repertoire in a regular series in the magazine. If you want the pamphlet, the most recent updating (1982) is available for \$1 (check or money order) and a stamped (40c) self-addressed No. 10 envelope; send to Basic Repertoire, P.O. Box 506, Murray Hill Station, New York, N.Y. 10156.

All the selections are two-channel analog stereo discs unless otherwise indicated by one of our usual symbols: \bullet for a digitally mastered recording, © for a stereo cassette, and, in a few instances, \circledast for a monophonic recording.

□ **BEETHOVEN:** Overtures. While individual overtures may be had as fillers on records of the symphonies, Karajan conducts all eleven of them in an impressive two-disc set (DG 2707 046) and has gathered five of the best—including the Leonore No. 3, Egmont, and Coriolan—on a single disc (DG 2530 414). Skrowaczewski includes other Beethoven stage music with all the overtures in a three-disc Vox Box (SVBX-5156, © CBX-5156).

□ BERLIOZ: Harold in Italy. Beecham's magical performance, with William Primrose as viola soloist, is still in a class by itself (Odyssey ⊗ Y 33286). Numerous deletions leave the economical disc with Dietrich Fischer-Dieskau conducting and Josef Syk

as soloist (Quintessence PMC-7104, © P4C-7104) the preferred stereo recording.

□ BERLIOZ: Symphonie Fantastique. The most exciting performance, by Carlos Païta and the London Symphony, is also among the most powerfully recorded (Lodia LOD 777, © LOC 777). Beecham's disc is evocative and economical (Seraphim S-60165, © 4XG-60165). Monteux's elegant Vienna performance (London STS 15423, © STS5 15423) and his exuberant Hamburg one (Turnabout TV 34616, © CT-2107) are budget priced too. Also in the running: Jean Martinon (Angel S-37138, © 4XS-37138) and Colin Davis with the Concertgebouw Orchestra (Philips 6500 744, © 7300 313).

□ BIZET: L'Arlésienne Suites Nos. 1 and 2. The most elegant performances, sumptuously recorded, are Ormandy's on RCA —No. 1 paired with Bizet's Symphony in C (ARL1-3640, © ARK1-3640), No. 2 with the Carmen Suites (ARL1-3343, © ARK1-3343). For an economical disc of the two suites together (but no additional music), try the surprisingly persuasive one by Karol Stryja and the Silesian Philharmonia (Stolat SZM-0102).

□ **BIZET:** Symphony in C Major. Haitink's performance is outstanding, but it is the only one that spills over to a second side, with only a ten-minute filler (Philips 9500 443, © 7:00 649). The breezy Munch/Royal Philharmonic (Quintessence PMC-7048, © P4C-7048), the luscious Stokowski (CBS M 34567), and the stylish Ormandy (RCA ARL1-3640, © ARK1-3640) are handsome alternatives and better buys. Louis Frémaux's performance, not quite in this class, offers Bizet's seldom-heard

Roma Suite (his "other symphony") as discmate (Klavier KS-546).

□ BLOCH: Schelomo. The impassioned Piatigorsky/Munch version, paired with the Walton Cello Concerto, retains top honors (RCA AGL1-4086, [©] AGK1-4086). Only slightly less commanding are the performances by Zara Nelsova with Abravanel (Vanguard Cardinal VCS-10007, with Bloch's *Israel* Symphony) and by László Varga with Siegfried Landau (Turnabout TV 34622, with Bloch's Viola Suite).

□ BORODIN: Symphony No. 2, in B Minor. Loris Tjeknavorian's bang-up account is part of his fine three-disc set of all of Borodin's orchestral music (RCA CRL3-2790). For economy and attractive coupling, Ansermet's disc is more than recommendable (London STS 15149), while Othmar Maga may be the most idiomatic interpreter, if given a less convenient layout (Vox STPL-513530). The only cassette version available now is Yevgeny Svetlanov's, which I find unattractive (Quintessence [©] P4C-7165).

□ BRAHMS: Piano Concerto No. 1, in D Minor. Vladimir Ashkenazy's new recording, with Bernard Haitink conducting, allows the work's radiant lyricism to shine as it does in few other performances (London ① LDR 71052, ③ LDR5 71052). Emil Gilels and Eugen Jochum are similarly outstanding in a somewhat more traditional reading (DG 2530 258), and both the Fleisher/Szell recording (Odyssey Y 31273, ④ YT 31273) and the older Solomon/Kubelik one (Turnabout ⑧ THS-65110, ⑥ CT-2227) are great buys.

□ BRAHMS: Piano Concerto No. 2, in Bflat Major. In this case, the old Solomon recording, with Dobrowen conducting (Turnabout [®] THS-65071, [®] CT-2234), and the budget stereo choice of Gilels and Reiner (RCA Victrola VICS-1026) are not just "good buys" but tower over the full-price offerings interpretively. For richer sound, choose between Pollini/Abbado (DG 2530 790, [©] 3300790), Brendel/Haitink (Philips 6500767, [©] 7300293), and Barenboim/ Mehta (CBS M 35885, [©] MT 35885).

□ BRAHMS: Violin Concerto in D Major. Half-speed remastering has brought a new freshness to the magnificent old Heifetz/ Reiner recording (RCA ATL1-4200, [©] ATK1-4200). A best buy is undoubtedly the new cassette reissue of the Szeryng/ Monteux (RCA Victrola [©] ALK1-4494). The Milstein/Jochum version reflects a lifetime of authority and affection for the work (DG 2530 592, [©] 3300 592), as does the Oistrakh/Szell, now reissued at a lower price (Angel RL-32096, [©] 4RL-32096).

□ BRAHMS: Concerto for Violin and Cello in A Minor. The majestic statement of this work by David Oistrakh, Mstislav Rostropovich, and George Szell (Angel SFO-36032, © 4XS-36032) is the most persuasive of all. Two budget issues are almost as attractive: Josef Suk and André Navarra, with Karel Ančerl conducting (Quintessence PMC-7203, © P4C-7203), and the understated Ferras/Tortelier/Kletzki (Seraphim S-60048). □ BRAHMS: Symphony No. 1, in C Minor. Repeated exposures to Carlos Païta's straightforward, lambent, brilliantly recorded performance (Lodia O LOD 779, © LOC 779) reinforce my feeling that it belongs at the very head of the list. Szell's similar reading, at last available on its own (CBS MY 37775, © MYT 37775), is rather less warm in the slow movement, and of course less handsomely recorded, but it is a good buy. For a more expansive approach, try Kurt Sanderling, in his set of all the Brahms symphonies (Eurodisc 301 952-440), or Bernard Haitink (Philips 6500 519, © 7300 247). Guido Cantelli's unforgettable mono recording with the Philharmonia is available again, but only on cassette (Pantheon © CA-PFN-2081, with No. 3).

□ BRAHMS: Symphony No. 2, in D Major. Haitink's darkly colored version is available now only as part of his complete set, which is not a bad investment (Philips 6747 325, © 7699 011). Sanderling's warmhearted performance helps make his set attractive too (Eurodisc 301 952-440). Most satisfying of those available singly is Karajan's latest (DG 2531 132, © 3301 132).

□ BRAHMS: Symphony No. 3, in F Major. Sanderling's version, in his complete set (Eurodisc 301 952-440), is possibly unmatched in realizing the autumnal quality of this work. The reissued Szell (CBS MY 37777, © MYT 37777) is superb and comes with a treasurable performance of the Haydn Variations. Haitink's expansive, deeply felt reading comes with the Tragic Overture (Philips 6500 155, © 7300 139), as does Karajan's powerful remake (DG 133, © 3301 133). Cantelli's, on cassette, is sonically dated but still persuasive (with No. 1 on Pantheon © CA-PFN-2081).

□ BRAHMS: Symphony No. 4, in E Minor. The all-around most striking version is Carlos Kleiber's magnificently recorded one with the Vienna Philharmonic (DG Φ 2532 003, © 3302 003). Some listeners will be more comfortable with the Haitink, now available at "midprice" (Philips Sequenza 6527 143, © 7311 143). The similarly economical Szell (CBS MY 37778, © MYT 37778) is less brilliantly recorded but makes a strong impression musically, as do the Walter (Odyssey Y 32373, © YT 32373) and the powerfully recorded Karajan (DG 2531 134, © 3301 134).

□ BRAHMS: Variations on a Theme by Haydn. Szell's version on CBS is most persuasive and comes either with the Third Symphony (MY 37777, © MYT 37777) or with the Tragic and Academic Festival Overtures (MS 6965). Sanderling's, in his set of the symphonies (Eurodisc 301 952-440), is perhaps equally appealing. Bruno Walter's authoritative budget-priced disc also includes the two overtures (Odyssey Y 30851, © YT 30851).

□ BRITTEN: The Young Person's Guide to the Orchestra (Variations and Fugue on a Theme by Purcell). The strongest alternatives to Britten's own fine recording (London CS 6671) are the two by Ormandy (RCA ARL1-2743, © ARK1-2743; Odyssey Y 34616, © YT 34616). □



"Perhaps the only significant performance option you can add to a car like this comes from ADS."

It's already fast enough to get you in a heap of trouble. So why not look into an option that can make the double nickel bearable? A sound system from ADS.

Any car audio pro will tell you that ADS is first in the field. So instead of bragging, let us instead offer some options to consider. The ADS 300i. A two-way speaker designed for flush-

mounting in decks and doors. A pair of these will impress you. Four could melt the windows.

The new ADS 320i. A sensational six-piece system which includes a pair of 2" samarium cobalt tweeters that can be surface or in-dash mounted, a pair of 5½" woofers that should be flush-mounted in panels or doors, and a pair of crossovers to split the signal between them.

The CS 400 Dual Subwoofer system. Purists will combine these with the above to hear the tubas better.

The ADS P100 Power Platetm amplifier which puts out a healthy 50 watts per side.

Whether you're into Puccini or The Police, some combination of the above can significantly enhance your driving pleasure.

If you don't know where to find ADS locally call 800-824-7888, Operator 483. In California, 800-852-7777, Operator 483. Or write Analog & Digital Systems, Inc., 228 Progress Way, Wilmington, MA 01887.

ADS. Audio apart.

Automotive Audio: The Road to Hi-Fi Car Stereo

By Christopher Greenleaf and Gordon Sell



BUYING a hi-fi sound system for your car is a real gamble. And if you are a relatively discriminating audiophile, the odds are against your getting the kind of sound you will be pleased with. Car stereo installations often do not live up to sonic expectations, especially if you patronize quickie, while-u-wait installers.

An installer may sell you the best "head unit" (a radio/cassette/amplifier combination) and the best speakers and even do a neat job on the cosmetics—and still the system can fail to achieve satisfactory performance. The quality of the sound that comes out of car stereo equipment is almost totally dependent on the experience and listening skill of the installer. With good evidence, some installers claim that achieving decent sound in an automobile is not possible without extensive acoustic measurements and computer analysis.

Car stereo sound quality can be generally described in terms of three main functions: tonal balance (frequency response), localization (imaging), and dynamic range (the ability to deliver a clean signal at any volume level). These factors are somewhat interdependent. The imaging of a car stereo system depends greatly on the tonal balance, which, in turn, depends (but to a lesser extent) on the dynamic range. Concentrate on these key factors whenever you are listening to a system or working with an installer to plan an audio system for your own car.

What Is Good?

It is very hard for most people to judge car stereo sound quality because they have no point of reference. They have never heard a really successful car stereo system. That is now the easiest problem to solve. Dress up in your most expensive clothes and go down to your nearest Cadillac, Buick, or Oldsmobile dealer and listen to the Delco-GM/Bose Music System available as an option in their top-of-the-line luxury cars. Take along your favorite Dolby-B cassette and be sure to move around inside the car while you are listening.

The car will contain four audio modules, each of which includes a single ported speaker system, an amplifier, and a special equalization circuit that is optimized for either that car model's front-door or rear-shelf speaker position. We have heard a few custom car stereo systems that came close to matching the imaging, clarity, and perhaps even the tonal balance of the Delco/Bose system, but not many.

However, if you are not in the market

for a new General Motors luxury car or the upcoming 1984 Corvette (see box on page 60), you will have to go to a car stereo dealer who sells and perhaps installs head units, wiring, and speakers. But, besides knowing how the Delco/ Bose system sounds, before you go shopping you should also know some of what it takes to make a car stereo system of audiophile quality. This will make you a better judge of what a dealer/installer tries to sell you. large infinite-baffle enclosure, more commonly known as a trunk. Now add road, engine, and wind noise and associated vibration.

For such difficult environments the most successful installations are designed from scratch as auto sound systems calculated to make the most of what is available in an individual car. To discover what is involved in designing a good system we first consulted the people who have invested the most center, the engineers were able to study the acoustics of different types of cars. What they learned was far from encouraging. The equalization necessary to produce a relatively flat response was almost totally different for every car model.

Joe Veranth, Bose's vice-president of engineering, was surprised at the extremes of variation. The equalization curves (Figure 1) needed to get a relatively flat response from the Cadillac



Acoustic Perspective

A car's interior is not just a very small home listening room. Perhaps it should be thought of as four fixed listening positions (for the car's driver, the right-hand front passenger, and the two rear-seat passengers) all surrounded by a thin speaker enclosure that is covered with both reflective and absorptive surfaces and only has room for speakers near the knees or ankles of those in front and behind the rear passengers' heads. One saving grace is a time, engineering talent, equipment, and money in the subject of car stereo acoustics, the Delco/Bose engineers.

Discouraging Words

When they started their joint project, the Bose and Delco engineers found little previous data that was useful. With the aid of a listening mannequin called Morgan, which was wired to a network of computers both at Bose's Framingham, Massachusetts, headquarters and Delco's Kokomo, Indiana, research Eldorado and Buick Riviera differ by as much as 12 dB in spots. "The cars are almost identical except for the nameplates. If you can even find the differences, I'll buy you a cup of coffee," Veranth said. "It turns out that there are little things like the rear deck, which is a quarter of an inch shorter on one car than the other, and one has a trim around the window that is just a shade wider. Little things that are near the speaker can make a big difference."

A graph showing the equalizer curves for all four of the different GM cars



(Figure 2) shows, according to Veranth, why you can't have a standard equalization curve for all cars or even for an "average" car. The difference can be 20 dB or more at almost any point on the band. (The curves are referred to 23 dB of gain at 50 Hz, which is why they all cross at that point.) If the curve for the two-seater Corvette is taken out of this graph, the differences are still as much as 15 dB.

"If anybody thinks he can buy any after-market speaker system—including ours—and install it in a car and get it to sound *really* good, the likelihood is nil," Veranth said. "Except for the Corvette these are all big, similar cars. I don't know what would happen to these graphs if you started tossing in other makes of cars." Veranth has also performed some experiments with a nine-band graphic equalizer to see if he could come close to the response produced by the custom equalizers installed in the Delco/Bose cars. "Only by using a computer and listening-test data could we come up with slider positions that would bring the response to within 3.5 dB of flat. The final result was really screwy, with adjacent bands jammed in opposite directions, settings I wouldn't have tried without a computer telling me which way to go."

Equalization, according to Veranth, is only half of the story; sound localization, or imaging, is just as important. A listener's ability to perceive the location of a sound source is very dependent on his reception of frequencies in the range between 1,000 and 5,000 Hz. If the car's front and rear speaker pairs emphasize different parts of this frequency range, the sound image will shift forward and backward as the music's frequency balance changes. This is where Morgan has been most useful to the Bose and Delco engineers. The computers connected to the mannequin's two "ears" can plot the sources of sound energy in a car system (Figure 3).

Considering all these complex, interrelated variables, says Veranth, "how is someone going to equalize a car stereo system without computers and get a good sound? I'm really skeptical."

The Custom Route

Where does the need for computer equalization and so forth leave the audiophile with his three-year-old Datsun? Is it possible to find car-stereo happiness without computers and days of trial-and-error searching for the ideal speaker position? We asked several installers with good reputations for putting in car stereo installations of audiophile quality.

The first was Rich Inferrera, who



Figure 1. Equalization curves for the front (left) and rear (right) speaker pairs in the Buick Riviera (black) and the Cadillac Eldorado (col-



Figure 2. Front and rear equalization curves for the four different GM cars offering the Delco-GM/Bose Music System. Bose engineers say the variations refute the claim that standard boosts or cuts in specific frequency bands can give optimal response in almost any car.



or). While the car bodies are nearly identical, the curves are very different, and the front and rear curves also differ markedly.



Figure 3. Sound imaging in a Delco/Bose-equipped Corvette, as measured through the head of the dummy Morgan. Since small differences in the sound energy from different directions can have a large effect on imaging perception, each concentric ring represents 0.5 dB.



Rich Inferrera shows off the five ADS amplifiers that deliver 500 watts per channel to the stereo system in his 1957 Chevrolet.



Chris Greenleaf (left) and Bose engineer Joe Veranth (right) discuss equalization and imaging over the head of the dummy Morgan (center).

owns Rich's Car Tunes in Watertown, Massachusetts, a suburb of Boston. He has been in the business for thirteen years, and when we interviewed him the cars he had in progress included a Toyota pick-up truck, a four-door Mercedes sedan, an old-but-clean Pontiac, and his own show car, a super-charged 1957 Chevy dragster in which he has installed a \$15,000 sound system with an output reportedly measured as having put out peaks of 124 dB SPL.

Barry Smith, the owner of Ultrasmith, a clean, well-equipped operation on the West Side of Manhattan in New York City, does most of his work on Porsches and Mercedes. His show car is a bright red Porsche 911 with every possible option. The sound system, however, looks relatively modest until you see the racks of amplifiers and crossover networks in the trunk and learn how the interior was practically rebuilt in order to fit and properly enclose the speakers.

We also talked with representatives of a California company called Audio-Mobile, which has been installing custom systems as well as manufacturing and selling accessory amplifiers, equalizers, and crossover networks. Audio-Mobile's technical service manager, John Bishop, says that high-fidelity car stereo should offer the best sound and be easily upgradable.

Bishop, Inferrera, and Smith all report that their experience confirms much of what the Bose engineers told us about the frequency-response measurements and sound-localization problems of most cars. All three mentioned that when they used a spectrum analyzer to measure the frequency response of some of the systems they have installed, the results were very flat. But it took some time and considerable listening

When Rich Inferrera is faced with a new model or a car of one of the few makes he hasn't worked on before, he hauls out his "experimental system," which consists of four small box speakers that he tapes in various possible positions in the car's interior until he gets the frequency response and imaging just right. Sometimes he will use an Ivie spectrum analyzer. "I've gotten so I kind of know my way around and have a good idea of what's needed just from looking at the interior," he said. Once a car has been mapped out like this, Inferrera files away the layout for future reference.

ability to achieve that state of affairs.

Barry Smith describes his technique as a series of steps he goes through for each car. "First I make minor adjustments in the speaker placement, optimizing the placement to localize the sound in the listening area. Second, I do it through electronics, through the selection of various crossover modules, determining the proper rolloff points of each individual speaker.

"I use a variety of demo-tape material, both vocals and instrumentals. I have some great classical stuff that I use in aligning a system, and I do that checking the sound of each musical instrument. I know what these compositions sound like on my home system, and I try to lock that same sound into the car. I don't use an equalizer to fix the system. I try to deliver each car flat so the owner can then adjust it to his taste."

At AudioMobile, John Bishop mentioned some popular misconceptions. "A lot of guys want speakers all over the place. It's loud, splashy, and sexy. Impresses the hell out of first-timers, but later they come back with an earache. In the Muzak or easy-listening category you get the car owner who thinks he can plunk whatever drivers he can get to fit existing holes and have a chance to straighten it out with a budget equalizer."

Everyone interviewed felt it was almost impossible to get decent tonal balance without some kind of equalization modification, whether it was accomplished by driver selection or positioning, by crossover selection, or by using a multiband equalizer. AudioMobile's crossovers have about two dozen equalization-module additions to choose from, and Bishop feels that "if you don't get back and front equalization independent of each other-and since they occupy different halves of the same space, they must be differentlocalization is impossible. Even if you have dead average flatness, imbalance between front and rear will wipe out your chances of hearing music."

The imaging or localization of the sound is very much dependent on the relative sound levels and on frequencyresponse balance, which is to say that the frequency balance perceived by the listener should be equal in all directions. Imaging is also largely a function of speaker placement, driver separation, and orientation. Assuming a single front grouping of drivers or driver complements, it is virtually impossible to have both front speakers the same distance from any listener, but if the disparity between these short sound-path lengths is too great, imaging goes out the window.

Ideal Custom Systems

No matter what methods they use or how they solve the very real problems of achieving good sound in automobiles, the systems provided by the best cus-



tom installers resemble each other in certain regards. The most successful installations seem to fall in the category of a system based on satellite speakers in the four corners with an optional (but highly recommended) subwoofer and crossover. The use of biamplification or triamplification (let's say one stereo amplifier each for the front pair, the rear pair, and the subwoofer) gives each element of the driver complement its own separate and more easily tuned range.

The idea behind the satellite/subwoofer system is to let the satellites, which are equalized separately for front and rear flatness of each pair, handle everything above, say, 200 Hz. (This may vary a bit from system to system.) The satellites can thus concentrate on imaging and critical tonal balance.

The subwoofer may consist of a single monophonic driver of some size, a stereo pair, or a number of smaller bass drivers. It can be vented or sealed (with a custom "speaker box" enclosure), or, more commonly, the trunk is used as an infinite baffle to absorb and perhaps provide some resistance for the rear output of the drivers. Rather than deal with a bulky 12-inch woofer, many system designers opt for the smaller drivers of around 6 inches because four of them can move the same amount of air (necessary for deep bass). This spreads



the mechanical and electrical load between several voice coils and diaphragms and affords better protection against overdriving.

These are some facets of an ideal satellite/subwoofer system. Not every budget, of course, will be able to cover the cost of all the crossovers, equalization of each component, separate amplification, and the sheer labor of flattening out the whole system and attaining good imaging. It's not cheap.

What Does It Cost?

If your idea of the cost of car stereo is based on the sticker price of the AM/ FM radio option at your local car dealer, you are in for a big shock. On the other hand, if you compare car stereo prices with the cost of a home hi-fi receiver, cassette recorder, and four twoway speakers, it's not so bad. Add to that the cost of miniaturization and installation, and the whole proposition seems much more reasonable.

The Delco-GM/Bose Music System will add between \$500 and \$900 to the price of a car (depending on the value of the standard-equipment radio that it replaces). This may seem like a lot of money to people accustomed to a \$125 to \$200 radio option, but it is very cheap compared with some custom-installed car stereo systems.

At a custom installer the labor charges vary (supposedly according to the skill of the installers), usually running about \$40 an hour. Generally, the faster they put it in, the less it costs and the greater the chance it will sound awful, but a really experienced installer can be pretty quick on a simple job.

These two photos were taken during the early stages of development for the Delco-GM/Bose Music System in the 1984 Corvette. Above is a view of a speaker module installed in the top of the dashboard. Bose engineers had thought that the Corvette's long, sloping front windshield would enable them to mount the speakers far back in the dash and more nearly level with listeners' ears than in other placements. Unfortunately, the windshield and dash together generated some undesirable horn-loading effects and also made the speakers seem too strongly localized. Photo at right shows an experimental setup for testing the positioning and orientation of the rear speakers in the system. The tests used a pulsed signal similar to that used by Julian Hirsch in his FFT analysis of the output of home speakers. The final placements were arrived at by experimentation.



The equipment itself accounts for a major part of the overall cost. The sound source, normally an in-dash tape player and radio, generally costs between \$150 and \$600, depending on features, performance, and quality. Add-on amplifiers generally go for \$50 to \$100 per channel, and speakers vary in price from \$39 to \$250 and more per pair. If you get into biamplified and triamplified systems with expensive crossover networks and multiple-driver subwoofer systems, the price can quickly skyrocket.

"Going the limit," explains Barry Smith, "is very expensive." He showed us a Porsche 928S that was triamped with 210 watts a side. It had four satellites, four 61/2-inch woofers as a subwoofer, an Alpine 7337 head unit, and AudioMobile crossovers and amps. "The guy paid \$7,500." That may sound like a lot, but it also reflects the cost of custom-built speaker enclosures, added soundproofing, and more. The interiors of the cars in his shop (where, incidentally, the cover of this issue was photographed) are almost completely stripped out to facilitate installation. But is it necessary to go to such extremes to get good car stereo?

A Practical Approach

After reading what has gone before, you may not be too hopeful about the prospects of turning your three-yearold Datsun into a great place to listen to music. It is true that there is no easy way to get perfect imaging and ± 3 -dB tonal balance. (You would probably be surprised at the tonal lumps and bumps in a typical home listening room.) Still,



you can do a pretty good job if you plan your system carefully and get good installation. And you can also use some of the same concepts applied to the Delco/ Bose system and custom installations.

Paul Stary, president of AudioMo-

Each speaker/amplifier module used in the Delco-GM/Bose systems includes a 4-inch, full-range speaker, an amplifier, and an individually adjusted equalizer circuit, all mounted in a ported enclosure (ordinarily made of black plastic) designed for optimum bass response.

bile, warns against installations that place speakers on top of the dash. He says they blow imaging right out of the water. Dr. Amar Bose cautions against having the tweeters separated from the other drivers, which causes an imbal-





These photos show additional stages in the development of the Delco/Bose car stereo system in the 1984 Corvette. Photo above shows a shell-like mock-up of the car body; note the wood-plank dashboard and roughed-in speaker in the door. The shell's dimensions were close to those planned for the final car, so the Bose engineers were able to experiment with various speaker locations. When the best locations were selected, GM engineers designed the actual doors and rear compartment to accommodate the Bose speaker/amplifier modules. Photo at left shows a later stage, when the structure of the mock-up was closer to the car's final form. Since very small changes in a car's interior can cause major sonic aberrations, the Delco/Bose engineers had to keep readjusting the stereo system until the car reached its final production form.



Acoustic testing of a prototype of the 1984 Corvette

1984 CORVETTE: ON-THE-ROAD LISTENING TESTS

As anyone who has even glanced at the cover of an automotive magazine in the past six months knows, the 1984 Chevrolet Corvette is about the most exciting four-wheeled creation to come out of Detroit in years. And while it is a very sophisticated example of the state of the art in car design, it is even more revolutionary in terms of car stereo.

When the 1984 Corvette was in its early planning stages back in 1979, the Bose Corporation was just beginning a cooperative venture with General Motors and its Delco Electronics Division to put high-fidelity music systems into GM cars. Such is the lead time in automobile manufacturing that for the 1983 GM luxury cars, on which the system was first offered as an option, an extra side loop had to be added to the production line so that the door frames could be modified to accept the Delco-GM/Bose speaker and electronics modules. But the 1984 Corvette was designed from the ground up to have the best car stereo system possible. Speaker locations were worked out so that the doors and panels could be made properly from the start.

On a windy, damp, late-winter day at GM's Milford, Michigan, proving grounds, I experienced this latest and, I feel, most habit-forming manifestation of the Delco-GM/Bose Music System. This wasn't my first exposure to the system, since over the past six months I had ridden in several other GM cars equipped with it. But I wanted to wait until I had had a chance to experience the system in all the models offering it before making a report.

It says a lot for the quality of the Music System in the Corvette that I was able to concentrate on my job—at least some of the time! When Delco engineer Pete Lintzenich and I accelerated onto Milford's circular track, it was an effort to get my excitement about the car itself under control so I could settle down to listen to the Music System for several hours.

Much to my surprise, Milford's 123

miles of test tracks have a lot in common with STEREO REVIEW'S New York City test route. There's a 1^{1/2}-mile loop paved with nice, bumpy Belgian block, a section of calibrated potholes, a Germanblock pavement, corrugated "washboard" concrete, and pavement joints, as well as something we don't have in the city—smooth highway. There are also plenty of large buildings and metal structures to challenge a radio's FM-reception capabilities.

One major difference between our test ride in the Corvette at Milford and those in my humble Volvo on Brooklyn's cratered streets was in the stereo system's isolation from shock and vibration. For our tests the units ride firmly clamped to the Volvo's transmission hump and thus have maximum exposure to car vibration and road shocks, but the head unit in the Corvette is mounted in a shockresistant dashboard. The car's excellent suspension and vibration damping additionally protect the radio/tape player from the sort of jarring and shaking to which new models are subjected when I give them our worst-case road tests

The Delco-GM/Bose Music System sounds best with the car running which is as it was designed to do. With the car stationary and the motor off, there is an unobjectionable but appreciable preponderance of bass frequencies. On the road, or even with that big V-8 ticking over in neutral, the perceived response flattens out and the same musical passages acquire a leaner, tauter character. The sound remains basically the same up to 40 or 45 miles an hour, depending on road surfaces and the degree of acceleration or deceleration.

The comfortable volume level (relative to vehicle noise levels) obviously rises as the car moves faster, but far less than I had expected. In most cars the volume setting for a speed in the forties sounds a bit loud at idle. Not so with this Corvette, which, except during acceleration, is a very well-mannered car indeed. Since it is a high-performance model, though, acceleration racket obviously masks everything—except the grin on the driver's face.

Between 45 and 50 mph, exhaust rumble and highway noise caused some masking of the middle and upper bass, but there was no real tonal imbalance. This effect decreased between 50 and 70 mph, both cruising and accelerating, and my upward volume adjustments were still not as great as I had thought they would be.

As road noise rose in pitch and volume above 70 to 75 mph, Lintzenich and I noticed a *decreasing* degree of exhaust noise. A car whose surfaces are well faired for minimum back-end turbulance and whose main exhaust-resonating areas are in back of the driver's seat leaves much of its muffler and pipe rumble behind as it travels faster and faster, and this was what we experienced.

Above 70 mph, wind noise joined the chorus of noises vying with the music. It failed to mask any significant portions of the audio spectrum until just under 90 mph (a sedate cruising velocity for the Corvette judging from its lively acceleration even at that speed). At our top test speed of 105 mph, wind and road noise combined to drown out a lot of the musical details. Even so, there was enough oomph left in the system to make the music and both male and female radio announcers clearly audible. Otherwise, except for the 45- to 50-mph region and a slight cockpit resonance around 83 mph, I experienced no difficulty hearing musical detail, differentiating between individual instruments in an ensemble, and, hardest of all, discerning the significant pauses between musical movements or phrases. The car's excellent insulation from outside noise was strikingly demonstrated when we were overtaken by some other cars-driven by test pilots?-in the 110-mph-and-up outer lane. With the Corvette's windows down, the sound as they passed was deafening, but with the windows up it was like being in a living room with an air conditioner going.

The system's FM reception, 40 miles away from Detroit, was always clean, and the high-blend circuitry reduced the noise to a minimum when the car went behind a high hill or between buildings. The AM performance was similar to the excellent results I got in a Cadillac Seville equipped with the Delco-GM/Bose Music System last fall. The tape transport in the Corvette's cassette player refused to be fazed by any of the uneven road surfaces we encountered-for which the Chevrolet suspension engineers deserve at least half of the credit. My only disappointment was that the tape player was not up to the demands of a commercially prerecorded audiophile metal cassette, which apparently had signal levels too high for it. And that's not much of a gripe. So what can I say? That's some car!-and that's some car stereo! -CG



ance not only in imaging but in frequency response as well. The effect is a disorienting shift of focus as different parts of the audio spectrum draw attention to each disparate component of a speaker array. It may be impressive at first, but, says Dr. Bose, "this kind of distortion of perspective is unmusical, and, in time, it becomes tiring in the extreme."

The amplifiers in the Delco/Bose system have 25 watts per channel—a lot compared with what is available in your typical in-dash radio/tape-player combination unit. John Bishop, Barry Smith, and Rich Inferrera all recommend amplifiers of considerable power because it takes a lot to drive four, five, or more speakers cleanly to reasonably loud levels.

Joe Veranth emphasizes the need for proper equalization of front and rear speakers to give each pair a full musical range above the bass. Once you get the equalization right, you can play around with speaker positioning and orientation to get the localization. "Place the speakers low and far forward," he says. "The small resonance of the foot well is far less important than making the originating points of the left and right channels more nearly equidistant from the listener."

We suggest that you try to keep speakers far from listeners' ears and arrange the front ones so that each frontseat occupant can see the far-side speaker over or around the other occupant's legs. Any kind of sealed speaker enclosure is better than none. And be sure that the speakers are very firmly mounted.

With front-only speakers in a lowbudget system you can save money by buying a low-priced head unit without a fader. This will, however, deprive you of the option of later upgrading to a four-speaker system. With four speakers a front-rear fader is essential for balancing the system. Because of the construction of most rear parcel shelves, it is relatively easy to put large 6- x 9-inch three-way speakers there. This can give you the bass that is not available with two-way speakers mounted in the doors. The fader will permit you to shift the sound-level balance forward or to compensate for any difference in the efficiencies of the speakers.

Before going any further you might want to consider adding an accessory equalizer, but using one is not easy even for a golden-eared audiophile. A better approach would be to use a spectrum

An unobtrusive rear-shelf AudioMobile subwoofer installation. The low frequencies of the drivers pass right through the relatively heavy fabric covering them (top photo). AudioMobile uses a sealed enclosure (white box in lower photo) and separate amplifiers (at right).



analyzer if you have or can borrow one. (Alpine now makes one for car use.) It can be a home unit run out into the driveway on an extension cord. All you need to do is to adjust the car's equalizer for the flattest analyzer reading while the speakers play pink noise. The microphone should be placed where your head would be. Don't be too surprised if the slider positions look very jumbled.

If you have four or more speakers, it is advisable to get separate equalizers for the front and rear systems and to equalize them separately. Once that's done, you might try burying the equalizer(s) behind the dashboard or under a seat so that no one can mess up your settings.

By this time you are probably beginning to feel the need for some extra amplification, especially if your head unit is delivering clean sound and the speaker system is pleasingly balanced but you are getting distortion at high levels. A simple four-channel amp or a pair of two-channel amps should do the trick. You will need a separate amp to drive the subwoofer system.

And along about this time you should realize that what started as a low-cost, practical system has gotten expensive very quickly: If you are paying an installer, it will have gotten quite expensive. And if you are trying to do it yourself, you will probably have mutilated fingers and a twisted back that will make you wish you had hired an installer after all.

Finding an installer is easy compared with the difficulty of determining his ability to do the job right. A good approach is to tell him what kind of listening you do and how much you want to pay. A reputable installer will explain what he proposes to do and what it will cost. If his proposal seems reasonable in the light of common sense and what you've read here, then you've probably found your installer. If you don't like what he says, take your business elsewhere. If you are going to take the plunge and get a custom installation in the region of \$3,000 and up, be sure you are dealing with an experienced professional. Listen to the systems in some of the cars he has prepared and check his references.

Most of us won't spend \$7,000 for a car stereo system, but a great many people are going to spend between \$500 and \$1,500. It would be very upsetting to gamble that much on good sound and be dissatisfied with the payoff. By learning where the pitfalls of car stereo acoustics are, you can reduce the odds against you and increase your chances of coming up with a first-class car stereo system that approaches audiophile quality.

Tape vs. Disc: Which Sounds Better?

Lab tests reveal how performance of the prerecorded cassette compares with that of the LP disc

By David Ranada

HILE there is no doubt that audio cassettes today are capable of true high-fidelity performance in both recording and playback, some audiophiles sneer at all commercially *prerecorded* cassettes as sonic second-raters. They consider the medium suitable only for acne-afflicted teenagers who want to blast out Judas Priest on their portable boom boxes.

How justified is this prejudice? Since criticism of prerecorded cassettes generally focuses on two major sonic complaints, high noise levels and a frequency response that rolls off the high frequencies, I measured the actual peaksignal and background-noise levels of several recordings in various tape and disc versions. I discovered that, in these two critical performance areas, a carefully made prerecorded cassette can be at least the equal of the much-beloved analog LP disc-and sometimes even its superior. Moreover, while the potential sound quality of any analog medium, whether tape or disc, falls far short of that of the digital Compact Disc, all of the commercial media for recorded music, including CD's, are limited by the quality of the original master tapes.

Since there are several levels of quality-and, consequently, price-in prerecorded cassettes, how far up the scale do you have to go to get high-fidelity performance? Let's examine the relative performance of discs and prerecorded cassettes in four broad categories: a normal-bias cassette duplicated at high speed; a high-bias cassette duplicated at high speed; a high-bias or metal-tape cassette duplicated in "real time" (that is, at the same speed as the tape will be played back); and cassettes made with an advanced noise-reduction system such as Dolby-C or dbx. Because of variations in the sound quality of the original master tapes and in different manufacturers' quality-control procedures, however, the potential benefits of using a better cassette or a "better" duplicating method are not always realized.

Normal-Bias Cassettes

Most of the prerecorded cassettes sold are normal-bias tapes duplicated at very high speed—sometimes sixteen or thirty-two times the normal cassette playback speed of 17/8 inches per second. Normal-bias tape is less costly than other formulations, and the reason for high-speed duplication is also economic. Cassette recordings obviously cannot be "stamped out" like analog discs, but to mass-produce prerecorded cassettes at a reasonable cost, the manufacturing time per unit must be kept as low as possible.

High-speed duplication requires making a special "running master" from the original master recording. This running master is a four-track open-reel tape that contains the program for both sides of the cassette recorded concurrently, not consecutively. All four tracks are simultaneously played back on a special tape machine that runs at many times normal playback speed, and a bank of "slave" cassette decks, also running at many times normal speed, receive the program signal from the running master and record both sides of each cassette at once.

The high playback and recording speeds used in the duplication process place extraordinarily stringent demands on the performance of the duplicating machines. One might expect that the process would exaggerate the limitations inherent in the cassette medium even at normal playback speed. How serious are the sonic compromises of well-controlled high-speed duplication using normal-bias cassettes? The curves in Figure 1 show the peak levels across the audio spectrum reached by one selection on a typical analog disc (40 from the U2 album "War," Island 90067) and by the same selection in the prerecorded cassette version, which was duplicated at high speed on normal-bias tape with Dolby-B encoding. The peak levels are essentially identical except that the cassette shows a slight rolloff of the very highest frequencies (which can be audible).

What about the other end of the dynamic range, the background-noise levels? Figure 2 shows the levels of background noise on the same two recordings as measured during the pause between the last two selections. The traces represent not only the inherent background noise of the two formats



Figure 1. Peak levels for an LP (grey) and a cassette with normal-bias tape (color).

but also the noise on the original master tape and various pre- and post-echoes. Even with Dolby-B noise reduction, the cassette is generally much noisier than the disc except at the low frequencies, where built-in rumble *always* dominates a disc's noise curve. Unfortunately for the listening quality of the cassette, low-frequency noise is far less audible than high-frequency noise.

How much of the noise on this cassette is a result of the high-speed duplication process? To answer this I erased (at normal speed) some of the extra tape at the end of the cassette. From

the result (Figure 2) it is clear that most of the noise seems to come from the tape itself. In other words, the limiting factor in this case is the inherent background noise of the tape, not noise



Figure 2. Noise levels for an LP (grey), a cassette (color), and the cassette's inherent background noise (striated).

added by the duplication process. Perhaps upgrading the tape formulation will provide lower noise levels.

High-Bias Cassettes

What are the advantages of going from a normal-bias (120-microsecond) cassette to a high-bias (70-microsecond) one? The peak levels shown in Figure 3 are for the same section of three different versions of Leonard Bernstein's digital recording of Shostakovich's Fifth Symphony (CBS 35854): the digital Compact Disc, the audiophile-pressing analog disc, and the audiophile CrO₂ cassette. Both the analog disc and the tape seem to have slightly lower levels at both low and high frequencies compared with the Compact Disc.

The bass rolloff can stem from equalization of the disc master to minimize excessive vertical stylus movement in playing the LP and to reduce low-frequency print-through on the cassette. The high-frequency droop on the disc may be a result of the cutting process; that on the cassette may result from the high-speed duplication process (as in our previous example).



Figure 3. Peak levels for a CD (grey), an LP (color), and a CrO2 cassette (striated).

More interesting are the noise spectra in Figure 4. All were measured during a pause in the music in the third movement and reflect, as before, the noise level of the original recording as well as those of the various duplication





Figure 4. Noise levels for an CD (grey), an LP (color), and a CrO2 tape (striated).

media. These particular noise curves show substantial low-frequency "hall noise," hiss generated by microphones and mixers, and an unexplained, relatively low-level tone in the 16,000-Hz band. Note that the curves are almost the same (the Compact Disc is quieter between 1,000 and 10,000 Hz), since in this case the inherent noise levels of the CD, the LP, and the cassette are all low enough to be masked by the noise of the original recording.

The inherent noise of the digital-disc unit playing "all zeros" (that is, a null program signal) is at least 20 dB below the noise curves shown in Figure 4, thus below the bottom of the graph. With most recordings I have measured, the background noise from the original master is far higher than the inherent background noise of the digital medium. Only a few digitally mastered recordings have measured backgroundnoise levels in their Compact Disc versions significantly lower than on the equivalent analog discs or tapes. This suggests that the distinctly clear and "effortless" sound quality of Compact Discs, as compared with LP's and cassettes, originates not only in the wider dynamic range of the CD, the limits of which are approached only very rarely, but in the CD's lack of wow and flutter, impulse and modulation noise, and distortion at high signal levels.

"Real-Time" Cassettes

The highest rank in the prerecordedcassette hierarchy is held by those audiophile-category tapes duplicated in "real time," that is, at normal playing speed. A real-time (1:1, one-to-one) dub is what you would get if you hooked up your own cassette recorder to the outputs of the master playback deck. In fact, most of the real-time tape duplicators employ a bank of stock or slightly modified consumer-model tape decks as their "slave" recorders rather than specially built professional equipment. Real-time duplication is more expensive than high-speed duplication because the number of cassettes that can be produced in a given time is far lower. Moreover, high-quality, high-bias tapes are typically used, further increasing costs. Thus real-time prerecorded cassettes usually carry higher prices. Among the companies offering prerecorded cassettes dubbed in real time are AAG, InSync, Mobile Fidelity, and Nautilus.

Real-time cassettes offer definite advantages in terms of lower flutter level, fewer dropouts (momentary decreases or losses of signal in one or both channels), and probably also lower distortion levels. Are they also better in dynamic range?

Figure 5 shows the peak levels reached during Genesis Ch.1.V.32 on



Figure 5. Peak levels for an audiophile LP (grey) and a real-time cassette (color).

the Alan Parsons album "I Robot" as remastered by Mobile Fidelity on disc (MFSL 1-084) and cassette (C 084). The cassette and disc versions are essentially equivalent, the cassette being perhaps slightly brighter in the upper midrange (1,000 to 5,000 Hz). Noise



Figure 6. Noise levels for an audiophile LP (grey) and a real-time cassette (color).

levels for these two recordings are also nearly equal (Figure 6). While the disc is slightly superior to the cassette in ultra-high-frequency noise, the cassette is far superior over a large range of low frequencies (there is a relatively strong hum component at 60 Hz in both recordings). Obviously, then, with realtime duplication a prerecorded cassette can be fully equal to an audiophile pressing, at least in noise and peak levels. What lies beyond?

Low-Noise Cassettes

Attempting to keep up with the improvements in dynamic range offered by digital recording and wide-range noise-reduction units such as dbx's professional system, analog disc and tape manufacturers have tried to increase

the dynamic range of their products. This can be done basically in two ways: by increasing peak-level capabilities and/or by lowering the noise "floor" (the inherent noise level). While tape manufacturers have been increasing the maximum output levels of their tapes and phono-cartridge manufacturers have been increasing the tracking ability of their cartridges, record companies and tape duplicators have tried to lower background noise.

Analog discs have benefited from the introduction of Teldec's Direct Metal Mastering system and JVC's ultrathick, ultra-quiet UHQR pressings, and prerecorded tapes have recently benefited from the use of the dbx and Dolby-C noise-reduction systems. Tapes duplicated with these advanced noisereduction systems have very low background-noise levels, although there can still be excessive noise from the master tape, even a digital one.

Figure 7 compares the noise, during a pause in the music, of a dbx-encoded cassette made from a digital master tape with the inherent background-noise level of the same cassette (*The Empire Strikes Back*, dbx EC-7006). Although the background-noise level runs off the bottom of the graph, the noise of the master tape is much higher and cannot be reduced by *any* encodedecode noise-reduction system. As dbx says in literature accompanying the cassette: "Any residual tape hiss, room



Figure 7. Noíse of a dbx-encoded tape (color) and inherent dbx noise levels (striated), mostly below the graph (note scale change).

noise, etc. that may be heard on this cassette exists on the master tape."

The same can be said for Dolby-Cencoded cassettes, a few of which are now available. Among the first of these to cross my desk are those produced by InSync. The background-noise levels of fine-sounding dubs of Ravel's *Rapsodie Espagnole* (InSync 4104, available in both Dolby-B and Dolby-C versions) are shown in Figure 8. The noise levels of both the Dolby-B cassette and the Dolby-C cassette incorporate the same master-tape noise. The basic noise level of the Dolby-C dub is, however, much lower, again indicating that the medium is quieter than the master tape (in



Figure 8. Noise levels of a Dolby-B-encoded tape (grey), a Dolby-C tape (color), and Dolby-C background noise (striated).

this case a Dolby-A-encoded open-reel recording).

In sum, if you are after extended and flat high-frequency response at high levels, prerecorded cassettes may not be for you, since all but the real-time-duplicated prerecorded cassettes I examined showed a slight high-end rolloff compared with their equivalent LP or CD releases. You would get better results copying the discs on a good home deck. The results may still not be perfect, though, since even with the best home decks it is difficult to obtain flat high-frequency response at high levels—as a glance at the graphs in our cassette-deck test reports will show. When it comes to noise levels, however, even a high-speed-duplicated cassette may be entirely adequate—depending, of course, on the backgroundnoise level of the master tape. Realtime-duplicated cassettes can even be *quieter* than their disc counterparts, especially if an advanced noise-reduction system is used.

Besides low background noise, audiophile cassettes have a lot of other things going for them. They are far ahead of analog discs in terms of resistance to damage, portability, maintenance requirements, playback capability on various grades of players, and freedom from impulse noise (ticks and pops).

Now, if only the major cassette duplicators would start providing substantial program notes and more logically distributing long pieces over multiple cassette sides! (There's no reason for a Wagner opera to take up five cassettes; three will do for the longest of them.) Attention to these aspects of their product, along with a move to slower-speed or realstime duplication on high-bias tape stock, could make the prerecorded cassette second only to the digital Compact Disc in convenience and sound quality.

HOW THE GRAPHS WERE MADE



Ivie IE-30 meter/analyzer

THE graphs in this article look unusual because, as a result of the measurement methods used to generate them, they have segmented rather than smooth curves. The data were gathered by an Ivie IE-30A one-third-octave spectrumanalyzer/sound-level meter. This extraordinary (\$4,400) instrument enabled me to measure the peak levels of a bled me to measure the peak levels of a recording in each of the thirty one-thirdoctave bands from 20 to 20,000 Hz. The one-third-octave division accounts for the horizontally segmented appearance of the graphs.

On close examination the graphs can be seen to be vertically segmented as well, since each jump in the curve is a multiple of 3 dB. In its widest-dynamicrange display, the Ivie IE-30A segments the levels in each third of an octave into 3-dB steps, much like an LED recording-level meter. For the noise curves, the IE-30A's signal-averaging facilities were used to smooth out small random variations in background-noise level. Variations of only ± 3 dB in the graphs are not significant unless they extend over several bands.

The cassette deck used was a Nakamichi Dragon. The unit had a slightly rising high-frequency response with prerecorded tapes pre-emphasized according to the latest IEC standard. Since the pre-emphasis standards of all the tapes I used were not known, the signal-peak and noise curves have *not* been corrected for the Dragon's rising highend response.

The self-aligning playback head of the Dragon permitted every tape to receive the best possible playback, which is important because a very slight misalignment of a playback head with a tape can cause serious losses of high-frequency signals. (I tried to make spectrum-analyzer plots comparing peak levels from prerecorded cassettes with the Dragon's alignment system switched in and out. Though there were audible differences with some cassettes, they did not show up in the graphs, mainly because the changes were smaller than the 3-dB resolution of the spectrum analyzer. When the IE-30A was switched to a 1-dB vertical resolution, the loss of high frequencies with the Dragon's alignment system disconnected was sometimes visible.)

Also used in these comparisons were a Sony PS-X75 turntable, a Shure V15 Type V cartridge, an Apt Holman preamplifier, and a Sony CDP-101 Compact Disc player. D.R.



12 mg "ta;" 1.0 mg nicotine av. per sigarette, by FTC method.

Warning: The Surgeon General Has Determined That Eigarette Smoking Is Dangerous to Your Health.

12 mg⁺⁺tar;⁺ 1.0 mg nicotine av. per cigarette, by FTC method.

Warning: The Surgeon General Has Determined That Cigarette Smoking Is Dangerous to Your Health.



PLAYER Sprewil Marnha

Kings

PLAYERS Seleci Blend

Kings





Best of the Month Stereo Review's Selection of Recordings of Special Merit

Angela Bofill's Latest, "Too Tough," Is Polished, Powerful, and Pretty THE impressive bundle of talent and pulchritude called Angela Bofill has attracted an ardent following in recent years, primarily among young adults nurtured on fusion and progressive soul music. These listeners prefer vocals that are more sophisticated than the raw, limited sounds that captivate

Angela Bofili



younger rock and funk fans. Bofill offers consistently polished performances of a wide variety of popular material, from teasingly sensual, uptempo dance tunes to delicate ballads, infusing everything she sings with a magnetic personality that can be sensed even across the vinyl barrier.

Bofill's voice is a sleek and streamlined yet robust instrument, and she knows how to use it, maneuvering through the trickiest passages without working up a sweat. She has power enough when she needs it, but she can also cool down to light, kittenish purrs when intimacy is called for. She deserves a heaping measure of respect for her commitment to excellence in all aspects of her work. Somewhere along the way, however, Bofill was tagged as a "jazz singer," something she most definitely is not, though she credits the rich tradition of jazz as an early influence and source of inspiration. Perhaps it's because there are so few true jazz singers today that Bofill's fans might mistake her admirable but carefully calculated approach for the more adventurous art of improvisation that is the essence of jazz.

Bofill's new Arista album, "Too Tough," is a representative sampling of her gifts. The title song, which opens the album, is as catchy as last winter's flu, but far more agreeable, and she punches it out with unmistakable authority. Perhaps the tune clings to the ear so tenaciously because of its striking resemblance to the commercial jingle for a popular brand of designer jeans, but in Bofill's skilled hands it seems anything but trite.

"Too Tough" falls into two distinct parts. The first side was produced by Narada Michael Walden, and it consists of songs ideally suited to the more extroverted facet of Bofill's personality. Besides the title track, the highlights include a lilting version of an Ashford and Simpson evergreen, Ain't Nothing Like the Real Thing, and Tonight I Give In, a romantic song delivered with such emotion that it is absolutely enchanting. (Continued on next page)

Bofill served as her own composer and producer for side two. It reveals a writing talent also to be reckoned with, and she proves here that maybe she knows best what to do with her own voice. Is This a Dream seems like just another cute dance tune on the surface. but the freshness of the writing and singing lift it to a higher level. I Can See It in Your Eyes has a light but definite Latin flavor, and Rainbow Inside My Heart shimmers with ethereal messages of peace. Side two also includes one of the prettiest songs that I've heard Bofill or anyone else sing lately, her own Song for a Rainy Day, as tender as a teardrop and just as affecting.

"Too Tough" should please both those looking for happy, carefree music for partying and those who want something to listen to in more private moments. If you are already a fan of Angela Bofill, you will welcome this addition to your collection, and if you have yet to make her acquaintance, you will find it a wonderful introduction.

-Phyl Garland

ANGELA BOFILL: Too Tough. Angela Bofill (vocals); vocal and instrumental accompaniment. Too Tough; Ain't Nothing Like the Real Thing; Tonight I Give In; You Could Come Take Me Home; Love You Too Much; Is This a Dream; Song for a Rainy Day; I Can See II in Your Eyes; Accept Me (I'm Not a Girl Anymore); Rainbow Inside My Heart. ARISTA AL 9616 \$8.98, © ACT 9616 \$8.98, ® A8T 9616 \$8.98.

Profoundly Satisfying Strauss from Lucia Popp And Klaus Tennstedt

R^{ICHARD} STRAUSS composed *Death* and *Tranfiguration* when he was twenty-five, the *Four Last Songs* when he was eighty-four. Their coupling on a new Angel recording by Klaus Tennstedt and the London Philharmonic Orchestra, with Lucia Popp in the songs, is very appropriate, since there is a quotation from the youthful tone poem near the end of the final song. Tennstedt's intensely spiritual readings of those works, together with Popp's beautiful singing, make listening to this record an extremely moving experience.

The opening pages of *Death and Transfiguration* are taken at a very deliberate pace in this performance, and the music sounds as desolate and otherworldly as I have ever heard it—as though Tennstedt had sensed an inner connection with the realm of Gustav Mahler's Ninth Symphony. The faster sections of the first part have ample energy and urgency right up to the final catastrophe. Whereas most conductors make the transition to the transfiguration section a fairly meaningless blur, Tennstedt succeeds-for the first time in my experience with this music---in revealing the passage's thematic function in the work as a whole. As with the first part, Tennstedt and the orchestra give a steady and unrelenting intensity to the transfiguration music, achieving a climax that I can only compare with what I heard from Bruno Walter and the NBC Symphony some forty-four years ago. The only fault I can find with this recording is that the somewhat overreverberant sonics tend to muddy the details in some of the fastpaced tutti episodes.

The Four Last Songs—Frühling, September, Beim Schlafengehen (all to Hermann Hesse texts), and Im Abendrot (Eichendorff)—are among the most poignant last testaments penned by any composer. As always in Strauss's vocal writing, these songs make great technical and interpretive demands on the



Soprano Lucia Popp and conductor Klaus Tennstedt


singer, but Lucia Popp proves more than equal to them all. Her voice has a fascinating timbre, combining the gleam of a true Straussian soprano with something of the darkness and weight brought to these songs by their first interpreter, Kirsten Flagstad. With Tennstedt's direction of the orchestral accompaniment, the total performance is profoundly satisfying. One would have to be hard-hearted indeed not to have a lump in the throat at the end of Im Abendroi, with its orchestral imagery of the two soaring larks and the singer's last question, "... ist dies etwa der Tod?" ("Is this perchance death?"). Up until now, Elisabeth Schwarzkopf's two recordings of the Four Last Songs have held pride of place, but I would put this new realization by Popp and Tennstedt right alongside them on the same exalted level. -David Hall

R. STRAUSS: Death and Transfiguration, Op. 24; Four Last Songs. Lucia Popp (soprano, in songs); London Philharmonic Orchestra, Klaus Tennstedt cond. ANGEL O DS-37887 \$12.98, © 4XS-37887 \$12.98.

Phil Collins Breaks the Rules Again with His New "Hello, I Must Be Going!"

Solo albums from individual mem-bers of rock groups are nearly always disappointing, either because similarity to the group's work makes them redundant or because the artist simply doesn't have enough to say on his own. Phil Collins's releases are notable exceptions to this rule, possibly because he's involved with two quite different groups-Genesis and the jazz-rock Brand X-and thus can draw on a greater variety of forms and influences. Whatever the reason, Collins's new "Hello, I Must Be Going!" is an eclectic, well-crafted album that benefits from his association with both groups without sounding like a copy of either.

Strongly song-oriented like the Genesis albums but with rhythmic interest from the kind of progressive-jazzy arrangements Brand X uses, "Hello" has a little bit of everything. It ranges from Phil Collins (left) with guitarist Daryl Stuermer

the vaguely sinister Thru These Walls (about a lonely character who listens to his neighbors through a glass held up to the wall) to the funk-laden I Can't Believe It's True and It Don't Matter to Me (both of which feature the Earth, Wind & Fire horn section) to a pair of truly lovely ballads, Don't Let Him Steal Your Heart Away and Why Can't It Wait 'Til Morning. There's even a good cover of the old Supremes hit You Can't Hurry Love. Although Collins seems to be a little down on love-most of these songs deal with relationships that have gone bad or are going that way-there is so much variety in the pacing you hardly realize it.

Perhaps the most interesting thing about "Hello" is Collins's frequent use of percussion as a lead instrument, even on songs that don't have a strong beat. I Don't Care Anymore, for example, inverts the customary figure-and-ground relationship of melody and rhythm, submerging the melody in hushed keyboards and guitar and placing Collins's complicated drum pattern alongside the vocal at the front of the mix. Inventive and accessible, "Hello, I Must Be Going" makes it clear that 1981's "Face the Music" was no fluke. Phil Collins will probably go right on making fine solo albums, no matter what the rules. -Mark Peel

PHIL COLLINS: Hello, I Must Be Going! Phil Collins (vocals, drums, keyboards, trumpet); vocal and instrumental accompaniment. I Don't Care Anymore; I Cannot Believe It's True; Like China; Do You Know, Do You Care?; You Can't Hurry Love: It Don't Matter to Me: Thru These Walls; Don't Let Him Steal Your Heart Away; The West Side; Why Can't It Wait 'Til Morning. ATLANTIC 80035-1 \$8.98, © CS 80035-1 \$8.98.

(Continued on next page)

Best of the Month

Recent selections you might have missed

CLASSICAL

□ J. S. Bach: Goldberg Variations. CBS IM 37779. "Glenn Gould's legacy... the most stimulating and entertaining account of this remarkable work yet recorded...." (January)

□ Bartók: String Quartets Nos. 1-6. CBS I3M 37857. "The Juilliard Quartet's third Bartók set ranks among the very finest." (May)

□ Beethoven: Plano Sonatas Nos. 4 and 11. CBS M 36695. "Murray Perahia's first Beethoven recording is uncommonly convincing." (April)

Cesti: Orontea. HARMONIA MUNDI HM 1100/02. "Early Venetian opera returns to life in a fabulous performance....." (April)

□ Mozart: Plano Concertos Nos. 12 and 20. DEUTSCHE GRAMMOPHON 2532 053, Plano Concertos Nos. 15 and 21. PHUPS 6514 148. "Exceptionally appealing performances by Rudolf Serkin and Alfred Brendel...." (February)

Durcell: The Fairy Queen. DG ARCHIVE 2742 001. "... a peak in the performance of English Baroque music." (March)

 Reich: Tehillim (Psaims). ECM-1-1215. "A rare and really joyful listening experience." (February)

□ Schumann: Symphony No. 3 ("Rhenish"); Manfred Overture. DEUTSCHE GRAM-MOPHON 2532 040. "... magical and richly satisfying...." (March)

Shostakovich: Symphony No. 5, Op. 47. LONDON LDR 71051. "State-of-the-art sound, illuminating reading." (May)

POPULAR

Donald Fagen: The Nightfly. WARNER BROS. 23696-1. "... nostalgia, surprises, and an irresistible beat." (March)

 Michael Jackson: Thriller. EPIC QE 38112. "Lives up to its title." (Aprll)

Little Steven and the Disciples of Soul: Men Without Women. EMI AMERICA ST-17086. "... genre music never sounded so good." (March)

Liz Meyer: Once a Day. ADELPH AD 2009. "From toe-tappin' joy to faded love in an album of classic country music." (April)

□ The Roches: Keep On Doing. WARNER Bros. 23725-1. "The Roches are... so far beyond borrowing that they've forgotten how." (February)

Utopia: NETWORK 60183-1. "A nearly perfect set of well-made pop songs." (February)



Gabriel Tacchino

A Glowing New Poulenc Collection from Pianist Gabriel Tacchino

EVERYTHING I've heard pianist Gabriel Tacchino do has been so thoroughly convincing that I have to wonder why on earth we don't hear more from him. His Vox sets of the Prokofiev and Saint-Saëns concertos are both fine recordings, but they seem to be all he's done since his first appearances on Angel in music of Poulenc. His record of Poulenc's Piano Concerto and Aubade was cut out some time ago, but one collection of solo pieces is still in the catalog (Angel S-36602). It's good to have another Poulenc collection from this fine pianist at last.

The material on Tacchino's new EMI/Pathé Marconi album is all a good deal less familiar than the Suite Française, Mouvements Perpétuels, Pastourelle, etc. on the earlier Angel disc, but it is certainly just as welcome. According to Marcel Schneider's annotation, the tiny (one-and-a-half-minute) Française, with its echoes of Rameau and Couperin, is Poulenc's equivalent of a Chopin polonaise. Les Soirées de Nazelles, dedicated to a favorite

aunt and named for her town, contains a central sequence of variations that are veiled portraits of friends, more or less as in Elgar's Enigma Variations, but the titles again recall Couperin (Le Coeur sur la Main, La Désinvolture et la Discrétion, L'Alerte Vieillesse, etc.). The somewhat later Thème Varié is actually another set of character portraits (or representations of characteristics) in the tradition of the early clavecinistes but thoroughly in Poulenc's own language. The enchanting Villageoises is a very tiny suite for children; its opening Valse Tyrolienne may remind some listeners of the once ubiquitous Poupée Valsante of Poldini, and there are other near-echoes throughout the sequence.

Everything here glistens with freshness and glows with heart—as Poulenc wrote it, as Tacchino plays it. The sound is superb, the pressing impeccable. In a word, irresistible.

-Richard Freed

POULENC: Française; Les Soirées de Nazelles; Villageoises; Thème Varié; Trois Intermezzi; Pièce Brève sur le Nom d'Albert Roussel; Valse-Improvisation sur le Nom de Bach. Gabriel Tacchino (piano). EM1/ PATHÉ MARCONI © C 069-73101 \$12.98, © C 269-73101 \$12.98 (from International Book and Record Distributors, 40-11 24th Street, Long Island City, N.Y. 11101).

From the Driving Force:

Only Panasonic has Ambience circuitry to create a stereo image beyond the capability of conventional car stereo.

anasonic The Supreme Serie

STEREO

AMBIENCE

Only the Panasonic Supreme Series has Ambience to take your music

where it's never been. With the push of a button, conventional car stereo ceases to be. Your music seems to wrap itself around you, surround you. You don't just hear it, you live it.

But the Panasonic Supreme Series with Ambience doesn't stop there. There's pushbutton tuning. There's FM Optimizer for improved fringe area reception. INQ circuitry reduces noise and interference caused by passing traffic. The adaptive front end reduces

FM fade and drift. There's Radio Monitor that lets you listen to the radio without ejecting the cassette. There's locking fast forward/rewind and more.

And nothing enhances the sound of Ambience like Panasonic high performance car speakers.

Experience the magic of Ambience, Only from Panasonic.

RACK I RND CRCUT IND CRCUT

Panasonic, car audio The driving force CIRCLE NO. 9 ON READER SERVICE CARD





| all these standard features Make IT Quite an Animal. | Every gorilla comes loaded with standard features like: 2.6 liter, 105 horsepower MCA-Jet engine. | 5-speed manual overdrive transmission. Independent front suspension with torsion bars | Variable assist power steering. Nanual free-wheeling hubs. Protective skid plates. Driver's suspension seat. | 15" styled spoke-type wheels with all terrain radial tires. | 4-passenger seating plus big cargo area. Plus dozens more standard features for only 59.229 * | YOU CAN EVEN BEEF UP A GORILLA. | We offer the Sport Option Group with limited slip differential, | automatic free-wheeling hubs, headlamp washers, rear wiper/ | washer, accent stripe and an AM/FM/MPX cassette radio with four speakers. That's a lot of gorilla for only \$721* more. You might | say you'll go ape over it. For your nearest dealer, call (800) 447-4700. | "Manufacturer's suggested retail price. Actual prices set by dealers. Taxes, license, freight, options and other dealer charges extra. Prices may charge | without notice. Limited availability in California until September. 1983. CIRCLE NO. 10 ON READER SERVICE CARD | ACHIEVE MITSUBISHI MONTERO. IT TAKES YOU WHERE YOU'VE MITSUBISHI NEVER BEEN BEFORE. |
|---|--|--|---|---|---|---|--|--|--|---|--|--|--|
| camping trip. Or haul everything back from a shopping spree. | Ar Par 5 1530 | | | EVERY GIRL NEEDS A GORILLA. | Although it manhandles most anything, the Montero is easily woman handled, thanks to vari- | able assist power sreering. Easy to see out of. Thanks to a biab top and tinted alass | Easy to shift. Thanks to a sport 5-speed manual over- | drive transmission. Easy to ride in. Thanks to a | driver's seat that "floats" on a shock absorber. And it's easy to look at. Thanks to a nifty two-tone paint lob | wheels with all terrain radial tires. | to Mitsubishi. | | CIVILIZED INSTRUMENTATION. |

C Mitsubishi Motor Sales of America, Inc. 1983 Abercrombie & Frich is a Registered Trademark

seats recline, and the passenger everything you need to go on a Fold down the rear seat and the Montero becomes a beast seat access. Cargo tie-downs of burden. Sporty front bucket seat tilts forward for easy rear come standard, to secure

ability. And its wide track, allows

it to traverse steep terrain.

Town or country, this animal

Super low gearing provides

snow or loose dirt.

Montero with super climbing



GOT THINGS TO CARRY? GET A GORILLA.

> you up a hill. And a high gear for quick and nimble going in sticky

there's a low gear that will haul

In its 4-wheel drive mode,

And the power-assisted front have gone to potholes.

goes just about anywhere.



back **BECAUSE IT'S A JUNGLE** YOU NEED A GORILLA OUT THERE.

Behold: a rugged off-road 4-wheel drive beast that acts

back down in the backwoods. Yet, it's smooth and quiet in From steel top to solid boxsteel skid plates, the Montero power MCA-Jet engine is the Gutsy 2.6 liter, 105 horsetype frame and protective biggest 4-cylinder powerplant we offer. So it won't is well built, like a gorilla.

It's roomy, seats four comfortably.

And it's loaded with creature

comforts.

around town like a sporty car.

2-wheel drive and it cruises

Shift our new Montero into

civilized on the road.

ater. First, let's examine the beast.

But more about the beauty

WHERE DOES A GORILLA GO?

JUST ABOUT ANYWHERE IT

WANTS TO.

the concrete jungles. Because unique Dual Engine Stabilizers educe vibrations.

Mud, snow, hills or gullies. You

name it, the Montero tames it.

out unbeaten paths. Orroads that pension with torsion bars smooths Beefy independent front sus-

discs will stop a gorilla in its tracks.

A anyth wom able

Popular Music

News Briefs



Chick Corea

THE new album "Space Jazz" (Applause APLP 9000) is described in the hyperbolic jacket copy as "the first-ever soundtrack for a book." The book in question is L. Ron Hubbard's 900-page, science-fiction best-selling epic, Battlefield Earth (St. Martin's), and Hubbard himself is credited with composing the music and writing the lyrics. Besides being a veteran of pulp-era sci-fi, Hubbard founded the Church of Scientology-a fact that the liner notes, in their lone display of modesty, neglect to mention.

Actually, "Space Jazz" has its moments. While most of it is unintentionally absurd, with less patently silly lyrics some of the music would not seem out of place on an album by Carla Bley or Horace Silver. To compose it, Hubbard leaned heavily on a remark-

QUOTE OF THE MONTH: The following mildly astonishing observation comes from able device called the Fairlight Computer Musical Instrument, which can store in its memory virtually any musical or natural sound and then reproduce it at any pitch. Thus it can turn the sound of pouring water, for example, into a melody. In Hubbard's hands the technology is largely thrown away on special effects-growling monsters, blazing laser weapons, agonized screams, animal sounds, and so on. As they say in the computer biz, garbage in, garbage out.

The music gets much better performances than it deserves, thanks in part to the presence of **Chick Corea**, **Stanley Clarke**, and **Nicky Hopkins**. If that line-up surprises you, it may make more sense once you know that Corea was, and for all I know still is, an adherent of Scientology. *M.P.*

Steve Jobs, twenty-sevenyear-old whiz-kid chairman of the Apple Computer Company. Says Steve, "The funniest thing is that the people who would have been poets during the Sixties, or who would have been out getting teargassed these are the people who are in computers now. Half our best computer scientists play in punk rock bands on the weekends." S.S.

THE latest corporation to lend its support to music is **Sparkomatic**, a manufacturer of car stereo equipment. Fittingly for a company that has registered the slogan "For the Travelin' Man & Woman," Sparkomatic is providing funding for the rock group Supertramp's very extensive current tour.

The tour starts in Sweden on June 1, and the group will not be performing live for its North American fans until later in the summer. The band has engagements all across the United States and Canada in August and September. In the meantime, travelin' fans can hear Supertramp's latest A&M album, "... Famous Last Words..." on a prerecorded cassette of high quality made with BASF chrome tape and Dolby-B noise reduction. The group has been together since 1970. If you are wondering whether the title "...Famous Last Words..." should be taken literally, a spokesman for the group says, "Absolutely not. Supertramp is as inventive, supple, and richly creative a band as ever." Band members have also recently shed several pounds of hair. According to their manager, "They are freshly trimmed and barbered to reflect the look of the Eighties." W.L.

HE prestigious Eastman T School of Music in Rochester, New York, a bastion of classical-music scholarship, is giving credit for rock-and-roll studies, including the works of Elvis Presley and the Plasmatics. A new course called "Developments in Rock Music Since 1964" is being taught by Christopher Rouse, a wellregarded serious composer whose works have been performed by several major orchestras across the country. Rouse, who has occasionally written articles for this magazine, says he wants his students to come away from the course with an appreciation of the cyclical nature of music. The problem with rock, he

Supertramp in the Eighties



opines, is that it's "been in retrenchment for twelve years. The New Wave and the punk movement may seem very new, but it all has precedents in the Sixties." S.S.

HERE'S good news and bad Thews about that "new" John Cougar album ("The Kid Inside," on Main Man) that you may have seen in the stores. The bad news is that it's an extremely forgettable recording from early in Cougar's career, back in the mid-Seventies, that's been released without the artist's approval in order to cash in on his current popularity. As Cougar put it, "I recorded that record when I was twenty-three years old and Tony DeFries [David Bowie's ex-manager] was trying to turn me into the next David Bowie. We recorded for two weeks at the Hit Factory in New York, on the cheap, and never got past a rough mix. MCA [the distributor] never put it out, but DeFries ended up with the masters."

And the good news? Concludes Cougar, "At least I'm not on the cover with a dress, like the ancient LP DeFries pulled out of his vaults and released on David Bowie." S.S.

A^s those who follow Progres-sive and New Wave rock know, King Crimson is the artschool band that gave Rohert Fripp and Bill Bruford to the world (for which I will forgive them even if the world won't). Crimson fans will be pleased to know that JEM Records. the import people, are reissuing the group's entire back catalog on their new Collectors Edition label. What makes this especially noteworthy is that all the albums (which will have the original covers) will be pressed from



King Crimson in the Seventies

half-speed masters and sold for \$8.98 list.

Already in the stores are "Court of the Crimson King," "Red," and "Larks' Tongues in Aspic." Coming soon: "Lizard," "Starless and Bible Black," "USA," "Islands," and a never-before-releasedin-America two-LP greatesthits set, "A Young Person's Guide to King Crimson." This last, with twenty pages of notes by Fripp, will retail for \$11.98, which is still cheaper than the import version. S.S.

Dire and Tape Reviews

By CHRIS ALBERTSON • PHYL GARLAND • ALANNA NASH • MARK PEEL PETER REILLY • STEVE SIMELS • JOEL VANCE

ALABAMA: The Closer You Get.... Alabama (vocals and instrumentals); instrumental accompaniment. The Closer You Get; Lady Down on Love; Red River; Dixieland Delight; Alabama Sky; and five others. RCA AHL1-4663 \$8.98, © AHK1-4663 \$8.98, © AHS1-4663 \$8.98.

Performance: Pretty but limp Recording: Very good

Unless you've been vacationing in Upper Volta for the last couple of years, you know that a four-piece band named Alabama has been *the* country-music story of the Eighties. Alabama has also been the most overrated country act in recent years, but you'd better bet that Nashville is going to reward *anybody* who brings a youth following (and their dollars) to an industry traditionally dependent on the record-buying habits of twenty-five- to forty-nine-year-old recreational-vehicle owners.

"The Closer You Get" is high-gloss country-pop, with heavy emphasis on the pop.

Explanation of symbols:

- (B) = eight-track stereo cartridge
- $\odot = stereo cassette$
- $\mathbf{O} = digital$ -master recording
- $\Phi = direct-to-disc$

Monophonic recordings are indicated by the symbol \bigotimes

The first listing is the one reviewed; other formats, if available, follow it.

From both a vocal and instrumental viewpoint, however, the band has never been better. The harmonies are precise and imaginative, and lead singer Randy Owen, who's always shown a considerable amount of depth and sensitivity, demonstrates a new maturity in his vocals here, especially on She Put the Sad in All His Songs and his own ballad, Lady Down on Love. But for all the time and care that obviously went into this album, the overall spirit is surprisingly subdued. The main problem seems to be that there are only about four real songs on it, none of them as strong as such Alabama hits as Close Enough to Perfect or Old Flame. Still, it's a pretty package, if that's what you're looking for. A.N.

PETER ALLEN: Not the Boy Next Door. Peter Allen (vocals, piano); vocal and instrumental accompaniment. Just Another Make-Out Song; Fade to Black; Easy on the Weekend; Once Before I Go; and five others. ARISTA AL 9613 \$8.98, © ACT 9613 \$8.98, © A8T 9613 \$8.98.

Performance: Fashionably teary Recording: Lavish

At this point in his career Peter Allen's songs and performances have become glitzy, heavy-handed, teary-eyed parodies of his earlier work. The air of melancholy never seems to lift, even in the most upbeat songs. That he intends to suffer in style, though, is clearly obvious from a production that reeks of the Hollywood That Never Was—something on the order of those once-again-popular glamour portraits by such Thirties photographers as George Hurrell. Allen's singing now is fraught with "meaning," and his piano playing has a fashionable desperation to it. His most frequent musical ploy continues to be a strong beat that crescendoes every so often. Once or twice, it's effective. After that, it's predictable and boring. *P.R.*

ART IN AMERICA. Art in America (vocals and instrumentals). Art in America; If I Could Fly; Undercover Lover; Sinatra Serenade; and five others. PAVILION BFZ 38517, © BZT 38517, no list price.

Performance: Bathetic Recording: Good

"Art in America" is leader Chris Flynn's quixotic crusade against billboard art, slick ad jingles, commercial radio, and other such demons. Admittedly there is too much of that sort of thing, but no one seriously holds any of it up as art. Flynn's own modest art is a rather pretty variety of progressive rock: lyrical melodies and fluid harmonies, clean guitar lines, a dab of color from harp and strings, and pleasant, guileless vocals. Unfortunately, it's not enough to support his well-meaning but trivial and inept lyrics. Billboards and jingles are not what we want for "art in America," but neither is this album. M.P.

ANGELA BOFILL: Too Tough (see Best of the Month, page 69)

MARC BOLAN: You Scare Me to Death. Marc Bolan (vocals, guitar); vocal and in-



Moe Bandy: No Frills

DESPITE a newly manicured and blowdried appearance in the cover photos on his new album, former sheet-metal worker Moe Bandy should never be confused with the talentless pretty boys of neo-country music. One of the most traditional singers around, Bandy eschews the temptations of crossover success, sticking to the usual country fare of cheatin', drinkin', and hurtin', and he delivers his songs with pure, nofrills craftsmanship.

I've often had trouble in the past with Bandy's taste in material (songs like When My Working Girl Comes Home and Works on Me send me in search of the nearest twelfth-floor window to throw myself, or the record, out of), but his new "I Still Love You in the Same Old Way" is a stylish, well-produced collection of inoffensive honky-tonk and countrypolitan tunes. For my money, it's the best of Bandy's solo albums. True, it's still got the same hit-plus-filler make-up as his previous albums, but even on the fillers Bandy keeps the tears-in-thebeer stuff to a minimum. With the help of Johnny Gimble on fiddle and Terry McMillan on harmonica, among other fine musicians, the whole thing goes down as smooth as good Tennessee whiskey. Nice job, Moe. — Alanna Nash

MOE BANDY: I Still Love You in the Same Old Way. Moe Bandy (vocals); vocal and instrumental accompaniment. I Still Love You in the Same Old Way; I Took a Princess Home with Me; City Boy; One Lonely Heart Leads to Another; Early Nancy; I Lost Her to a Dallas Cowboy; What Chicago Took from Me; Leave the Honky Tonks Alone; Drivin' My Love Back to You; Monday Night Cheatin'. COLUMBIA FC 38199, © FCT 38199, no list price.

strumental accompaniment. You Scare Me to Death; The Wizard; Easter Spell; Mustang Ford; Cat Black; Jasmine '49; Ring of Fortune; and six others. CHERRY RED KMH 709229 \$8.98 (from Plexus Trading, P.O. Box 270, Gedney Station, White Plains, N.Y. 10605).

Performance: Goddawful Recording: Okay

The late Marc Bolan was, in the early Seventies, the first real post-Beatles rock idol, at least in Europe. In America his impact was considerably smaller—a couple of minor hit singles and a failed tour or two. Musically he was never great shakes, though he did have one of those instantly recognizable freak voices and a flair for the bubblegum tune. Earlier in the Sixties, he had had a brief career as a folkie (he was part of an acoustic-guitar/finger-cymbals duo called Tyrannosaurus Rex) making a kind of tiedyed psychedelic music that seemed a parodistic cross between the Incredible String Band and middle Donovan. In short, the worst kind of period foolishness.

"You Scare Me to Death" consists of previously unreleased solo demos Bolan made in that earlier period, rerecorded with contemporary band backings. For the life of me I can't figure why anybody bothered. The title tune was written originally as a commercial jingle for an English breath tablet; the rest is drug-addled whimsey and Yellow Book affectations that don't even have historical interest. For fans only. S.S.

PATTIE BROOKS: In My World. Pattie Brooks (vocals); vocal and instrumental accompaniment. Everytime I Turn Around; Dr. Ruth; She's Back in Town; In My World; Fever/Feel the Fire; and three others. MIRAGE 90054-1 \$8.98, © CS-90054-1 \$8.98.

Performance: Appealing Recording: Good

Pattie Brooks is a newcomer to me, but after listening to this album I'd welcome her to my turntable any time. She handles several different types of material with extraordinary finesse; she has a fine voice and projects each note and lyric with the sureness that comes from a carefully developed technique. Everytime I Turn Around is a high-quality r-&-b ballad, and Dr. Ruth is sassily raucous. Brooks eases into a rock mode on She's Back in Town, turns to the past for an engaging reworking of the oldie Fever interpolated with Feel the Fire, then gets low-down and funky in Too Many Fish in the Sea. She shines to best advantage on the title track, which is the best song in the set. Very promising. P.G.

JOHN CALE: Music for a New Society. John Cale (vocals, guitars, keyboards); other musicians. Taking Your Life in Your Hands; Thoughtless Kind; Santies; If You Were Still Around; Close Watch; and six others. ZE/PASSPORT PB 6019 \$8.98.

Performance: Like, deep Recording: Good

I've listened to this album a couple of times, and the only thing I get from it is that John Cale would have made a really great college English professor around 1960. You know, the type with a pipe, patches on his jacket sleeves, and hordes of adoring freshman girls in his classes. The stuff would have sounded great over wine and cheese-lots of portentous versifying declaimed over vague, echoey musical motifs played on assorted keyboard instruments. What it has to do with contemporary culture, however, let alone with a new society, I haven't a clue. Cale has made a lot of interesting records in the past, but this new one is strictly Beatnik manqué. S.S.

CHARLENE: Used to Be. Charlene (vocals); Stevie Wonder (vocal); vocal and instrumental accompaniment. Used to Be; Heaven Help Us All; Rainbows; The Last Song; Richie's Song; and four others. Mo-TOWN 6027 ML \$8.98, © M75 6027 \$8.98.

Performance: Fine title song Recording: Good

This album contains a very fine performance of a very bad song, Used to Be, a duet by Charlene and Stevie Wonder. It is a tribute to the talents of both Charlene and Wonder that they make it work not just as entertainment but as musical expression. How they got me to sit still while they mouthed such immortal lines as "We fed 'em all our indecision/Raped their minds with television" is one of the mysteries of good performers' art. Charlene is on her own after that one song, and though her earnest, breathy delivery and down-home sincerity have their appeal, the rest of the album coasts gently downhill into the suburbs of c-&-w territory. P.R.

RAY CHARLES: Wish You Were Here Tonight. Ray Charles (vocals, piano); vocal and instrumental accompaniment. 3/4

Firsts by TEN.

1 1 1

1835



stereo. High performance stereos, packed with exciting, innovative features that break autosound barriers. Leaving benind trails that others fcllow.

They were the first with an auto-reverse car stereo.

They were the first to introduce high perforrrance car audio components. Today, they continue to lead the way with three more firsts; all TEN exclusive features.

1035

An FM Nose Blanker that kills annoying pulse noise from engines and power poles for steady, clean reception at all times.

A Hall Effect Enc-Of-Tace Sensor that makes sure your favorite taped selections don't become dinner for your deck.



© 1983, Fujitsu Ten Corp. of America, 19281 Pacific Gateway Drive. Torrance California 90502 In Canada: Noresco Canada Inc. Toronto, Ontario Manufactured Ty Fujitsu TEN Ltd And an Anti-Roll Tape Mechanism that keeps tapes from rockin' when there's a whole lotta shakin' going on. Al, the product of intensive research and advanced m croprocessor technology.

. . . .

1035

Technology.

Fujitsu Ltd.

producer of

the world.

computers in

That's why every

TEN car stereo is

thing better than

stereo: exhi arate

Car audio by TEN

Second to ncn≞

able to do one

any other car

while you

accelerate.

developed by

Second largest

TEN CAR AUDIC The best sound on wheels. Time; Ain't Your Memory Got No Pride At All; Let Your Love Flow; Shakin' Your Head; and six others. COLUMBIA FC 38293, © FCT 38293, no list price.

Performance: Better than the songs Recording: Very good

Ray Charles is at home in any kind of music. He simply makes it his own. He has sung country music before, superbly, and that's what he does here. Unfortunately, seven of the ten selections are either ballads or are taken at comatose tempos; even genius can be defeated by programming. Charles tries to liven things up on several tracks with spoken asides, but the album plods evenly on. Tony Joe White's 3/4 Time is the prime cut for both quality of material and performance. The Bellamy Brothers' Let Your Love Flow is sanctimoniously vapid, and Charles can't seem to make up his mind what to do with it. I Don't Want No Stranger Sleepin' in My Bed, co-written by George Jones, is one of those one-joke songs that can only lead to anticlimax. I assume that Charles either chose or had final approval on this material; in either case he made some wrong decisions. Still, nobody else could invest such turgid material with such majesty. J.V.

PHIL COLLINS: Hello, I Must be Going! (see Best of the Month, page 71)



CIRCLE NO. 35 ON READER SERVICE CARD

CHRISTOPHER CROSS: Another Page. Christopher Cross (vocals, guitar); vocal and instrumental accompaniment. No Time for Talk; Baby Says No; What Am I Supposed to Believe; Deal 'Em Again; and seven others. WARNER BROS. 23757-1 \$8.98, © 23757-4 \$8.98, © 23757-8 \$8.98.

Performance: The Seconal Sound Recording: Pristine

This new Christopher Cross "product" (to use industry parlance) may make packaging and sales news—the cassette is being sold in a new deluxe format, and Warner Bros. is banking on both the disc and tape versions to pull its business out of the current slump—but musically it is as small as small potatoes get. I'm tempted to dismiss out of hand any new album that includes a song with a card game as a metaphor (*Deal* '*Em Again*), but it's hard to dismiss something that I can't even remember hearing in the first place.

As usual, Cross dispenses melodious, computerized retreads of mannerisms lifted from James Taylor, Michael McDonald, and Paul McCartney (and McDonald even shows up in the list of heavyweight guest stars, which also includes Don Henley, Karla Bonoff, and Art Garfunkel). While the songs are all mildly pretty and slickly performed, their lyrics are vapid, indistinguishable from any number of TV commercials for designer jeans. The best I can say is that there is a certain seamless purity to the album's inoffensive blandness. *S.S.*

MAC DAVIS: Forty 82. Mac Davis (vocals); instrumental accompaniment. Lying Here Lying; It's Written All Over Your Face; Late at Night; Love You Ain't Seen the Last of Me; and six others. CASABLAN-CA NBLP 7274 \$8.98, © NBL5 7274 \$8.98, © NBL8 7274 \$8.98.

Performance: Ersatz everything Recording: Glossy

Mac Davis has been holed up in Las Vegas so long that if he didn't come out to make an occasional movie or host an awards show, most of us would completely forget him. His past few songs have been either goofy (It's Hard to Be Humble) or mawkish (Lubbock in My Rear View Mirror), and it's getting more difficult to remember that in his heyday he wrote some country material with strong, worthwhile melodies. "Forty 82" has an uncommon dearth of those, and of the three Davis originals here. one, The Beer Drinkin' Song, is so lame it could please only the Tahoe crowd with whom Davis recorded it live. The rest of the program, except for Rodney Crowell's Shame on the Moon, seems unfinished somehow. It sounds like ersatz country, ersatz Southern rock, ersatz pop, or all of the above. A.N.

CHRIS DE BURGH: The Getaway. Chris De Burgh (vocals, guitar, piano); vocal and instrumental accompaniment. Living on the Island; Crying and Laughing; I'm Counting on You; The Getaway; and eight others. A&M SP-4929 \$8.98, © CS-4929 \$8.98.

Performance: Emotional Recording: Very good

Imagine forty-five minutes of the Bee Gees' The New York Mining Disaster of 1941, and you'll have a pretty good idea what to expect from "The Getaway." Chris De Burgh even sings with the same highpitched, quivering urgency that Barry Gibb brought to the line "I've got to get a message to you." This is an album of love songs and songs about the things that get in the way of love-circumstance, time, war. De Burgh certainly writes a pretty tune, even if he does get a bit lugubrious now and then, and his lyrics show more facility with the English language than I'm used to hearing lately. But there's so much naked emotion here, in the words and music, that you may find it oppressive. When the songs work, which is most of the time, it's because of the power and authenticity of their imagery. When they fail it's because De Burgh lets his sentiments get in the way. For example, his use of images of cannon fire and cavalry on the album's concluding trilogy-Revolution, Light a Fire, and Liberty-turns these songs into romantic trifles, though that was probably not his intention.

De Burgh always seems to straddle the fence between lyricism and sentimentality. If you're not sure which side of the fence you're on, you'll feel right at home with "The Getaway." M.P.

DEF LEPPARD: Pyromania. Def Leppard (vocals and instrumentals). Rock! Rock! Till You Drop!; Photograph; Stagefright; Rock of Ages; Too Late for Love; and five others. MERCURY 810 308-1 M-1 \$8.98.

Performance: Incendlary Recording: Good

Def Leppard's aptly named "Pyromania" is a little like a building going up in flames: it doesn't shed much useful light, but there's something about its blistering intensity that makes you stand and gawk despite your better instincts. The music is straight, unapologetic heavy-metal that makes absolutely no demands either on the cast-iron formula or on your intelligence. But it is played with more skill and written with somewhat more wit and less pretension than this burned-out form usually gets. Thundering power chords spill from Phil Collen's rhythm guitar like gasoline splashing over dried floor boards, and Steve Clark's searing lead guitar dances and crackles like flames leaping from beam to beam. If you're a heavy-metal maniac, this one's for you. MP

DIVINE: Jungle Jezebel. Divine (vocals); instrumental accompaniment. Shoot Your Shot; Jungle Jezebel; Native Love; Kick Your Butt; and two others. "0" EP 0LP-2 \$7.98, © C0LP-2 \$7.98.

Performance: Sedate Recording: Okay

Divine, the great transvestite star of the John Waters Repertory Cinema Company, is the leading lady of such celluloid-sleaze classics as *Pink Flamingos*, *Polyester*, and, my personal favorite, *Female Trouble*. Divine and Waters both hail from Baltimore, and it has long struck me as peculiar, given the flourishing local subculture they represent, that hardly any punk rock has emerged from that fair city; in terms of sensibility, Divine and Waters not only invented punk but embody it in its purest, most unselfconscious form. Imagine, then, my disappointment when I listened to this new EP by Divine. The packaging is promisingly tacky, but in the grooves it's not punk, it's not hard-core, it's not even offensive; it's just halfhearted, late-Seventies Eurodisco from the Giorgio Moroder mold. True, Divine's vocals have a certain, er, raw intensity, but overall this is one of the most snooze-inducing documents I've heard in quite a while. S.S.

RECORDING OF SPECIAL MERIT

THOMAS DOLBY: Blinded by Science. Thomas Dolby (vocals, wave computer, drum programs); vocal and instrumental accompaniment. She Blinded Me with Science; One of Our Submarines; Windpower; Airwaves; Flying North. HARVEST MLP-15007 \$8.98, © 4LP-15007 \$8.98.

Performance: State-of-the-art Recording: Excellent

Although David Bowie gave it a good head start with "Space Oddity" and "The Rise and Fall of Ziggy Stardust and the Spiders from Mars," lately it's seemed that pop music has been falling farther and farther behind the technology used to produce it. As technopop artists have struggled to harness their new electronic keyboard and percussion instruments, more often than not it's been the instruments and not the musicians that have determined what kind of music resulted. Thomas Dolby's "Blinded by

Ultra-accurate Laser Topographic Response Analysis.

Whether you're ready for a digital audio-disc player or not, these Celestion speakers are waiting to make the most of the system you have.

There's a reason for it. These loudspeakers were digital before digital players were. Critical dimensions, materials, driver characteristics—all were digitally plotted in three dimensions by laser technology. The result is a unique combination of accuracy, dynamic range, and power-handling capability that is extraordinary in compact speakers at a modest price.

There's a reason for all this, too. At Celestion, we make speakers, everything that goes into them, and have the most experience in the business.

Listen for yourself at your Celestion dealer.

Even if you have to wait for a digital player you'll be ready when the time comes. And you won't have to wait for digital pleasure.



Ditton 100, 110, and 250 loudspeakers from Celestion.

celestion 🗲 speakers

Celestion ... ahead by design. Celestion Industries, Inc., Kuniholm Drive, 50x 521, Holliston, MA 01746 In Canada, Rocelco, Toronto

© 1983 Celestion Industries, nc.

CIRCLE NO. 24 ON READER SERVICE CARD

Jimmy Johnson's Urban Blues



Most people tend to associate blues with the South, but while that area of the country was probably its wellspring, this durable genre of Afro-American music quickly flowed out to the rest of the country. One of its major stops was Chicago, where it not only formed a deep pool of talent but underwent an urbanization that resulted in a very special brand of city blues. To this day, Chicago remains a blues center, perhaps *the* blues center, and it is heartening to see that each generation brings forth its own blues people.

Now in his fifties, Chicago's singer/guitarist Jimmy Johnson does not represent the latest generation of bluesmen, but his brand of blues is thoroughly up to date. It is deeply soaked in the past, yet it reflects the present. Only a thin wall separates the urban blues of Jimmy Johnson from the stuff that climbs pop charts these days. I prefer Johnson's side of that wall. But there is no question that with his vocal and instrumental skill, as well as his songwriting ability, Johnson is fully equipped to make it big.

Johnson's new Delmark album, "North/

South," will play with your feelings and put your body in motion. His songs are superbly crafted, and if they contain any message it is just that Jimmy Johnson is a major talent who has been inexplicably neglected. I dare anyone to listen to his compelling, highpitched voice, to his intricate blues guitar playing, or to the poetry of his lyrics without being smitten. I shudder to think what certain pop tastemakers might have done to this music to gear it up for a chart climb probably drowned it in strings and "sweetened" it with meaningless thumpery. But that would only have sent it into quick oblivion. *This* album is meant to last.

-Chris Albertson

JIMMY JOHNSON: North/South. Jimmy Johnson (vocals, guitar); the Jimmy Johnson Band (instrumentals); other musicians. I Can't Survive; Dead or Alive; Talking 'Bout Chicago; Track to Run; Country Preacher; A Woman Ain't Supposed to Be Hard; Sang a Song in Heaven; Walking on Thin Ice; Can't Go No Further. DELMARK DS-647 \$8.98.

Science," however, may indicate that that situation is changing.

For one thing, Dolby writes music that creates a meaningful context for the vast array of new sounds made possible by synthesizer and computer instruments. "Blinded by Science" creaks, sputters, whirrs, buzzes, and grinds, and it still manages to be hummable. Its kinetic rhythms seem to lie quietly in wait, then uncoil with terrific force. Dolby achieves that special sense of peril and alienation electronic music is so capable of expressing, yet he does it with a distinctly human voice and even a sense of humor. She Blinded Me with Science, for example, a song whose very title acknowledges pop's technological challenge, begins with a slapping percussion track and the endearingly professorial voice of Dr. Magnus Pyle, who assures us that "as a known scientist, it would surprise me if the girl blinded me with science." By the time the song is over, he's succumbed: "Good heavens, Miss Sakomoto, you're *beautiful*."

Dolby's vocals thread in and out of the music's intricate rhythmic patterns, a living, feeling instrument even when modified electronically. In fact, so perfectly integrated into the synthetic landscape is his voice that it imparts an almost human feel to the electronics, giving his more brooding compositions, such as Airwaves and One of Our Submarines, a terrifying power that technology alone is incapable of. There may be a future for pop music after all. M.P.

| R | Е | С | 0 | R | DI | N | G | 0 | F | SF | E | CI | A | L | м | Е | RI |
|---|---|---|---|---|----|---|---|---|---|----|---|----|---|---|---|---|----|
| - | - | - | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ |

EARTH, WIND & FIRE: Powerlight. Earth, Wind & Fire (vocals and instrumentals). Fall in Love with Me; Spread Your Love; Side by Side; Straight from the Heart; and five others. COLUMBIA TC 38367, © TCT 38367, no list price.

Performance: Still a class act Recording: Good

Earth, Wind & Fire continues to demonstrate that it is the Rolls-Royce of popular vocal-instrumental groups. Disdaining simple-minded little two- or three-chord ditties, this ensemble of flamboyant performers remains way out in front of the pack when it comes to the production of quality songs. Their material is showcased by imaginative arrangements with surprising twists that bear witness to the finely honed musical sense at work behind all the flash and glitter. Even when they use repetition, as other dance bands do, there is a difference, for each new statement of the theme is varied, layered over with precisely punched-out instrumentals and vocals.

The group seems to have abandoned of late some of the spiritual musings that marked earlier efforts, concentrating instead on such mundane matters as plain, old-fashioned love. While no selection on "Powerlight" sizzles with quite the unforgettable and immediately recognizable magic of the band's very best hits, some come close, including Fall in Love with Me, Side by Side, and the whomping Heart to Heart, which crackles with mean bass and horn licks. As is usual with Earth, Wind & Fire records, this one has such whimsical touches as a solo on what sounds like a Caribbean steel drum and a trace of Indian tablas. This is one group that simply does not know how to be boring. P.G.

RODNEY FRANKLIN: Learning to Love. Rodney Franklin (keyboards); vocal and instrumental accompaniment. Enuff Is Enuff; That's The Way I Feel 'Bout Your Love; Sonshine; Don't Wanna Let You Go; Sailing; and three others. COLUMBIA FC 38198, © FCT 38198, no list price.

Performance: Quality soul-pop Recording: Very good

Rodney Franklin's earlier recordings revealed the exceptional potential of this young pianist-composer. In them, Franklin had one foot planted in modern jazz and the other in popular soul music, and the big question was whether he would be successful in continuing to straddle these disparate styles or would move decidedly in one direction or the other. I had hoped he might make the more difficult choice to develop as a jazz artist, since he clearly has a gift for it. But the enticements of popular success are far too great to be easily ignored by anybody struggling to make it.

With this fourth album, Franklin has made his choice. Like Patrice Rushen, another piano prodigy from California, he has unmistakably struck out toward pop stardom. Fortunately, he brings to this project not only his considerable musical competence but also the talents of producer Stanley Clarke. "Learning to Love" has no particular musical substance, but it should please those who accept it for what it is—an unpretentious offering of quality pop/soul fare with just enough of a jazz flavor to make it sound sophisticated.

(Continued on page 84)



Haunted House

It comes through the walls. It comes through the ceiling and it comes through the floor. There's no escaping the signals.

It's eerie. As you walk through the haunted house above, you'll hear noises in the dead of night. You may hear music. You may hear voices.

And the noises don't stop when you leave the house. You'll hear them in the rose garden and by the pool. You'll hear them in bed at night while your wife is asleep. And you'll hear them while you work on your car in the garage.

If it's music you hear in the haunted house, it may sound amazingly like your favorite records, tapes or FM stereo stations. If you hear talking it may sound like an AM radio or a TV show.

GHOSTS OR POLTERGEISTS AT YOUR HOUSE TOO

Now your house can be haunted too. On the roof, in the garage or in your house, you'll hear the sounds too.

And the sounds you hear may resemble your favorite records or tapes or your TV. You can walk from room to room, lie in bed, or sit on your patio. Upstairs or downstairs, the noises are everywhere. WHO WANTS A HAUNTED HOUSE?

Before we determine what these supernatural noises might be, let's see if you might want your house to be haunted just like my house above.

You see, I love to listen to my stereo. But unfortunately I rarely have time to just sit down and listen. Usually, I've got a project around the house to finish.

I've got several pocket cassette players with FM. But, to be honest, I get very tired of listening to the radio station's choice of music and commercials.

Besides, I've got a large collection of open reel tapes and records that I've never copied onto cassettes. Now I can listen to anything hooked up to my stereo wherever I am and whatever I'm doing.

GHOST DISCOVERED

The supernatural noises I've been describing are caused by a remarkable device called the Freedom Stereo[™].

It's a sophisticated VLF (Very Low Frequency) stereo transmitter that connects to your stereo, or an earphone jack on your TV, and plugs into any AC plug.

You can hear stereo transmissions anywhere in your home because VLF broadcasts pass right through walls, ceilings and floors. The left channel is broadcast at 194Khz and the right at 224Khz.

To listen to records, tapes, TV or anything else you desire, you wear a superb pair of lightweight samarium cobalt headphones with sophisticated built-in crystal locked receivers powered by 2 AA batteries (not included) that pick up the stereo broadcasts flawlessly.

This is a professional system. It's not the kind that you use to broadcast to an FM radio. There's no competitive interference on the VLF part of the FM band. And the sound is dramatic to 14Khz.

The headphones have left and right volume controls and an on/off switch. Everything is self contained. And, there aren't even any wires.

LUXURY, SILLINESS OR NECESSITY This system is luxury at its finest. The Samarium Cobalt headphones with mylar diaphragms produce thunderingly magnificent sound. But the real luxury is the total freedom of movement you'll enjoy.

Imagine listening to your stereo in any room in your home. I hooked up the system on a Sunday. Just the first day, I listened to my stereo while I took pictures for this catalog, then I listened while I cleaned out our pool filter.

After dinner on Sunday I usually watch 60 Minutes. But, the automatic closer on our garage door had broken and I'd promised my wife that I'd fix it.

So, I listened to 60 minutes in the garage while I installed the new closer. the listening area. This transmitter uses what is called a loop antenna. You'll hear the dramatic broadcasts as long as you're in the loop.

I ran the wire around my house. And, I found it was really easy. On the front of the house, I just used the hooks we have for our Christmas lights and in back I ran it along the ground. The wire can be inside or out, up or down.

I also wired our back yard. It was easy too. I ran the wire along our fence on one side and down a wall on the other side. In all, I spent about an hour.

It comes with 100' of wire, which is enough to do a good size room. I want you to haunt your whole house, so I've added an additional 250' roll of wire. You can cover an even larger musical area by just adding more regular wire.

The Freedom Stereo[™] is made by Cybernet which is a sister company of KLH. It is UL and FCC listed. And it's backed by Cybernet's limited warranty.

HAUNT YOUR HOUSE RISK FREE

You're free. Now you'll be able to move around while you listen to music or TV. Try the fabulous Freedom Stereo[®] risk



Finally, I like to watch late night TV. My wife likes to sleep. Well, with my new Freedom Stereo[™] I can listen to TV or stereo as loud as I want as late as I want without bothering anyone.

If you live with anyone who is a little hard of hearing and you're in pain from the volume level that they listen to on TV, just have them wear the headphones. They can listen as loud as they want while you listen without pain.

INSTALLATION

Just use any 'tape out' in your stereo to feed this unit. There's even a 'tape out' on this unit so you don't lose the use of your tape deck. There's also an input that matches your TV's earphone output.

OK, here's where you do some work. But, don't panic, it's not hard.

You need to run a wire (included) around

free in your own home. If you aren't 100% satisfied simply return it in its original box within 30 days for a refund.

To order your Haunted House Freedom Stereo" risk free with your credit card, call toll free or send your check not for the discounted \$179 price that DAK originally sold it for, but because of a large cash purchase send just \$97.50 plus \$4 for post. and handling. Order No. 9632. CA res add 6% tax.

Why be anchored to just one spot for great sounding stereo or TV. Be free.



Franklin composed the first three selections for One Down, Two to Go, one of Fred Williamson's macho adventure movies. The music reflects Williamson's slick approach. The theme song, Enuff Is Enuff, is tiresomely trite, with corny synthesizer embellishments, but That's the Way I Feel 'Bout Your Love is a bouncy and engaging number that has Franklin crooning in a pleasant, if bland, baritone. Other highlights are an ethereal arrangement of Christopher Cross's Sailing, which is treated as an instrumental with sparse background vocals; a lightly impressionistic rumination called Genesis/Nature's Way/Early Morning/Let There Be Light, which lacks musical thrust but does give Franklin a chance to display his easy touch on a piano; and Learning to Love, featuring soft-gospel music in the Edwin Hawkins vein and lyrics marvelously interpreted by Howard Smith. PG

PAUL GEREMIA: I Really Don't Mind Livin'. Paul Geremia (vocals, six- and twelve-string guitars, harmonica); instrumental accompaniment. Somethin' Gotta Be Arranged; SeeSaw Blues; Stray Dog Shuffle; Diggin' Uncle Sam's Back Yard; I Just Roll Along; Stone Sober Blues; and four others. FLYING FISH FF 270 \$8.98.

Performance: Busy fingers Recording: Good

You won't be four bars into Paul Geremia's "I Really Don't Mind Livin'" before you realize he's a rake and a ramblin', takedown-my-travelin'-shoes kind of guy, and in five bars you'll know that his wry sense of humor will save him. Geremia writes all of his own material, which is neatly divided into three categories: East Coast ragtime blues, Mississippi Delta blues, and contemporary hobo folk.

About half the time, Geremia sticks to personal sentiment, observation, and story songs, eschewing what we used to call Protest or Big Statement music. As long as he does that, he's quite entertaining. Stray Dog Shuffle, for example, a ragtimey tune about the all-forgiving woman, is guaranteed to please. But when Geremia shifts his terrain to Beale Street, he's tiresome and pretentious. Unfortunately, that happens too often on this album. One other thing: the sequence listed on both the label and the jacket is totally out of whack. Just keeping us on our toes, I guess. A.N.

PAUL GUZZONE: Dancin' Room. Paul Guzzone (vocals, bass); vocal and instrumental accompaniment. Dancin' Room; Friends; Kick It Back; All I Ever Wanted to Do; Who's Gonna Love You Tonight. BACCARAT EP BR 0101 \$5.98.

Performance: Jukin' Recording: Very good

Paul Guzzone's "Dancin' Room" is rousing, unpretentious, bar-band boogie. The title cut is the hottest: a full-throttle, eight-tothe-bar stomper with Guzzone's doubletime vocal riding over a galloping sax chart punctuated by a nose-diving baritone and a slapping high hat. And *All I Ever Wanted* to Do will stir up a few memories in every garage-band veteran ("I knew there was only one way/The day the Beatles played Shea/That was all I ever wanted to do"). The rest of the EP holds its own as the kind of good-time, unselfconscious rock-'n'-roll that works best in a smoky club with a few brewskies under your belt. M.P.

THE JOHN HALL BAND: Searchparty. The John Hall Band (vocals and instrumentals). Love Me Again; Security; Little Miss Maybe; Woman of the Water; On Hold; and five others. EMI AMERICA ST-17082 \$8.98, © 4XT-17082 \$8.98.

Performance: Zzzzzzzzzz Recording: Very good

About the only nice thing I can say about this album is that the musicianship is of an extremely high caliber and there are three or four tunes that have a glint of maturing into real songs. But they don't quite make it. Not that I expected much strong protestpop (although Security eventually gets around to the subject of building bombs), but I did think I would be treated to at least a couple of well-constructed, memorable melodies. Alas, "Searchparty" is like eating mediocre Chinese food—except that in this case it takes much less time to feel empty again. A.N.

ROBERT HAZARD. Robert Hazard (vocals); instrumental accompaniment. Escalator of Life; Change Reaction; Hang Around with You; Out of the Blue; Blowin'

The Advent Market Survey.

For three and a half years Advent has been developing a loudspeaker unlike anything we've ever produced. We need some information regarding speaker/room interface to finalize the design. If you will send us this survey, we will send you technical data on this new Advent 6003. In addition, we will send a coupon good for \$50.00 off on the purchase of a pair of these new Advent loudspeakers. Please fill out the survey and send to the address below.

| AME | | |
|------------------|-------------------|-----|
| DDRESS | | - |
| | STATE | ZIP |
| What model Adve | ents do you own? | |
| What year did yo | u purchase them? | |
| What room are th | ey in? | |
| low large is the | room? Floor area | X |
| | Ceiling ht. | |
| | ents are welcome. | |

-Shelf Conscious?-Now you can organize your copies of Stereo Review

Now your magazines can be a handsome addition to your decor, well organized, and easy to find, thanks to these durable library-quality cases or binders. They're made of luxury-look leatherette over high-quality binders board. And both styles are custom-designed for this or any magazine you save, with size, color, and imprint selected by the publisher. FREE transfer foil included for marking dates and volumes.

| Magazine bin | |
|---|--|
| | ues on individual snap-in rods, into one volume. \$7.95 each; |
| 3 for \$22.50: 6 f | or \$42.95. Mixed titles OK |
| SO R | for quantity prices. |
| 3 for \$22.50: 6 f | Store your issues for |
| 2 Jereo Rec | individual reference. \$6.95 |
| | each; 3 for \$19.75; 6 for \$37.50. Mixed titles OK |
| Charge Orders Only | |
| Charge Orders Only: Phone TOLL FREE 800-526-0 | for quantity prices. 0790. In NJ only 201-540-0445. |
| | |
| Stereo Review, P.O. Box 5120 | |
| Please send: Cases Binders | QUANT. |
| Stereo Review: | |
| (Other): | and the second se |
| ENCLOSED IS \$* Add Outside USA add \$2.50 per unit of | I \$1.00 per order for postage & handling. ordered. Send U.S. funds only. |
| CHARGE (Min. \$10): | American Express Advantage |
| Card # | Exp. Date |
| Signature | |
| Print Name | |
| Address | |

City/State/Zip

*PA residents add 6% sales tax.

in the Wind. RCA EP MXL1-8500 \$6.98, © MFK1-8500 \$6.98.

Performance: Energetic Recording: Good

Robert Hazard's solid if not particularly startling EP fuses a tough, urban cheekiness and a refreshingly nontechnological approach to the use of synthesizer technology with some rather derivative vocal phrasing (Tom Petty and Ric Ocasek come to mind). From a rock-and-roll point of view, the highlights are Hang Around with You, with its trashy organ and clanging guitar, and the punk enthusiasm of Change Reaction. A breakneck though not altogether convincing cover of Bob Dylan's Blowin' in the Wind is rescued at the last minute by a gritty little guitar break. Escalator of Life provides the record's obligatory technopop interest. Not a very original release but, on balance, a very promising debut. MP

CHRIS HILLMAN: Morning Sky. Chris Hillman (vocals, mandolin, guitar); Herb Pedersen (vocals, guitar, banjo); Bernie Leadon (banjo); Byron Berline (fiddle); Al Perkins (guitars, dobro); Kenny Wertz (guitar, vocals); Emory Gordy (bass). Tomorrow Is a Long Time; The Taker; Ripple; Good Time Charlie; and six others. SUGAR HILL SH-3729 \$7.98.

Performance: Pleasant Recording: Okay

Ever since the Flying Burrito Brothers broke up in 1971, ex-Byrds member Chris Hillman seems to have been searching for the right place to take his music. First he joined Stephen Stills and Manassas, and then he hooked up with J. D. Souther and Richie Furay to form the awful Souther-Hillman-Furay Band. After that, he sort of drifted, putting out two solo LP's, the first consisting of rock, bluegrass, and country. He tried his hand at producing for a while and then, in 1980, teamed up with fellow ex-Byrd Roger McGuinn for a Byrds-like folkie album, "City," which didn't quite work, and a hard-rock release, "McGuinn/ Hillman," which had its moments.

Since then, Hillman has returned to his earliest musical interests, country and bluegrass, and on "Morning Sky" he's assembled an impressive lineup of country-rock and bluegrass names to back him, most of whom have played with him before. Actually, "back him" is not quite accurate; Hillman behaves as if he's simply part of the band, not the star. All in all, it sounds as if he is trying to capture the spirit of the old Burritos, and especially that of Gram Parsons, whose ghost hangs over every cut and whose Hickory Wind closes out side two like a hymn. That would explain the choice of Burritos producer Jim Dickson and the selection of five musicians who played on "Grievous Angel," Parsons's last album.

Still, once you've said that "Morning Sky" is a pleasant album, there isn't a great deal more to say about it. Hillman's is a rather ordinary voice, used here in an ordinary way, the material could be stronger, and the picking is uninspired. A.N.

BUDDY HOLLY: For the First Time Anywhere. Buddy Holly (vocals, guitar); Sonny Curtis, Niki Sullivan (guitar); Joe Mauldin, Don Guess, Larry Welborn (bass); Jerry Allison (drums); other musicians. Rocka-Bye Rock; Maybe Baby; Because I Love You; I'm Gonna Set My Foot Down; Changing All Those Changes; That's My Desire; and four others. MCA MCA-27059 \$7.98, © MCAC-27059 \$7.98.

Performance: Embryonic Recording: Pale

This package has been touted as a treasure trove of "undiscovered" Buddy Holly sessions. Not quite. In fact, it's very far from treasurable. Eight of the ten tracks were made as demo records and not intended for release. After Holly's death they were issued with vocal and instrumental overdubs or doctored for an ersatz stereo sound instead of the original pinched mono. These eight selections have now been stripped back to their original form. They are entertaining and interesting historically but not exactly gems. Holly's purpose with them was to show how he wanted to be recorded (he was recovering from an unsatisfying experience with Decca Records in Nashville). The demo sessions were done in the Clovis, New Mexico, studio of Norman Petty, who was quick to spot Holly's talent and drive and within a year became his manager/producer. The rest, as they say, is rock-and-roll history

The other two selections here are genuine vault items never before released in any



Excellence is our only standard CIRCLE NO. 17 ON READER SERVICE CARD

BLESSED



CARVER M-1.5t MAGNETIC FIELD POWER AMPLIFIER

"... the equal of any power amplifier in transparency, focus and smoothness and, of course, far ahead of any other we tested in sheer gut-shaking power and dynamic range. We especially enjoy hearing spatial detail, instrumental definition and completely natural dynamics on familiar records to a degree we did not know was extractable from the grooves when we listened through lesser amplifiers. At this level of sonic performance, the astoundingly small size and cool operation of the M-1.5t become the icing on the cake, rather than the main attraction."

Peter Aczel The Audio Critic Winter 1982-83

Recent advances in analog and digital disc recording technology have made source material with full, real-life dynamic range a reality.

But, if you want to hear this improvement in sound quality, your high fidelity system must include an amplifier *fully* capable of reproducing *all* of the music...the CARVER M-1.5t Magnetic Field Power Amplifier.

350 watts rms/chan. into 8 ohms, 20-20 kHz with less than 0.1% THD. And most importantly, the rating that is musically significant: 600 watts/ chan. Long-Time-Period Reserve Power with 750 watts/chan. Dynamic Headroom. Weight: 16 lbs.

The CARVER M-1.5t...carefully and specifically designed for those who seek highest fidelity and musical purity.



P.O. Box 664 14304 N.E. 193rd Pl. Woodinville, WA 98072 form. Unfortunately, they prove that many such items should stay in the vaults. One is an early, lackadaisical Maybe Baby that was wisely dropped in favor of the famous hit version Holly recorded six months later. That's My Desire was cut in New York using Holly's regular musicians, a slick studio guitarist, and Petty playing cocktail-lounge piano. The material did not suit Holly, and he sounds uncomfortable with it.

Buddy Holly's legend persists because in his short life he wrote simple, direct songs of youthful passion and innocence so sturdy in construction and so appealing in emotion that they are irresistible. His formal recording career was brief—only three years and he has had more posthumous albums released than any other artist. While this collection does no damage to his legend, it doesn't enhance it. J.V.

RECORDING OF SPECIAL MERIT

PAUL JABARA AND FRIENDS. Paul Jabara, the Weather Girls, Leata Galloway, Whitney Houston (vocals); vocal and instrumental accompaniment. Bad Habits; Ladies Hot Line; Hurricane Joe; It's Raining Men; and three others. COLUMBIA FC 38458, © FCT 38458, no list price.

Performance: Delightful potpourri Recording: Very good

Paul Jabara has a voice that sounds a little like a rusty saw rasping away at concrete, but he won me over completely on the opening track of this album with his swinging big-band-style treatment of Bad Habits. After that introduction, his main contribution here is as a producer, and he has chosen an exceptionally fine flock of female friends to sing his wonderful original songs. He sometimes joins with them on the vocals but stays mostly in the background. The major contribution is by Izora Armstead and Martha Wash, who as a duo called Two Tons of Fun used to appear regularly with Sylvester and now refer to themselves as the Weather Girls. Frankly, I liked their old name better, but they do the new one credit in a hilarious number called It's Raining Men, which has become a runaway hit in New York City.

Leata Galloway comes across as a belter of no meager abilities on Hurricane Joe and shows a convincingly sweeter side on the ballad What's Become of Love. Curiously, Jabara's most promising friend is heard the least. Whitney Houston sings only one song, Jabara and Jay Asher's Eternal Love, but what a song it is, and how she does sing it! It has that unforgettable bittersweet quality that is the hallmark of French love songs (there is more than a trace of Jacques Brel here), and Houston's light, slightly tremulous voice is just right for it. While this is a delightful album from start to finish, Eternal Love makes it really special. P.G.

JOURNEY: Frontiers. Journey (vocals and instrumentals). Separate Ways; Send Her My Love; Chain Reaction; After the Fall; Faithfully; and five others. COLUMBIA QC 38504, © QCT 38504, no list price.

Performance: Bombastic Recording: Excellent

Although Journey has become a favorite point of departure for polemics on the de-

cline of rock music, the band's last album, "Escape," sold over five million copies. So who am I to tell five million people they're wrong? You can't make that many people part with their money for something they don't want. And, album after album, Journey proves its unequaled mastery of heavymetal. "Frontiers" is no exception: it sounds just like every other Journey album since "Infinity." Steve Perry's vocals are the benchmark against which all AOR contenders are measured. Neil Schon's concussive guitar, which hurtles at you with the force of a diesel locomotive, practically defines the heavy-metal genre. Like it or not, there is a rare blend of discipline and power in this music.

My own theory about Journey partisans is that trapped inside each one is a symphonic-music lover struggling to get out. Think of the grand, sweeping power of Journey's music, of its majesty, its rich, dense tonalities, its sheer sound level. Who knows but that a few different choices along the way—perhaps a few hours spent taking a music-appreciation course instead of hanging out in the parking lot—would have resulted in many of the millions who will buy "Frontiers" queuing up instead to buy Beethoven or Mahler. *M.P.*

BERNIE KNEE. Bernie Knee (vocals, guitar); Loonis McGlohon (piano); Terry Lassiter (bass); Jim Lackey (drums). September in the Rain; Did I Remember?; Thanks; You're Driving Me Crazy; and nine others. AUDIOPHILE AP 144 \$7.98.

Performance: Okay Recording: Okay

Bernie Knee is one of the best-known demo singers in the music business, the kind of performer that composers call on to record a sample of their new songs to be sent around to producers, record companies, and so forth. It would be nice to be able to say that he emerges as a new star on this album, but, unfortunately, he just sounds like a robust, hearty baritone of the style of several years ago. Think of Howard Keel or Gordon McRae and you're close. Knee runs through the thirteen songs here with a placid cheer and an unswerving dedication to the proper beat. Loonis McGlohon's arrangements have an odd oom-pah quality that doesn't help matters at all. P.R.

ELOISE LAWS: All in Time. Eloise Laws (vocals); vocal and instrumental accompaniment. Love Ain't Easy; If I Had My Way; Weekend; I Got Ya Covered; and five others. CAPITOL ST-12252 \$8.98, © 4XT-12252 \$8.98.

Performance: Good Recording: Good

Eloise Laws has a big, clear, true voice that she can use to great effect in the right material. She's a fine musician, as you might expect from a member of the fabulous Laws family. What dampens this album is the choice of songs, which, except for *Love Ain't Easy*, mostly range from bad to boring. Not even Aretha Franklin could do much with a clinker like *I Got Ya Covered*, and Eloise isn't yet in Aretha's class. *P.R.*

LE ROUX: So Fired Up. Le Roux (vocals and instrumentals). So Fired Up; Lifeline; Yours Tonight; Line on Love; Turning Point; Wait a Minute; Carrie's Gone; and three others. RCA AFL1-4510 \$8.98, © AFK1-4510 \$8.98.

Performance: Not exactly subtle Recording: Okay

When Le Roux's lead singer starts caterwauling on the opening cut here about how fired up he is, you immediately assume this is just another hard-rock band with a rocket in its pocket. But when they finally work off some of that steam, you remember that this band used to be called Louisiana's Le Roux and once did a pretty good live set with some attractive Southern touches on songs such as New Orleans Ladies. From the evidence of this album, however, they must be suffering from some sort of degenerative nerve disease and are making the kind of noise that gets you on MTV. Or else Le Roux has a split personality. They do write some good lines, deliver a sensual ballad, and even offer a sweet little piece of twinguitar latticework. But then they slip into heavy-metal cacophony, and even my dog gets up and leaves. Maybe it's just that Le Roux is preening itself for a younger audience these days. They've lost me. A.N.

JOHN MARTYN: Well Kept Secret. John Martyn (vocals, guitar); vocal and instrumental accompaniment. Could've Been Me; You Might Need a Man; Hung Up; Gun Money; Never Let Me Go; Hiss on the Tape; and four others. DUKE 90021-1 \$7.98, © CS-90021-1 \$7.98.

Performance: Outer limits Recording: Better than average

John Martyn's journey from Scottish folkie to avant-garde composer/performer has been well documented in these pages, but 1 lost track of him after his hypnotic 1971 jazz-folk album, "Bless the Weather," so his current incarnation comes as a profound shock. Martyn used to sing in a sweet, sensual, laid-back rock-blues voice, but here he affects a raspy growl that sounds like some world-weary old jazz singer. Honestly, I just wouldn't have known it was the same person.

As for the music—well, I can't get a handle on what to call it, since the individual pieces are so vaguely defined. A couple are rather tuneful, but others are mostly electronic, sterile, and spaced-out; still others are memorable only for their energy and back-beat. The production varies wildly, but too much of it is an aural assault, and at times I felt as if I were listening to Devo without the humor. A.N.

MELBA MOORE: The Other Side of the Rainbow. Melba Moore (vocals); vocal and instrumental accompaniment. Love's Comin' at Ya; Underlove; Knack for Me; Don't Go Away; Mind Up Tonight; and three others. CAPITOL ST-12243 \$8.98, © 4XT-12243 \$8.98.

Performance: As before Recording: Good

Melba Moore's recording career rolls on and on, even though she hasn't done, or even attempted, anything new in at least a decade. She is good at adapting herself, with a hard edge of commerciality, to various fads as they come along, but on this reThe Discwasher Brand D'MAG is not just a head demagnetizer ... it's a ccs-sette deck demagnetizer.

Magnetic fields surround not only tape heads but caps ans, guides and other steel portions of a cossette deck as well; and cli of these magnetized parts are capable of reducing high frequencies on recorded tapes by as much as 4dB with only a sing e playback

Discwasher D'MAG utilizes permanent high energy samarium cobal magnets for both efficiency and consistency in demagnetizing effect. With a single pass, D'MAG will neutralize magnetic fields from any cassette deck, whether home or car.

> And permanent magnets mean that D'MAG doesn't require batteries or power cords.

> > discwasher[®]

Cassette Deck

Demagnetizer

IT'S BEEN WORTH

THE WAIT.

Write Cisc washer for your ree copy of "Guide to Table Care".

1407 NORTH PROVIDENCE ROAD, P.O. BOX 6021, DEPT. SR, COLUMBIA, WD 55205 USA A DIVISION OF JENSEN IN ESMARK Company CIRCLE NO. IT ON READER SERVICE CARD



If you are in a hurry for your catalog please send the coupon to McIntosh. For non rush service send the Reader Service Card to the magazine.



Randy Newman's "Trouble"

A NEW Randy Newman album, even one on which he is at less than peak form, makes 99 per cent of the other musical satirists around today look pretty feeble. Trouble is, Newman's new "Trouble in Paradise," like its predecessor "Born Again," depends too much on his looking good in comparison with others. He may be the king of wit in pop music today, but that's mainly because he is a one-eyed man in a kingdom of the blind.

Of course, "Trouble in Paradise" does have some marvelous material in it: I Love L.A., done totally deadpan with noted Angelenos Lindsay Buckingham and Christine McVie of Fleetwood Mac; My Life Is Good, in which Newman casually lets it drop that Bruce Springsteen has invited him to be The Boss for a while; the hit single The Blues, in which Newman and Paul Simon wax eloquent over middle-class misery. But very little here cuts close to the bone, as Newman's best work has done, and a lot of the targets seem either safe (the blues is hardly a daring subject for satire) or overly familiar (the racists in Christmas in Capetown have been skewered in other, more impressive Newman songs).

There is a musical falling off as well. "Trouble in Paradise" is full of parodies of rock styles, but the parodies lack bite because they're too close to the real thing (which may be why the album is getting so much airplay). Frankly, I prefer Newman's old trademark mixture of Americana, from spirituals to film scores, to this album's arch pastiches of current English electropop (*Mikey's*) and fake Hollywood reggae (*Take Me Back*).

The next couple of records will probably be crucial for Newman. He's a star now, which is hardly his fault, but it does make his work more difficult. Now that he is so widely celebrated as an ironist, people don't automatically take his work at face value, so it's harder to get an audience to question its own values. "Trouble in Paradise" is a bright, likable album that is consistently rewarding to listen to (except for the stultifyingly obvious anti-war tract, Song for the Dead), but it also suggests that Randy Newman could easily become just another comic—more a Tom Lehrer than a Dean Swift. And that would be too bad.

-Steve Simels

RANDY NEWMAN: Trouble in Paradise. Randy Newman (vocals, keyboards); Paul Simon (vocal on The Blues); other musicians. I Love L.A.; Christmas in Capetown; The Blues; Same Girl; Mikey's; My Life Is Good; Miami; Real Emotional Girl; Take Me Back; There's a Party at My House; I'm Different; Song for the Dead. WARNER BROS. 23755-1 \$8.98, © 23755-4 \$8.98, @ 23755-8 \$8.98.

cording she seems to have entered her postdisco phase without any particular new style or trend to ride on. Her voice is brighter, sharper, and more strident than ever, and her performances are super-efficient and instantly forgettable. *P.R.*

TOM PETTY AND THE HEARTBREAK-ERS: Long After Dark. Tom Petty (vocals, guitar); the Heartbreakers (vocals and instrumentals). A One Story Town; You Got Lucky; Deliver Me; Change of Heart; Finding Out; We Stand a Chance; and four others. BACKSTREET BSR-5360 \$7.98, © MCAC-5360 \$7.98.

Performance: Heartfelt Recording: Very good

"Long After Dark" has at least the virtue of consistency; it's far from Tom Petty's best album, but it is his most even, and after the up-and-down disaster of his last one, "Hard Promises," consistency seems enough. It's a collection of uptempo love songs, and almost without exception they seem genuinely heartfelt. Petty performs throughout with his usual grit and style, and the Heartbreakers continue to sound like the Great American Back-Up Band.

If the album has a failing, it's that it's too tasteful. What always distinguished Petty from other mainstream rockers was his solid roots in the garage-band tradition of the Sixties. While he and the Heartbreakers were always careful craftsmen, their music managed to retain an anarchic teenage edge. Here, sadly, everything has been smoothed out and homogenized for maximum radio play. Although much of the music is undeniably good (One Story Town, Deliver Me, The Same Old You), none of it is really going to make you lunge for the volume control on your car radio, which is the point after all. Pity. 2.2

JIM PHOTOGLO: The Thin Man. Jim Photoglo (vocals); orchestra. Keep Away; I Know Love; The Thin Man; Love Refugee; I Think We're Alone Now; and five others. CASABLANCA 810305-1M-1 \$8.98, © 422-810305-4M-1 \$8.98.

Performance: Good Recording: Good

"The Thin Man" is a collection of not very good songs, many of them by Jim Photoglo himself, that the performances often lift far beyond their worth. The title song is about a Vietnam veteran who sells coke and plays his sax alone in his room until late into the night. He's presented as a romantic loner and some sort of symbol of Eighties Angst. The lyrics are raunchy piffle, but in his performance Photoglo is able to engage your attention and almost make you take it seriously. He isn't so lucky with such numbers as When You Think About Love and Keep Away. This singer needs better materialand fast! PR

CHARLEY PRIDE: Live. Charley Pride (vocals); vocal and instrumental accompaniment. A Whole Lotta Things to Sing About; Kiss an Angel Good Mornin'; Kaw-Liga; Just to Be with You; Oklahoma Morning; My Love Is Deep, My Love Is Wide; Is Anybody Goin' to San Antone; and eight others. RCA AHL1-4524 \$8.98, © AHK1-4524 \$8.98, @ AHS1-4524 \$8.98.

Performance: Predictable Recording: Poor

Charley Pride grew up pickin' cotton in Sledge, Mississippi, not all that far from Memphis, Tennessee, where a shrewd record producer named Sam Phillips figured out he could make a pile of money with a white boy who sounded black. It wasn't that much longer till Pride came along, a black man who sounded white.

At a concert about six years ago, I saw 12,000 Canadians hang from the rafters to watch Pride do a Hank Williams impersonation with stage moves about as wooden as ol' Kaw-Liga himself. That concert was almost as boring as this record, which was taped in Nashville last year and consists mainly of Pride's familiar, formula hits. Pride has recently branched out with a more modern sound and seems to be more popular than ever. But why a solid singer like him



Find out in Stereo Review.

Subscribing to Stereo Review makes sense. Whether you're shopping for your first stereo system, upgrading your present one, looking for maintenance tips or trying to sort through the hundreds of new recordings released every month, Stereo Review has answers you can rely on.

Our world-famous Equipment Test Reports help you select new audio equipment. Explanations of features, laboratory test results and comments from our expert technicians make it easy for you to select components for a great audio system.

If you already have a terrific sound system, Stereo Review can help you care for it and upgrade it. With hints on getting four-channel sound from your stereo discs...how to care for your tape deck's heads...how to handle records to preserve them...and much more.

Stereo Review also helps you select the music to play over your sound system. We cover every category of recording on disc or tape, to help you steer away from uninspired performances or mediocre recordings.

Stereo Review. When you subscribe you'll join the group of people who enjoy music on their own terms—and truly know what to buy.

Use the coupon to subscribe —and save 50%!

Half Price Subscription Certificate

| | O Review P.O. BO | r, Colorado 8032: |
|--------------|--|-------------------|
| Review at 5 | se enter my subscription to 0% off (based on the full of n price of \$9.98). | |
| 0 | □ O <mark>ne year (12 issues) for</mark> \$ □ Two years for \$9.98 □ Three years for \$14.97 | \$4.99 |
| CHEC | K ONE: D Payment enclosed. | Bill me later. |
| Mr./Mrs./Ms. | | |
| | (please print full name) | 8H40 |
| Address | | Apt. |
| Address | | |
| City | | |

continually insists on appealing to the lowest common denominator beats me. A.N.

RECORDING OF SPECIAL MERIT

RAMONES: Subterranean Jungle. Ramones (vocals and instrumentals). Little Bit o' Soul; I Need Your Love; Outsider; What'd Ya Do?; Highest Trails Above; Somebody Like Me; Psycho Therapy; and five others. SIRE 23800-1 \$8.98, © 23800-4 \$8.98.

Performance: Serene punk Recording: Fine

The Ramones may be a group that is past its prime, especially given the rise of postpunk hard-core rock bands such as Flipper and Black Flag. Still, though it's weird to think of the Ramones as classicists, that's really what they've become: purist practitioners of a genre that seems somehow quaint and old hat in 1983. After resisting them for years, I am now an unabashed fan, which probably means I'm as perversely reactionary as they are.

"Subterranean Jungle" is a textbook Ramones album: lots of buzz-saw guitars, a brace of Sixties cover tunes, and the usual dumb lyrics about drug abuse and mental illness. It's garbage, of course, but really sublime garbage. Compared with the effete electropop flakiness of what passes for New Wave these days, the loud noises and de-

FREE SPIRITS FLY WITH FOX.

There's a certain freedom you feel behind the wheel. When the wind is with you, and the road is wide open. That's when it's wonderful to have a SuperFox Vixen, the radar detector that lets you lean back and relax.

With a SuperFox Vixen, you're protected from the unexpected. Super powers enable the Vixen to read around bends and hills as easily as on straightaways.

For the first time, driving is hassle-free. And isn't that why you bought your car in the first place?

> SUPERFOX VIXEN RADAR DETECTOR

• Solid-state, super-heterodyne circuitry • Ten times the sensitivity of ordinary detectors

20 Change

- Coverage on all bands and polarizations, pulsed or continuous wave
- High-concentration focusing lens
- Inconspicuous, only 1-3/8" high
- Lightweight enough to fit on a visor
- The ultimate in front and rear protection
- Limited Lifetime Warranty
- You can't trap a Fox

SOL



Fox Marketing, Inc. 4518 Taylorsville Rd. Dayton, Ohio 45424 Call 1-800-543-7892 toll free fiant meaninglessness of the Ramones can actually be refreshing. In their own peculiar way, these leather-jacketed reprobates have got *soul*, of all things. Highly recommended to headbangers of all ages. S.S.

HELEN REDDY: Imagination. Helen Reddy (vocals); orchestra. Looks Like Love; Heartbeat; Let's Go Up; Handsome Dudes; Imagination; Don't Tell Me Tonight; and four others. MCA MCA-5376 \$7.98, © MCAC-5376 \$7.98.

Performance: Steely Recording: Good

For me Helen Reddy's performances have always had the charm of a submarine zeroing in on a hospital ship. Her clipped diction, steely phrasing, and sullen style began to pall about two minutes after she broke through with her first hit, *I Am Woman*, in the early Seventies. On "Imagination" she's still balefully staring down her material. Every once in a while it works, as in her Ice Queen performance here of *Don't Tell Me Tonight*, a taunting, abrasive little song. For the rest of this album she is her usual unconvincing self. *P.R.*

RED RIDER: Neruda. Red Rider (vocals and instrumentals). Light in the Tunnel; Napoleon Sheds His Skin; Winner Take All; Work Out; Human Race; and six others. CAPITOL ST-12226 \$8.98, © 4XT-12226 \$8.98.

Performance: Flat Recording: Good

As I recall, Red Rider's previous vinyl venture, "As Far As Siam," had more humor and inventiveness than this follow-up shows. The blame here falls on lead singer/songwriter Tom Cochrane, whose pallid essays on suicide, survival, and the big bad world are delivered in the raspy voice of the stereotypical rock-'n'-roll social seer. Group member Steve Sexton is responsible for the synthesizer whoopee that introduces many of the songs and seems always on the verge of exploding into *Thus Spake Zarathustra*. Overall, the album sounds more rehearsed than performed. J.V.

TOM SNOW: Hungry Nights. Tom Snow (vocals, keyboards); instrumental accompaniment. I Almost Let You Go; Our Song; Time of Our Lives; Soon; Hungry Nights; and five others. ARISTA AL 9600 \$8.98, © ACT 9600 \$8.98.

Performance: Promising Recording: Good

Known previously as the composer of such hits as the Pointer Sisters' He's So Shy, Olivia Newton-John's Make a Move on Me, and Barry Manilow's Somewhere Down the Road, Tom Snow shows a good deal of promise in this, his first album as a singer. He's particularly good in the title song, one of those steamy numbers he wrote along with Cynthia Weill. His voice is light, but his performing manner has a hard-edged urgency and vitality about it. The rest of the songs are all unremarkable, although Snow manages to infuse most of them with at least some interest. I think he owes it to himself to sit right down and write himself a good, solid hit. For sure, he'll be able to perform it very well. P.R.

THE S.O.S. BAND: III. The S.O.S. Band (vocals and instrumentals); vocal and instrumental accompaniment. Can't Get Enough; High Hopes; Have It Your Way; Your Love (It's the One for Me); Looking for You; These Are the Things; and three others. TABU FZ 38352, @ FZT 38352, no list price.

Performance: Monotonous Recording: Satisfactory

Someone wasted a lot of airfare to bring Leon Sylvers III all the way from California to produce this mediocre record for the Atlanta funk group S.O.S. I've heard much better from this band in the past. They might have retained some sense of identity if they'd looked to their own rich Southern roots instead of imitating the slicksters of both coasts. The first two long tracks lack any musical substance and are so monotonous that they'd put you to sleep if they weren't so loud. Admittedly, there are a few appealing items, mainly the buoyant Looking for You and a ballad called Have It Your Way, which is sung with searing conviction, but I doubt that you'll want to hang in there long enough to hear them. P.G.

RECORDING OF SPECIAL MERIT

GARY STEWART AND DEAN DILLON: Those Were the Days. Gary Stewart, Dean Dillon (vocals); vocal and instrumental accompaniment. Those Were the Days; Misfits; Hard Times for Lovers; Living on the Ragged Edge; Losers and Lovers; Smokin' in the Rockies. RCA EP MHL1-8602 \$6.98, © MHK1-8602 \$6.98.

Performance: Cowboy soul Recording: Excellent

There was almost nothing on this duo's first album, "Brotherly Love," to suggest a follow-up of the quality of this one, a wellthought-out mini-LP of soft country-pop and rock. For "Those Were the Days" Gary Stewart and Dean Dillon went shopping for a new producer. They found Blake Mevis, the man behind the country-pop sound of George Strait, and then they sat down and wrote a handful of lyrical, melodic tunes that, with one exception, Misfits, canceled their rowdy image and replaced it with that of sensitive young romantics. And where on the first album their harmonies were too often erratic, mainly because the high-strung Stewart almost never phrases the same way twice, here they've got it together-on one cut, Losers and Lovers, they even sound a lot like the Everly Brothers.

Normally, I'd lay odds that an act would have more success going from a countrypop sound to a hard-core country sound, especially when the singers' individual styles are patterned after such models as Jerry Lee Lewis and Merle Haggard the way Stewart's and Dillon's are, but both these guys have done enough experimenting with other types of music (check out their Southern-rock treatment of Smokin' in the Rockies) to be able to pull this off with taste and style. Combine that with better-than-average songwriting skills, Mevis's crisp, upfront production, and the seemingly genuine regard Stewart and Dillon have for each other, and "Those Were the Days" comes out a real winner. Duet teams are popping up like crabgrass in May right now, but if Stewart and Dillon don't outlast the bulk of 'em, I'll be surprised. A.N.

TRAPEZOID: Another Country. Trapezoid (vocals and instrumentals). Wagoner's Lad; Indian Paintbrush; Kora; Malice Towards None: Back in Your Own Backyard; Little Billy Wilson; and five others. FLYING FISH FF 287 \$8.98.

Performance: Lovely Recording: Varies

I don't suppose there is any other group quite like Trapezoid, a two-man, two-woman ensemble performing on such instruments as the hammered dulcimer, mandola, bowed psaltery, violin, cello, and guitar. If you've yet to tune in to them, you've got a treat coming. Their sound blends elements from such disparate forms as Elizabethan and traditional ballads, 1930's jazz, American standards, and contemporary folk, but they give them a decidedly original bent and take a classical approach.

This album came as something of a surprise because the last time I heard the group in concert, in 1978, the emphasis was clearly on Paul Reister's hammered dulcimer. Since then, however, the line-up has changed, and now the material rests heavily on the vocals of Lorraine Duisit and Freyda Epstein (Reisler and Ralph Gordon are the male members of the quartet). Quite truthfully, I liked the group better before. There



14 Van Zant St. "Norwalk, Connecticut 06855/203-853-9792/Tele:: 643075 MI-FI INC NLK CIRCLE NO. 22 ON READER SERVICE CARD



Bob Seger

F the past is any indication, sometime in 1985 Bob Seger will release a live album reprising his best songs of the last few years. When he does, he'll have to include at least four, maybe even six, from this year's "The Distance."

Seger's fourteenth album is in some ways a departure for the rock-'n'-roll laurcate of the Midwest. One difference is the personnel. Although he's divided the work on his previous albums between the Silver Bullet Band and the Muscle Shoals Rhythm Section, for "The Distance" Seger has replaced his regular guitarist, Drew Abbott, and his drummer, Dave Teegarden, with studio veterans Waddy Wachtel and Russ Kunkel. He has also called in Don Felder, Bonnie Raitt, Bill Payne, Roy Bittan (on loan from the E Street Band), Davey Johnstone, and Danny Kortchmar.

A second difference is in the music's pacing. Seger's biggest hits—Night Moves and Fire Lake, for instance—have tended to settle in at a comfortable, moderate tempo. "The Distance," in contrast, contains no fewer than five songs (Even Now, Making Thunderbirds, Boomtown Blues, Roll Me Away, House Behind a House) that threaten to punch the living daylights out of Kunkel's drum kit. The new personnel and hotter tempos add up to an album with considerably more bite than "Against the Wind" or "Strangers in Town." Seger's raw, husky, Everyman vocals are nevertheless still center stage, and his phrasing is as grittily emotional as ever.

As powerful as Seger's vocals are, lyrics are what set him apart from the run-of-themill journeyman rocker. A Seger song is always honest, perceptive, and rich in detail. Comin' Home, for example, takes one of pop music's most overworked themes-the star-struck kid brought back down to earth, and back home, by defeat in the big cityand turns it into something fresh and affecting. In Making Thunderbirds, Seger gets to the heart of the tragedy of his home town, Detroit, not by looking at the ruins but by reliving better times. And on Roll Me Away he makes you feel the exhilarating freedom of riding a motorcycle along the crest of a mountain ridge-even if, like me, you'd sooner walk through Death Valley than climb onto a motorcycle.

Don't wait for the live set. Two more years is just too long to wait for stuff this good. —Mark Peel

BOB SEGER AND THE SILVER BUL-LET BAND: The Distance. Bob Seger (vocals, guitar); the Silver Bullet Band (instrumentals); other musicians. Even Now; Making Thunderbirds; Boomtown Blues; Shame on the Moon; Love's the Last to Know; Roll Me Away; House Behind a House; Comin' Home; Little Victories. CAPITOL ST-12254 \$8.98, © 4XT-12254 \$8.98, @ 8XT-12254 \$8.98.

was a chilling, other-century feeling to their earlier work, and while I can't deny this album's beauty, I couldn't get very emotional about a lot of it. Duisit's original pieces are just too dry, too serious, and too detached, and the pair of Richard Fariña songs have been thoroughly saturated in Nytol. Still, Trapezoid's *sound* is wonderful, and with the right material, I'm sure the group could be spellbinding. *A.N.*

ULTRAVOX: Quartet. Ultravox (vocals and instrumentals). Reap the Wild Wind; Serenade; Mine for Life; Hymn; Visions in Blue; When the Scream Subsides; We Came to Dance; and two others. CHRYSALIS • B6V 41394 \$6.98.

Performance: Creepy Recording: High-gloss

With varying personnel, Ultravox has been kicking around for years, and it has been hugely influential; English electropop and the mercifully waning New Romantic movement cribbed a lot from its sound and look. But, even so, this new bargain-priced, digitally mastered album, produced by Beatles mentor George Martin, is one of the most elegantly empty-headed LP's I've heard in years. The sound is utterly gorgeous: crashing synthetic drums, electronic keyboards that seem to detonate between your ears, all very high-gloss and larger than life. Musically, however, it's utterly worthless, offering no more than repetitive, hackneyed riff songs overlaid with portentous versifying. S.S.

ANDREAS VOLLENWEIDER: ... Behind the Gardens-Behind the Wall-Under the Tree. Andreas Vollenweider (vocals, harp, woodwinds, soprano saxophone, synthesizers, electric and acoustic guitars, accordion); Pedro Haldeman, John Otis (percussion); Walter Keiser (drums). Micro-Macro; Skin and Skin; Lion and Sheep; Hands and Clouds; Afternoon; and four others. CBS FM 37793, © FMT 37793, no list price.

Performance: Elaborate Recording: Busy

Andreas Vollenweider is as close to a oneman electronic band as one would care to get. In his severely earthbound fantasies of sound, the emphasis is supposedly on the sensual, but the tone paintings he has devised have much more in common with a Maxfield Parrish than with a Renoir. Vollenweider's musical palette, like Parrish's, is heavy on peachy and sky-blue colors, with an occasional red tossed in for effect. This is middle-brow Fantasyland with a Teutonic accent. *P.R.*

HANK WILLIAMS, JR.: Strong Stuff. Hank Williams, Jr. (vocals, organ, dobro, electric and acoustic guitars); vocal and instrumental accompaniment. Gonna Go Huntin' Tonight; La Grange; A Whole Lot of Hank; Leave Them Boys Alone; In the Arms of Cocaine; and five others. ELEKTRA 60223-1 \$8.98, © 60223-4 \$8.98, ® 60223-8 \$8.98.

Performance: Spotty Recording: Very good

"Strong Stuff" reminds me of a concert by Hank Williams, Jr. that I heard a couple of years ago. The first set was probably the tightest, best-executed set I'd ever heard, but the second-his blues set-was undoubtedly the sloppiest and most self-indulgent. Granted, I tend to be more critical of Williams than of many others, but it's because he has done so much brilliant work and I expect more from him. I think it's fair to say that this new LP goes over too much ground that Williams has already covered numerous times. Waylon Jennings and Ernest Tubb are dragged in on Leave Them Boys Alone to tell one more time how wonderful it is that Bocephus finally broke away from his father's ghost. Then there are the usual multiple references to Jim Beam and easy women and the predictable songs about hunting and Williams's all-forgiving wife. Even the once-delightful production touches-the subtle use of horns and clarinets and the Mexican flavoringhave become routine.

Despite all this, and even though four of the five songs on side two are complete throwaways, there are some excellent moments here. Whole Lot of Hank, his millionth paean to his Nudie-suited, drunken father, is a superbly crafted, infectiously joyous gem, and In the Arms of Cocaine is about as chilling a look at that subject as you're likely to hear. Williams sings his Dizie-bred tail off throughout the album, but not even that can make up for a lack of substance. Weak songs keep "Strong Stuff" from living up to its name. *A.N.*

BOB WILLS AND HIS TEXAS PLAY-BOYS: The Tiffany Transcriptions, Vol. 1. Bob Wills and His Texas Playboys (vocals and instrumentals). Nancy Jane; Mission to Moscow; Dinah; Cotton Patch Blues; Sweet Jennie Lee; Little Betty Brown; Blackout Blues; Jumpin' at the Woodside; and six others. KALEIDOSCOPE @ F-16 \$7.98.

Performance: Not his best Recording: Vintage

Back in 1945, Bob Wills and two entrepreneurs formed the Tiffany Music Company with the idea of syndicating a radio program for Wills and His Texas Playboys. The company didn't survive, but between 1946 and 1947 Wills and the band faid down some 370 selections, and the masters remained packed away in a basement until they were retrieved for this project.

Wills aficionados will go nuts over it, I suppose, both because the band obviously felt it could be looser with material meant for radio use and because the disc contains selections Wills never recorded elsewhere. For the casual fan, however, this first volume isn't all that attractive. Wills was quite popular in the years right after the war with such hits as *Hang Your Head in Shame*, *New Spanish Two Step*, and *Roly Poly*, the last being the fourth most popular juke-box song of 1946. But none of them appear here, nor do such enduring pre-1946 Wills tunes as *Time Changes Everything*, *Take Me Back to Tulsa*, or *Stay a Little Longer*. During the war, Wills toured with a twentytwo-piece group, but by the time the recordings here were made he was down to a twelve-piece band, with only one trumpet and a sax. Still, what's offered here has been nicely restored, and it whets the appetite for the volumes to come. *A.N.*

RECORDING OF SPECIAL MERIT

THE YARDBIRDS. The Yardbirds (vocals and instrumentals). Happenings Ten Years Time Ago; Lost Woman; Over Under Sideways Down; The Nazz Are Blue; I Can't Make Your Way; Rack My Mind; Farewell; and seven others. EPIC FE 38455, © FET 38455, no list price.

Performance Groundbreaking Recording: Variable

Clearly the Reissue of the Year, "The Yardbirds" is the band's third LP, known in America when it was released in 1966 as "Over Under Sideways Down." It features a couple of rare extra tracks and the original English cover and liner notes (by members Chris Dreja and Jim McCarty, respectively) restored to their pristine glory. Those of you too young to remember this stuff will find that the Yardbirds deserve their reputation as innovators. Lead singer Keith Relf may have been a limited vocalist, but he was a great bandleader. The Yardbirds more or less invented heavy-metal, although they may have been the last heavy-metal band with a sense of swing. They anticipated punk (check out the, shall we say, undoctrinaire Chicago Blues sounds of *Psycho Daisies*), and at their peak, with Jeff Beck as lead guitarist, they probably made more imaginative noises than any other rock band with the same instrumentation ever. Pick hits: Jeff's Boogie, a fleet-fingered guitar showpiece that is still dazzling after all these years, and the orientalism-and-feedback of Lost Woman. Highly recommended. S.S.

COLLECTION

HOOKED ON ROCK CLASSICS. Royal Choral Society; London Symphony Orchestra, various conductors. RCA AFL1-4608 \$8.98, © AFK1-4608 \$ 8.98.

Performance: Fast and furlous Recording: Loud

Here's another collection of teeny-tiny musical excerpts in the "Hooked On" series, this one devoted to rock. As usual, the performances huff and puff by with all the suavity and grace of a dirigible bobbing against its mooring tower in a heavy wind. It's clear that there is an audience for this kind of thunderous pastiche, but precisely what pleasure people are deriving from these jumbled fragments of songs still baffles me. *P.R.*

(Continued on next page)

Jensen speakers put great sound where it's never been before.

With Jensen,[®] great sound really goes places. Places, in fact, you never thought it could. Because Jensen speakers offer you Jensen quality sound sized to fit in doors, kick panels, dashboards...almostanywhere.

And we're not talking about just "small" speakers, either. The Jensen 6"x 9" Triax" is our most popular—and the most imitated in the industry. But the Triax ThinMount" version can be installed in smaller reardeck spaces than ever. With a mounting depth of just 1%, it even fits in many doors!

Don't let limited space limit your car audio performance. Get excellent Jensen sound to fit your dispriminating taste. Designed to fit your car. Jensen ThinMounts.

> JENSEN CAR AUDIO When it's the sound that moves you.

© Jensen Sound Laboratories. 1983. "Triaxial®" and "Triax®" are registered trademarks identifying Jensen Sound Laboratories as the producer of the patented 3-way speaker systems

CIRCLE NO. 13 ON READER SERVICE CARD



GARY BURTON: Picture This. Gary Burton (vibraphone); Jim Odgren (alto saxophone); Steve Swallow (bass); Mike Hyman (drums). Tanglewood '63; Waltz; Dreams So Real; Duke Ellington's Sound of Love; and two others. ECM ECM-1-1226 \$9.98, © M5E-1226 \$9.98.

Performance: Fine Recording: Very good

I was surprised to note that this new ECM release by the Gary Burton Quartet was not produced by Manfred Eicher, ECM's founder, who for ten years has seemed loath to relinquish his grasp on the label's stopwatch. It was made in a Columbia Records studio in New York, a decidedly "backward" step on ECM's part. The recorded sound is not bad, though it doesn't have the clarity Eicher always strives for and usually obtains. The pressing, however, is fine. In



"YOU WILL DISCOVER A CASSETTE TAPE THAT SOUNDS LIKE REAL MUSIC."

For years you have been fed some pretty tall stories about cassette tape. Denon only makes one claim for DX-Series Cassettes. We don't say they will play on the moon; we don't say they will survive being baked in ovens. We hope that they won't tip over your chair or shatter your stemware. We only say that Denon DX-Series Cassette Tape will sound more like real music than any other brand on the market

"YOU DON'T LISTEN TO SPECIFICATIONS; YOU LISTEN TO MUSIC:

Most cassette tape advertising tries to impress you with specifications. The trouble is that specifications do not necessarily equate to musicality.

Most manufacturers' specifications are based on static measurements, the tape's response to steady test tones. Denon DX-Series Cassette Tape goes one step further: it also minimizes Dynamic Distortion, the distortion created by actual musical signals.

27 Law Erie, Fairfield, N.J. 07:00

"DENON WILL BECOME 'THE AUDIOPHILES CASSETTE TAPE!"

True audiophiles realize the A-B testing is not the real gauge of sound quality. Only extended listening can tell you if a component-or a tape-is superior.

Perform this test for yourself. Make a recording on Denon DX-Cassette Tape first listening to the source. Then playback your DX-Tape recording and compare the two experiences.

The message is in the music.



fact, out of some two dozen domestic pressings I've heard this month, this is the only one that didn't sound as though it had been used to serve peanut-butter snacks on.

I expected to like the music too, because Gary Burton has yet to disappoint me, but "liking" is putting it mildly. There is nothing detached about this quartet, and the only hint of the usual ECM Continental rime is in alto saxophonist Jim Odgren's tone, which is still several degrees warmer than Jan Garbarek's. In fact, things get downright hot on side two, beginning joyfully with Odgren's own Tierra del Fuego, carrying on softly into Duke Ellington's Sound of Love, a Charles Mingus tune, and positively coming to a boil on the final track, Skyline. Torrid performance is more the exception than the rule on ECM, but this is not the only exception I have encountered. Burton himself is in top form, and Eicher's reputation for quality remains intact. C.A.

RECORDING OF SPECIAL MERIT

RON CARTER: Parfait. Ron Carter (piccolo bass); Ted Lo (piano); Leon Maleson (double bass); Wilby Fletcher (drums). Round Midnight; Receipt, Please; New Waltz; and two others. MILESTONE M-9107 \$8.98

Performance: Superb Recording: Excellent

When electronic instruments invaded jazz, Ron Carter never opened his door to them. There has yet to be heard an electronic sound that can match or even compare favorably with the rich, round tone of Carter's bass. That sound is umistakable from the very first revolution of "Parfait," a twoyear-old album by the Ron Carter Quartet recently released by Milestone. Carter produced the album himself, wrote all the arrangements, and composed all but one of the five tunes.

Carter's fondness for Spanish music has not waned, but the Spanish tinge, as Jelly Roll Morton used to call it, is evident here mostly in Receipt, Please, which does transport us south of the border. There are no outstanding new compositions in this set, but all are well up to the high standards one associates with Carter. The unusual instrumentation-two basses, a piano, and drums-produces a fat, slithery sound that alternately bounces and crawls along the bottom register. In the title number the group bubbles in a manner somewhat like that which made the quintet of the Hot Club of France so effervescent almost five decades ago. CA

MEREDITH D'AMBROSIO: Little Jazz Bird. Meredith d'Ambrosio (vocals, piano); Phil Woods (clarinet, alto saxophone); Hank Jones (piano); Steve Gilmore (bass); other musicians. Clichés; Self Defense Waltz; The Wine of May; There's a Lull in My Life; Our Love Rolls On; When the End Comes; and six others. PALO ALTO JAZZ PA 8019 \$8.98.

Performance: Dark brushed velvet Recording: Good

Get out your handkerchiefs for Meredith d'Ambrosio's new album: "Little Jazz Bird" is one of the most somber releases ever. As she has in the past, D'Ambrosio

CIRCLE NO. 28 ON READER SERVICE CARD

here gives us great and unusual materialwhich, like her delivery, is reminiscent of Blossom Dearie-but while there is not a track among these twelve that I would not recommend, I strongly advise against listenting to either of the two sides in one sitting. There is something very monotonous about D'Ambrosio's delivery on this album, a monotony I don't recall being bothered by on her previous release. Phil Woods is wonderful throughout, and arranger/conductor Manny Albam has nicely attached strings to his charts, but someone should have been there to help inject some real life into the proceedings. C.A.

RECORDING OF SPECIAL MERIT

DAVE GRUSIN AND THE N.Y.-L.A. DREAM BAND. Dave Grusin, Don Grusin (keyboards, synthesizer); Lee Ritenour (electric and acoustic guitars); Eric Gale (electric guitar); Steve Gadd (drums); Anthony Jackson (electric bass, contrabass guitar); Rubens Bassini (percussion); George Young (saxophones, flute); Tiger Okoshi (trumpet, flugelhorn); the Dream Orchestra (instrumentals). Shuffle City; Count Down; Serengetti Walk; Number 8; and three others. GRP O GRP-A-1001 \$8.98, © CP-1001 \$8.98, @ G8T-1001 \$8.98.

Performance: Spectacular Recording: Excellent

Here's a big, splashy, sonically dazzling album that's bound to appeal to a variety of tastes. The man in charge is Dave Grusin, whose range as a composer-arranger stretches from jazz through quality pop to the sound stages of Hollywood (his score for On Golden Pond was as shimmering and sensitive as the film). From the keyboard Grusin fronts an all-star fusion band complemented by a monster-sized Dream Orchestra that features the Tokyo Brass Ensemble and the NHK Strings. They are supplied with several of Grusin's most accessible compositions plus a couple from brother Don Grusin for good measure. The album was digitally recorded during a series of concerts before an enormously appreciative audience in Tokyo. It all adds up to a musical and sonic spectacular.

Some of the compositions lie comfortably within fusion's most popular reaches, especially the funk-based Shuffle City, the wonderfully catchy little Serengetti Walk, and Count Down, with its stunning display of guitar virtuosity by Lee Ritenour. At least a third of the album is devoted to Grusin's more introspective, cerebral side, including his haunting theme from The Champ, What Matters Most, and a lush, extended tone poem called Summer Sketches '82, which is alternately pensive and effusive, providing ample room for strings and brass to perform with classical precision. This is an album whose shifting moods are as inviting as a summer day, and the recording is a marvel P.G. of clarity.

SCOTT HAMILTON: Close Up. Scott Hamilton (tenor saxophone); John Bunch (piano); Chris Flory (guitar); Phil Flanigan (bass); Chuck Riggs (drums). All of You; I Remember You; Mad About You; Robbins Nest; Was I to Blame for Falling in Love with You?; Mr. Big and Mr. Modern; Blue *City;* and two others. CONCORD JAZZ CJ-197 \$8.98, © CJ-197 \$8.98.

Performance: Very good Recording: Very good

I'm annoyed by tenor saxophonists who are excessively breathy on ballads. Their vapid, fuzzy sound (imitating Coleman Hawkins) is meant to be sensual, but instead it sounds like an underpowered vacuum cleaner recorded backwards. Scott Hamilton indulges in that wheeze here to the point of emphysema. But at speedier tempos Hamilton plays hard-charging horn with references to many past sax masters—Ben Webster, Lester Young, Zoot Sims—in a program of composers from the same 1920-1950 period (Gus Khan, Cole Porter, Johnny Mercer, Tiny Bradshaw). The pick of the lot is Robbins Nest, co-written and used as a theme by saxist Illinois Jacquet. The tune owes some of its structure to Out of Nowhere, and on his third chorus Hamilton paraphrases Bix Beiderbecke's classic statements on Singin' the Blues. Pianist John Bunch has a hot chorus on Was I to Blame for Falling in Love with You, and guitarist Chris Flory plays some mean stuff on Hamilton's own Blue City. Hamilton is only twenty-eight, and it's heartening that he is inspired by older forms of jazz. Now if he'd just get rid of that spit-tone J.V.

(Continued on next page)

The New CD Series Controlled Directionality Speakers

From the excited engineers at Electro-Voice

EV engineers are very excited about our new CD Series speakers and the new technology they represent.

Years ago we solved the key problems of frequency response and optimized lowfrequency performance of small enclosures. EV has been manufacturing high quality speakers for decades offering both the superior engineering and high efficiency that have been EV bywords.

But actual listener position always determined the quality of sound because speaker component dispersion angles varied somewhat with frequency.

Always, that is, until now.

The new CD Series speakers from Electro-Voice feature wide dispersion (100°) of full frequency sound.* We call this advancement "Controlled Directionality". Now, every seat can be "the best seat in the house".

The CD Series offers you the best whether you're a technical expert or a sophisticated listener seeking no-apologies reproduction. Send for the free packet of detailed information about the two models in the CD Series and soon you'll be just as excited as we are! Please write to: Thomas W. Zoss, Electro-Vaira, Inc. 600 Ceril Street, Buchanan, M.

Voice, Inc., 600 Cecil Street, Buchanan, MI 49107. CD Series type 35 and 35i specifications

| Axial Frequency | |
|--|---|
| Response: | Essentially flat from 40 - 30,000 Hz |
| Sound Pressure Level: | 92dB 1 watt, 1 meter, anechoic |
| Suggested Amplifier Power Ratings | Minimum: 3 watts Typical: 10-15 watts Maximum: 400 watts |
| Time Coherency | Within .15 milliseconds |
| Dispersion Angle Acoustic Coverage Zone: | "Held to 100° by Direktor" geometry within the critical 500-12,000 Hz range |
| Crossover Frequencies: | 1500 and 8000 Hz |
| Impedance: | Nominal: 6 ohms Minimum: 5 ohms |
| | |

CIRCLE NO. 25 ON READER SERVICE CARD



Left to right, Ron Carter, Herbie Hancock, Wynton Marsalis, and Tony Williams

The Herbie Hancock Quartet

HERBIE HANCOCK has once again shelved his Vocoder, his Fender Rhodes, and his banks of synthesizers for an acoustic set with Tony Williams, Ron Carter, Wynton Marsalis, and a real piano. The result is just one more reason why those electronic playthings should be consigned to the junk heap. "Quartet" on Columbia is four sides of great jazz playing, performances that achieve both the crisp precision of a practiced ensemble and the spontaneity of an impromptu blowing session.

The lineup is the same that was featured on the excellent 1982 Columbia debut of Wynton Marsalis. The Hancock/Williams/ Carter connection, though, goes back as far as the end of the Fifties and their association with Miles Davis. In fact, if this album had a dedication, it would almost have to be to Miles. "Quartet" features two Thelonious Monk classics, one of which Miles is better known for than the composer (*Round Midnight*), as well as original compositions by Hancock, Carter, and Williams that were either recorded by Miles or that strongly evoke his work of the early Sixties, particularly Hancock's *The Sorcerer*.

But perhaps the strongest tie to Miles is in the playing of Juilliard-trained *Wunderkind* Marsalis. Only twenty-two years old, he nonetheless displays a remarkable assimilation of modern horn masters, from the Dizzying Well You Needn't to a muted solo on 'Round Midnight that's so much like Miles it's eerie. And his playing on the Ron Carter composition A Quick Sketch suggests the controlled patterns of tension and release that were Miles's trademark on such albums as "Bitches Brew." Big-name cast notwithstanding, Marsalis could justifiably be called the star of this session.

As for the rest of the group, for straightahead jazz there are none better. Hancock, who is subject to egregious lapses in taste when allowed near a Prophet 5, demonstrates here his polished technique and deep understanding of the acoustic piano, both as soloist and accompanist. Williams and Carter, of course, provide the rhythmic pulse they're justifiably famous for—adventurous, but unerring. An excellent album.

-Mark Peel

HERBIE HANCOCK: Quartet. Herbie Hancock (piano); Ron Carter (bass); Wynton Marsalis (trumpet); Tony Williams (drums). Well You Needn't; 'Round Midnight; Clear Ways; A Quick Sketch; The Eye of the Hurricane; Parade; The Sorcerer; Pee Wee; I Fall in Love Too Easily. Co-LUMBIA O C2 38275 two discs, © C2T 38275, no list price.

RECORDING OF SPECIAL MERIT

IRAKERE: El Coco. Irakere (vocals and instrumentals). Las Hijas de Anaco; Zanaith; El Coco; Ese Atrevimiento; Molinaria. MILESTONE M-9111 \$8.98.

Performance: Excellent Recording: Excellent

Cuba is considered by all Latin musicians to be the mother country of Latin rhythms. Irakere, the Cuban band prominently heard at the Havana Jam of 1979, gives splendid examples not only of the music of that country but of how U.S. jazz can be adapted to another idiom. The band is sensational.

Recorded during a Japanese tour in 1980 but not released until 1982, this album contains nearly forty minutes of first-rate music. The opening cut, *Las Hijas de Anaco*, begins with a sprightly statement by the composer, pianist Chuco Valdes, and continues into "chase" choruses by trumpeters Arturo Sandoval and Jorge Varono and saxophonists Carlos Averhoff and German Velazzo Urdeliz. Their round-robin phrases are exuberant and teasing (a phrase from Grofé's Grand Canyon Suite is slipped in), and the whole band rides out to a glorious conclusion, supported all the way by the brilliant bass lines of Carlos Puerto. The title tune is traditional Cuban dance music with bravura vocals and orgies of percussion. *Molinaria* is based on a theme by Beethoven arranged by Valdez, who also wrote the beautiful, stately ballad *Zanaith*. I wish Irakere would follow the lead of ex-member Paquito D'Rivera and immigrate to the United States. Why should Castro get their royalties? J.V.

RECORDING OF SPECIAL MERIT

CAROL LEIGH: Blame It on the Blues. Carol Leigh (vocals); Ray Skjelbred (piano); Bob Helm (clarinet). Wringing and Twisting Blues; Turn Key Blues; Kansas City Man; Bouquets; See if I'll Care; I've Got What It Takes; and six others. GHB GHB-152 \$7.98.

Performance: Very good Recording: Good

This disc contains a program of blues so authentic-sounding you can almost smell the stale booze and see the strip of flypaper wafting back and forth over the tacky bar in some back-street dive. The voice setting this scene is that of Carol Leigh, who roars and belts her way through the collection with all the assurance of a baby Bessie Smith. Ray Skjelbred on piano and Bob Helm on clarinet aid and abet her with insinuating accompaniments. Best track: a funny, horny, and captivating performance of Turn Key Blues. P.R.

JOHN LEWIS: Kansas City Breaks. John Lewis (piano); Frank Wess (flute); Joe Kennedy, Jr. (violin); Howard Collins (guitar); Marc Johnson (bass); Shelly Manne (drums). Django; Milano; Lyonhead; Winter Tale; and four others. FINESSE FW 38187, © FWT 38187, no list price.

Performance: Velvety Recording: Very good

"Kansas City Breaks" is a new album by the John Lewis Group, a sextet whose unusual instrumental make-up (flute, violin, guitar, piano, bass, and drums) was first employed by Lewis when he formed a student band at the City University of New York several years ago. It has a different sound but the same velvety feel as the Modern Jazz Quartet, which Lewis dominated for close to a quarter of a century. Much of that feeling is generated by his tasteful, music-box piano and by a program consisting of his own compositions, some of them from the MJQ repertoire. But there is also a gentleness to violinist Joe Kennedy's playing, a bouncy softness in guitarist Howard Collins's every stroke, and marvelous fluidity to the work of Frank Wess.

If Lewis meant to keep the spirit of the MJQ alive with his new group, he has succeeded admirably. More important, he has given us a new chamber ensemble that easily stands on its own merits. If you like your ears caressed, reach for this one. C.A.

RECORDING OF SPECIAL MERIT

CHARLES MINGUS: Presents Charles Mingus. Charles Mingus (bass); Ted Curson (trumpet); Eric Dolphy (bass clarinet, alto saxophone); Dannie Richmond (drums). Original Faubus Fables; All the Things You Could Be Now if Sigmund Freud's Wife Was Your Mother; What Love; and two others. JAZZ MAN JAZ 5048 \$8.98.

Performance: A classic Recording: Good

"Charles Mingus Presents Charles Mingus" has its flaws, but it is an album no collection of the late bassist's work should be without. That is perhaps one reason it seems to pop back onto the market about every ten years. Recorded in 1960, it was originally released on Candid the following year; it reappeared on Andy Williams's Barnaby label in 1971, and it has now materialized on Jazz Man.

When the album was first released, this Mingus quartet had concluded an extended booking at the Showplace, a Greenwich Village club that Mingus more or less turned into a classroom for his Jazz Workshop. It was there that trumpeter Ted Curson and saxophonist Eric Dolphy served their apprenticeships and helped the volatile Mingus establish a tightly knit unit (though it threatened to unravel every time it came together). These last recordings of the Showplace quartet were made in a studio, but Mingus attempted to suggest a club appearance by giving each track a spoken introduction, complete with orders for quiet in the room. His words soon wear as thin as a bad comedy routine, but the music that follows each time is extraordinary.

The adventure-and that is precisely what it is-begins with Folk Form, No. 1, a lively trumpet/saxophone discussion set against the background of various rhythmic patterns. The moods shift along the way, and there are strong comments from Mingus and drummer Dannie Richmond, who, before the heated climax, step forward and demonstrate the rapport that kept them together for so many years. Next comes Original Faubus Fables, an enduring work that reflects the temper of the times and recalls earlier musical remonstrations by Kurt Weill. Here it is performed the way it so often was at the Showplace, with Mingus eliciting bitter, angry verbal responses from Richmond

What Love dates back to 1945 and is, in fact, a heavily veiled paraphrase of the standard What Is This Thing Called Love. It culminates in a musical argument between Mingus and Dolphy that is supposed to have begun on the stand at the Showplace, where it became a regular feature of this piece. All the Things You Could Be Now If Sigmund Freud's Wife Was Your Mother is another intense, Mingusian piece that, typically, appears to be falling apart here and there but somehow stays intact and ends up being a fascinating whole. Over a burning beat by Mingus and Richmond, Dolphy makes wonderful runs, leaps, and somersaults before he is joined by Curson for a spectacular final burst across the goal line. For the two horn players, it was very nearly the final leap to freedom. The Mingus experience had been invaluable, but very taxing, and it was time for them to move on. C.A.

THE MODERN JAZZ QUARTET: At Music Inn. The Modern Jazz Quartet (in-

Easy, Efficient, Effective



Protect your records and maintain their clean, clear sounds with the Discwasher® D4 m Record Care System and the Discwasher® SC-2 m Stylus Care System.

To learn more, write Discwasher for your free copy of "Guide to Record Care".

DISCWASHER, THE WORLD LEADER IN RECORD CARE TECHNOLOGY.

discwasher

1407 NORTH PROVIDENCE ROAD, P.O. BOX 6021, DEP⁺. SR, COLUMBIA, MO 65205 USA A DIVISION OF JENSEN an ESMARK Company

CIRCLE NO. 16 ON READER SERVICE CARD



CIRCLE NO. 14 ON READER SERVICE CARD

strumentals); Jimmy Giuffre (clarinet). The Man That Got Away; Two Degrees East, Three Degrees West; England's Carol; Oh Bess, Where's My Bess; Sun Dance; and four others. ATLANTIC 90049-1 \$8.98.

Performance: Subtle chic Recording: Fair

This meeting of two major jazz acts, the Modern Jazz Quartet and Jimmy Giuffre, took place in 1956, but its beauty is untarnished, even somewhat enhanced, by the years that have passed since jazz began to lose much of its original character. It has been argued that this music betrayed jazz, that the music of the MJQ—and, indeed, of Giuffre, who plays here on Serenade, Fun, and A Fugue for Music Inn—was too cool and calculated to fit comfortably within the jazz frame. Perhaps, but it would take a mighty narrow frame to give such an assessment any validity. The MJQ was always a slick group, but it had plenty of heart, and if its funk was a bit on the frosty side, I was never bothered by it. This remastered reissue is a wonderful album musically, which is all the more reason to lament the perfectly dreadful pressing. C.A.

RECORDING OF SPECIAL MERIT BUCKY PIZZARELLI: The Café Pierre Trio. Bucky Pizzarelli (guitar); Russ Kossoff (piano); Jerry Bruno (bass). Cherokee;



The Linn Sondek

The master link in a delicate chain of superb sound retrieval. A turntable of such remarkable distinction that it can transform recorded sound, and enrich the capabilities of your entire system.

Linn Sondek. It must be heard.

We wish you the best.





For further information contact: AUDIOPHILE SYSTEMS LTD., 6842 HAWTHORN PARK DRIVE, INDIANAPOLIS, INDIANA, USA 46220 ALDBURN ELECTRONICS LTD., 50 ROLARK DRIVE, SCARBOROUGH, ONTARIO, CANADA M1R 4G2

CIRCLE NO. 26 ON READER SERVICE CARD

Invitation; Nola; My Ship; Indiana; and seven others. MONMOUTH/EVERGREEN MES/7093 \$8.98.

Performance: Silky Recording: Good

Bucky Pizzarelli has been a fixture of the New York music and recording business for so long that one tends to take his quiet excellence for granted. This album couldn't be a better reminder. His trio here, including Russ Kossoff on piano and Jerry Bruno on bass, is the one that plays at the café in the Hotel Pierre in Manhattan. If you asked for an exemplar of silken suavity and burnished ensemble playing, you couldn't find a better one than this album. Particular delights: a limpid and unsentimental My Ship and a fast-lane, riproaring Cherokee. P.R.

RED RODNEY: The 3 R's. Red Rodney (trumpet, flugelhorn); Richie Cole, Ricky Ford, Turk Mauro (saxophones); Roland Hanna (piano); George Duvivier (bass); Grady Tate (drums). The Mack Man; Dead End; For Heaven's Sake; and three others. MUSE MR 5290 \$9.98.

Performance: Lively Recording: Good

Trumpeter Red Rodney's new Muse release is an unpolished, perfectly straightforward septet album recorded four years ago. I don't mean unpolished in any derogatory sense; this is a blowing session, as they used to say, and that means the warts have to be awfully big and prominent before they are removed. Here they are small and unnoticeable behind the group's spirited sound. Saxophonists Ricky Ford and Richie Cole have their own Muse albums, but they don't always sound as motivated on them as they do here. The rhythm section-Roland Hanna. George Duvivier, and Grady Tate-helps to keep spirits high, and a nod is due Turk Mauro, who replaces Ford on three selections and deserves more credit than he is given. I unhesitatingly recommend this disc to anyone looking for thirty-seven or so minutes of well-aimed, unleashed energy. C.A.

RECORDING OF SPECIAL MERIT

WARREN VACHÉ: Midtown Jazz. Warren Vaché (cornet, flugelhorn); John Bunch (piano); Phil Flanigan (bass). I Remember April; Tempus Fugit; Rhythm-a-ning; I'm Old Fashioned; Out of Nowhere; A Time for Love; and four others. CONCORD JAZZ CJ-203 \$8.98.

Performance: Splendid Recording: Very good

Trumpeter Warren Vaché appeared on some sixteen Concord Jazz albums before making "Midtown Jazz," the first to feature the trio he has led sporadically since 1980. Although he has worked with the trio only a few times, Vaché refers to it as his "main interest"; after hearing the relaxed swing and splendid interplay on this album, I do not for one moment doubt that. When these three musicians originally got together to play, it was an informal affair, and, since that is how Vaché prefers to keep it, they have never used arrangements. This album demonstrates how unnecessary even head arrangements can be when the chemistry between the musicians is right. C.A.



E.T.—THE EXTRA-TERRESTRIAL. Michael Jackson (narration, vocal); orchestra, Jeremy Lubbock arr. and cond. MCA 70000 \$12.98, © MCAC 70000 \$12.98.

Performance: Okay Recording: Good

The need for or purpose of this album isn't quite clear to me. In this glitzy Quincy Jones production Michael Jackson is enlisted as narrator and vocalist (on one song only, Someone in the Dark) to retell the story of Steven Spielberg's miraculous film E.T. Since the film is still very much around, and probably will be for the next decade or so, and since any child old enough to understand this album is also old enough to understand the film, why bother with a watered-down, jazzed-up recorded "storybook" version? The "original" song Someone in the Dark, composed for this album by Alan and Marilyn Bergman and Rod Temperton, misses by light years the magical quality of the story that it is supposed to P.R. augment.

HONKYTONK MAN. Original-soundtrack recording. Ray Price: San Antonio Rose; One Fiddle, Two Fiddle. Porter Wagoner: Turn the Pencil Over. Clint Eastwood; When I Sing About You; No Sweeter Cheater Than You. And seven others. WARNER BROS./VIVA 23739-1 \$8.98, © 23739-4 \$8.98.

Performance: Uneven Recording: Likewise

I know the soundtrack albums from Clint Eastwood's previous pictures prove there's a market for country-music-oriented movie scores, but I don't think many soundtrack albums work, period, unless the film's a musical to begin with. There's usually more filler in these LP's than there is in a tencent hotdog, and this one is no different.

It does have its high points, namely Linda Hopkins wailing When the Blues Come Around This Evening and John Anderson's These Cotton Patch Blues, and if you're sentimental, you might count the late Marty Robbins's title song, although it was hardly his best work. But the only thing more painful than listening to Clint Eastwood trying to sing is being subjected to Shelly West's raw, naked voice. If the woman hits one note out of five, she's doing pretty well. A.N.

THE JUPITER MENACE (Larry Fast). Original-soundtrack recording. Synergy (instrumentals). PASSPORT PB 6014 \$7.98.

Performance: Titillating Recording: Excellent

Half the trick of using a synthesizer is knowing how to coax all those exotic sounds

out of the machine. Most keyboard converts to synthesizer can only manage a few, which is why so much synthesizer pop sounds so formulaic. Getting the sound out-or, more accurately, programming it in-is no problem for Larry Fast. You want earthquakes, he'll give you earthquakes. Tribal drumming? Just say the word. Tolling bells? Desert winds? A two-hundredpiece orchestra? Just say where you want it. When it comes to exploiting the rhythmic and tonal capabilities of the synthesizer, Fast rivals Wendy Carlos. Where he may fall short of Carlos is in composition-but then, when it comes to composing for synthesizer, she has no peer.

Fast's score for the movie The Jupiter

Menace is effective, dramatic incidental music, and most of it is listenable enough on its own. It consists of a series of brief, sonically exhilarating episodes that are strong on rhythmic interest but have virtually no thematic development except where Fast has excerpted music from his previous albums. My only complaint is that, once again, a soundtrack composer has plundered Gustav Holst's Planets (here in the episode called Rampage of the Elements). Surely there must be some other way of representing menacing power besides the dotted rhythmic figure from Holst's Mars. Other than that, The Jupiter Menace is extremely pleasant background music packed with goodies for the senses. M.P.

lf you love music, make it LAST

Only LAST offers a formula that will actually *preserve* your discs, and another that will actually *protect* your stylus—plus the most effective record and stylus *cleaners* in the world. LAST products, formulated for record archives are now available to everyone.

LAST record preservative actually penetrates the record groove to a depth of ten molecular layers, protecting the groove from the constant, complex movements of the stylus—for 200 plays!

LAST power cleaner cleans records like no other product on the market. It even removes mold release—the potentially damaging material left in the groove by the manufacturing process.

STYLAST Stylus treatment is molecularly engineered to lower friction by filling in the hollows on the surface of every diamond, reduce vibration effects by creating a liquid cushion for the moving stylus ... and project the elastomer holding the cantilever to the cartridge and the adhesive holding the diamond to the cantilever.

LAST STYLUS Cleaner removes the most tenacious accumulations on the stylus while protecting the adhesive holding the diamond tip and the cantilever suspension.

Of course, you love music! That's why you should make it LAST LAST is at finer dealers everywhere.



LAST · 122 Dupont Street, Plainview, New York 11803 / Tel. 516-349-9180

Classical Music

News Briefs



Nancy Reagan with Mstislav Rostropovich

WHEN Mstislav Rostropo-vich and the National Symphony performed Saint-Saëns's Carnival of the Animals in Washington this spring, the accompanying verses by Ogden Nash were read by First Lady Nancy Reagan. This was not the first time a First Lady had enjoyed a moment of celebrity as a featured guest artist on the concert stage. Eleanor Roosevelt got there first with Prokofiev's Peter and the Wolf, a work that is sometimes coupled with Saint-Saëns's Carnival on records. In 1950, Mrs. Roosevelt narrated Peter and the Wolf in performance with the Boston Symphony under Serge Koussevitzky and also on a recording with them made by RCA Victor. It was available for a while on 78's (three twelve-inch discs, automatic sequence only) and on LP, but both versions have long since been deleted.

So far as we have been able to discover, there are no plans to record Mrs. Reagan in the Saint-Saëns work. For the moment, then, we recommend the version by the Pittsburgh Symphony conducted by André Previn on Philips, which omits the narration. For those who must have the verses we recommend the Odyssey recording (mono only) with Noël Coward reciting and André Kostelanetz conducting.

THROUGH teaching, concerts, and recordings, Andrés Segovia has probably done more than anyone else to put the guitar on the musical map. His early mono records have been reissued by EMI/ Angel, he has a large catalog still available on MCA, and he has most recently recorded for RCA. Now in his eighties, the guitarist is being honored with a thirteen-part retrospective series on National Public Radio.

Entitled *iSegovial*, the series traces the artist's life and career with historic recordings and interviews with many of his friends and colleagues, including the composer Joaquín Rodrigo and the guitarist Oscar Ghiglia. Now in progress, the series began on some NPR stations in April, but not until May on others. Check local stations for dates and times in your area.

THE Austrian pianist Alfred Brendel is a Beethoven specialist. He recorded all thirty-two of Beethoven's piano sonatas first for Vox and more recently for Philips, and both sets are still in the catalog. In the 1982-1983 concert season Brendel performed all of the sonatas in each of ten different European cities, including Vienna, London, Paris, Berlin, and Amsterdam.

Not content with that feat. Brendel scheduled all thirtytwo sonatas again in a series of seven concerts at Carnegie Hall in New York from May 9 to May 31. Then, to top it off, in June he plays all five of the Beethoven piano concertos in Orchestra Hall in Chicago with the Chicago Symphony conducted by James Levine. The concerto cycle will be recorded live. Concertos Nos. 1. 2, and 3 will be recorded in performance on June 15 and 16, Nos. 4 and 5 on June 17 and 18. Concertgoers will witness the actual taping of the set, which will be released by Philips some time before Brendel returns to this country for further engagements at the beginning of 1984.

WITH costs up, income down, and government grants curtailed, arts institutions are more than ever dependent on corporate support. The Bell System has just pointed out that its American Orchestras on Tour program represents the largest corporate commitment that has ever been made in support of orchestral tours.

Since 1979, Bell has underwritten tours by thirty major symphony orchestras that have resulted in more than six hundred concerts in nearly three hundred cities from coast to coast. Bell's expenditures on the program total \$12 million, and the program is far from over. Under Bell's auspices the Pittsburgh Symphony and the Cleveland Orchestra hit the road this month, and the New York Philharmonic will head west in July.

NDIVIDUALS can give support to some arts institutions by buying records. In this year's fund-raising marathon on Philadelphia's WFLN, the **Philadelphia Orchestra** offered a recording of Mahler's First Symphony conducted by **Riccardo Muti**. It was taped at the Lucerne Festival, the first stop in the orchestra's European tour last summer. The album can still be ordered by sending \$25 to the Philadelphia Orchestra Marathon, 1420 Locust Street, Philadelphia, Pa. 19102.

The New York Philharmonic has released another in its series of historic recordings

Eleanor Roosevelt with Serge Koussevitzky



in connection with the 1983 Radiothon on New York station WOXR. It is a two-record album celebrating the fortieth anniversary of Leonard Bernstein's Philharmonic debut on November 14, 1943. Then a twenty-five-year-old assistant conductor, Bernstein stepped in on short notice for Bruno Walter, who was indisposed. Among other works, the program included Wagner's prelude to Die Meistersinger and Strauss's Don Quixote. To order send \$25 to Radiothon, New York Philharmonic, Broadway and 65th Street, New York, N.Y. 10023.

The Metropolitan Opera has released the tenth in its series of Historic Broadcast Recordings, Puccini's Tosca with Tebaldi. Richard Renata Tucker, and Leonard Warren. The recording is derived from the Texaco-sponsored broadcast performance of January 7, 1956, conducted by Dimitri Mitropoulos. It is available to contributors of \$125 or more to the Metropolitan Opera Fund, P.O. Box 930, New York, N.Y. 10023. In all cases money sent to these organizations is tax deductible "to the extent allowed by law."

IL companies such as Tex-О O aco, Exxon, Atlantic Richfield, and others have provided funding for so many musical programs on the Public Broadcasting Service that in media circles PBS is frequently referred to as the Petroleum Broadcasting System. Given the long-term support of Metropolitan Opera broadcasts by Texaco, an oil-producing enterprise, it seems almost poetically fitting that the Met was able to bring the Finnish National Opera to New York in April through a grant from the manufacturers of Volvo automobiles, which consume petroleum.

This grant was Volvo's first contribution to the arts in the United States. Observers of the relationship between business and nonprofit institutions have pointed out that ten years ago Volvo made its first gesture toward the world of sports, a modest gift to one American tennis tournament.



Telarc's Robert Woods (right) with Leonard Slatkin

A SPECIAL Grammy Award this year went to Rebert Woods, executive vice president of Telarc Records, who was cited as Classical Producer of the Year, an honor he also received in 1981. There are nearly forty records in Telarc's catalog, and Wood has produced all of them, including a Debussy album (La

Today, as sponsor of the International Grand Prix, Volvo is the largest sponsor of tennis in the world, linking eighty-one tournaments in twenty-six Mer, Danses Sacrée et Profane) by the St. Louis Symphony under Leonard Slatkin, which was a 1983 Grammy nominee. Set for release this month is another Slatkin/St. Louis Symphony album on Telarc offering the Pachelbel Canon, Tchaikovsky's Serenade for Strings, and other light classical pieces.

countries on six continents. Some of those observers have suggested that the Metropolitan Opera should nail down the seats.

Disc and Tape Reviews

By RICHARD FREED • DAVID HALL • GEORGE JELLINEK STODDARD LINCOLN • ERIC SALZMAN

RECORDING OF SPECIAL MERIT

ANTHEIL: Ballet Mécanique; A Jazz Symphony; Violin Sonata No. 1, Finale; Violin Sonata No. 2, Vera Beths (violin); Reinbert de Leeuw (piano); Netherlands Wind Ensemble, Reinbert de Leeuw cond. PHILIPS 6514 254 \$10.98, © 7337 254 \$10.98.

Performance: Excellent Recording: Very good, live

George Antheil, born in 1900 in Trenton, New Jersey, became one of the most famous and controversial composers of his time but ended his days (he died in 1959) half-forgotten, working as a newspaper columnist and Hollywood film composer. His fame was always primarily in Europe. His

Explanation of symbols:

- (B) = eight-track stereo cartridge
- © = stereo cassette
- **0** = digital-master recording
- $\Phi = direct-to-disc$

Monophonic recordings are indicated by the symbol \bigotimes

The first listing is the one reviewed; other formats, if available, follow it.

most famous piece, the Ballet Mécanique, was written in 1924 for a film with Fernand Léger that never got made. Scored for multiple pianos, a player piano, percussion instruments, and various machines, it was a sensation and a scandal not only in Paris but in New York as well. It is curious how it has been habitually put down by people who have obviously not really listened to it. The conventional wisdom is that it was written merely to shock and that, in any case, it is all derived from Stravinsky's Les Noces. There is a measure of truth in this view, but it overlooks the strength and the high degree of profile and originality in this socalled derivative work. I would go so far as to say that the Ballet Mécanique is more original and exciting than dozens of betterknown European works actually written under the influence of Stravinsky and Schoenberg. And it is played with power and excitement in this live recording.

The notoricity of the *Ballet Mécanique* has obscured Antheil's other works. In 1923 Ezra Pound arranged for him to write two violin sonatas for Olga Rudge. The finale of Sonata No. 1 is an almost unbearable, but extraordinary, early example of brutalism and minimalism. Sonata No. 2 is a jazz collage—somewhere between Ives and Cage with an amazing and heartbreaking modal ending for violin and drums that was perhaps an homage to Pound and the music and poetry of his beloved Provençal (Pound is said to have played the drums in some of the early performances).

The real revelation of this album is the Jazz Symphony. It was premiered at Carnegie Hall in 1927 by W. C. Handy's band in the same concert as the Ballet Mécanique, and in the excitement over the latter it was virtually ignored. Antheil later made a version for chamber orchestra, and it is this that was performed and recorded live at the Holland Festival. It is, in my opinion, the "concert" masterpiece of the Jazz Age, surpassing even the comparable pieces of Copland, Milhaud, Stravinsky, and Gershwin. By using a kaleidoscopic collage form, Antheil created a kind of musical movie, a performance piece that is at once "about" jazz and also a legitimately jazz-inspired piece in its own right. It sounds extreme and angular, a musical equivalent of cubism and dada even to the wonderfully vulgar opening and ending.

Reinbert de Leeuw and his Dutch musicians dig into Antheil's music with spirit and tremendous energy. They make him out to be one of the leading spirits of the Jazz Age and the Machine Age, but also a musician with a lot to say to us today. E.S.

(Continued on page 104)



STRAVINSKY'S *Pulcinella*, written for a ballet produced by Diaghilev and choreographed by Massine, with decor by Picasso, is based on eighteenth-century Neapolitan music by or attributed to Pergolesi. An extraordinary score, a kind of recomposition of a half-imaginary, dreamlike past, it is the best example of déjà vu in music that I know of. It seems as though I have always known it. It is a work of endless charm and fantasy, very close in feeling to those early Cubist pictures of musicians and clowns in which a sparkling surface covers depths of mystery and timelessness.

The composer's own recording of the complete ballet, with the Cleveland Orchestra, was for a long time the only way to hear the full score; otherwise, it was always the suite of eight instrumental numbers from it that got performed and recorded. Now the complete work, including the vocal numbers, has come into its own. Two new recordings of it were recently issued—one on Angel led by Neville Marriner and another on RCA under Pierre Boulez. There is also a new recording of the suite by the Orpheus Chamber Orchestra on Pro Arte.

Neville Marriner is at least as good a conductor of neo-Classical music as he is of original old-time classics. In his Pulcinella with the Academy of St. Martin-in-the-Fields, everything has a shape. Every phrase has a beginning, a middle, and an end but also a point; it burbles, bounces, catches its breath, charges ahead. Always beneath the wit is the mystery. Every accent, every pause, every ritard, every little tag and phrase end seems just right-like the formal speech of a great actor who has found exactly the right timing, the right give, the right articulation for every seemingly set phrase. Marriner has found the dramatic and human dimensions of music that can sound over-clever, over-mysterious, heartless. It is a great performance.

Marriner's singers—Yvonne Kenny, Robert Tear, and Robert Lloyd—are all good, and the vocal numbers are particular triumphs here. Lloyd is especially impressive in the bass solo "Con queste parole" amusing and moving at the same time. The Academy players are first-rate, and so is Angel's digital recording, which has a mellow, fat, and rather charming sound.

I would have had more and better things to say about the Boulez recording of the complete Pulcinella if it hadn't come to me in company with Marriner's, which is hard to measure up to. Boulez's performance starts out laid-back and low-keyed; the phrasing seems almost lackadaisical and only gathers strength and excitement as it moves along. It is difficult to tell who the players are; they are identified in small print on the album cover as the Ensemble Intercontemporain, presumably the resident modern-music ensemble at Boulez's IRCAM facility in Paris. The clearly credited singers-Ann Murray, Antony Rolfe Johnson, and Simon Estes-are good, but they lack the idiomatic grasp of Italian that Marriner's soloists have.

The Orpheus Chamber Orchestra is a conductorless group of outstanding young musicians based in the New York area, and their new Stravinsky record, especially taken in comparison with Marriner's and Boulez's, gives a very good idea of what such an ensemble can and cannot accomplish. They give us the Pulcinella instrumental suite only, and it is performed in a lively style, but without those wonderful nuances of shape and phrasing that make Marriner's reading so special. The real triumph of the Orpheus disc is the Dumbarton Oaks Concerto. This work from the height of Stravinsky's neo-Classical period is composed in glittering neo-Baroque or early-Classical blocks and planes. The steady brilliance of sound and clear, lively articulation of the Orpheus solo players meshes perfectly with the integrated ensemble playing.

Curiously, the filler pieces on all three discs, although different in each case, are drawn from Stravinsky's own orchestrations of early instrumental miniatures of the *Pulcinella* period. They range from amazing to amusing to cute. The best is the Concertino for Twelve Instruments, which was originally for string quartet. It seems more up the Boulez allée, so to speak, than *Pulcinella* does.

All three releases have estimable recorded sound. That of the Orpheus is, fittingly, the closest and most soloistic in feeling. The Marriner is—in the European tradition—much fuller and a bit removed, making the orchestra sound larger and more blended than a chamber orchestra perhaps ought to. It's not a bad sound, but I would have preferred more presence. The sound on the Boulez record is similar but a bit closer in. —*Eric Salzman*

STRAVINSKY: Pulcinella, Complete Ballet; Suites Nos. 1 and 2 for Small Orchestra. Yvonne Kenny (soprano); Robert Tear (tenor); Robert Lloyd (bass); Academy of St. Martin-in-the-Fields, Neville Marriner cond. ANGEL © DS-37899 \$12.98, © 4XS-37899 \$12.98.

STRAVINSKY: Pulcinella, Complete Ballet; Concertino for Twelve Instruments. Ann Murray (soprano); Antony Rolfe Johnson (tenor); Simon Estes (bass); Ensemble Intercontemporain, Pierre Boulez cond. RCA/ERATO ARL1-4415 \$9.98, © ARK1-4415 \$9.98.

STRAVINSKY: Pulcinella, Suite; Concerto in E-Flat ("Dumbarton Oaks"); Eight Instrumental Miniatures. Orpheus Chamber Orchestra. PRO ARTE O PAD-138 \$12.98, © PCD-138 \$12.98.

Performed by The Philadelphia Orchestra, conducted by Eugene Ormandy

All the Passion, **Turmoil and Romance** of Tchaikovsky ...Yours to **Audition FREE** FOR 10 DAYS

THIS GLORIOUS SET-TCHAIKOVSKY: SIX SYMPHONIES-ONLY **\$9.98**

It's your introduction to The International Preview Societythe classical music club with NO OBLIGATION TO BUY.

No Obligation To Buy Any Future Offerings

This remarkable \$9.98 offer is our way of introducing you to an outstanding music club with never any obligation to buy. You'll have the opportunity to select exciting single or multi-record/cassette collections approximately every four weeks in our exclusive Preview Magazine. Each issue highlights a Main Selection...plus an impressive array of alternate selections (most available on cassettes).

You Choose Only The Music You Want

If you'd like to preview the Main Selection, you need do nothing. We'll send it automatically. But if you'd prefer an alternate selection or none at all, just mail back the Preview Notification Card-enclosed with the magazine-by the specified date. You'll always have at least 10 days to decide whether you want to exercise your free preview privileges. Should you ever have less than 10 days, you will receive full credit for returned merchandise.

Regular Savings Of Up To 35% Off List Prices

As a Society member, you always enjoy up to 35% off suggested retail prices on all multi-record sets. Plus, our Half-Price Bonus Plan means that for every regular member purchase you make, you may choose a Bonus album for only half of the members' already-low club price! That

amounts to savings of more than 55%! A postage and handling charge (plus applicable sales tax) is added to all shipments.

FREE 10-Day Audition Privileges

You'll always have 10 days to preview a selection at home-absolutely free. And remember, unlike most other record clubs, there's never any obligation to buy.

Mail Your Request Form Today-

You Send No Money Now!

The International Preview Society

any time.

P.O. Box 91406 · Indianapolis, IN 46291

Highest Quality Recordings

All selections are on RCA, Deutsche Grammophon, London, and Philips-the world-renowned labels most respected by music lovers and performers alike.





| | DONIE |
|------|-------|
| FREE | BONUS |

Your free gift—just for returning the attached coupon within 10 days— a spectacular stereo re-cording of Tchaikovsky's 1812 OVERTURE and Beethoven's WELLING-TON'S VICTORY, per-formed by The Philadel-phia Orchestra. conducted by Eugene Ormandy.

Please send all selections on: DPs (R204808/R132868) Cassettes (C204808/C132868)

- - FREE HOME AUDITION REQUEST-

YES! Please send me, for my free audition, the

"Tchaikovsky: Six Symphonies" set, and my bonus album

to keep, free and without obligation. I may return

"Tchaikovsky: Six Symphonies" after 10 days and owe

nothing...or keep it for only \$9.98 plus a postage/handling

charge (sales tax where applicable). I will also receive,

approximately every four weeks, free preview privileges of the finest classical recordings. Of course, I may cancel at

| Name | | | |
|---------|-------|---------|------|
| Address | A | pt. No. | |
| City | State | Zip | |
| | | 6 | PG 7 |

Stereo Discounters ELECTRONIC WORLD Has It All...And More!

Stereo Discounters Electronic World's new 112 page Spring 1983 Hi-Fi & Home Entertainment Buying Guide is available FREE! In addition to our already large selection of hi-fi, video, car stereo and home entertainment components, we have expanded to include more home computers, telephones and consumer electronics than ever before. We've got the newest products from manufacturers all over the world — the names you know at the prices you want to pay! Call one of our audio/video consultants today TOLL-FREE and be sure to ask about our many unadvertised specials!

CALL TOLL FREE 1-800-638-3920 for your free catalog of the latest in audio, video and home entertainment components!



STEREO & TAPE OUTLET Call Toll Free 800-272-1362

| CAR S! | ENEU |
|---|--|
| SONY | BLAUPUNKT |
| All in stock CALL FOR PRICE | All in stock CALL FOR PRICE |
| PIONEER | JENSEN |
| KE-6100 | RE-530 |
| UKE-7100 | 8E-520 |
| KEX-65 | RE-512 |
| KEX-50 | J-2033 |
| KP-7500 | J-2020 |
| KP-4205 124.99 | J-2037 69.99/pr |
| KP-5500 134.99 | J-2130 |
| UKP-5600 179.99 UKE-3100 179.99 | J-1279 |
| GM-4 | J-2041 |
| GM-120 109.99 | J-1201 64.99/pr J-2126 48.99/pr |
| TS-108 | J-1065. J-1365 68.99/pr |
| TS-167 47.99 | J-1101 68.99/pr |
| TS-168 78.99 | J-1401 |
| TS-6905 | J-1069, J-1369 |
| TS-6906 98.99 | |
| SANYO | CLARION |
| 0111110 | 9300T |
| FTX-140 | 7500R |
| FTX-180 | 5900R |
| FTC-120 | 5700R 199.99 |
| FT-590 | 5500R 5550R 149.99 |
| PA-6110 | 800-A Ampliller |
| EQZ-6210 | 100-E08 66.99 |
| | |
| HOME COMPLITERS | |
| HOME COMPUTERS | BLANK TAPES |
| Atari 400 w/16K 219.99 | BLANK TAPES Maxell UDXL1 or 11 C-90 . 2.79 |
| Atari 400 w/16K 219.99 Atari 800 w/64K 499.99 | BLANK TAPES Maxell UDXL1 or 11 C-90, 2.79 Maxell UDXL1 or 11 C-60, 2.35 |
| Atari 400 w/16K 219.99 Atari 800 w/64K 499.99 Commodore VIC-20 159.99 | BLANK TAPES Maxell UDXL I or 11 C-90 2.79 Maxell UDXL I or 11 C-60 2.35 Maxell UDXL I S C-90 3.75 |
| Atari 400 w/16K 219.99 Atari 800 w/64K 499.99 Commodore VIC-20 159.99 Commodore 64 399.99 | BLANK TAPES Maxell UOXL I or 11 C-90 2.79 Maxell UOXL I or 11 C-60 2.35 Maxell UOXL IS C-90 3.75 Maxell UOXL IS C-90 3.75 |
| Atari 400 w/16K 219.99 Atari 800 w/64K 499.99 Commodore VIC-20 159.99 Commodore 64 399.99 Atari CX-5200 219.99 | BLANK TAPES Maxell UDXL I or 11 C-90 2.79 Maxell UDXL I or 11 C-60 2.35 Maxell UDXL I S C-90 3.75 |
| Atari 400 w/16K 219.99 Atari 800 w/64K 499.99 Commodore VIC:20 159.99 Commodore 64 399.99 Atari X-5200 219.99 Colecovision 189.99 | BLANK TAPES Maxell U0XLI or 11 C-90 2.79 Maxell U0XLI or 11 C-60 2.35 Maxell U0XLIS C-90 3.75 Maxell U0XLIS C-90 3.75 Maxell U0XLIS C-90 2.45 Maxell U0 C-90 2.45 |
| Atari 400 w/16K 219.99 Atari 800 w/64K 499.99 Commodore VIC-20 159.99 Commodore 64 399.99 Atari CX-5200 219.99 Colecavision 189.99 RAOAR DETECTORS 180.99 | BLANK TAPES Maxell UDXL I or 11 C-90 2.79 Maxell UDXL I or 11 C-60 2.35 Maxell UDXL IS C-90 3.75 Maxell INS C-90 3.75 Maxell INS C-90 4.99 Maxell UD C-90 2.45 TDK SA C-90 2.49 TDK SA C-60 199 |
| Atari 400 w/16K 219.99 Atari 800 w/64K 499.99 Commodore VIC-20 159.99 Commodore 64 399.99 Atari CX-5200 219.99 Colecovision 189.99 RADAR DETECTORS Fox/XK Fox/XK 93.99 | BLANK TAPES Maxell UOXL1 or 11 C-90 2.79 Maxell UOXL1 or 11 C-60 2.35 Maxell UOXL1 or 11 C-60 3.75 Maxell UOXL1 SC-90 3.75 Maxell UOXL0 C-90 2.45 TOK SA C-90 2.49 TOK SA C-60 1.99 TOK SA C-90 2.39 |
| Atari 400 w/16K 219.99 Atari 800 w/64K 499.99 Commodore VIC-20 159.99 Dommodore 64 399.99 Atari CX-5200 219.99 Collecovision 169.99 RAOAR DETECTORS Fox/XK Fox/XK 93.99 | BLANK TAPES Maxell U0XL I or 11 C-90 2.79 Maxell U0XL I or 11 C-60 2.35 Maxell U0XL I SC-90 3.75 Maxell 10SC-90 3.75 Maxell U0X Metal C-90 2.49 T0K SA C-90 2.49 T0K SA C-60 2.39 T120 VMS Video 9.99 |
| Atari 400 w/16K 219.99 Atari 800 w/64K 499.99 Commodore VIC-20 159.99 Commodore 64 399.99 Atari 2X-5200 219.99 Colecavision 189.99 RADAR DETECTORS Fox/XK Fox/XK 93.99 Fox/2KE 107.99 | BLANK TAPES Maxell U0XL I or 11 C-90 2.79 Maxell U0XL I or 11 C-60 2.35 Maxell U0XL IS C-90 3.75 Maxell V1XL IS C-90 3.75 Maxell V1XL IS C-90 3.75 Maxell V1X Metal C-90 4.99 Maxell V0.69 2.45 T0K SA C-90 2.49 T0K SA C-90 2.39 T-120 VHS Video 9.99 HG T-120 VHS Video 12.99 |
| Atari 400 w/16K 219.99 Atari 800 w/64K 499.99 Commodore VIC-20 159.99 Commodore 64 399.99 Atari 80.0 w/64K 499.99 Atari 80.0 w/64K 499.99 Atari 20.0 Li 9.99 Commodore 64 Atari 20.0 Li 9.99 Atari 20.99 Atari 20.0 Li 9.99 RAOAR DETECTORS Fox/XK 93.99 Fox/XK 93.99 Fox/Supertox 236.99 Whistler Suetzuru 236.99 | BLANK TAPES Maxell UOXL1 or 11 C-90 2.79 Maxell UOXL1 or 11 C-60 2.35 Maxell UOXL1 SC-90 3.75 Maxell UOXL1 SC-90 3.75 Maxell UOXL0 SC-90 2.49 TOK SA C-90 2.49 TOK SA C-90 2.49 TOK SA C-90 2.39 T-120 VHS Video 9.99 HG T-120 VHS Video 9.99 |
| Atari 400 w/16K 219.99 Atari 800 w/64K 499.99 Commodore VIC-20 159.99 Dommodore 64 399.99 Atari CX-5200 219.99 Colecovision 189.99 RAOAR DETECTORS Fox/XK Fox/XK 93.99 Fox/Superfox 236.99 Whistler Oto00 133.99 | BLANK TAPES Maxell U0XL I or II C-90 2.79 Maxell U0XL I or II C-60 2.35 Maxell U0XL IS C-90 3.75 Maxell IIS C-90 3.75 Maxell U0X Metal C-90 2.45 T0K SA C-90 2.49 Maxell U0 C-90 2.45 T0K SA C-60 1.99 T0K SA C-60 9.99 T120 VHS Video 9.99 HG T-120 VHS Video 9.99 HG L-750 Beta Video 9.99 HG L-750 Beta Video 9.99 |
| Atari 400 w/16K 219.99 Atari 800 w/64K 499.99 Commodore VIC-20 159.99 Commodore 64 399.99 Atari 800 w/64K 499.99 Atari 800 w/64K 499.99 Atari 6X-5200 219.99 Colecavision 189.99 RADAR DETECTORS Fox/XK Fox/XK 93.99 Fox/Superiox 236.99 Whistler 91000 193.99 Winster 01000 193.99 | BLANK TAPES Maxeli UOXLI or 11 C-90 2.79 Maxeli UOXLI or 11 C-60 2.35 Maxeli UOXLI sC-90 3.75 Maxeli IIS C-90 3.75 Maxeli UOXLI SC-90 3.75 Maxeli IIS C-90 3.75 Maxeli UOX LI SC-90 2.45 TOK SA C-90 2.49 TOK SA C-90 2.49 TOK AS C-90 2.39 T-120 VHS Video 9.99 HG T-120 VHS Video 9.99 HG T-50 Beta Video 9.99 HG L-750 Beta Video 10.99 |
| Atari 400 w/16K 219.99 Atari 800 w/64K 499.99 Commodore VIC-20 159.99 Commodore 64 399.99 Atari 800 w/64K 499.99 Atari 800 w/64K 499.99 Atari 6X-5200 219.99 Colecavision 189.99 RADAR DETECTORS Fox/XK Fox/XK 93.99 Fox/Superiox 236.99 Whistler 91000 193.99 Winster 01000 193.99 | BLANK TAPES Maxeli UOXLI or 11 C-90 2.79 Maxeli UOXLI or 11 C-60 2.35 Maxeli UOXLI sC-90 3.75 Maxeli IIS C-90 3.75 Maxeli UOXLI SC-90 3.75 Maxeli IIS C-90 3.75 Maxeli UOX LI SC-90 2.45 TOK SA C-90 2.49 TOK SA C-90 2.49 TOK AS C-90 2.39 T-120 VHS Video 9.99 HG T-120 VHS Video 9.99 HG T-50 Beta Video 9.99 HG L-750 Beta Video 10.99 |
| Atari 400 w/16K 219.99 Atari 800 w/64K 499.99 Commodore VIC-20 159.99 Commodore 64 399.99 Atari 800 w/64K 499.99 Atari 800 w/64K 499.99 Atari 6X-5200 219.99 Colecavision 189.99 RADAR DETECTORS Fox/XK Fox/XK 93.99 Fox/Superiox 236.99 Whistler 91000 193.99 Winster 01000 193.99 | BLANK TAPES Maxeli UOXLI or 11 C-90 2.79 Maxeli UOXLI or 11 C-60 2.35 Maxeli UOXLI sC-90 3.75 Maxeli IIS C-90 3.75 Maxeli UOXLI SC-90 3.75 Maxeli IIS C-90 3.75 Maxeli UOX LI SC-90 2.45 TOK SA C-90 2.49 TOK SA C-90 2.49 TOK AS C-90 2.39 T-120 VHS Video 9.99 HG T-120 VHS Video 9.99 HG T-50 Beta Video 9.99 HG L-750 Beta Video 10.99 |
| Atari 400 w/16K 219.99 Atari 800 w/64K 499.99 Commodore VIC-20 159.99 Commodore 64 399.99 Atari 800 w/64K 499.99 Commodore 64 399.99 Atari CX-5200 219.99 Collecovision 189.99 RADAR OETECTORS Fox/XK Fox/XK 93.99 Whistler Spectrum 236.99 Whistler 01000 193.99 We carry a full line of Car Stet C.O.D.s. We accept money of checks. as well as MaterCar American Express (5° Surchae delay. Shoring to Continenti. | BLANK TAPES Maxell UDXL I or II C-90 2.79 Maxell UDXL I or II C-60 2.35 Maxell UDXL IS C-90 3.75 Maxell IDXL IS C-90 3.75 Maxell IDX C-90 3.75 Maxell IDX C-90 2.45 TDK SA C-90 2.49 TDK SA C-90 2.49 TDK SA C-90 2.99 TDK SA C-90 2.99 TDK SA C-90 2.99 TOK SA C-50 1.99 TOK SA C-50 1.99 </td |
| Atari 400 w/16K 219.99 Atari 800 w/64K 499.99 Commodore VIC-20 159.99 Commodore 64 399.99 Atari 800 w/64K 499.99 Commodore 64 399.99 Atari CX-5200 219.99 Collecovision 189.99 RADAR OETECTORS Fox/XK Fox/XK 93.99 Whistler Spectrum 236.99 Whistler 01000 193.99 We carry a full line of Car Stet C.O.D.s. We accept money of checks. as well as MaterCar American Express (5° Surchae delay. Shoring to Continenti. | BLANK TAPES Maxell UDXL I or II C-90 2.79 Maxell UDXL I or II C-60 2.35 Maxell UDXL IS C-90 3.75 Maxell IDXL IS C-90 3.75 Maxell IDX C-90 3.75 Maxell IDX C-90 2.45 TDK SA C-90 2.49 TDK SA C-90 2.49 TDK SA C-90 2.99 TDK SA C-90 2.99 TDK SA C-90 2.99 TOK SA C-50 1.99 TOK SA C-50 1.99 </td |
| Atari 400 w/16K 219.99 Atari 800 w/64K 499.99 Commodore VIC-20 159.99 Commodore 64 399.99 Atari 800 w/64K 499.99 Atari 800 w/64K 499.99 Atari 6X-5200 219.99 Colecavision 189.99 RADAR DETECTORS Fox/XK Fox/XK 93.99 Fox/Superiox 236.99 Whistler 91000 193.99 Winster 01000 193.99 | BLANK TAPES Maxell UDXL I or II C-90 2.79 Maxell UDXL I or II C-60 2.35 Maxell UDXL IS C-90 3.75 Maxell IDXL IS C-90 3.75 Maxell IDX C-90 3.75 Maxell IDX C-90 2.45 TDK SA C-90 2.49 TDK SA C-90 2.49 TDK SA C-90 2.99 TDK SA C-90 2.99 TDK SA C-90 2.99 TOK SA C-50 1.99 TOK SA C-50 1.99 </td |
| Atari 400 w/16K 219.99 Atari 800 w/64K 499.99 Commodore VIC-20 159.99 Commodore 64 399.99 Atari 800 w/64K 499.99 Colecovision 189.99 Colecovision 189.99 RADAR DETECTORS Fox/XK Fox/XK 93.99 Fox/Superion 236.99 Whistler Spectrum 236.99 Whistler Ol000 193.99 We carry a full line of Car Ste Concleas well as Master Car American Express (5° Surchar delay, Shipping to Continent, manufacturer s guarantee Wir NJ Alaska Hawar call (2015) 140 | BLANK TAPES Maxell UDXL I or II C-90 2.79 Maxell UDXL I or II C-60 2.35 Maxell UDXL IS C-90 3.75 Maxell UDXL IS C-90 3.75 Maxell UDX Metal C-90 4.99 Maxell UD K Metal C-90 2.49 TDK SA C-90 2.49 TDK SA C-90 2.39 T-120 VHS Video 9.99 HG T-120 VHS Video 9.99 HG L-750 Beta Video 10.99 preo & Accessories. Sorry, no porders, cashier's or certified d & Visa (3% Surcharge) and recks 3 week al USA '3.75 All items have le for our latest FREC CATALDE, te for our latest FRE CATALDE, 72-1001. Mon-Sat 9AM-6PM |
| Atari 400 w/16K 219.99 Atari 800 w/64K 499.99 Commodore VIC-20 159.99 Commodore 64 399.99 Atari 800 w/64K 499.99 Colecovision 189.99 Colecovision 189.99 RADAR DETECTORS Fox/XK Fox/XK 93.99 Fox/Superion 236.99 Whistler Spectrum 236.99 Whistler Ol000 193.99 We carry a full line of Car Ste Concleas well as Master Car American Express (5° Surchar delay, Shipping to Continent, manufacturer s guarantee Wir NJ Alaska Hawar call (2015) 140 | BLANK TAPES Maxell UDXL I or II C-90 2.79 Maxell UDXL I or II C-60 2.35 Maxell UDXL IS C-90 3.75 Maxell IDXL IS C-90 3.75 Maxell IDX C-90 3.75 Maxell IDX C-90 2.45 TDK SA C-90 2.49 TDK SA C-90 2.49 TDK SA C-90 2.99 TDK SA C-90 2.99 TDK SA C-90 2.99 TOK SA C-50 1.99 TOK SA C-50 1.99 </td |

STEREO & TAPE OUTLET 1849 Route 27. Edison, NJ 08817 model 4100-X24 super dual filter \$142.00



"Switching in the filter made a dramatic change. The entire background "cleaned up," the agitated infrasonic flutter of the woofer cones disappeared, and the lowest-level musical passages became audible without the murky accompaniment of the infrasonic "garbage" that lurks beneath the recorded program....

"The ACE filter does the job, and does it superbly. This could be a very valuable system accessory for anyone who regularly listens to wide-dynamic-range recordings. If your system is plagued by lowfrequency acoustic feedback, jarring of a turntable from floor vibration, or similar ills, this little box could provide economical relief."—Julian D. Hirsch, STEREO REVIEW, Jan. '83.

Free Flyer from ACE AUDIO CO., 532-5th St., E. Northport, NY 11731. (516) 757-8990.

CIRCLE NO. 31 ON READER SERVICE CARD

BENJAMIN: Piano Sonata; Duo for Cello and Piano; Flight. George Benjamin (piano); Ross Pople (cello); Kathryn Lukas (flute, in Flight). NIMBUS 45009 \$11.95 (from Brilly Imports, 16122 Cohasset Street, Van Nuys, Calif. 91406).

Performance: Excellent Recording: Attractive

George Benjamin, born in London in 1960, wrote all the music on this record before he completed his twentieth year. And what he wrote shows talent; the music is long-lined and evocative. The Piano Sonata is obviously Benjamin's calling card, but the Duo for Cello and Piano and the breathy, quiet Flight for solo flute have similar dramatic. ongoing qualities. This is modern music without tears, a kind of absorption and synthesis of the lessons of the last few decades. Everything is well played and decently recorded. If there is a fault, it lies in a feeling of detachment that pervades even the most dramatic moments. Is it the performances or the music itself? Hard to tell. ES

| RECORD | ING | OF | SPEC | TAL | ME | RIT |
|------------|--------|--------|----------|---------|------|------|
| BLOCH: | Viol | in S | Sonata | No. | 1. | R. |
| STRAUS | S: Vio | lin Se | onata ir | E-fla | t Ma | ior. |
| Op. 18. | Elmar | Oliv | eira (v | iolin); | Wa | lter |
| Ponce (pia | | | | | | |
| 9021 \$10. | | | | | | ~ - |

Performance: Brilliant Recording: Excellent

Here are two really interesting rediscoveries, brilliantly played by two fine artists and nicely recorded. The Bloch, easily the more important of the two, is certainly one of the major twentieth-century works in the violin literature. So hard to account for or classify in the standard framework of this century's music, the Swiss-born Bloch spent most of his working life in this country. His First Violin Sonata, written in Cleveland in 1920, is a rough, intense, highly original and deeply felt work. It has passion (thus setting it off from the neo-Classicism that was beginning to creep into new music at the time) and gets a wonderfully passionate performance here. It is also colorful, idiomatic, and big in scope. It says something, and it works. I loved it.

The Strauss is at the opposite end of the expressive spectrum. It was written at the very end of the composer's apprenticeship, when he was still working in the direct Classical tradition. There are touches of the Strauss to come, but this is basically fresh, openhearted, optimistic music, beautifully written and as charming as the Bloch is disturbing. *E.S.*

BRUCKNER: Symphony No. 9, in D Minor. Concertgebouw Orchestra, Amsterdam, Bernard Haitink cond. PHILIPS @ 6514 191 \$12.98, © 7337 191 \$12.98.

Performance: Dellberate Recording: Splendid

Bernard Haitink takes a graver, more deliberately considered view of Anton Bruckner's swan song here than in his 1966 reading with the Concertgebouw. The end movements require about an additional minute each, and only in the elemental scherzo is the pace quickened ever so slightly; even so, (Continued on page 107)





Here's an easy way for you to get manufacturer's information about products advertised or mentioned editorially in this issue. Just follow the directions below...and the literature will be sent to you free of charge from the manufacturer.

a Tear out one of the perforated postage-free cards. Please print or type your name and address where indicated. Use only one card per person.

Circle the numbers on the card that correspond to the key numbers at the bottom of the advertisement or editorial mention that interests you. (Key numbers for advertised products also appear in the Advertisers' Index.)

C Simply mail the card. One card per person is all that is necessary. No postage is required.

This address is for our "Free Information Service" only. All other inquiries are to be directed to, Stereo Review, One Park Ave., New York, N.Y. 10016.

FREE INFORMATION SERVICE

| 1 16 31 46 61 76 91 106 121 136 151 | | 3 18 33 48 63 78 93 108 123 138 153 | | | 6 21 36 51 66 81 96 111 126 141 156 | | 128 143 158 | | 10 25 40 55 70 85 100 115 130 145 160 | | 147 | 118 133 148 | 149 | 120 135 |
|---|--|---|--------------------------|--------------------------|---|--------------------------|--------------------------|--------------------------|---|----------------------|----------------------|------------------------|----------------------|------------------------|
| PLEA | 4 Please send me 12 issues of Stereo Review for \$4.99 and bill me. (Full subscription price \$9.98) SR 683: PLEASE PRINT- Use only one card per person. NAME ADDRESS | | | | | | | | | | | | | |
| AD | DRES | ss | _ | - | | | | | _ | | | | | |
| I CIT | Y | | | | | STAI | E_ | | | Z | IP C | ODE | | |
| | Code n | | | | | | | | | | | | | |
| 1 16 31 46 | 2 17 32 47 | 3 18 33 48 | 4 19 34 49 | 5 20 35 50 | 6 21 36 51 | 7 22 37 52 | 8 23 38 53 | 9 24 39 54 | 10 25 40 55 | 11 26 41 56 | 12 27 42 57 | 13 28 43 58 | 14 29 44 59 | 15 30 45 60 |
| 61 76 91 | 62 77 92 | 63 78 93 | 64 79 94 | 65 80 95 | 66 81 96 | 67 82 97 | 68 83 98 | 69 84 99 | 70 85 100 | 71 86 101 | 72 87 102 | | 74 89 104 | 75 90 105 |
| 106 121 136 151 | 107 122 137 152 | 108 123 138 153 | 109 124 139 154 | 110 125 140 155 | 111 126 141 156 | 112 127 142 157 | 113 128 143 158 | 114 129 144 159 | 115 130 145 160 | 116 131 146 | 117 132 147 | 118 133 148 | 119 134 149 | 120 135 150 |
| 1 | Please (Full ASE PF | subsc | riptio | n prie | ce \$9. | .98) | | | for \$4 | 1.99 a | nd bi | ill me | | 6832 |
| I NAM | ME | | - | | - | | - | | _ | | | | | |
| I ADE | DRES | ss_ | | | | | | | | | | | | - |
| | Y Code n | | | | | | | | | | | | _ | |
| | | | | | | | | | | | | | | |
| 1 16 31 46 | 2 17 32 47 | 3 18 33 48 | 4 19 34 49 | 5 20 35 50 | 6 21 36 51 | 7 22 37 52 | 8 23 38 53 | 9 24 39 54 | 10 25 40 55 | 11 26 41 56 | 12 27 42 57 | 13 28 43 58 | 14 29 44 59 | 15 30 45 60 |
| 61 76 91 | 62 77 92 107 | 63 78 93 | 64 79 94 | 65 80 95 110 | 66 81 96 | 67 82 97 | 68 83 98 113 | | 70 85 100 115 | 71 86 101 | | 73 88 103 118 | | 75 90 105 120 |
| 106 121 136 151 | 107 122 137 152 | 123 138 | 124 139 | 125 140 | 126 141 | 127 142 | 128 143 | 129 144 | 130 145 | 131 146 | 132 | 133 | 134 | 135 |
| 4 | Pleas | e seno subso | d me criptio | 12 iss on pri | ues o ce \$9 | f Ster 9.98) | eo Re | eview | | 4. 9 9 a | and b | ill m | | 6831 |
| NAM | ME | | | | | | | _ | | | _ | | | |
| ADI | DRES | SS | | | _ | | | _ | | | | | | |
| | Y Code r | | | | | | | | | | | | | |

ZD-C4-1005


Haitink conveys better than almost anyone else I have heard the rather trollish, satanic character of its outer sections. (As in the earlier recording Philips has split the scherzo between sides.) The Concertgebouw players respond superbly to Haitink's direction, and the acoustics of their famous hall provide a magnificent backdrop for their performance and for Bruckner's infinitely expansive sonorities. D.H.

CANTELOUBE: Songs of the Auvergne. Baïlèro; Oï, Ayaï; La Delaïssádo; Passo del Prat; Tè, l'Co. Tè; Pour l'Enfant; Lou Coucut; L'Antouèno; Chut, Chut; Brezairola; Uno Jionto Postouro; Lo Fiolairé; Five Bourées. Frederica von Stade (mezzo-soprano); Royal Philharmonic Orchestra, Antonio de Almeida cond. CBS O IM 37229, no list price.

Performance: Lush Recording: Rich and spacious

Marie-Joseph Canteloube de Malaret (1879-1957) started collecting Auvergnois folk songs as early as 1907, and he published five volumes of his settings of them, twenty-seven songs in all, between 1923 and 1957. Madeleine Grey's classic 1930 recording of eight of the songs achieved wide popularity among record collectors in both the original 78-rpm format on Columbia and in Angel's Great Recordings of the Century LP reissue (COLC-152). The entire series was later recorded by Victoria de los Angeles for Angel (S-36897/8) and, in a somewhat more folkish manner, by Netania Davrath for Vanguard (T 713/4); both sets are still available.

In the first album of what appears to be planned as a complete cycle on CBS, Frederica von Stade is most effective in the two cradle songs, *Brezairola* and *Pour l'Enfant*, and in a couple of the livelier numbers, *Tè*, *l'Co*, *Tè!* (*Run*, *Dog*, *Run!*) and *Obal din Lou Limouzi* (*Down There in Limousin*). In others, *Passo del Prat* (*Come Through the Meadow*) for example, her readings border on the lethargic, and *L'Aio dè Rotso* (*Spring Water*) and *Lo Calhé* (*The Quail*) lack the snap and rhythmic vigor of the Grey recordings.

Conductor Antonio de Almeida, with the Royal Philharmonic, and the CBS production team have aimed for the greatest possible range and richness of color from Canteloube's elaborate instrumentation. The spacious sonics, however, tend to vitiate the essential rhythmic vitality and linear clarity of these minor masterpieces. In short, this is a mixed bag, superseding neither of the excellent recordings by Davrath and De los Angeles. D.H.

FAURÉ: Pelléas et Mélisande; Masques et Bergamasques; Pavane; Ballade for Piano and Orchestra. Jean Hubeau (piano, in Ballade); Orchestre de Chambre de Lausanne, Armin Jordan cond. ERATO STU 71495 \$10.98, © MCE 71495 \$10.98.

Performance: Expert Recording: Spacious

FAURÉ: Pelléas et Mélisande; Masques et Bergamasques; Pavane. Academy of St. Martin-in-the-Fields, Neville Marriner cond. FAURÉ/AUBERT: Fantaisie for Flute and Piano. William Bennett (flute); Academy of St. Martin-in-the-Fields, Nev-



CIRCLE NO. 46 ON READER SERVICE CARD

ille Marriner cond. ARGO • ZRDL 1003 \$12.98. © KZRDC 1003 \$12.98.

Performance: More pointed Recording: Neat

Gabriel Fauré's fastidiously composed music is well served by both conductors on these new recordings, with Neville Marriner having an edge over Armin Jordan. Jordan was relatively unknown here until recently, but that is all changed since he conducted the music for Hans-Jürgen Syberberg's film of Wagner's Parsifal. The outstanding feature of Jordan's Fauré recording, however, is the elegant solo work of pianist/composer Jean Hubeau in the Ballade. This is quite the best reading of the work that I have ever heard on disc, and Hubeau's performance is complemented by expert orchestral backing and recorded sound that has both spaciousness and presence for soloist and ensemble alike.

In the purely orchestral repertoire, Marriner and the wonderful Academy of St. Martin-in-the-Fields players walk off with the honors. Whereas Jordan tends to make a rather funereal affair out of the Pavane, Marriner's faster pacing is similar to that of Beecham's memorable reading (still available on Seraphim), and he gives us the optional chorus as well (the singers are unidentified). Marriner's readings are also marginally quicker and decidedly more pointed rhythmically in the other pieces, notably in the Masques et Bergamasques, which boasts a gem of a mini-overture. Both conductors play the Pelléas et Mélisande music with the added Sicilienne movement, and it is especially good to hear it performed by a modest-sized ensemble, which brings less gloom and more tenderness to the final movement. Flutist William Bennett does a stylish job in the solo part of Louis Aubert's setting of the Fantaisie, which Fauré composed as a student at the Paris Conservatoire. The recording is neat as a pin. DH

RECORDING OF SPECIAL MERIT

HANDEL: Semele. Norma Burrowes (soprano), Semele; Antony Rolfe Johnson (tenor), Jupiter; Robert Lloyd (bass), Cadmus; Timothy Penrose (countertenor), Athamas; David Thomas (bass), Somnus; Maldwyn Davies (tenor), Apollo; Della Jones (mezzo-soprano), Juno; Patrizia Kwella (soprano), Iris; Catherine Denley (contralto), Ino; Elizabeth Priday (soprano), Cupid. Monteverdi Choir; English Baroque Soloists, John Eliot Gardiner cond. ERATO STU 714453 three discs \$32.94.

Performance: Tops Recording: Brilliant

Although Semele does not rank among Handel's finest oratorios, it is an engaging work full of charming moments that build to an inexorable climax. Semele, beautifully drawn by the great Restoration dramatist William Congreve, begins as an innocent beauty who is seduced by the god Jupiter. Under the guidance of Jupiter's wife, Juno, Semele learns vanity and ambition, finally making a rash attempt to gain immortality. But the jealous Juno has withheld essential information: no mortal can face Jupiter in his full divinity without being immolateda fact that Semele discovers too late.

Handel portrays Semele's development by giving her a series of arias of increasing brilliance, starting with the lovely "Oh sleep, why dost thou leave me?" and leading to the dazzling "No, no, I'll take no less," in which she ignores Jupiter's warning and demands to see him in his full glory.

Jupiter too goes through a complete character change, from a Restoration rake to a passionate man who realizes that he has destroyed his loved one by his lust. But perhaps the most interesting character is Juno as she curses the adulterous union, wheedles a magic charm from Somnus, god of sleep, and takes the form of Semele's sister Ino in order to poison her rival's mind. The minor characters are also particularly rich in their varied moods: Ino, weeping for love of Semele's mortal fiancé; Iris, Juno's gossipy messenger; Cupid, fanning Semele to consciousness after her first night with Jupiter; and the grumpy, sleepy Somnus, who comes to life at Juno's bribery of a young lover. All this is, of course, deftly conveyed in Handel's supple music.

Norma Burrowes's clear, ringing voice in the title role is perfectly complemented by the throaty tenor of Antony Rolfe Johnson as Jupiter. Their final confrontation is a contest of vocal pyrotechnics as both throw themselves into some of Handel's most brilliant coloratura writing. Della Jones is positively fierce in her witch-like portrayal of Juno. Among the minor characters, David Thomas's Somnus is outstanding, and Elizabeth Priday is a captivating Cupid. The others all sing excellently and fully understand their dramatic functions.

As usual, John Eliot Gardiner paces the work well, exhorts the Monteverdi Choir to some of its best singing, and evokes sumptuous sounds from his orchestra of early instruments. I must, however, question the authenticity and musicality of playing the cadence of a recitative simultaneously with the singer's last note rather than after it. This works in exciting scenes, such as Juno and Iris's initial confrontation, but it is jarring in most places because of the dissonances and the abrupt pacing.

Although Anthony Lewis's earlier recording of Semele on L'Oiseau-Lyre was a landmark in Handel performance, especially for Jennifer Vyvyan's exquisite portrayal of the heroine, this recording upstages it in every other aspect: generally authentic performance practices, early instruments, stronger minor characters, and, of course, excellent recorded sound. SI

IVES: Symphony No. 2. Concertgebouw Orchestra, Amsterdam, Michael Tilson Thomas cond. CBS O IM 37300, © IMT 37300, no list price.

Performance: Carefully detailed Recording: Very good

This is the seventh recording of Charles lves's Second Symphony but the first to use the critical edition of the score prepared for the lves Society by Malcolm Goldstein and premiered a year ago by the same artists as on this disc. Listening again to this sprawling yet curiously touching five-movement work, with its full-bodied Romantic orchestra and wealth of evocative quotations from the sacred and secular American music of





IT'S IMPOSSIBLE FOR YOU TO MAKE A CASSETTE THAT SOUNDS AS SPECTACULAR AS THESE!

Forget everything you've ever heard about pre-recorded cassettes.

EXCLUSIVE PRE-RECORDED CASSETTES

Until quite recently, pre-recorded cassettes have done nothing to complement the sonic capabilities of your tape deck, automobile cassette system or portable player. They've been mass-produced, excessively noisy and sonically lifeless. They virtually waste the high fidelity potential of your stereo system.

Many of you have been forced to make your own cassette transfers from your favorite popular and audiophile recordings. You have probably improved the sound quality to a more acceptable degree. Perhaps you're "almost" satisfied. Or just more frustrated. We've got the answer.

DIRECT FROM THE ORIGINAL MASTER TAPE

The Quality Connection is proud to announce the immediate availability of the most spectacular pre-recorded cassettes you've ever heard. They are limited edition, custom cassettes created by two of the most respected companies on the audiophile scene... Delos Recording and Mobile Fidelity Sound Lab. You can order them now by mail or use our toll-free telephone numbers.

These mega cassettes are recorded directly from the original stereo master recording tape in "real time." They aren't high-speed duplicated like conventional cassettes. Every subtlety of the artist's original performance is meticulously captured. Nothing is lost. You'll hear Frank Sinatra. The Beatles. The Philadelphia Orchestra with Eugene Ormandy. Christopher Cross. Steely Dan. The Rolling Stones and countless others as they were meant to be heard.

YOU CAN'T MAKE...OR BUY ...A MORE INCREDIBLE CASSETTE

We challenge you. It doesn't matter how expensive or extensive your stereo system may be. You won't be able to come close to

matching the startling dynamic range, frequency response, signal-to-noise ratio or dramatically reduced background noise levels of these cassettes. Remember, these tapes are created directly from the original master tape source... a magnetic medium. When you attempt to transfer sonic information from a phonograph record (a mechanical medium), you must deal with the potential fidelity weaknesses of every component of your playback system.

The Quality Connection will not compromise its quality standards. We sincerely believe that the Original Master Recording" High Fidelity Cassettes by Mobile Fidelity Sound Lab...and the Digital Professional Reference Cassettes" by Delos Recording... are the finest pre-recorded cassettes money can buy. Mobile Fidelity Sound Lab's cassettes are recorded on pure chromium dioxide tape, while Delos utilizes metal particle tape. Both include Dolby B noise reduction. For a more complete technical breakdown of these cassettes, please circle the reader response card in the back of this magazine.

FREE BONUSES WITH YOUR ORDER

If you order one of our cassettes this month, we'll send you The Quality Connection Data Report entitled "How To Care For Your Prized Pre-Recorded Cassettes." PLUS you'll start receiving our monthly newsbulletin, ON THE QC, detailing the latest new audiophile cassette and album releases available from The Quality Connection. It's our way of saying thank you.

3

©1983 The Quality Connection

DON'T TAKE OUR WORD FOR IT... JUDGE FOR YOURSELF.

Let your ears be the final judge. Order at least one of these sensational cassettes today by mail or phone. We'll rush it to your home or office. Put it on your own stereo system...at home, in your car or on your Walkman. You'll not only hear the music... you'll feel it. You may not find these super cassettes at your local stores, but they're always available from The Quality Connection, 24 hrs. a day, 7 days a week. Order now for fastest delivery.

A SAMPLE OF OUR LATEST SELECTIONS AVAILABLE IMMEDIATELY!

| □ MF C-074 CHRISTOPHER CROSS "CHRISTOPHER CROSS" |
|--|
| MF C-084 ALAN PARSONS PROJECT "I ROBOT" |
| DL C-3015 EUGENE ORMANDY - PHILADELPHIA |
| ORCHESTRA "TCHAIKOVSKY SYMPHONY #6" |
| □ MF C-086 FRANK SINATRA "NICE 'N' EASY" |
| DL C-3007 LOS ANGELES CHAMBER |
| ORCHESTRA "VIVALDI: THE FOUR SEASONS" |
| □ MF C-047 THE BEATLES "MAGICAL MYSTERY TOUR" |
| □ MF C-510 SIR GEORG SOLTI - LONDON |
| SYMPHONY ORCHESTRA "HOLST: THE PLANETS" |
| DL C-3017 Y CHAMBER SYMPHONY OF |
| NEW YORK "BEETHOVEN SYMPHONY #6" |
| □ MF C-088 CROSBY, STILLS, NASH & Young "Deja Vu" |
| □ MF C-017 PINK FLOYD "THE DARK |
| SIDE OF THE MOON" |
| DL C-3010 LOS ANGELES CHAMBER |
| ORCHESTRA "WATER MUSIC OF HANDEL" |
| □ MF C-049 KENNY ROGERS "KENNY |
| ROGERS GREATEST HITS" |
| □ MF C-005 SUPERTRAMP "CRIME OF |
| THE CENTURY" |
| DL C-3012 LOS ANGELES CHAMBER |
| ORCHESTRA "MOZART SYMPHONY #40" |
| "STICKY FINGERS" |
| MF C-008 ZUBIN MEHTA - LOS ANGELES |
| PHILHARMONIC "STAR WARS/CLOSE |
| ENCOUNTERS SUITE" |
| DL C-3011 LOS ANGELES CHAMBER |
| ORCHESTRA "DVORAK SERENADE OP 22" |
| □ MF C-C42 THE MOODY BLUES "DAYS OF |
| FUTURE PASSED" |
| □ MF C-033 STEELY DAN "AJA" |
| AND MANY MORE. WRITE US FOR A COMPLETE LISTING. |
| |

IN TO ORDER IN THE REAL PROPERTY OF THE REAL PROPER

| | Prices: Original Master Recording High Fidelity Cassettes (MF prefix) are \$17.99 each. Digital Reference Professional Cassettes (DL prefix) are \$18.99 each |
|---|---|
| ļ | |
| i | Shipping & Handling: If your order is: (USA & Canada) Under \$20 . Add \$2.50 |
| | (Foreign orders: Double these Rates) 0ver \$75 Add \$7.00 |
| | California residents: Please add 61/2% sales tax. All orders shipped UPS. Please allow 3-4 weeks for delivery. |
| | CREDIT CARD ORDERS CALL TOLL-FREE |
| | 24 HOURS A DAY! |
| | Visa - MasterCard |
| | - American Express |
| Į | 800-423-0688 |
| Ì | (MONDAY - FRIDAY, 9AM - 5PM PST) |
| | If busy, after hours, 24 hours on weekends or if you live in California, call: |
| | 800-228-2028 (Extension 228) |
| | Or simply send your check or money order to the address below (including shipping and handling charges). To speed processing of your personal checks, please include your phone number and drivers license number. |
| | THE QUALITY CONNECTION Dept. SR 18653 Ventura Blvd Suite 314, Tarzana California 91356 (213) 882-3542 |

"... the greatest musical dictionary ever published."

Charles Rosen, N.Y. Review of Books



The gift of a lifetime for anyone who loves music. "...20 vast volumes excellently produced, crammed with scholarship, magnificently illustrated, a profound pleasure to handle." Anthony Burgess, Quest

"... let us all be grateful to Grove." Virgil Thomson, Notes

"... a constant joy"

".... again and again, looking up one entry, I have been caught by others, which have kept me engrossed until long past midnight." Desmond Shawe-Taylor, The New Yorker

By ordering directly from the publisher, you can acquire The New Grove at a saving of \$200. Or use one of our 2 convenient installment plans.

One volume a month for 20 months. 2 Get the entire set at once with a down payment and pay the balance over 20 months.

Call toll-free today for details: 800-221-2123. In NY. call 212-532-4811. Or use the coupon below



15 East 26th St. New York, N.Y. 10010

- Here's \$1725 as full payment—a saving of \$200. Send me the complete New Grove at once.
- Ship me I new volume each month for 20 months and bill my charge account \$96.25 per month.
- □ Here's \$525 for the down payment. Ship me the complete 20 olume set at once. For the balance, bill my charge account \$75 a month for 20 months. N.Y. State residents add sales tax.
- Check Visa Master AmEx Diners SR1

| □ Please send me a FREE Prospec | tus |
|---------------------------------|-----|
|---------------------------------|-----|

| Card No. | | Exp. |
|----------|-------|------|
| Name | | |
| Address | _ | |
| City | State | Zip |

lves's youth, I wondered how Antonin Dvořák would have reacted to it in view of his advice to American composers to turn to their own musical roots in order to create art music of genuine distinction. Ives had substantially completed the Second Symphony in 1902, and if fortune had been on his side, Dvořák might have seen and even heard the music before his death in 1905. As it was, the score received its first public performance in 1951, by the New York Philharmonic under Leonard Bernstein.

This latest recorded version is notable for the care lavished on lyrical and polyphonic detail by conductor Michael Tilson Thomas. While his reading lacks the broad sweep of Bernstein's 1958 recording, which I still cherish, it is also free of some of Bernstein's expressive and musical exaggerations. The high point of the Thomas disc is the finale, which is played with enormous brilliance; the contrapuntal highjinks come off with great deftness. What I miss here, though, is the special zip and rhythmic thrust that American players can bring to this piece, notably in the first allegro.

CBS's digitally mastered sound is rich and spacious, although I would have preferred a somewhat closer microphone setup for clarity of detail and greater presence of the orchestra as a whole. This release is, of course, a must for Ives specialists, but on the whole I would regard it as an important supplement to the Bernstein recording, not a replacement for it. D.H.

RECORDING OF SPECIAL MERIT

JOSQUIN DES PREZ: Missa Pange Lingua; Pange Lingua Gloriosi; Ut Phoebi Radiis; Recordare, Virgo Mater; Vive le Roy; Descendi in Hortum Meum; Nymphes des Bois. Boston Camerata, Joel Cohen cond. HARMONIA MUNDI HM 5119 \$11.98, © HM 40.5119 \$11.98.

Performance: Excellent Recording: Excellent

The fresh young voices of the Boston Camerata have a clear timbre that brings out the linear quality of Josquin's part writing with its mosaic of duets, trios, and full chorus. Under the direction of Joel Cohen, the Camerata shows its serious side in the austere Missa Pange Lingua and its light side in the Ut Phoebi Radiis and Vive le Roy motets, where we hear the ensemble's fine instrumentalists by themselves. The performance of Nymphes des Bois (the celebrated déploration on the death of Ockeghem) is especially eloquent and moving. Recommended. S.L.

LISZT: Piano Concerto No. 1 (see SAINT-SAENS)

RECORDING OF SPECIAL MERIT

LISZT: Piano Concerto No. 1, in E-flat Major; Piano Concerto No. 2, in A Major. Misha Dichter (piano); Pittsburgh Symphony Orchestra, André Previn cond. PHIL-IPS • 6514 200 \$12.98, © 7337 200 \$12.98.

Performance: Formidable Recording: Impressive

Piano virtuoso Misha Dichter, André Previn, and the Pittsburgh Symphony deliver smashing performances of the two Liszt concertos in what appears to be the Previn/ Pittsburgh debut on the Philips label. There is tremendous panache in Dichter's playing here, and technical difficulties seem to be utterly nonexistent for him. Both pieces are endowed from start to finish with genuine Lisztian Romantic surge and all the glitter one could ask. Moreover, the Philips production team has provided sound that gives both piano and orchestra their full due.

The First Piano Concerto presents relatively few interpretive problems, but the Second requires expert, integrated work by both soloist and conductor to keep it dramatically convincing and structurally coherent. I found this Dichter/Previn collaboration unusually satisfying. There are, of course, more than a dozen current discs pairing these concertos, but, for me, this one belongs very near the top of the list. D.H.

MAXWELL DAVIES: Salome. Danish Radio Concert Orchestra, Janus Fürst cond. EMI 157-39270/2 three discs \$23.96 (from International Book and Record Distributors, 40-11 24th Street, Long Island City, N.Y. 11101).

Performance: Flashy Recording: Very good

If the music of Peter Maxwell Davies fails to strike your fancy, the cover of this première recording of his ballet Salome will certainly catch your eye. It shows Danish ballerina Vivi Flindt kneeling, wearing only a red cloth draped over her shoulders and cradling in her bloody arms the severed head of John the Baptist. This is no Juliet with her Romeo, but, then again, Maxwell Davies, who has given us such diverse fare as Eight Songs for a Mad King and the orchestrations for Ken Russell's film of The Boyfriend, is not your average composer next door either.

According to the liner notes, there is a definite message in this collaboration between Maxwell Davies and Danish choreographer Flemming Flindt. Updating the Old Testament story, they have woven a tapestry whose threads include pacifism and the misuse of political power. Annotator Preben Thomsen observes that in the ballet John the Baptist comes closest to symbolizing Martin Luther King, but the main thrust of the work, he feels, is an attempt to express love's endless possibilities as a ticket to freedom. Interesting as that may be, it is of no consequence to anyone faced with the music alone-with two hours of music, to be exact. And what is the music like? Well, there is an occasional smattering of Sibelius, but that is about as far back as Maxwell Davies reaches. I imagine the work holds the attention when accompanied by the visual drama for which it was written, but on its own it seems a bit fragmented. I find it extremely engaging nevertheless. The composer's palette overflows with instrumental color, which he uses with great imagination, and the dynamic spectrum too is wide ranging.

The recording itself is a reissue of a Danish EMI set that fans of the Flemming Flindt Circus Company and/or the composer quickly bought up shortly after its release, in a limited edition, in 1978. I cannot comment on conductor Janos Fürst's interpretation beyond saying that since the com-



poser was so intimately involved with the original production, from which it derives, I must assume it met with his approval. It does with mine. — Chris Albertson

RECORDING OF SPECIAL MERIT

MENDELSSOHN: String Quartets: E-flat Major, Op. "0"; No. 1, in E-flat Major, Op. 12; No. 2, in A Minor, Op. 13; No. 3, in D Major, Op. 44, No. 1; No. 4, in E Minor, Op. 44, No. 2; No. 5, in E-flat Major, Op. 44, No. 3; No. 6, in F Minor, Op. 80; Four Movements for String Quartet, Op. 81. Melos String Quartet. DEUTSCHE GRAMMO-PHON 2740 267 four discs \$43.92.

Performance: Exciting Recording: Wonderful

Although such works as the Violin Concerto, the *Italian* Symphony, and the *Midsummer* Night's Dream Overture are still accepted as masterpieces, much of Mendelssohn's music is dismissed today as facile and sentimental. Particularly overlooked are his eight string quartets. Thanks to this superb album of the complete quartets, including the Four Movements for String Quartet, Op. 81, we can reassess these works in vigorous and beautifully recorded performances.

Mendelssohn's workmanship has long been considered impeccable—he was a master of counterpoint and the sonata form—but we tend to forget his formal innovations, such as the cyclical unity of the A Minor Quartet (No. 2). While we delight in his unique, elfin scherzos, many of us have forgotten his sense of drama and his passionate nature, both evident in the late F Minor Quartet (No. 6), written shortly after the death of his sister. Surely anyone who studies these works will conclude that Mendelssohn made a most important contribution to the string-quartet literature.

The members of the Melos Quartet treat this music as it should be: they meet its technical challenges with virtuosity, they underscore its drama and passion, they bring clarity to its intricate textures, and they shape the precisely balanced melodies with care. In short, this album should return the Mendelssohn quartets to the place of esteem they once enjoyed. S.L.

RECORDING OF SPECIAL MERIT

MOZART: Symphony in F Major (K. 19a); Symphony No. 29, in A Major (K. 201); Divertimento in D Major (K. 136). Academy of Ancient Music; Jaap Schröder (concertmaster); Christopher Hogwood (continuo). L'OISEAU-LYRE DSLO 608 \$10.98.

Performance: Invigorating Recording: Fine

The Academy of Ancient Music must certainly be considered one of the finest orchestras playing the Classical repertoire today. Their performances are crisp and elegant, and they strike the perfect balance of wit and lyricism inherent in the music of the period. The fact that they play early instruments gives them, of course, the advantage of producing a pure Classical sound, but their chief merit is their musicianship, as revealed in their account of K. 136. Their performance of the A Major Symphony sheds new light on the work, and taking all the repeats gives it a new dimension.

Another compelling reason for acquiring this disc is the inclusion of the recently discovered F Major Symphony, which Mozart wrote in London when he was nine years old. The Reagans don't know what they missed when they heard only the first movement at the White House. The concentration of the most unmusical ear would not be taxed by such a spirited romp. S.L.

POULENC: Solo Piano Works (see Best of the Month, page 72)

RIMSKY-KORSAKOV: Scheherazade, Op. 35. Vienna Philharmonic Orchestra, André Previn cond. PHILIPS **0** 6514 231 \$12.98, © 7337 231 \$12.98.

RIMSKY-KORSAKOV: Scheherazade, Op. 35. Philadelphia Orchestra, Riccardo Muti cond. ANGEL O DS-37851 \$12.98, © 4XS-37851 \$12.98.

Performances: Very different Recordings: Both very good

I was a little surprised to find that the only previous digitally mastered recording of *Scheherazade* was the rather lurid reading by Loris Tjeknavorian and the London Symphony for the British Chalfont label. These new ones by Riccardo Muti and



CIRCLE NO. 56 ON READER SERVICE CARD

André Previn offer a study in contrasts. From the very first announcement of the Sultan's motive, Muti lets you know that you're dealing with a very tough guy, and the reading from there on is rather severely controlled, without much of the "Philadelphia sound" evident in the orchestra's recordings of this score under Stokowski and Ormandy. Muti's sea music might well be associated with a nuclear-powered aircraft carrier, whereas André Previn and the Vienna Philharmonic-an ensemble not usually associated with Rimsky-Korsakov-give us a true sense of being under wind power in an all-cradling, if sometimes menacing, ocean. Muti delivers a most interesting and refreshing account of the often sentimentalized Young Prince and the Princess movement: the clarinet solo is wonderfully pert, the final climax truly soaring. Previn's phrasing is a shade more supple in the lyrical portions, but the dance element could have used more lilt. Muti makes the finale a real tour de force, as exemplified by his handling of the open cello drone figuration at the two big central climaxes, which gives the whole scene an extra element of barbaric color.

In sonics, the Philips disc has a slight edge, with more open cymbal sound at the high end, but the impact of the Philadelphia Orchestra in the finale cannot be overlooked. The sound of Tjeknavorian's Chalfont disc still takes top honors, but, so far as I am concerned, none of these performances match those of Monteux, Ansermet, and Stokowski in their prime. D.H. ROSSINI: II Barbiere di Siviglia. Leo Nucci (baritone), Figaro: Marilyn Horne (mezzo-soprano), Rosina; Enzo Dara (bass), Dr. Bartolo; Samuel Ramey (bass), Don Basilio; Paolo Barbacini (tenor), Conte d'Almaviva; Raquel Pierotti (mezzo-soprano), Berta; Simone Alaimo (baritone), Fiorello; others. Chorus and Orchestra of Teatro alla Scala, Riccardo Chailly cond. CBS O I3M 37862 three discs, © 13T 37862, no list price.

Performance: Uneven Recording: Good

This first "digital" *Barbiere* is based on Alberto Zedda's critical edition. Scholarly efforts to bring a much performed work closer to the composer's original intentions are always praiseworthy, but they do tend to raise at least as many questions as they answer. In this instance, the changes relate primarily to the size and texture of the orchestra as well as matters of dynamics, phrasing, bowing, and the like. The liberties once freely taken with the vocal parts were eliminated from performances in major theaters a long time ago.

Critical edition or not, Marilyn Horne offers her familiar, sparkling Rosina, teasing the music with expert *rubati*, freely embellishing *fermate*, and, in general, singing rings around the printed text. Some of her embroideries would have driven Rossini up the wall, but her assured virtuosity, her natural identification with the style, and, above all, the wit and sheer *fun* of her singing are the best things in this uneven production. Thanks to the writing, given a halfway decent effort such gems as the "Pace, gioia" episode at the beginning of Act Two virtually play themselves. But conductor Riccardo Chailly often lets the composer down with rushed, inflexible, and mechanical-sounding passages. A good example is the "Buona sera" ensemble at the end of the first act. It is launched without the weighty pause that should precede it, then goes its way, to diligent time-beating, without much variety and without inspiration. Is this delightful work in danger of losing its vitality to excessive scholarship?

The opera is performed with the recitatives (which, of course, clarify certain plot details) uncut and the florid vocal parts untouched. Alas, neither the Almaviva nor the Bartolo is fully capable of executing them as written, and this makes one wonder whether it is always wise to insist on textual fidelity. Otherwise Enzo Dara is an expert and entertaining Bartolo, but Paolo Barbacini is just adequate as Almaviva.

In ample voice, Leo Nucci introduces himself with a charmless and over-accentuated "Largo al factotum" and proceeds to create a Barber whose self-confidence borders on arrogance. He is, in short, not at all endearing, and the character is therefore misrepresented. Samuel Ramey sings Basilio's music very well but without a sense of fun or the right combination of unction and malice.

Except for a certain lack of warmth at the low end, the digital sound is quite good. Alberto Zedda's annotations are either murki-

| | 2-664-0020 | 1-800-621-8042 | | | use your address label | A-1 |
|---------------|--------------|----------------------------|------------|--|------------------------|-----------------|
| Ph | | TOLL FREE | | UISA CIty | Zip | |
| | | aware PI., Chicago | | | | |
| | | oir auc | | | | |
| | | | | Name | | |
| | | | - | - send i | or free price list | - |
| WRI | | AUTOMOTIVE | | F | | |
| M-97 HE | 49.00 | MODEL 125-LC | 49.00 | SEE A BETTER | PRICE? LET US KNOW!!! | |
| V-15 TYPE 4 | \$75.00 | MODEL 140-LC | 66.00 | TECHNICS RS-M205 CASS. | | 95.00 |
| V-15 TYPE 5 | | | | TECHNICS SL-6 LINEAR TRA | | 175.00 |
| SHURE CART | RIDGE | AUDIO TI MODEL AT-132EP | ECHNICA | TECHNICS SL-5 LINEAR TR | ACKING T.T. | 126.00 |
| | | | 34.00/12 | TEAC V-4RX NEW DBX DEC | | CALL |
| MAXELL UD-90 | ULTRA DYNAMI | С | 29.50/12 | TEAC V-2RX CASS. DECK W | | SPECIAL |
| | | PLEASE | 22.00/10 | TEAC CX-400 CASS. DK. SU | | 190.00 |
| | | | 20.00/10 | SONY WM-5 PERSONAL PO | | 89.00 |
| | | | 24.50/10 | SONY STR-VX5 SUPER QUA | | 199.50 |
| | | TAPE | 49.50/10 | SONY PS-LX2 SEMI AUTO D | | 252.00 |
| | | EMIUM | 20.00/10 | SANSUI 3900Z SUPERB REC SONY PS-LX2 SEMI AUTO D | | 199.00 97.00 |
| - | | | 25.00/10 | SANSUI Z-7000 NEW RECEI | | 496.00 |
| | | S TAPE | \$32.00/10 | MARANTZ SD-3030 DOLBY | | WRITE |
| CONV LICYC CO | CASSETT | | \$32.00/10 | MARANTZ SR-8100 RECEIVE | | SPECIAL |
| 1035 | CARCETT | PIONEER | • | KENWOOD KR-720 DIGITAL | | 189.00 |
| KOSC | A DELEVENT | Lette A | | KENWOOD KA-1000 INT. AM | | 310.00 |
| | | TO SKAN | | SHERWOOD HP-1000 INTEG | | 200.00 |
| | | | | JVC KDD-40 CASSETTE DEC | CK SPECIAL | 140.00 |
| | | | | JVC KDD-50 SUPERBUY CA | | 180.00 |
| (C) | IVE | | | B.I.C. FM-6 FM ANTENNA | | 22.00 |
| | | | | ADC SS-3 IC TOP OF THE L | | 227.00 |
| | KGED | | 1 M 1 | ADC SS20 IN STOCK | | WRITE |
| | Ve | | | AKAI GXF-71 CASSETTE DE | | 297.00 |
| Caller . | C. | | | AKAI GXF-31 COMPUTER C | | 198.00 |
| 1. | | | | AKAI CS-F 39R AUTO-REV. | PONENTS | \$244.00 |
| | | | | | | |





ALL THE TOP BRANDS FOR THE SAME PRICE DEALERS PAY * SAME DAY SHIPPING * NO-LEMON GUARANTEE * NO DEPOSIT CALL OR WRITE FOR OUR

FREE BOOKLET "ULTRA HI-FI DIGITAL at HALF THE COST" 9-9 DAILY-TIL 5PM ON SATURDAY

1-301-488-9600



INTERNATIONAL HI-FI DISTRIBUTORS, INC. MORAVIA CENTER INDUSTRIAL PARK BALTIMORE, MD. 21206 ly translated or were not clearly expressed to begin with. In the illustrations, the likenesses of Elvira de Hidalgo and Luisa Tetrazzini are reversed. In the end, Marilyn Horne's Rosina is probably the only reason anyone should buy this set. *G.J.*

RECORDING OF SPECIAL MERIT

ROSSINI: Cantata, Giovanna d'Arco. Songs: L'Ultimo Ricordo; Se II Vuol la Mulinara; Canzonetta Spagnuola; La Passeggiata; Adieux à la Vie; La Pastorella; Addio di Rossini. Marilyn Horne (mezzo-soprano); Martin Katz (piano). CBS O IM 37296, © IMT 37296, no list price.

Performance: Expert and sumptuous Recording: Very good

In this album of out-of-the-ordinary repertoire Marilyn Horne treats us to yet another triumphant Rossinian display. The cantata *Giovanna d'Arco*, which resembles an operatic *scena*, was written in 1832, when the composer was through writing operas. It is not new to records; Renata Scotto's version, apparently based on a different edition, was available for a while on RCA. In the present recording Horne does just about everything humanly possible for the two-octave range of Rossini's elaborate writing.

The seven songs, all charming, achieve their moderate aims more successfully than the more ambitious cantata. La Passeggiata and La Pastorella are gracefully embroidered miniatures in the composer's Soirées musicales vein; the Canzonetta Spagnuola, with its Moorish melismas, may have been a model for Eboli's Veil Song in Verdi's Don Carlos; Adieux à la Vie assigns all the musical action to the piano while the singer conveys her passionate utterance on a single note.

A Rossini missionary, Marilyn Horne is obviously a born interpreter of this repertoire. In ample voice, she disposes of the fierce *fioriture* with aplomb, probably adding a few wrinkles of her own in cases where Rossini would have been satisfied with easier alternatives. She does tend to overpower the music occasionally, and her intonation is at times short of pinpoint accuracy, but her gifts are truly awesome. As always, Martin Katz is a fluent and expert accompanist. Illuminating notes are provided by noted Rossini scholar Philip Gossett. *G.J.*

RECORDING OF SPECIAL MERIT

SAINT-SAËNS: Piano Concerto No. 2, in G Minor, Op. 22. LISZT: Piano Concerto No. 1, in E-flat Major. Cécile Ousset (piano); City of Birmingham Symphony Orchestra, Simon Rattle cond. EMI O ASD 4307 \$12.98, © TCC-ASD 4307 \$12.98 (from International Book and Record Distributors, 40-11 24th Street, Long Island City, N.Y. 11101).

Performance: Razzle-dazzle Recording: Good, but favors piano

In the Saint-Saëns concerto, Cécile Ousset, a past winner of the Queen Elisabeth Competition in Brussels, proves herself not only a virtuoso of Horowitzian agility and power but also a musician with a genuine feeling for high Romantic musical utterance. She captures the dash and wit in many pages of this concerto, especially in the scherzo. While the recording makes the orchestra seem just a shade removed in presence relative to the piano, Simon Rattle provides first-rate collaboration. He and the orchestra are shown to better advantage in the Liszt concerto, where they seem to be more evenly balanced with the soloist. Although Ousset brings plenty of fizz and romance to the Liszt, as a whole the performance is not quite convincing. But the Saint-Saëns performance alone is worth the price of the record. D.H.

RECORDING OF SPECIAL MERIT

SAINT-SAËNS: Symphony No. 3, in C Minor, Op. 78 ("Organ"). Peter Hurford (organ): Montreal Symphony Orchestra, Charles Dutoit cond. LONDON O LDR 71090 \$12.98, © LDR 5 71090 \$12.98.

Performance: Splendid Recording: Top-drawer

The justly acclaimed Deutsche Grammophon recording of this work by Daniel Barenboim and the Chicago Symphony with the Chartres Cathedral organ tracked in has finally met its match in London's beautifully poised, superbly recorded performance under Charles Dutoit's direction. Again this conductor proves to be one of the most stylish interpreters of the French repertoire on the international scene, and the Montreal Symphony sounds like a first-rate ensemble throughout. Nuances and inner details are elegantly conveyed in the first movement, with the organ coloration elegantly blended in. The second half is distinguished by a smartly paced scherzo and fine handling of the high percussion. The celebrated organ entry that opens the finale is all one could ask for, and in the fugue-textured development episodes the organ and orchestra are again exceptionally well blended. I did feel, however, that the strings had somewhat less presence on the second side of the disc than on the first side. For massive sound, the recording by Barenboim and organist Gaston Litaize, though not digital, still holds an edge, but Dutoit and Peter Hurford surely come out ahead in subtlety and style. D.H.

RECORDING OF SPECIAL MERIT

SCHUBERT: Piano Trio No. 1, in B-flat Major, Op. 99 (D. 898); Piano Trio No. 2, in E-flat Major, Op. 100 (D. 929); Sonata Movement in B-flat Major (D. 28); Notturno in E-flat Major, Op. 148 (D. 897). Odeon Trio. PRO ARTE O 2PAD-202 two discs \$15,98, © 2PCD-202 \$15.98.

Performance: The real thing Recording: First-rate

SCHUBERT: Piano Trio No. 2, in E-flat Major, Op. 100 (D. 929). Jean-Philippe Collard (piano): Augustin Dumay (violin); Frédéric Lodéon (cello). EM1/PATHÉ MAR-CONI © 2C 069-73067 \$12.98 (from International Book and Record Distributors, 40-11 24th Street, Long Island City, N.Y. 11101).

Performance: Fluent but shallow Recording: Excellent

Both of these digitally mastered recordings are first-rate in terms of a vivid sonic image, (Continued on page 118)





Dame Janet Baker's Operatic Farewells

AST season Dame Janet Baker made her farewell to opera-to staged opera, at any rate-in performances of Gluck's Orfeo ed Euridice at Glyndebourne, the same composer's Alceste at Covent Garden, and Donizetti's Mary Stuart (Maria Stuarda in an English translation) with the English National Opera. Digital recordings of the first and last of these productions have just been issued, the Orfeo on RCA/Erato from studio sessions following the Glyndebourne performances and Mary Stuart, taped live at the London Coliseum last April, on Angel. Without going to the music of our own century, it would be hard to think of two more sharply contrasting roles in the repertoire of a single singer than those Baker sings in these two recordings. It would be even harder to imagine either role better served overall.

Mary Stuart. I'm afraid, in either Italian or English, and even with such a champion as Dame Janet, just isn't much of a piece. There are opportunities for display and occasional touches of exciting theater, most notably, perhaps, in the famous (and entirely fictional) confrontation between Mary and Elizabeth I. But it all adds up to a good deal less than a Don Pasquale or L'Elisir d'Amore. This production, though, does make it as attractive as possible, and the Peter Moores Foundation, credited as sponsor of the recording, must be thanked for giving us the opportunity to enjoy and/or judge the work in English.

Well, one really doesn't have to judge if one can enjoy, and there is much to enjoy in this performance. The translation, by Tom Hammond, is a singable one, and Baker goes at her assignment with characteristic wholeheartedness, giving as credible a characterization as possible. A momentary unsteadiness here or there aside (this is a live recording, remember), she also gives us some stunning singing of the sort that makes the occasion of her operatic farewell, memorable enough on sentimental grounds, all the more so on artistic ones. Conductor Sir Charles Mackerras provides a splendid sense of pulse for the production and even manages to infuse some of the choral numbers with a nobility akin to Baker's in the title role—despite, I must add, some conspicuously untidy singing on the part of the chorus's sopranos.

The other queen in the work, Elizabeth 1, is handsomely sung by Rosalind Plowright. a soprano I encountered here for the first time but whom I hope to hear again in worthier material. She exudes a commanding quality quite apposite to the part, and her voice, evenly impressive over its whole range, has obviously been carefully cultivated. The male roles come off less well. David Rendall, as Robert Dudley (Leicester), does everything right but simply hasn't the power for the role (Pavarotti, in the Italian version on London, gives us just what is needed), while John Tomlinson, as Talbot, has almost too much power without sufficient control or steadiness of focus. Angela Bostock, as Hannah Kennedy, and Alan Opie, as Cecil, handle their assignments smoothly enough musically but show little feeling for the drama as such.

The new Angel set, like the previous one on London (OSA 13117) under Richard Bonynge, with Joan Sutherland as Mary and Huguette Tourangeau as Elizabeth, involves certain transpositions and cuts. The

title role was originally sung by a mezzo (Malibran), and I feel that range is better suited to conveying the noble and independent nature of this role, which Baker of course realizes in full. That said, however, it must be acknowledged that Sutherland's performance in this opera is among the finest things she has put on records and that the London set boasts a stronger roster of principals overall (as well as a more solid chorus), with Bonynge imparting great vitality to the production. In general, though, Mackerras's somewhat more expansive approach serves to establish an atmosphere suited to Baker's correspondingly expansive approach to the title role, emphasizing emotional weight and nobility of character rather than dramatic excitement. These considerations incline me to feel it is the Angel set to which I'd return if I felt the need to hear this work again-even with the shortcomings in the two important male roles.

WHAT a joy to turn from so thoroughly dispensable a work (even if so well served) to one of the most sublime! Gluck's Orfeo is the earliest opera in what may be considered the general repertoire today, and it is usually performed, as it is in the Glyndebourne performance under Raymond Leppard, in more or less the version prepared by Berlioz in 1859. Berlioz combined what Gluck wrote for Calzabigi's Italian libretto in Vienna in 1762 with the additions he made for Paris in 1774, had the French libretto translated to Italian (instead of using Calzabigi's original), and substituted an alto for a male singer as Orpheus. Baker's performance of this part, as one might expect, is beautiful: deeply felt, nobly conveyed, convincing to a degree that only total identification with a role makes possible.

No less expectedly, Leppard—who advises in his notes for the album that his "intention is to remain true to Gluck's inspired, mature version of the piece"—is superb here, at once subtle and enlivening, acutely responsive to the work's delicacy and its strength, to its awesomeness and its compassion, and to the basic simplicity on which the whole grand design rests. This is a performance obviously prepared with the greatest of care, but, happily, it shows no signs of being fussed over. It moves with an uncluttered elegance fully in keeping with the essence of the work. No cardboard characters here.

The Swiss soprano Elisabeth Speiser is a touching Euridice, and Elizabeth Gale, another soprano new to me, makes a lovely impression as Amor. The Glyndebourne Chorus, prepared by Jane Glover, is in fine form, and so is the London Philharmonic. Erato's digital recording is first-rate, and I'm quite happy to have a blank side six instead of having less music on the other sides for the sake of filling out an even number. The sides are banded, by the way, to make it easy to find particular sections.

The recording of this work I had liked best until now, conducted by the late Renato Fasano with Shirley Verrett as Orpheus, was retired by RCA some time ago. The stylish one under Mackerras on Vanguard, with Maureen Forrester, omits some of the ballet music and is perhaps overembellished, though both the singing and the orchestral playing are on a very high level and the two-disc set in the low-priced "HM" series is a great buy. The recent recordings of Orfeo from Muti (Angel digital), Jacobs (Accent), and Lukács (Hungaroton), all two discs each, offer the shorter original Vienna version, and I doubt that many listeners now would find the omission of the Paris material acceptable-though Jacobs surely offers an exemplary "period" performance. On just about every count the RCA/Erato set must be adjudged the most satisfying recording of the work available now, and I suspect it will continue to be for some time to come. What a marvelous memento of the close of this phase of Dame Janet Baker's career-and what a marvelous Orfeo! -Richard Freed

DONIZETTI: Mary Stuart. Dame Janet Baker (mezzo-soprano), Mary Stuart; Rosalind Plowright (soprano), Queen Elizabeth; Angela Bostock (soprano), Hannah Kennedy; David Rendall (tenor), Robert Dudley; John Tomlinson (bass), George Talbot; Alan Opie (baritone), Sir William Cecil. English National Opera Chorus and Orchestra, Sir Charles Mackerras cond. ANGEL O DSCX-3927 three discs \$39.94, © 4X3S-3927 \$39.94.

GLUCK: Orfèo ed Euridice. Dame Janet Baker (mezzo-soprano), Orfèo; Elizabeth Gale (soprano), Amor; Elisabeth Speiser (soprano), Euridice. Glyndebourne Chorus; London Philharmonic Orchestra, Raymond Leppard cond. RCA/ERATO O NUM 750423 three discs \$21.94.



If you're a friend of Jack Daniel's, drop us a line. We'd like to get to know you.

WE'RE PLEASED TO ANNOUNCE that some things in America are still moving slow. It takes a whole lot of just sitting for a batch of Jack Daniel's to gain rightful age. And, since there's no way to speed this process along, our employees get good at just sitting

too. You may feel most things in America move too quickly today. But after a sip of Jack Daniel's, you'll be pleased some things (and some people) still take it slow.



Tennessee Whiskey • 90 Proof • Distilled and Bottled by Jack Daniel Distillery Lem Motlow, Prop., Inc., Route 1, Lynchburg (Pop. 361), Tennessee 37352 Placed in the National Register of Historic Places by the United States Government. with all the instruments sounding full-bodied and well balanced. Both offer enjoyable performances too, but the young French team on the EMI disc (violinist Augustin Dumay is new to me) doesn't go much beyond that and, indeed, shows little subtlety at any point. There is some beautiful playing-Frédéric Lodéon in the slow movement's opening cello solo and Jean-Philippe Collard almost everywhere-and there is an enlivening sense of freedom and flexibility, but the drama in the opening movement (with its exposition repeat taken, incidentally) tends to be overemphasized. The pacing of the andante is just the very slightest bit too fast, not quite allowing for comfortable breathing of the phrases. The last two movements are agreeably frisky and lighthearted, with lilting animation in the scherzo and an almost Mendelssohnian delicacy in the finale, but they also sound a little shallow. The gaiety sounds laid on from the outside, just as the intensity is in the first two movements. A performance with so much handsome playing in it would surely be appreciated in a concert room, but repeated hearings suggest that a good deal of depth is missing.

The Odeon Trio shows how Schubert ought to be played. This is the real thing: Schubertian warmheartedness without Biedermeier indulgence, dramatic tension without gratuitous underscoring, and a pervasive sense of freshness and discovery without a single phrase anyone might regard as either dull, eccentric, or self-conscious. How enlivening the Odeon players are, for example, in the trio of Op. 100's scherzo—how deceptively subtle the rhythm, how *joyous* the playing, how unforcedly beautiful the blend of the two string instruments!

So it is throughout the four sides of the Pro Arte set. The Odeon Trio seems to have found nothing less than the ideal pulse and texture for this music. First-movement repeats are not taken, but I can't imagine anyone missing them. On the first disc, with the B-flat Trio, are both of Schubert's shorter works for this combination of instruments; they are played beautifully, but Pro Arte does not offer a word of annotation on either of them. In fact, there is nothing even on the labels but the music titles; the performers are not identified. Unless there has been a recent change in personnel, Leonard Hokanson (piano), Kurt Guntner (violin), and Angelica May (cello) are the musicians we must thank for these splendid performances, and their new recording is surely the most appealing set of the Schubert trios available now. RF

SCHÜTZ: Sacred Concerts. Habe deine Lust an dem Herren; O Jesu nomen dulce; Wohl dem, der nicht wandelt; Eile, mich, Gott, zu erretten; Was betrübst du dich, meine Seele; Herr unser Herrscher; Wie ein Rubin; O süsser, o freundlicher; Was hast du verwirket; Bone Jesu; Bringt her dem Herrn; Ihr Heiligen lobsinget; Herzlich lieb hab ich dich o Herr. Sebastian Hennig (treble); René Jacobs (countertenor); William Christie (organ); Christophe Coin (cello); Konrad Junghänel (archlute); Mihoko Kimura, Staas Swierstra (violins). HARMONIA MUNDI HM 1097 \$11.98.

Performance: Brave Recording: Sensitive

Sebastian Hennig is a very accomplished boy soprano whose soaring high notes are pure joy. His interpretations here are also amazingly mature, but much of the music is too low for him, and he is hard to hear. René Jacobs is, of course, a very accomplished singer, and he brings subtlety and refinement to Schütz's square, unvielding lines. Hearing the two together is a problem simply because Jacobs overpowers Hennig. Perhaps two boy sopranos or two countertenors would have been a more satisfactory choice. In general, the performances are nicely paced and the instrumental accompaniments well balanced. S.L.

R. STRAUSS: Death and Transfiguration, Op. 24; Four Last Songs (see Best of the Month, page 70)

R. STRAUSS: Violin Sonata in E-flat Major, Op. 18 (see BLOCH)

RECORDING OF SPECIAL MERIT

WAGNER: Parsifal. Reiner Goldberg (tenor), Parsifal; Wolfgang Schöne (baritone), Amfortas; Hans Tschammer (bass), Titurel; Robert Lloyd (bass), Gurnemanz; Aage Haugland (bass), Klingsor; Yvonne Minton (Continued on page 122)

| r Cf | CHECK HOW CC | ONSUMERS ROLLS | BACK THE PRICES | SORIES |
|---|---|---|---|--|
| | RSYSTEM H1 NCORD HPS-151 HPS-260 | HOME CASSETTE DECK GX-F51 AKAI | CAR SYSTEM Claric | |
| HPL122 Quartz digital synthesized A Tuner, Seek & Scan, Locking FF/RE Dolby B, Metal Tape eq., Separate B; & Treble, Aux input DBX or Dolby C M HPA25 12 Watts RMS/Channel per a | N, ISS HPS-151 5½" Slimline, 12 Watt odule. HPS-260 6½" Coax, 4-50 Watts mp. | GX-F51 Computer controlled Cass Deck w/Dolby B C NR System, Super GX Head, Auto Tape Tuning, 2 Motors. 5249.90 | S-Band Graphic Equalizer Tuning Controls, Equalizer Tone Lockin Action, 12 dB @ 60 Hz, | 12 Watts (6w/ch) Electronic 5 AM/5 FM Memory. Scan Tuning 9 FF/REW, Metal (70,4) Tape way Balance Controls, Auto Rev, te Bass/Treble BOTH \$364.90 |
| 30-20,000 Hz into 4 ohms. | ALL FOUR \$404.90 | | | |
| () PIONEER | ●BLAUPUNKT | PHONO CARTRIDGES | HDME VIDEO | maxell |
| KE6100 AM/FM STERED SUPER- TUNER II, DOLBY \$229.90 KEX65 292.90 KE5100 204.90 | CR2010 AUTDREV CASS WITH PSMBTN AM/FM STERED. \$259.90 CR5001 | EMPIRE 580LT | PANASONIC PV5500 | XLI or II90 \$2.69 XLI or II60 2.29 XLIS or IIS90 3.65 MXC60 2.49 |
| UKE7100. 264.90 KEX50. 264.90 UPX9600. 204.90 GM-4. 52.90 | CR3003 319.90 CR2002 209.90 CR3001H 359.90 Frankfurt 1.19.90 | AUDIO TECHNICA AT132LP \$59.90 | ALLSOP VIDEO HEADCLNR S14,99 KIWI VCR BAGS 59,90 VIDICRAFT Detailer II 199,90 | MXC46. 1.99 UDC90 2.30 LNC90. 1.75 |
| CD-5. 94.90 KP7500 174.90 TS6906 94.90 TS6907 109.90 | | AT140LC 69.90 AT125LC 39.90 PERSONAL PORTABLES | VIDICRAFT Guard Stabilizer. 49.90 Battery Portable Light Set. 69.90 TELEPHONES | UD35-90. 5.49 |
| TS698 99.90 TS695 89.90 TS168 77.50 TS108 45.90 | pr BEQ60 119.90 pr BEA 150 149.90 pr Chicago 254.90 | SONY WMD-6 Pro S254.90 SONY WA-55 155.90 SONY WM-5 84.90 | TECHNIDYNE gotone 210A 589.90 gotone Hands Free Cordless 99.90 AM/FM Clock Radio Phone 49.95 | D90 1.29 D60 FUJI 🗐 |
| SONY | SANYO | SANYO MG36D 79.95 SANYO MG35 58.90 SANYO MG16D 58.90 | WALLMOUNT or DESK. 11.99 EXTEND A-PHONE | FR METAL90 \$4.59 FR 1 or 1190 2.75 |
| KR-15. 140.90 KR-35. 199.90 KR-55. 249.90 | FTX180 DOLBY B/C, 15 WATTS/CH AM/FM STERED, DIGITAL \$292.90 FTX140 216.90 | SANYO MG15 58.90 SANYO MG15 42.90 SANYO MG12 34.95 SANYO MG8 28.95 | UNIDEN 3000 134.90 UNIDEN 4000 154.90 UNIDEN 5000 189.90 | ER 90 2.35 DR 90 1.75 SONY |
| XR-77. 324.90 XME-7. 139.90 XM 120. 239.90 XM 55. 104.90 | FTC120 196.90 FTV-96 144.90 FTC-40 88.90 FTC-38 72.90 | FREE ALLSON ULTRALINE CASSETTE | HEADPHDNES KOSS KSP S22.90 KDSS Pro 4X 48.90 | UCX590 52.98 UCX90 2.59 LNX90 1.25 |
| JENSEN RE530 DOLBY, AUTO TAPE SEARCH | FTC-27 119.90 PA6100 119.90 PA6110 139.90 | Cleaner Grail Grail Car stereos of any car stereo | SENNHEISER HD420.59.90 SENNHEISER HD430.79.90 SENNHEISER MC100.54.90 | LNX60 |
| AUTO REV, DIGITAL S329.90 RE520 279.90 RE518 264.90 RE510 244.90 RE508 199.90 J2033 94.90 J2020 66.90 J2037 71.90 | We carry the Full Line of Concord, Clarior | n, Alpine Merchandise Fresh Manufacturer gua all 800-431-29 PHONE DRDERS: ONI | 32 CONSUMERS | MEMDREX T-120 \$8.50 FUJI T-120 8.99 FUJI T-160 15.55 FUJI SHG T-120 11.49 BASF T-120 8.50 TDK T-120 8.99 MAXELL H0X T-120 11.99 |
| J2080 78.90 J2041 54.90 J2126 54.90 J1365 73.90 J1665 69.90 J1369 48.90 | Pr pr pr pr (Add 3% for Credit Card Orders.) Add 5% f add Sales Tax. Personal Checks held 2 w | 914-664-2909 MasterCard, Visa or U Woney Drder, Cashier's or Certilled Check or Cre for Shipping & Handling (Min. S3.50). NY Reside ecks. Minimum COD Order S100. Write tor Free | COD P.D. Box 550 Dept SR683 Mt. Vernon, N.Y. 10551 Catalog. | SONY L-500 7.5C SONY L-750 9.75 SONY L-750 10.75 SONY L-750HG 10.75 MAXELL L-500 6.95 FUJI L-750 9.98 |

STEREO REVIEW CLASSIFIED

EQUIPMENT

DIAMOND NEEDLES and STEREO CARTRIDGES at DISCOUNT PRICES for SHURE, PICKERING, STANTON, EMPIRE, GRADO, AUDIO TECHNICA, ORTOFON, ADC, SONUS and MICRO-ACOUS-TICS. Send S.A.S.E. free catalog. LYLE CAR-TRIDGES, Dept. S, Box 69, Brooklyn, NY 11218. For fast COD service Toll Free: 1-800-221-0906. N.Y. State (212) 871-3303. 9AM - 8PM except Sunday.



BEST IN THE WEST! Haffler, Nakamichi, Dahlquist, DCM, Magneplanar, Beverldge, APT, Threshold, Polk, Oracle, Bang & Olufsen, B&W, Adcom. Rocky Mountain HI-FI, 812 Central, Great Falls, MT 59401. (406) 761-8683.

ACCURATE, QUALITY AUDIO: Reasonable Prices. Car/ Home. Denco, P.O. Box 6104-R, El Monte, CA 91734. (213) 961-6158 Evenings. Weekends. Monthly Speclals. OHM, SNELL, PERREAUX, ASTATIC, N.A.D., 3D, Oracle, Conrad Johnson, Walker, Thiel, Audioquest, Amber, Dynavector, Cizek etc. Shlpping paid. Audio File, 1202 South Congress, Austin, Texas 78704. (512) 443-9295.

MAFLER, FRIED kits, (SONY PCM-F1) DIGITAL, SAE, CARVER, KLIPSCH, more. In stock. Immediate, FREE shipping! READ BROTHERS STEREO, 593-B King Street, Charleston, South Carolina 29403. (803) 723-7276.

PHILIPS, AUDAX, PEERLESS AND DYNAUDIO LOUD-SPEAKERS in stock with good prices and competent service. Crossover components also. MADISOUND SPEAKER COMPONENTS, 8982 Tablebluff, Box 4283, MadIson, WI 53711. (608) 767-2673.

SO WHAT'S NEW?? DIRECT SOUND MARKETING can provide you with most brands of audio or video components (esoterics included) at extremely competitive pricing on an IN-STOCK basis. Price, selection, FAST SHIPMENTS, competent advice and IN-MOUSE SERVICE FACILITIES—We have it all and morel Before you buy, please call us at (404) 233-9500, or write: DIRECT SOUND MARKETING, 3095 Bolling Way N.E., Atlanta, Georgia 30305. M/C, Visa, AMEX. Sales tax—Georgia residents only.

CABLE TV CONVERTERS & EQUIPMENT. Plans and parts. Build or buy. For more information send \$2.00: C & D ELECTRONICS INC., P.O. Box 21, Jenison, MI 49428.

LOWEST PRICES. NAKAMICHI, Bose, DBX, HK, and MORE. Dynamic Sound, Box 168(A), Starkville, MS 39759. (601) 323-0750. 1 P.M.-9 P.M.

CONNECTICUT: ADVENT APT-Holman, B&D, Carver, Dahlquist, DCM Time Windows, Polk, Hafler, Mitsubishi, Nakamichi, Ortofon, Micro-Acoustics, N.A.D., Stax, Cizek, Signet, QED, Teac, Marcoff, Boston Acoustics, will ship prepaid. Sounds Incredible, 39 Federal Road, Brookfield, Conn. 06804. Call Ira for quote (203) 775-1122.

SHERWOOD MICRO CPU tuner CLOSE-OUT. Used demos. \$400-600. (Orlginally \$2000) Limited quantity. Phone 6-8pm weekdays. AUDIO CALIBRATION, Box 250, Westminster, MA 02473. (617) 874-0706.

FREE CATALOG—LOWEST DISCOUNT PRICES on Stereo/esoteric components and accessories for the home and car: Sony, Bose, JVC, AR, SAE, other "high quality" brands. AUDIO UNLIMITED, 1798A Technology Drive, San Jose, CA 95110. (408) 279-0122, 1-6, M-Th.

DISCOUNT WORLD

| DH 5 1 000 | 10.00 | Maxell UDXL2C90 * | 2 95 |
|-----------------------------|-------|------------------------------|------|
| DK SAC90 | 12 50 | | 3.75 |
| DK MAC90 | 14.75 | | |
| Ploneer Car Stereo KP4500 | 119. | Pioneer Car Speakers TS 106 | 33 |
| Ploneer Car Stereo KP5500 | 129. | Pioneer Car Speakers TS108 | 39 |
| Pioneer Car Stereo KP8500 | 139. | Pioneer Car Speakers TS 1622 | 40 |
| Honeer Car Stereo UKP4205 | 119. | Pioneer Car Speakers TS1644 | 60 |
| Pioneer Car Stereo UKP5600 | 169 | Ploneer Car Speakers TS168 | 80 |
| ioneer Car Stereo UKP7600 | 189. | Pioneer Car Speakers TS411 | 49 |
| Pioneer Car Stereo UKE3100 | 169 | Pioneer Car Speakers TS694 | 55 |
| Pioneer Car Stereo KE5100 | 179 | Pioneer Car Speakers TS695 | 89 |
| Pioneer Car Stereo KE6100 | 209. | Pioneer Car Speakers TSX6 | 75 |
| Ploneer Car Stereo UKE7100 | 229. | Pioneer Car Speakers TSX11 | 199 |
| Sony Car Stereo XR15 | 129 | | 239 |
| Sony Car Stereo XR25 | 149 | Sony Car Stereo XR75/75B | 299 |
| Sony Car Speakers XS101 | 39 | Sony Car Speakers KS102 | 49. |
| Sony Car Speakers XS211S | 39 | Sony Car Speakers #\$606 | 69 |
| ensen Car Stereo RE530 | 319 | Jensen Car Speakers J1242 | 89 |
| ensen Car Stereo RE520 | 269 | Jensen Car Speakers J1069 | 45 |
| ensen Car Stereo RE518 | 259 | Jensen Car Speakers J1065 | 69 |
| ensen Car Stereo RE512 | 239 | Jensen Car Speakers J2037 | 69 |
| ensen Car Stereo RE508 | 199 | Jensen Car Speakers J2033 | 99 |
| oncord Car Stereo HPL101 | 149 | Concord Car Stereo HPL115 | 199 |
| oncord Car Stereo HPL 112 | 169 | Concord Car Stereo HPL118 | 209 |
| oncord Car Stereo HPA-25 | 69 | Concord Car Stereo HPL122 | 289 |
| larion Car Stereo 7500R | 209 | Clarion Car Stereo 3150R | 79 |
| larion Car Stereo 5550R | 149. | Clarion Car Stereo 300E0B3 | 125 |
| larion Car Stereo 5150R | 119 | Clarion Car Stereo 100E0B4 | 65 |
| hillps Car Speakers EN-8741 | 1 49. | Philips Car Speakers EN-8769 | 29 |
| Itec Car Speakers 6X5-4C | 85 | Altec Car Speakers SK2 | 69 |
| age Aleri 4444 | 99 | AudioSafe | 32 |
| ox Supertox Remote | 199. | | 89. |
| | | | |

DISCOUNT WORLD, P.O. BOX 191, MINEOLA, N.Y. 11501 516-294-6136 Shipping charges are 4 00 per order to continental U.S.A. We accept money orders, cashers or certified checks. Personal checks - 3 week delay. Write for FREE catalog N.Y.S. Residents add sales tax

ATTENTION HAFLER DH-200, DH-220 OWNERS: We have all new high performance circuits for Hafler amplifiers. Not a "modification", but FIVE new PC cards and a 40,000 Mfd power supply. Call or write: JENSENS STEREO SHOP, Dept SR1, 2202 River Hills Drive, Burnsville, Minnesota 55337. (612) 890-3517.

WOOFERS-MIDS-TWEETERS-X-OVERS. THE BEST SELECTION and now THE BEST PRICES. Big 48 pg. catalog featuring plastic woofers, ribbon tweeters, complete tech./specs... For price quotes and orders call (214) 243-4145. For all new 1983 catalog send \$1.00 to: SRC Audio, Dept. SR, 3238 Towerwood Dr., Dallas, TX 75234.

IN STOCKI Audia Research, Thorens, RGR, Hafler, Onkyo, Technics, B&W, Meridian, E.V., Vandersteen, Dynavector, Snell, Tascam and more...For information: P.K. AUDIO, 4773 Convention St., Baton Rouge, LA 70806, (504) 924-1001.

NEW ENGLAND ELECTRONICS EXCHANGE—The national marketplace for quality used audio and video equipment. \$6 yearly subscription. Box 82, Harvard Square, Cambridge, MA 02138. (617) 491-3000.

QUALITY, USED AUDIO EQUIPMENT! Newsletter; hundreds of listings, Items for sale, Items sought, published 6X annually. \$6 one year subscription. Hard to find audiophile records! Play it Again Sam, 12611-SR, Madison Avenue, Lakewood, Ohio 44107. (216) 228-0040. MC, Visa.

FREE SPEAKER CATALOGI Woofers, mids, tweeters, hardware, crossovers, grille cloth, plans, kits, information, much more. Discount prices! UNIVER-SAL SOUND, Dept SR, P.O. Box 36052, Sarasota, FL 33577. (813) 953-5363.



Intellit. Edst. (304) 202-4000, West. (213) 64-60-053. (WE WILL NOT BE BEAT!!!) Lowest prices anywhere! Super selection, full warranty, fast delivery—Audio— Video—Car Product—Computers. Visa/Mac. Call now (203) 934-5291. (Audio People), 1000 Orange Avenue, West Haven, CT 06516.

FONS CO30. MARK I TURNTABLE. Close out sale. \$125.00 each plus shipping. New units, limited quantity. Lord Brothers, P.O. Box 6430, Denver, Colorado 80206. (303) 534-7590. Colorado Residents Add Tax.



CALL US! Conrad-Johnson, Hafler, Perreaux, PS Audio, Krell, Amber, Denon, NAD, VSP Labs, Adcom, Audiosource, DCM, ADS, Boston Acoustics, Ohm, Rogers, Tandberg, Thorens, Grace, Grado, Nitty Gritty, VPI, Dynavector, more. AUTOMOTIVE: Concord, Kenwood, Linear Power, Zapco, more. Friendly, expert consultation. Fast, free shipping. MC/VISA. REFERENCE AUDIO SYSTEMS, 18214 Dalton Avenue, Gardena, CA 90248. (213) 398-4205.

CALL TOLL FREE 1-800-826-0520 for Acoustat, Dahlquist, NAD, Carver, Denon, Thorens, Hafler, dbx, Tandberg, DCM, Grace, Dynavector, 3D, B&W, Harmon-Kardon, Proton, Belles, Snells, Nitty Gritty, Vandersteen, Stax, SOTA, Amber, Bedini, Audio Control, Grado, Micro-Seikl, THE SOUND SELLER, 1706 Main St., Marinette, WI 54143 (715) 735-9002.

TRADE UP/TRADE IN at Q Audio. Buy-Sell-Trade-Consign-Brokerage. Low Prices/Phone Quotes. \$3.00 Catalog. 95 Vassar, Cambridge, MA 02139. (617) 547-2727.



From the worlds oldest and largest speaker kit manufacturer, SPEAKERLAB. Save up to 30% on the speaker designs critics rave about. From tiny bookshelf speakers to slender, floorstanding models to massive folded corner horns. PLUS the latest in state-of-the-art car speakers. All in Speakerlab's 1983 catalog. Send for it today. (Allow 4 - 6 weeks for delivery, Send 51.25 for faster, first class postage.)



SAVE 75%. BUILD YOUR OWN SPEAKERS, Crossovers, Woofers, Mids, Tweeters. Instructions. Hi-Fi, Pro, Auto. Send \$2.00 for catalog-refundable. DKI Audio, Davis, IL 61019.

THE ABSOLUTE SOUND[®] is the reference standard audio magazine devoted to music and stateof-the-art equipment. We don't compromise. Neither should you. MASTERCARD, VISA accepted. Call Cathy (10-5 ET) at: 516-671-6342 for subscriptions.

DANIEL QUEEN—NESTOROBIC—BELLES, Pyramid, Allison, Oracle, Snell. Audio Center, 4815 Gratiot, Saginaw, Michigan 48603. (517) 790-7444.

AUDIO DEN, call us for our service, our experience and especially our prices. We carry Adcom, Audio Research, Dahlquist. Infinity, Nakamichi, Polk, SAE, Revox and Klipsch. We ship anywhere in the USA. Experienced with overseas sales. AUDIO DEN LTD., Smith Haven Plaza, 2021 Nesconset Highway, Lake Grove, New York 11755. (516) 360-1990.

ATTENTION HEADPHONE USERS, sound professionals. Finally available Binaural Converter. Restores space perspective. Industrial Cybernetics, P.O. Box 2477, Santa Barbara, CA 93120.

LET RECOR-DEX ORGANIZE AND INDEX YOUR LP COLLECTION. Set of 10 side tabbed vinyl dividers, LP album size, plus 60 printed press-on labels. Labels include 20 most recorded classical composers plus all record store categories (symphony, concerti, R&B, Country, Pop, etc), or you can alphabetize. \$12.95 per set, plus \$3.00 shipping. (California residents add 6%). Extra dividers \$1.00 each postpaid. CHECK, VISA, MASTERCHARGE (EXPIRATION DATE). ENMARIN INC., Box 3727, San Rafael, CA 94901. ORSONIC AV SERIES RESONANCE CANCELLING UNIVERSAL HEAD-SHELLS by OMNI-AUDIO. Unique frame design improves imaging, instrument detail, focus. Three models, AV-1, AV-11, AV-101 in black or silver anodized finishes. OMNI AUDIO, 101 Townsend Street, San Francisco, CA 94107. (415) 777-1114.

THE REVIEWERS ARE RAVING! Our customers are delighted! Get our brochure and see why WE ALONE offer the definitive Hafler mods. MUSICAL CONCEPTS, 1060 Fifth Plaza, Dept. 2, Florissant, MO 63031. (314) 831-1822.

NEEDLES! NEEDLES! NEEDLES! NEEDLES! Genuines, LOWEST Prices. (COD ok) Call: AUDIOFoN, 800-431-3232.

HIGH-END SPEAKER KITS, raw drivers, and auto speaker systems from the world's finest manufacturers. For beginners and audiophiles. Audax, Dynaudio, Dalesford, Peerless, JVC, SEAS, Jordan and others. A&S SPEAKERS, Box 7462S, Denver, CO 80207. 303 399-8609.

HAFLER IN STOCK TRADES ACCEPTED. Morel Electronics, 57 Park Place-SR, New York, NY 10007, (212) 964-4570.

DISCO STAGE LIGHTING. PROFESSIONAL SOUND EQUIPMENT. Fog/bubble/snow machines. Flash kits, snake lights—wholesale prices. Call or write FREE catalog. HOOKS SOUND, 1207 31W, Bowling Green, KY 42101. (502) 842-1556.

BANG & OLUFSEN, Carver, Dynavector, Revox. Reasonable prices. Soundcrest Inc., (201) 756-4858. ELECTRACRAFT features Aiwa, AudioControl, B&O, Concord, Dahlquist, DCM, Denon, Grado, Hafler, Istand Sound, Linear Power, Mitsubishl, NAD, NEC, Signet, Snell, Thlel. ELECTRACRAFT, 212 No. First Ave., Sandpoint, Idaho 83864. (208) 263-9516.

PIONEER AUTO-RCA Video-Commodore & Atari computers. The Stereo Factory, Box 1326, Huntington, W / 25714. Phone; 304-522-8031. Free Catalog.

YOUR FM RECEPTION PROBLEMS SOLVED, New hipower FM signal booster tunable + rf gain control; increases sensitivity and selectivity phenomonally. Installs in minutes at FM tuner. 30 day money back guarantee. Write: Magnum (SR), P.O. Box 219, Alexandria Bay, NY 13607.

DYNACO OWNERS: 60,000 LBS parts/accessories. Free catalog. SCC, Box 551, Dublin, Ohio 43017, (614) 889-2117.

MONSTER CABLE. 65¢ per ft. cut to any length. Gold pins 50¢ each, interlink also available. \$3.00 shipping charge. MC and VISA. Trolly Stereo, 451 Moody Street, Waltham, MA 02154. (617) 891-3337.

CASSETTE ORGANIZER—We've looked! And discovered that there is only one cassette storage system that is functionally and aesthetically beautiful—OURS! 48 cassette holder 515.95; 64 519.95; 96 528.95; 128 "The Wall" \$37.95. Please include \$2.00 postage on all orders. Units are self standing or wall mountable. SASE for additional information. R&R Audio, P.O. Box 241, Kenmore Station, Boston, MA 02215.

MARIAH ACOUSTICS LOUDSPEAKERS deliver audiophile performance at affordable prices. Rte 28, Arkville, NY 12406. Dealer inquiries invited (914) 586-3295.

FRUSTRATED EXPANDER OWNERS—If you like what dynamic range expansion does to improve recorded and FM sound, but are frustrated with imperfect designs, the NEW RG Dynamics ROBERT GRODINSKY SIGNATURE SERIES Dynamic Range Expander is the answer! The patented circuitry of the ROBERT GRO-DINSKY SIGNATURE ONE EXPANDER restores detail, translents and dynamic range compressed in the recording process. The accuracy of musical attack, the correctness of harmonic structure and the unique Improvements in stereo image must be heard in your own system to be appreciated. You will hear detail on all your records, tapes and FM which was only hinted at before. Music sounds live and background noise is markedly reduced. We invite you to audition the SIGNATURE ONE on our money back offer. The price of \$495.00 includes shipping in the continental US. To order or for information, call: RG DVNAM-ICS, at 800-323-3665 from 9-5 CST (Hilnois call 312-673-7000). VISA and MASTERCARD accepted.

GAS REPAIR SERVICE, tactory trained techs. Call or write for price info. S&M Electronics, 17200 Parthenia St., Northridge, CA 91325. (213) 701-7697.

CLOSEOUT BARGAINS—Advent, Dual, Cynaco, MXR, Marantz. Free list. SCC, Box 551, Dublin, Ohlo 43017. FREEI 1983 CATALOGUE.1001 bargains. Speakersparts-tubes-high fidelity components—record changers—tape recorders—kits. Everything In electronics. Write: McGEE RADIO & ELECTRONICS. 901 Mcgee Street, Kansas City, MO 64108-1891.

AUDIO DISCOUNTS offers quality audio equipment including esoterics and car stereo at DISCOUNT PRICESI Monday thru Saturday call: (301) 593-8244, (301) 593-8224. AUDIO DISCOUNTS, 1026 McCeney, Silver Spring, MD 20901. VISA, M/C, C.O.D. for your convenience.

TEAC AL700 ELCASET—machines originally \$1100 factory sealed \$349. Ferrichrome tape and elcaset accessories stocked. Martin Gasman, 779 Worchestor St., Wellesley, MA 02181 (617) CEL-TICS.

MUSIC LOVERS AND AUDIOPHILES!! We are proud to announce the GRAND OPENING of 'APPLE AU-DIO', featuring the finest such as: ADS, Amber, Audio Pro, Audio Control, Beyer, Blaupunkt, Celestion, DCM, Dynavectro, F.A.S., Grace, GEM, Last, Monster Cable, Pyramid, Sherwood, Sumiko, Sony, Thorens, 3D Acoutics, Ortofon, Ungo Box and morel Professional Installations on Car Audio and Alarms, FREE SHIPING IN USA. Feel free to call for information. Open 7 days. 220 Volts Electronics for overseas also available. APPLE AUDIO, 74-18 37th Ave., Jackson Heights, NY 11372. EXIT BROADWAY/ROO-SEVELT ON BOE (278). MC/VISA, Tel: 212-507-0561. NAKAMICHI Shamefully Low Prices. New and used. BX-2, LX-3, LX-5, ZX-7, ZX-9, Dragon. AudioWorkShop, (206) 323-4887.

SAVE!!! LOWEST PRICES ON NAME BRAND STEREO EQUIPMENT. All units new with full warranty. Call for low prices or write for free catalog. The Audio Advisor Inc., Box 6202, Grand Rapids, MI 49503, 616-451-3868. VISA, MC, Amex.

DROP IN NOW FOR A NEW CATALOG FEATUR-ING; B.E.S., Bang & Olufsen, N.A.D., Carver, Boston Acoustics, Denon, Alpine, Luxman, Allison, D.C.M., 3D Acoustics, Adcom, Pyramid, ADS, Amber, Audio-Pro, AudioSource, AudioControl, Benchmark, Beyer, Cizek, C.J. Walker, D.N.R., Dynavector, Fried, F.A.S., Grace, Grado, Hitachi, Last, Mitsubishi, Monster Cable, Nitty Gritty, Niles, Plexus, Proton, Signet, Stax, Sumiko, Ungo Box and plenty more. Prompt, courteous service. FREE shipping in U.S.A. Feel free to call for information. SOUND STAGE AUDIO, 184-10 Horcce Harding Boulevard, Fresh Meadows, NY 11365, (212) 762-3220, Exit 25 (Utopia Parkway) L.I.E., MC/VISA.

FREE SPEAKERKIT CATALOG, 17 proven designs. Also, 40 pages on 400 components, {JBL, ribbons, polypropylenes) \$2. GOLD SOUND, Box 141SR, Englewood, CO 80151. (303) 789-5310.

STEREO and VIDEO consultant DEALERS and campus REPS to sell Kinetic Loudspeakers and other distingulshed manufacturers' products. Opportunities for great profits and fun. Contact: HEAR NOW! STEREO, 6628 W. trving Park Rd., Chicago, IL 60634, or afternoons, (312) 685-6434. VISA/MC.

OHM, SNELL, PERREAUX, ASTATIC, N.A.D., 3D, Oracle. Conrad Johnson, Walker, Thiel, Audloquest, Amber, Dynavector, Cizek etc. ShippIng paid. Audio File, 1202 South Congress, Austin, Texas 78704. (512) 443-9295.

NEEDLES! NEEDLES! NEEDLES! NEEDLES! Genuines, LOWEST Prices. (COD ok) Call: AUDIOFoN, 800-431-3232.

THE PHANTOM OF RADIO PAST bids you listen to Old Radio shows recorded devilishly cheap on Maxell reels and cassettes. Send \$2 (deductible) for Deluxe Illustrated Catalog. Jim Theis, Rt. 2, Box 212-B, Robertsville, MO 63072.

TAPES & RECORDERS

OLD TIME RADIO—original broadcasts on quality tapes. Free catalog. Carl R. Froelich, Route One, New Freedom, Pennsylvania 17349.

| | 1-800-2 | 245-6000 | |
|------------------|---------------------|--------------------------|-------------|
| | TAPE | WORLD | |
| JVC T-120 | .8 09 | | |
| TOK MA-90 | 4.49 | | 0 849 |
| TDK SAX-90 | 3 19 | MAXELL XLI or IIS-90 | 3 59 |
| TDK ADX-90 | 2 99 | MAXELL UDXL For IIC-90 | .2 59 |
| TDK SA 90 | 2 25 | MAXELL UDXL for IIC-60 | 2 29 |
| TDK SA-60 | 1.89 | MAXELL UD-90 | 2 19 |
| TDK AD-90 | 1.89 | MAXELL XL 135-908 | 6.49 |
| TOK AD-60 | 1 49 | MAXELL UD 35-90 | 5 39 |
| TDK D-90 | 1.29 | SONY UCXS-90 | 2 99 |
| TOK D-60 | 1.15 | TDK HD-01 (Head Demag |) 13 99 |
| WE WILL HONOR AN | COMPETITORS PR | RICE OF THE TOTAL ORDER | R . |
| | order in US VISA, I | MC no extra charge COD A | |
| 323 Brown Ave. | Box 361 | Butter, PA 16001 | 412-283-862 |

OPEN REEL TAPES. Prerecorded. Catalogue. \$1.00. Barclay-Crocker, 313-S Mill Street, Poughkeepsie, NY 12601.

1930-1962 RADIO PROGRAMS. Beats Television!! Tapes, \$1.00 Hour! Established esteemed dealer. Informative 275 page catalog. \$1.25. AM Treasures, Box 192SR, Babylon, N.Y. 11702.

THE COMPLETE COLLECTOR'S MAGAZINE for Record, Tape, Video and Memorabilia Collector's. Low cost collector's ads. INTERNATIONAL DIRECTORY OF COLLECTOR'S in every issuel. Six issues, U.S. \$15.00, Canada \$18.00, Foreign \$29.00. INTERNA-TIONAL COLLECTION CONNECTION, P.O. Box 5190, Dept. SR, Glendale, AZ 85306. AMPEX 1800' 7" REEL TAPES. New! Boxed! Backcoated. 10 reels \$25.00. 20/\$45.00. Add \$4.00 shipplng. Tower, Dunkirk, MD 20754-0213.



| SA 90 | \$2.39 | LX 3590B | .5 85 |
|-----------------|------------------|---------------------------|----------|
| SA 60 | 1 89 | GX 35908 | 7 85 |
| MA 90 | 4.49 | SA 3590 | 9 60 |
| OD 90 | 2.49 | TDN 1012 | CALL |
| D 30 | 1.09 | CP 15 | 3 99 |
| D 60 | 1.15 | | |
| D 90 | 1 39 | DISCWASHER | |
| D 120 | 2 29 | DISC KIT | \$33.99 |
| AD 90 | 1.85 | D4 (16 oz) | 10 25 |
| AD 60 | 1.49 | perfect path | 4,99 |
| HD 01 | 13 99 | perfect pairs | |
| MAR | CALL | | |
| SAX 90 | 3 25 | VIDEO (CASE LOT | (S) |
| ADX 90 | 3 19 | T 120, L 750 | 9,49 |
| UDXL2 90 | 2 69 | T 120HG, L750HG | 11,99 |
| UDXL2S 90 | 3 69 | L 500 | 7 99 |
| REEL TO REEL | | L 830 | 12 99 |
| LX 3590 | 55 35 | HEADCLEANERS | CALL |
| UPS shipping of | n orders up to S | 70 add \$3.50 Over \$70 a | dd 5% to |

FREE CATALOG!! Complete selection of Consumer and Industrial Audio/Video tape and accessory products. COMPETITIVE PRICES! PROMPT DELIV-ERY! Corporate/Bid Solicitations Welcome. Wyco Sales, Dept. SR P.O. Box 887, Cary, NC 27511. (919) 467-8113.

MASTERING-DUPLICATION QUALITY RECORDING TAPE, custom loaded. Cassettes, reels, "HUGE SAV-INGS FROM MANUFACTURER" low prices: Maxell, TDK, more. Large SASE-CATALOG. MJS, 2514-SR Seaboard Avenue, San Jose, CA 95131. (408) 262-8793.

OPEN REEL TAPE — Mostly Ampex 641/671, used once, unspliced, unboxed. 7" 1800' or 2400' 50 Reels: \$65.00. Sample \$2.00. New, premium cassettes and 8 track cartridges available. Sample \$1.00 each. AUDIO TAPES, Box 958-K, Alexandria, VA 22304. (703) 892-8722. VISA/MC.

AUDIO SPECIALTY SHOPS

FOR ALL MUSIC LOVERSI We have the widest selection of audio equipment available in all price ranges. Kyocera, Sherwood, Allison, Harmon-Kardon, Bose, Aiwa, Thorens, Ortofon, BES, AKG and more. Call for information or stop in. CONTINENTAL SOUND, 98-77 Gueens Blvd., Rego Park, NY 11374. (212) 459-7507. Immediate Delivery. MC/VISA.

AUDIOPHILESIIIII Acoustat, Audio Research, Oracle, Acoustic Electronics, Linn-Sondek, Carver, Denon, Hatler, DCM, Dahlquist. Best values available. CSA AUDIO, 193 Bellevue, Montclair, New Jersey 07043, (201)744-0600.

CENTRAL KENTUCKY'S AUDIOPHILE CENTER!!! SOUND AUDIO. Affordable hi-end equipment for the music lover. Belles Research, Counterpoint, Grace, Janis, Koetsu, Linn, Pyramid, 3D Acoustics, JVC Video, Sony Video. 153 Patchen Dr., Lexington, KY 40502, (606) 209-4118. For information call or send SASE.

UNDERGROUND SOUND. Specializing in Audiophile stereo. Serving the mid-south. 2125 Central, Memphis, Tennessee 38104. (901) 272-1275.

THE SOUND ENVIRONMENT. Come listen to the best in our single speaker demo room. Free record reviews and recommendations. Expert service. Acoustat, Bang & Olufsen, Canton, Klipsch, Mark Levinson, Linn, Magneplanar, RH Lab, Tandberg, Vandersteen. Two locations: Regency Fashion Court, Omaha, NE 68114, (402) 391-3842. 2710 So. 70th St., Lincoln, NE 68506, (402) 483-4511.

WE CAN REMOVE YOUR STEREO PURCHASING CONFUSION. Knowledgeable. References! Belles, Denon, Fried, Linn, PS Audio, Vandersteen and many more. Information package \$5.00: AUDIO CONNEC-TION, 615H Bloomfield Ave., Verona, NJ 07044, (202) 239-1799. FREE SALE FLYER! Many bargains in NEW and USED equipment. AUDIOPHILE'S SOUND STUDIO, 330 Westgate Mall, Madison, WI 53711. (608) 273-3211.

RECORDS

SHOW ALBUMS, Rare, Out-of-Print LP's. 64 pg. list. \$1.00. Broadway/Hollywood Recordings, Georgetown, Conn. 06829. STORE: 68 Sugar Hollow (Route 7) Danbury, Conn.

COLLECTORS' Soundtracks. Mint. List \$1 (refundable). Jemm's, P.O. Box 157, Glenview, III. 60025.

RARE ORIGINAL RECORDS, all kinds, mostly mint. 5000 list \$2.00, refundable. Carl, Box 828, Princeton, NC 27569.

DIRECT—DISC, DIGITAL, half-speed mastered, DBX encoded, and YSL Japanese Pressings. Send \$1.00 for catalog. DISConnection, P.O.Box 10705, Tampa, FL 33679.

RECORD COLLECTORS SUPPLIES. S.S.B. Cardboard jackets, 50¢. Plastic lined sleeves, 15¢. Opera boxes, 78 sleeves, etc. Postage \$2.00. FREE CATALOG. VISA-MC phone orders, 614-299-0476, 614-272-6715 DAY OR NIGHT. CABCO, 400-3, Box 8212, Columbus, Ohlo 43201.

PROTECT your LP's—Poly sleeves for jackets 13¢; Square Bottom Inner Sleeves 8¢; Poly lined paper 15¢ white jackets 35¢. Postage \$2.50. Record House, Hillburn, N.Y. 10931.

THOUSANDS of like new LPs, prerecorded tapes catalogue \$2.50. Records, Hillburn, New York 10931.

OVER 700 AUDIOPHILE RECORDINGS AVAILABLE! Detailed monthly Bulletin offers latest releases, Special sales and more. 20% off initial order! Send for FREE catalogue issue. The Essentials Marketing, Dept SR-6, Box 7724, Eugene, OR 97401.

FREE RECORD CATALOG. New releases at discount prices and huge selection of classical, soundtrack, popular and jazz special values. Rose Records, Dept. R, 214 So. Wabash, Chicago, IL 60604.

WORLD'S LARGEST, COMPUTERIZED CATALOG of rare records, 26,000 entries. Classical, showbiz, popular, jazz, comedy, spoken. \$4.00 refundable. Round Sound West, P.O. Box 2248, Leucadia, CA 92024.

SOUNDTRACKS—New and out-of-print film music recordings. Free listings. CINE MONDE RECORDS, 1488 Vallejo St., San Francisco, CA 94109.

RECORDS/TAPES/IMPORTS! Extensive selection of European and Japanese imports, domestic records, tapes and new releases. Super Discount Prices. Send \$1.00 for Import and Domestic catalog! MOBY MUSIC, 14410(S) Ventura Blvd., Sherman Oaks, CA 91423.

VIENNESE OPERETTA RECORDS, INC. Graf von Luxemburg, Grafin Mariza, Land des Lachelns, Wiener Blut, many other sparkling delights! Call Toll-free for free LP list or to order: 1-800-343-3338, (Mass. 1-800-322-3314). Or write: P.O. Box 300-A, Yarmouthport, MA 02675.

FREE GIANT LP & TAPE CATALOG, Discount LPs, Cassettes, Blank Tapes, Current, Budget, Out of Print, Collector's items. Music Supermart, P.O. Box 1635, Reseda, CA 91335.

FREE IMPORT RECORD CATALOGUEI Finest quality rock, new wave, audiophile pressings from Japan, Europe, UK. Large selection. Huge Inventory. 24 hour service. STRAIGHT LINE MARKET, P.O. Box 8822-E, Durham, NC 27707.

ORION RECORDS, CASSETTES, \$8.00 each postpaid. \$7.00, three or more. Free catalog. Box 4087, Malibu, CA 90265.

AUDIOPHILE ALBUMS, DISCOUNT PRICESI Prompt shipping. FREE catalog. FOR THE RECORD, Box 21201BB, Columbus, OH 43221.

MELODIYA LABEL CLASSICS. Large selection. Catalog-\$1.00, refundable. Write: ZNANIE IMPORTS, 5237 Geary Blvd, San Francisco, CA 94118, (415) 752-7555.

PICTURE your Expand-Ad* in all BOLD type! Call 725-3927 for more information.

ORGAN AND CHORAL RECORDS. For free catalog write: Gothic Records, P.O. Box 1576-F, Tustin, CA 92681.

FOR SALE 1,000 CLASSICAL LP's and cassettes new and used. Excellent condition. 50-60% off list price. Send SASE for details to: Critic's Choice, P.O. Box 17183, Salem, OR 97305. BEST AUDIOPHILE LP'S?? Dozens evaluated in AU-DIOPHILE RECORD REPORT! Double Edition/\$9; OVERSEAS/\$12. P.O. Box 3482, Pittsburgh, PA 15230.

WANTED

GOLD, silver, platlnum, mercury, tantalum wanted. Highest prices paid by refinery. Ores assayed. Free circular. Mercury Terminal, Box 191, Norwood, MA 02062.

CASH FOR Unwanted LP's, Prerecorded Reel/Reel Tapes. Reder, Box 323S, Hillburn, NY 10931.

WANTED: MUSIC LOVERS to review and rate nationally released rock albums. Receive Free album in exchange for your opinion — Music Poll Write: Class-A-Researching, Box 07023(RS), Milwaukee, WI 53207.

BUSINESS OPPORTUNITIES

ERASE DEBTS with little-known law—CREATE wealth! Details FREE—WealthKit, No. DD6, Billings, N.Y. 12510 MAIL ORDER OPPORTUNITY! Start profitable business without experience or capital. Information free. Mail Order Associates, Dept. 486, Montvale, NJ 07645.

MAKE MONEY IN COLLEGE: Sell Audio/Video/Car Stereo on campus - 70 brand names - 10,000 items in stock. Dealer catalogue 220 pages. Ask for Kay 800-241-5270.

BORROW \$300—\$30,000 INTEREST FREE! Keep Indefinitely! Free Details. Write: American. 1601 Main, Plainfield, Indiana 46168.

AMAZING PROFITS SELLING How to Make Money Books! Details \$1.00. Tom, 298''S'' Sandbug Lane, North Bend, OR 97459.

BORROW \$30,000 without Interest! All eligible. Repay anytime. Free detalls! Infohouse-508S, 533 Sutter, San Francisco, CA 94102.

SALES REPRESENTATIVE. Part Time—For large national audio distributor. Knowledge of audio equipment important. Many areas still open. Call 9AM to 9PM dally or till 5PM Saturdays. International Distributors, Baltimore, MD 21206, Phone 1-301-488-9600.

SONY, SEIKO, CASIO. Your prime source of supply. Asian, Box 1584 CPO, Tokyo 100-91.

MAKE \$100 A DAY: How would you like to receive 100 letters a day, each containing \$1.00? It's easy. We'll send you this plan with directions plus six money-making formulas for only \$1. (C.A.S.H. Unitd., P.O. Box 49724, Chicago, IL 60649.

MAKE MONEY FROM HOME. Excellent opportunities! Details \$1.00. Chamberlin, 4166 Almond Street, Riverside, CA 92501.

STEREO SALES NEEDED—Newly established importer from Orient is looking for aggressive Sales Reps specialized in Speaker System and Audio Video furniture. Send Resume to: P.O. Box 15474, Los Angeles, CA 90015.

INSTRUCTIONS

YOUR OWN RADIO STATION! AM, FM, cable, licensed, unlicensed, low cost transmitters! Free information. Broadcasting. box 130-R6, Paradise, CA 95969.

BE A RECORDING ENGINEER! New classes quarterly. Institute of Audio/VIdeo Engineering, 1831 Hyperion, Dept L, Hollywood, CA 90027, (213) 666-3003.

ELECTRONICS

ELECTRONICS BARGAINS, Closeouts, Surplus, Video, Audio, Cable TV, Computers, Telephone, Security, Intercom, TV Parts, Incredible values for hobby, industry & schools! Fascinating Items unavailable in stores or catalogs anywhere. New 112 page catalog. Rush \$1. ETCO, Dept. 648, Box 840, Champlain, NY 12919.

MOVIE FILMS/VIDEO TAPES

16mm SOUND Features, Shorts, New, Used for Sale. Free Catalog. National Cinema, P.O. Box 43, Ho-Ho-Kus, NJ 07423.

VIDEO MOVIES. Everything imaginable! VHS-Beta-Disc. Sold. Exchanged. Giant catalog \$5.00. Tower, Dunkirk, MD 20754-0213.

MUSICAL INSTRUMENTS

WORLD'S LARGEST SELECTION of band instruments and accessories at unbelievable low prices! Send for free price list. THE WOODWIND AND THE BRASSWIND, 50741 US 31N, South Bend, IN 46637, (800) 348-5003.

BOOKS & MAGAZINES

PUBLISHERS' OVERSTOCKS. BARGAIN BOOKS 2,000 titles, all subjects! Free catalog: Hamilton's, 98-58 Clapboard, Danbury, CT 06810.

CABLE TV SECRETS, the informative publication the cable companies tried to ban. HBO, Movie channel, showtime, converters etc. Send \$8.95, (Canada add \$2.00) to: CABLE FACTS, Box 711SR, Pataskala, Ohio 43062.

EDUCATIONAL OPPORTUNITIES

LEARN WHILE ASLEEP. Hypnotize! Astonishing details, strange catalog free! Autosuggestion, Box 24-ZD, Olympia, Washington 98507.

FOR INVENTORS

INVENTORS! IDEAS HAVE VALUE!

Ever think of an idea, forget it and see it later on the market? Many people don't forget, act quickly and are rewarded by American Industry. Write down your idea! We offer free disclosure registration and initial consultation regarding your idea's potential value. Call or write without delay for your free information package.

AMERICAN INVENTORS CORPORATION 82 Broad St., Dept. SR Westfield, MA 01086 (413) 737-5376

A fee Based Marketing Company Offices Coast to Coast

PERSONALS

MAKE FRIENDS WORLDWIDE through International correspondence. Illustrated brochure free. Hermes-Verlag, Box 10660/Z, D-1000 Berlin 11, W. Germany.

PENFRIENDS—ENGLAND—USA. Through correspondence. Send age, interests. Free reply. Harmony, Eox 89SR, Brooklyn, New York 11235.

CORRESPONDENCE FOR FRIENDSHIP IN PHILIP-PINES, MALAYSIA. Free information. AAWS-(SR), Box 2777, Orcutt, California 93455-0777.

OVER ''40?'' SINGLE? SEEKING RESPECTABLE COMPANIONS? Write: Over ''40'' Club, Box 309, Westchester, PA 19380.

SCANDINAVIAN LADIES, SINCERE, seek correspondence for friendship. Details—Send stamp: Scannaclub, Box 4-SR, Pittsford, NY 14534.

ORIENTAL SINGLES seeking cultural exchange, friendship, sharing, marriage. Write: CHERRY BLOS-SOMS, Box 1021P, Honokaa, Hawaii 96727.

DISCOVERI Oriental Paradise, Box 12710, Rochester, New York 14512. Representing Christian, Educated Ladies desiring correspondence. Members Information Guide, Saves hundreds. (Enclose Stamps).

AUDIOPHILES. Ever buy a lemon? Author seeks storles of your complaints and disappointments. Write: Audio Self Help, P.O. Box 880411, S.F., CA 94188.

RUBBER STAMPS

RUBBER ADDRESS STAMPS, BUSINESS CARDS. Free Catalog 1-800-851-4945 Jackson's, Brownsville Road-E-101, Mt. Vernon, III. 62864.

MISCELLANEOUS

UNIQUE—ELEGANT black and white litho prints of Frank Sinatra, Tony Bennett, Ella Fitzgerald, Beatles, Janis Joplin, Ray Charles. Never before available. Brochure \$1.00. Janns Co., P.O. Box 932, Peorla, IL 61614.



FREE SPEAKER CATALOGI Woofers, mids, tweeters, hardware, crossovers, grille cloth, plans,, kits, information, much more. Discount prices! UNIVERSAL SOUND, Dept SR, 2253 Ringling Blvd., Sarasota, FL 33583. (813) 953-5363. (mezzo-soprano), Kundry; others. Prague Philharmonic Choir; Monte-Carlo Philharmonic Orchestra, Armin Jordan cond. ERA-TO O NUM 750105 five discs \$54.98.

Performance: Very good Recording: Very good

Time is precious and endurance has its limits: in short, I am not planning to see H.-J. Syberberg's much-touted film *Parsifal*. But I am delighted to welcome its nearly unheralded by-product, a digital recording of the complete opera for leisurely home listening. [For those with less leisure time, a single disc of highlights is available on Erato NUM 75037 for \$10.98.—*Ed.*]

There are no star personalities here, but this recording is a commendable achievement, strong enough to stand comparison with earlier, more stellar versions. Perhaps it is the proverbial Swiss sobriety and common sense that keeps conductor Armin Jordan from veering off into excess. He gives us a relatively low-key *Parsifal*, devoid of great passions and religious ecstasies. He moves the music sensibly along, controlling its complexities with a sure hand, and, without calling attention to virtuosity, he makes the Monte-Carlo Philharmonic sound like a first-class ensemble.

Reiner Goldberg! What an interesting name for a Parisifal! Wagner envisioned the hero as a "reiner Tor," a pure and guileless fool, though he would have regarded the name Goldberg with suspicion. In any case, this rising tenor acquits himself very well. His tone lacks truly heroic body, but it is agreeable, with a bright and youthful ring, and it has sufficient strength to make the great moments ("Amfortas, die Wunde," for instance) convincing and even effective. He faces an excellent Kundry in Yvonne Minton, who manages to convey the sharply contrasting elements of the character; harsh aggressiveness in Act 1, sultry languor in Act II, abject penitence in Act III. Her voice too is in fine shape, effortlessly taking in the higher reaches of the part.

The grueling but effective role of the long-suffering Amfortas has had some impressive interpretations in previous recordings, led by the nobly sung and extremely moving portrayal of José van Dam (DG/ Karajan), but Wolfgang Schöne holds his own with a committed and vocally solid performance. Robert Lloyd's gruff but thoughtful and compassionate Gurnemanz is on a high artistic level despite the singer's tendency to spread his tones around the center. The fierce Klingsor of Aage Haugland and the firmly resonant Titurel of Hans Tschammer are also creditable characterizations, and the cast is ably bolstered by the usual complement of Flower Maidens, Knights, and Squires, all performing above reproach. G.J.

COLLECTIONS

RECORDING OF SPECIAL MERIT

VLADIMIR HOROWITZ: On Tour, 1979/ 1980. Clementi: Sonata Quasi Concerto in C Major, Op. 33, No. 3. Chopin: Barcarolle in F-sharp Major, Op. 60; Étude in Csharp Minor, Op. 25, No. 7; Étude in G-flat Major, Op. 10, No. 5 ("Black Key"). Rachmaninoff: Prelude in G Major, Op. 32, No. 5; Moment Musical in E-flat Minor, Op. 16, No. 2; Polka V.R. Vladimir Horowitz (piano). RCA ARL1-4322 \$9.98, © ARK1-4322 \$9.98.

Performance: Magical Recording: Very good

Since this collection is headed "1979/ 1980," I assume its contents come from both years, but the quality of the recording is gratifyingly consistent and splendidly reproduces the sound of Horowitz's piano. It's a bit warmer and less clangy, in fact, than what we've become resigned to accepting in his tour packages. There are some passages in the Barcarolle that suggest the piano was in need of tuning, but overall (and with the most exemplary co-operation on the part of the audience) this album is a powerful argument in favor of live recordings. The sound itself is far more alive than in Horowitz's 1971 studio recording of Chopin's Black Key Etude; the new performance exudes more vitality as well, and the levels of poetry attained in the Barcarolle, the Rachmaninoff prelude, and the surprisingly Chopinesque slow movement of the big Clementi sonata are breath-taking.

Throughout this program one senses not only the intensity and brilliance that are the hallmarks of Horowitz's style, but also a warmth and unmawkish tenderness that are perhaps the more striking for their unexpectedness. No one could begrudge the for tunate audience its sighs or resent its applause. Perhaps Horowitz has made more important records than this one, but none, I think, more endearing. *R.F.*

RANSOM WILSON. Reich: Vermont Counterpoint. Glass: Facades. Becker: Stonehenge. Debussy: Syrinx. Jolivet: Asceses: No. 1. Ransom Wilson (flute, alto flute, piccolo); Tom Raney (percussion); Frank Becker (synthesizer); string ensemble, Ransom Wilson cond. ANGEL O DS-37340 \$12.98, © 4XS-37340 \$12.98.

Performance: Good vibes Recording: Gorgeous

Steve Reich's Vermont Counterpoint was written for Ransom Wilson and premiered by him last September at an all-Reich concert at the Brooklyn Academy of Music. It is a tour de force, an avalanche—no, a gentle rain—of flutes: three alto flutes, three of the regular kind, and three piccolos accompanying two solo parts, both using all three kinds of flutes. Wilson plays them all. In concert, ten of the parts are prerecorded, the eleventh he plays live. The result is a charming, gay, summertime piece.

The theme of this record is not really minimalism, it seems, but meditation and spiritual feeling in flute music. Philip Glass's Facades-the original version for soprano saxophones and strings is on "Glassworks" (CBS FM 37265)-has that murmuring, mysterious quality that is one of the most appealing qualities of Glass's music. The Debussy and Jolivet are even more mysterious and exotic. Frank Becker is an American composer who has lived and worked extensively in Japan, performing a great deal with synthesizers in a colorful, Oriental pop version of meditative minimalism. This is that joyful, celebratory Eastern kind of spiritual music that lifts you up and carries you along. It's also gorgeously played and recorded. E.S.

ADVERTISERS' INDEX

| | ADVERTISERS' INDEX | |
|----------|---|---|
| READ | | - |
| SERVI | CE NO ADVERTISER NUMBER | 9 |
| | | |
| 31 | Ace Audio Co | |
| | Acoustat Corp. 24 ADS 53 | |
| 3 | Alwa | , |
| 26 | Audiophile Systems | |
| 33 | Audio Technica U.S., Inc. 108 | 1 |
| | | |
| 15 | BASF | ŀ |
| | Carver Corp. 86 | |
| 24 | Celestion Industries, Inc | |
| 42 | Consumers Company | J |
| | DAK Industries | |
| | dbx, Inc |) |
| 4 19 | Delco Electronics 21 | |
| 28 | Denon America, Inc | 1 |
| 18 | Discount Music Club | } |
| 11 16 | Discwasher 87 Discwasher 97 | |
| | | |
| 25 | Electro-Voice | |
| | | |
| | Fox Marketing | |
| 12 | Fujitsu Ten | |
| 17 | Fultron by Arthur Fulmer, Inc | |
| | | |
| | The Goodyear Tire & Rubber Co | |
| 14 | GRP Records | |
| | | |
| 20 | Illinois Audio 113 Institute of Audio Research 49 | |
| 40 | International Hi-Fi Distributors, Inc | |
| | | |
| 36 | Jack Daniei's | |
| 13 | Jensen Car Audio | |
| 2 | Jensen Sound Laboratories | |
| ~ | 25 | |
| 8 | Kenwood Electronics | |
| 23 | Koss Corporation | |
| | 41 | |
| 41 | LaBelle Camera & Stereo of Maine | |
| 44 30 | LAST Record & Stylus Care Products | |
| 00 | Enteal Fower | |
| | Marlboro | |
| 27 32 | Maxell Corp. of America | |
| 10 | Mitsublshi | |
| | | |
| 22 21 | Nagaoka 91 NEC Cover 2,1 | |
| | NEO COVER 2,1 | |
| 9 | Panasonic | |
| | Philip Morris / Players | |
| 39 | Ploneer Video, Inc | |
| 37 46 | Polk Audio | |
| 35 | P.R.I.C.E. 107 Pyle Industries 80 | |
| | | |
| 34 | The Quality Connection | |
| | | |
| | Radio Shack 2 RCA-International Preview Society 103 | |
| 45 | RCA Records | |
| 6 | RCA-Video Disc | |
| | R. J. Reynolds/Salem | |
| | R. J. Reynolds / Vantage 12 R. J. Reynolds / Winston 30,31 | |
| | 30,31 | |
| 43 | Sansui Electronics Corp. 19 | |
| 5 | Sony Corp | |
| 38 | Stereo Corp. of America | |
| 29 | Stereo Discounters 104 Stereo & Tape Outlet 104 | |
| | 104 | |
| 1 | Technics 4 | |
| | | |
| 56 | Wisconsin Discount Stereo | |
| | | |

JUNE 1983

HEAR ALL OF THE MUSIC AND NONE OF THE TAPE...



6 NUIDE 11155

5/10/2E11/2

FHSSIUSE

< NIDE HIE

1/12/ MINIC

5 NOIT

1/1

DE HISS

THE WORLD'S QUIETEST TAPE

pro II chrome

BASF

If you won't settle for anything less than pure music, accept nothing less than BASF Pure Chrome audio tape. Unlike ferric oxide tapes, BASF Pure Chrome is made of perfectly shaped chromium dioxide particles. And that exclusive Chrome formulation delivers the lowest background noise of any tape in the world, as well as outstanding sensitivity in the critical high frequency range. And this extraordinary tape is designed especially for the Type II Chrome Bias position. So make sure you're hearing all of

the music and none of the tape. Make the switch today to the world's quietest tape. BASF Chrome.



CIRCLE NO. 15 ON READER SERVICE CARD

Introducing a scientific first in stereophone transducer technology and sound.



New Koss PRO/4X

By combining a solid state piezoelectric tweeter with a rare earth moving coil trar sducer, Koss engineers have created a new first in hybrid transducer

technology. It's the new Koss PRO/4x. And it's the ultimate in both stereophone listening and the Sound of Koss.

The PRO/4x's unique tweeter design features a piezoelectric bimorph disc mounted to an acrylic impregnated cone. Incredibly, the piezoelectric's bimorph disc moves

the cone at frequencies from 2,500 Hz to over 40,000 Hz! That means you'll hear the full timbre of each musical instrument without the harmonic distortion found in headphones that peak out at much lower frequencies.

But if the PR 2 , 's tweeter can give you a spine ingling thrill, wait il you hear the bass and midrange. The new FRO/4x features a powerful, yet ex-

> trem aly light, samarium cobalt magnet moving col transducer that reproduces a deep rich bass and a clean, clear midrange. In addition, the FRO/4x's unique floating earplate and Pneumalite® earcushion design conforms automatically to the optimum position for both comfort and maximum seal around the ear for

bass performance to below audibility.

Visit your Koss dealer so you can hear how Koss has extended the state-of-the-art in stereophone sound and design with the new PRO/4x. Once you've heard it, you'll never settle for less.

Suggested retail \$85

C 1982 Koss Corp

GKOSS Stereophones /Loudspeakers/Digital Delay Systems hearing is believing



New Koss Hybrid element

INTERNATIONAL HEADQUARTERS 4129 N. Port Washington Avenue Milwaukee, Wisconsin 53212 Facilities, Canada, England, France, Germany, Ireland CIRCLE NO. 23 ON READER SERVICE CARD