Stereo Review. OCTOBER 1981 • \$1.25 MICROPHONING: Why it is crucial in producing quality recordings PLUS: The case for minimal miking EQUIPMENT TEST REPORTS: Genesis 210 Speaker System Goldring G900E Phono Cartridge Dual 7410 Record Player • Hitachi HA-4700 Integrated Amplifier • Soundcraftsmen RA7503 Power Amplifier DISC SPECIALS: Johnny Mathis' 25th Anniversary • Steeleye Span Arlo Guthrie Stevie Nicks Janis Ian The Swinging Madisons Sibelius' Fourth with Ashkenazy Mahler's Ninth with Karajan Franck Organ Music Mussorgsky Orchestral Showpieces Strauss Waltzes INTEREVIEW: Rosemary Clooney - "I'll sing as long as anyone listens"

ВЕНГР№0 КА 41101 SEOS CONALEA CENB CL ME DBALIS BRCHBABA 210

425596 BCH 56020096 1411 18485

NOOTHERCASSEIE Index Scan:

Plays first five seconds of each piece of music on tape to make cassettes as easy to preview as records.

Auto Reverse:

Plays both sides of tape without interruption so you don't have to jump up to flip the cassette.

Real Time Counter:

Digital display tells you how much time is left on tape in minutes and seconds without need for a calculator watch.

> BUSTS ALL DIRECT ORIVE MONEER STEREO CARSETTE THE DECK C





MON SWATDONG AND

Pioneer has transformed the cassette deck into a component that gives you a new dimension of control over it and the quality of the sound it records and plays. We've done it through a concept we call High Fidelity for Humans.

Electronic and mechanical engineering innovations make Pioneer's new CT-9R a pleasure to listen to.

To start with, Pioneer's engineers have developed a new material for the record and play heads on the CT-9R Cassette Deck. It's called RIBBON SENDUST and it's made with laminations 4 to 5 times thinner than conventional Sendust heads. This virtually eliminates eddy currents that interfere with high frequency response. It also provides a significant improvement in signal-to-noise ratio with extended high frequency response; plus a 3- to 5-dB increase in undistorted headroom at high frequencies. With metal tape the frequency response is an extra-wide 20 Hertz to 22k Hertz. The CT-9R's tape transport system is an incredibly precise dual capstan system with three direct drive motors. The result is an infinitesimal wow and flutter of 0.03%.

More importantly these features allowed our engineers to equip our CT-9R Cassette Deck with a super intelligence: a microprocessor that automatically adjusts bias, level and equalization to maximize the performance of the tape you're using. And this same microprocessor technology makes it possible for the Pioneer CT-9R to offer you an exclusive combination of human engineering features.

Human engineering makes Pioneer's CT-9R a pleasure to live with.

Anyone who records on tape knows how frustrating it is to run out of tape before running out of music. That's why the CT-9R has a Real Time Counter with a digital display to show you how much recording time is left on your tape. Press a button and the same display turns into a Digital Tape Counter. There's also a Blank Search feature that speeds through a partly recorded tape to find the unrecorded section and even leaves a five-second margin between the last song and what you intend to record. To find your favorite song, on a recorded tape, touch Index Scan and the CT-9R will play the first five seconds of each piece of music on the tape. To repeat a song, simply press Music Repeat and listen. The Pioneer CT-9R will even play both sides of a cassette automatically. And the Music Search control automatically plays the beginning of the next song on the tape. There's even an optional remote control.

Now if you think all this sounds too good to be true, visit your nearby Pioneer dealer. You can see and hear the CT-9R for yourself, as well as an entire line of new Pioneer cassette decks. And then if you're wondering why we don't give you less features for the

money like others seem to do, it's because we consider that inhuman.



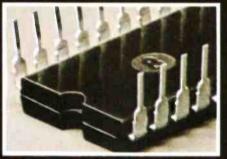
Music Repeat: Lets you play your favorite song, or aria. over and over and over.

NO OTHER CASSETT TECHNOLOGICAL FE



Ribbon Sendust Heads:

Pioneer's exclusive tape head material provides superb signalto-noise ratio.



Advanced Microprocessor: Automatically determines precise bias, Dolby calibration level and record equalization for each tape.

QUERTIAL DIRECT ORACE RIBBON BENDUST HEAD O PIONEER STERED CASSETTE TARE O



Three DD Motor Tape Transport: Three direct drive motors provide exceptional record and play accuracy.

New States



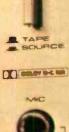
DECK HAS ALL THESE TURES ATANY PRICE.



-





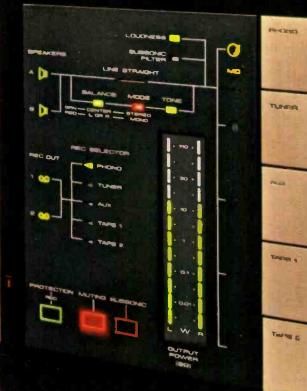


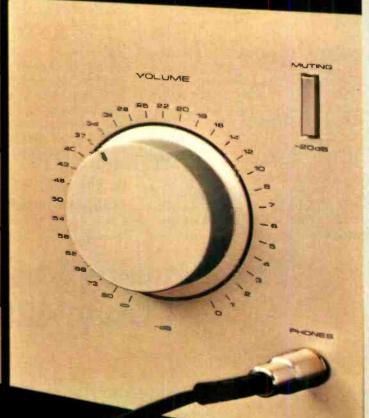
MONITOR



PHONES









Five Important Reasons To Own This New Realistic[®] Digital Synthesized Receiver.

1. The microprocessor controlled, digital synthesized, quartz locked tuner.

Don't let the technical terms frighten you. Simply put, the tuner is computerized. Incredibly accurate. Very easy to use. Even easier to love. When you tune this new Realistic, soft-touch buttons take you to the exact center of the channel you want. Select the search mode and gain instant access to all 109 AM and 99 FM broadcast frequencies. Or choose the automatic mode and stop only at stronger stations. Either way, a triple muting system silences tuning noise, and a quartz crystal reference corrects the circuit over 11 million times each second. Two major causes of distortion - drift and tuning error - are eliminated. With the STAr 2250 you get a clean, uncluttered front panel featuring a six-step LED signal strength readout and a bright LED frequency display you can easily read from across a room.

2. The programmable 16-station memory.

You can also store eight AM and eight FM stations in the computer memory for instant pushbutton recall. Adding or changing memorized stations is easy, and memory contents are protected for one hour, if AC power fails, or if you need to unplug the receiver.

3. Power and protection.

The STA-2250's audio amplifier delivers a powerful 50 watts per channel, minimum rms into 8 ohms, from 20-20,000 Hz, with no more than 0.02% total harmonic distortion. You get complete protection against overdriving, overheating and speaker wiring shorts. The sophisticated muting system even protects your speakers and ears from "thumps" and "pops" when you select sound sources.

4. The heart of a complete system.

The STA-2250 is a very versatile control center. Use the 40-step volume/ balance control and 11-step bass, treble and midrange controls to adjust the response exactly the way you want it. You also get A-B-Both speaker switching, inputs and dub/monitor controls for two tape decks, hi and lo filters and more. All enclosed in a walnut veneer (not plastic or metal) cabinet.

5. We build it. We back it.

Engineering and manufacturing the STA-2250 in our own factory helps us to price it lower, and also eliminates buck passing when it comes to quality control and service. As with every Realistic stereo receiver, you get a twoyear parts and labor limited warranty, honored wherever you see the Radio Shack sign. So if you are starting or upgrading a stereo system, audition the STA-2250 at one of our 7500 + locations today. Once you compare its effortless tuning and flawless musical performance with receivers costing hundreds more, you'll know why we put reason number six on a separate line ...

The Amazing Realistic STA-2250: Only ^s429.95* at Radio Shack THE NATION WIDE SUPERMARKET OF SOUND®

*Retail price may vary at individual stores and dealers.

Stereo Review (ISSN 0039-1220) OCTOBER 1981 • VOLUME 46 • NUMBER 10

The Equipment .

NEW PRODUCTS Roundup of the latest audio equipment and accessories		
AUDIO QUESTIONS AND ANSWERS Power Indicators, Car-stereo Distortion, Individual Hearing	LARRY KLEIN	
CAR STEREO New Speakers and Accessories at CES '81	IVAN BERGER	
TAPE TALK Pitch Problems; Tape Contact; What, No Bias?	CRAIG STARK	
TECHNICAL TALK What Price Distortion?	JULIAN D. HIRSCH	
EQUIPMENT TEST REPORTS Hirsch-Houck Laboratories test results on the Soundcraftsmen RA7503 por Goldring G900E phono cartridge, Genesis 210 speaker system, Hitachi HA-4700 integrated amplifier, and Dual 741Q record player		
MICROPHONING The two big microphone questions are Where and How Many?		
THE CASE FOR MINIMAL MIKING The "back to realism" movement is invading the nation's recording studios		
NEW AUDIO PRODUCTS AT CES '81, PART 2 A report on accessories and audio/video developments	IVAN BERGER	



BEST RECORDINGS OF THE MONTH70Johnny Mathis: "The First 25 Years"70Sibelius: Symphony No. 472Franck: Organ Music72Kid Creole and the Coconuts: "Fresh Fruit"POPULAR MUSICArlo Guthrie: "Power of Love"90Janis Ian: "Restless Eyes"92Stevie Nicks: "Bella Donna"94Cabaret: Bobby Troup and Meredith102CLASSICAL MUSICThe Strauss Family: Waltzes116Music of Two John Adamses128	"I intend to go on singing as long as there is a		to listen''	6
Sibelius: Symphony No. 472Steeleye Span: "Sails of Silver"76Franck: Organ Music72Kid Creole and the Coconuts: "Fresh Fruit"77POPULAR MUSIC80Arlo Guthrie: "Power of Love"90Janis Ian: "Restless Eyes"92Stevie Nicks: "Bella Donna"94Cabaret: Bobby Troup and Meredith102CLASSICAL MUSIC116The Strauss Family: Waltzes116Mahler: Symphony No. 9122The Music of Two John Adamses140	BEST RECORDINGS OF THE MONTH		7	0
Franck: Organ Music72Kid Creole and the Coconuts: "Fresh Fruit"77POPULAR MUSIC80Arlo Guthrie: "Power of Love"90Janis Ian: "Restless Eyes"92Stevie Nicks: "Bella Donna"94Cabaret: Bobby Troup and Meredith102CLASSICAL MUSIC116The Strauss Family: Waltzes116Mahler: Symphony No. 9122The Music of Two John Adamses140	Johnny Mathis: "The First 25 Years"	70	Mussorgsky: Orchestral Showpieces	5
Franck: Organ Music72Kid Creole and the Coconuts: "Fresh Fruit"77POPULAR MUSIC80Arlo Guthrie: "Power of Love"90Janis Ian: "Restless Eyes"92Stevie Nicks: "Bella Donna"94Cabaret: Bobby Troup and Meredith102CLASSICAL MUSIC116The Strauss Family: Waltzes116Mahler: Symphony No. 9122The Music of Two John Adamses140	Sibelius: Symphony No. 4	72	Steeleye Span: "Sails of Silver"	6
Arlo Guthrie: "Power of Love"90The Swinging Madisons106Janis Ian: "Restless Eyes"92Jimmy Witherspoon: "Olympia Concert"108Stevie Nicks: "Bella Donna"94Smithsonian Collection: C-&-W Classics112Cabaret: Bobby Troup and Meredith102114114The Strauss Family: Waltzes116Ian Partridge: English Songs132Mahler: Symphony No. 9122The Music of Two John Adamses140				
Janis Ian: "Restless Eyes"92Jimmy Witherspoon: "Olympia Concert"108Stevie Nicks: "Bella Donna"94Smithsonian Collection: C-&-W Classics112Cabaret: Bobby Troup and Meredith102Smithsonian Collection: C-&-W Classics112CLASSICAL MUSIC116Ian Partridge: English Songs132The Strauss Family: Waltzes116Ian Partridge: English Songs132Mahler: Symphony No. 9122The Music of Two John Adamses140	POPULAR MUSIC		8	ο
Stevie Nicks: "Bella Donna"94Smithsonian Collection: C-&-W Classics112Cabaret: Bobby Troup and Meredith102102114CLASSICAL MUSIC116Ian Partridge: English Songs132The Strauss Family: Waltzes116Ian Partridge: English Songs132Mahler: Symphony No. 9122The Music of Two John Adamses140	Arlo Guthrie: "Power of Love"	90	The Swinging Madisons	6
Cabaret: Bobby Troup and Meredith 102 CLASSICAL MUSIC 114 The Strauss Family: Waltzes 116 Ian Partridge: English Songs 132 Mahler: Symphony No. 9 122 The Music of Two John Adamses 140	Janis Ian: "Restless Eyes"	92	Jimmy Witherspoon: "Olympia Concert"	8
CLASSICAL MUSIC 114 The Strauss Family: Waltzes 116 Mahler: Symphony No. 9 122 The Music of Two John Adamses 140	Stevie Nicks: "Bella Donna"	94	Smithsonian Collection: C-&-W Classics	2
The Strauss Family: Waltzes116Ian Partridge: English Songs132Mahler: Symphony No. 9122The Music of Two John Adamses140				
Mahler: Symphony No. 9	CLASSICAL MUSIC	<mark></mark>		4
	The Strauss Family: Waltzes.	.116	Ian Partridge: English Songs	2
	Mahler: Symphony No. 9	122	The Music of Two John Adamses	0

The Regulars -

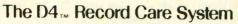
BULLETIN	WILLIAM LIVINGSTONE
	WILLIAM ANDERSON
LETTERS TO THE EDITOR	
ADVERTISERS' INDEX	

COVER: Design by Borys Patchowsky; photo by Bruce Pendleton. The musicians are (wooden) Indian folk carvings from the collection of Technical Director Larry Klein.

COPYRIGHT © 1981 BY ZIFF-DAVIS PUBLISHING COMPANY. All rights reserved. Stereo Review, October 1981, Volume 46, Number 10. Published monthly by Ziff-Davis Publishing Company. Editorial and Executive Offices at One Park Avenue, New York, New York 10016; Telephone: 212 725-3500, Richard P. Frlese, President; Furman Hebb, Executive Vice President; Selwyn Taubman, Treasurer; Bertram A. Abrams, Secretary. Also publishers of Backpacker, Boating, Car and Driver, Cycle, Fly Fisherman, Flylng, Popular Electronics, Popular Photography, Psychology Today, Skiing, Stereo Directory, and Tape Recording & Buying Gulde. One-year subscription rate for the United States and Its possessions, \$9.98; Canada, \$10.98. All other countries, 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 John Babcock, Rights and Permissions, Ziff-Davis Publishing Company, One Park Avenue, New York, New York 10016.

Protect Your Stereo System and Maintain Its Sound



The highly active D4 fluid and unique directionally fibered pad removes harmful microdust and debris that can cause permanent damage to your recordings.

The SC-2_™ Stylus Care System

SC-2 fluid with the exclusive nylon fibered brush effectively loosens and wipes away stylus contamination, a major contributor to record wear.



The Discwasher[®] D4 Record Care System and the Discwasher SC-2 Stylus Care System are available separately or together as DiscSet_{TM}.

For a free copy of our "Guide To Record Care" write to Discwasher

PRODUCTS TO CARE FOR YOUR MUSIC

1407 North Providence Road, Columbia, MO 65201 USA A DIVISION OF JENSEN an ESMARK Company CIRCLE NO. 14 ON READER SERVICE CARD

Stereo Review BULLETIC

Edited by William Livingstone

• A TAX ON BLANK TAPE AND RECORDERS to help offset losses to the record industry resulting from home taping has been proposed in Great Britain, but the government has rejected it for the present. Maintaining that the British Phonographic Institute and other interested parties have failed to present a convincing case for a tax on audio and video recorders and on cassettes and blank tape in other forms, the government has left the subject open for debate. Industry sources in Britain estimate the daily loss from home taping to be as high as \$2 million. At present Germany has a tax on recorders; Austria taxes tape.

• ROLLING STONE BASSIST BILL WYMAN has become the first member of the group ever to score a hit on his own. His new single <u>Si Si Je Suis un Rock Star</u> on A&M has gone Top-40 in England. A&M America will probably release the record in this country to capitalize on the current Stones album ("Tatoo You," Rolling Stones COC 16052) and tour, but a date has not been set.

• TRUE DIGITAL PLAYBACK FOR HOME USE is brought one step closer by the single-chip 16-bit digital-to-analog converter developed by Analog Devices of Norwood, Mass. Sold for \$30 each to manufacturers who buy in quantity, the device has specs that indicate a distortion level of ±0.015 per cent.

• BETTER SOUND QUALITY FOR VIDEODISCS was the concern of Ruggles, Reber & Associates when they recorded jazz performances by noted trombonist Bill Watrous and his Refuge West Big Band. The company taped the soundtrack by using digital-audio and multitrack analog machines synchronized to the video recorders. Release is expected from VHD Programs, Inc. in the VHD videodisc format.

• GIVE THE GIFT OF MUSIC FOR CHRISTMAS is the record industry's message for fall, and special Christmas albums are already being released. RCA Red Seal has "Christmas with Renata Scotto" and "Christmas with Canadian Brass," both recorded at St. Patrick's Cathedral. Also from RCA (not on Red Seal and not recorded at St. Pat's) is "Christmas with the Chipmunks." A Kenny Rogers Christmas album is scheduled for October on the EMI America/Liberty label. CBS Masterworks is releasing five Christmas albums this month: soprano Elly Ameling with pianist Dalton Baldwin, flutist Jean-Pierre Rampal and guitarist Alexandre Lagoya conducted by Michel Legrand, tenor Placido Domingo accompanied by the Vienna Symphony, Caravelli (Europe's answer to Mantovani), and the Mormon Tabernacle Choir. More to come.

• CONDUCTORS : Beginning in the season of 1981-1982, Michael Tilson Thomas will be the principal guest conductor of the Los Angeles Philharmonic. His first concert in this capacity will take place November 28. Starting in September 1983, Sir Colin Davis will become principal conductor of the Bavarian Radio Symphony Orchestra in Munich, retaining his positions as musical director of Covent Garden in London and principal guest conductor of the Boston Symphony. John Williams completed his two-year contract as conductor of the Boston Pops at the end of July, but at press time he had not decided whether he would renew.

• DIGITALLY RECORDED LIVE PERFORMANCES from the San Francisco Opera will be broadcast on Saturday evenings by National Public Radio stations from October through December. The series begins with Rossini's Semiramide with Montserrat Caballé and Marilyn Horne conducted by Richard Bonynge on October 3. Massenet's Manon with Reri Grist and Stuart Burrows conducted by Julius Rudel follows on October 10 and Shostakovich's Lady Macbeth of Mtsensk with Anja Silja conducted by Calvin Simmons on October 17. Dame Joan Sutherland will sing the title role in Lehár's Merry Widow conducted by Richard Bonynge on October 24, and Bizet's <u>Carmen</u> will be performed on October 31 with Teresa Berganza conducted by Kurt Herbert Adler. Check NPR stations for exact times.

Speaking of Muzic...



INTERIM TECHNOLOGY

"THERE are some people," my father used to say, "who would complain if they were being hung with a brand-new rope." And there are others, I would have to add, who make it an invariable practice to holler before they're hurt. And so we have already been hearing quite a bit of hollering from some audiophile quarters about CBS' "brand-new rope," the CX process for making quieter phonograph discs described in these pages in July, even though very little of the encoded software (and even less of the hardware—see last month's test report on the Sound Concepts SX-80 CX adaptor) has reached record retailers yet.

Judging from the latest record releases, it appears that digital—digital recording, that is—is already well on the way to becoming the industry's preferred technology, at least for classical music. The arrival on the market of "true" digital—digital playback, that is-has been delayed indefinitely awaiting the birth, somewhere in California's Silicon Valley perhaps, of the monolithic "chip" that will bring the price of this new disc format within the reach of the average consumer. In the meantime, business has not been exactly booming for the record industry, and CBS evidently decided to pep up the party by introducing an interim technology, one that they obviously hope will sell a few records, still some of the mounting clamor about present record quality, and perhaps give their sizable investment in analog pressing plants a little longer lease on life (they would have to be entirely revamped for the production of all-digital discs, of course)

Criticism of this action runs along predictable lines: it is a cynical exercise in "planned obsolescence," it is an effort to foreclose on a superior technology, and it

falls short of delivering the sonic perfection that is every audiophile's right and due. But whether they spring from honest paranoia or disingenuous technological snobbery, the charges hold little water. First, on the issue of planned obsolescence, one has to ask how such a scheme could conceivably profit CBS, for they are licensing the system without royalties to other record manufacturers: RCA and Warner Bros. have already indicated their intention to participate. The decoding circuit, moreover, is a relatively simple one, and its low cost will in time disappear in the price of whatever electronic hardware includes it. (And too, analog techniques will continue to be used long after the arrival of "true" digital, so CX should prove a boon to the many smaller record companies that cannot afford the more expensive technology.)

Second, though digital techniques can doubtless produce superior sound, they are not nearly as close to reaching the market. How long should we wait for this "elegant," ingenious, but hardly simpler solution? (And if we wait for *it*, why not for the even more elegant photographic-film system coming up behind?—see "Audio/Video News," February 1981.) Digital foreclosure is unlikely: we are already halfway there, the research and development money so far spent dictates no retreat, and there is still that attractive connection to videodisc technology—a single turntable *could*, after all, play both.

Third, though the CX system may not be perfect, it is certainly better than what we have. The end is still the best sonic reproduction we are willing to afford, and the means are incidental. We do not listen to "analog" or "digital," or (to return to an earlier technological squabble) to "matrix" or "discrete." We listen to music, and if someone offers to deliver it with a little less of the noise we've suffered ever since Edison, we shouldn't really care too much how he does it.

Stereo Review

PUBLISHER

J. SCOTT BRIGGS EDITOR IN CHIEF WILLIAM ANDERSON EXECUTIVE EDITOR WILLIAM LIVINGSTONE MANAGING EDITOR LOUISE GOOCH BOUNDAS ART DIRECTOR BORYS PATCHOWSKY

TECHNICAL DIRECTOR LARRY KLEIN ASSOCIATE TECHNICAL EDITORS ROBERT GREENE, DAVID RANADA

MUSIC EDITOR JAMES GOODFRIEND POPULAR MUSIC EDITOR PAULETTE WEISS SPECIAL PROJECTS EDITOR STEVE SIMELS

ASSOCIATE EDITOR DAVID STEIN ASSISTANT EDITOR, RESEARCH RICHARD SARBIN EDITORIAL ASSISTANT BARBARA AIKEN

LONDON EDITOR HENRY PLEASANTS

CONTRIBUTING EDITORS

CHRIS ALBERTSON IVAN BERGER IRV COHN NOEL COPPAGE RICHARD FREED PHYL GARLAND DAVID HALL JULIAN D. HIRSCH GEORGE JELLINEK IGOR KIPNIS IRVING KOLODIN PAUL KRESH STODDARD LINCOLN MARK PEEL LINCOLN PERRY PETER REILLY EBET ROBERTS CHARLES RODRIGUES ERIC SALZMAN CRAIG STARK JOEL VANCE

ASSOCIATE PUBLISHER ROBERT JOHN UR, SR.

Editorial and Executive Offices: 212 725-3500 Ziff-Davis Publishing Company One Park Avenue, New York, New York 10016 National Advertising Manager: Richard J. Haipern Eastern Advertising Representative: Charles L. P. Watson

Midwestern Office, The Pattis Group: 312 879-1100 4761 West Touhy Ave., Lincolnwood, Illinois 60646 Arnold S. Hoffman

Westem Office: 213 387-2100 3480 Wilshire Boulevard Los Angeles, California 90010 Japan: Iwei Trading Co., Ltd. J. S. Yagi 803 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

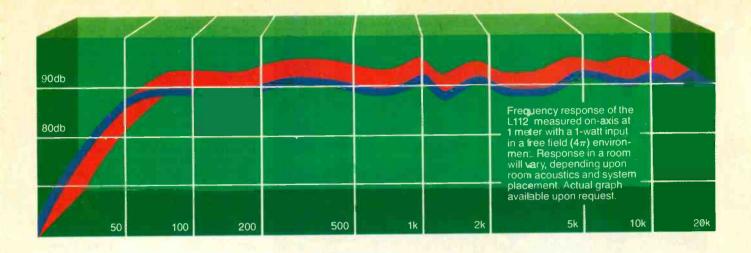
EDITORIAL CONTRIBUTIONS must be accompanied by return postage and will be handled with reasonable care; however, publisher assumes no responsibility for the return or safety of art work, photography, or manuscripts.

Member Audit Bureau of Circulations



ZIFF-DAVIS PUBLISHING COMPANY

President: Richard P. Friese President, Consumer Magazine Division: Albert S. Traina Executive Vice President: Furman Hebb Senior Vice Presidents: Phillip T. Hefferman, Sidney Holtz, Edward D. Muhlfeld, Philip Sine Vice Presidents: Robert Bavier, Baird Davis, Edgar W. Hopper, George Morrissey-Treasurer: Selwyn Taubman Secretary: Bertram A. Abrams



Any loudspeaker system this flat deserves a fair hearing.

JBL

JBL First with the pros.

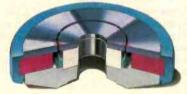


If you like the flatness of our L112 frequency response curve (above), you'll be even more impressed by the smooth, natural, uncolored sound that goes with it.

The L112 is a perfect example of JBL's advanced engineering design philosophy at work. Lasers, holography, computers and the human ear interfacing toward one end: The flattest, most accurate sound reproduction in JBL bookshelf history. The kind of pure, uncompromised sound quality that's made JBL the longstanding choice of audio professionals worldwide.

The overall performance quality of the L112 bookshelf system is the result of many precision-engineered components working together to achieve sound so natural there's no sense of a speaker at all—only the music.

Lower. Higher. Faster, too. The L112's Symmetrical Field Geometry (SFG) 12"



woofer contributes cleaner, deeper, more powerful bass. A laser-developed 1" dome tweeter adds more high frequency detail. And a new High Resolution Dividing Network delivers superior transient response.

Crafted in the U.S.A., the L112 is also a beautiful example of JBL's longtime commitment to fine craftsmanship and unrelenting quality control.



Go see the audio specialists at your nearest authorized JBL dealer and listen to the L112 bookshelf system for yourself. For the name of the dealer nearest you, write: James B. Lansing Sound, Inc., 8500 Balboa Boulevard, P.O. Box 2200, Northridge, CA 91329.

Comparison Analysis now available. Recently, we conducted a very enlightening series of performance tests comparing the L112 against several competitive speakers. For a copy of the documented results, as well as reprints of recently published L112 reviews, please write us, attention: L112 Comparison Analysis.

UBL/harman international © 1981 James B. Lansing Sound Inc.



LETTERS TO THE EDITOR

Pavarotti

• It would seem that in the August 1981 issue of STEREO REVIEW, Messrs. William Livingstone and George Jellinek mutually decided, "Let's sock it to Luciano Pavarotti." Mr. Jellinek describes the Pavarotti/ Joan Sutherland *Traviata* as "disappointing" and calls Pavarotti's portrayal of Alfredo "routine" (page 99-100), and Mr. Livingstone puts down Maestro Pavarotti in "Classical Music Briefs" (page 91) for his "constant efforts to upstage soprano Judith Blegen in the Met's performances of L'Elisir d'Amore this year."

I agree with Mr. Jellinek that Ms. Sutherland's enunciation has always left much to be desired, but, still, I cannot believe that artists of the prestige and caliber of Pavarotti and Dame Joan could ever put out a "disappointing" record. As for Mr. Livingstone's comments, while I do not wish to take anything away from the enormously gifted Ms. Blegen (who I feel has become the world's leading lyric/coloratura soprano now that Beverly Sills has retired from singing), I feel that Pavarotti is perfectly capable of upstaging anybody he sings with, even if he should happen to be singing offstage. It is also apparent that Mr. Livingstone has forgotten that Pavarotti's role in L'Elisir, the peasant Nemorino, is the central character of the opera and therefore should be allowed to hold center stage. Given Pavarotti's magnificent voice and his reputation in the world of opera, I say, more power to him!

ALLEN JONES Port Arthur, Tex.

William Livingstone replies: An artist's prestige does not prevent him from making a disappointing record, but on the contrary probably makes it harder for him to satisfy the public. "To upstage" means to distract the audience's attention from another performer improperly. Nemorino may be the most important character in L'Elisir d'Amore, but the opera makes little sense musically and dramatically if the soprano is not permitted to sing her arias without distracting horseplay from the tenor. I don't think Pavarotti's voice and reputation exempt him from common courtesy to his colleagues, but he may well agree with Mr. Jones that it is impossible for him ever to make a disappointing album and that he is entitled to hog center stage at all times. There was no collusion between Mr. Jellinek and me, but Pavarotti does make rather an easy target these days.

Listening Tests

• I think the "golden ears" chosen for August's listening tests on \$100 speakers must have left those ears in their glass cases at home—or else the test procedure was faulty. When there are so many large discrepancies in the rankings (for example, the Technics SB-L50 was ranked most preferable by two judges and *least* preferable by three), something is wrong and the test should be deemed invalid. Here are some suggestions to get more credible results:

(1) Decide on uniform criteria before the test (such as musical accuracy). I couldn't believe my eyes when I read that some of the evaluators brought in records of thunderclaps and applause, since in past issues STEREO REVIEW has advised against using such sound effects to evaluate speakers.

(2) Use a set of speakers that, regardless of cost, all the panelists agree are accurate musical reproducers as a measuring stick with which to compare the speakers being tested. Julian Hirsch does this time and again when he tests speakers, so why not in this case?

(3) Provide the program material for the tests (records and tapes), or at least censor those brought in by the evaluators to eliminate objectionable ones—see point (1) above.

Together with the other procedures that were used (such as keeping the speakers being evaluated from being seen by the listener, equalizing volume levels, etc.), these could help insure unbiased judgments.

DEAN TOMEK Vallejo, Calif.

Associate Technical Editor David Ranada replies: Unhappily, the results of a scientific test often do not concur with commonsense expectations—but that does not mean they are invalid. In this case, the disparities in the rankings tell us that speaker preference is sometimes far more dependent on program material and listener taste than one might think. Regarding reader Tomek's other points:

(1) The only criterion used was preference. Since most other speaker characteristics were hidden or controlled by the test procedure, the listeners could base their preferences only on the speakers' sonic properties. Accuracy, realism, and the rest are included in this criterion.

(2) Comparing speakers with a standard in this case would have resulted only in finding which speakers sounded most like the standard. And there's no guarantee that we would be able to find a "measuring stick" that our eight "golden ears" could agree on. The point of the test was to find preference trends in a population of skilled listeners within typical dealer-showroom restrictions.

(3) The thunder recording was made by the listener who used it. He was under the storm as it broke, and I can think of no better material for testing speaker "accuracy" than material recorded by the listener in situ. Applause is useful as a test signal since it rapidly points out deficiencies in upper-midrange performance. STEREO REVIEW's previous admonitions against using sound effects to evaluate speakers apply only to those sounds unlikely to be encountered in everyday life, such as steam locomotives, car crashes, and nuclear explosions.

If we had provided the material for the test, we would have had to make sure that each listener was as familiar with it as with the material he actually brought in. This could take years. Also, providing the material would run the risk of a subliminally biased choice that might give an unfair advantage (or disadvantage) to a particular speaker system.

• That was a fine review of fifteen \$100 speakers in the August issue, but how about a panel of professional musicians for the next review of this sort? Here's my panel of "golden ears": Count Basie, Itzhak Perlman, Zubin Mehta, Buddy Rich, Frank Zappa, Aaron Copland, Robin Gibb, Henry Mancini. Does anyone publish reviews of audio equipment by musicians?

RICHARD ALEXANDER Glen Head, N.Y.

No.

Tchaikovsky Trio

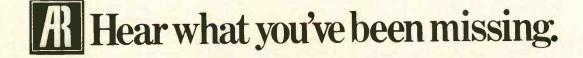
• In an August review, David Hall suggests that the Tchaikovsky Trio, Op. 50, at times calls for "an orchestral canvas." Frederick Stock, the great conductor of the Chicago Symphony Orchestra for some thirty years, did arrange the trio for full orchestra, and it was performed by the Chicago Symphony with great success in Chicago, Milwaukee, Detroit, and elsewhere. The score and parts are gathering dust in the library of the orchestra. When will someone dig them up and record it?

A minor correction: Mr. Hall said that the Mirecourt Trio is based on the West Coast. It is, and has been for several years, (Continued on page 10)

In 27 years, most of the world's hi-fi manufacturers have copied our woofers, our tweeters, and just about everything else in our speakers. Except the sound.

We invented the acoustic suspension woofer, and they copied that. We invented the hemispheric dome tweeter, and they copied that. What they can't copy is the sound whose bass Stereo Review calls "deeper, flatter and cleaner than that of any other we have tested." The sound High Fidelity says "will satisfy the discriminating listener long after others have lost their charm." See your local AR dealer and hear for yourself. Stereo Review on the AR 9, July, 1978. High Fidelity on the AR 28s, July, 1981.





TELEDYNE ACOUSTIC RESEARCH (Write for Information and authorized dealer locations, 10 American Drive, Norwood, MA 02062 USA, © 1981; A.C. Simmonds & Sons, 975 Dillingham Road, Pickering, Ontario, Canada L1W 3B2; W.C. Wedderspcon Pty. Ltd., P.O. Box 21, 3-5 Ford St., Greenacre 2190, New South Wales, Australia.

in residence at Grinnell College in Grinnell, lowa. The trio was, however, *formed* at California State University in Fullerton, which is on the West Coast.

> KARL OLDBERG Santa Monica, Calif.

Dubbing Ethics

• I am a music lover. I collect music in all forms. But I have little or no sympathy for the blues that record labels are crying about music lovers illegally dubbing music. I'm not concerned primarily with the costs but with the availability of the product. I can utilize discs, cassettes, or eight-track cartridges, and no sconer do I see a new issue of interest in the Schwann catalog than I attempt to get it. After many months of the item's being "on order," I am told that it has been cut out. The catalog life of records and tapes seems to get shorter and shorter as we grind out more.

I realize that a store can stock only so much and that some items I might want are out of the ordinary, not in the mainstream of what today constitutes popular music. So I resort to dubbing as a last resort—but only as a last resort. For instance, this very month I had arranged with friends to borrow two old and long out-of-print Capitol recordings so I could dub them, but I learned that Capitol has just reissued the



NEW, 16-page Full Color Brochure, FREE! (circle Reader Service Card #. or write direct for faster service) Includes TEST REPORTS, complete speci fications, Class "H" amplifier ENGINEERING REPORT, EQ COMPARISON CHART, and the "WHY'S & HOW'S" of equalization.

PHONE 714-556-6191 SOUNDCRAFTSMEN INC. 2200 SO. RITCHEY, SANTA ANA, CA 92705 CIRCLE NO. 48 ON READER SERVICE CARD recordings. Now if they will leave them in print long enough for me to be able to buy copies, I will buy them and then dub my own copies so as to save wear on the discs. ROBERT W. HOHLMAYER Springfield, Ohio

The Byrds

• Steve Simels has always been my favorite STEREO REVIEW writer, and I was pleased with his kind remarks about the Byrds in the August "Popular Music Briefs." Although I'm only twenty-one, I have been a Byrds fan since long before I even heard of Tom Petty. Consequently, I noticed an error on Mr. Simels' part: he said the the song *Why* had never been previously issued on an American album, but it's the closing track on "Younger Than Yesterday," released in 1967.

TOMMY NAUGHER Piedmont, Ala.

Steve Simels replies: We're both right. The version of Why mentioned in "Briefs" was recorded in 1966 at the sessions for the "Fifth Dimension" album and was originally released as the B-side of Eight Miles High. It is considerably harder-edged and more aggressive than the 1967 remake.

Disc Packaging

 I would like to second James Green's request (January "Letters") to the record companies to switch back to paper record sleeves. Whereas Mr. Green's problems with the currently fashionable plastic-lined sleeves stem from the hot and humid tropical climate of Puerto Rico, which he says causes the plastic to bleed and stick to his records, my problems involve static caused by the dry air in the western United States. compounded by the abundance of all types of dust in the environment. Removal of most records from their plastic sleeves engenders a tremendous static charge, which quickly results in the attraction of an abundance of dust particles to the record surface. This problem is especially pro-nounced with many European records, which in the name of quieter disc surfaces are made of vinyl with little or no antistatic compound mixed in. I have had to put almost as much money into antistatic remedies as I have into records, and I have therefore pirated as many paper inner sleeves as I could get.

DOUGLAS E. ROLLINS Ogden, Utah

• I have a complaint not about the quality of record albums today but about the quality of album jackets, which is seldom written about. Today's album jackets have poor storage qualities. Record companies insist on giving us fancy covers that tear easily in repeated use because of the sharp disc edge. Albums should come factory-equipped with plastic-lined paper inner sleeves, like imports have. Perhaps one day American record companies will give consumers what they really want: better quality and fewer frills.

PAUL A. CAMPISE Houston, Tex.

THE LEADING AUTO SOUND SPECIALIST SPEAKS OUT ON SPEAKERS.

2

0

10-02, CERAMIC MAGNET provides improved damping and high efficiency.

> 2 HIGH COMPLIANCE SPIDER helps minimize bass distortion and extends low-fequency response

3

AUTO SOUND IS DIFFERENT THAN HOME SOUND. Nobody knows that better than Delco. We've been building sound systems for GM for over 44 years. In that time we've built over 200 million speakers. And pioneered many auto sound firsts including: the first solid-state car radio, the first AM/FM car stereo and the first in-dash radio/tape player. We've learned a lot.



Simulated LED eadout

THE LAST THING YOU WANT IS STATIC. A car radic is surrounded by numerous components that generate stat c. Delco builds impulse noise blankers intc all our Delco-3M stereo sound systems to nelp minimize interference. HOME STERED SPEAKERS LIVE IN A QUIET ENVIRONMENT. Car speakers live with wind and road noise. Delco compensates for their effect on high- and low-frequency sound reproduction when designing auto sound systems.

)///. AAA O

3 1 vo a coil p ovides high-efficiency output

4 WHISZER ODNE is designed for high-frequency response to approximately 90,000 Hz.

Dptional Delco Sound Extended Range Speaker

> HEAT, HUMIDITY, VIBRATION— TOUGH ON SPEAKERS. We build our speakers to take it. Specially designed De co speaker cones reduce deterioration caused by severe environments. Plus De co adds an acoustically transparent cust cover to help shield out sound-destructive dirt and sun rays.



SPEAKERS SHOULD BE LISTENED TO ON THE RCAD. Not in the showroom. So when you buy your new GM car or truck ask your dealer to demonstrate a Dejco-GM sound system. Nobocy knows the inside of GM vehicles quice like the automotive sound specialists at Delco Electron cs Division of General Motors Corporation.

Deico M Miles Ahead In Sound Experience.

SPEAKER PLACEMENT...KEY TO GREAT SOUND. Most experts know this. And at Delco Electronics, we work directly with GM car divisions in determining proper speaker location and mount ng.



SA-X. HIGH BIAS IS RICHER FOR IT.

The greatest honor a cassette can receive is to be held in higher esteem than the one now setting the high bias standard. SA-X has already gone beyond SA in frequency response, sensitivity, and resolution. It was intended to. With its ultra refined dual layer of Super Avilyn and the

Laboratory Standard Mechanism, nothing less was possible. TDK believes sound reproduction should have no set barrier. No limit. For us, high bias was a limit to be surpassed. SA-X has won three international audio awards to date. It will no doubt win others. But we take awards philosophically. They represent our continu-

ing effort to create the machine for your machine. In that, we could not be happier with SA-X.





© Copyright 1981 TDK Electronics Corp.

New Products latest audio equipment and accessories



Flat Woofers in Phase Technology Loudspeakers

□ Phase Technology's line of loudspeakers employs 6- and 10-inch woofers with solid high-density expanded-polystyrene flat pistons. The manufacturer states that the acoustic centers of all the drivers in a system are aligned at the front surface of the enclosure to aid in phase alignment of the speaker's output.

The top model in the series, the PC-100 (right). is a four-way phase-coherent system with two 10-inch solid-piston woofers, a 3-inch soft-dome midrange driver, a 1½inch soft-dome upper-midrange unit, and a 1-inch soft-dome tweeter. Frequency range is 24 to 20,000 Hz, and recommended amplifier power is from 50 to 200 watts. The cabinet is solid walnut with walnut veneer. Dimensions are 14 x 421/2 x 8 inches. Price: \$550. Phase Technology Corp., Dept. SR, 101 North Park Street, East Orange, N.J. 07017.

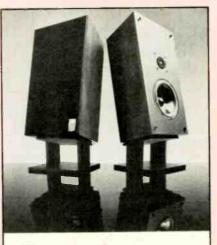
Circle 120 on reader service card



□ The Dual C-844 cassette deck has a "Direct Load and Lock" system that eliminates the need for a door between the user and the cassette compartment; the cassette is slipped directly into place and can be removed at any time, even when the tape is in motion. Photoelectric circuitry in the cassette compartment stops the transport when a cassette is grasped. The separate record and play heads are mounted in a combined housing. Dolby-B and -C noise-reduction systems operate during record and playback. Meters show the level of the equalized signal reaching the tape heads, and four peak-level LEDs show when each of four tape types has been overloaded.

In addition to the standard $1^{7/4}$ -ips cassette speed, the C-844 also offers $3^{3/4}$ -ips play and record for extended frequency response and improved signal-to-noise ratio. Rated response with all tape types is 20 to 24,000 Hz ± 3 dB at the faster speed. An optional infrared remote control is available. Price: \$700.

Circle 121 on reader service card



Floor-standing Speaker from Mirage Acoustics

Mirage Acoustics' SM-1, a two-way system, has an optional stand that was part of the original design concept. The Model T-1 stand precisely positions the SM-1 so that the floor acts as an acoustical extension of the speaker. The system's crossover is a first-order design rolling off at 6 dB per octave, since in the view of the manufacturer a crossover that rolls off any faster degrades both a speaker's time characteristics and its transient response. The tweeter employs a soft-textile dome surrounded by a felt ring. This ring is claimed to reduce diffraction, improve imaging, and smooth the high frequencies. The woofer is made of filled polypropylene. Prices: SM-1, \$329; T-1, \$29.95. Mirage Acoustics, Unit One, Dept. SR, 21 Progress Avenue, Scarborough, Ontario, Canada M1P 4S8.

Circle 122 on reader service card



The Denon PMS-950 is an 80-watt-perchannel amplifier using "pure class-A circuitry" throughout. It has two moving-coil pre-preamps, two moving-magnet preamps, a separate record-out selector, and a headphone amplifier that is adjustable for different headphone impedances. Other features include bass and treble controls, a directcouple switch, and switchable infrasonic and loudness filters. Harmonic distortion is 0.004 per cent or less. Signal-to-noise ratios of 90, 74, and 108 dB, respectively, are specified for the moving-magnet phono stages, the moving-coil phono stages, and the auxiliary stage. RIAA equalization is within 0.2 dB of standard. The PMS-950 weighs about 35 pounds. Price: \$995.

Circle 123 on reader service card



□ The MC 10 Mk II moving-coil cartridge from Ortofon has the same "Wide Range Damping" system already incorporated in the MC 30 and MC 20 Mk II cartridges. The unit's low equivalent tip mass of 0.5 milligram results from the design of its cantilever and its small nude elliptical diamond stylus. Frequency response is given as 20 to 20,000 Hz \pm 1.5 dB. Output voltage at 1,000 Hz with a 5-cm/sec groove velocity is 0.09 millivolt. The cartridge's internal impedance is a the low second base in the second second tracking force 1.5 grams. Weight is 7 grams. Price: \$195.

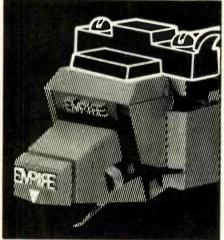
Circle 124 on reader service card

(Continued overleaf)

HERE'S A TIP TO MAKE YOUR RECORDS LAST LONGER.

Unlike some magnetic cartridges, Empire's moving iron design allows the diamond stylus to float free of its magnets.

This imposes much less weight on the record surface and insures longer record life.





New Product/ latest audio equipment and accessories



Celestion Industries' Three-way Loudspeaker

□ The Celestion Ditton 300 has a 1-inch dome tweeter, a 5-inch cone midrange, and a 10-inch woofer with a polyvinyl-chloride surround. Anechoic frequency response is given as 52 to 20,000 Hz \pm 3 dB. Crossover frequencies are 650 and 4,500 Hz. Nominal impedance is 8 ohms; minimum amplifier power is 20 watts per channel. The Ditton's sensitivity is 87.5 dB sound-pressure level measured at 1 meter with a 1-watt input. Dimensions are 24³/₄ x 13³/₄ x 10¹/₄ inches; weight is 30 pounds. Price: \$400.

Circle 125 on reader service card

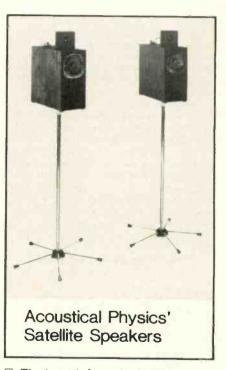


Full-feature Cassette Deck

□ Sanyo's PLUS series D56 cassette deck offers metal-tape capability, Dolby-B noisereduction circuits, full-logic soft-touch transport controls, and an automatic musicselection system (AMSS) that searches for pauses between recorded selections. Other features include two-color LED level indicators, a recording-mute control, timer/ standby switching, a headphone output, and two microphone inputs. Price: \$239.95. *Circle 126 on reader service card*

Catalog of Interference-reducing Equipment

□ Electronic Specialists' twenty-four-page catalog of power-line filters, protectors, and isolators also contains information on audio-interference filters for phono inputs and speaker lines. In addition to product descriptions, the catalog also offers suggested solutions for specific interference and noise problems. Request Catalog 801 from Electronic Specialists, Inc., Dept. SR, 171 South Main Street, Natick, Mass. 01760.



□ The Acoustic Image loudspeaker system is a satellite unit designed to be used with any available subwoofer. The manufacturer says that the speakers have optimized timedomain transient responses; their small size is said to minimize "time-domain dispersion" and "near-field time-delay distortion caused by diffraction effects." Frequency response is given as 60 to 22,000 Hz, impedance as 8 ohms. Power-handling capability is 40 watts when the speakers are used by (Continued on page 16)

THE ONLY THING MORE **REVOLUTIONARY THAN AKA'S NEW** GX-77 IS THE TAPE IT PLAYS.



The new GX-77 is the world's first open-reel machine with a special setting

TAPE NORMAL

EE

for the new ultrahigh-density "EE tapes.

For the uninitiated, "EE simply stands for extra efficiency. And the innovators at both Maxwell and TDK are ccmmitted to it.

For some very sound reasons. Numbers don't lie.

And what the numbers are saying is this. You don't have to sacrifice performance for economy. Not with a GX-77 and "EE" tape. Because at an efficient 3% ips, you'll still get the same frequency response, S/N ratio and dynamic range of conventional tape played at 7½ ips.

But see for yourself. below. The specs are spectacular at any speed

There's sound engineering, too.

The GX-77 also features quick-reverse playback/record, 3 motors, 4 AKAI GX heads and an optional dustcover that's the u timate cover-up. Plus a unique, motorized

tape-loading mechanism that quarantees virtually perfect tapeto-head alignment. All at the touch of a button

And all for a relatively modest \$775, suggested retail price.

A

Or, if you prefer the benefits of "EE" tape on a grander scale (including 10½" reels). consider the new AKAI GX-747.

Better vet, audition both at your AKAI dealer's soon. Or write: AKAI, F.O. Eox 6010. Compton. CA 90224.

We'd hate to start the revolution without you.

AKAI GX-77 with:	Dynamic Range	Frequen cy Response	S/N Ratio
EE Tape (3% ips)	ाचे तथ	25-25000 Hz	6.0
Conventional Tape (7½ ips)	70 (11)	25-25000 Hz	ann ann
EE Tape (7½ ips)	10 dfl-	25-33000 Hz	EBard



"It is hardly conceivable that a small, inexpensive, lightweight cube such as this could deliver as much clean power as any but a few of the largest conventional amplifiers on the market-

but it does!" Julian Hirsch



The Carver M-400 Magnetic Field Amplifier

The cube that impressed Julian Hirsch is indeed small: less than 7 inches. And it is very light: less than 10 pounds. And very inexpensive: suggested retail price, \$399

As for its clean power: 201 watts per channel in stereo and 500 watts mono! That, of course, is RMS into 8 ohms, from 20 to 20kHz with no more than 0.05% total harmonic distortion.

As for its sound, Leonard Feldman reported in Audio: "Music reproduction was superb and completely free of any false bass coloration or muddiness... none of that brittle quality that one often detects from amplifiers that are beginning to strain.

In short, the M-400 is musical and accurate

And now here's good news for everyone with a receiver. The M-400 can be added to it easily-with our new Z-1 coupler. So if you now have a 20-watt receiver, it can be a 201-watt (per channel) receiver!

For literature, test reports and nearest Carver dealer, circle number below. For faster response, write directly to us.



P.O. Box 664, 14304 N.E. 193rd Place Woodinville, Washington 98072

CIRCLE NO. 6 ON READER SERVICE CARD

New Product latest audio equipment and accessories

themselves as a full-range system. The rating goes up to 200 watts when a pair is used with a 100-Hz crossover to a subwoofer. The driver complement includes a 1-inch soft-dome tweeter and a rubber-damped 5inch mid-bass/midrange unit. Each enclosure measures 6 x 161/4 x 13 inches. There is no grille cloth. Stands shown are optional. Price: \$500 per matched pair. Acoustical Physics Laboratories, Dept. SR, 135 16th Street, Atlanta, Ga. 30318.

Circle 127 on reader service card



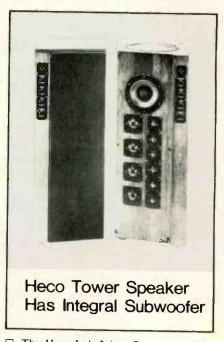
Energy Loudspeaker's Model Four Has **Isolated** Woofer

□ The Model Four from Energy Loudspeaker Corp. is a three-way floor-standing unit. The woofer chassis is mounted on an isolator that separates the front baffle from speaker-chassis vibrations and is said to eliminate a "boxy" sound quality in the 100- to 600-Hz region. A passive radiator handles the speaker's output from 15 to 50 Hz. The 24-dB-per-octave crossover design, constructed with more than twenty-eight components per speaker, is said to eliminate radiation-lobe errors over a large listening area and to give a solid stereo image. The midrange driver is fluid cooled and has a polypropylene cone.

Overall frequency response is given as 26 to 22,500 Hz ± 3 dB. System resonance is 26 Hz. Nominal impedance is 4 ohms; recommended amplifier power is from 30 to 300 watts per channel. Sensitivity is a 95dB sound-pressure level at 1 meter with a

2.83-volt input. Finish is oiled-walnut veneer. Dimensions are 411/2 x 171/4 x 141/2 inches. Price: \$700. Energy Loudspeaker Corp., Dept. SR, 161 Don Park Road, Markham, Ontario, Canada L3R 1C2.

Circle 128 on reader service card



□ The Heco Lab 3 is a five-way speaker system distributed by Osawa that has six 1inch tweeters, four 2-inch midrange drivers, an 8-inch woofer, an upward-firing 13-inch subwoofer, and a supertweeter. There are contour controls for super-high, high-, and middle frequencies, plus a bass-equalizer control. Frequency response is given as 20 to 40,000 Hz ± 2 dB. Sensitivity is 89 dB sound-pressure level at 1 meter with a 1watt input. Speaker impedance is switchable between 4 and 8 ohms. Recommended minimum amplifier power is 40 watts. Dimensions are 48 x 18 x 20 inches, weight 140 pounds. The driver positions are mirror-imaged for each pair of systems. Price: \$2,450 each. Osawa & Co., Dept. SR, 21 Harbor Park Drive, Port Washington, N.Y. 10050

Circle 129 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.

The "Discrete" Difference in Head Technology

Nakamichi Spoken Here.

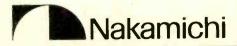
Let's not kid ourselves. All 3-head recorders are not the same. One perusal of specifications—one audition in the showroom will establish that! We'd like to explain the difference—the "Discrete" difference—in Nakamichi 3-head technology.

Separate record and playback heads *should* produce wider frequency response with less noise and distortion than a combination head, but all too frequently they don't. Why? Because having separate record and play gaps introduces a new problem—*azimuth misalignment*—that rapidly diminishes high frequency response, destroys phase coherence, and impairs stereo imaging. Most 3-head decks employ "sandwich" heads in which record and playback cores are housed in the same structure. Even with careful quality control, the best that can be achieved is *mechanical* parallelism between the gaps, and, once the head is fabricated, there is no way to adjust one gap with respect to the other. Since mechanical parallelism does *not* insure *magnetic* alignment, it is no wonder that "sandwich" heads fail to live up to their potential.

From the time we created the world's first 3-head cassette recorder in 1973, we have employed special "Discrete Head Technology." Nakamichi heads are *mechanically* as well as magnetically independent so that record and playback gaps can be *magnetically* aligned *after* fabrication. For our best models, we developed a unique *Auto Azimuth Alignment* system to insure perfect alignment on *each and every* cassette despite eccentricities in cassette housings. With Auto Azimuth Alignment, a precision phase comparator detects the misalignment error and activates a servo motor to pivot the record head until the error disappears. Within seconds, perfect azimuth alignment is achieved, and the *full* potential of the cassette system is realized.

The advantages of the Discrete 3-Head system are so important that we offer several recorders featuring this technology *without* the monitoring feature normally associated with a 3-head design. At less cost, these recorders provide the same perfection that our "monitoring" recorders do.

As you can see, there is a difference among 3-head recorders. Why not hear that difference now—the "Discrete" difference at your Nakamichi dealer.



To learn more about Nakamichi's unique technology, write directly to: Nakamichi U.S.A. Corporation, 1101 Colorado Avenue, Santa Monica, CA 90401.



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

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 stereo 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.

dme	DISCOUNT MUSIC CLUB, INC 650 Main Street DEPT. 9-1081 P.O. Box 2000 New Rochelle, N.Y. 10801
NAME	L. la II
ADDRES	s
CITY	
STATE	ZIP
-	

CIRCLE NO. 12 ON READER SERVICE CARD

18

Audio Q. and A.

By Larry Klein



Power Indicators

Q. My receiver is equipped with fluorescent power indicators that are marked "referred to an 8-ohm speaker load." However, they read the same whether the speakers are connected or disconnected and whether or not my headphones are plugged in. Since each of these conditions causes such different load impedances and power demands, why do the indicators always read the same?

> ERIC DEVIRGILIS Waverly, Pa.

A. Almost all modern amplifiers operate as "constant-voltage" sources within their ratings. As an explanatory example, let us say that a 1-volt input signal produces a 20-volt output at the speaker terminals; this is the equivalent of 50 watts across an 8-ohm load. Now let's say we substitute a 4-ohm load. The same 1-volt input will produce the same 20-volt output, but Ohm's Law tells us that halving the resistance doubles the power. So we now have 100 watts output, assuming that the amplifier is capable of supplying double the current into the load. A 16-ohm load would draw 25 watts of power.

What it all comes down to is that your amplifier is behaving normally. Its fluorescent display is responding *only* to the voltage level at the output terminals, not to the current supplied, which varies with the load. Therefore, within reason, the output display will always read the same level of output for a given level of input, but the calibration markings will be "accurate" only when the load is a reasonable approximation of 8 ohms.

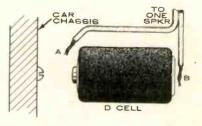
Car-stereo Distortion

Q I recently bought a new stereo system for my car, installed it myself, and ran into a strange problem. The radiocassette unit that I put in didn't seem to be able to play loud enough, it had audible distortion at normal levels, and it oscillated when pushed hard. I took the unit back to my dealer, who claimed he checked it out and found nothing wrong. I insisted that he give me a new unit, and guess what?—it works no better than the first one. Do you have any idea what's wrong? MARVIN KALISH Mt. Vernon, N.Y.

A. This is an easy one to diagnose, if only because I went through much the same sequence of events myself recently. Almost certainly your problem is not caused by a defective car-stereo receiver; the fault is most likely somewhere in the wiring of your speakers. At some point there is a contact between an uninsulated part of the speaker wiring and the grounded car chassis, and that is having an unhappy effect on the amplifier section of your receiver.

To locate the problem, first disconnect all the speaker leads from your car-stereo receiver. Then, if you have an ohmmeter, measure the resistance between each pair of speaker leads and the car chassis. A correct reading would be 5 ohms or so across each pair of speaker leads and no reading at all (infinite resistance) between either lead and the car chassis. If you read 5 ohms or so between a speaker lead and the car chassis, that means that the other lead of the pair is grounded. If you read 0 ohms between a lead and the car chassis, that means that you've found the grounded lead.

If you lack an ohmmeter, a flashlight battery (a D cell) can serve as well (see illustration). Touch a pair of speaker wires (A and B) across the battery's terminals. The speaker at the other end of the wire will



produce a small "thump" at the moment of contact. Now, hold wire B to the bottom of the battery and touch the positive tip of the battery to a chassis ground. If the speaker is silent, try it with wire A held to the battery. A speaker that remains silent with either (Continued on page 20)



Freefall photographer Tom Sanders - Lake Elsinore, Calif., Parachute Center.

TAKE MICRO-VIDEO WITH YOU ON YOUR NEXT TRIP.

The Technicolor™ micro-video recorder adds new meaning to the word "portable." It's simply the world's smallest, lightest, simplest. Because of its remarkable compactness, it goes virtually anywhere. A true portable.

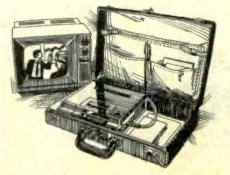
And if anyone needs portability, it's freefall photographer Tom Sanders. Tom has used our microvideo recorder to document many exciting freefall jumps. By simply hooking the VCR to his chute straps and mounting the camera to his helmet, he is able to capture all the action on video by Technicolor.

For the businessman on the go, the Technicolor micro-video concept is ideal. So small, it fits in a briefcase. So light, you hardly know it's there.

Sales presentations, inter-office

communications, product training – all easy to do. Video adds new dimensions carrying the impact of full color, full sound. The featherweight video cassette mails in an ordinary (letter) envelope with postage only a fraction of the cost for heavy video cassettes.

And video remembers vacations,



parties and a growing family like no snapshot can. Remember them all with our Technicolor microvideo system.

The system includes 7-pound VCR, lightweight color camera, and matching TV tuner for recording programs off the air.

For work or play, Technicolor micro-video is truly "video to go."

Call us now for your nearest dealer.

(800) 854-4020 (toll-free outside California, Alaska & Hawaii) (800) 432-7407 (toll-free within California) (714) 540-4330 (within Alaska & Hawaii)

TECHNICOLOR AUDIO-VISUAL 299 Kalmus Drive, Costa Mesa, Ca. 92626 © 1981 Technicolor, Inc. All rights reserved. CIRCLE NO. 54 ON READER SERVICE CARD

YOU SHOULD OWN ONE OF THESE.

MURA

STERES

You're missing a lot of pleasure from your personal stereo cassette player or radio, if you can only listen with headphones.

A Mura Steppin' Out portable amplified stereo speaker system converts any personal player into big, room filling stereo sound.

Simply clip on your personal player, plug in the stereo jack and you're all set to go public and share those great sounds with others.

Steppin' Out operates on four "C" batteries (or 6V DC adaptor), so you can enjoy it anywhere outdoors. Indoors, Steppin' Out is the perfect second stereo system. Going away? Take your

Steppin' Out along. It's ideal for college, camp, ski trips and vacations.

With a Mura Steppin' Out (under \$80.00, sugg. list), your personal player is twice as versatile, twice as much fun, for you, for everyone.

MURA **Steppin out**

FORTABLE AMPLIFIED STEREO SPEAKER SYSTEM CIRCLE NO. 32 ON READER SERVICE CARD

@1981. Mura Corporation. Westbury, N.Y. 11590

wire held to the bottom of the battery is free of chassis-ground shorts; one that makes a noise with one or the other wire is shorted to ground. When you've determined which speaker is shorted, all you need do is find out where. Likely trouble spots are the speaker terminals (which should be insulated with plastic electrical tape) and any parts of the wire that could have been pinched during speaker installation.

Individual Hearing

Q. If the ability to hear specific frequencies varies significantly from one person to another, what is the point of room and speaker equalization to some theoretically flat frequency response? Would not a more subjective process (akin to an eyeglass examination) prove more satisfactory?

> ROY E. SANDSTROM Cedar Falls, Iowa

A. This question keeps reappearing in my mailbox under several different guises, usually with reference to the problem of selecting loudspeakers, since "everyone's taste differs."

Live music usually sounds "right"assuming a reasonable listening environment-no matter what the frequencyresponse vagaries of our particular set of ears, and live sound as we hear it becomes the standard. If by some magic we were given "ear glasses" that would correct our ears' specific frequency-response aberrations and provide "flat response," the subjective result would probably seem unnaturally shrill or peaky. This is because each of us has established an individual set of "reference standards" based on what reaches the hearing centers of our own brain. Thus, although room/speaker equalization can help restore "reality" to reproduced sound by removing some of the gross aberrations in the room or speakers, it cannot be used to "correct" our ears' performance.

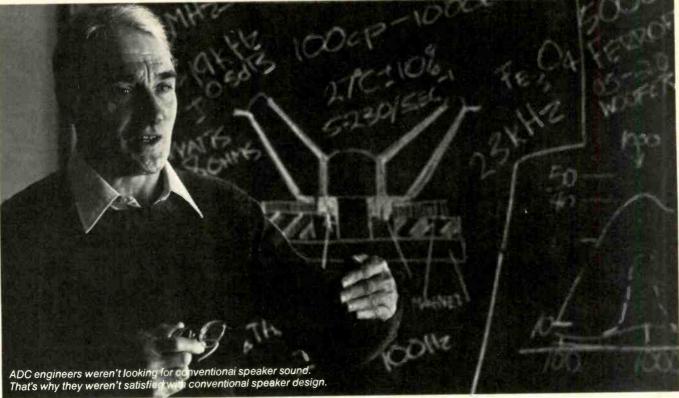
Equalizer Overload

Q. You've said that every 3 dB of boost by an equalizer doubles the power demand on the amplifier. I have a 35watt-per-channel amplifier and a five-band equalizer capable of a 15-dB boost in each band. Is there any danger I could overload my amplifier with that much boost?

> A. H. JOHNSON Spokane, Wash.

It's true that every 3 dB of boost A. demands twice the power from an amplifier. But if your amplifier is putting out an average of, say, 2 watts in a certain frequency range, then a 3-dB boost in that range will demand only 4 watts from the amplifier, and a 10-dB boost will demand 20 watts-still well within your amplifier's rating. However, a full 15-dB boost will demand more than 60 watts, and this would drive your amplifier into overload clipping. In other words, it isn't simply the amount of boost indicated by the equalizer control settings that's important; you must also consider the signal level in the frequency area that's being boosted.

The ADC difference





When it comes to performance, size doesn't count...anymore.

There's nothing conventional about our ADC MS-650 mini-speaker system. Not its size; each MS-650 is just

11"high.

Not its design; it's available as a pair or as a three piece system with bass module.

Not its performance; "We cranked up the volume to almost orgiastic levels

.....Ry Cooder's bass guitar and the howitzers in the new Telarc digital 1812 Overture came through undiminished and unscathed, and we didn't even smell the smoke of battle..." - Hi-Fi/ Stereo Buyers Guide.

Ferrofluid cooled drivers for higher performance and lower distortion. There's also nothing conventional

about MS-650 technology.

Most mini-system drivers can overheat and distort under high power. Both our 61/2" high compliance woofer and 1"soft dome polyamide tweeter are specially cooled with ferrofluid. It disperses heat five times faster than air for better frequency response, lower distortion and greater power handling capacity...150 watts per channel!

A bass module that isolates low frequencies for extended bass response.

For most people a pair of ADC MS-650's are perfect. But maybe you're not most people. For you, there's our matching MS-10W bass module. It reproduces the lowest bass notes for both channels. The result? Bass response that not only defies the size of the system, it defies the imagination.

the system, it defies the imagination. For your nearest ADC MS-650 dealer call toll-free 1-800-243-9544. Or write Audio Dynamics Corporation, Pickett District Road, New Milford, CT 06776. In Canada,BSR (Canada) Ltd. Rexdale, Ontario.





NEW SPEAKERS AND ACCESSORIES

LAST month's column was devoted to a quick survey of new electronic products, and here, to complete the picture, is a short rundown on the many new car-stereo speakers and a few accessories that caught my attention at the recent summer Consumer Electronics Show.

ADS showed its CS400 subwoofer system: two 7-inch long-throw units which together have the area of one 10-inch driver but are easier to fit into most decks than a single, larger driver would be and can be individually driven by each stereo channel. Ohm's new mobile line was mostly woofers: 8-, 10- and 12-inch subwoofers, operating from 32 to 140 Hz, and "plain" woofers in 8- and 10-inch sizes rated down to 42 and 37 Hz, respectively. Ohm also showed its new M Mini speaker system in a vented enclosure, rated frequency response 120 to 20,000 Hz. The M Mini has an infrasonic filter and the Ohm subwoofers roll off naturally above 140 Hz, so they can be used together with no crossovers, says Ohm.

Equal attention was paid to the high end of the frequency spectrum. Alpine's preshow introductions included the Model 6106 Super-ribbon tweeter; a flush-mounting unit with built-in crossover. The new PRO line from ESS incorporates Heil AMT tweeters (naturally). And Infinity's new "i-car," basically a flush-mounting version of their InfiniTesimal mini-box speaker, has (just as naturally) the InfiniTesimal's EMIT tweeter.

In addition to the usual coaxial, dualcone, and dual-driver full-range systems,

the extensive new Philips line includes the Model 8320, a 1-inch dome tweeter set up for either flush or surface mounting. Pioneer has supplemented its original singledriver, high-frequency "Tune-up" speaker with a new two-way model; the TS-M6 has both a 25/8-inch cone midrange and a horn tweeter that can be aimed wherever it will sound best. Last year Pioneer introduced the "crossaxial" TS-1600 speaker, a reardeck model whose tweeter sat up above the deck and fired forward into the passenger compartment. It is now joined by the TS-2000, a larger version with an 8-inch woofer; using a spacer provided with it, one can also mount it in an 6 x 9-inch hole.

Small-car Speakers

Many of the new speakers also attack, in various ways, the installation problems posed by today's cars. "Downsizing" to fit cramped cars has led to a mild rash of twoway systems with four-inch woofers: AudioSource has its LS-Four flush-mount and box-on-bracket LS-.5, with an elliptical 4inch woofer in the latter. Kenwood has its KSC-701B three-way box system, plus the KFC-103 flush-mounting speaker and the even smaller (31/2-inch) KFC-83, and JVC has two new two-way systems with 4-inchers in them: the flush-mounting CS-50K and the surface-mounting CS-5K. Philips' Model 8741 is a 4-inch dual-cone driver, and Visonik's new Alphasonik D-3200 flush-mount has a 4-inch woofer too. Epicure's slightly larger (41/2-inch) LS-81 is

now available in a cabinet-mount version; it has quick-release brackets so you needn't leave it in the car when you're not there.

Three-way systems such as Kenwood's KSC-701B were less common this time than in previous years. Jensen, though, did introduce a new 61/2-inch version of its Triax, with grille-mounted tweeter and midrange plus a mounting depth of less than two inches. Mitsubishi introduced the SG-69TB, a 6 x 9-incher (the commonest size for three-way systems). Sparkomatic's SK 550 SPX is apparently a three-way, though it is billed as a *four*-way because it has two super-tweeters.

Shallow mounting was a major sales point for some new models. Jensen's 51/4inch ThinMount, only 13/16 inches deep, is its fifth speaker to require less than two inches of mounting depth. Panasonic's EAB-040 is another "super-thin" model. The ADS subwoofer mentioned earlier comes with both flat and domed grilles so it can be mounted upside down if there's insufficient clearance behind the mounting panel.

Accessories

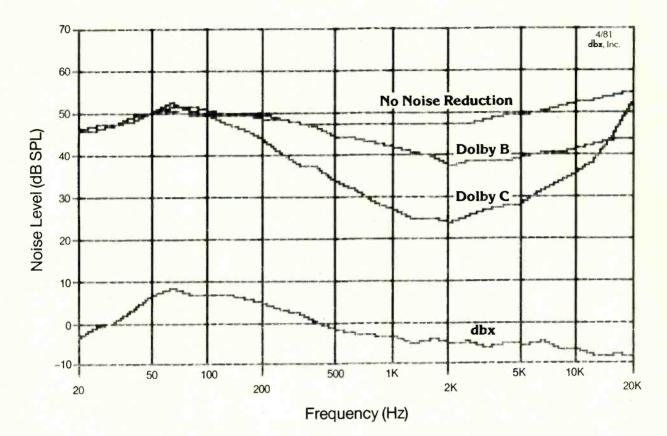
Either there are more car alarms now or I've become more conscious of them since my own car stereo was ripped off. I'll save the details of that traumatic event for another column, but among the new arrivals in alarms were radio-alert models from Autoalert and AutoPage as well as non-radio types from Autoalert and Blaupunkt. Rebel showed the Scat II Pro, which "listens" for the sounds of break-ins by monitoring doors, hoods, and trunk lids.

Burbank's AudioSafe isn't new, but it hasn't really been explained here. It's basically a cover that locks over the stereo unit and is almost impossible to get off again without the key; it makes your stereo less conspicuous and harder to remove from the dash, so only a most determined thief is likely to attack it. And even he will probably never steal more than one AudioSafeequipped unit: even outside the car, with the cover still locked on, the unit is virtually unsalable. I suggest that users permanently mark their names and addresses on Burbank-equipped stereos in case they're found in the trash where frustrated thieves have left them!

Pioneer brought out an accessory I wish I'd had years back: a local/distant switch that can be added to any car stereo or radio to eliminate front-end overload in strongsignal areas. I haven't had this problem in many recent systems, but I sure did in the one I had ten years ago.



dbx has been silent too long.



Noise from biased Chromium Dioxide cassette tape, comparing Dolby and dbx noise reduction systems. One third octave analysis. Tape noise level referenced to 200 nWb/m = 110dB SPL.

For years Dolby* has been trying to reduce tape noise. First came Dolby B. Then

Dolby HX. Now there's Dolby C. At dbx, we think it's time to set the record straight. You see, we've never tried to reduce tape

noise. We've never had to. Because from the beginning, dbx has done what Dolby keeps trying to do: *eliminate* tape noise.

Just compare Dolby's latest attempt with dbx.

Where Dolby C reaches a maximum noise reduction of 20 dB, dbx reaches 50 dB. In a CCIRweighted noise measurement analysis, Dolby C manages only 18 dB, while dbx achieves 55 dB.

What do these numbers actually mean?

dbx[®] is a registered trademark of dbx, Inc. *Dolby[®] is a registered trademark of Dolby Laboratories, Inc

Simply this. When you push the Dolby C button, tape noise decreases. When you push the dbx button, tape noise disappears. (You can perform this test yourself using any blank cassette tape.)

The dbx system reduces tape noise so effectively, that it's beneath the noise floor of even the quietest living rooms. Unlike Dolby C, dbx is effective in more than just the mid-range. It operates across the entire frequency spectrum. There's no low-frequency noise. No high-frequency noise. No noise, period.

No wonder Technics, Onkyo, Yamaha, TEAC and others have designed their newest generation of tape decks with dbx. There's more to this story, too. With the dbx tape noise reduction system, you're also equipped to play the widely acclaimed dbx Discs, the world's only Full Dynamic Range Records — and the first discs that eliminate record surface noise.

In addition, when digital playback technology finally arrives, dbx is the only system that will faithfully reproduce that sound on tape. You'll even be able to hear the sound of digital in your car, because we've developed a dbx decoding system for car stereo.

So before you rush out to buy a tape deck with Dolby C, we have a suggestion. Listen to the new tape decks with dbx. Or hear what a dbx Model 222 or 224 can do for your

existing system. At dbx, we've been silent too long.

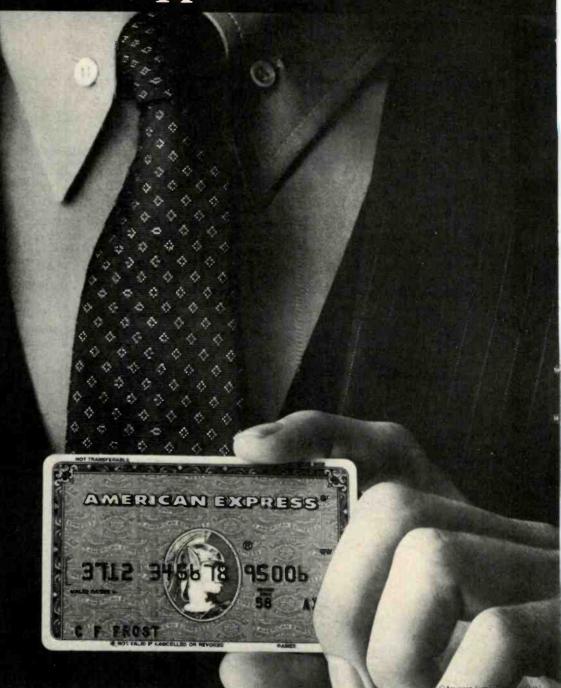
The fact is, Dolby just reduces noise.

dbx eliminates it.



dbx, Incorporated, 71 Chapel Street, Newton, Mass. 02195 U.S.A. Tel. (617) 964-3210. Telex 92-2522. Distributed throughout Canada by BSR (Canada) Ltd., Rexdale, Ontario.

To get anywhere in business, it takes a little application.



Nobody's going to hand you the world, but with the American Express® Card in hand, you can tackle the world. On vacation or in the world of business.

It almost goes without saying that the Card is invaluable for charging things. It's welcome at better restaurants, hotels and shops at home and abroad. Not to mention airlines and car rentals.

That's only the beginning. There are services like getting your signed receipts back with the bill to organize your expenses. Emergency funds, fast replacement of lost Cards and other travel help at the more than 1,000 Travel Service Offices of American Express Company, its subsidiaries and Representatives around the world. No other card has anything like them.

And unlike bank cards, there is no fixed limit imposed on your spending with the American Express Card.

Purchases are approved based on your ability to pay, as demonstrated by your spending, payment patterns and personal resources.

It is tailored to business traveling and to responsible people who know what they can afford, who don't need revolving, open-end credit. They are expected to pay their American Express bill every month.

There's so much more. But if you ever wonder how so many successful people got to where they are, it just could be that the Card helped them get there.

And for you, all it takes is a little application. If the attached one is missing, just phone toll-free 800-528-8000

and we'll send you another. The American Express Card. Don't leave home without it.





Pitch Problem

Q. My three cassette decks all run at slightly different speeds, causing horrendous pitch problems in editing home recordings. This also raises a question about buying commercially recorded cassettes—who wants to listen to a symphony a quarter-tone sharp or flat? Can anything be done about this?

Oberlin, Ohio

A. If you're heavily into tape editing, I marvel at the fact that you're using cassettes rather than open-reel, but even if you changed formats you would still be subject to some pitch shifts when interspersing sections made on one machine with those made on another. Absolute speed errors always exist to some degree, and one reason why professional decks use such apparently "over-built" motor and drive systems and complex servo-controlled reeltensioning devices is to minimize audible pitch changes when joining a "take" from the middle of the reel to one recorded near either end, even on the same machine.

There are a couple of things you can do, however. Many tape decks (both open-reel and cassette) are direct-driven by quartzcrystal phase-locked-loop servo systems, and these offer the highest potential for realizing near-perfect speed accuracy. Some of these (as well as a number of decks that are not quartz-referenced) are also equipped with a pitch control capable of varying the drive speed by about a semitone—surely enough to compensate for normal deck-to-deck differences. These pitch controls override the quartz reference (if any) and normally operate only in the playback mode.

If you don't want to change decks at this point, however, you still may get lucky. Most good cassette decks today use *some* kind of servo-controlled drive motor(s), and it is often possible to "tune" the reference frequency of the servo system over a slight range. With the aid of a schematic diagram, a wow-and-flutter test tape containing a sustained 3,000-Hz (or 3,150-Hz) test tone, and a digital frequency counter, a technician can adjust the speed differences between your three decks so that all will play back the test tape at the same frequency. This may involve changing a fixed resistor to a small adjustable one on one or more of your decks, but that's no big deal. You increase the odds of success if you have the technician use the middle section of the test tape (approximately the same amount of tape on each reel) for the adjustments.

The above will minimize the possibility of audible pitch shifts in editing, but you must realize that when two pieces of tape are edited together between notes the ear is much more likely to detect a pitch change than when it is dealing with sections where there are even a few seconds of silence in between. Sensitivity to small changes in pitch varies markedly between individuals (as does the related sensitivity to wow and flutter), which brings me to the point you raise about listening to prerecorded cassettes. Relatively few people-specifically, those endowed (or cursed!) with "absolute pitch"-would know, offhand, whether a recording of a symphony was a quarter-tone sharp or flat, much less whether the conductor had tuned to A = 440 Hz or A =443 Hz. If you're one of them, a deck with adjustable playback pitch control is, for you, a musical essential.

Tape Contact

Q. With several of my cassettes that haven't been played for some time, I find that the treble—and sometimes the whole signal—is missing until I press my deck's play lever down extra hard and hold it there. Then the playback is okay. Can this nuisance be fixed?

MICHAEL SZIGETY Madison, N.J.

A. If you try to visualize what happens when you press the play lever on your deck, it may help you understand where the problem(s) may be. When you press the lever three things occur: the reel brakes are released, the pinch-roller presses the tape against the rotating capstan while drive is applied to the take-up reel, and the head assembly is pushed into the cutouts in the front of the cassette shell so the moving tape will wrap itself firmly against the curved head faces. Your problem is clearly in this



TDK brings two new standards to open reel.

TDK now announces two breakthroughs in open reel. TDK GX Studio Mastering tape: an ultra refined particle lets it handle the critical demands of live music mastering. And TDK LX Professional Studio tape, with a super refined particle that gives it a performance ideal for professional and audiophile use.

A unique polishing and binding process makes dropouts practically a thing of the past. A special graphite and carbon backcoating on all GX and some LX reduces friction for smooth winding while preventing static and diminishing wow and flutter. At last your music is heard the way you intended to hear it.

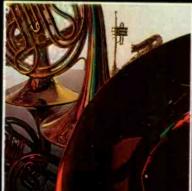
Listen to TDK GX and LX. They could open up a whole new standard of recording excellence.



© Copyright 1981 TDK Electronics Corp. Garden City, N.Y. 11530 CIRCLE NO 52 ON READER SERVICE CARD

27

The ADC Real Time Spectrum Analyzer clearly indicates what you should evaluate.



No matter how fine tuned your ear might be, it takes the electronic precision

of our ADC Real Time Spectrum Analyzer to give you the true picture you need when adjusting your room and speakers for optimum response. And should your surroundings change, it gives you a continuous visual reference so you can check your system and eliminate new acoustical deficiencies.

With its built-in pink noise generator (so no outside source is needed) and calibrated microphone, our full-octave SA-1 actually provides a visual presen-CIRCLE NO. 61 ON READER SERVICE CARD *Sound Shaper is a registered trademark of Antike Dynamics Competition tation of the changing spectrum through a a series of 132 LED displays.

The peak hold button freezes the reading so you can adjust your equalizer to the frequency response you want.

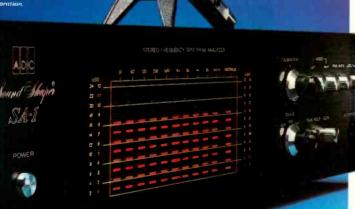
The SA-1, when teamed with any one of our Sound Shaper[®] equalizers, completes your sound picture by offering you total control. And clearly, that's what

custom-tailored sound is all about.

Real Time

Sound Shaper

Spectrum Analyzer



A D C A BSR COMPANY

Sound thinking has moved us even further ahead. BSR (USA) Ltd., Blauvelt, N.Y. 10913 BSR (Canada) Ltd., Rexdale Ontario last function: insufficient contact between tape and heads is causing treble loss or worse.

Any mechanical latching mechanism such as your play lever—must accommodate a slight amount of "over-travel" to ensure that the latch will catch reliably. In other words, it permits you to push slightly farther than should be necessary in order to ensure reliable tape/head contact. When you push down (and hold) extra hard to make these cassettes playable, you're working with this built-in "over-travel" margin, pressing the head assembly just a little further into the cassette openings.

It's possible, then, that the head-shifting mechanism is "latching in" at a marginally adequate position, pushing the tape just barely enough so that the spring-loaded pressure pad behind it creates adequate tape/head pressure on new (or some brands of) cassettes but not enough to deal with these particular older (or other brands of) cassettes. There are, in other words, two possible sources for the problem: (1) the time elapsed since last playing (the tape may have become a little sticky or the pressure-pad spring may have relaxed a little); and (2) cassette-brand/deck incompatibility, your head assembly being so set that it doesn't intrude into the shell openings quite far enough to make firm contact with this manufacturer's cassettes.

As a quick check: (a) run the troublesome cassettes back and forth a couple of times on high-speed wind; (b) rap the front edge of the cassette firmly against a desk a couple of times, but not as hard as if you were trying to crack an eggshell; (c) try playing again. If this works, fine. If it doesn't, listen carefully to a recording you make on the same kind of cassette: you may have a simple brand incompatibility. If you have problems with more than one name brand, a technician should adjust the head assembly.

What, No Bias?

Q. Looking through a recent audio directory. I noticed that while many cassette decks had a variable-bias feature listed, none of the open-reel decks did. What kind of cavalier thinking is it for manufacturers to include such an advanced feature on cassettes and to omit it from open-reel products whose owners are far more likely to want to use it?

E. A. MULVANEY Los Angeles, Calif.

A. To paraphrase the Bard. the fault, dear reader, is not in our decks, but in our directories, which are (sometimes) inadequate. There are plenty of open-reel decks with front-panel bias adjustments, but this particular directory's inquiry form to be filled out by the manufacturer simply omitted that category. Next time, look in the store as well as the book.

Because the number of questions we receive each month is greater than we can reply to individually, only those letters selected for use in this column can be answered. Sorry!

Technics linear-tracking turntable. Program it to play any cut. In any order. Even upside down.

Technics direct-drive SL-15. It automatically plays the record selections you want and skips the ones you don't. It completely eliminates tracking error and is so advanced it can even play upside down.

The SL-15's microcomputer and infrared optical sensor let you play up to 10 cuts per side, in any order. Just press the program keys in the order of the selections you want to hear. And with the repeat button, the SL-15 can repeat the entire program or any selection.

The SL-15 performs virtually any function, automatically.

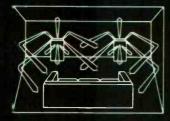
It accurately selects the record size and speed, finds the lead-in groove and begins playback at the touch of a button.

More proof of the SL-15's accuracy is its quartz-locked, direct-drive motor and dynamically balanced, linear-tracking tonearm. In addition to tracking perfectly, the SL-15 plays a record as accurately upside down as it does right side up.

Technics also offers other linear-tracking turntables, including our famous SL-10 and SL-7. Audition one and you'll agree when it comes to linear tracking, Technics is a cut above the rest.



INTRODUCING THE NEW BOSE 601" SERIES II SPEAKER WITH THE FREE SPACE "ARRAY.

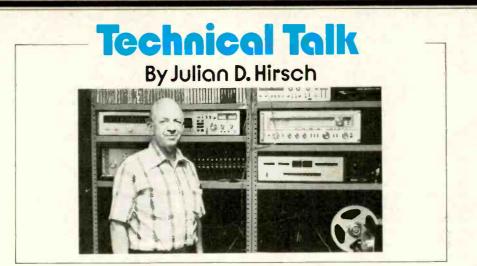


A new concept in loudspeaker design frees an array of drivers from the confines of the speaker cabinet, for an open, spacious stereo image that extends to the walls of your lister-ing room and beyond. A hidden innovation, the subport enclosure, produces bass with impact and clarity. These two concepts combine to produce a Direct/Reflecting® speaker with a sound quality that cannot be matched by *any* speaker of conventional design. Ask your authorized Bose dealer for a live demonstration. For more information, write Bose Corporation, Dept. SR, The Mountain, Framingham, Massachusetts 01701.

Covered by patent rights issued and/or pending, 601-li speaker design is a trademark of Bose Corporation. © Copyright 1981 Bose Corporation.



CIRCLE NO. 65 ON READER SERVICE CARD



What Price Distortion? •

READER recently posed an interesting question: commenting on the "distortion race," in which amplifier manufacturers seem to be striving endlessly to reduce the distortion in their products to zero, he observed that some of the most highly esteemed (and expensive) amplifiers make no claims to have vanishingly low distortion, that in fact there appears at times to be an inverse relationship between price and distortion! His question naturally was, "Why do these very expensive amplifiers have such 'bad' specifications?" He was referring to those selling in the \$2,000 to \$5,000 range (for a power amplifier only) with ratings of 0.2 to 1 per cent while others selling in the \$300 to \$600 range are often rated at between 0.001 and 0.05 per cent.

Several possible explanations were suggested: (1) some manufacturers claiming extremely low distortion may not be entirely truthful, (2) manufacturers of high-price amplifiers with high distortion ratings may be too conservative in their specifications, or (3) distortion ratings may not be a key criterion of good amplifier performance.

My experience indicates that neither (1) nor (2) is a valid explanation. Even in the lower price ranges I usually find amplifiers to be honestly and even conservatively rated in accordance with the rigorous FTC rules for power and distortion ratings, and distortion ratings of 0.02 per cent and less are not uncommon. The few tests I have done on very expensive amplifiers with unexceptional distortion ratings indicate that they behave pretty much as rated, which is to say with much higher distortion than one will usually find in others selling for a fraction of their price.

Most of the very expensive amplifiers on the market are sold (and bought) on the basis of their presumed special listening qualities, and the usual "specsmanship" factors are not in force to the extent they are in lower price brackets. To me they sound just fine, and since I have yet to hear *any* amplifier whose *sonic* qualities would make it a clear choice over any other, it follows that the higher measured distortions in some of the ones I have used have not affected their sound in any way I could detect.

HAT leaves us with the third hypothesis: harmonic distortion, at least below some threshold level, really doesn't matter very much in a high-fidelity amplifier. That view may shock some readers who are overly impressed by low distortion specs, but it is a fact of life for anyone who has had experience in evaluating amplifiers. Note that I said evaluating, not designing. Many amplifier designers I have known are somewhat lacking in objectivity, especially where their own creations are concerned. It is therefore easy for them to "hear" differences, always in favor of their own products, and it is equally easy for them to devise "objective" measurements that will validate this subjective response. In my experience, given two amplifiers with similar poweroutput ratings, flat frequency response, and negligible noise levels, one of which has a distortion of 0.001 per cent and the other a distortion of 1 per cent, it is unlikely that any difference between them would be audible in a controlled, double-blind A-B listening test if they were both operated below their clipping points.

What I have been discussing is simple harmonic distortion caused by a curvature in the amplifier's transfer characteristic. This usually produces lower-order distortions, principally second and third harmonics, which are relatively inoffensive to the ear. Crossover notches and other sharp discontinuities create many higher-order harmonics which may be audible even at low levels (although the audible importance of these effects has been greatly exaggerated, given modern amplifier performance). Ordinary intermodulation distortion (IM) is simply a different way of measuring the same electrical "problem" using different test signals. So why do we have this bizarre situation in which amplifiers selling for a few hundred dollars are rated at 0.001 to 0.05 per cent distortion, while others selling for ten times as much have distortion ratings ten to a hundred times greater?

There is probably no single, simple answer to the question, since many factors other than distortion must be considered. For example, the amplifiers in my correspondent's list range in power output from about 50 to 250 watts per channel, and that alone can account for a substantial price difference. On the other hand, even if price and power do tend to follow each other roughly, there are so many exceptions to the rule that it must be viewed with suspicion.

It is possible that the explanation may lie simply in the relative ease with which ultralow distortion can be secured with the out-

Tested This Month

Soundcraftsmen RA7503 Power Amplifier
Genesis 210 Speaker System
Hitachi HA-4700 Integrated Amplifier
Dual 741Q Record Player

put transistors and circuit designs currently available, especially when they include large amounts of overall negative feedback. Recognizing the sales appeal of extremely low distortion ratings, especially to the lay public, many manufacturers cannot resist the temptation to shoot for a sub-0.002 per cent specification; if it can be achieved without any large cost penalty, why not?

However, if one believes that "transient intermodulation distortion" (TIM) and related phenomena that are said to result from the use of large amounts of negative feedback are serious problems in modern hi-fi systems, then it follows that we would be better off with much less overall negative feedback. This would result in higher harmonic distortion, but if an increase of one or two orders of magnitude is still not audible in that area, and if there is a beneficial reduction or even elimination of TIM, the trade-off is well worth it—according to proponents of this philosophy.

Luckily, the present state of power-transistor and circuit development makes it possible to have low distortions of all kinds without "excessive" feedback. All it takes is money. This may be part of the reason for the high price of some amplifiers, but I don't think so. The extremely high prices of a few amplifiers more probably result from very limited production runs that entail a large amount of hand labor, plus the generally high quality of the mechanical and electrical materials used in the product (many of the parts and transistors are much more expensive in small quantities than they are when bought in lots of many thousands). And, of course, the need to amortize the heavy development and engineering costs of a sophisticated product over a few units results in an inordinately high selling price as well.

My correspondent notes, by the way, that all the amplifiers he listed (about fifteen, from as many different manufacturers) are excellent products. Keep this in mind if you decide to make a similar study of distortion ratings; do not, in other words, give them any undue importance. Price, appearance, power, and many other things can—or should—outrank distortion in the selection process. As I have often said, reliability and ruggedness are paramount for me; no amplifier is worth having if it regularly goes "down" under reasonable home operating conditions (or during lab tests, although I tend to make allowances for their sometimes unrealistic severity).

One final thought: have you considered how many \$400 amplifiers you could afford to replace for the price of just one \$4,000 amplifier? Even if the cheaper amplifier were less reliable than the expensive one (and in my experience the reverse is more likely to be true), you could afford to keep several on hand as spares and never be without a system in the event of an amplifier failure.





FEW years ago, Soundcraftsmen introduced the MA5002, a novel power amplifier using what they termed "Vari-Portional" or "Class-H" circuitry to generate a very-high-power output with a higher overall efficiency than conventional power amplifiers of any other class (see test report in STEREO REVIEW for March 1978). A new, somewhat modified and improved version of that class-H amplifier has now been announced by Soundcraftsmen. It comprises a series of three models with identical amplifier sections but different front-panel display features. We tested the top-of-the-line Model RA7503 for this report.

The essence of the "Vari-Portional" system is an extremely responsive power supply whose voltages can follow the instantaneous signal level even more rapidly than the amplifier itself. In fact, the manufacturer claims a slew rate of 90 volts per microsecond for the *power supply*, compared to 50 volts per microsecond for the amplifier (itself a very good figure).

Normally the amplifier operates with relatively low supply voltages, sufficient to support up to about 100 watts output. As the signal level increases to the point where clipping is imminent, the supply voltages (both positive and negative) increase with it, tracking and staying "ahead" of the signal so that the full power of the amplifier (Continued on page 34)

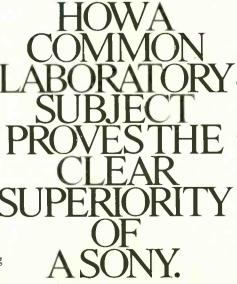


Once again, in the interest of science and for the betterment of mankind, the services of *Mus albus rodendus*, or the white mouse, have been called upon. This time to demonstrate the sheer brilliance of the new Sony STR-VX5 receiver.

When the little chap so much as touches the VX5's "Memory Scan," you'll automatically hear four seconds of up to eight of your favorite AM or FM stations, without having to tune them in separately.

If he chooses our exclusive "Auto Sweep," you'll hear a four-second sample of every available station on the dial. Find a station you like and another feathertouch control instantly locks onto that frequency. There's no drift. No fade. A computer insures crisp, clear, perfect sound.

But that's merely proof that the VX5 possesses the world's most advanced tuning section. Here's proof that it possesses the



*FEATURES AND SPECIFICATIONS: 55 waits per channel, continuous power output, both channels driven into 8 Ohms from 20 Hz to 20 kHz, at no more than 0.007% THD/Quartz frequency synthesis/5-way tuning/Direct Comparator/IC logic function controls/Hi-f_T transistors. © 1981 Sony Corp. of America, 9 W. 57th St., N.Y. NY 10019. Sony is a registered trademark of the Sony Corp.

world's most advanced amplifier section. Statistically, the VX5 puts out 55 watts per channel with no more than 0.007% total harmonic distortion.* Even your dog can't hear that.

Part of the reason is Sony's unique "Legato Linear" amplifier. This circuitry prevents "switching distortion" from ever intruding on your music. Another part is an incredibly advanced, Sony-developed "Pulse Power" supply. Its transformer alone is but 1/50 the size of conventional transformers and is as quiet as a church mouse.

Of course, there are other outstanding features, from a subsonic filter to moving coil-cartridge capability. And it's all at a price that won't require you to get a second mortgage to purchase it.

The Sony VX5. We used a mouse to prove its genius. But all you really need are a good pair of ears.



Jest reports

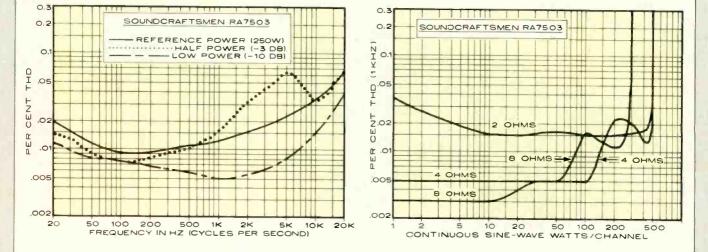
can be realized without distortion. The result is an amplifier designed for (and capable of) very high power output, yet one that generally uses little power and thus runs very cool under typical home-use conditions. In other words, it is highly efficient.

The power ratings of the RA7503 are very similar to those of the older MA5002. It can deliver 250 watts per channel to 8ohm loads from 20 to 20,000 Hz with no more than 0.09 per cent total harmonic distortion. It is one of the few amplifiers carrying a full 4-ohm power rating, in this case 375 watts per channel from 20 to 20,000 Hz with 0.09 per cent distortion. In the bridged mode of mono operation, the RA7503 is rated at 750 watts into 8 ohms. green up to 0 dB, red at higher outputs.

Two rows of calibrations next to the leftchannel indicators show the mono power output, in watts, into 8- and 16-ohm loads. Next to the right-channel lights are calibrations for stereo operation into 4- or 8-ohm loads. Since the lights for 8-ohm stereo operation cover a power range from 0.02 to 500 watts, they are always glowing and informative during operation of the amplifier. A center-bottom red PROTECT light indicates that the amplifier's protective system is operating.

The left side of the panel is devoted to a hundred-LED spectrum-analyzer display which shows the program levels in ten octave bands over an 18-dB range at 2-dB inare \$20. The Model RA7502 is identical except for not having the spectrum analyzer, and its price is \$949. The Model RA7501, with neither the analyzer nor the power indicators but an identical amplifier, is \$849.

• Laboratory Measurements. Preconditioning the Soundcraftsmen RA7503 for one hour at 83 watts (one-third rated power) into 8-ohm loads made the heat sinks and top surface only moderately hot. The 1,000-Hz output into 8-ohm loads clipped at just over 300 watts per channel. With one channel driving 4 ohms it was about 450 watts, and driving 2-ohm loads the amplifier delivered almost exactly 500 watts per channel.



The RA7503 normally requires no fan, although the manual warns that for operation in a fully sealed environment or when delivering sustained high power into a lowimpedance load, a "whisper fan" should be used for cooling.

The Soundcraftsmen RA7503 is a large, heavy amplifier measuring 19 inches wide, 15 inches deep, and 7 inches high and weighing about 50 pounds. Its exterior surfaces are finished in black. The amplifier can be rack mounted, and optional walnut side plates are available for home use. The speaker outputs in the rear employ heavyduty, five-way binding posts, and there is a third set of outputs for the mono mode (in which neither side of the output can be grounded). The signal inputs are balanced through three-circuit 1/4-inch phone jacks, but adaptors are furnished to accommodate standard phono plugs and convert the inputs to unbalanced (the usual home-musicsystem practice).

The front panel of the RA7503 contains an impressive array of indicators and controls. For each channel there is a level-adjustment knob, a green light that shows the onset of the Vari-Portional circuit operation, and a red light that glows when actual waveform clipping occurs. In the center of the panel are two vertical rows of LEDs that display the instantaneous outputs of the two channels. They operate in steps of 3 dB from -40 to -7 dB (relative to rated power), 2-dB steps from -7 to -1 dB, and 1-dB steps from -1 to +3 dB. The lights are tervals. Pushbuttons connect the analyzer to read either channel or their sum. A slider control adjusts the display sensitivity to suit the amplifier's output level.

The protective system of the Soundcraftsmen RA7503 differs from the usual practice. It has no current-limiting circuits (which have been known to cause distortion under certain operating conditions), yet the amplifier is fully protected for operation into 2-ohm loads or against short-circuited outputs. It has an "Auto-Buffer" circuit that senses a lower-than-usual load impedance (less than 4 ohms) and regulates the power-supply voltages to provide the maximum safe power output without unnecessarily interrupting operation.

A dangerous overload, or an output short circuit, is instantly sensed and an "Auto-Crowbar"-a silicon controlled rectifier circuit-shorts the power supply in microseconds, simultaneously disconnecting the a.c. power by means of a triac and lighting the front-panel PROTECT light (there is a separate power supply to operate the protective system even when the main power is off). This action also takes place if the output transistors become too hot. In a few seconds the system automatically resets itself (if the fault condition still exists, the amplifier will not come on, but it will keep trying until safe operation is possible). In addition to its electronic systems, the amplifier is protected by a line fuse.

The Soundcraftsmen RA7503 is priced at \$1,149. The optional walnut side panels The harmonic distortion into 8 ohms was 0.003 to 0.005 per cent from 1 to 50 watts, rising to 0.016 per cent at 100 watts and dropping slightly at higher power outputs. This effect was the result of the Vari-Portional circuit's starting to operate at about 100 watts (200 watts into 4-ohm loads). At that time the distortion spectrum changed from predominantly second harmonic to a number of low-level, higher-order harmonic products.

The distortion varied between about 0.01 and 0.02 per cent from 100 to almost 300 watts. With 4-ohm loads the THD was 0.005 per cent up to 100 watts, and when the Vari-Portional circuit was operating it was between 0.013 and 0.023 per cent in the 150- to 450-watt range. With 2-ohm loads the distortion was about 0.015 per cent at most power outputs up to 400 watts.

When the RA7503 was driving 8-ohm loads at rated power, distortion fell from 0.02 per cent at 20 Hz to 0.01 per cent over most of the midrange and rose smoothly to 0.064 per cent at 20,000 Hz. At half power the distortion rose to a maximum of 0.064 per cent at 5,000 Hz but decreased at higher frequencies (it rose to only 0.06 per cent at 20,000 Hz). This effect was evidently due to the Vari-Portional circuit, since it was functioning at the 125-watt output level. The distortion was lowest at one-tenth rated power, falling from 0.01 per cent at 20 Hz to 0.005 per cent in the midrange and rising to less than 0.04 per cent at 20,000 Hz (Continued on page 36)

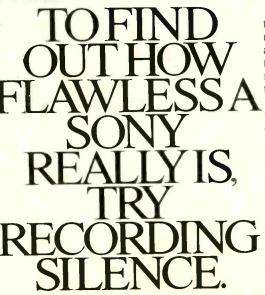


Chances are, if you've never received an engineering degree from MIT—or even if you have—you still haven't the vaguest idea which of the over 200 different cassette decks to buy.Well, there's an easy way to find out.

Record absolutely nothing on each one. If you hear something like a snake hissing in the background, that recorder is filled with ten-year-old technology. But if you hear exactly what you recorded silence—then the recorder reflects the technology of the 80's. And it does, if it's the TC-FX6C from Sony.

į.

Sony designed the FX6C to incorporate the newest, most advanced noise reduction system — Dolby C* Dolby C doubles the noise reduction without producing the unwanted side effects caused by similar systems. So when you record music you hear only the music and not an extraneous hiss.



FEATURES AND SPECIFICATIONS: 2-motor tape drive/Solenoid-logic, feather-touch controls/16-segment LED meters/Optional: RM-50 remote control, RM-80 wireless remote control, RM-65 synchronizer/S/N ratio 59dB (metal, Dolby off) Improved up to 20dB @ 2kHz with Dolby C/Wow and flutter 0.04% (WRMS)/Frequency response 30Hz = 17kHz ± 3dB (metal). *Dolby is a trademark of Dolby Lab. © 1981 Sony Corporation of America. 9 West 57th St., N.Y., NY 10019. Sony Is a registered trademark of Sony Corp.

And, instead of the conventional tape counter, the FX6C features the most useful guide to tape time ever invented a computerized Linear Counter. Now you no longer have to guess how much time remains on a tape, or if you'll run out of tape in the middle of a selection.

There's no fumbling around to find, play and replay a cut you want to hear either, because the FX6C incorporates an Automatic Music Sensor. This allows you to skip forward or backward to the selection of your choice. You can even preset the deck to repeat any portion of the tape you want to hear up to nine times.

Other innovations range from Sony's exclusive Sendust and Ferrite head formulation to advanced remote-control capability.

But what's really innovative is the price_A price that, we assure you, will generate a lot of hissing from our competitors.

SONY.We are music. CIRCLE NO. 46 ON READER SERVICE CARD

test reports

The IHF clipping headroom was 0.84 dB into 8 ohms and 0.76 dB into 4 ohms. The IHF dynamic headroom was 1.04 dB (318 watts) at 8 ohms and 1.07 dB (480 watts) at 4 ohms. The dynamic power into 2 ohms was 544 watts per channel. The amplifier was stable with a complex simulated speaker load, which caused only a slight overshoot on a high-frequency square wave. The IHF slew factor was greater than 25, and the amplifier rise time was about 4 microseconds. The IHF intermodulation distortion (IM) was measured with 19,000- and 20,000-Hz signals. Very low levels of oddorder distortion products (third through eleventh) were visible on the spectrum analyzer at levels from -88 to -92 dB referred to 250 watts equivalent sine-wave power. The even-order (1,000-Hz) IM distortion was at -85 dB.

The low-level frequency response of the amplifier was flat within ± 0.05 dB from 10 to 20,000 Hz (down 1 dB at 50,000 Hz and 0.3 dB at 5 Hz). A 77-millivolt input was required for a reference output of 1 watt, and the A-weighted noise was -83 dB referred to 1 watt (-107 dB referred to rated power). The Vari-Portional light came on at about 125 watts, and the clipping lights operated at the point where visible waveform clipping occurred. The power-display lights were surprisingly accurate and, unlike many others, served much more than a purely ornamental function. Typically they came on within a few per cent of the indicated power, and they switched on abruptly and unambiguously. It was not possible, however, to light only the +1-dB light, since the +1-, +2-, and +3-dB lights all came on virtually simultaneously.

When listening to the amplifier before making any tests, we were surprised at how readily the "500 watt" (+3-dB) light could be lit without apparent distortion (of course, we used speakers that could handle the full output of the amplifier safely). Still, it was difficult to accept the reality of those high peak levels even when listening to relatively uncompressed material. Our later tests showed that these peaks actually reached about 300 watts, which indicated that this amplifier can be driven into mederate clipping without audible distress.

We made no measurements on the spectrum-analyzer section, which is identical to that built into some of Soundcraftsmen's equalizers. It appeared to work well. A pink-noise test record is supplied with the RA7503 and can be used with the analyzer to adjust the system's frequency response using an external equalizer.

The protective circuits of the RA7503 worked to perfection. We always approach the clipping point in a gingerly fashion when testing a high-power amplifier, since all too often (especially with very low load impedances) there is some damage or a blown fuse to replace when that point is reached. Except with 2-ohm loads, the RA7503 took this treatment with aplomb. Excessive drive into 2 ohms shut it off instantly and silently, and it always recovered with equal smoothness.

• Comment. Our experience with highpower amplifiers has given us a somewhat different set of priorities (compared with those of the typical audiophile) for judging the value and desirability of an amplifier. Foolproof protection against almost any abuse is a "must" given the cost of the speakers that might be damaged by any amplifier failure. Since most power amplifiers sound essentially alike (I say "essentially" to forestall a torrent of letters from True Believers who condemn my heretical views), it seems to me that reliability is perhaps the most significant criterion for amplifier selection.

The Soundcraftsmen RA7503 is one of the most thoroughly "bulletproof" amplifiers we have had the pleasure of using. In normal operation the heat sinks become only faintly warm and the rest of the amplifier not even that. One soon tends to forget that shorted outputs and very low load impedances (as many speakers as you care to parallel) are normally "no-no's," since the RA7503 takes them in its stride.

Since the 7500 series units are all identical amplifiers, a choice between them can be made solely on the basis of their display features (and price, of course). We liked the power readout, which up to 0 dB is very accurate and fast. The spectrum analyzer can be worthwhile for some. The point is that Soundcraftsmen have made a superb amplifier in a choice of formats that should suit any need.

It is good for the soul to hear wide-dynamic-range programs reproduced through speakers and amplifiers that can do justice to them, with no nagging worries about whether the amplifier will survive the experience. The RA7503 provided us with some of the more uplifting listening experiences we have enjoyed in recent times. It is, in our estimation, an unqualified success.

Circle 140 on reader service card



THE British-made Goldring phono cartridges, which in the past have had limited distribution in this country, are now being imported by AudioSource of Foster City, California.

The Goldring G900 series of movingmagnet cartridges share a common body, differing only in their stylus assemblies (which are easily replaceable and can be changed to upgrade one cartridge model to another). The cartridge was designed to be as light as possible, to which end the number of its fixed coils was reduced from the usual four to two, which were wound without forms to further reduce weight. The mu-metal hum shield is also smaller and lighter than usual. All these measures result in a cartridge with a total weight of only 4

grams, about 40 per cent lighter than most magnetic cartridges.

The stylus moving system is mechanically damped by a butyl-polymer damper in the G900E (the model we tested), and the moderate inductance of its fixed coils (570 millihenries) helps to make the cartridge response relatively insensitive to capacitive-*(Continued on page 38)*

The Onkyo TX-4000. It will tame you, thrill you, tantalize and transport you.

The Onkyo TX-4000 Quartz Synthesized Tuner/ Amplifier is one of the most perfect stereo receivers we've ever designed. Nothing else in its price range provides the brilliant purity, dynamic headroom, and full excitement of its sound.

ONRYO GRIMELY SYNTHE SIZED TUMER AMPLIFUE

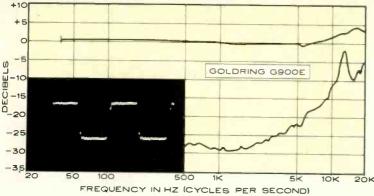
The Onkyo TX-4000 brings tuning accuracy to a new level of precision . . . with an advanced approach to guartz-synthesized digital tuning. And the amplifier section provides all the dynamic headroom demanded by today's audiophile recording techniques. Onkyo's exclusive Dual-Super-Servo system makes it possible, by allowing the power supply to perform as if it were 50-times larger. And there's more ... LED power metering, memory to pre-set 6 AM and 6 FM stations ... and elegant styling with a flip-down control panel.

All combine to make The Onkyo TX-4C00 a tuner/amplifier you will definitely want to audition and then own. Hear it now at your Onkyo dealer.

Onkyo USA Corporation, 42-07 20th Ave., Long Island City, N.Y 11105. (212) 728-4639 ONKYO



X-4000



In the graph at left, the upper curve represents the frequency response of the cartridge. The distance (measured in decibels) between It and the lower curve represents the separation between the two channels (anything above 15 dB is adequate). The inset oscilloscope photo shows the cartridge's response to a recorded 1,000-Hz square wave, which indicates resonances and overall frequency response (see text). At right is the cartridge's response to the intermodulation-distortion (IM) and 10.8-kHz tone-burst test bands of the TTR-102 and TTR-103 test records. These high veloc-

loading effects. The G900E, being intended for use in a wide variety of tone arms, has a more rugged cantilever than the more expensive models, and its more powerful magnet gives it a rated output of 6.5 millivolts ± 2 dB for a lateral stylus velocity of 5 cm/ sec. The 0.3 x 0.7-mil elliptical diamond stylus is bonded to the aluminum cantilever tube.

test_reports

The performance specifications of the Goldring G900E include a frequency response of 20 to 20,000 Hz ± 3 dB (test record not specified) when loaded by 47,000 ohms in parallel with a capacitance of 200 to 400 picofarads. The range of usable tracking forces is 1 to 3 grams, with 1.75 grams being the recommended value. The vertical stylus angle is 24 degrees. Price: \$69.

• Laboratory Measurements. We tested the Goldring G900E in the tone arm of an Onkyo CP-1130F record player for a total effective mass, including the cartridge, of 15 grams. The vertical force was 1.75 grams, although tracking tests were made over the range of forces for which the cartridge is rated. The cartridge load was 47,000 ohms and 185 picofarads (pF), and the frequency response was also measured with higher values of capacitance.

The frequency response with a CBS STR 100 test record was flat up to 6,000 Hz, rising gently at higher frequencies to a maximum of +4.5 dB from 16,000 to 17,000 Hz. The overall response was within ±2.5 dB from 40 to 20,000 Hz, comfortably meeting the manufacturer's specifications. Increasing the load capacitance to 420 pF shifted the high-frequency resonance peak to 11,000 Hz, which had the effect of increasing the output between 4,000 and 13,000 Hz by about 2 dB and causing it to drop off faster at higher frequencies compared to the performance with the lower capacitance value. The overall variation was still only $\pm 2 \, dB$ throughout the audio range with the higher capacitance.

The channel separation was 25 to 28 dB

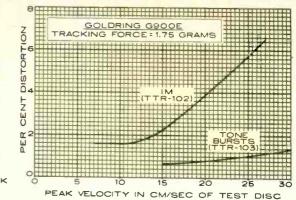
in the midrange, 12 to 13 dB at 10,000 Hz, and about 6 dB at 20,000 Hz. The response and crosstalk characteristics of the two channels were both very closely matched over the frequency range, and the two outputs were also almost identical at 4.7 millivolts, their mismatch being less than 0.1 dB.

The low-frequency resonance in the Onkyo arm was at about 10 Hz, an ideal frequency. The vertical stylus angle was 28 degrees, slightly higher than the rated 24 degrees. At its minimum rated force of 1 gram, the cartridge was able to track our high-level low- and middle-frequency test records successfully. Only the 40-micrometer level of the German Hi Fi No. 2 test record was playable at 1 gram, but tracking improved to a very good 80 micrometers at 1.75 grams and to 90 micrometers at 3 grams.

The response to the 1,000-Hz square wave on the CBS STR 112 record was very good, with a single 20 per cent overshoot fully damped in only one cycle of the highfrequency stylus resonance (about 20,000 Hz). Other than this, the square wave was reproduced about as accurately as we have ever seen from this record.

Tracking distortions were measured with the Shure TTR-102 and TTR-103 test records. The TTR-102 is an intermodulationdistortion (IM) test record with mixed 400and 4,000-Hz tones recorded at a number of levels. The G900E's IM was low (about 1.6 per cent) at low to average velocities up to about 12 cm/sec, increasing smoothly to 6.5 per cent at 27 cm/sec. There was no sign of actual mistracking even at this very high level. The TTR-103 has shaped 10.8-kHz tone bursts with a 270-Hz repetition rate at four levels from 15 to 30 cm/sec. Any highfrequency tracking nonlinearity causes the 270-Hz frequency to appear in the cartridge output after the 10.8-kHz burst has been filtered out. Here too, there was no obvious mistracking visible on the waveform, and the distortion (at the 270-Hz level compared to the 10.8-kHz level) rose smoothly





ities provide a severe test of a phono cartridge's performance. The intermodulation-distortion (IM) readings for any given cartridge can vary widely, depending on the partIcular IM test record used. The actual distortion figure measured is not as important as the maximum recorded-signal groove velocity that the phono cartridge is able to track before a sudden and radical increase in distortion takes place. There are very few commercial phonograph discs that embody musical audio signals whose average recorded groove velocities are much higher than about 15 centimeters per second.

from 0.7 per cent at 15 and 19 cm/sec to 1.4 per cent at 30 cm/sec.

Comment. Our initial listening to the Goldring G900E (before any measurements were made) left us with the impression that it was a very clean, smooth, and easy sounding cartridge. Nothing in the tests conflicted with that judgment. For example, the subjective tracking tests with the Shure ERA III and ERA IV "Audio Obstacle Course" records confirmed the excellent tracking qualities of the G900E. It played everything on the ERA III record without strain. With the more demanding ERA IV disc, there was a sense of strain only on the highest level (5) of the flute and combined harp/flute sections. As we had observed in the distortion measurements, the cartridge "overloads" very gracefully, never becoming harsh or unlistenable, merely sounding somewhat strained when the tracking demands become too severe.

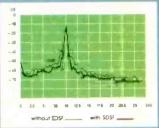
To put this into perspective, one must bear in mind that the G900E has a *list* price of only \$69, ranking it among the least expensive cartridges that can claim true highfidelity peformance. In spite of its low price, the sound and measured performance of the G900E are not strikingly different from those of some highly regarded cartridges that sell for several times its price.

Furthermore, it has a high output, good hum shielding, and the ability to operate with full effectiveness into almost any load likely to be encountered in a home music system. These are impressive qualities, especially in a bargain-price cartridge, and combined with what we heard from it they leave us with an overwhelmingly positive impression of the Goldring G900E (and considerable curiosity about its senior relative, the G900IGC, which is fitted with the radically shaped van den Hul stylus and sells for four times the price of the G900E).

Circle 141 on reader service card

(Continued on page 40)

MORE MUSIC. LESS NOISE. MORE MACHINE. SANSUI.



Noise is a thief. It robs you of the quality of music you are entitled to hear from a fine cassette deck. On the right is a picture of a type of dynamic distortion known as modulation noise. It

makes music sound gritty, whether the sound is loud or soft. What these spectrum analyzer traces show, and your own ears will confirm, is that Sansui's new D-550M cassette deck, with



its exclusive (pat. pending)

Dyna-Scrape Filter, reduces modulation noise by as much as

10dB! That represents a startling audible difference and a profound reduction in this most pervasive of tape noises. Until now, scrape filters were found only in professional reel to reel tape decks. Now Sansui has ingeniously engineered this valuable technology into a truly affordable cassette deck.

The D-550M is a 3-head machine with full IC logic control. It has a frequency response from 25-21,000Hz (± 3dB, metal tape); user adjustable bias control; 2-motor drive that reduces wow and flutter to a miniscule 0.035% (WRMS); plus state-of-the-ort heads and electronics that improves signal to noise ratio to 70dB (with Dolby-B[™]).

And if it is logical for our top-of-the-line D-550M to have full IC logic, then it is logical for our more modestly priced D-300M to have it as well. In fact, much of Sansuis advanced

technology that's in our most costly models is also found across the entire Sansul line. Indeed, our lowest priced cassette deck, the D-95M, like the D-550M, D-350M and D-300M, has metal tape capability. More music, less noise. More machine. Better value. That's

D-95M



what Sansui cassette decks are all about. Come see the full line now at your local Sansui dealer.

Sansui

SANSUI CASSETTE DECKS D-550M

Metal-Tape Compatible

D-350M

Metal-Tape Compatible D-300M

Metal-Tape Compatible D-95M*

Metal-Tape Compatible

*D-95M available in silver only. All other models in silver or black.

SANSUI ELECTRON CS CORP. Lyndhurst, New Jersey 07071 • Gardena, Ca. 90247 SANSUI ELECTRIC CO., LTD., Takyo, Japan In Canada: Electronic Distributors CIRCLE NO. 35 ON READER SERVICE CARD



Genesis 210 Speaker System

THE Genesis 210 is a two-way, floorstanding speaker system designed for exceptional performance at a moderate price. Its dimensions (31 inches high, 16^{1/2} inches wide, 10^{1/2} inches deep) effectively rule out shelf mounting for the system. In addition, since the drivers are vertically aligned slightly off the center of the panel, the speakers should be installed in mirror-image pairs (they are marked for left and right placement). The rated impedance of the Genesis 210 is 8 ohms.

The low and middle frequencies are radiated by an 8-inch woofer augmented below 45 Hz by a 10-inch passive radiator. The bass system is based on a fourth-order Butterworth alignment. The woofer response has been designed to roll off naturally above 1,800 Hz, where it crosses over to a single 1-inch-diameter inverted (concave) dome tweeter. No series inductor is used to roll off the woofer's high-frequency output, so its damping is not impaired by the added resistance of a crossover coil.

The tweeter, which has a double-layer voice coil in a ferrofluid-filled gap, is designed to withstand very high power levels without damage. Every Genesis tweeter is tested for 2 minutes at 2,000 Hz at a 30-watt input (the company's tests show that it can handle 100 watts at 2,000 Hz for more than a minute). The woofer has rubber impact bumpers to minimize damage from excessive cone excursions.

The ruggedness of the Genesis drivers combined with the speaker's relatively high efficiency rating (89-dB sound-pressure level at 1 meter with a 1-watt input) means that it can be used with amplifiers rated from 20 to 100 watts output with full safety and effectiveness. The Genesis 210 uses the same tweeter and woofer as the current production of the Genesis 1 (reviewed in STER-EO REVIEW for May 1976) and has very similar ratings except for its additional octave of bass response (this is made possible without loss of efficiency by a cabinet volume almost four times as great as that of the Genesis 1).

The wooden cabinet is veneered in walnut-grain vinyl. A black cloth grille unsnaps to reveal the drivers. In the rear, near the spring-loaded connectors, is a toggle switch that decreases the tweeter output slightly. The Genesis 210 weighs about 45 pounds. Like all Genesis speakers, it is covered by a full lifetime warranty to the original owner. Each speaker comes with an individually run frequency-response graph attached to the carton. Price: \$229.

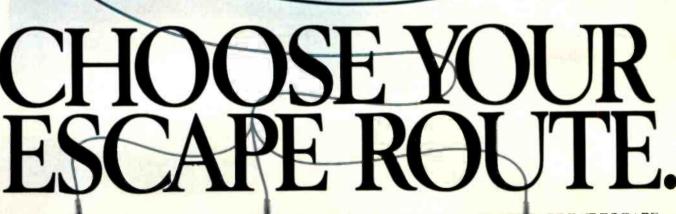
• Laboratory Measurements. Our measurements of the Genesis 210 were made in the usual manner, using smoothing and averaging to develop a total power-output curve in the listening room and using the Indac Fast Fourier Transform (FFT) analysis program on our Apple II computer to obtain an essentially anechoic axial pressure response at a distance of about 1 meter.

The two sets of response curves were in most respects in close agreement with each

other and with the curve furnished with the speakers (which we presume was made under anechoic conditions). The most notable characteristic of the speaker's response was its smoothness, with very few signs of the irregularities usually found in speaker frequency-response measurements. The FFT measurement was flat within ± 2 dB from 200 to 15,000 Hz. Another FFT measurement was made in the computer's low-frequency-analysis mode with the microphone about 1 foot from the front of the speaker and equidistant from the driven and passive cones. This showed a variation of only ± 2 dB from 30 to 1,500 Hz.

In view of this rather impressive performance, we were not too surprised to find that splicing a close-miked woofer response curve (measured separately at the driven and passive cones and combined with correction for their respective areas) to the farfield measurement produced an overall composite response curve flat within ± 2 dB from 30 to 15,000 Hz except for a moderate "jog" of ± 2.5 dB in the midrange between 700 and 2,000 Hz. The output rose above 15,000 Hz by an additional 3.5 dB at 20,000 Hz. The high-frequency dispersion of the Genesis tweeter was excellent, with less than 5 dB difference between the left and right speaker curves (one on-axis and the other about 30 degrees off-axis) all the way up to 20,000 Hz. The tweeter-level switch reduced the output by about 2 dB above the 2,000-Hz level.

(Continued on page 42)



STERED TAPE ESCAPE

Plan your escape with the Stereo Tape Escape. It's as simple as popping in a tape and putting on the featherweight (2-oz.) headphones.

You get tone and channel controls to customshape the great stereo sound. And there's an extra jack

so you can even escape with a friend. Model 3-5270

REO RADIO ESCAPE ST Built-in auto-



matic frequency control lets you escape with ease by locking in your favorite FM station. And just like its slightly bigger brothers, the ultralight AM/FM Stereo Radio Escape

GOOD THINGS

TO LIFE. GENERAL SE ELECTRIC

has separate left and right channel controls, an extra jack for a friend, and, of course, incred-WE BRING

ible sound.

STERED GREAT ESCAPE



Turn on a tape or tune into the FM radio. How you choose to escape is entirely up to you when you have the Stereo Great Escape.

Separate channel controls, an extra jack for a friend, and two escape routes make this one machine you shouldn't let get away. Model 3-5271

Model 7-1000

test reports

The bass distortion was almost constant, between 1 and 1.5 per cent from 100 to 40 Hz and only 2 per cent at 30 Hz, at a nominal 1-watt input (2.83 volts). The acoustic crossover to the passive cone took place at 40 Hz, and we used the distortion measurements from the passive cone below that frequency. A 10-dB power increase, to a nominal 10 watts, gave similar results but with higher distortion, measuring 4 to 4.5 per cent over the same frequency range.

The measured sensitivity of the speaker agreed with its ratings, with a sound-pressure level of 89 dB at 1 meter from an input of 2.83 volts of random noise in an octave band centered at 1,000 Hz. However, the impedance curve of the Genesis 210 suggested that it should have been rated at 4 ohms instead of 8 ohms. The impedance was a minimum of 4 ohms at 40 Hz and in the 80- to 160-Hz octave, and it was in the 5- to 8-ohm range at most middle and high frequencies.

• Comment. One of Genesis' design goals for the 210 system was to eliminate any trace of a "boxy" or "boomy" quality while retaining a uniform response down to 30 Hz. They have succeeded admirably. Our first reaction on hearing the Genesis 210 in our listening room was to wonder what had happened to the bass! In comparison with the speakers we had been using, the 210 sounded somewhat thin, though extremely well detailed and clean.

It did not take long to find out where the bass was—it was all in the lowest octaves where it belonged. The measured woofer response and our ears agreed that the all-too-usual upper-bass peak was essentially absent in the response of the Genesis 210. The woofer output varied only ± 1 dB between 40 and 300 Hz, where most speakers have a peak of up to several decibels, although it did slope gently above 200 Hz to about -4 dB at 1,000 Hz.

We made A-B comparisons of the Genesis 210 with other, far costlier speakers, using the voices of FM-station announcers with which we are familiar. The differences in sound were dramatic and, to our ears in our room, always in favor of the Genesis 210. At higher frequencies it tended toward brightness, and generally we preferred to set its tweeter switch to "decrease," but the major difference was in the lower middles and bass. The former were not emphasized at all, so that voices sounded like people talking naturally instead of seeming to originate in a box. To some extent this effect is emphasized by room resonances, which all rooms suffer from to some degree. The low bass was "all there" (and then some), as might be surmised from the strong response at 30 Hz and below. As for power handling, we drove the Genesis speakers with a 250watt-per-channel amplifier, occasionally to the point of clipping on deep bass passages. The speakers never even sounded strained, and the overall sound was excellent at any reasonable listening level.

This would be very impressive performance for almost any speaker. In one selling for only \$229, it is even more remarkable. Our earlier experience with the Genesis 1 left us with a strong positive impression, and it appears that Genesis has applied its expertise to a broad line of speakers with good success. Probably there are more really good speakers selling between \$200 and \$300 than in any other price range. It is not easy for any one of them to outshine its competition by very much, and personal taste must inevitably play the final role in making a selection, but to us the Genesis 210 certainly ranks among the top units in its price range. It is a great speaker and an even greater value.

Circle 142 on reader service card



THE Hitachi HA-4700 integrated amplifier is rated to deliver 50 watts per channel to 8-ohm loads from 20 to 20,000 Hz with no more than 0.02 per cent total harmonic distortion. It employs a "superlinear" output circuit similar to those used in some other amplifiers to reduce crossover distortion without sacrificing the efficiency of class-AB amplification. The bias on the output transistors is varied dynamically according to the signal level to shift their operating characteristics from class-A at low levels to class-AB at higher outputs.

The HA-4700's phono preamplifier can be switched for use with either movingmagnet (MM) or moving-coil (MC) cartridges. The program source is selected by a row of flat buttons with colored lights below them showing which has been selected. The inputs are identified as PHONO, AUX, TUNER, and TAPE (the last can be operated independently of the others for listening to a tape recorder's playback regardless of the regular program source).

On the same horizontal line with the input-source lights are two horizontal rows of LEDs that display the instantaneous power output of each channel (based on 8-ohm loads). The lights are calibrated from 0.04 to 100 watts (-31 to +3 dB referred to the rated 50 watts output). Green LEDs are used up to 50 watts, red ones at higher power levels.

Below the power indicators are three knobs, protruding only slightly from the panel, for the bass, treble, and balance controls. There is a large volume knob at the right of the panel, and all the other controls are pushbuttons. The illuminated power switch and the headphone jack are at the left of the panel near the two speaker switches. Below the input selectors are narrow rectangular buttons for the TONE DE-FEAT, SUBSONIC FIL (filter), LOUDNESS, TAPE COPY (from deck 1 to deck 2 only), TAPE SELECTOR (for playback from either deck when the input tape button is engaged), and PHONO SELECTOR for MM or MC phono cartridges.

On the rear of the Hitachi HA-4700 are the usual phono-jack inputs and outputs, insulated spring connectors for the speaker outputs, and three a.c. outlets, two of them switched. The amplifier is finished in satin silver and measures 171/8 inches wide, 127/8inches deep, and 31/4 inches high. Weight is about 133/4 pounds. Price: \$299.95.

• Laboratory Measurements. After an hour's operation at one-third rated power the top of the HA-4700 (over the enclosed power-transistor heat-dissipating fins) was (Continued on page 44)

Where a man belongs.

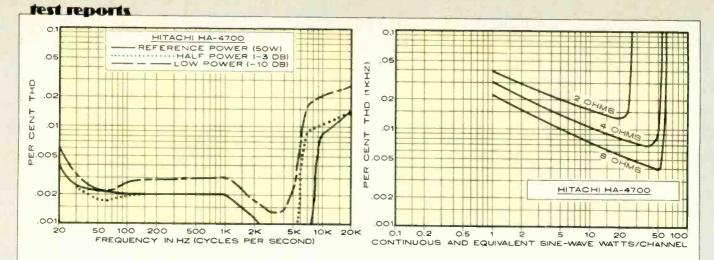
Warning : The Surgeon General Has Determined That Cigarette Smoking Is Dangerous to Your Health. Camel Lights. Low tar. Camel taste.

LOW TAR CAMEL TASTE

8^{mg}tar.

D CIGARE TES

CAMEL



uncomfortably hot to the touch, but it never became more than mildly warm in normal operation.

When we drove both channels at 1,000 Hz into 8-ohm loads, the output waveform clipped at 60.5 watts for an IHF clipping-headroom rating of 0.83 dB. The amplifier is not rated for use with lower load impedances, but we measured clipping outputs into 4 and 2 ohms of 54.8 and 25.2 watts, respectively. The IHF dynamic headroom (8 ohms) was a very good 2.58 dB, corresponding to a maximum short-term output of 90.6 watts. Into 4 and 2 ohms the dynamic power output was 60 and 29.7 watts, respectively.

For a reference output of 1 watt into 8 ohms, the HA-4700 required an input into the AUX jack of 24 millivolts (mV), 0.32 mVinto the PHONO (MM) jack. The respective A-weighted noise levels were -83 and -81dB referred to 1 watt (both very good readings for an integrated amplifier). The phono-preamplifier stage overloaded at a high 230-mV input at 1,000 Hz, and the equivalent overload limits at 20 and 20,000 Hz were 250 and 152 mV. The phono-input impedance was 46,000 ohms in parallel with 250 picofarads. Although we made no measurements with the MC input, its gain is about seventeen times higher than the MM input (+24 dB), and it terminates the cartridge in 100 ohms.

The harmonic distortion of the Hitachi HA-4700 was extremely low. With 8-ohm loads, the distortion at 1,000 Hz was between 0.004 and 0.008 per cent from 1 to 50 watts output, reaching the rated 0.02 per cent at 60 watts just as clipping was beginning. The performance into 4-ohm loads was generally similar, with distortion readings falling from 0.03 per cent at 1 watt to well under 0.01 per cent between 20 and 50 watts and rising to 0.08 per cent at 55 watts. The amplifier's output-current limitations prevented it from delivering much power to 2-ohm loads, and its distortion was in the range of 0.015 to 0.04 per cent for outputs up to 25 watts. The two-tone intermodulation-distortion measurement with equalamplitude signals at 19,000 and 20,000 Hz revealed no detectable second-order distortion (1,000 Hz) and a barely detectable third-order product (18,000 Hz) at -92 dB



"... And another thing ... your stereo system never sounded as though we were in the presence of a live orchestra. I lied!"

referred to the rated 50-watt output of the amplifier. The slew factor was greater than 25, and the amplifier rise time was 4 microseconds. The overload-recovery time (from a 10-dB overdrive condition) was a negligible 5 microseconds, and the amplifier was stable with simulated complex reactive speaker loads.

The distortion at rated power output was no more than 0.002 to 0.008 per cent over most of the audible frequency range, reaching a maximum of 0.015 per cent at 20,000 Hz and falling to a nearly unmeasurable 0.0007 per cent from 3,000 to 7,000 Hz. At half and one-tenth power the shape of the distortion curve was similar, with only slightly higher readings.

The tone controls had a sliding bass-turnover frequency (from about 100 to 500 Hz) and treble curves hinged at 2,000 to 3,000 Hz. The maximum bass boost occurred in the range from 50 to 100 Hz. The loudness compensation boosted both low and high frequencies, but only moderately. The "subsonic" filter appeared to have only a 6-dBper-octave slope, with its -3-dB response at 60 Hz and -10 dB at 20 Hz. The RIAA phono equalization was accurate within ± 0.25 dB from 20 to 20,000 Hz, and the inductance of most cartridges caused no more than a 0.5-dB rise in the output between 10,000 and 20,000 Hz.

• Comment. The Hitachi HA-4700, although appearing with relatively little fanfare or publicity, has most of the features that have been seen of late in the top amplifiers of many other manufacturers. It is a compact, handsomely styled, and versatile amplifier that sounds as good as it measures. No manner of sonic flaws or operating "glitches" showed up in our testing or listening to the amplifier, and we came away with a thoroughly positive impression of its performance and overall design.

The HA-4700 has a very comprehensive protection system that manages to be completely unobtrusive as well as effective. A short circuit across the outputs will shut down the amplifier if it is driven hard, and the power must be switched off for a few seconds to restore it to service. Although a d.c.-offset voltage at the ouput will also silence the amplifier, it recovers from that automatically when the fault is removed. There is also a thermal cut-out that shuts (Continued on page 46)

Why listen to the first names in music, on anything less than the first name in high fidelity.

Fisher ST925. Incomparable Fisher sound reproduction, plus quality Fisher craftsmanship.

At Fisher, we believe that the only way to do justice to a great piece of music is to listen to it through a great pair of speakers. And after 40 years of designing speakers, the ST925 is our best ever.

As expected, it has the look and feel of

fine furniture — handcrafted with close attention to detail. Plus all the things needed to make it sound like a fine musical instrument.

Take the 15" low frequency driver, for example. Ours uses a low mass, high rigidity cone material to provide optimum deep bass response.

We didn't compromise on the midrange and high frequency horn drivers either. Both are suspended in an expensive ferrofluid that drastically reduces heat build-up, thus enabling the drivers to handle greater power. In fact, maximum power handling capability is 130 watts. Yet the ST925 is so efficient it can reproduce live concert sound levels with as little as 25 watts. Not only that, it can also reproduce the full dynamic range typical of the newest digital recordings.

If you think these are good reasons to buy them, you're not alone. After all, Fisher happens to be the largest manufacturer of speakers in America.



FISHER The first name in high fidelity.

test reports

the HA-4700 off if it becomes too hot. None of these protective systems operated during our tests, in spite of their severity, but it was reassuring to know they were there and waiting if need for them arose.

The schematic of the amplifier revealed a feature whose presence we would not have suspected from our measurements. A major problem of modern hi-fi systems is their susceptibility to interference from strong radio-frequency fields from nearby transmitters. Often these signals enter through the phono leads, overloading the low-level stages and superimposing the modulation of the r.f. signal on the regular program (or even completely obliterating the program). External filters are a possible treatment for this condition, but their success is uncertain, and there is also the possibility of degrading the amplifier's frequency response by an improper cartridge termination. Hitachi has built an L-C low-pass filter into the HA-4700 at the phono input. We calculate that the filter has a cut-off frequency of about 1.5 MHz, which should help in cases of interference from nearby CB or amateurradio stations, although it probably will not do much if one is unfortunate enough to live

in the shadow of a powerful AM broadcast station. So far as we can see, the only sacrifice made for this feature is the relatively high 250-pF input capacitance of the phono section, but this should not cause problems with most combinations of record player and cartridge.

The Hitachi HA-4700 is, therefore, a thoroughly up-to-date, very high-quality, moderate-power integrated amplifier selling at a most modest price. It is an excellent value in every way.

Circle 143 on reader service card



HEADING the new line of record players from Dual is the Model 741Q, a twospeed, direct-drive, quartz-locked turntable combined with an improved version of Dual's ULM (ultra-low-mass) tone arm. The straight tubular arm is now made of a magnesium/aluminum alloy that gives greater rigidity while retaining the advantage of very low mass (only 8 grams, including the 2.5 grams of the optional Dual/Ortofon ULM 60E cartridge). The tone arm has Dual's anti-resonator, a secondary weight suspended within the counterweight, whose effective mass and suspension compliance are adjustable to compensate for the low-frequency arm/cartridge resonance with almost any type of cartridge installed in the arm. The Dual/Ortofon cartridges are supplied on special low-mass mounts, but a separate mount is provided for use

with other cartridges. Additional counterweight sections are also furnished to balance heavier cartridges.

The major improvement in the Dual 741Q is in its suspension system. The motor, platter, and tone arm are suspended as a unit from the base on four accordion-like rubber isolators filled with a viscous damping fluid. The dampers are combined with a coil spring (like an automobile coil-spring and shock-absorber combination) and a transverse rubber suspension element to provide optimum isolation from external vibration. In addition, the entire record player is supported on four adjustable feet, each of which can be set to attenuate the transmission either of low audio frequencies (for feedback reduction) or of infrasonic frequencies (for shock isolation).

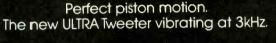
All the operating controls of the 741Q

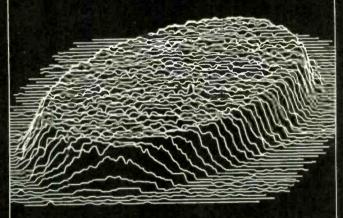
are on its front panel and are fully accessible when the dust cover is lowered. Lighttouch pushbuttons initiate the play cycle (the arm-indexing position is determined by the selected speed), and the stop cycle can be activated by a touch on its button. Another button (LIFT) raises and lowers the pickup on alternate touches, with the arm position shown by green arrows next to the button. If the REPEAT button is engaged, a record will be replayed indefinitely.

At the left of the panel is a POWER button and a small rectangular button marked PITCH flanked by two small knobs marked 33 and 45. With the PITCH button out, the speeds are controlled by the quartz-crystal reference in the turntable servo system, being selected by a knob on the motorboard near the cartridge end of the arm. A "dial (Continued on page 48)

WHAT NO HUMAN EYE HAS EVER SEEN BEFORE, THE HUMAN EAR NOW HEARS.

The COMPLETE BLMFR'S GUIDE TO STEREO/HI-FI EQJIP-MENT calls it "the -echnology of today." We call it ULTRA": our exclusive Ultra-accurate Laser Topoaraphic Response Analysis system. A computerized laser nterferometer that ets our speaker designers see, for the first time ever, the vibrating surface of a speaker diaphragm,



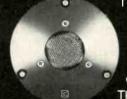


the latter speaker costs well over twice what Celestion asks for the Ditton 100." Nanetheless...the Celestion was the clear winner in high frequency response, apparent deep bass, and—to the ears of half a dozen critical listeners—overall sound quality: ...Celestion has

managed to achieve better results for less money using the

AND THE CRITICS NOW PRAISE.

frozen in time and magnified for detailed examination. Yielding the secrets of



how best to determine critical dimensions, select materials and modify physical and electrical characteristics. The result? The following

quotes from the COMPLETE BUYER'S GUIDE review of the new Ditton 100 loudspeaker, designed with ULTRA, speak for themselves: "There is a tendency to compare

all speakers in this configuration to the LS3/5A, and that's not really a fair test:

technology of today. And that, frends, is what audio is still all about: bringing fine sound within the reach of all who have the desire to hear it."

Audition the Ditton 100 or one of the other superb Dittons a your Celestion

dealer. And discover why the COM-PLETE BUYER'S GUIDE closed their review with: "Bravo Celestion!"



Celestion's suggested retail price: \$130.

celestion C speakers

Kuniholm Drive, Box 521, Holliston, MA 01746 In Canada, Rocelco, Toronto CIRCLE NO. 7 ON READER SERVICE CARD

test reports

window" near the center of the panel displays the turntable speed in red numerals, and the QUARTZ legend appears in green to show that the speed is fixed.

When the PITCH button is engaged, the green QUARTZ indicator is replaced by PITCH in red, and a dial scale shows the actual deviation of the speed, in per cent, from nominal value. The scale is calibrated at 1 per cent intervals over a \pm 6 per cent range; a colored LED pointer makes it very easy to read. The small PITCH knobs provide vernier adjustment of the 33½- and 45-rpm speeds. The nonferrous-alloy platter (which weights 3½ pounds including its rubber mat) has stroboscope marks cast into its rim; these are illuminated from below the motorboard only when the speed is quartz-locked.

The counterweight of the gimbalmounted tone arm carries the anti-resonance-filter adjusting ring, which is calibrated in terms of the resonant frequency to which it is tuned. The manual has a table of recommended settings for most popular cartridges. The tracking force is set by a small knob on the side of the gimbal housing, which operates through a spring so that the arm remains balanced at all times. It is calibrated at 0.1-gram intervals up to 1.5 grams and at 0.25-gram intervals from 1.5 grams to its 2-gram maximum. The antiskating dial, with separate scales for conical and elliptical styli, is on the motorboard next to the arm base and can be adjusted while a record is playing.

The exterior appearance of this year's Dual turntables is a definite departure from past designs. Instead of a basic-black finish, the 741Q is finished in a metallic satin silver. It is 17½ inches wide, 151⁄4 inches deep, and about 5 inches high with its clear-plastic dust cover down. The hinges for the cover move forward slightly as it is raised so that the turntable can be placed close to a wall without restricting the opening of the cover (which can be set at intermediate angles as well as fully raised). The whole unit weighs about 17 pounds. Price: \$500; with factory-mounted Dual/Ortofon ULM 60E cartridge, \$649.95.

• Laboratory Measurements. The Dual 741Q was tested with its optional ULM 60E cartridge. The low-frequency resonance was at about 10 Hz, with a 4- to 5-dB amplitude. Although more massive cartridges would lower that frequency somewhat, we would expect it to be above 8 Hz under any conditions.

When the arm had been carefully balanced, the calibrations of the force scale on our sample were slightly off (by 0.1 to 0.2 gram). Since the actual force was always higher than the reading, this error is on the "safe" side. We used the 1-gram setting for which the 60E cartridge is rated. The tracking error over the surface of a 12-inch record was well under 0.5 degree per inch of radius. The tone-arm and signal-cable capacitance was 180 picofarads, with an interchannel capacitance of 4.5 picofarads.

The unweighted rumble was a low -37 dB, -60 dB with ARLL weighting. The maximum rumble energy was around 6 Hz, and it decreased rapidly at higher frequencies. The flutter was about 0.06 per cent in a weighted rms or average measurement, ± 0.07 per cent weighted peak. These figures represent the best that can be measured with standard test records because of their inherent warpage and eccentricity. The flutter spectrum was uniform below 10 Hz, with little at higher frequencies.

The speeds were adjustable over the rated range (we measured extremes of ± 5.8 and ± 5.9 per cent), and the calibrations of the speed scale were as accurate as their single-digit resolution allowed. The automatic start cycle required about 11 seconds from touching the button to the set-down of the stylus on the record. The stop or shut-down cycle required 7.5 seconds. The arm can also be cued manually, since the motor starts when the arm is moved from its rest.

The antiskating dial had to be set 1 gram higher than the force setting for equal distortion in both channels on very high-velocity records. In spite of the higher setting, the tone-arm drift during cueing descent was very slight; rarely was more than a cou-



".... A direct-drive, quartz-controlled FM antenna rotator? Yes, Brad, I'd say you're sick....."

ple of seconds of a record repeated in an "up/down" arm-lift operation. The lift was virtually instantaneous, and the smoothly damped descent to the record surface required only about 1.5 seconds.

We did not test the Dual/Ortofon ULM 60E cartridge (it and other Dual/Ortofon cartridges have been covered in reviews of earlier Dual turntables). However, we did mount another, conventional cartridge in the arm to check the completeness and accuracy of the instructions. We discovered that careful attention must be paid when installing the cartridge with the supplied gauge and that remounting the cartridge plate in the arm is a bit tricky.

• Comment. Although the Dual 741Q differs from its predecessors in styling and in many features, it retains their smoothness and ease of operation. For most home applications, it would be hard to imagine a more effective or attractive record player.

The major innovation of the 741Q is in the lengths to which its designers have gone to isolate it from its environment so as to reduce the feedback that muddles the sound or induces oscillation in many other players. Our listening room, built on a concrete slab, is virtually free of conducted vibration, and we are forced to use extraordinary measures to induce airborne acoustic feedback (in fact, we have yet to do so in any recognizable form). For that reason, as well as to quantify our data, we measure base isolation of a record player by exciting all four of its feet with small magnetic drivers (essentially miniature loudspeakers) with a sweeping audio frequency from 20 to 1,000 Hz. The output of the cartridge, resting on a stationary record, is RIAA-equalized and fed to a graphic level recorder synchronized to the sweep-signal frequency. After calibration, the readout can be compared with test data from other turntables to evaluate relative base isolation.

Does Dual's rather extensive design effort to isolate the 741Q make it less susceptible to transmitted vibration? Compared to previous Dual players we have tested, the 741Q enjoys a clear superiority of at least 5 to 10 dB by our nonstandard test procedure. It showed a single transmission response at 33 Hz-unlike most units, which display either a broad response up to 100 or 200 Hz. or else a number of discrete responses in that range. Its acoustic and mechanical isolation surpassed the measurements we have made on almost all the belt-drive turntables we have tested, as well as all but a couple direct-drive models. Our tests of the 741Q were made with its mounting feet set for best isolation in the audio spectrum, where our measurements were made. We did not experiment with different settings of the feet, since their effects would have been below our 20-Hz lower measurement limit.

Although the effects of the tunable antiresonance filter in the tone-arm counterweight are difficult to detect either by measurement or by ear, it is clear that the multiple isolation systems of the Dual 741Q combine with its overall excellent performance and ease of operation to make it one of the best record players on today's market.

Circle 144 on reader service card

IMMORTAL MUSIC SHOULDN'T BE KEPT ON MORTAL TAPE.

Surfin USA

Good music never dies. Unfortunately, a lot of cassette tapes do. At Maxell, we've designed our cassettes to be as enduring as your music. Unlike ordinary cassettes, they're made with special antijamming ribs that help prevent tape from sticking, stretching and tearing.

And our cassette shells are built to standards that are as much as 60% higher than the industry calls for.

So if you'd like to preserve your old favorites for the years to come, keep them in a safe place. On one of our cassettes.

Gen Ange



CIRCLE NO. 30 ON READER SERVICE CARD

MICROPHONING

The increasing use of digital techniques in recording musical ensembles seems to have refocused the attentions of engineers and listeners alike on the two big microphone questions: Where and How many?

Why does one recording of a given musical work sound more "real" than others? Why is another more exciting sonically? The differences can usually be traced not to the recording technology (analog, digital, or direct-to-disc) nor to the choice of home playback equipment, but to simple changes in *microphone placement* at the original recording session.

Miking technique can radically alter most sonic aspects of a recording: perspective (the distance to the ensemble); ambiance (a sense of the acoustics of the concert hall or studio being used); the depth, stage width, and definition of the acoustic (stereo) image; orchestral balance and tone quality; and even perhaps the perceived musicality of the performance. As home stereo systems become more sonically "transparent," it becomes easier to discern the effects of different microphone techniques on the recorded sound and music. To understand where many sonic differences among recordings originate and to define the compromises involved in making a "high-fidelity" recording, let's pretend we're going to produce one.

Imagine we've been given the task of recording an orchestra in such a way that it sounds "real" when reproduced over loudspeakers in a home listening room. Specifically, the goal is to place microphones so as to create in the listening room an accurate and pleasing sonic image of the orchestra (and the concert hall's reverberation) as heard from an ideal seat in the audience (note that "accurate" and "pleasing" may not necessarily be compatible aims). To

By Bruce Bartlett

find the best mike positions we'll use intelligent trial and error, making frequent comparisons between playback of the recording and the live sound to help us chart our progress.

The first step in achieving a pleasant sound is to record the orchestra in an acoustical environment appropriate for the music. For example, the reverberation time of the recording locale should be relatively long for large, massive works (Mahler's Symphony of a Thousand) and shorter for more intimate pieces (a string quartet). Also, the tone quality of the reverberation should be neither too boomy nor too shrill. Excellent-sounding halls are not, to be sure, always available, but for the purposes of this experiment, we'll assume that the recording is taking place in a suitable environment.

As the orchestra is playing, we walk around the hall seeking an ideal seat in the audience, one where the sound is musically well balanced and where the direct sound from the orchestra blends in pleasing proportions with the concert hall's reflected ambiance. The position of this ideal seat depends on the hall acoustics, the size and layout of the ensemble, the particular piece of music, and the *taste of the listener*. One reason why different recordings of the same piece sound different immediately suggests itself: not all recording producers prefer the same ideal seat.

Microphone-to-Source Distance

It seems logical to place a special stereo microphone (or a pair of conventional microphones) at ear height in what we consider to be the ideal seat and record the performance from there (see Figure 1 on page 52). How would the reproduction of the orchestra sound recorded from there compared with what we would hear "live" sitting in the same seat? Probably too distant, blurred, and overreverberant. Why? Reverberation in a concert hall comes to the listener-and the microphonesfrom every direction. Our two ears can easily sort out the direct sound of the orchestra in front from the reverberation coming to us from all around. During playback of a recording over a stereo system, the reverberation is no longer heard from all sides, for all the "hall sound" comes from the space between the two stereo speakers along with the direct sound of the orchestra. Direct sound and reverberation are thus mixed together with minimal directional differences. Our ears can no longer separate the two, so the "excessive" reverberation gives a washed-out, distantsounding perspective to the music.

To achieve a more natural sound, the microphones must be moved closer to the orchestra to pick up more of the direct sound and proportionately less of the reverberation. As the mikes are moved toward the ensemble, the sound becomes "closer," more "intimate," "detailed," or "dry." The scraping sounds of the strings and the key noises and breathing of the woodwinds become more obvious, as do creaking chairs and turning pages. A slightly more distant mike placement, although still closer-in than the ideal seat, will give a more blended but somewhat veiled and faraway orchestral picture.

There are some stereo microphone techniques (such as the crossed-figureeight "Blumlein" system and binaural "dummy head" recording) which are claimed to produce acceptable directto-reverberant sound ratios when placed in the best live-listening position in the audience. In general, however,

because microphones do not hear the same way humans do, they must be placed somewhat closer to the orchestra than our favorite audience seat if the recorded result is to be pleasing.

The music itself should contribute some clue as to a suitable microphoneto-source distance: closer for incisive, rhythmically motivated works (such as Stravinsky's Rite of Spring), more distant for slow-moving, harmony-based compositions (a Bruckner symphony). Monitoring through headphones or loudspeakers while the microphones are placed at various distances from the ensemble (typically 5 to 20 feet from the front row of musicians) will aid in the selection of a spot where there is a tasteful balance between concert-hall ambiance and the direct sound from the orchestra. The goal is to achieve the same audible sense of distance to the ensemble (the "perspective") as would be heard from the ideal seat we chose earlier.

Microphone Height

Let's try recording from a spot (Figure 1, location 2) closer than the ideal seat. The sound is much clearer now, but the instruments in the front rows of the orchestra are much too loud compared to those in the back rows because

"As home stereo systems become more sonically "transparent," it becomes easier to discern the effects of different microphone techniques on the recorded sound and music."

the back rows are proportionately much farther from the mikes than they are in location 1. Raising the microphones several feet on a stand (a typical height would be around 15 feet) will help restore the front-to-back balance to what would be heard back in the ideal seat. For smaller groups, those with little depth to the ensemble, the microphones can be placed lower, sometimes even on the floor.

Frequency Balance

Now, in our attempt to get ideal-seat sound quality, we have placed the mikes close to the orchestra but high (Figure 1, location 3). After recording from this position we notice that the playback sounds "brighter" (stronger in the high frequencies) than the live orchestra does.

The duller sound heard at location 1 is partly owing to the air's absorption of high frequencies. Also, the audience sits in the "reverberant sound field," which is characteristically weaker in high frequencies than the close-up position where the microphones are placed. In addition, the higher harmonics of the strings and some woodwinds (which radiate upward over the heads of the ground-level audience) are picked up by the elevated microphones. Some high-frequency rolloff (a treble cut) may therefore be necessary to restore the ideal-seat spectral balance. This rolloff can be achieved by (1) selecting microphones with this characteristic, (2) electronically attenuating the highs during recording or playback, or (3) using loudspeakers that roll off in the high frequencies. If the recording engineer's monitor loudspeakers have this rolloff, he will probably choose flat-response microphones and will use no equalization. On the other hand, if his monitor system has a flat response, he will tend to choose duller-sounding microphones or will equalize the high frequencies. Since it is most unlikely that a particular listener's speakers and listening room would be acoustically identical to those of a particular recording engineer, it's easy to see how tonal differences among recordings can arise.

Stereo Effect

Let us assume that at this point the tonal balance has been corrected one way or another and the microphones are placed close to the orchestra but high. We can now concentrate on the more subtle differences between the playback and the live performance. For example, the orchestral stage width may be too narrow in reproduction, or the instruments may sound too widely separated. Controlling the stereo "spread" is a matter of angling and spacing the microphones and of choosing their polar patterns (their response to sounds arriving from different directions) to achieve the proper reproduced stage width, which typically spreads from speaker to speaker. Thus, individual records can vary widely in the amount of stereo separation they display, depending on the skill and taste of the recording engineer.

During stereo reproduction, a sonic "image" of each instrument is perceived between the loudspeakers (remember that it is essential that the lis-

MICROPHONING...

"Individual records can vary widely in the amount of stereo separation they display, depending on the skill and taste of the engineer."

tener be equidistant from the speakers when evaluating stereo imaging). Sometimes these images are sharp and well defined; at other times they are vague and diffuse. Image definition varies greatly with the microphone arrangement used (see Figure 2, page 55). Typically, a pair of closely spaced directional microphones aimed in different directions (a, b) provides sharper imaging than microphones spaced farther apart (c). Widely spaced microphones, however, can sometimes convey a sense of acoustic space surrounding the performers and the listener that closely spaced microphones cannot.

Spatial Reproduction

Even with an acceptable stereo image achieved, there remain several significant differences between live and recorded sound. One thing we discover (or rediscover) right away is that the reproduced reverberation of the concert hall comes only from the front and that it is spread out between the two speakers. To restore the effect of sonic envelopment that live listening gives, ambiance needs to be added to the sides and rear of the listening room. This can be done in several ways, all of which have a slightly different sonic effect. The home listener can (1) use multi- or omnidirectional speakers to stimulate listening-room reflections, frequently at the expense of some image sharpness; (2) use an ambiance synthesizer or time-delay system with additional speakers placed to the sides and rear; or (3) use an "image-enhancement" device to electronically manipulate the acoustic signals arriving at the ears. A recording engineer, on the other hand. can either (1) record in quad or some other four-microphone ambiance-recovery system, or (2) record with a dummy head placed in the original ideal seat for playback through an electronic "binaural-to-stereo" converter.

Listening-room Adjustments

At this point our playback is finally starting to sound reasonably realistic. However, in spite of all our efforts, we still aren't quite there. We know, even with our eyes closed, that we are listening in a small room rather than in a concert hall. Somehow the echoes that acoustically define the listening room to our hearing system must be eliminated or masked. Possible solutions include using large amounts of acoustic damping or absorptive panels (there will be a corresponding rise in the amplifier power required), electronic processing of the signals, or highly directional speakers. Elimination of listening-room effects is a problem that still requires a good deal of research.

So far, in our attempt to discover why different records of the same piece of music sound different and not like a live performance, we've covered primarily microphone placement. The choices of microphone distance, height, spacing, and angles all have a great influence on the recorded sound ultimately obtained. But there is one important variable still to be covered: how many microphones should we use?

Let's say that we've found positions for microphones that yield a good direct-to-reverberant ratio, a good frequency balance, and a good stereo image. Beyond this, it's also very important that the orchestra's various instrumental sections be reproduced with the proper relative loudness or balance. This balance is dictated first by the composer through his notation of dynamics in the score. It is the task of the conductor and musicians to follow sometimes to modify—the written dynamics so as to produce the desired balance in the audience area.

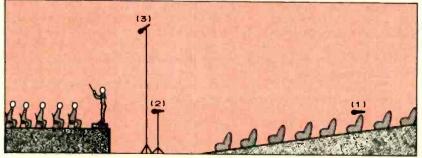
If the ensemble's balances are perfect and the acoustics are excellent, a simple two- or three-microphone pickup (the so-called "purist" approach) can yield a sonically stunning recording. But suppose the orchestra is dispersed on a wide and shallow stage. Instruments close to centrally placed microphones are picked up much louder than more distant instruments at the sides, with the result that the outer edges of the orchestra sound too soft and distant compared with the center. The orchestral balances as "heard" by the microphones are not the same as those heard by a listener seated further back in the hall. So we must add "accent" microphones close to the far-left and far-right sections, and their signals will be mixed with those from the main microphones. In addition, other closely placed microphones may help to bring out an individual instrumental section or a soloist who would otherwise be "buried" in the recording.

This process can be extended so that every section, or sometimes every instrument, is covered with its own microphone, possibly even in the absence of a set of main microphones with which these "accents" can be blended. This is known as the close-in multimicrophone technique. With this technique the musical balances are more the responsibility of the recording engineer and producer than of the conductor and players. If the signal from each microphone is recorded on a separate track of a multitrack tape recorder, the individual tracks can then be mixed down after the session; the conductor can be (or should be) consulted for proper balances. If the signals are not recorded on a multitrack machine, the mixdown is "live" and the balances are almost totally up to the recording engineer and producer.

Purist vs. Multimicrophone

Purist and multimicrophone techniques can have very different effects on the sound ultimately heard in a recording. Purist techniques using only two or three microphones placed several feet in front of the ensemble (see Figure 2 and Figure 1, locations 2 and 3) capture the overall blend, the orchestra's balance being determined mainly by the composer, the performers, and the conductor. In contrast, the multimicrophone method adds "accent" or

Figure 1. Recording from location (1), the "ideal seat" for live listening, would yield an overreverberant, blurred result. Location (2) gives a clearer recording but distorts the depth of the ensemble. Raising the mikes to location (3) restores proper sonic depth.

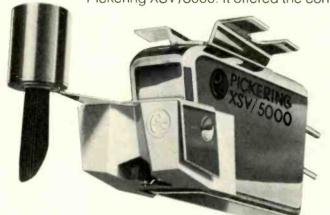


The best for both worlds

The culmination of 30 years of Audio Engineering leadership – the new Stereohedron®

XSV/5000

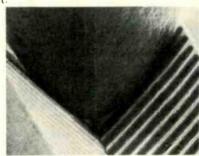
One of the most dramatic developments of cartridge performance was the introduction of the Pickering XSV /3000. It offered the con-



sumer a first generation of cartridges, combining both high tracking ability and superb frequency response. It utilized a new concept in stylus design —Stereohedron, coupled with an exotic samarium

cobalt moving magnet. Now Pickering offers

a top-of-the-line Stereohedron cartridge, the XSV/5000, combining features of both the XSV/3000 and the XSV/4000. It allows a frequency response out to 50,000 Hz.



The Exclusive Stereohedron Tip

The new XSV samarium cobalt magnet accounts for an extremely high output with the smallest effective tip mass. The Stereohedron tip design is the result of long research in extended frequency response for tracing of high frequency modulations. The patented Dustamatic[®] brush and stylus work hand in hand with the rest of the cartridge assembly to reproduce with superb fidelity all frequencies contained in today's recordings.

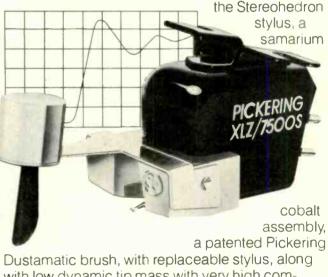
Pickering is proud to offer the XSV /5000 as the best effort yet in over 30 years of cartridge development.

A fresh new breakthrough in cartridge development designed specifically as an answer for the low impedance moving coil cartridge –



The advantages of the XLZ/7500S are that it offers characteristics exceeding even the best of moving coil cartridges. Features such as an openness of sound and extremely fast risetime, less than 10μ seconds, to provide a new crispness in sound reproduction. At the same time, the XLZ/7500S provides these features without any of the disadvantages of ringing, undesirable spurious harmonics which are often characterizations of moving coil pickups.

The above advantages provide a new sound experience while utilizing the proven advantages of



Dustamatic brush, with replaceable stylus, along with low dynamic tip mass with very high compliance for superb tracking.

So, for those who prefer the sound characteristics attributed to moving coil cartridges, but insist on the reliability, stability and convenience of moving magnet design, Pickering presents its XLZ/7500S. THE SOURCE OF PERFECTION



"for those who can hear the difference"

For further information on the XSV/5000 and the XLZ/7500S write to Pickering Inc., Sunnyside Blvd., Plainview, N.Y. 11803.



SOUND UNLEASHED



You may not realize it, but you've only been tistening to music in two dimensions. In fact, owners of the most sophisticated systems utilizing the latest enhancement techniques are also only hearing two-dimensional sound, totally lacking the missing third dimension, Omnisonic Imagery[™]. Even owners of the most modest stereo systems will recognize the 801 Omnisonic Imager™ as one of the most significant improvements in music reproduction in years. This advance, available after extensive research by Omnisonix in the field of psychoacoustics, Is intended to provide the enjoyment and feeling of live musical performance. To vastly upgrade the performance of your stereo system, simply connect the 801 to the tape or preamp input/output jacks and listen to clear, distinct sound images that seem to surround you, even while moving about. In fact, the impact is so great that the sound seems to come from outside the

speaker plane, often overhead and to the rear. Your home virtually becomes a concert hall.

Hearing is convincing

To experience the dramatic presence and detail that have been missing from your records, digitally recorded discs, and pre-recorded tapes, take a few of your favorites to an Omnisonix dealer for a demonstration; you are in for a musical delight. And amazingly enough, any tape you record through an Omnisonic Imager will retain the Omnisonic quality when it is played back on a conventional stereo system. The 801 Omnisonic Imager also adds a dimension to FM, monophonic AM and TV sound, with a simple adjustment.

Highway imagery

The new Imager 801-A™ does for your car stereo what the 801 does for your home music system. It raises the sound from the floor level to the ear level. The variable imager control allows you to vary the image to any auto environment.

Hear what you've been missing

Join the growing thousands of music listeners who have found it completely affordable to enjoy the delight of Omnisonic Imagery and discover what they had been missing with conventional stereo.

Since all Omnisonic Imagers are designed and built for lasting performance under strict quality control conditions, Omnisonix offers a lifetime warranty on the active proprietary circuitry.

Call today, toll free 1-800-243-0688

For additional information and the name of your nearest Omnisonix dealer. Write: P.O. Box 430, Northford, Ct. 06472 or call 203-239-6213 in Connecticut.



CIRCLE NO. 42 ON READER SERVICE CARD

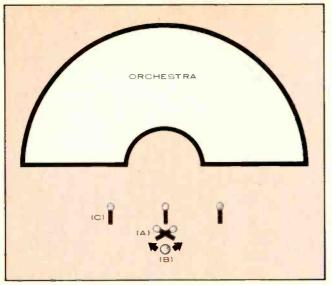


Figure 2. Basic purist recording setups include: closely spaced cardioid microphones (A), "coincident" figure-8 microphones (B, Blumlein system), and widely spaced omnidirectional microphones (C).

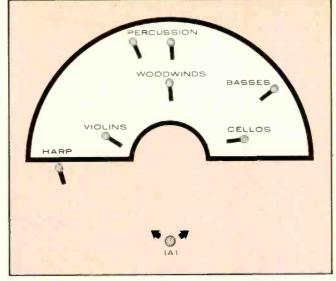


Figure 3. A multimicrophone session frequently has separate accent mikes for every orchestral section. A purist setup (A) is often used also to record hall ambiance and/or the orchestra's overall blend.

"sweetening" mikes to those instruments or sections that the record producer thinks need reinforcement to be heard in proportion to the rest of the orchestra (see Figure 3). In this way an acceptable balance can often be achieved faster (and therefore at lower cost) and with less dependance on the arrangement of the musicians and the choice of recording hall than with the purist technique.

With the purist approach, the auditory perspective depends on the microphone-to-ensemble distance. Instruments close to the mikes sound close and those far from the mikes sound distant, so a sense of depth is immediately captured. The multimicrophone technique often places a microphone close to each section, and the sense of correct sonic distance will often be lost unless reverberation (natural or artificial) is mixed in proper amounts with the signal from each microphone.

A purist technique can (or should) translate the position of each instrument into a corresponding sound-image location between the reproducing speakers. With multimicrophone methods, the image location is controlled by "pan pots," electronic controls that divide the signal from each microphone between the two stereo channels in varying amounts, depending on the desired location of the image.

Purist recordings usually sound more natural and realistic than multimicrophone recordings. Simple techniques tend to preserve the musicians' balances, dynamics, timbre, attack, position, ensemble, depth, and relation to the hall acoustics. Reverberation is usually reproduced at a natural level and is spread out evenly between the speakers. Nonetheless, the sonic superiority of the purist approach can work against the music if the balance between the musicians is poor or if the recording hall's ambiance is too dry, muddy, or tonally colored. The result in these cases would be a very faithful recording of a bad performance in a bad hall. The typical home listener, not having heard the original performance, doesn't know that the recording is both realistic and accurate, but he does know that it sounds bad! Ideally, when making a purist recording, extra time (and perhaps extra funds as well) should be allotted to obtaining a suitable hall for the music and to adjusting the musicians' dynamics and positions on stage for a proper sonic blend. The payoff can be spectacular.

The additional control that a multimicrophone technique affords can be a boon, but it can also be abused, producing a distinctly artificial sound quality. The definition and depth of the stereo image are often degraded, instrumental sections sound isolated in their own acoustic spaces, and disturbing phase-cancellation effects can arise.

Most important, using multiple microphones can degrade the perceived musicality of the performance. For example, in a poorly done multimike recording the final balances may not be what was originally intended either by the composer or the performers. Instruments may "jump" unnaturally out of the orchestra for a solo passage only to fall back into the ensemble afterwards. Reverberation surrounding each instrument, which had originally blended the instruments' attack on the notes and/or filled the spaces between notes, may be missing. The perceived unanimity of rhythmic attack can be altered and made sloppy by the close microphone placement, and balances within a group or section may be hidden. In sum, a mishandled multimicrophone approach can negatively affect our perception of the music and thus hamper musical communication.

Live vs. Recorded

A live concert is often a profoundly affecting sonic experience, and in recording it the engineers and producer may, out of respect for the music, choose to maintain a low profile, to commit the original sound to tape with as little technical intrusion as possible. At the other extreme, a recording can be viewed (and heard) as an end in itself—a creation rather than a re-creation—in which sounds have been tailored (also out of respect for the music) to enrich the home listening experience. Microphone techniques can be applied to attain either goal.

Purist methods generally offer the most realistic sound, but it is a simple fact that some ensembles and pieces of music cannot be recorded successfully with just two or three microphones. And though multimike techniques offer a way of obtaining a well-balanced recording in difficult situations, they can, if abused, produce unnatural and unmusical results. Ultimately, the sound quality depends on the musicality and technical skill of recording engineers and producers.

Bruce Bartlett is a senior development engineer specializing in microphones in Shure Bros. electroacoustical department.



The case for MINIMAL MIKING IN RECORDING

By David Ranada

Next month: Multiple Miking

N the "good old days," when all recordings were analog, direct-todisc, and mono, before tape, stereo, and now digital recording techniques rolled over everything like a succession of steam rollers, the goal of a quality audio system (which includes the recordings played on it) was to produce in the listening room the illusion of "a live performance as heard from the best seat in the house," and the watchwords were "accuracy" and "realism." Nowadays, however, listener orientation has changed somewhat in this regard. Many people now want only "good sound" out of their stereo systems, accuracy and realism are incidental, and "hi-fi" is used in its original sense only by the most tenaciously unreconstructed audiophiles.

These days, most listeners seem to forget that almost every recording of whatever type of music ("documentary" recordings are one obvious exception) can be seen as an attempt either (1) to re-create a "live" performance or (2) to realize the potential of an independent medium of musical communication only incidentally related to the sound ordinarily produced in live performance. These two points of view lie at the heart of any discussion of recording techniques, and they particularly affect the question of how many micro-

phones are needed to do a particular recording job properly. But studying and weighing the various arguments on both sides will not produce any kind of "winner" in the "purist"-vs.-"multimike" debate. Indeed, there can be no winner in such an aesthetics-centered argument except in the purely commercial sense of which approach ends up selling the most records. However, a brief examination of some of the problems involved in miking a recording session "properly" should help you decide just where your own sonic prejudices place you in regard to a controversy that is currently taking up a good deal of discussion time in some of the nation's recording studios.

Recording as Re-creation

If a recording is represented as being "high-fidelity," one may reasonably expect it to be a faithful re-creation of an acoustical event that occurred at another time in another place. Unfortunately, an *exact* re-creation (one perceptually indistinguishable from the original) is still not possible even with today's advanced technology, the success of many live-vs.-recorded demonstrations notwithstanding. (Those demonstrations usually use a large room for playback and an anechoic chamber for the original recording—not quite the same thing as re-creating concert-hall sounds in arbitrarily selected home listening rooms.) Furthermore, an exact re-creation of a performance would not admit of such musically useful (sometimes even vital) processing as tape splicing.

What modern stereo systems can do, and have been able to do for some time with varying degrees of success, is to create a *plausible* acoustic illusion of a musical event that could have occurred somewhere else at another time. Often the sound will not even be close to that heard from the best seat on the ground floor of a hall, or even from the best balcony seats, but will approximate what might be heard by someone sitting, say, atop a twenty-foot ladder just behind the conductor. Regardless of the "viewpoint," however, home stereo systems can create the illusion of a realistic sonic situation, though it might be one not likely to be encountered in everyday life.

Of course, microphone techniques have a great deal to do with the believability of any sonic illusion, and it is here—in the creation of a plausible acoustic illusion—that I find close-in multimike techniques begin to show their weaknesses. These faults can be heard in varying degrees on almost every recording made with such techniques; they destroy the hi-fi illusion either by making it (1) internally inconsistent or (2) simply unrealistic.

Many record critics and home listeners seem to be indifferent to how closemiking works against sonic realism. Others, though they sense something improper about a multimike production's sound, often can't pin down exactly what is wrong. A number of sonic characteristics of multimike productions work against realism, and I believe they have tremendous musical consequences.

1. Multimiking can radically change instrumental timbres from those of normal "concert-hall sound." Most instruments do not radiate sound with the same intensity in all directions at all frequencies; they are not, in other words, omnidirectional. From the relatively distant perspective of a concert-hall seat, even one fairly close to the stage, reflections from the stage walls and the hall surfaces combine with the direct sound of the instrument to create a different sound than would be received by a close-in directional microphone. Even the addition of reverberation to the mixed-down signal may not restore a realistic sound, especially if it is artificially generated from the close microphone's signal.

2. String vibrato, whose purpose is to lend richness to the sound of large string ensembles, can have its purpose defeated by close microphoning. A near-field microphone removes the hall's blending effect on the individual instrument's vibrato, with the result that the listener can detect each waver from each player individually. This kind of sound *is* hearable from the first few rows of a concert hall, but those seats are generally regarded as inferior. Mixed-in reverberation can help disguise some of the waver, but not always.

3. Slightly sloppy attacks, which would be relatively unnoticeable in the concert hall, again because of the architecture's "smearing" effect on short-term sonic events, can be glaringly obvious in multimike recordings.

4. Some orchestral players—percussionists, for example—make it a habit to anticipate the conductor slightly because of their distance from the podium and the audience. A close microphone placement can make their entrances precede those of the rest of the ensemble slightly, an effect that is definitely not audible in the hall and is certainly unacceptable musically.

5. Reverberation, which is often added to individual tracks to correct for some of the unrealistic effects described above, can "pool" around an instrument in the final mix, making it seem to be coming from a different acoustical environment than the other instruments. Differing acoustical environments are sometimes necessary (offstage effects in opera, for example), but they should be prescribed by the composer, not the recording engineer.

6. Dynamic range can be falsified with a multimike setup. First of all, it is mathematically unavoidable that the more unre-

"The true issue in the purist/multimike debate is not the *number* of microphones."

lated signals are added together, the poorer the ultimate signal-to-noise ratio (and remember that close-in mike signals are not very similar to each other since their purpose is to isolate each instrument or group). Moreover, the dynamic range can be perceptibly degraded, since an instrument played pianissimo has a different tone color than one played fortissimo. Even if you turn up a recording of, say, a softly played oboe to fortissimo levels, you can still tell that it's being played pianissimo. The result would be a perceptual conflict between the actual loudness of the sound and the clues to the loudness it should have derived from the tone color of the instrument. This happens in multimike productions because the recording levels for each microphone are changed frequently as the music progresses to "correct" the balances.

7. Unless the musicians take great pains to remain quiet, close miking will result in an increase in musician- and instrumentmade noise. Low-level sounds such as page turning, woodwind key clicks, and chair creaking can be exaggerated by close-in microphoning to distracting levels far above those heard in the hall.

8. Instrument locations and acoustical image size may be unrealistic. For example, multimike productions usually give a definite, stable, and small-size image location to the French-horn section of an orchestra. Heard live, the horns' location is not always obvious, for the bells of the instruments point away from the audience. The audience mostly hears sound reflected from the back stage wall. You *could* hear where the horns are if you stood behind the orchestra, but then you'd lose all the brilliance of the string tone, which projects upward into the hall.

9. Finally, if the mixer controls are manipulated up or down enough to have an audible effect, instruments can momentarily assume an aural prominence they would never have in a live concert.

This little litany of sonic faults does not mean that plausible and realistic recordings *cannot* be made with multimike techniques, only that it becomes harder to achieve realism the more microphones you add. Trying to correct one fault usually leads to another. "Purist" microphone techniques (some of which are described in Bruce Bartlett's article on microphone placement on page 50 of this issue) tend to preserve the auditory illusion of realism because the sound remains consistent; the image doesn't change while you are listening.

For myself, I am perfectly willing to let a record producer use all the microphones, equalizers, artificial reverberators, and splices he wants to in recording a work not originally meant to be heard via recordings as long as the final result remains realistic. But that's a difficult goal to achieve with a multimicrophone setup. The true issue in the purist/multimike debate is not the number of microphones. Excellent, realistic recordings have been made with as few as one and as many as several dozen microphones. The question is whether a producer (possibly abetted by the performers) is justified in making an unrealistic recording, one that cannot claim to be a plausible re-creation of an actual performance.

Recording as New Creation

But there are those who would say that a recording does not have to be a re-creation—plausible or otherwise—of a "live" musical event, that recording is an independent medium of musical communication essentially different from concert-hall performances. This view is of course defensible—it is, in fact, the principal aesthetic basis of most popular-music recordings, the "originals" of which never existed be-

MINIMAL MIKING...

fore the making of the recordings and frequently could not be produced "live" anyway. It is also the basis of "classical" electronic music.

It is further argued that since recording is an independent medium, there is no reason *not* to manipulate recorded sounds. This too is unobjectionable—*if* the composition was intended expressly for the phonographic medium. But to use multimike techniques to change the balances and timbres of a composition conceived for the concert hall to balances and timbres that would be impossible without electronic assistance is something else again.

"Service to the musical composition" is often cited as the justification for sound manipulation beyond what is acoustically plausible. But this argument makes several rather questionable assumptions:

• That the composer would have wanted his music "clarified" in such a way. Most classical music being as old as it is, this can rarely be determined, so it becomes a matter of musical interpretation. But if a producer makes interpretive musical decisions in the interest of "clarity" that result in unrealistic sound, then he should not complain if a music critic responds that "clarity" was not what the music required at that point. To clarify the waves of arpeggios that open Ravel's Daphnis et Chloé Suite No. 2 or that close Wagner's Die Walküre, for two examples, would not be a service to these compositions, for they require a wash of sound to make their effect, not individually heard polyphonic lines.

• That the composer would not have changed the score himself if he knew it were to be presented through a recording. Mahler, for example, took infinite pains with his scores, revising them so they would "sound" in performance performance in a concert hall. Altering the sonic perspectives in a recording of a Mahler symphony to ones that would be impossible in a concert hall does violence to the composer's carefully calculated orchestration.

• That the effect desired cannot be obtained without stepping out of the bounds of acoustical realism, that the musical line chosen for microphone emphasis could not be made audible with a "purist" mike setup or some adjustment in the actual instrumental performance. This cannot be proved unless simultaneous multimike and purist recordings are made at the same session. Even then, a work reinterpreted "at the mixer" is just as likely to be missing other details that the producer (and/or conductor) has chosen *not* to highlight. In effect, turning up one control is equivalent to turning down all of the others.

• That the musical detail chosen for emphasis is significant enough to justify obscuring other, perhaps more important, musical lines. This, too, is a matter of musical interpretation.

• That the listener is too musically unsophisticated to listen for himself and choose what lines he wants to pay close attention to. A recording that leads the listener by the ear turns what is already perhaps too passive an act into one requiring no effort at all. Listening should be a more dynamic enterprise than that!

"... multimike recordings today are so frustratingly unrealistic that we have to listen to them as 'electronic music' if we are to stand them at all."

OR all the above reasons, I think it can be fairly argued that "activist" producers are adding another layer of interpretation to that of the musicians. Purists, I hasten to add, also add a layer of interpretation, but it is at most a thin varnish, not a heavy coat of paint. An analogy is sometimes drawn between a recording and a film of a concert. A cinéma verité film of a concert, in which the camera remains fixed in position and perspective throughout, would be uninteresting and perhaps even exasperating to watch. But so are many socalled film "interpretations" of concerts: the camera may not focus on what the viewer wants to see, just as the multimike producer may not be recording what the listener wants or needs to hear.

If the proper goal of a record producer is truly to serve the composition and I believe it is—the correct analogy is with a photographic reproduction of a painting. The photographer's job in such a case is not to "interpret" the masterpieces he photographs, but to make a "record" of them that is as accurate and realistic as possible given the limitations of the medium. Granted, the reproduction cannot be perfect (the

impasto will not be duplicated, for example), and there is some unavoidable interpretation involved in the selection and positioning of the light, the choice of film and camera, but the approach is similar to the recording purist's search for optimum mike positions. With the right equipment properly used, the results in both cases can be tremendously exciting-witness some of the recent minimally miked recordings on the Telarc label and the spectacular reproductions Polaroid gets with its "Museum Camera." If photographers of paintings emphasized the "important" details in the masterpieces they document the way some audio producers do, we'd have Mona Lisa's grin stretching from ear to ear.

Audio Verité

There is, however, a way to listen to recordings that sets aside all questions of production procedures, type of music, or degree of realism or unrealism. and that is to listen to all recordings as if they were "electronic music" such as a tape piece by Stockhausen, a work of musique concrète by Pierre Schaeffer, or perhaps Walter Carlos' "Switchedon Bach" or Isao Tomita's "Bermuda Triangle." When you listen to such a disc or tape you are not hearing a "recorded performance" but a performance of a recording. Taken to its logical conclusion, this view implies that there are no such things as recorded performances, only electronic performances. Whether the sound source is a synthesizer or "natural" instruments, the performance as such takes place only when you press the start button or cue the tone arm. The only "interpretation" is that introduced by your particular stereo system, your mood, or your listening room.

There is nothing ethically, legally, or musically "wrong" with listening to recordings this way. In fact, you can learn a lot about the internal workings of a complex piece of music by listening to an ingenious electronic realization such as "Switched-on Bach." But not all music is as durable under such treatment as Bach's, and there is no question that such recordings may be far from what the composer intended (they are certainly far from what was notated). Unfortunately, many multimike recordings today are so frustratingly unrealistic, artificial, canned, processed, implausible, calculated, pre-interpreted, re-interpreted, and unspontaneous that we have to listen to them as "electronic music" if we are to stand them at all. That doesn't strike me as much of a service to the musical composition or to the performers.

The wo ape

Today, only one high Dias tape is able to combine outstanding sersitivity in the critical high frequency range with the lowest background noise of any exide tape in the world

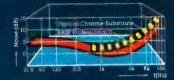
That tape _s BASF's Professional II.

Professional II is like no other tape because it's made like no other tape While ordinary high bias tapes are made from modified particles of ferric oxide. Professiona. Il is made of pure chromium dioxide. These perfectly shaped and uniformly sized particles provide a magnetic medium that not only delivers an absolute minimum of background noise, but outstanding high frequencies as well

Like all BASF tapes, Professional II comes encased in the new ultra-precision cassette shell for perfect alignment, smooth, even

movement and consistent high fidelity reproduction. With Prcfessional II, you'll

hear all of the music and none of the tape. And isn't that what you want in a tape?



The difference in noise level between PRO II and ordinary high blas tape is greatest where the human ear is most sensitive (2-6 kHz).

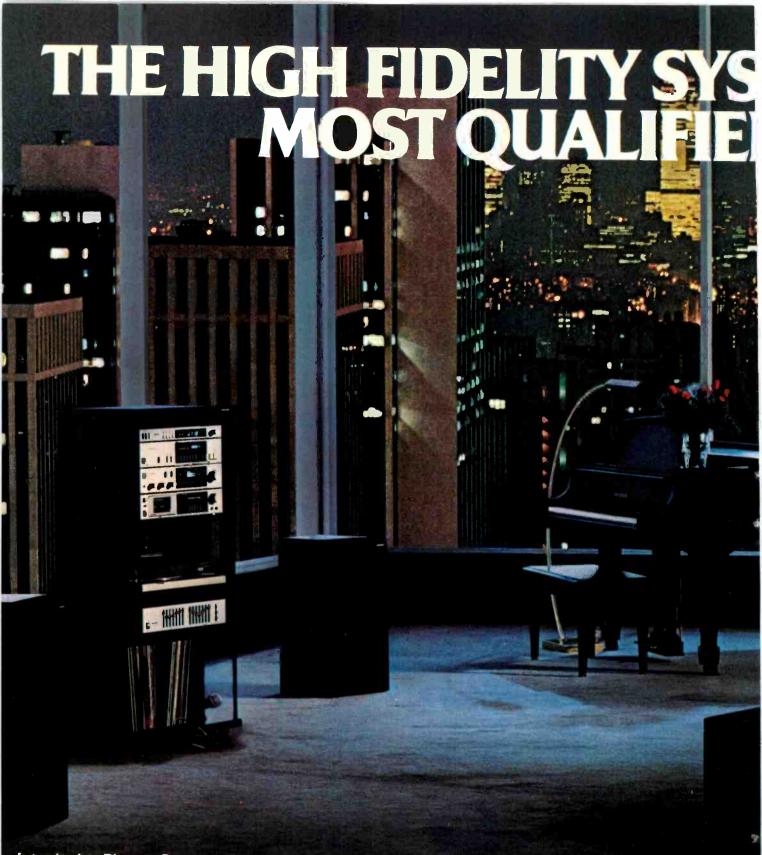


All BASFtape

litetime guarantee. Should any BASF cassette ever fail-except for abuse or mishandling—simply return it to BASF for a free replacement.

Mobile Fidelity Sound Lab. BAST Protessional II is so superior II was chosen by Mobile Fidelity Sound Lab br their Original Master Recording " Fign Pidelity Cassettes These state-ol-the-art prenecorded cassettes are dup licated in realtime (1.1) from the onginal recording studio master tapes of some of the most prominent recording artists of our time.





Introducing Pioneer Syscom: A totally new kind of high fidelity component system.

If you're in the market for true high fidelity sound, a pre-matched system is a good way to get it. Because it offers the sound quality of separate components and saves you the trouble of having to buy them piece by piece.

But not every pre-matched system is a good one

to buy. Many are made by companies known for only one thing. Like speakers. Or turntables.

Syscom, on the other hand, is the high fidelity system built by the people who are famous for every thing that goes into one. Pioneer. In fact, today Pioneer is the leading maker of virtually every kind of high fidelity component.

What's more, Syscom's components aren't merely

For the name of the Pioneer Syscom dealer nearest you, call 800-447-2882 (In Illinois 800-322-4400). Digital timer,

TEM FROM THE PEOPLE TO BUILD ONE.

matched. They're built for each other by Pioneer audio engineers. This maximizes the system's performance and results in sound quality often not even found in systems costing twice as much.

6

There's a wide variety of Pioneer Syscom groups available in vertical and horizontal arrangements. One of them is perfectly suited to the way you live.

So why would you even consider buying a high

fidelity system from a manufacturer who knows how to build *some* of the components, now that you can buy one from the people who've perfected them all. Pioneer.



equalizer, headphone, microphone optional. © 1981 (I.S. Pioneer Electronics Corp., 85 Oxford Drive, Moonachle, N.J. 07074.

141

NEW AUDIO PRODUCTS



• Concluding last month's "preview for buyers" coverage of the new products at the 1981 Summer Consumer Electronics Show in Chicago

Accessories

Since "accessories" is such a catch-all category, it's best to start with the one designed as a catch-all—the equipment cabinet. There were more cabinets than ever before at CES, most of them grouped so close together as to make one end of McCormick Place's exhibition floor look like a furniture showroom.

• Furniture. Though Barzilay is one of the oldest names in audio cabinetry, this was its first CES appearance. The company is phasing out its vinyl-veneer models in favor of real wood and adding such styling features as beveled glass doors. Two interesting innovations caught my eye: one is the GR-11 cabinet's flip-up turntable lid, which forms a rack for the album cover when raised; opening it turns on a turntable-compartment light too. The other is a wooden soffit with a traverse curtain rod which mounts between two equipment cabinets; the cloth-louver drapes attached to the rod can be closed to hide the screen of a twopiece video-projection system, while the cabinets at each end hold your other audio or video equipment.

By far the most modern-looking cabinets on view were the CityScape models from Design Institute of America (DIA). They're towers (available in four heights, from 3 to 6 feet) with a slanted top and doors of Diaglas, a two-way mirror that becomes transparent when illuminated from within (you can even watch TV through it). The cabinets are available in mirror-finish aluminum or ten lacquer colors.

But if DIA's offerings were futuristic, there was also a definite trend toward traditional styling (including the "contemporary" style that's been with us long enough to be traditional). Even Après Audio, best known for very modern designs, showed French Provincial and Oriental styles. Pulaski showed several types of cabinet in "Country Pine, Contemporary Walnut and Traditional Pecan"; Oaktron's Fine Arts Collection came in Provincial, Modern, Mediterranean, and Campaign styles, with matching speaker systems available. Non-Pareil's square cabinets with curved-wood legs and Gusdorf's new Vistarak series fell somewhere in between the modern and traditional camps.

• Decoders and Equalizers. Cabinets are built to house components, and one of the latest of these is the CX decoder, for use in playing back records made with CBS' new CX noise-reduction system. Phase Linear

A report by Ivan Berger

had its \$99 CX model on display, and Audionics was on the verge of shipping its \$125 model with "class-A circuitry." MXR and Sound Concepts (see test report in September, page 36) also showed decoders.

AT CES 81

If CX decoders are the newest type of signal processor, equalizers remain the most common. Perhaps the biggest news in this department is Sansui's SE-9, an automated equalizer/analyzer combination for just \$700. That's considerably less than dbx's 20/20 automatic, introduced last year, but the dbx unit covers a wider range (ten bands instead of eight, 31.5 Hz to 16 kHz as against Sansui's 80 Hz to 10 kHz) and can memorize ten equalization curves to the Sansui's four. One interesting aspect of Sansui's design is its motorized control-positioning system (the dbx model uses allelectronic automatic equalization).

Sansui also has a new, non-automatic equalizer/analyzer package, the SE-8 (\$400), and JVC has a combination model, the SEA-60, without a microphone or pinknoise analyzer, to sell at a "low" price to be announced. One unusual feature is the "SEA Character" switch, which reverses the equalization curve, allowing complementary curves to be used, for example, in playback and recording. Technics' new SH-8015 can be switched from the usual range of ± 12 dB to ± 3 dB per slider, allowing more precise adjustment.

MXR has a new five-band equalizer (one of the few five-banders with separate controls for each channel) with a slanted front for use on table or cabinet tops as well as on shelves (\$150). Its frequencies are unevenly spaced to put three half-octave controls in the bass, where such precision is most needed, plus a midrange control at 2 kHz and a treble control at 10 kHz. Audio Control's Richter Scale is even more preoccupied with bass: its five controls are all within the 31.5- to 125-Hz range, while other controls offer such bass facilities as an infrasonic filter, a rumble reducer (which blends channels below 200 Hz), and a lowfrequency boost switch. KM Labs showed their "Servo Sub-Octavator," which is not an equalizer but is claimed to extend the bass response of almost any speaker by one octave.

SAE showed its third-generation parametric equalizer, the E101 (\$650). Like SAE's other new components, it's a "Direct-line" design, with signal-switching remotely controlled from the front panel to keep signal-path lengths shorter. The E101 has digital bandwidth and frequency readouts and ten memory settings for each of its two bands.

Sansui added the \$260 RG-7, an equalizer/reverb unit with microphone mixing and panning, to its Super Compo systems line. The AX-3 consolette, similar but without an equalizer, is \$180. Cerwin-Vega announced the TO-1, a monophonic equalizer with one-third-octave bands. ADC's new Sound Shaper Two IC and Sound Shaper Three IC both offer two-way tape dubbing (a far cry from the days when adding an equalizer cost you a tape-monitor circuit), as do Sansui's automated SE-9 and non-automatic SE-8.

Other new equalizers were shown by Akai, Harman Kardon, Marantz, Phase Linear (not a parametric, but a \$550 tenband graphic), Vanco, and Vector Research. New analyzers were shown by ADC, Soundcraftsmen, and Rotel.

Phase Linear probably had the greatest number of new signal processors. In addition to the new CX decoder and graphic equalizer, the company showed the \$250 Model 1300AV audio/video noise-reduction unit (see the last page in this roundup for more details) and the Model 180 Dimensional Sonic Localizer (\$150). The Model 180, designed to increase depth and realism and improve stereo imaging, can be used with monophonic video equipment and other single-channel sound sources "for an enhanced monaural sound which creates a stereo effect." It's also designed to eliminate the feeling that the orchestra is inside your head when you're listening through headphones.

• Headphones. The impact on headphones of the Walkman-type personal portables was fairly evident. Audio-Technica announced that its Point One, Point Three, and Point Five headphones will all now come with 3.5-mm stereo plugs to fit the mini-portables' jacks and that the phones will be packaged with adaptors (also available separately) for the 1/4-inch jacks in most home equipment. The adaptor packed with the Point Five models will be combined with an extension cord, while the cord attached to the phones themselves will be shortened to prevent tangling. Since these small portables and their phones may be used outside in any weather, A-T offers earmuff-like Eskimo Winter Pad covers for small phones (\$8).

Koss' Sound Partner phones, introduced at the winter CES last January, paid even more attention to portability: they come equipped with adaptors for 3.5-mm mono earphone jacks as well as ¼-inch stereo ones, and they fold for easy carrying. Stanton's Model XII Micro Wafer phones come with similar adaptors, but only one per phone—mono with the XIIm, stereo with the XIIs. Kenwood introduced three Light 'N Easy phones, the KH-7, KH-5, and KH-3. Mura added the Model HS (\$15) to its ultralight "Red Set" line plus the new "standard" lightweight HV-190 (\$30).

Sony, which started it all, expanded its miniature MDR headphone line with six new models, for a total of eight. Five of the six, ranging from the MDR-1T (\$30) to the MDR-80T (\$85), come with Unimatch adaptors for 1/4-inch stereo jacks. The sixth is



. Mr. Walters called from the show. He was demonstrating our new super equalizer and the people in the next booth said it was too loud and called the police and now he's in jail."



the MDR-E33 (\$35), lightest of the light, whose drivers hang directly from the ears without a headband.

Koss has created a new two-way studio design, the Pro/4x, employing both a piezoelectric tweeter and a moving-coil element for lower frequencies. The two appear to be coaxially mounted within circumaurally cushioned, closed-back earcups. Pioneer has brought out three new models, with the Master-IS being a comparatively conventional design and the SE-L5 and SE-L3 ultralightweight types.

AKG's single new headset, the K-130 (\$49), employs supra-aural earcups and transduction elements that are derived from moving-coil microphone elements. Beyer is using similar technology in a new line of three lightweight phones, the DT 330, DT 550, and DT 880.

• Tape Accessories. The most common tape accessories were head cleaners. The new Allsop 3 Ultraline has dual cleaning pads for auto-reverse cassette decks and comes with replacement cleaning pads; it's \$15 in a soft case with a large bottle of cleaning solution, \$10 in a smoked-plastic box. Broughton's Clean-n-Check (\$7) not only cleans the heads but measures on a built-in gauge how well the tape transport is working. Discwasher's first tape product, the Perfect Path head cleaner, uses a dry, non-abrasive approach.

Sony announced a slew of new tape accessories. For general use, there's a high-speed tape eraser/winder, the BE-100 (\$70), which rewinds and erases a C-60 tape in less than three minutes, and a \$40 illuminated head demagnetizer. Another new entry, the RM-65 Synchro remote-control unit (\$25), can be used to synchronize many of Sony's new cassette decks and turntables with each other for easier taping from records.

Sony also introduced two new timers, the PT-77 and PT-55. The PT-55 (\$95) can be programmed to start and stop a tape recorder at one preset time up to twenty-four hours in advance. The PT-77 (\$195) can be set for up to eight events over a seven-day period. Sansui added the \$150 AT-15 timer, a one-event, twenty-four-hour model, to its Super Compo systems line. Onkyo too showed a new timer, for \$125, with convenient forward/reverse time setting, and Pioneer's DT 510 timer (\$120) was also on display at the show.

• Disc Cleaners and Other Accessories. For record care, Audio-Technica announced the Techni-Clean Audiophile Record Maintenance System (\$25), a brush with a unidirectional plush pad and a conductive body to drain away static charges. The kit includes a brush for cleaning the pad and a storage base to keep dust off it between uses. Hitachi had an automatic record cleaner that spun itself around the disc. Robins was the first I know of to promote the same accessories for audio and videodisc care: a forty-disc, L-shaped folding record rack and the Rob-o-Stat II antistatic gun.

One could confuse the Mobile Fidelity Geo-Disc with a specialized turntable mat since it's round and black and is meant to sit on a turntable. But there the resemblance stops. Molded into its upper surface are bars and grids whose purpose is to help align phono-cartridge offset, overhang, and tracking angle. Osawa also offered a new alignment protractor, the OS-60P, a calibrated grid with spindle hole and a mirror top (\$6.29).

Goldring showed a new accessory line: a balance-type stylus gauge; a stylus-care kit with mirror, brush, and 20X magnifier; and an ultrasonic stylus cleaner. The cleaner actually made its debut at the winter CES, as did Signet's ultrasonic model. And Osawa had a new stylus microscope on view. Nautilus displayed SuperSleeves (\$3.50 for a pack of ten), already in use as inner sleeves for the company's Superdiscs. To help you keep track of your discs, MJ Weber introduced its Record Finder kit, a color-coded labeling and indexing system with numbered record identifiers that can be placed to indicate where discs are misfiled or missing; it's \$8.95 for a 120-record kit, \$5.95 for a 90-record add-on. And Monster Cable announced that it will now distribute Cramolin, a contact preservative and cleaner made by Caig Laboratories. The \$12 Cramolin kit includes both cleaner and preservative solutions.

New signal switchers showed up too. Phase Linear rounded out its new accessory line with the Model 190 speaker-switching module (\$95) designed for use with highpower amplifiers; it has switch positions for three speaker systems. Niles Audio also showed a speaker switcher, the four-system SPS-1. But more attention went to the company's unique matrix switchers: the CPM-2, which interconnects four components in any desired order, and the CPM-31, which handles six. These units simplify even such jobs as patching an equalizer between two recorders for dubbing.

Power connections have also been getting more attention. CHELI International, of France, showed the Audio Stop, which turns sound systems off when their signals stop, or after a programmed time period. And for remote power switching, BSR showed several new components in the X-10 microprocessor control system.



IF 75 WATTS ISN'T ENOUGH, TRY 45.

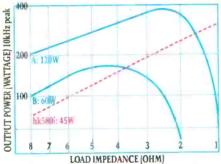


At first glance, you'd think a 75 watt receiver could outperform a 45 watt receiver easily. But FTC power ratings only tell you half the story—how a receiver will react under a continuous speaker impedance of 8 ohms.

Under realistic conditions, though, musical signals can actually cause speaker impedance to drop dramatically, demanding far more current than most 75 watt receivers can deliver. The receiver clips, robbing you of the true dynamics and excitement of your music.

That's why all Harman Kardon receivers have been designed with an enormous power reserve we call High Current Capability, or HCC. The use of special output devices is part of the HCC design. Our output transistors and power supplies, for example, will produce as much power as your speakers demand. Right up to the point at which the receiver shuts down to protect your speakers.

How much power they'll deliver depends on which receiver you choose. The hk580i shown above is rated at 45 watts per channel.* But it will deliver a full 200 watts or more



When you need power most — at low speaker impedances — conventional receivers simply can't deliver. But Harman Kardon receivers with HCC will deliver instantaneous power on demand until the receiver shuts down to protect your speakers.

of instantaneous power on demand, with absolutely no threat of clipping.

Of course power alone doesn't make a receiver great. There's distortion to conquer.

In most receivers, THD is reduced with a heavy application of negative feedback. But negative feedback causes a far more serious distortion called TIM or Transient Intermodulation Distortion. So we use less than 25 dB (compared to a more typical figure of 60-80 dB) to keep TIM inaudible to even the most critical ear.

But even a receiver that sounds great isn't perfect until it's got just the features you want. So we build

ASK ANY AUDIOPHILE.

six receivers to let you pick and choose. From our modest hk350i, with analog tuner and 20 watts per channel, to our top of the line hk680i with digital tuner, 60 watts per channel and every convenience feature an audiophile might want. Accommodations for two sets of speakers and two tape decks. Tape monitor and two-way dubbing. High and subsonic filters. Tone defeat and loudness contour. And more.

So now that you know how committed we are to sonic accuracy, perhaps you should audition one of our High Current Receivers.

But only compare us to receivers with at least twice the power. After all, you do want to make it a fair comparison.

For the Harman Kardon dealer nearest you, call toll-free 1-800-528-6050, extension 870. Or write Harman Kardon, 240 Crossways Park West, Woodbury, N.Y. 11797. In Canada, Gould Marketing, Montreal H4T 1E5.

*Harman Kardon power ratings: RMS, both channels driven into 8 ohms, 20Hz-20kHz with 0.05% THD.

At last there's a cassette transport that fully exploits the precision of quartz.

You expect precision from quartz-locked direct-drive. But with a wow and flutter specification of 0.019% WRMS, the JVC DD-9 goes beyond your wildest expectations.

CCCC

100-9 SILRIO CANNITIL NOL 9 ANRS COMPANY

O CCCCP

JVC

Audibly, this means complete freedom from pitch wavering. Plus uncanny clarity in the high frequencies thanks to almost total absence of flutter.

What else can you expect from a deck that's this accurate? Dolby* C for one thing. It reduces noise by 20 dB (versus 10 dB with the previous Dolby system). And it operates much farther down into the midrange, giving 15 dB noise reduction even at 500 Hz.

Against this newfound background of silence you'll hear a greater resolution of musical details, especially with widerange source material.

There's other JVC magic in the DD-9, too. Like our computer B.E.S.T. system that automatically measures every tape you use. Then sets bias, EQ and noise-reduction values to achieve ruler-flat response with lowest possible distortion. While JVC's heralded Sen-Alloy (SA)[®] Heads give you supremely low distortion plus rugged durability, all in a three-head configuration.

* Dolby is a trademark of Dolby Laboratories.

There's also an electronic-digital tape/time counter. Peak/VU fluorescent level meters. Memory and Auto Rewind. And full-logic transport controls.

Is there a place in your system for a deck as accurate as the DD-9? Or the DD-7 or DD-5, both with wow and flutter at 0.021% WRMS? Why not visit a JVC dealer and find out.



Quartz-locked direct-drive transport

USJVC CORP. 41 Sla:er Drive, Elmwood Park, NJ 07407 JVC CANADA, INC., Scarborough, Ont.

Audio / Video

We now have a true stereo-sound TV—of sorts—in the Mitsubishi 2582, which has a built-in 88- to 108-MHz stereo-FM tuner for simulcasts. It also has a complete stereo sound system with a 10-watt-per-channel rating (though distortion levels and frequency range are unspecified), independent inputs and outputs, and two-way air-suspension speakers.

Quite a few other sets have similar sound systems (except for the tuner). This equips them to reproduce simulcast sound from a stereo tuner or stereo from a videodisc player or stereo-sound videocassette recorder. Playing the sound through the set's own speakers may not be as satisfactory as playing it through your stereo system's speakers, but it is more realistic if your system's speakers don't flank the screen, and it lets you adjust the sound level with your set's remote-control unit.

Among the sets with stereo-sound systems having auxiliary inputs are: RCA's ColorTrak 2000 25-inch series (which also features 127-channel tuning to accommodate all current cable systems), Fisher's forthcoming 26-inch sets, Quasar's sets with "Audio Spectrum Sound III," GE's 25-inch models with "Performance Sound," some Sony consoles, and Sony's Profeel TV component system.

There are many variations on two-channel TV-sound systems. Toshiba, for example, offers MSSS (Multi Spatial Sound System) with two-way speakers and matrix pseudo-stereo plus audio-output jacks in its CA-2550W 25-inch console (about \$1,300). Those RCA ColorTrak 2000 consoles already mentioned have "Dual Dimension Sound" --- simulated stereo through the set's own speakers-and two 19-inch table models have it too, with output jacks to connect to your own stereo system. Some Sanyo sets and Sony consoles have a similar matrix-sound feature (it can be switched on and off from the remote control in Sony's version). Zenith has dual-channel systems with output jacks on six models, and five more models include 10-W/ch (watts per channel) amplifiers, bass and treble controls, and voice/music filter switches. And Fisher's new consoles have matrix in addition to true stereo.

Quite a few sets, moreover, have monophonic-sound enhancements. Magnavox's "Star System" 19- and 25-inch sets have remotely controllable voice/music switches. Sanyo's 91C92N and 91C94N 19-inch sets have two-way speakers and, on the 94N, bass and treble controls and an audio-output jack. Several GE 25-inch models and two 19-inchers have audio-output jacks too. Hitachi has separate audio-output recording jacks on many 19-inch and a few 15inch models. Zenith has fourteen models in four screen sizes with audio jacks.

"Monitor" sets with audio and video input and output jacks are catching on, and with good reason. Sound and picture (especially picture) are clearer when audio and video signals are fed directly from a VCR or a videodisc player than they are when first converted into a broadcast-like radio-frequency signal by the player's modulator (a micro-power transmitter) and then demodulated back into audio and video by the TV set's tuner. Last year there were only a few of these models-a 19-inch RCA model, 5inch portables from JVC and Panasonic, and Sony's KV-4000 3.7-inch set. This year the flood begins: Grundig's new 26-inch and 20-inch table models (whose remote controls also run Grundig's new videotape recorders) have "DIN (IEC)" video sockets and (in the A 8800) two-channel sound. Zenith's new Gemini 1000 monitor set has two-channel sound too, with separate speakers on 12-foot cables so you can place them wherever they sound best. Several of Sony's consoles have monitor connections, as does their second 3.7-inch set, the KV-4100, which also has a built-in AM/FM tuner (mono only) and a microcassette audio recorder. Toshiba's new CA-045 (about \$475) 4.5-inch set with monitor jacks is also the smallest set made in the U.S.

• Component TV. Sony's VTX-1000R Profeel "access tuner" has an even greater variety of possible connections. The tuner is but a part of Sony's total component television system, which also includes two monitor screens and two speaker systems. Both the KX-2501 (25-inch screen) and the KX-1901 (19-inch) have guite a few inputs of their own: there's an eight-pin DIN jack with video, control, and stereo-sound inputs, plus separate jacks for all of the above. There's also a thirty-four-pin RGB input, with separate red, green, blue, and sync inputs "for microcomputer and teletext applications." Both Trinitron monitors have built-in audio amplifiers with 5 W/ch and 6-dB-per-octave bass boost below 200 Hz.

Both the speaker systems are two-way, sealed-enclosure types. The smaller SS-X10A has a 3.3-inch woofer, and since it's designed to mount directly on the Trinitron monitor, it's magnetically shielded so as not to distort the color picture. The larger SS-X1A is a free-standing system with a fiveinch shielded woofer and 3 dB greater efficiency. The separate 105-channel tuner has three aux video inputs and four stereo pairs of jacks for audio (aux 1, 2, and 3 plus aux TV). There are also three sets of audio and video outputs, plus "multiple" outputs to feed extra screens. And like many of Sony's new TV sets, the Profeel tuner has two antenna input jacks selectable from the remote control; one is for direct connection to the cable, the other for connection through the converter needed for scrambled pay-TV channels. Unless your cable system has more than one pay channel, then, you'll be able to tune in any cable channel using just the set's remote control.

Though Sony's is the only full component system in home TV, component TV has been here in bits and pieces for some months now. Separate tuners and tuner timers have long been available for most portable video recorders, and NEC has had a tunerless large-screen \$3,600 projection system (using Kloss Novatron tubes built under license) for a while. Now Kloss too has a monitor-only screen (\$2,495), while NEC has a separate tuner (\$600) and a \$500 19-inch monitor.

• Projection Systems. Monitor inputs are proportionately more common in largescreen projection sets than in conventional, direct-view receivers. The difference direct video connection makes is far more obvious on a big screen, and the extra cost is proportionately far less significant in a \$3,000 set. Two-channel sound is more common in these systems too, and again for several reasons: the second sound jack costs less than the first-and is even more dwarfed by the cost of the set as a whole. The cabinets are wide enough to allow for real speaker separation (the wide screen seems to cry out for a wider sound source), and the buyer who'll pay that much for a set probably wants the best of everything.

So most of the new projection systems have monitor jacks and two-channel sound: GE's Widescreen 4000, Magnavox's \$3,495 Model 8505 and Sylvania's similar LSA5000 SuperScreen, Pioneer Video's LS-501 projection set (whose audio-output levels can be set by its remote control), Panasonic's CT4500, RCA's PFR100R, Mitsubishi's VS-515U and VS-506U (which, like the Magnavox and Sylvania sets, have built-in space for a VCR or videodisc player), and Sanyo's \$3,495 PV5080R (which also has a stereo matrix synthesizer and a voice/music filter). Fisher's TT-900 projection system will have matrix stereo plus three pairs of audio inputs





against a mere two video inputs (the extra audio jacks are probably intended for use with FM simulcasts).

Zenith's first projection set, a 45-inch model that folds down into a traditional console, has monitor inputs and four speakers but, apparently, just one amplifier channel; it also has a built-in "Space Phone" that lets you dial calls though the remote keypad and answer them through the set's audio system and a timer to turn the system on and off at programmed times. Kloss' NovaBeam has been revised to include monitor connections, but it has only monophonic sound.

• VCR and Videodisc. After Akai's introduction of a stereo-sound videocassette recorder (VCR) with Dolby last year, I'd expected to see several more at CES, the more so since most Japanese manufacturers already have such models in their home lines. But those units will apparently have to wait until we get stereo-sound TV broadcasting in this country (incidentally, Germany just approved it); the only new Japanese VCR with stereo sound was a Hitachi prototype. Even Akai's own new non-portable deck had only mono sound. Akai did, however, release two stereo-program tapes ("Michael Nesmith in Elephant Parts" see review in the September issue-and "Tom Jones in Concert") from Pacific Arts and promised more to come. Caballero, a supplier of X-rated tapes, also announced stereo-sound video fare (I didn't know people also listened to that stuff).

A non-Japanese stereo VCR did bow at CES, though: Grundig's Video 2x4 Super. This uses neither VHS nor Beta tapes, but is based on the Video 2000 system sold in Europe and originated by Philips (whose U.S. subsidiaries, Magnavox, Philco, and Sylvania, sell VHS decks). While VHS and Beta are much alike in everything but speeds and dimensions, Video 2000 differs quite a bit from both. All other video cartridges sold here (VHS, Beta, U-Matic, and the Funai system sold by Canon and Technicolor) use the entire width of their tapes in one pass, so their tapes must be rewound between plays. Video 2000 (or 2x4 here) uses half the tape width in each pass, so the tape must be flipped over in the middle (auto-reverse models are planned) but need not be rewound at the end-much like the Philips audio cassette. Flipping the tape needn't be too onerous, though: it plays for 4 hours per side, giving it a total of 8 hours' playing time per tape, 2 hours more than the current VCR record.

Three more audio companies—Fisher, Kenwood, and Sansui—branched out into video by introducing their first VCRs. Both Sansui's SV-R5000 and Kenwood's KV-901 are VHS machines that play at three speeds (2/4/6 hours) but record only at two (2/6), a growing trend these days. Both have viewable fast-search functions at seven times normal speed on SP (2-hour) tapes, or twenty-one times on 6-hour EP tapes. Both have two-week, eight-program timers, optional wired ten-function remote controls, and fourteen-station tuners. The chief functional difference between the two is in their soft-touch control buttons: Sansui's are narrow and mounted in a short double row, while Kenwood's are larger and lined up in a single row. Fisher's VHS decks won't be available for some months yet, so we'll have to reserve details for later.

Kenwood also showed the KA-502 audio/video amplifier, an integrated amplifier delivering 70 W/ch. It has inputs for two VCRs plus videodisc and microphone mixing, with dubbing possible from the disc to either VCR or from VCR 1 to VCR 2 in mono, stereo, or "live" (pseudo-stereo) modes.



Videodisc systems are automatically of audiophile interest since their sound is potentially so much better than that of videocassette decks. Only one new stereo model was announced for production, the remotecontrol version of Magnavox's Magnavision LaserDisc player. The new Model 8005 will cost \$769. No other new LaserVision players were introduced, but Magnetic Video announced that its initial LaserDisc releases would include stereo sound on such titles as The Muppet Movie and Alien (they don't waste stereo on human casts?). Pioneer Artists also announced an association with Covent Garden Video Productions to produce LaserDiscs of the Royal Opera and Royal Ballet, and if those discs aren't in stereo, I'll eat them-or they should!

No stereo hardware or software for RCA's CED disc system was shown—no surprise, since RCA distributed technical standards for CED stereo to its licensees only after the June show time. Toshiba's \$525 disc player will have a jack for an eventual stereo adaptor, though, as will Hitachi's player.

The third-format "VHD" (Video High Density) disc players, to be here in early 1982, will all have stereo sound, of course, and MCA has promised VHD stereo versions of Sergeant Pepper's Lonely Hearts Club Band, Jesus Christ, Superstar, and Xanadu. Since MCA also has a prime stake in LaserVision, one could probably expect LaserDisc versions of those too, if they're not here already.

The VHD system also has an audio offshoot, the AHD digital-audio disc. AHD discs would require no separate player, merely a decoder to plug into a jack on the VHD unit. Aside from JVC (which developed VHD and AHD) and Yamaha (which has announced no videodisc plans), though, VHD manufacturers seem to be soft-pedaling this aspect of their system. That's probably because the laser-scanned Philips Compact Disc seems well en route to becoming a *de facto* standard.

Before CES, Sony and Matsushita (Quasar and Panasonic here) both announced their backing of the Philips disc. This is rather a striking development, for Sony is currently propagandizing against the videodisc, Matsushita is the main backer of the non-laser VHD system, and the two giants agree on technical standards just about as frequently as CBS and RCA do. Shades of SQ vs. CD-4 or Beta vs. VHS (though it's only fair to note that CBS is now pressing discs in RCA's CED videodisc system and RCA has adopted CBS' CX system).

The bandwagon looked even more crowded at show time. Prototypes of Philips' Compact Disc players were being shown by Marantz, Sanyo, Sony, and others. Sanyo and Optonica also showed new PCM adaptor boxes for digital-sound recording on VCRs. Alpine, though not at the show, chose CES time to display a PCM digital-audio system with video capability using a cassette only slightly larger than a standard audio cassette.

• Noise Reduction. Noise reduction is finally coming to video—and high time. The audio signal-to-noise ratio of even the best home VCR is usually on the order of 40 dB; that's mediocre at best. But this show saw the introduction of two noise-reduction systems designed to clean up already noisy signals (unlike such systems as Dolby, dbx, and CX, which just keep signals from getting noisier during recording).

The one billed specifically for video use was Phase Linear's new 1300AV (\$250), which removes up to 12 dB of noise. There are separate inputs for a monophonic-video system and a stereo-audio system, both selected by a front-panel switch. It joins the KLH DNF1201A for video-sound noise reduction that was made available last year.

National Semiconductor used mainly video program sources to demonstrate a \$200 noise-reduction box from Advanced Audio Systems International. It uses National Semi's DNR dynamic noise-reduction circuit to achieve up to 14 dB of noise reduction. DNR is a dynamic filter system that rolls off high frequencies at 6 dB per octave in the absence of strong high-frequency signals. The cutoff frequency is said to vary from 30 kHz down to 800 Hz according to high-frequency level. Of special interest to video users, though, was a modified DNR box that could be switched to cascade the action of the two stereo channels, giving roughly twice the noise reduction on a mono signal. The same effect can be achieved with the normally wired unit by patching the output of one channel to the input of the other.

DISCOVER GOLD.

MARANTZ UNCOVERS THE GOLD STANDARD OF AUDIO EQUIPMENT.

Introducing Marantz Gold. The new standard of stereo sound. The new standard of audio technology.

Its performance will startle you. Its look will excite you. Its sound will move you. The classic quality only Marantz could produce.

DISCOVER THE

SOLID GOLD ADVANCES. Like our 24-Karat So id Gold Plated input and output jacks for the ultimate in oxide free/low distortion audio connections. Our fully computerized cassette deck and receivers that will push your system to new levels of flexibility. There's even a deck with an advanced Linear Skating Drawer mechanism that slides effortlessly out of the front panel for cassette loading.

And True Power[™] Amplification, a Marantz engineering breakthrough that delivers 25% to 50% more power into your speakers than other comparably rated receivers or amplifiers. That's more power for more clean sound.

And there's still more. Because now we put a golden touch in every Marantz product turntables, loudspeakers, portables. Everything. Each designed for better sound, not just better looks.

THE NAME THAT'S GOOD AS GOLD.

For over thirty years, Marantz has been recognized worldwide as a leader in quality, advanced stereo sound. So, it's only fitting that we should bring it to its new solid gold plateau

J-F SIDD

There's a gold mine waiting to be discovered at your Marantz dealer now. Stop by soon. And take your pick.

© 1981 Marantz Company, Inc., 20525 Noidhoff St., Chatsworth, CA 91311.



BEST OF THE MONTH STEREO REVIEW'S SELECTION OF RECORDINGS OF SPECIAL MERIT

Johnny Mathis: A Quarter-century of Stardom

No amount of freakish good luck, no series of promotional blitzes, and no repertoire of management ploys can by themselves keep a star performer fixed in the pop-music firmament for very long. The average run for the averagely talented singer, even augmented by the Special Measures listed above, is three to five years. A decade would be exceptional. Fill in your own word, then, to describe the career of Johnny Mathis, whose latest Columbia release, "The First 25 Years: The Silver Anniversary Album," celebrates a quartercentury of stardom with twenty tracks on two discs.

The performing longevity is remarkable enough, but the sales statistics of the Mathis career are simply awesome: there have been fifty-count 'em-fifty gold and platinum record awards, one hundred million records sold worldwide; his album "Johnny's Greatest Hits" appeared on the Billboard charts for a phenomenal nine and a half years; and twenty-two years after his first big hit (Wonderful, Wonderful, released in 1956, when some of you weren't even born yet) he once again had the number-one pop single in the country (Too Much, Too Little, Too Late, with Deniece Williams as his duet partner). His only peer as a record seller through the Seventies was Sinatra, and he is now strongly embarked into the Eighties with what appears to be a following wind.

Once the staggering statistics have been absorbed, the question naturally arises: Why? Since there is no such thing as a twenty-five-year fad, we have to ask ourselves just what it is in the personality, the voice, or the singing style of Mathis that has made it possible for him to woo, win, and hold not just one audience but, obviously, a succession of them. He has certainly not done it by changing his style to suit the whims of pop-music fashion—there has been no hard-rock Mathis, no funky, punky, country, or disco Johnny. For

> JOHNNY MATHIS: The First 25 Years-The Silver Anniversary Album. Johnny Mathis (vocals); orchestral accompaniment. Misty; Begin the Beguine; Didn't We; It Doesn't Have to Hurt Everytime; Wonderful, Wonderful; It's Not for Me to Say; Stardust; Three Times a Lady; The Way You Look Tonight; Deep Purple; Chances Are; All the Things You Are; A Time for Us; Nothing Between Us but Love: There! I've Said It Again; Too Much, Too Little, Too Late; As Time Goes By; When Sunny Gets Blue; Ready or Not; I'm Coming Home. COLUMBIA CX C2X 37440 two discs, © C2T 37440, no list price.

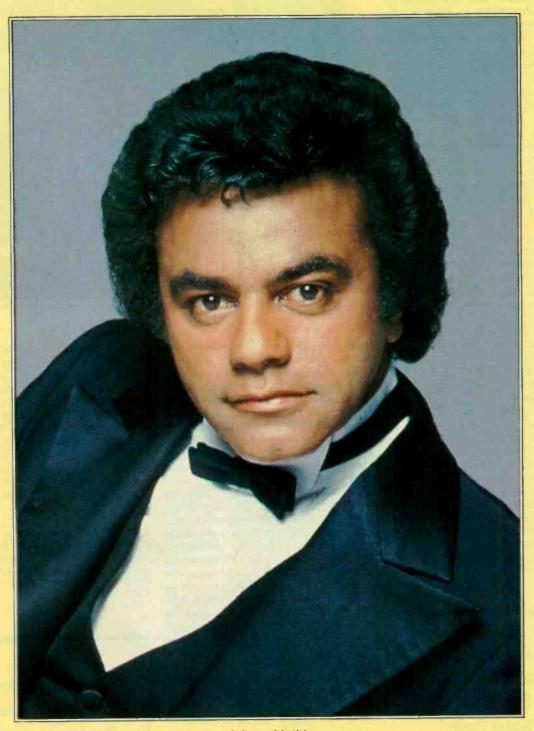
proof, compare his classic Fifties *Misty* track in this new album with the 1981 *Nothing Between Us but Love*; you'll find almost no change either in voice or in style. His amazing durability as a

star performer seems rather to be the result of a kind of magical universality, an innate ability to establish, simply through the sound of his voice, an emotional affinity with his audience. That famous, easily parodied vocal sound seems to resonate naturally and effortlessly with the wishful dreams and the real experience of millions of people around the world.

Mathis has never been (to put it mildly) a critic's pet or the subject of media coverage anywhere near equal to his popularity; in the Small but Wonderful World of Hip he simply doesn't exist. What does he stand for, then, in that larger world he has dominated for all these years? Asking around at random, I got some revealing reactions. "When I think of him, I think of a singer who always knows what he's singing about," said one. "He has real vocal quality," said another, "he doesn't use gimmicks or tricks." A young woman in her twenties remarked, "He makes me feel comfortable; he's warm and sexy in a non-threatening way."

There is plenty of supporting evidence, I think, for all these reactions in "The Silver Anniversary Album." From the famous signature songs (Misty, Chances Are, It's Not for Me to Say, Wonderful! Wonderful!, all in their original versions) to the brand new tracks (It Doesn't Have to Hurt Everytime, There! I've Said It Again, The Way You Look Tonight, Nothing Between Us but Love) there is a consistent, unchanging emphasis on the basics that have sustained Mathis' career:

"Critics may call it emotional Muzak, but legions of long-time fans call it sheer bliss."



Johnny Mathis (Photo: Reflections Incorporated/David Vance)

the sweetness of the sound, the highvoltage charge given certain key words within a lyric, and, of course, the trademark ritards of his phrasing. Probably no performer since Crosby has understood microphone technique as well as Mathis. And probably no other recording singer ever has been able to count on the one-two punch Mathis delivers so easily: a remarkably flexible vocal instrument catches you off guard, making you easy prey for the insinuating, reverie-inspiring seductiveness of the lyrics. Critics may call it emotional Muzak, but legions of long-time fans call it sheer bliss.

There's been a good deal of talk lately about the Good Old Days returning to pop music. Whether they will or not seems irrelevant in the case of Johnny Mathis, for he's never been away. Try as I may, I can think of no stylistic predecessor—any more than I can think of any possible successor. Audiences throughout the world continue to respond to his unique gifts, and I think you'd better lay in a copy of this "Silver Anniversary Album" to go with the "Golden Anniversary Album" that is bound to come.

Most of the music in the album seems to stem from older, slightly compressed analog master tapes, so this is hardly a representative test of CBS' new "CX" noise-reduction system (see "Audio/Video News," July 1981). Listening with the CX decoder switched in, there was a slight impression of increased dynamic range (probably stemming from the considerable reduction in record-surface noise) and no evidence of decoder mistracking (the socalled "breathing" or "pumping" effect). Undecoded, the album sounded like a heavily compressed FM broadcast (although with more high-frequency content than FM can deliver) and certainly quite satisfactory for the uncritical listener. -Peter Reilly

Ashkenazy Leads, Söderström Sings: Mystical Sibelius in Superb Digital Sound

CAN think of few works in the symphonic repertoire that would profit more from digital mastering and minimalist microphoning techniques than the bleak and profoundly tragic Sibelius Fourth Symphony with its predom-



ELISABETH SÖDERSTRÖM AND VLADIMIR ASHKENAZY: a well-nigh perfect Luonnotar

inantly chamber-music textures. I was disappointed with conductor Vladimir Ashkenazy's rather undisciplined handling recently of the luxuriantly romantic Second Symphony (London LDR 10014), but I must admit that he has taken the full measure of the wintry vistas of No. 4, especially with regard to pacing, details of balance, and avoidance of congested sonorities in the heavily scored end movements.

Digital mastering helps clear up many murky things in these movements, chiefly in the developmental episodes that other readings have made either vague or sonically overloaded. Ashkenazy and the Philharmonia players bring off the gear shifts in the enigmatic scherzo, always a nasty trap when it comes to maintaining flow, with admirable aplomb, and the feeling for the big line in the great slow movement is unerring. The finale sizzles with spontaneity, electrifying tension, and a genuine appreciation of its improvisatory aspects. Ashkenazy opts for the use of the glockenspiel (as against the large bells sometimes used), and here especially the digital sonics do wonders, capturing the instrument's icy brilliance with stunning effect. In short, this is one of the two or three best Sibelius Fourth readings currently available on discs, the others being those by Colin Davis with the Boston Symphony on Philips and by Gennady Rozhdestvensky and the Moscow Radio Symphony recently issued on Quintessence.

As a striking bonus, Ashkenazy and the Swedish soprano Elisabeth Söderström give us a well-nigh perfect realization of *Luonnotar*, Sibelius' mystical evocation of the *Kalevala* creation legend. While I would have preferred *The Bard* as a second coupling, I have to admire the conductor's courage in choosing instead a spirited treatment of that venerable but still intensely vital patriotic chestnut, *Finlandia*. This is a marvelously satisfying disc.

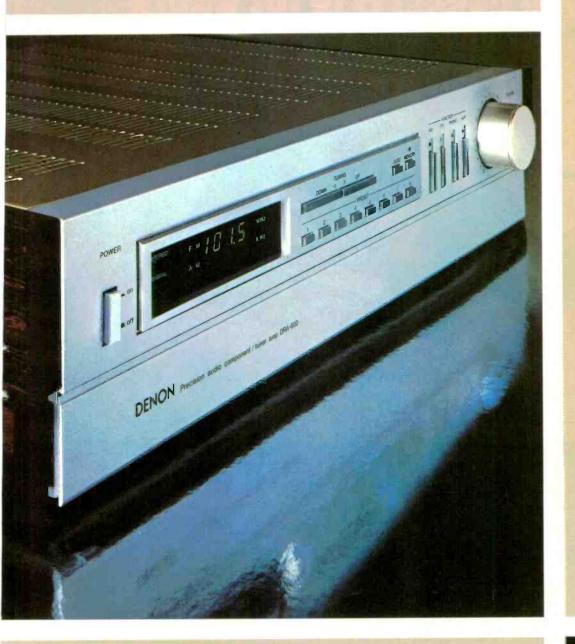
-David Hall

SIBELIUS: Symphony No. 4, in A Minor, Op. 63; Luonnotar, Op. 70; Finlandia, Op. 26, No. 7. Elisabeth Söderström (soprano, in Luonnotar); Philharmonia Orchestra, Vladimir Ashkenazy cond. LONDON O LDR 71019 \$10.98.

Franck's Organ Music: A Three-way Triumph For Repertoire, Performer, And Instrument

THERE are about a hundred other extant short pieces by César Franck for organ or harmonium, but the twelve major works included in a new release

1939...FIRST DIRECT-DRIVE TURNTABLE SYSTEM. 1951...FIRST MOVING-COIL CARTRIDGE. 1972...FIRST DIGITAL (PCM) RECORDING.





Direct drive. Moving-coil. Puise Code Mcdulaticn. All synonyms for technological innc-vation in the highfidelity field, these phrases fill the pages of the audio magazines and the conversations cf serious music enthusiasts. But aside from being major breakthroughs in audio engineering, they have one other element in common. They are all innovations developed by one compary. Denon.

While other companies have just begun to offer products incorporating these new technologies, Denon originated them. And only Denon has hao 41 years to refine direct-drive turntables, 29 years to perfect moving-coil technology, and almost a cecade to further develop their invention of PCM digital recording.

1981...DENON DRA-600.THE FIRST RECEIVER FROM A TRUE AUDIOPHILE COMPANY.

The Denon CRA-600, a synthesis of Denon's greatest technological strengths. From our thirty years of experience with moving-coil cartridges, we gave it a moving-coil preamplifier stage sonically as transparent as our renowned separate head-amps.

From our fifty-plus years of electronics design experience, we powered the DRA-600 with a proprietary Denon Class-A power amp, a design that delivers unparalleled definition and openness, yet avoids the excessive heat, size and cost of traditiona. Class A amplifiers.

And, from our decade of experience since our invention of commercial digital recording (PCM), we equipped the DRA-600 with a digitally synthesized tuner stage for the most precise station tuning with the lowest distortion. Plus we added the convenience of eight AM and eight FM presets with automatic station scanning. The DRA-600 from Denon, where innovation is a trad tion.

DENON Imagine what we'll do next.

INTRODUCING LORAN". THE MOST ADVANCED AND REVOLUTIONARY AUDIO CASSETTE IN THE WORLD.



Neither the heat of the desert, nor the cold of Alaska, nor the oven temperature of a closed car in the sun, nor falling on the floor can stop Loran from delivering incredibly clear, accurate and beautiful sound.

The Loran cassette has the only shell in the world made of Lexan® resin, the incredibly tough space age material used for bullet proof vests and bank teller windows. Unlike other cassettes it can stand up to extremes of heat and cold. It will not warp at 250° Fahrenheit or shatter at 60° below zero. That means you can leave Loran on an exposed dashboard all day long and still have trouble free performance.

Another unique Loran feature is the Safety Tab[™] (patent pending). A ½ turn of the Safety Tab[™] makes it virtually impossible to erase a recording. However, unlike all other cassettes, you can restore its erase and record capability by simply turning the Safety Tab[™] back to its original position.

Loran's unique tape formulations offer performance that matches the advanced technology of the Loran shell and tape guide systems.

Our Chrome equivalent high bias tape is coated with separate layers of two different oxides. It offers extremely low residual noise levels ($-56 \, dB$, A weighted, relative 0 VU) and an MOL of $+6 \, dB$ relative of 0 VU for 3 percent distortion. This tape provides magnificent low-end response, in addition to the high-end response normally found in other Chrome equivalent formulations.

Loran's Metal, Ferric Oxide and Ferrichrome tapes also deliver improved and outstanding performance associated with these formulations.

Loran...the most advanced audio cassette in the world. Destined to become a leader. Share the excitement. Listen to Loran.



The Great American Sound

CIRCLE NO. 27 ON READER SERVICE CARD

Loran[™] is manufactured exclusively by Loranger Entertainment.

Lexan® is a registered trademark of the General Electric Company.

Loran[™] Audio Cassettes have been selected by the Consumer Electronic Show Design and Engineering Exhibition as "one of the most innovative consumer electronics products of 1981."

by L'Oiseau-Lyre constitute the heart of the French master's monumental contribution to the organ literature over a period of thirty years. To these dozen, organist Graham Steed has added a thirteenth: Marcel Dupré's transcription of the Symphonic Interlude from Rédemption. Listening to these works in a single comprehensive edition, one can easily understand why Franck is considered the founder and glory of the modern French organ school. The music is conceived on a vast scale, synthesizes many formal and compositional techniques, combines a fine melodic gift with a daring use of chromatic harmonies, and dramatizes the rich sound palette of the Romantic organ.

The organ in Bath Abbey, England, originally built by Hill in 1868, rebuilt by Norman and Beard in 1895, and restored after war damage in 1948, is the perfect vehicle for these visionary works. The engineers of L'Oiseau-Lyre have caught its sonorities and ambiance perfectly, and Graham Steed has employed its full resources in his stunning readings of Franck's music.

Steed is a superb musician who understands the art of melodic phrasing on the organ. Listen to the supple melody Franck presents in the opening of the *Prélude*, *Fugue*, *et Variation* for a splendid example of the use of a subtly graduated rubato. Each phrase is marked by a slight terminal ritard, but the melody never sags as the initial tempo is resumed for the succeeding phrase. The same technique is used for the return of the melody in the *Variation*, but the rubato never hinders the ebb and flow of the rippling sixteenthnote accompaniment. Steed also knows how to apply direction to Franck's chromatic effusions and contributes a fresh rhythmic vitality (so frequently lacking in the performance of this music) through his use of short, detached chords and accompanying figurations. No matter how thick the textures, how vagrant the harmonies, Steed always maintains the grand line, moves inexorably to the climaxes, and clarifies the structures. This album deserves triple honors for César Franck, Graham Steed, and the organ of Bath Abbey.

-Stoddard Lincoln

FRANCK: Organ Music. Fantaisie No. 1, in C Major, Op. 16; Grande Pièce Symphonique, Op. 17; Prélude, Fugue, et Variation, Op. 18; Pastorale, Op. 19; Prière, Op. 20; Final, Op. 21; Fantaisie in A Major; Cantabile; Pièce Héroïque; Chorales in E Major, B Minor, and A Minor; Symphonic Interlude from "Rédemption." Graham Steed (organ). L'OISEAU-LYRE D165D3 three discs \$29.94.

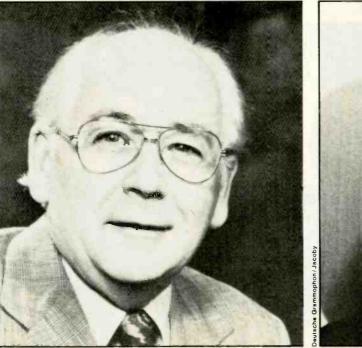
Nine Unfamiliar Pieces By Mussorgsky in Stunning Performances Under Claudio Abbado

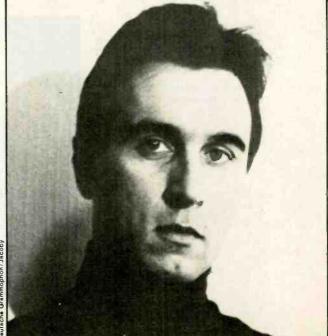
ALTHOUGH Mussorgsky's Pictures at an Exhibition has become a popular orchestral showpiece thanks to the brilliant transcription by Ravel, we do still hear the original piano version, both live and on records. Mussorgsky's other popular orchestral piece, however, Night on Bald Mountain, has come down to us mainly as the brilliant pastiche created by Rimsky-Korsakov from three different sources. The original version in this case remained unknown until 1968; in the meantime, like Pictures, the work was performed and recorded in a number of other arrangements. In 1968, the year the original version was at last published, it was recorded by the London Philharmonic under David Lloyd-Jones as part of a Russian collection which included Balakirev's frequently discussed but seldom heard King Lear Overture. That Philips release never reached our side of the Atlantic and has now disappeared altogether, but a stunning new recording of the original Night on Bald Mountain by Claudio Abbado and the London Symphony Orchestra has just been issued by RCA together with eight other Mussorgsky orchestral anu choral pieces, most of them similarly unfamiliar. It is a fascinating collection, and Lloyd-Jones is again involved, this time as the author of the invaluably informative annotation.

This original version of Night on Bald Mountain is utterly different from both Rimsky-Korsakov's and Stokowski's, with a somewhat narrower gap separating it from the René Leibowitz version (available on Quintessence PMC-7059). Motifs made prominent by these arrangers are less so in the original, and instead of the quiet concluding section in Rimsky's edition the piece ends with the witches' sabbath going full tilt. What is most surprising is that the orchestration, anything but

Organist Graham Steed: melodic phrasing

Conductor Claudio Abbado: affectionate panache





crude, is extremely brilliant and imaginative. Rimsky's version will always deserve its place in the repertoire, but Mussorgsky's own is an exciting discovery and a place must be made for it too.

The other discoveries in this superb collection are hardly less intriguing. The four choral items have been presented by Abbado in his guest appearances with the New York Philharmonic and the Philadelphia Orchestra, but none of them seems to have been recorded before. They are the Chorus of Priestesses from Act IV of the uncompleted opera Salammbô, the independent piece Joshua (or Jesus Navin, actually an adaptation of material from the same Flaubert-derived opera), the Chorus of the People in the Temple from the incidental music for Ozerov's Oedipus in Athens, and a setting of the opening verses of Byron's poem The Destruction of Sennacherib (with Mussorgsky's own prose rendering of the text). Rimsky's hand is apparent in the polished orchestration of all four of these choruses, but here we have no case of reconstruction or pastiche as in his version of Night on Bald Mountain, and the originality and power of all this material make quite an impact.

It is in Rimsky's familiar orchestration too that we hear the Prelude to *Khovanshchina* and the Entr'acte from that opera's fourth act, but it is in Mussorgsky's own scoring that the two remaining pieces are performed. These are the darting little Scherzo in B-flat Major and the brilliantly colorful Triumphal March (often listed as "Turkish March") called *The Capture of Kars.* Both of these, as well as the *Khovanshchina* excerpts, have of course been recorded before, but not with anything like the panache displayed here. Abbado's affection for this material is infectiously apparent, the LSO and its fine chorus are at the top of their form, and the recording itself is vivid and rich. The one lapse in this otherwise splendid production is the failure to provide texts, or even synopses thereof, for the four choral numbers. Even without them, though, this is for me one of the most stimulating releases in a very rich year.

-Richard Freed

MUSSORGSKY: Night on Bald Mountain (Original Version); Khovanschchina, Prelude and Entr'acte; Scherzo in B-flat Major; Triumphal March ("The Capture of Kars"). London Symphony Orchestra, Claudio Abbado cond. Joshua; Salammbô, Chorus of Priestesses; Oedipus in Athens, Chorus of People in the Temple; The Destruction of Sennacherib. Zehava Gal (contralto, in Joshua); London Symphony Chorus and Orchestra, Claudio Abbado cond. RCA ARL1-3988 \$9.98, ©ARK1-3988 \$9.98.

Steeleye Span's Return: Words Worth Hearing Mounted on Shockingly Pretty Melodies

O^F all the disbanded bands that have managed to return to life lately, Steeleye Span may have done it best—come back to life, that is. "Live at Last," their "farewell" album of three summers ago, was unfocused and dispirited, but their new "Sails of Silver" redeems that failure and stands up well against some of the good early albums such as "Parcel of Rogues."

Steeleye isn't exactly its old self, of course, either in its personnel or in its sound. The lineup on the new disc-Maddy Prior, Tim Hart, Peter Knight, Rick Kemp, Nigel Pegrum, and Bob Johnson-mirrors the group that coalesced in 1974. Steeleye was first formed in 1970, and various subsequent incarnations of the band included Tyger Hutchings, Gay and Terry Woods, Martin Carthy, and John Kirkpatrick (the last two replaced Knight and Johnson on the farewell album). As for their new sounds, Steeleye has filed off some of the rough edges, apparently in an attempt to make the music easier for more people to swallow.

I disapprove of that in principle, but I try to keep in mind that everything is a matter of degree. Once you get into this new effort, I think you'll find that a lot of the old inventiveness still remains. And besides, though the other guys may be toning it down a bit, Rick Kemp's bass is still athletic and surprising, and any vocal complement that includes the clarion pipes of Maddy Prior has to be a cut above 90 per cent of the ear candy on the radio. Besides *that*, the words are worth hearing, the melodies almost shockingly pretty.

The notes credit most of the songs to the whole band. I don't know if that means they have no antique folk-song connections (my research on the old Child ballads has been sadly neglected lately), but most of them sound as traditional as the songs they don't write 'em like any more. The title song and Where Are They Now are particularly

Right, Steeleye Span: together again with their old inventiveness intact.

Facing page, August "Kid Creole" Darnell with a couple of lovely coconuts.



lovely. The melodies and the haunting vocal harmonies are worth the price of admission; what's left of the old Steeleye spirit in the arrangements makes it all a bargain. —Noel Coppage

STEELEYE SPAN: Sails of Silver. Steeleye Span (vocals and instrumentals). Sails of Silver; My Love; Barnet Fair; Senior Service; Gone to America; Where Are They Now; Let Her Go Down; Longbone; Marigold/Harvest Home; Tell Me Why. TAKO-MA TAK 7097 \$7.98.

Kid Creole and Coconuts: Their "Fresh Fruit" Is Devilish Musical Satire Served Up with Style

K ID CREOLE AND THE COCONUTS is Dr. Buzzard's Original Savannah Band (1976) in its latest metamorphosis (there have been several). No later edition of the group has managed to repeat the startling commercial success enjoyed by the original band's offbeat blend of Forties movie music and Seventies disco sounds, even though much of what followed often far surpassed that debut disc in artistic quality.

The Original Savannah Band was a cooperative effort spearheaded by August Darnell and Stony Browder Jr., but the latter plays no part in the new Kid Creole group, which seems to be entirely the work of Darnell and Andy Hernandez (whose input has been vital since the Savannah days but who tends to stay out of the publicity spotlight). Darnell and Hernandez have exhibited a prepossessing creative rapport with each other before, but never as strikingly as they do in "Fresh Fruit in Foreign Places," a new Sire album that is the musical foundation for an extended theatrical presentation that has Darnell (Kid Creole) scouring the Caribbean in search of his lost lover. (A stage presentation, with Joseph Papp directing, is in the works, with some kind of video project rumored to be warming up in the wings.)

Perhaps not surprisingly, "Fresh Fruit" abounds in reggae sounds, but Darnell and Hernandez—who either individually or together composed all the tunes—avoid the monotony that so often creeps into that genre, generously flavoring their arrangements with often devilishly subtle dabs of sound picked up from such common denominators of the public ether as late-night movie reruns.

Darnell and Hernandez are a magnificently imaginative team whose witty musical satires (for that is what they are) have a rare ingredient that is almost totally lacking in pop music today: style. Their music may be hard to categorize, but it is easy to digest, and their performances are a breathtakingly natural extension of their considerable writing talents. —Chris Albertson

KID CREOLE AND THE COCONUTS: Fresh Fruit in Foreign Places. Kid Creole and the Coconuts (vocals and instrumentals). In the Jungle; I Stand Accused; Musica Americana; Schweinerei; Animal Crackers; Latin Music; I Am; With a Girl like Mimi; Table Manners; Dear Addy; Going Places; Gina, Gina. SIRE SRK 3534 \$8.98, © M5S 3534 \$8.98.





BEST OF THE MONTH RECENT SELECTIONS YOU MAY HAVE MISSED

CLASSICAL

J. S. Bach: Goldberg Variations. ARCHIV 2533 425. "A theroughly seasoned and mature reading by Trevor Pinnock." (July)

Bartók: Piano Concertos Nos. 2 and 3. LONDON CS 7167. "The partnership of Vladimir Ashkenazy and Sir Georg Solti is complete and electrifying." (July)

Janáček: Glagolitic Mass. SUPRAPHON 1112 2698 G. "Personal, national, indispensable." (August)

Gidon and Elena Kremer: Music for Violla and Plano. PHILIPS 9500 904, 9500 912. "Exceptional music making." (September)

 Rossini: L'Italiana in Algeri: RCA ARL3-3855. "A delightful comic totality springs to triumphant life." (July)

Stravinsky: The Firebird. LONDON LDF 10012. "A must for the Stravinsky Ian." (June)

Sutherland/Home/Pavarottl: Live from Lincoln Center, LONDON LDR 72009. "Dazzling vocal virtuosity." (September)

■ Wagner: Parsital, DEUTSCHE GRAMMCPHON 2741 002. "Outstanding singers and the grand line is a luminous, transparent recording." (August)

Weber: Der Freischütz. LONDON OSA 13136. "A lowingly conducted realization of a glorious score." (June)

POPULAR

Stanley Clarke and George Duke: The Clarke/Duke Project. EPIC FE 36918. "A wonderful musical splash in some deep pop waters." (July)

Ellen Foley: Spirit of St. Louis. EPIC / CLEVELAND IN-TERNATIONAL JE 36984. "A most impressive album in the difficult cabaret genre." (July)

Emmylou Harris: Evangeline. WARNER BROS. BSK 3508. "Awesome music making." (June)

Kitty and the Haywoods: Excuse Me, I've Got a Life to Catch. CAPITOL ST-12149. "Sweet, old-fashioned, getdown soul singing." (September)

Leo Kottke: Guitar Music. CHRYSALIS CHR 1328. "Kottke is at the top of his form." (August)

Carole Bayer Sager: Sometimes Lake at Night. BOARDWALK FW 37069. ". . . amounts to a summation of the attitudes of the women of her generation." (August)

Phoebe Snow: Rock Away. MIRAGE WTG 19297.
"This album is a real charmer." (July)

Leon Ware: Rockin' You Eternally, ELERTRA 6E-332. "A fine showcase for a fine songwriter." (June)

Woman of the Year, ARISTA AL 8303. "Brisk, bright, and beautifully recorded." (September)

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

Come to Narbborg

Marlh

100's

Marlboro

Marlboro Red or Longhorn 100's you get a lot to like.

Popular Music Briefs





HE COVER OF the MCA album "Bill Monroe: Master Bluegrass" (MCA-5214) of shows a mandolin and a white hat, two well-known trademarks of an artist who is often referred to as the Father of Bluegrass. Monroe began his musical career in Kentucky in his early teens playing with one of his uncles, whom he subsequently immortalized in his most famous song, Uncle Pen. In 1938 Monroe joined the Grand Old Opry in Nashville, where his first number was Mule Skinner Blues. He signed with MCA in 1950 and has recorded for that label ever

WE don't know what cult favorite Alex Chilton is up to these days, so for the time being we'll have to make do with "Bach's Bottom" (Line LLP 5081), a German release of some mid-Seventies sessions Chilton did in Memphis while his left hand was in a cast. Chilton, the boy genius responsible for the great Box Tops hits in the

since. Monroe was elected to the Country Music Hall of Fame in 1970, and when "Master of Bluegrass" was released this year, he donated to the museum connected with the Hall of Fame one of his favorite mandolins and a white beaver cowboy hat given to him by the late Lester Flatt, with whom, as all old radio fans will remember, he played in the early Opry days. At the presentation ceremony Danny Hatcher, deputy director of the Country Music Foundation, also accepted a copy of the album for the foundation's library and media center.

Sixties as well as two lovely power-pop albums as a member of Big Star a few years later, has been relatively inactive recently. The new album, produced by critic Jon Tiven, includes a few cuts previously available as singles on the New York indie label Ork and shows Chilton working in a raw style that eerily presages elements of the New Wave. A fascinating curio, particularly relevant in light of the Searchers' recent (and splendid) cover of Chilton's *September Gurls*. Available from JEM Records, 3619 Kennedy Road, South Plainfield, N.J. 07080. —*S.S.*

Y OU'RE nowhere without that tube,'' Lou Rawls once observed, and here's a picture that proves him right. That's rocker Rick Springfield autographing a shoe for one of the thousands (!) of fans who turned up recently to see him at a Manhattan record store. Rick is currently enjoying his first hit single (Jessie's Girl) and album ("Working Class Dog") after almost a decade of knocking around the music business, but that's not why the crowd showed up: in case you hadn't heard, Rick's also a heart-throb on the popular daytime TV drama (soap opera to the rest of us) known as General Hospital, in which he plays Dr. Noah Drake. Could be the beginning of a trend \square



RADITIONAL wisdom has had Tit, until recently, that books on rock-and-roll don't sell. But ever since biographies of Bruce Springsteen and Jim Morrison started generating what musicbiz types refer to as "elephant dollars" there has been a spate of rock books attempting to duplicate their success. Comes now Bruce Pollock's When Rock Was Young (Holt, Rinehart, and Winston, \$6.95), which will most likely reinforce traditional wisdom. Billed as "A Nostalgic Review of the Top 40 Era," the book is mainly made up of interviews with various hitmakers of the period (1955-1964) ranging from off-the-wall (Jo-Ann Campbell) to historically interesting (Hank Ballard) to pointless (Dave Guard of the Kingston Trio, whose connection with rock is, shall we say, tenuous). It's breezy and light on scholarship, but it does give you something of the feel of the time, and Pollock has a nice postscript about a minor Playmates single that haunted his youth.

Considerably more impressive is David Bowie: An Illustrated Record, by Roy Carr and Charles Shaar Murray (Avon, \$9.95). This is an absolute must for Bowie fanciers, for it has it all: a lively critical overview of his entire career, endless historical minutiae, and incredible graphics (if the authors have missed an extant Bowie photo or Japanese single sleeve, it's not for lack of trying). For nonbeliever's like myself the book is problematic. Carr and Murray make a case for Bowie as the most important rock artist of the decade, but while I'm willing to admit that, for better or worse, he's been profoundly influential, his appropriation of other people's ideas, his dilettantism, and his casual exploitation of an unsophisticated audience (all of which Carr and Murray admit) are still troubling. Then again, Bowie's biggest impact has been in England, so perhaps the authors can be excused as being too close to the subject to maintain a proper objectivity. In any case, as with Carr's earlier, similar books on the Beatles and the Stones, a -S.S. fascinating package.

OLLECTORS' ALERT: CBS has a new Springsteen album out, but, sad to say, as of now it's available only to radio stations and the press. Called "Bruce Springsteen as Requested Around the World," it's a sort of eccentric greatest-hits package. Side one is made up of stuff from "The River," and side two has concert favorites from the earlier albums (nothing from the first one, oddly enough). Boss fans who have to have everything shouldn't despair, however: if history is any guide, bootleg copies should be appearing, at exorbitant prices, in specialty stores by the time you read this.



GIGGLING INTO THE CHANNEL DEords, apparently laboring under the misapprehension that the average Midwest rock fan will relate to a troupe of painted hussars in gaucho outfits, is engineering a massive promo push for **Visage**, a band in the vanguard of the so-called "New Romantic" movement currently the rage in Britain. Pictured here is Steve Strange, the band's conceptual honcho and fashion plate, arriving at a Manhattan punk club *à* la Peter O'Toole. And you were wondering why records list for \$9.98. —*S.S.*

GRACENOTES Terry Sylvester has defected from veteran English hitmakers The Hollles; the band is currently in Los An Adam and the Ants this month No comment: a BBC reporter working the Royal Wedding with Tom Brokaw opined (on the air) that the only other event he could recall combining such massive spectacle with a feeling of intimacy was "a Rod Stewart concert | Cover versions saw once." of songs by cult favorite Richard Thompson are popping up suddenly in unlikely places, a trend we heartily endorse. Hot on the heels of Arlo Guthrie's version of When I Get to the Border (on "Power of Love," reviewed on page 90) comes a remake of Dimming of the Day by Elvis Costello-soundalikes Any Trouble ("Wheels in Motion," Stiff/America). Meanwhile. Thompson's record label. Chrysalis, has not yet released "Sunnyvista," his 1980 English album, in this country, and a collaboration with Gerry Rafferty (of Baker Street fame) has been languishing in the can for over a year. Yes, there will: Women's Wear Daily just called Adam and the Ants "a stupid rock band ... whose only claim to fame is beating Macy's to the Pirate Look by six months." You mean to tell me there was a contest?! -S.S.

Discand Tape Reviews

By CHRIS ALBERTSON • NOEL COPPAGE • PHYL GARLAND • PAUL KRESH MARK PEEL • PETER REILLY • STEVE SIMELS • JOEL VANCE

© = stereo cassette

(8) = eight-track stereo cartridge

 $\Box = quadraphonic disc$ $\Theta = monophonic recording$

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

AIR SUPPLY: The One That You Love. Air Supply (vocals and instrumentals). Don't Turn Me Away; Here I Am; Keeping the Love Alive; This Heart Belongs to Me; and six others. ARISTA AL 9551 \$8.98, © ACT 9551 \$8.98, @ A8T 9551 \$8.98.

Performance: Nice but numbing Recording: Excellent

Air Supply's lyrics are drivel and their tunes aren't likely to set the world singing, so what keeps the customers lining up to plunk down their money for their albums? The first album released in America by these seven Australian singers and instrumentalists, who dress neatly and can play and sing quietly when they choose, was called "Lost in Love." From the sound of things here, they still are. Maybe that's their secret. They project a kind of naïve vulnerability. You don't want any of these fellows to be hurt, that's all, and you hope all those "friends" they sing about will be there when they wake up tomorrow. *P.K.* MARTY BALIN: Balin. Marty Balin (vocals, guitar): instrumental accompaniment. Hearts; You Left Your Mark on Me; Lydial; Atlanta Lady; Spotlight; and four others. EMI/AMERICA SO-17054 \$7.98, © 4XO-17054 \$7.98, ® 8XO-17054 \$7.98.

Performance: Another producer's trip Recording: Very good

If you're old enough to remember when John Chancellor could pronounce his own name, you'll recall that Marty Balin and the early Jefferson Airplane let the market react to them rather than the other way around. I guess times and people do change. From the Richard Avedon jacket photos to the last strains of *Music 1s the Light*, this album seems custom-tailored to today's radio needs—although I have to say it isn't as dumb as the Peter Frampton album that ushered in this era. The trouble is that Balin has a stylized, one-of-a-kind voice that besides not going with this silk-shirt production—loses credence once you realize he doesn't really feel passionate all the way down to his toes about what he's singing. Only the opening cut, *Hearts*, written by Jesse Barish, manages to accommodate both the production-*über-alles* ideal and Balin's idiosyncrasies. As for the rest well, somebody ought to rewrite *I Believe in Music* to put it in touch with the Eighties: *I Believe in Production*. N.C.

RECORDING OF SPECIAL MERIT

BOBBY BARE: As Is. Bobby Bare (vocals, guitar); instrumental accompaniment. Dollar Pool Fool; Learning to Live Again; Call Me the Breeze; Take Me As I Am (Or Let Me Go); Let Him Roll; New Cut Road; and four others. COLUMBIA FC 37157, © FCT 37157, @ FCA 37157, no list price.

Performance: Writers' showcase Recording: Very good

Turning abruptly away from the approach he used for his last two good, rowdy live al-

ALL DIGITAL RECORDINGS ARE NOT EQUAL

Varese Sarabande is more.

VIVALDI The Four Seasons First Digital Synthesizer Recording Realization by PATRICK GLEESON

VARESE SARABANDE DIGITAL VI

THE FOUR SEASONS

VCDM 1000.100

Realization by Patrick Gleeson. Enjoy the incredibly dynamic sounds of the first digitally recorded synthesizer performance.



Tchaikovsky: Symphony No. 6

"PATHETIQUE"

VCDM 1000.140

Enrique Batiz conducts The London Philharmonic Orchestra in a spectacular performance certain to bring out the most in your stereo system.



bums, Bobby Bare got Rodney Crowell to produce this one and used Crowell's band, the Cherry Bombs, for most of the back-up. There isn't a Crowell-written song in it, probably because Crowell had to think about getting his own album out, but several of Bare's favorite songwriters-Bob McDill, Townes Van Zandt, Guy Clarkare represented, along with J. J. Cale, the Bryants, and, in the maybe-not-yet-finished She Is Gone, Willie Nelson (Bare found the tune on an old demo tape Nelson had left behind). The songs are not always those writers' best, but they do grow on you and they indicate that Bare's ear is still good. Bare's singing continues to be, in my opinion, among the best you can get, just about totally honest and unforced in a baritone that seems to get richer all the time.

The instrumentation is the usual Crowell synthesis of the best that's going on in Nashville, Austin, and L.A., but it is not radically different from the ways Bare has been backed in the recent past. Most of the time it is straightforward and economical, like Bare's style. It's country, but it didn't just fall off a cucumber truck. There's a worldliness about how both Crowell and Bare do things, but it hasn't worn all the romance off of them. N.C.

KURTIS BLOW: Deuce. Kurtis Blow (vocals); vocal and instrumental accompaniment. The Deuce; It's Gettin' Hot; Getaway; Starlife; and three others. MERCURY SRM-1-4020 \$7.98, © MCR4-1-4020 \$7.98, ® MC8-1-4020 \$7.98.

Performance: Breezy rapping Recording: Good

Though rap records had long been a mainstay among black urban youngsters, who take pride in their ability to memorize and rattle off long stretches of apparently nonsensical material with rapid-fire ease, it was Kurtis Blow who, with a little help from clever producers and benevolent winds in the recording industry, managed to popularize the form among the over-eighteen crowd. But in transforming rapping into adult entertainment, Blow has altered its basic style, especially here on his second LP. Whereas earlier rap records by groups like the Sugar Hill Gang were all patter with little music except for a simple rhythm background, "Deuce" features smooth, fully fleshed-out instrumentals and even backup vocals, with the rap itself handled in an almost melodic manner. And in contrast to the all-but-endless raps of yesteryear, these tracks run from three to six minutes long, just like pop songs. They are tightly constructed numbers featuring a clear statement of the theme of each mini-story before it unfolds in rhyme and is carried to a conclusion. The most engaging tracks are The Deuce, a swaggering, slice-of-life excursion down New York's seamy West Forty-Second Street, and Starlife, a tongue-in-cheek poke at the extravagant lifestyle of today's superstars.

It is all highly listenable and danceable, but there is something just a little too prime-time slick about Blow's raps. His material is too often antiseptically safe, with little of the gritty reality of contemporary black urban life, the seed ground for rap. On the other hand, this record is not intended for kids trapped in the ghetto but for those who have escaped to the downtown discos. That's entertainment! P.G.

THE CARPENTERS: Made in America. Karen Carpenter (vocals); Richard Carpenter (vocals, keyboards); vocal and instrumental accompaniment. Those Good Old Dreams; Strength of a Woman; Back in My Life Again; When You've Got What It Takes; Because We Are in Love; and five others. A&M SP-3723 \$8.98, © CS-3723 \$8.98, ® 8T-3723 \$8.98.

Performance: Cheery Recording: Very good

Karen and Richard Carpenter, the brotherand-sister act from New Haven, are still singing songs as innocent and innocuous as their pleasant, pretty faces. Actually, Karen does most of the singing, with her brother and sometimes the "Carpettes" or "O.K. Chorale" providing vocal accompaniment. To tell the truth, a few of their songs are beginning to sound a more sour note, as in Strength of a Woman, whose heroine promises, like the doormat she must be, to wait for her lover until his other affair is over and he comes back to her. That's how it is with the Carpenters' songs: liars are forgiven (Someone's Been Lyin'), prayers are answered (Those Good Old Dreams), hearts beat together (Touch Me When We're Dancing). And even when disillusionment sets in, the style is so bland and cheery that you just know everything will come out all right-the errant lover will return, the sadness will end, the morning will "come through" and there will be "no dark horizons, only blue." I guess that's their appeal in these hard times. PK

JOHNNY CASH: The Baron. Johnny Cash (vocals); instrumental accompaniment. The Baron; Mobile Bay; The Hard Way; Hey, Hey Train; Thanks to You; The Greatest Love Affair; and four others. COLUMBIA FC 37179, © FCT 37179, ® FCA 37179, no list price.

Performance: Pliant Recording: Very good

"The Baron" is a bit of a letdown after "Rockabilly Blues," but, as Bobby Bare said, "If they figure out what you're going to do next, they'll file you away in a category." This is characterized mainly by the most ... well, the most production on a Johnny Cash album since his TV-show days, some of it unreconstructed Nashville Sound, also known as mainstream Billy Sherrill. At the same time, much of it is aimed at those grandpa's-generation rednecks in Big John's audience who love his recitations of stories with O'Henry endings. It's getting so you can anticipate the twists to come in The Baron, A Ceiling, Four Walls and a Floor (which, being by Tom T. Hall, still tells a pretty good-and toughstory in a touching way), Chattanooga City Limit Sign, and even The Greatest Love Affair, which is a schmaltzy love song to Amurrica (need I say more?).

For all that, Cash does continue to show a good ear for a song, and his singing now is the most accurate it's ever been. And once in a while Sherrill lets the boys play. You can have some moments with this, but the moments with the "real" Johnny Cash in (Continued on page 84)



"I don't care if you are going all the way to Spokane, you don't have Jensen."

Jensen has been an innovator in car audio for almost 50 years. Not with gimmicks or gadgets, but with meaningful advances in sound performance. That's why Jensen uses computer designed elements working together as systems to drive its high performance car stereo components even higher.

The Jensen T415 AM/FM stereo cassette tuner.

The neart of your car audio system is a tuner like the T415. It has many of the refinements of home h-fidelity components such as Dolby ' noise reduction, and computer controlled FM response tailoring. And it has features especially desirable in the car, such as pre-set tuning, auto reverse and an FM stereo/mono selector.

The Jensen A124 power amplifier.

An ideal power amplifier for the T415 tuner is the Jensen A124. It has refinemer to such as switchable bi-amp, automatic on/off, and sophisticated short-circuit-proof devices. Plus a staggering 100 watts of power. The Jensen EQ400 graphic equalizer.

Then, because you know sound, add a Jensen EQ400 equalizer. It features 15 selectable turnover frequencies to fine tune music to your taste and your car's environment.

> The Jensen Triax[®] three-way speaker system.

Last, but perhaps the most important part of your system, are Jensen speakers. Triaxial® stereo speakers, designed to interact with the acoustics of

your car, deliver remarkably flat and accurate frequency response. Ard they handle power superbly, with extremely low distortior.

So, if it's the sound that moves you, surround yourself with a Jensen Car Audio System. And hear the difference meaningful innovation makes.

 (f) "Triaxial" and "Triax" are the registered trademarks identifying the pater ted 3-way speaker system of Jensen Sound Laboratories, An Esmark Company. (U.S. Patent 4,122, 15).
 (g) "De Iby" and "Dolby System" are trademarks of Dolby Laboratories. Inc



When it's the sound that moves you. © 1980, Jensen Sound Laboratories, Schiller Park, Illinois 60176.

CIRCLE NO. 24 ON READER SERVICE CARD

THE KX-70 COMPUTERIZED SEARCH SYSTEM STEREO CASSETTE DECK



It's a genius at selecting prime cuts.

Capturing music on cassette has always been convenient.

Unfortunately, trying to pick your favorite cuts out of a whole side of tape hasn't.

Which is why we developed the new Kenwood KX-70 cassette deck.

With its exclusive, computerized Direct Program Search System, the KX-70 has the intelligence to do some brilliant things with your cassettes. Like skipping forward or back to find whatever cut you tell it to. Or automatically going back to play the same cut again.

It's even smart enough to play the same side as many times as you want.

Ask your Kenwood dealer for a demonstration of the new KX-70 computerized cassette deck.

After all, how would you rather spend your time looking for your favorite cuts, or listening to them?



"Rockabilly Blues" are more numerous and better. N.C.

GLORIA GAYNOR: I Kinda Like Me. Gloria Gaynor (vocals); vocal and instrumental accompaniment. I Kinda Like Me; Fingers in the Fire; Let's Mend What's Been Broken; Yesterday We Were Like Buddies; I Can Stand the Pain; and four others. POLY-DOR PD-1-6324 \$8.98, © CT-1-6324 \$8.98, © 8T-1-6324 \$8.98.

Performance: Polished singing Recording: Good

I recall hearing Gloria Gaynor years ago on what appeared at the time to be a most curious record. Though many of the songs, such as Never Can Say Goud-bye, were quite familiar, the rhythms were not. The pace was off-beat and hectic, and the whole disc seemed to be galloping around my turntable. That was probably the first disco record I heard, and its appeal was immediate. As the disco wave reached its crest and rolled on for what seemed an interminable time before finally subsiding, Gaynor was eclipsed as a disco star by Donna Summer and others. But even in this post-disco era she remains an exceptionally fine singer and also a talented lyricist, sharing credit for half the numbers on "I Kinda Like Me."

Most of the arrangements on this new album are uncluttered. Back-up singers are used sparingly, and Gaynor's rich, fluid voice is kept out front. The mood varies from that of the uptempo *I Can Take the Pain* to the pensive *I Love You Cause*, which demonstrates that Gaynor has a mean way with a ballad. Although I can't call this an outstanding album—the songs don't reach out and grab you—it is certainly a pleasantly listenable one. *P.G.*

GEORGE HARRISON: Somewhere in England. George Harrison (vocals, guitars, keyboards); Paul and Linda McCartney, Denny Laine (vocals); Ringo Starr (drums); other musicians. Blood from a Clone; Unconsciousness Rules; Life Itself; All Those Years Ago; Baltimore Oriole; Teardrops; and four others. DARK HORSE DHK 3492 \$8.98, © M5 3492 \$8.98, [®] M8 3492 \$8.98.

Performance: Surprisingly good Recording: Good

It took George Harrison almost two years, off and on, to make this album, and, though it isn't a knockout, it's by far the most noteworthy one he's released in a long, long time. The hit single is All Those Years Ago, a tribute to John Lennon that features Ringo Starr on drums and the McCartneys singing back-up vocals. It wasn't originally intended as a eulogy, but after Lennon was killed Harrison rewrote the lyrics and taped a new lead vocal. The two most interesting and unusual selections are Hong Kong Blues and Baltimore Oriole, both tunes by Hoagy Carmichael but with classy lyrics by Paul Francis Webster for Oriole. I don't know where Harrison heard these songs or why he chose them for this album, but I'm glad he did. As a performer, he isn't really up to the demands of Hong Kong Blues-he doesn't have the right sense of humorbut Oriole elicits his best vocal here.

Blood from a Clone, in a reggae rhythm, (Continued on page 88)

V IS TYPE IV

From the dawn of recorded stereo, millions of audiophiles have turned to Shure phono cartridges to get the most from their stereo systems—and for

good reason. We introduced the first moving magnet cartridge, the first ruly high fidelity low mass stereo cartridge, and a host of other innovations, right up to today's Hyperelliptical stylus tip, Dynamic Stabilizer, and SIDE-GUARD stylus protection system. From the original M3D, the first high fidelity stereo cartridge (which is still available) to the V15 Type IV, Shure has been the leader in phono cartridge technology. Our complete phono cartridge line, with over 100 models for all applications, is by far the widest selection offered by any phono cartridge manufacturer in the world. For more than 25 years, Shure has been the performance, technological, and sales leader in high fidelity phono cartridges...and that's why millions of audiophiles around the wor't have made us their source of sound. See your Shure cealer about upgrading your system with the number one name in phono partridges.



Manufacturer of high fidelity components, microphones, loudspeakers, sound systems and related circuitry.

Intereview



"You've got to learn to take care of yourself"

LEGEND tells us that once upon a time just about thirty years ago, actually there was a cozy, comfy Dream America presided over by an endlessly smiling, endlessly benign father figure named lke and his cute little wife Mamie. In those days, before Elvis and the musical Visigoths who followed him shook things up, we all happily listened to Nice Music performed by Nice People.

"The Fifties were apple pie, the American flag, motherhood, and *The Ed Sullivan Show*. You didn't ask questions. Even if you were married to a man, you didn't ask for explanations of his behavior. It was always, 'I'm the wife and you're the husband.' I listened recently to a duet I did at Paramount called *Man and Woman*, and it gave me the strangest feeling. It was completely manipulative on the woman's part and very condescending on the man's part. But I thought it was just fine—then."

That's Rosemary Clooney, one of the nicest of the nice performing stars of the time, speaking about being drawn into the prevailing cant. She may have been even more deeply indoctrinated than the average person, since the Hollywood-instructed American mass audience has always demanded of its pop stars that they reflect back glorified images of itself.

Clooney's first hit was in 1951, and she was a major star in the movies, on TV, and on records by the time Elvis arrived in 1956. Thirty years later she's in New York to promote her wonderful new Concord Jazz album "With Love." She's still radiant, still genuinely a nice person, still a star, but today it's on her own terms. It was very different when she started out.

"It was a time of band singers becoming individual personalities. It really was a singer's time. Mitch Miller, who had so much to do with my early success, was autonomous within his record company [Columbia]. He could call up the sales department and say, 'We're going to ship 300,000 on consignment.' He had total control; he coordinated everything. Sure, it was all very paternalistic. I never saw an arrangement until I got to the studio; I was handed the material with the implication, do it or else. But, truthfully, all I ever wanted in those days was a hit. I wanted terribly to be a success, and I never felt manipulated because I didn't know there was any other way. We all seemed anxious to accept our limits in those days."

The quick and lasting success of rockand-roll took Clooney and other "nice" performers by surprise. "Mitch told me that it was only going to last about six months and then it would be all over. I think he was the most surprised man in the world when the whole business changed around. I got to wondering about it a little because I heard rock on the radio all the time, and then I saw what was happening to my record sales and to those of some other singers. I don't think that the first rock-and-roll records were very well recorded, whereas we were kind of prideful that we were making strides in recording techniques. We were using bigger control boards and better microphones and having a lot of new equipment brought in. But all of the rock stuff that I heard in the beginning sounded as if it had been recorded in a toilet somewhere, and the music was something I couldn't seem to relate to at all. I could always relate to jazz, but even that took a dip."

HE four top-selling female singers of the Fifties were Rosemary Clooney, Doris Day, Patti Page, and Kay Starr. I asked Clooney why she thought she was the only one of them still performing, still recording, still a star. She hesitated for a moment and then said quietly: "Probably because of the time I spent in the hospital after my nervous breakdown. The eight years of analysis, the starting from scratch again, getting my priorities straight about what's important and what isn't.

"I think that today I have a better approach to everything, that I can deal with the feelings I have now instead of any of the residual feelings from back then. All that garbage has been cleaned out. When I find a piece of material that's new to me now, such as Billy Joel's Just the Way You Are or Paul Anka's Alone at Last on the new album, I can meet it and sing it on its own terms. There's no more of that wistfulness I used to have no matter what song I was doing, which came from my wondering, 'God, am I ever going to get out from underneath all this?' There's no feeling any more that I have to fit the song to that 'thing,' that performer named Rosemary Clooney, which I had created and which wasn't me at all.

OR me the most important thing now is the holes in my calendar, when I can look at my schedule and see that I've got a couple of days off here, a week there. Advisors have to be told, managers and publicity people have to be told that there are times you *have* to have for yourself, time that no one can infringe on. But you've got to learn to take care of yourself, because in the final analysis that's all you're left with—just yourself. That's where Elvis ended up, even with all of the pills and all of the people, alone in that mansion.

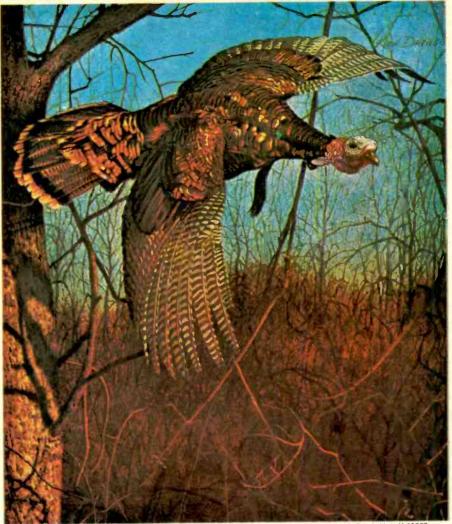
"The odds seem to be against the solo performer today," Clooney observes. "Even Debby Boone; who is married to my son Gabriel and who I think is just wonderful, hasn't been able to build on the success of You Light Up My Life. It hasn't built for her in the way that it built for her father, who doesn't have her talent, or the way it built for me. She's going to country-andwestern, but I think she's limiting herself tremendously. Not that I have anything against country-and-western. I admire someone like Dolly Parton a lot. I love the way she writes and the way she sings and that public personality of hers. Nine to Five, for instance, is a positive, sensitive song."

Clooney has some good words to say about others of today's songwriters, especially James Taylor: "He's my favorite. He's somethin'! People are faced with so much more up close today than they were back in the days when I was singing Come On 'a My House, and writers like Taylor are saying some really positive things, although it may not sound that way on the surface. For instance, all of the things he says about being crazy, and then not being crazy any more, about being scared and not being scared. If I were ever to write I'd like to be able to reflect my feelings as honestly as he obviously does.

"I only met James Taylor once. I was working at the Huntington Hartford and he was at the Pantages in Hollywood. I ran over in my costume, saw the last half of the concert, and went backstage. He entered this room filled with every big movie star in the world, came directly over to me, and said, 'I'm glad you're here.' I said, 'Thank you. I'm a tremendous fan of yours'—and I was truly shy about telling him that. Then he looked at me and said, 'Are those really your nails or are they false?' I told him they were mine, and he said, 'They look very strong. Guitar players always look at people's nails.'"

HE five Concord Jazz albums that Rosemary Clooney has recorded over the past few years display a singer at the height of her creative powers. The familiar Clooney warmth and humor and, yes, radiance are all still there, but there is also a whole new person and artist. If you want to hear what a lovely difference twenty-five years or so of living a life can make, simply compare her famous Fifties record of Tenderly with her new version on "With Love." Enough said. If you're any kind of connoisseur of singing, you should certainly get the new albumand the four that preceded it. And there will be others after this one. As the lady herself says, "I intend to go on singing and recording as long as there is anyone left to listen to me." That's the best news I've heard in a -Peter Reilly long time.

ROSEMARY CLOONEY: With Love. Rosemary Clooney (vocals); Scott Hamilton (tenor saxophone); Warren Vaché (cornet, flugelhorn); Cal Collins (guitar); Nat Pierce (piano); Cal Tjader (vibes); Bob Maize (bass); Jake Hanna (drums). Just the Way You Are; The Way We Were; Alone at Last; Come In from the Rain; Meditation; Hello Young Lovers; Just in Time; Tenderly; Will You Still Be Mine. CONCORD JAZZ CJ-144 \$8.98, © CJ-144 \$8.98.



For a full co-or lithograph, 18" x 19", of Ken Davies' "Flying WId Turkey." send \$5.00 to Box 923-SR. N.Y., N.Y. 10268

An Unforgettable Experience

To see a Wild Turkey rising from the forest floor is an awesome sight no man is likely to forget. The bird's wing-beats resound like thunder claps, and its feathers fan out in grand display.

The Wild Turkey is the largest native bird capable of flight and an apt symbol for America's greatest native whiskey–Wild Turkey.



WILD TURKEY / 101 PROOF / 8 YEARS OLD Austin, Nichols Distilling Co., Lawrenceburg, Kentucky © 1981



CIRCLE NO. 23 ON READER SERVICE CARD

and Save the World, almost a vaudeville number, both have some very funny lines. Unconsciousness Rules and Teardrops are oddly uptempo numbers about lost souls that might sound livelier in other hands. They have serviceable melodies and careful production, though, and the same can be said of the three songs here that make a pitch for the comforts of religion (Life Itself, That Which I Have Lost, and Writing's on the Wall). I gave up expecting much from George Harrison quite some time ago, but I have to admit that this one is not bad, not bad at all.

RICK JAMES: Street Songs. Rick James (vocals, guitar, bass, percussion); the Stone City Band (vocals and instrumentals); other musicians. Give It to Me Baby; Ghetto Life; Mr. Policeman; Super Freak; Fire and Desire; and three others. GORDY G8-1002M1 \$8.98, © G75-1002-H \$8.98, © G8-1002-H \$8.98.

Performance: Punk funk Recording: Good

I'll give Rick James credit for being one of the few newfangled r-&-b folks who is trying to say something in his music. As a purveyor of "punk funk," as he calls it, he blends freakishness, funk, and social protest with the usual love themes, pounding it all out to brazen, beat-heavy music. In this case, the message is better than the music, which tends to merge into one big thumping blur. Perhaps the blur is caused by the enormous cast employed here. I counted about fifty names in the credits, including such fascinating ones as the Temptations, Teena Marie, and Stevie Wonder-who offers a spicy harmonica solo on Mr. Policeman, a protest against police brutality.

Since this is partially a concept album, a good many of the selections deal with stereotypical features of ghetto life such as growing up hanging out on street corners passing joints. Somehow I find it difficult to reconcile James' picture on the coverelaborately coiffed, expensively clad, wearing thigh-high red leather boots—with the realities of poverty, but at least he is addressing a serious subject in music that is energetic if not always imaginative. *P.G.*

ELTON JOHN: The Fox. Elton John (vocals, piano); vocal and instrumental accompaniment. Breaking Down Barriers; Carla Etude; Fanfare; Chloe; Fascist Faces; and six others. GEFFEN GHS 2002 \$8.98, © W5 2002 \$8.98, © W8 2002 \$8.98.

Performance: A bit weary Recording: Good

"Yes I am the fox, a fascinating cross/Of sharp as a whip and tough as an ox/Yes I am the fox." Oh, come off it, Elton! You're a marmalade cat with a vast talent to amuse-or at least you used to be. Another couple of albums like "The Fox" and you'll become as ponderous, sententious, and solipsistic as your more "serious" colleagues. The danger signs here include a barrel-offun political item called Fascist Faces and two more adolescently mopey statements about bisexuality, Breaking Down the Barriers and Elton's Song. While Chloe and Heels of the Wind are closer to Elton's familiar effervescent style, even they are marked by a certain weariness in the performance. A lot of Elton's initial outrageousness has been diluted by the shock tactics of the punk movement, but that isn't enough to explain the general air of depression that hangs over this album. P.R.

KID CREOLE AND THE COCONUTS: Fresh Fruit in Foreign Places (see Best of the Month, page 77)

STACY LATTISAW. Stacy Lattisaw (vocals); instrumental accompaniment. With You; Young Girl; Spollight; Screamin'; It Was So Easy; and four others. COTILLION FD 16049 \$8.98, © CS 16049 \$8.98, ® TP 16049 \$8.98.

Performance: That certain zingle Recording: Good

On most of the tracks here Stacy Lattisaw projects a certain zingle (that is, a musical zing combined with a sexual tingle) that lifts her head and décolletage above the average disco singer. Of course, even the really good tracks, such as *Feel My Love Tonight*, go on much too long, but Lattisaw's fervor never diminishes for an instant. Absolutely no substance here, but a lot of drive and excitement. *P.R.*

ROSE MADDOX: This Is Rose Maddox. Rose Maddox (vocals); vocal and instrumental accompaniment. Philadelphia Lawyer; Let Those Brown Eyes Smile at Me; Single Girl; Dark as a Dungeon; This Old House; Sally Let Your Bangs Hang Down; and eight others. ARHOOLIE 5024 \$7.98.

Performance: Bright Recording: Very good

Rose Maddox has been around almost as long as country music. She started singing the stuff over station KTRB in Modesto, California, back in 1937 and has been recording it since 1946. Now, in 1981, this daughter of a sharecropper family in Boaz, Alabama, is white of hair but as good a singer as she ever was. The band of brothers she used to sing with broke up in 1956, but on this new record she's ably backed by a live bluegrass outfit called the Vern Williams Band.

When Rose turns on the full force of her personality she's hard to resist, whether she's singing about dangerous days in the mines (*Dark as a Dungeon*), reciting a ballad about a crime passionelle in Pennsylvania (*Philadelphia Lawyer*), or delivering down-home humor (*Rusty Old Halo*). She's at her very best in a bluegrass ballad about a "happy-go-lucky-girl from Kentucky," *Sally Let Your Bangs Hang Down*, but there are very few duds in this collection. Country music never had it better than it does right now with Rose Maddox. *P.K.*

THE MANHATTAN TRANSFER: Mecca for Moderns. The Manhattan Transfer (vocals); instrumental accompaniment. On the Boulevard: Boy from New York City; Spies in the Night; Smile Again; Kafka; and four others. ATLANTIC SD 16036 \$8.98, © CS 16036 \$8.98, © TP 16036 \$8.98.

Performance: Boring

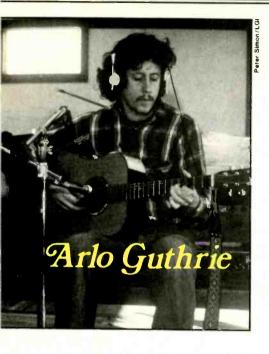
Recording: Elaborate

This is yet another overproduced, gimmicky, leadenly cute album by this tiresome (Continued on page 90) HEBEAUTY HATISMES Stereo for the senses. Made to be seen, not just heard. Shown here, our beautiful 30-watt*micro/mini component system. Amplifier with LED power meter. Stereo tuner with digital frequency readout and five FM station presets. Metal tape cassette deck with record meters and Dolby.® Two-way air suspension book shelf speakers. Now get the complete MCS micro/mini component package on sale. Save 200° Sale 59980 CIRCLE NO. 37 ON READER SERVICE CARD

30 Watts RMS min. per ch. 2 ch. into 8 OHMs, 20-20,000 Hz with not more than 0.08% THD Prices higher in Alaska, Hawali and Puerto Rico. MCS Series Audio Components sold exclusively at JCPenney ©1981 The J. C. Penney Company, Inc.

MCS

STEREO FOR THE SENSES Sold only at JCPenney



THE piece of work that comes after your best piece of work is a problem, especially if you work in public. Music-business executives used to try to force performers to follow hit singles with tunes that sounded as much like them as possible. It almost always turned out to be a mistake. Today's album orientation makes the next-record problem even knottier.

In the case of Arlo Guthrie, it is a further complication that his last and best album. "Outlasting the Blues," was a sort of summary statement about his life up to then, and its starting words, "In the event of my demise," put chilling thoughts in the heads of those who knew something of the Guthrie family history. According to Joe Klein's Woody Guthrie: A Life, Woody had eight children and half of them died tragically, either from accidents or of Huntington's disease, which Woody inherited from his mother and passed along. Arlo's songs didn't mention this directly, of course, but there's a fifty-fifty chance that he inherited it too, and Arlo has four children. How does one follow a piece of work that deals, however obliquely, with something like thatand is a critical high-water mark to boot?

Arlo has elected, after a two-year hiatus, to do something more or less completely different. His new "Power of Love" is more elaborately produced than we expected, has very little autobiography in it, doesn't even remind us of folk music, is apolitical, and has almost none of the whimsey and humor we expect of Arlo Guthrie. It is a potpourri. Three songs-including a Jamaica Farewell without vibes, if you can believe ithave island imagery and rhythms, but the album doesn't have a single unifying flavor, let alone a theme. There's a nice Jimmy Webb song, Oklahoma Nights, with strings; a no-frills (and no-folk) rock thing, Give It All You Got, which gives the impression of being recorded louder than anything else; a duet with Leah Kunkel on If I Could Only Touch Your Life, by Aaron

Schroeder and David Grover, one of those ultraromantic songs in the vein of You Light Up My Life that's given over almost entirely to the dramatic buildup; David Mallett's Garden Song, a piece for children in which Arlo is backed vocally by his own and the sidemen's kids; and so forth and so on—in short, a bunch of seemingly unrelated selections.

The album is, I suppose, an attempt to attract a broader, more pop-conscious audience. If you take the songs one at a time, they stand up pretty well-with a couple of exceptions. I'm not sure we needed Jamaica Farewell again, even with Ricky Lee Jones' baby-voiced harmony added, and Give It All You Got is simply not very interesting. Arlo wrote only two songs here, and one of those, Living Like a Legend, retells the bynow threadbare story of a musician's life on the road. I like Jim Horn's recorders imbedded in the opaque arrangement of the title song (written by Bob Dylan's pal T-Bone Burnett), but it wasn't until the fourth selection, Waimanalo Blues, that I found one that I didn't think was at least somewhat overproduced

But Leah Kunkel is terrific, the album is tuneful, most of the lyrics are interesting if not exactly riveting, the arrangements are mostly pretty good in spite of their being crowded, and Arlo still sounds like his old nice, affable self. I don't know whether the pop masses will glom onto this or not. With all my expectations and long history of liking Arlo the folkie, I can't imagine what kind of impression it might make on kids who come upon it cold. The thinking nowadays seems to be that the pop masses want music that is bland, escapist, without tension. Not much of "Power of Love" fits that bill, and Arlo doesn't fit the mold of a purveyor of that kind of pop. Even in the thick of this expensive production, he doesn't come across as market-oriented or other-directed. The album may be easy to listen to, and it may be full of "new" elements stylistically, but nothing in it really contradicts what we have come to believe are Arlo's values or his vision.

N any case, the album follows up "Outlasting the Blues" in a way that tilts the machine and ends the game, in the way apples follow oranges, thwarting comparisons left and right. Does it mean a New Direction for Arlo? Probably not, but it might open up some elbow room for him. If many people think they know what a performer's going to do next, the performer is in trouble, and if he repeatedly proves them right, he's in worse trouble. —Noel Coppage

ARLO GUTHRIE: Power of Love. Arlo Guthrie (vocals, guitar, piano); Leah Kunkel (vocal); Russ Kunkel (drums); Bob Glaub (bass); Jai Winding (keyboards); Hadley Hockensmith (guitar); other musicians. Power of Love; Oklahoma Nights; If I Could Only Touch Your Life; Waimanalo Blues; Living Like a Legend; Give It All You Got; When I Get to the Border; Jamaica Farewell; Slow Boat; Garden Song. WARNER BROS. BSK 3558 \$7.98, © M5 3558 \$7.98. group. The two men and two women of the Manhattan Transfer spend an inordinate amount of time wending their way in and out of convoluted, pretentious arrangements that all seem to run on several minutes after the last idea has been used up. The nadir here is the last track, A Nightingale Sang in Berkeley Square. Gene Puerling's arrangement and the Manhattan Transfer's performance combine to reduce that stately old bit of romantic whimsey to chittering nonsense. And they have the cheek to proclaim, in a prim little note on the inner sleeve, "We dedicate the harmony in our music to the quest for harmony in the world"! PR

JOHNNY MATHIS: The First 25 Years— The Silver Anniversary Album (see Best of the Month, page 70)

HILLY MICHAELS: Lumia. Hilly Michaels (vocals, drums, guitar, keyboards); instrumental accompaniment. Look at That Face; Our Love Will Last Forever; I've Got No Right to Love You; In the City; I Still Think About You; One; and four others. WARNER BROS. BSK 3566 \$8.98, © M5 3566 \$8.98.

Performance: Polished Recording: Very good

Hilly Michaels' first album, "Calling All Girls," was a triumph of one-dimensional pop virtuosity: upbeat, clever, totally danceable, light as a feather. For this second album, Michaels has broadened his sights, exploring a range of pop styles with mixed success. "Lumia" reveals him to be a facile songwriter and a polished, versatile performer. He's also a shrewd casting director. The album's credits drop a few of the more durable studio names: Dan Hartman, Elliot Randall, Rick Derringer, Ian Hunter, Mick Ronson, and Rupert Holmes. Such aristocratic support contributes to an album of clean, precision-crafted, energized music that struggles to be more than just pop. If too many of the songs fail to transcend their formulas, that may be because Michaels hasn't given his talents enough focus. "Lumia" doesn't seem like the creation of a coherent musical personality, but rather an attempt to show mastery of a whole range of styles.

There are some great moments, particularly Reach for the Vitamins, an act of desperation by a man who's met his match in bed, and the eminently danceable Look at That Face and Assembly Line. These three good-naturedly zero in on a whole slew of Eighties affectations. Most of the others are formula pieces that don't hit any mark at all. M.P.

RECORDING OF SPECIAL MERIT

STEPHANIE MILLS: Stephanie. Stephanie Mills (vocals); vocal and instrumental accompaniment. Winner; Two Hearts; I Believe in Love Songs; Night Games; and four others. 20TH CENTURY-FOX T-700 \$8.98, © C-700 \$8.98, (1) 8-700 \$8.98.

Performance: Compelling Recording: Very good

It has taken years for Stephanie Mills to shake her image as Little Dorothy in The (Continued on page 92)





FOR COLOR SLIDES 36 EXPOSURES

You never know what you'll discover when you take your pictures with the sharpest color slide film.

The sharper you want your memories, the more you need Kodachrome film.





Janis Ian: Short Stories

THE advance word within the industry was that Under the Covers, the first track of Janis Ian's new album, "Restless Eyes," would be another mass-audience hit on the order of her smash At Seventeen. If that happens, it will have to be without the

Wiz, but her new status as a Grammy Award-winning popular singer should enable her to desert the Yellow Brick Road for a path of gold, or so the quality of her recent output suggests. Like Chaka Khan, her main competitor for the title of Soul Princess (Aretha Franklin will reign as Soul benefit of much airplay, since the powers that be have decided that the lyrics are too lewd for our ears (compared with the average pre-teen conversation these days, it's about as lewd as *To a Skylark*). Under the *Covers*, a reverie on the quality and style of Latin men as lovers, is a typically fine piece of writing and performing by Ian. Like all her work, it's distinguished by an earthy but romantic sensibility that expresses itself fearlessly regardless of the social climate.

HE whole album, in fact, is like a collection of short stories by a writer of the caliber of Katherine Mansfield or Anna Kavan. Some of Ian's tales are unqualified successes: Restless Eyes, about two people who "settled" for each other and are sadly uneasy about it; I Believe I'm Myself Again, about the guilt-free pleasures of being out of love; and Dear Billy, a stinging piece about the rage and confusion of a young wife deserted by her husband. Others are merely brief, perceptive vignettes (Passion Play, Sugar Mountain). But everything here, whether dark or light, angry or giddy, is suffused with mood, intelligence, and the authority that comes from writing about what one knows firsthand. -Peter Reilly

JANIS IAN: Restless Eyes. Janis Ian (vocals, guitar); instrumental accompaniment. Under the Covers; I Remember Yesterday; Passion Play; Dear Billy; Sugar Mountain; I Believe I'm Myself Again; Restless Eyes; Get Ready to Roll; Down and Away; Bigger Than Real. COLUMBIA FC 37360, © FCT 37360, © FCA 37360, no list price.

Queen into her dotage), Mills has a voice of exceptional power, with a piercing quality and thrust that enable her to inject excitement into everything she sings. But her voice and her ability to handle it are only the beginning of her gifts. She also has a solid sense of phrasing and really digs into the lyrics, however simple, so as to make her post-adolescent love entreaties utterly convincing and compelling.

For this album, producers James Mtume and Reggie Lucas have supplied Mills with songs that sound fresher than they are, thanks mainly to her wonderful way of working them over, wringing every ounce of meaning out of them. Winner and My Love's Been Good to You shimmer with intensity, and her duet with Teddy Pendergrass on Two Hearts proves that she can work with another powerful musical personality and not be overwhelmed. "Stephanie" is at least as good as "Sweet Sensation," Mills' excellent previous set, and maybe just a bit better. P.G.

THE MOODY BLUES: Long Distance Voyager. The Moody Blues (vocals and instrumentals). The Voice; Talking Out of Turn; Gemini Dream; In My World; Meanwhile; 22,000 Days; and four others. THRESHOLD TRL-1-2901 \$8.98, © TCR4-1-2901 \$8.98, © TC8-1-2901 \$8.98.

Performance: Up to standard Recording: Very good

The title notwithstanding, this comeback album never strays very far from the Moody Blues' familiar mannered style. Recording together for the first time after three years of mostly forgettable solo projects, the Moodies have come up with one of their best albums: effectively paced, impeccably arranged, convincingly peformed. Some of the credit has to go to new member Patrick Moraz, former synthesizer wizard of Yes. He didn't write any of the music on "Long Distance Voyager," but he contributed plenty of technique (and will doubtless save the band thousands in full-orchestra recording-session costs over the next few years).

But for all its merits, the new album also stumbles into the characteristic Moody Blues pitfalls that have long made them a favorite target of critics. The songs are stilted and full of self-important, patricianstyle rocking, and too many follow the same maddening formula of vaporous ideas in (Continued on page 94)

> Deep within each new Audio-Technica Dual Magnet™ cartridge are TWO separate, completely independent magnetic systems. Separate magnet, pole pieces, and coils for each stereo channel. Now, to insure the ultimate in stereo separation, we've installed a magnetic barrier between the two systems. It's the thoughtful, innovative extra step typical of every Audio-Technica design. Hear the Audio-Technica difference today.

∆audio·technica.

MuMetal Shleid between Independent magnetic systems. Model AT155LC illustrated.

Our Invisible

Shiel

technica.

hexa-photo-cybernetic The Possibilities are Endless.



Six-mode exposure control. The Canori A-1 is one of the System versatility. Newer electronics world's most advanced automatic for wider applications. SLR cameras. Combining the fine:

A PARTY OF A PARTY OF

The Canor A-1 is one of the world's most advanced automatic SLR cameras. Combining the finest in optical and mechanical engineering with the most sophisticated electronics, it's technology applied to give you the ultimate in creative control. At the touch of a button.

Depending on your subject, you can choose from six independent

MADE

SNET

ED SOMM

Canor

exposure modes to achieve the results you want:

Shutter-Priority: You select the shutter speed, to freeze the action and prevent camera shake or create an intentional blur. The A-1 automatically selects the appropriate lens opening.

Aperture-Priority: Control the area in focus by selecting the lens opening for the effect you want. The A-1 matches with the right speed.

Programmed: When you need to shoot fast, just focus. The A-1 will select both speed and aperture for great results.

Stopped-Down: For extreme close-up or specialized photography, a cellows, a microscope or almost anything can be attached to the A-1. It's still automatic.

Flash: Totally automatic flash photocraphy, of course, with a wide variety of Canon Speedlites to choose from.

5 Manual: Yes. For those times when you absolutely want to do it all yourself. To experiment. To explore the possibilities.

Shutter-Priority: / 888 5.5

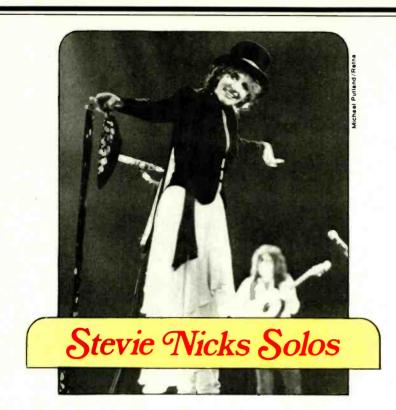


There are over forty fine Canon lerses ranging from Fish Eye to Super Telephoto plus accessories to meet every need. If you can't photograph your subject with a Canon A-1, it probably can't be photographed.

From the sophistication of its LED viewfinder display, to a ruggedness that allows up to five-frameper-second motor drive, the Canon A-II represents an incredible technology. At a price that makes owning one a definite possibility.

Canon A-1

Canon USA, Inc., One Ganon Piaza, Lake Succass, New York 11042-140 industrial Drive, Eimhurst Illinois 30126-380 Peachtree Industrial Bivd., Norcross, Georgia 30071-123 Paulaeino Avenue East. Costa Meza. Carlfornia 92526-Bidg, B-2, 1050 Ala Moasa Bivd., Honolutu, Hawaii 96914-Canon Optics & Business Machines Canada, Lid., Ontario



STEVIE NICKS may have a voice uncannily reminiscent of a no-nonsense c-&-w belter like Brenda Lee, but she has the soul of a girl who writes "How true!" in the margins of Kahlil Gibran books. She's a moon calf who has consciously fashioned her image after the kind of heroine who used to dwell in Donovan songs, long-haired child sirens who, when not pining for faithless lovers, sit strumming sad songs by the sea in the misty, moisty morning. You get the feeling she thinks La Belle Dame sans Merci is a beautiful woman who never says thank you.

In the context of Fleetwood Mac, Nicks' doe-eyed Lady of the Canyon amateurism nevertheless resulted in a lot of genuinely appealing music. Propped up by colleagues whose roots are considerably earthier (the blues, that is) and whose creative command of the recording medium is as accomplished and imaginative as that of any rock band since the Beatles, her wistful little songs seemed not so much silly as touching in their naïveté, sonic wallpaper (Sara, on "Tusk," for example) that you could get lost in as long as you didn't think about it too much. In short, she's the Ringo of Fleetwood Mac, although she's certainly cuter than Ringo and she can carry a tune.

In the context of "Bella Donna," however, her new Jimmy Iovine-produced solo album, Nicks is about as much fun as a dramatic reading from the latest Harlequin romance. Iovine has surrounded Nicks with the usual L.A. spare parts—refugees from Linda Ronstadt and Elton John sessions who provide the usual L.A. licks. The results are as parched as you might imagine, high-gloss and completely without character or spontaneity. Without the Macs' quirky underpinnings to bolster them, Nicks' songs are revealed for the undergraduate mewlings they really are, wispy banalities about the vagaries of Love in the Fast Lane set to tunes as flimsy as tissue paper. After the Glitter Fades has an uncharacteristic directness and honesty about it, but it's hard to be astonished by its one Big Insight, that its protagonist carries on the way she does because it's the only life she's ever known. Even the songs she does with Tom Petty and the Heartbreakers provide little relief. Petty's own Stop Draggin' My Heart Around is a minor effort, sounding like the stuff he wisely left out of his great Refugee, while Nicks' Outside the Rain has a profile so low that it's invisible. As a capper, her voice is recorded in such an unflattering way as to kill what little charm remains.

The lame little conceit of the title tune is of course the album's giveaway. Doubtless intended to ring with romantic greetingcard associations, it also has the advantage of Another Level: foreign-language stuff is always good when you want to wrap yourself in poetic profundity (just ask Patti Smith). But I wish somebody had given Nicks a copy of Ambrose Bierce's The Devil's Dictionary before she committed this nonsense to vinyl. Says Bierce, "Bella donna-In Italian a beautiful lady, in English a deadly poison, thus proving the similarity between the two languages." Now that's profundity! -Steve Simels

STEVIE NICKS: Bella Donna. Stevie Nicks (vocals); Tom Petty and the Heartbreakers (vocals and instrumentals); other musicians. Bella Donna; Kind of Woman; Stop Draggin' My Heart Around; After the Glitter Fades; Edge of Seventeen; How Still My Love; Leather and Lace; Outside the Rain; The Highwayman. MODERN MR 38-139 \$8.98, © CS 38-139 \$8.98, @ TP 38-139 \$8.98. grand, expansive settings. And so the Moodies once again blaze off into the sunset and hurtle through trackless voids, mixing metaphors and dipping again and again into the well of dreams, deepest night, and perfect love. "Voyager" sparkles with lyric rhinestones, but I think my favorite is Graeme Edge's 22,000 Days, a figure supposed to be the length of the average human life span. Unwittingly amusing imagery coupled with melodramatic, self-conscious intensity makes it impossible to take seriously even such otherwise promising pieces as Ray Thomas' three-song study of the rock star as jester in Painted Smile, Reflective Smile, and Veteran Cosmic Rocker.

Still, the new material all sounds as good as or better than the Moodies' output in the band's heyday, and fans will welcome their capable, assured return. M.P.

RECORDING OF SPECIAL MERIT

NEW ENGLAND: Walking Wild. New England (vocals and instrumentals). Walking Wild; Holdin' Out on Me; Don't Ever Let Me Go; Love's Up in the Air; DDT; and five others. ELEKTRA 6E-346 \$8.98, © TC5-346 \$8.98, ® ET8-346 \$8.98.

Performance: Fresh and feisty Recording: Excellent

The four men in this group expend so much energy that I sometimes expect them to burn themselves out before their latest record is over. They never do, though, and on "Walking Wild" they have again come through with a fresh and sassy concert that does them proud. The songs are shorter than they have been in the past, which allows for ten numbers, most of them by leader John Fannon, without a lemon in the lot. l particularly enjoyed the bold and bawdy DDT (which stands for "Dirty Dream Tonight") and L-5, which manages to sound spacy and futuristic without either taking itself too seriously or going on forever. In Don't Ever Let Me Go, the group demonstrates that they can pound out rock rhythms as relentlessly as anybody in the business, and Holdin' Out on Me shows they can scream as frantically as their rivals; the difference is, even the screams are fun. When New England takes you for a ride on their double-entendre Elevator, the special effects really work because these boys know what they're doing. PK

RECORDING OF SPECIAL MERIT

ODYSSEY: I Got the Melody. Odyssey (vocals); instrumental accompaniment. I Got the Melody; Roots Suite; I Can't Keep Holding Back My Love; Baby That's All I Want; and three others. RCA AFL1-3910 \$8.98, © AFK1-3910 \$8.98, ® AFS1-3910 \$8.98.

Performance: Classy Recording: Very good

Every now and then the trio called Odyssey pops out of the woodwork to produce a sonically spectacular album full of some of the best singing around. Here at last is an r-&-b record with arrangements that don't sound like a mixture of all the rhythm, horn, and string clichés that long ago wore out their welcome in my house. The crack-(Continued on page 96)

EVERYONE NEEDS A LITTLE COMFORT.



There comes a time when we all want to sit back and get comfortable. And there's no better way than with the fine, easy taste of Southern Comfort.

Inspired in the 1800 son old New Orleans, this world famous liquor is delicious straight, on the rocks, or mixed any way you like it. It's one of the real comforts

It's one of the real comforts of life.



Send gifts of Southern Comfort anywhere by phone. Call toll-free 800 528-6148 charge to major credit cards Offer voichin states where prohibited, Southern Comfort Corp., 80 100 Proof Liqueur, St. Louis, Mo. © 1980

ling brightness of the instrumentals is a major ingredient, along with the energycharged vocals, in the success of Roots Suite, a medley of compositions by Al Gorgoni and Lamont Dozier. Odyssey sings like a roll of controlled thunder, setting the pace with the opener, a rousing rendition of Patti Austin's I Got the Melody. This album never flags for thirty-six delicious minutes. A knockout PG

MIKE OLDFIELD: QE2. Mike Oldfield (mandolin, synthesizers, percussion, guitars, keyboards); vocal and instrumental accompaniment. Taurus 1; Sheba; Conflict: Arrival; Wonderful Land; and four others. VIRGIN/EPIC FE 37358, @ FET 37358, no list price.

Performance: Engaging Recording: Good

It's been eight years since the occult, tongue-in-cheek masterpiece "Tubular Bells" launched Virgin Records, the film of The Exorcist, and Mike Oldfield's career. That Oldfield never again scaled the pinnacle he reached in 1973 owes as much to a field crowded with earnest mystics as to the quality of his subsequent work.

"QE2," his seventh album, finds Oldfield still at work in the field he helped open up. It is like most of its predecessors in that nothing much happens in it, but it passes time pleasantly. Depending largely on a theme-and-variations scheme for a loose, incantatory structure, the pieces tumble down upon one another with a pulsing,

fugue-like momentum. There are all the familiar Oldfield devices: plinking acoustic themes that erupt into cascading electronic variations, quotations from the classics and traditional melodies, chants, vocalise, and the usual assortment of exotic instruments. But nothing leads anywhere, and by the end of the album you've forgotten it all. That may not matter, however; "QE2" lacks some of the good-natured, self-effacing charm of Oldfield's best work, but it is still full of relaxing, atmospheric music without an ounce of pretension. MP

YOKO ONO: Season of Glass. Yoko Ono (vocals); instrumental accompaniment. Goodbye Sadness; Mindweaver; Dogtown; Silver Horse; Extension 33; No, No, No; and six others. GEFFEN GHS 2004 \$8.98, @ M5 2004 \$8.98.

Performance: Surprisingly melodic Recording: Very good

Yoko Ono says in the sleeve notes here that she seriously considered quitting this project "because, as some people had advised me, 'It was not the time.' But the question was, when would it be the time?" At certain times work is good for you, and this did at least turn out to be an interesting recordyou won't confuse it with the stuff on the radio. For me, as much as I hate to criticize widows, a little of Yoko's singing goes a long way. It's not that she's out of tune all that much, although she is quite a bit of the time; it's her constant threatening to go out of tune that wears me down. I find her lyrics

arresting only now and then, but I'm interested in the viewpoint behind them more often than that. What stands out here are the melodies and the instrumentation. The tunes are mostly wide-eyed, childlike, unfettered-and yet somewhat grandiose. The instruments don't do anything outlandish, but they somehow convey both freshness and spectacle, like a big Kurosawa-directed scene. All of it except Yoko's voice seems larger than life. I don't think the album's great, but it makes a nice change of pace from a lot of other things. NC

POINTER SISTERS: Black & White. Pointer Sisters (vocals); instrumental accompaniment. Slow Hand; We're Gonna Make It; Fall in Love Again; Should I Do It; and five others. PLANET P-18 \$8.98, © PC-18 \$8.98, @ PT-18 \$8.98.

Performance: Routine Recording: Good

The Pointer Sisters are off their nostalgia kick but unfortunately not on to much of anything else. No matter how good they are as singers and performers-and they are good-they can't operate in a vacuum. This Richard Perry production provides what seems a random selection of indifferent material, all of which the Pointers sing in a thoroughly professional but basically aimless way. The sole exception is Slow Hand, a very good song which they perform with great warmth and style. PR

(Continued on page 98)

IF YOUR LIVING ROOM WERE AS GOOD AS YOUR STEREO, YOU WOULDN'T NEED OUR EQUALIZER.

Even the best stereos can only provide flat frequency response in a perfect listening environment. But most living rooms are far from perfect.

That's why Harman Kardon created the handsome new EQ7 equalizer. It allows you to compensate, octave by octave, for all the imperfections found in realistic listening environments. For hard walls that make highs sound shrill. And for corners that make even the best speakers sound boomy.

Audition the EQ7 soon. It's the perfect component for an imperfect living room.

For the Harman Kardon dealer nearest you, call toll-free, 1-800-528-6050, extension 870. Or write Harman Kardon, 240 Crossways Park West, Woodbury, NY 11797. In Canada, Gould Marketing, ASK ANYAUDIOPHILE. Montreal H4T 1E5.

harman kardon EO7 GRAPHIC EDUALIZ

harman/kardon

Blaupunkt Innovations in Automotive Sound

Blaupunkt once again revolutionizes the look and sound of car stereo

n the 1970s, Blaupunkt introduced the world's first fully electronic car stereo. For the 1980s, Blaupunkt designed the new Berlin-a superbly engineered AM/FM Stereo Cassette that, among other remarkable things, automatically raises and lowers its own volume.

The Berlin's unique dual-unit construction, winner of four industrial design awards, is a masterpiece of human engineering.

Controls at your fingertips

Unit One is the Operating Head. Mounted on a flexible stalk, it is a

marvel of electronic miniaturization. Into a space the size of a 100 mm. cigarette pack, Blaupunktengineers organized the most frequently used radio controls.

By manipulating the flexible stalk, the Head can be adjusted in any direction to put these controls comfortably at your fingertips. No groping, no taking your eyes off the road.



The Berlin sells for \$1,395.** It is one of a full line of Blaupunkt AM/FM Stereo Cassettes priced from \$250.**

Suggested retail price exclusive of installation and speakers in U'S

Automatically adjusts its own volume

Unit Two contains the Stereo Cassette Player and the remaining sound

Blaupunkt Berlin Features

4 x 20 W (4 Separate Channels) 7 Electronic Station Presets Electronic Signal Scan SALS (Sound Ambient Level Sensor) Stereo/Mono Switch Automatic Muting AM/FM/SW/LW ASU (Automatic FM Noise Suppression) *Dolby Noise **Reduction Circuit** *Dolby is a registered trademark of Dolby Laboratories

Autoreverse Cassette Pushbutton Locking Fast Forward & Rewind Permalloy Head Separate Bass & Treble Separate Fader and Balance Cassette Gain Control **Tape Pause Control** Loudness Contour Control Tape Bias Compensation Switch

modulation controls. One of these controls is a remarkable Blaupunkt innovation called SALS, an electronic sensor that automatically raises or lowers the volume to compensate for changes in interior or exterior noise levels. No other car stereo in the world is equipped with SALS.

For more information write:

Robert Bosch Sales Corporation 2800 South 25th Avenue Broadview, IL 60153 Robert Bosch Ontario, Canada

BLAUPUNKT ©1981 Robert Bosch Sales Corporation

BLAUPUNKT stered tapedeck LEVEL Cr O2 SALS LD

THE REDDINGS: Class. The Reddings (vocals and instrumentals); instrumental accompaniment. Class; Seriously; Main Nerve; and five others. BELIEVE IN A DREAM FZ 37175, © FZT 37175, no list price.

Performance: Good Recording: Good

The Reddings' second album is a lot tighter than their first. The songs here are better than average, given the rather flaccid requirements of r-&-b these days, and there is a very happy and scrappy horn section blowing some delightful riffs. The group's vocal style has settled somewhere between that of the contemporary Commodores and the restoration royalty of the Isley Brothers. Seriously is a good soul ballad, and the instrumental Main Nerve features some pretty and graceful piano by William Joyner. The Reddings are learning fast. J.V.

RECORDING OF SPECIAL MERIT

THE STAPLE SINGERS: This Time Around. The Staple Singers (vocals); instrumental accompaniment. Live in Love; A Child's Life; I Got to Be Myself; and five others. STAX MPS-8511 \$7.98.

Performance: Nostalgic soul-folk Recording: Satisfactory

Here's an album to stir pangs of nostalgia in the hearts of those who recall when the Sta-

The New Polk Audio RTA 12B

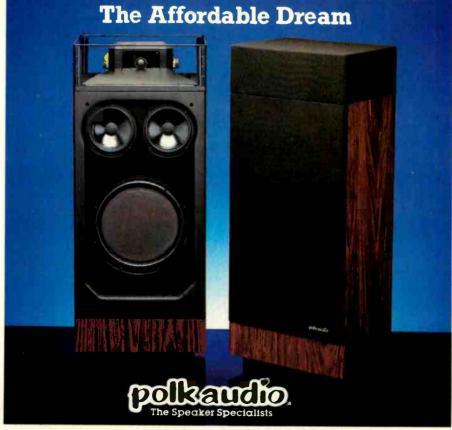
It looks like a \$1500 speaker, it sounds like a \$1500 speaker, but it costs less than \$500!

The new Polk Audio RTA 12B is a reference monitor designed for the appreciative listener seeking the finest in sound. While most speakers which offer comparable sound to the RTA 12B are extremely expensive, the 12B offers superb sound and exceptional value at an affordable price.

The RTA 12B is a full floorstanding system which is supplied in mirror imaged pairs. It incorporates Polk trilaminate-polymer drivers, a dual isophase crossover network and 12" fluid coupled subwoofer. It was designed using the aid of Polk's newly developed digital sampling-fast Fourier transform computer testing procedure. The RTA 12B, while costing less than \$500 each, can be directly compared against the \$1500 each and up, super speakers. When you do you'll hear many more similarities than differences. To find out where, and for full information on the new RTA 12B and our other similarly superb sound-

ing speakers starting from less than \$125, use the reader service card.

Polk Audio, 1205 S. Carey St., Baltimore, MD. 21230, 301-837-4300.



ple Singers carried the lusty force of their Mississippi gospel and folk roots into the mainstream of soul music in the early Seventies. Though previously unreleased, this material was originally recorded at the old Stax Studios in Memphis when the firm was second only to Elvis Presley as a source of civic pride. Several of the songs were written by Betty Crutcher, one of the many talented composers in the Stax stable at the time, and they seem direct, earnest, and uncontrived compared with today's souped-up multilayered hits. The three Staples sisters, supported by Pop Staples' unpretentious but tasteful guitar, simply sing from their hearts.

This set features lead singer Mavis Staples far more prominently than in most of the group's other albums from the same period. Her earthy voice with its distinctive hoarse edge soars and dips in the hypnotic cadences of a country preacher. Scant liner information is provided, but a fine mix of horns, rhythm, and an occasional touch of organ capture the flavor of the old Memphis sound. Years in the vault have only served to mellow this music. *P.G.*

PETER TOSH: Wanted Dread and Alive. Peter Tosh (vocals, guitar, keyboard, percussion); vocal and instrumental accompaniment. Coming In Hot; Nothing but Love; Reggae-Mylitis; The Poor Man Feel It; Cold Blood; and four others. ROLLING STONES/EMI AMERICA SO-17055 \$8.98. © CS-17055 \$8.98, @ TP-17055 \$8.98.

Performance: Cool Recording: Good

If Bob Marley was the silver-tongued prophet of Rastafarianism, then Peter Tosh is the street-corner evangelist who can't hold the crowd. The message of Rastafari is naïvely simple: good vs. evil, rich vs. poor, clean vs. unclean. To make it compelling, it must be delivered with fire. Tosh's songwriting is prosaic at best, and he delivers his songs with cool detachment, never exhorting, never threatening. "Wanted Dread and Alive" does move the way reggae is supposed to move-like a streetwalker in the grip of Satan-but it fails to do the one thing that distinguishes great reggae from the routine: it fails to terrify. MP

THE TUBES: The Completion Backward Principle. The Tubes (vocals and instrumentals). Sushi Girl; Don't Want to Wait Anymore; Think About Me; Attack of the Fifty Foot Woman; Power Tools; and four others. CAPITOL. SOO-12151 \$8.98, © 4XOO-12151 \$8.98, ® 8XOO-12151 \$8.98.

Performance: Good Recording: Good

There's nothing like an economic crunch to bring people to their senses. Record labels have had to cut back their largesse, and some of the more extravagant acts, such as the Tubes, have been forced to get down to business. I must say that the Tubes—whose new album photos show them in suits and ties, looking for all the world like a bunch of conservative account executives—sound all the better for it. Some of the kinky flimflam remains in the lyrics of the "shocker" songs here, but in general the Tubes seem to be going for the dear old despised bourgeois

CIRCLE NO. 41 ON READER SERVICE CARD

audience along the hallowed pop-rock route. Most of the time "The Completion Backward Principle" sounds like a cross between Chicago and Steely Dan, and it's not unpleasant at all.

Attack of the Fifty Foot Woman, based on a cheesy Fifties drive-in movie, is funny enough and should help satisfy the Tubes' original audience of goofies. But Don't Want to Wait Anymore is not only the standout cut—a glorious pop single if there ever was one—but the one to which the band clearly gives the most attention. Kinky bands need hits too. J.V.

JOE VITALE: Plantation Harbor. Joe Vitale (vocals, drums, keyboards); Joe Walsh (guitar); Timothy Schmit (vocals); Don Felder (guitar); other musicians. Plantation Harbor; Never Gonna Leave You Alone; Theme from Cabin Weirdos; Lady on the Rock; Bamboo Jungle; and four others. ASYLUM 5E-529 \$9.98, © 5C5-529 \$9.98, (@ 5T8-529 \$9.98.

Performance: Goofing off Recording: Good

The Eagles are on sabbatical until the end of this year, possibly recovering from the uncongenial response to their last group album. Joe Vitale's solo flight, though lavishly produced, is a time-marking effort, obviously a vacation enterprise. Eagles Joe Walsh, Timothy Schmit, and Don Felder are present in various supporting roles, but none of them works too hard, and guest appearances by Stephen Stills and Graham Nash don't add much either. There is a telephone conversation between Vitale and Walsh (it leads into Bamboo Jungle) that seems meant to reassure Eagles fans-and, perhaps, the Eagles themselves-that it's a sabbatical, not The End. We'll see. J.V.

FRANK ZAPPA: Tinsel Town Rebellion. Frank Zappa (vocals, guitar); vocal and instrumental accompaniment. Love of My Life; I Ain't Got No Heart; Panty Rap; Tell Me You Love Me; Fine Girl; Easy Meat; For the Young Sophisticate; Dance Contest; and seven others. BARKING PUMPKIN PW2 37336 two discs, © WAX 37336, ® WTX 37336, no list price.

Performance: Chilling Recording: Excellent

I began listening to Frank Zappa and the Mothers of Invention in high school, more than thirteen years ago, and for years afterward I devoured each new release of his with unseemly passion. Among the things of lasting value Zappa introduced me to were contemporary jazz, twentieth-century classical composers, and healthy skepticism.

About five years ago, however, Zappa's devastating satire seemed to collapse into a weary and wearying cynicism. On "Overnight Sensation" and "A-pos-tro-phe" his strange inventiveness, a product equally of his eagerness to experiment and his disdain for popularity, was abandoned for a bitter mixture of "fusion" music and Caesar's Palace put-downs. The new live set, "Tinsel Town Rebellion," is a sixty-two-minute harangue. It seems there's nothing Zappa doesn't dislike, and his targets here are as banal as the worn-out stage act he's been dragging around for years: Mexican tarts, Brut cologne, *Cosmo*, the record biz, fast food. He makes these cheap shots with such condescension he must think he's the only one left who isn't sick, stupid, or crooked.

Zappa's music, too, seems to have reached a dead end. There are a few ingenious instrumental passages or choice solos, but for the most part he fills out the concert with mock-Las Vegas formula stuff. The abundant synthesizer sounds are the kind of thing he would once have parodied, not duplicated. As with other recent live packages, the old material stands out: the highlights here are Peaches III, a reworking of Peaches en Regalia, and Brown Shoes Don't Make II, a song whose mordant wit makes the tawdriness of Zappa's new tinsel all the more apparent.

As dispiriting as Zappa's creative decline is his evident growing contempt for women and for his audiences in general. His fans deserve better than a hypocritical dedication of the album to "all our friends who have attended our concerts year after year, all over the world, without whose support these performances would not have been possible." Zappa's real feelings for those 'friends" are shown by Dance Contest, in which several members of the audience are egged on to participate in a grotesque, humiliating game. Zappa's antics aren't funny any more, let alone liberating-just irritating and nasty. MP

(Continued overleaf)



When you're listening to your favorite albums, nothing can spoil your enjoyment as much as hiss, clicks, pops and static. It's dissesturbing. It's dissestracting. And it's unnecessary.

Because with proper handling and regular Sound Guard care, your records can maintain their

like-new clarity and fidelity. Even old records sound

The best way to prove how much you love music. better after one treatment with Sound Guard.

Sound Guard makes products respected around the world, to clean, preserve, protect and enhance the quality of records.

So, depend on Sound Guard to keep the hiss away

from Stravinsky, Streisand, Kiss and any other record that gives you sheer satisfaction.



Facilities: Pampana Beach, Florida; Cincinnati, Ohio; Tokyo, Japan; Brussels, Belgium

CIRCLE NO. 49 ON READER SERVICE CARD

THE MURA RED SET III. TRUE SPECS.

At Mura, we believe the unadorned truth is our strongest ally. That's because we produce superior and innovative products of uncomptomising quality. Products that don't require puffery and hall-truths to sell them.

hall-truths to sell them. Take our top of the line m ni headphones, the Red Set III!" The graph below represents the Red Set III's frequency response. Note the

		-	F	H H			1	T	1	+ *	T T	T			-	1 1 1	
		Ŧ	\mathbf{H}			=		##	+					++++	-+-		
		+	H						+								
		=	1 +					++				4	NH	+1	۲.		
1	-	-	ŧ÷.			4	-	##	\mp		1				Y	#	
			E	ΠĿ				++	+		FF		11		-	# 1	
	1.0			er:					$\pm \pm$							Vr I	
	-	1		ΗH	-				\pm								
	1		Ħ		_			\pm						╘╪╪╞		+++	
				533		Ŧ										+	
					- 1						+			TH		\mathbf{H}	-
) Hz	_			0		_	500		200	2000		الحد فك ا				

use of IdB increments so that maximum performance detail is revealed (rather than using larger increments as others do to make their curve look flatter). Also note that our measurements are taker at realistic sound pressure levels and that there is no peak or valley of more than 2dB from 1000 Hz reference level over the range of 150 Hz to 19,000 Hz.

Of course one graph is not a complete presentation of the spece or the Red Set III. For instance, THD is less than 0.3% at ICO dB output from 100 to 20,000 Hz.

But the most impressive spec of all is that sound of this quality can be produced by a headset that weighs only 16 oz.

Try it for yourself. We think you'll be truly amazed.

IRUES





AMERICAN POP. Original-soundtrack recording. Pat Benatar: Hell Is for Children. Big Brother and the Holding Company: Summertime. The Mamas and the Papas: California Dreamin'. Peter, Paul, and Mary: This Train. The Dave Brubeck Quartet: Take Five. The Doors: People Are Strange. And four others. MCA MCA-5201 \$8.98, © MCAC-5201 \$8.98.

Performance: As they were Recording: Good

Ralph Bakshi's film American Pop has as its subject the last couple of decades of American popular music and performers. This album drawn from the soundtrack includes recordings by a wide variety of performers, from Dave Brubeck to Jimi Hendrix to the more commercial Mamas and Papas to the real-life pop cartoon known as Fabian. It is an interesting anthology, but there's nothing here that particularly makes me want to see the movie. *P.R.*

THE GREAT MUPPET CAPER (Joe Raposo). Original-soundtrack recording. Jim Henson, Frank Oz, Dave Goela, Jerry Nelson, Richard Hunt, Steve Whitmire, Louise Gold, Kathryn Mullet, Charles Grodin, Diana Rigg (vocals); instrumental accompaniment. ATLANTIC SD 16047 \$8.98, © CS 16047 \$8.98, ® TP 16047 \$8.98.

Performance: Very good Recording: Excellent

The Great Mupper Caper takes the Muppets noisily to London, where Kermit the Frog and Fozzie the Bear attempt to mend their reputation as a competent reporterphotographer team after they are fired from a New York newspaper. A far more stimulating entertainment than its predecessor, The Muppet Movie, the Caper threatens the soignée Miss Piggy's wholesome relationship with Kermit as the wicked Nick Holiday (Charles Grodin) tries to steal her favors along with the fabulous jewels of his cousin Lady Holiday (Diana Rigg). Miss Piggy's right to stardom has never been less in doubt as she and her friends delightfully spoof movie history. Joe Raposo's songs, however, with their Silly Symphony melodies and lyrics tied closely to the action, are less than delightful heard on their own.

Still, the album has its moments: the music for Miss Piggy's underwater fantasy is a marvelous parody of the kind Esther Williams used to swim to, and the song accompanying the action in the unspeakably seedy Happiness Hotel is splendidly grubby. On the whole, though, this is more a souvenir of the film than an independent piece of musical entertainment. *P.K.*

(Continued on page 102)

Why are you playing low fidelity records on your high fidelity system?

Send for our half-speed-re-mastered, Audiophile Master Edition of Aaron Copland's <u>"Billy the Kid"</u> and hear the music you've been missing.



Here is the definitive interpretation of this classic American composition, conducted by the composer. An atmospheric celebration of the mythic fury of the wild west. And Sweet Thunder brings out the excitement and vitality of this landmark performance more than ever before. Painstakingly re-mastered from the original London Symphony master tapes and pressed on imported virgin vinyl with impecable care. The result: The orchestra comes alive with fiery clarity and subtle balance, hidden harmonies emerge with brilliant definition.

Your records should be as good as your system.

At Sweet Thunder, we believe that the record should never get between you and the music. Great performances are often lost between the recording studio and your livingroom.

That is why Sweet Thunder has created audiophile master editions.

Our first four Audiophile Master Editions.

□ **RICK WAKEMAN.** "Journey to the Centre of the Earth" (Edition 1) Recorded live at Royal Festival Hall,

10

W

D

S

A

U

E

P

E

1

L

H

London. Rick Wakeman's extraordinary synthesizers and the London Symphony Orchestra with the English Chamber Choir create a unique concert experience: Complex, rich, and lyrical.

☐ TAXI DRIVER. (Édition 2) Bernard Herrmann's last film score, nominated for an Academy Award. Herrmann's fire (and his lyricism), his genius at evoking fresh textures from the orchestra (and raw emotions from the audience) are clearly revealed.

□ FRANKIE VALLI and THE 4 SEASONS. "Reunited Live" (Edition 3) This extraordinary recording of a live performance surges with on-stage immediacy. Volume I includes: "Who Loves You," "Slip Away," "December 1963 (Oh What a Night)," "Rag Doll," "Dawn," and others.

□ "BILLY THE KID" BALLET SUITE (Edition 4) Aaron Copeland conducts the London Symphony Orchestra. Backed with Copeland's "Statements for Orchestra."

The costly advantage of half-speed mastering.

Every Sweet Thunder Edition is processed with state-of-the-art equipment and techniques. We select high-quality master tapes, then re-master them at half-speed on the finest audio equipment available today. Half-speed mastering allows us to put more information in the grooves. And computer controls provide a more precise transfer of signal from the tape to the lacquer.

We use only imported virgin Teldec vinyl—one of the purest and most expensive vinyls made.

We employ a series of magnetic filters to remove any stray foreign materials—the microscopic dirt particles that produce clicks and pops in the finished product.

We keep the boilers that produce the steam that heats our vinyl impeccably clean; steam that is not clean can produce hot spots and cold spots on the die — resulting in brush-fire noise and warp.

We inspect our dies frequently and keep them highly polished, lest they produce the familiar orange-peel effect that causes rumble and freight-training on playback.

We take at least twice the normal cycle time to cool our pressings, preserving the integrity of the grooves.

The result: Sweet Thunder.

You hear more. More dynamic range, more spatial imaging, more highs, more midrange, more bass. And all more cleanly.

We think you'll hear-and valuethe difference.

The bottom line.

Each Sweet Thunder Audiophile Master Edition will cost \$16* These limited editions are not available in record or audio specialty stores, but must be ordered directly from us. Use the coupon below.

ľ	Sweet Thunder, P.O. Box 11438, Beverly Hills, Gentlemen, Please send me the following Au- Edition 1 Rick Wakeman, "Journey to the Ce	diophile Master	r Edition	s at \$1	6* eac	ch:	
-1	(Not available in Canada.) Edition 2 "Taxi Driver" sound track, Bernard					_	i i
-i	Edition 3 Frankie Valli and the Four Seasons.	"Reunited Live	e", Volum	e I			- 1
1	Edition 4 "Billy the Kid," Aaron Copeland con Symphony Orchestra	naucting the LA					-
1	*Plus postage and ha (California resident	ndling, \$1.75 pe	er order % sales ta	x.)	_		
÷	My MasterCard		Total	cost_			- E.
- 1	ViceCard 🗌 number is		, Expir	ation	uate _		E
 	VisaCard I number is	shier's check 🗆	in the an	nount	of \$		I I
Corporation	ViceCard 🗌 number is	shier's check 🗆	in the an	nount	of \$		
Nunder Corporation	VisaCard number is Or I am enclosing check number ical money order cal orders are processed within 10 days of receip	shier's check 🗆	in the an	nount	of \$		
weel Thunder Corporation	VisaCard number is Or I am enclosing check number is orders are processed within 10 days of receip Name	shier's check 🗆	in the an	nount	of \$		
1, The Sweel Thunder Corporation	VisaCard number is Or I am enclosing check number is number check n	shier's check □ ot, checks requi	in the an	weeks	of \$		-
D1981, The Sweet Thunder Corporation	VisaCard number isOr I am enclosing check money order ca Orders are processed within 10 days of receip Name Address City	shier's check □ ot, checks requi	in the an ire 4 to 6	weeks	of \$		
Corporation	VisaCard number isOr I am enclosing check money order ca Orders are processed within 10 days of receip Name Address City	shier's check □ ot, checks requi	in the an ire 4 to 6	weeks	of \$		- - - - - -



Bobby

Meredith

Come to the Cabaret

AMBLE into a cocktail lounge that features a singer these days and chances are you'll find yourself assaulted by an ego-ridden program delivered with uncalled-for exuberance by a part-time model with wildly inappropriate ambitions. It wasn't always thus. There was a time when, say, Bobby Short had real competition in places only the locals knew existed, when singers didn't shout "Look at me. I'm going places!" but invitingly suggested, "Hey, check this song out." It was a time, moreover, when song lyrics were clever constructions meant to be conveyed with as much skill in accent and timing as a Shakespeare soliloquy.

Bobby Troup was one of the more prominent song interpreters in that time. He also wrote his own songs, and he had the additional distinction of being married to another fine singer, Julie London. "In a Class Beyond Compare" is an Audiophile Records reissue of a set of twenty-four songs Troup recorded for World Transcriptions in 1958. It captures perfectly his intimate, whimsical performing style, and it's a showcase for his songwriting as well; thirteen of the selections are his own-including Route 66, which became a hit in the hands of the Nat King Cole Trio.

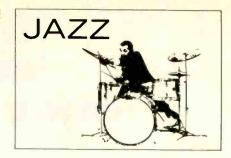
If the Alec Wilder school of songwriting appeals to you, so will Bobby Troup's flawlessly delivered material, and if you fear that the art of stylish supper-club singing will vanish after the retirement of Bobby Short (an event I trust we are not likely to see for some time), let me allay your anxiety by introducing you to a young artist named Meredith d'Ambrosio, who bills herself simply as Meredith. While not as original a stylist as Troup or Short, she does an admirable job of helping to keep the cabaret genre alive. And besides singing the standards, Meredith offers a sympathetic interpretative voice to such current composers of supper-club material as Dave Frishberg and Stephen Sondheim.

Meredith's new Shiah release, "Another Time," is her second album. Like her first,

"Lost in His Arms" (Spring SPR), it appears on a small, private label of the kind whose releases usually end up, for lack of adequate promotion and distribution, stacked in somebody's closet or basement. That would be a real shame in this case, for "Another Time" offers connoisseurs fine versions of eighteen songs by (collaborators included) twenty-three writers. There's only one duplication among the forty-two selections in these two albums-Hoagy Carmichael's Skylark-so I can enthusiastically recommend them both to anyone interested in the arts of songwriting and song delivery. -Chris Albertson

BOBBY TROUP: In a Class Beyond Compare. Bobby Troup (piano, vocals); Al Viola (guitar); Bobby Enevoldsen (bass). It Happened Once Before; Route 66; Lulu's Back in Town; Daddy; Do Re Mi; Lemon Twist; Skylark; Lullaby of Birdland; You're in Love: They Didn't Believe Me: Hungry Man; Tangerine; I'm with You; Tell Me You're Home; The Gypsy in My Soul; You're Looking at Me: Baby, Baby All the Time; Heidi; Their Hearts Were Full of Spring; Cuckoo the Clock; Dream of You; They Can't Take That Away from Me; The Three Bears; Indiana. AUDIOPHILE @ AP-98 \$7.98.

MEREDITH: Another Time. Meredith d'Ambrosio (vocals, piano). All of Us in It Together; It's So Peaceful in the Country; Aren't You Glad You're You; Rain, Rain (Don't Go 'Way); Dear Bix; Lazy Afternoon; Where's the Child I Used to Hold; Love Is a Simple Thing; You Are There; While We're Young; Small Day Tomorrow; A Child Is Born; Such a Lonely Girl Am I; The Piano Player (A Thousand and One Saloons); I Was Doin' All Right; Some Day My Prince Will Come; Skylark; Wheelers and Dealers. SHIAH SR-109 \$9.95 (plus \$1 postage and handling charge from Springfever Music and Publishing Co., Inc., P.O. Box 8, West Newton, Mass. 02165).



CARLA BLEY: Social Studies. Carla Bley (piano, organ); Michael Mantler (trumpet); Gary Valente (trombone); Carlos Ward, Tony Dagradi (reeds); Steve Swallow (bass); other musicians. Utviklingssang; Reactionary Tango (in three parts); Copyright Royalties; and three others. WATT/ ECM W 11 \$8.98, @ M5E-11 \$8.98.

Performance: The Weill school Recording: Good

I generally like the slightly off-beat sounds that seem to please Carla Bley, but this latest album is a bit too heavy, and I am not referring to intellectual depth. As a matter of fact, portions of The Reactionary Tango are uncomfortably reminiscent of the sort of Mexican-flavored pop that established Herb Alpert almost twenty years ago, and other passages sound like what Gian Carlo Menotti might write for dancing robots.

Still, there are some fine trombone passages by Gary Valente, who evokes Bill Harris, and Carlos Ward contributes commendable work on alto. Tony Dagradi's Jimmy Dorseyesque clarinet on Copyright Royalties will not contribute to that forsaken instrument's comeback, but he swings the balance in his favor with his tenor work on Utviklingssang, which translates as Development Song and does not quite live up to its title. Bley is clearly fond of the kind of jazz parodies Kurt Weill composed in the Twenties: studied abstractions of the early jazz forms. The sound has its appeal, but at this point it is not very creative. I think Carla Bley is capable of more originality. C.A.

KENNY BURRELL: Heritage. Kenny Burrell (guitar); Shelly Manne (drums); Andy Simpkins (bass); Patrice Rushen, Pete Jolly (piano); Marshall Royal (clarinet, saxophone); Oscar Brashear (trumpet, flugelhorn); Snooky Young (trumpet); Jerome Richardson, Don Menza (saxophone); Matt Catingub (saxophone, flute); Moacir Santos (percussion). Night in Tunisia; Mood Indigo; St. Louis Blues; 'Round Midnight; When the Saints Go Marching In; Naima; and three others. AUDIOSOURCE O ASD-1 \$15.98 (from AudioSource Recordings, 1185 Chess Drive, Foster City, Calif. 94404)

Performance: Very good Recording: Very good

That classy guitarist Kenny Burrell here leads a highly skilled group through a program of jazz classics from the Twenties to the Sixties. Burrell sounds at home on all the tunes, but the youngish back-up group sounds more comfortable with the selections closest to their own era: Thelonious Monk's 'Round Midnight, John Coltrane's (Continued on page 104)

Sound so noise-free, it could only be dbx.

ETAI

into our three new models. Along with the

dbx

kind of quality that makes a TEAC a TEAC.

For instance, we use three motors to drive the V-5RX.

One each for the reels, the capstan and our unique Electroload system. All run by silky smooth, silent transport controls.

The V-3RX gives you that, plus our exclusive new Cobalt Amorphous head.

It's frequency response – 20 Hz to 20 kHz – covers the full range of human hearing.

In the C-3RX, you get three separate heads: erase, record and play. Plus double dbx circuitry for true off-the-tape monitoring.

Three new cassette decks from TEAC. Each with a distinctive complement of features. All with built-in dbx. For completely noise-free sound and the broadest musical range possible.

When you audition any of our three new cassette decks with built-in dbx,* you'll experience something you've never heard before. Noise-free sound. Music so well-defined you won't believe it's on a cassette.

Without dbx, this kind of performance would be impossible. But the dbx system which helped revolutionize professional

recording, is now helping us move cassette performance into a new era.

That's because the dbx system is more than just noise elimination. You can set average record levels much lower, so when the music suddenly peaks you get it allcrisp, clean and undistorted.

We were the first manufacturer to incorporate dbx in tape recorders. And everything we've learned about it since is built



CIRCLE NO. 53 ON READER SERVICE CARD

Naima, and Dizzy Gillespie's Night in Tunisia. Burrell excels in his unaccompanied essay of Thad Jones' A Child Is Born.

Neither St. Louis Blues nor When the Saints Go Marching In is taken seriously, although the tunes are so overly familiar that a humorous approach may be refreshing. Struttin' with Some Barbeque, however, is played straight, with trumpeter Snooky Young recalling the lean muscularity of the 1927 Louis Armstrong original. Mood Indigo is done like a reverent facsimile of Ellington's original recording, but Billy Strayhorn's Lush Life is given a much more flexible treatment featuring the smooth and agile sax of Jerome Richardson. In all, the selections are very tasty, and the digital sound is crisp and wide-range. J.V.

MILES DAVIS: The Man with the Horn. Miles Davis (trumpet); vocal and instrumental accompaniment. Fat Time; Ursula; Back Seat Betty; and three others. COLUM-BIA FC 36790, © FCT 36790, no list price.

Performance: A letdown Recording: Very good

After a five-year absence, Miles Davis has returned to the jazz scene by way of two concerts in the 1981 Kool (née Newport) Jazz Festival and this new Columbia album. Is it really new? Well, we are not given the recording dates, but the personnel are certainly new, and the material has not been heard before. Or has it? There is a disappointing familiarity here, and, at the risk of evoking the wrath of legions of dyed-inthe-wool Miles Davis fans, I have to admit that I wish he had stayed away until he had his act together. This sort of fusion music was interesting a decade ago when it was still fresh, and no one could deliver a more palatable serving of it than Miles. But we have had a glut of it since then, and Miles, of all people, should want to move on.

How ironic it is to see Miles Davis caught on the electronic treadmill he himself mounted so many years ago, especially when he is still capable of making music of substance, as is evidenced by some of his work on this album—particularly the final track, Ursula. But for the most part he drowns his excellence in a miasma of sounds so bland that even some of his imitators might feel ill at ease with them. It's painful to hear this great trumpeter play back-up for a pedestrian vocal on the album's title tune—like watching Matisse trace a drawing of Mickey Mouse. C.A.

RECORDING OF SPECIAL MERIT

BILL EVANS: Re: Person I Knew. Bill Evans (piano); Eddie Gomez (bass); Marty Morell (drums). Sugar Plum; Are You All the Things; Alfie; and four others. FANTAsy F-9608 \$7.98.

Performance: Excellent Recording: Fine remote

This is an album of previously unreleased material from a 1974 Bill Evans Trio date at New York's Village Vanguard. If you have the original release from this live session ("Since We Met," Fantasy F-9501), you might want to fill in the gaps with this set, but the performances here can also stand alone very well. There is a lovely bit of impromptu solo doodling at the start of *Very Early*, and the album ends with an upbeat track, *Are You All the Things*, that also displays the virtuosity of bassist Eddie Gomez and drummer Marty Morell. The tune is indeed *All the Things You Are*, and this album displays all the things that made the late Bill Evans the important musical figure he was. *C.A.*

FIVE BIRDS AND A MONK. Johnny Griffin, Art Pepper, John Klemmer, Harold Land, Joe Farrell, Joe Henderson (saxophone); Stanley Cowell (piano); Cecil McBee, John Heard (bass); Roy Haynes (drums). Bloomdido; Billie's Bounce; 'Round Midnight; and three others. GAL-AXY GXY-5134 \$7.98.

Performance: High level Recording: Very good

"Five Birds and a Monk" is not the musical story of St. Francis of Assisi, but rather the by-product of recording sessions during the first week of December 1978 when pianist Stanley Cowell grooved with six notable saxophonists on five tunes by Charlie Parker and one by Thelonious Monk. The result is uniformly interesting, and you can take it from me, there's a lot of jazz in them thar grooves. John Klemmer roughs up the (Continued on page 106)

Keith Jarrett

53

Keith Jarrett's new two-record set of organ and saxophone (*Invocations*) and piano (*The Moth And The Flame*) improvisations is his (and ECM's) first album to be digitally recorded. This recording follows in the tradition of Jarrett's solo performances like Köln Concert (which, a few years back, set a new standard for solo piano performance), *Solo Concerts, Hymns/Spheres, Facing You, Staircase* and the 10-LP set Sun Bear Concerts.

Keith Jarrett. Invocations/The Moth And The Flame. ECM D1201

Solo digital recordings.

On ECM Records & Tapes Manufactured and distributed by Warner Bros. Records Inc.

WHY ONLY SONY TAPE HEARS FULL COLOR SOUND.

1600 all II

There are some good and sound reasons Sony audio tape is second to none. Why Sony tape has such a sensitive, full frequency response all along the sound spectrum that it is actually capable of recording sounds that go beyond the range of human hearing. That incredible range, sensitivity and balance is what Full Color Sound is all about.

A history of milestones

When you get a Sony tape you get a lot more than tape. You get the entire history of tape recording.

anning III Marine

Sony has been a pioneer in tape manufacturing since it began over 30 years ago. In fact, we made the first audio tape ever in Japan. Sony technology was in the forefront then... and it still is! (Who else could bring you the amazing Walkman?)

Besides a history of spirited determination to be the very first in technology, there's the knowledge that comes from also being pioneers in high fidelity audio *equipment*. (After all, you'd better know all there is to know about tape decks before you make a tape. Sony does.)

Another reason for Sony's unmatched excellence is our unmatched — almost fanatic — insistence on the highest quality material and manufacturing methods. Sometimes our standards are so high we can't find machinery that meets them, so we have to invent the machinery ourselves!

Then there's Sony's unique balance system. The fine-tuning of all the elements that go into making a tape, so that each complements the other, and together deliver the finest recording that is humanly and technically possible.

The new tape standard: State-of -the-Sony

Fact: Everyone uses magnetic particles for tape. But not everyone insists on buying super-fine grade particles, and then carefully examining and mixing each and every lot to be absolutely positive that the quality is consistently pure and homogenous. Sony does.

Fact: Sony has a unique formula for binding the particles to the tape. Binding determines the life

> of the tape and the heads. Because of the high standards we demand,

Sony had to invent its own binder. Fact: Another example of Sony high technology is in the coating process. The coating of magnetic particles must be *absolutely*, *uniformly even* all along the tape. Any variation at all, and the consistency and quality of the tape are compromised. Not only did Sony perfect the process for its regular tapes, but Sony outdid itself with its dual-coated tapes, where it was necessary to produce a top coating that was *super*-thin. We actually managed to create a perfect coating that's only 1 micronmeter thick! (Especially impressive when you realize some other tape makers have trouble producing an even coating 4-5 micronmeters thick, much less 1 micronmeter thick!)

Hearing is believing

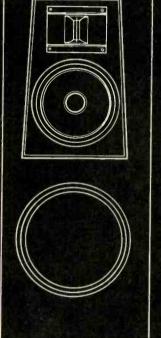
Sony tape comes by its extraordinary quality honestly. It has a heritage of breakthrough innovation. And a history of being famous throughout the world for leading technology, quality and dependability.

And that is why only Sony tape has Full Color Sound. But you don't have to take our word for it. Listen to Sony tape as fanatically as you wish. As they say, hearing is believing. **SONY**

© 1981 Sony Corp of America Sony and Walkman are trademarks of Sony Corp

Now from Speakerlab comes the new \$11, \$15 and \$17. Housed in slender, elegant enclosures, these speakers are designed to reduce edge defraction for better "imaging" Componentry includes: amazing Samarium Cobalt leaf tweeters for limitless high-end; efficient, ultra-low distortion polypropylene/Polylam** woofers; and passive radiators to extend the low end both powerfully and accurately. The combined effects are awesome -bringing you music that's so fresh on your ears it's really like being there.

Send for a free catalog and read about these and a dozen more new designs from Speakerlab.







The Swinging Madisons

HE Swinging Madisons affect a look that's pure Holiday Inn lounge act, but their sound is raucous rock-and-roll. The tension between these two impulses, plus the wickedly satirical bent of their songwriting, makes them one of the funniest (and most thought-provoking) rock bands ever to tread a stage. Their new EP catches this dichotomy with near total success. The Madisons drown Donovan's Sixties kitsch relic Hurdy Gurdy Man in a sea of rockabilly hiccups and echo, simultaneously skewering the song's insufferable pretentiousness and transforming it into a sublimely silly piece of rock-and-roll; their reading of Volare is similarly inspired. The group's originals are as sharp as tacks too, with ironic yuks galore in Guilty White Liberal and Put Your Bra Back On, and a really mind-bending parody of psychedelia in

My Mediocre Dreams (a song title that may one day sum up the accomplishments of an entire generation). Lead singer Kristian Hoffman puts his lyrics across with a kind of demented nonchalance and a real crooner's vocal technique, and the band has a rousing good time behind him. In short, this is an auspicious debut by a group that suggests what Spike Jones might be doing now if he had grown up in the Seventies and majored in sociology. More, please.

-Steve Simels

THE SWINGING MADISONS. The, Swinging Madisons (vocals and instrumentals). Hurdy Gurdy Man; Guilty White Liberal; Put Your Bra Back On; Volare; My Mediocre Dream. SELECT SEL 21610 EP \$5.99.

Monk a bit, but the Birds all soar majestically, and they form an overwhelming majority in this swinging menagerie. C.A.

RECORDING OF SPECIAL MERIT

SCOTT HAMILTON AND BUDDY TATE: Scott's Buddy. Scott Hamilton, Buddy Tate (tenor saxophones); Cal Collins (guitar); Jake Hanna (drums); Bob Maize (bass); Nat Pierce (piano). Swingin' Away; Close Your Eyes; I Want a Little Girl; and five others. CONCORD JAZZ CJ-148 \$8.98, © CJ-148 \$8.98.

Performance: Very good Recording: Very good

Tenor saxophonists Buddy Tate and Scott Hamilton have been friends and colleagues for some years, and their cameraderie shows to good advantage in this solid album of two-fisted swing. Tate's virile tone and robust imagination propel him through both the uptempo and ballad items. Pianist Nat Pierce, who started with Woody Herman and is now a close associate of Count Basie, can nail notes to the floor or make them fly like the tails on a kite—in other words, he's a wow. Hamilton has an annoyingly fuzzy—almost flatulent—tone on ballads, but when it's time to turn on the heat he makes the mercury climb, and his ideas are always good. The three solo voices are given excellent support by the svelte and sturdy rhythm section. It's the kind of happy jazz that isn't heard often enough. More! J.V.

JOE JACKSON: Joe Jackson's Jumpin' Jive. Joe Jackson (vocals, vibes); vocal and instrumental accompaniment. Jumpin' with Symphony Sid: Jack, You're Dead: Is You Is or Is You Ain't My Baby; and nine others. A&M SP 4871 \$8.98, © CS 4871 \$8.98, @ 8T 4871 \$8.98.

Performance: He means it Recording: Fine

Joe Jackson's new record of Forties roadhouse swing jazz is not the career aberra-(Continued on page 108)

Panasonic has car stereos that eliminate unnecessary noise. The Supreme Series.

I'd like to say a few words about unnecessary noise. Unnecessary noise from car stereos. Like static, fuzz and interference. Not to mention stations that fade, drift and overlap. They're a I the result of one overriding factor. Cars move.

That's where the Panasonic Supreme Series FM Optimizer (FMO) and other noisequieting circuitry come in. FMO monitors all incoming radio signals and automatically adjusts to match changing conditions.

If you're driving away from a radio station, its signal strength decreases. The adaptive front end compensates automatically by increasing your rad o's sensitivity. That reduces fading, drifting, and overlapping stations.

The automatic treble control constantly monitors the signal-tonoise ratio and turns on a filter when the noise gets too high.

There's Impulse Noise Quieting (INQ) circuitry that tunes out the

CIRCLE NO. 56 ON READER SERVICE CARD

interference created by your car, passing cars and the surroundings.

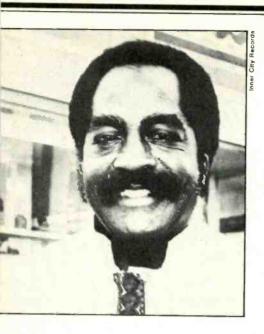
Supreme Series AM/FM stereo cassette players. Some come with Dolby; auto-reverse, electronic tuning and LED clocks And to make the Supreme Series

really sing, Panasonic has 18 speakers. From a 1" thin model to speakers that handle 100 watts of power.

Take it from Reggie Jackson, when it comes to eliminating unnecessary noise, the Supreme Series has a lot to make noise about.



Panasonic. just slightly ahead of our time.



Jimmy Witherspoon

JIMMY WITHERSPOON was born in Arkansas, but he chose a distant and most unusual place to make his debut as a blues singer: Calcutta. It was an impromptu performance with the Teddy Weatherford band in the early Forties, when the twentyyear-old Witherspoon was in the Merchant Marine. Soon thereafter, in 1944, Witherspoon joined the Jay McShann band, launching a professional career that has taken him up and down the roller coaster of popularity and left in its wake a good number of fine recordings.

One of Witherspoon's up periods began in the very late Fifties and gained momentum in the spring of 1961 when he made his first European trip. "Olympia Concert" is a superb memento of that trip, a live recording with accompaniment by an awesome all-star band. The solos include some of Buck Clayton's finest post-Basie work, and Witherspoon is in top form, honing to perfection an art for which far too much credit is given Joe Turner. Sure, Turner was there first, and his talent is not to be denied, but his slurred utterings pale beside the smooth, eloquent delivery of Witherspoon. This album is a rich serving, and that helps make up for its being also a skimpy one: barely thirty-two minutes.

-Chris Albertson

JIMMY WITHERSPOON: Olympia Concert. Jimmy Witherspoon (vocals); Buck Clayton, Emmett Berry (trumpets); Dicky Wells (trombone); Earl Warren (alto saxophone); Buddy Tate (tenor saxophone); Sir Charles Thompson (piano); Gene Ramey (bass); Oliver Jackson (drums). I'll Always Be in Love with You; Gee Baby Ain't I Good to You; See See Rider; I Make a Lot of Money; Blowin' the Blues; 'Tain't Nobody's Business; Everything You Do Is Wrong; Roll 'Em Pete. INNER CITY IC 7014 \$7.98, © TIC 7014 \$8.98.

tion it may seem; if memory serves, Jackson slogged it out as a cocktail pianist at an English Playboy Club before he achieved notoriety as the Elvis Costello of the Tall Man set. And for all the campiness of the

presentation (the cover has Jackson doing a pretty ludicrous Cab Calloway imitation), he clearly loves this stuff for its earthy, jovial vulgarity (the punk rock of its day, as it were). It's obvious Jackson really hasn't got the right kind of voice for the material (he sounds painfully white), but that doesn't bother me particularly since it's also obvious that he sincerely identifies with it, and his band, featuring the great Graham Maby on bass and some crack horn players, really cooks. A dilettante's record, but highly entertaining. Especially charming: the nonsense patter of *Five Guys Named Moe. S.S.*

RECORDING OF SPECIAL MERIT

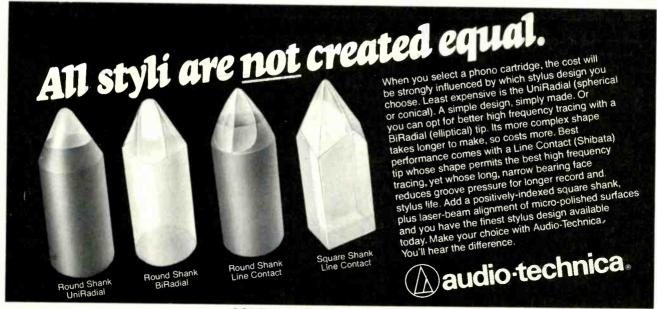
WARNE MARSH/LEE KONITZ QUIN-TET: Live at the Montmartre Club. Lee Konitz (alto saxophone); Warne Marsh (tenor saxophone); Dave Cliff (guitar); Peter Ind (bass); Alan Levitt (drums). Kary's Trance; Foolin' Myself; Two-part Invention No. 1. Allegro; Darn That Dream; and four others. STORYVILLE SLP 4026 \$7.98 (from the Moss Music Group, Inc., 48 West 38th Street, New York, N.Y. 10018).

Performance: Exciting Recording: Very good

If you like your reeds free-flowing and cool. served on a sturdy bed of bouncy rhythm. you should have been at Copenhagen's Café Montmartre when the Warne Marsh/Lee Konitz Quintet played there the night of December 27, 1975. If you missed that opportunity but your jazz taste runs to Lennie Tristano, you should welcome this new American release of an album that captures some of the evening's most delicious offerings. And if this group, which had played together only a few days, sounds cohesive in a very Tristano-ish way, that should not be the least bit surprising, for all but one of its members, guitarist Dave Cliff, had at some point in his career served a fruitful apprenticeship with Lennie Tristano.

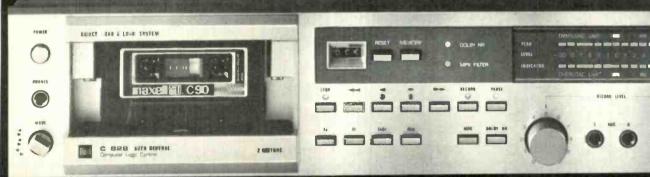
The two most closely kindred spirits here are the co-leaders, who interacted musically as early as 1949, but everybody performs splendidly and with clear interest in the task at hand. Technically, the sound is crisp and clear, and Alun Morgan's informative notes compound the delight of this long-delayed release. C.A.

(Continued on page 110)



CIRCLE NO. 3 ON READER SERVICE CARD

No other cassette deck looks, loads, records, or plays like the new Dual 828.



There's more hands-on involvement with a cassette deck than with any other component. Much more. That's why you should take a long, hard, critical look at any deck you're considering. Put it through its paces, get the feel of its controls, the smoothness of its transport. And, of course, listen to tapes recorded on it.

Now, we'd like to tell you a little about what you'll experience with the Dual 828. And no other deck.

Direct Load and Lock system

Switch the 828 on and a protective snield swive s away from the tapeheads. To load the cassette, simply place it in the open compartment there's no door in the way.



The cassette locks automatically in perfect alignment with the tabe heads. You can always remove the cassette instantly—zven if the tape is in motion. Photo-electric switches stop the tape the instant your fingers interrupt the beam.

We call this system Direct Load and Lock. And it's a Dual exclusive. Four-point tape guidance system Good tape-to-read avoids deepouts and achieves extended high-



frequency response In the 823, four precisely aligned tape guices make sure this contact is perfect.

One-button record ready

To set up for recording, simply mess the record button. That action automat-



N ODE

Mt

NY

ically activates pause. Then to begin recording, press play. (Makes sense, coesn't it?)

You'll quickly come to appreciate the computer logic that les you change mode and tape direction as fast as you like. And if a faulty cassette should ever jam, an electronic sensor stops the tape in a fraction of a second. The tape just can't tangle, stretch or snap.

Automatic reverse

The 828 provides automatic reverse when recording and plaving. Thus, a C-90 cassette can actually give you 90

uninterrupted minutes in both modes. Plus continuous repeat in playback.

Equalized meters

Not so immediately evident are the advantages of Dual's equalized metering system. You may be surprised to learn that although all decks add a high-frequency boost to the incoming signal, only Dual's equalized meters indicate this boost. The others put more high-frequency signal into the record head than their meters show. And that can lead to overload and distortion.

	OVERLOADE LIMIT		
PERF			
LEVIL			
INDICATOR			
	OVERLOAD LINAT	and the second second	

But with Dual, you can safely record at a leve, that produces optimum dynamic range. The result: superb recordings every time.

An exclusive experience

You can't have anything like the same experience with any other deck. Because nearly everything we've described is a Dual exclusive.

That's why we dcubt that any other deck can satisfy you like the new Dual 828. Especially at its price: less than \$500.

For complete information, write to United Audio, 120 So. Columbus Ave., Dept. S,

e., Dept. S,	
. Vernon, 10553.	Dual

United Audio is exclusive U.S. distribution agency for Dual.

With Crown MULTI-MODE You're ready for real.



"MULTI-MODE™" describes an improved Crown output circuit that is audibly superior. It instantaneously changes its mode of operation as the signal level changes, for totally clear, undistorted sound.

The MULTI-MODE circuit makes at-home listening more real. From Bach to Bee Gees, you'll hear more of the music with MULTI-MODE.

At low signal levels, the MULTI-MODE circuit operates in a Class A mode, free from switching or notch distortion. As signal current increases, the circuit smoothly configures itself as an A + B amp, again with clear, clean output. At high signal levels, MULTI-MODE operates in an AB + B mode, providing all of the undistorted power needed

Three new Crown POWERLINE amps bring you the sonic accuracy of MULTI-MODE and other circuit improvements. New ideas in frontpanel displays and rear-panel convenience will enhance your enjoyment.

MULTI-MODE theory and operation, and the POWERLINE amps are described in the Crown Information Package. It also contains data on all Crown products for the home, a factory "tour," reprints of reviews, technical discussions of audio problems, prices and dealer lists. Send us the coupon and \$5 for your complete copy. Get ready for real.



The Crown Information Package is also available free from your dealer. If you need a list of Crown dealers, use the Reader Service Card number, or call 219/294-5571. CIRCLE NO. 9 ON READER SERVICE CARD

CROWN INTERNATIONAL, Dept. MM 1718 W. Mishawaka Road, Elkhart, Indiana 46517 Here's my \$5 (outside U.S. and Canada, \$8). Send my Crown Information Package, with money-back guarantee.

State

City.

Phone

Name

Address

FOLK

DAVID HAMMOND AND DONAL LUN-NY: The Singer's House. David Hammond (vocals, guitar); Donal Lunny (blarge, harmonium); other musicians. My Aunt Jane/ Fair Rosa; Wild Slieve Gallen Brae; The Granemore Hare; The Cruel Mother; The Giant's Causeway Tram; Bonnie Woodgreen; and six others. GREENHAYS/STRU-THAN GR 702 \$7.98.

Performance: Good Recording: Good

This is (mostly) Irish music with an emphasis on the song, or the story it tells, and the vocals. It is (mercifully, for my taste) free of scratchy fiddles and bleating bagpipes, and it does very well without the usual jigs and reels. David Hammond, a film producer for the BBC, is a resident and native of Belfast. His singing is traditional but not museum-frozen. The instrumental backing is lean, and the songs-other than Matt Hyland, in which the rich girl falls for the servant and the parents give in!-are not overly familiar. The stories are another matter. The Banks of Claudy turns on the "recognition scene" of classical literature, like the English broadside John Riley: the boy returns from some quest and the girl doesn't recognize him until he finds out her love has remained true.

Current events in Belfast don't exactly go with the pastoral concerns of the ballads, but if you're safely away from the fray, the album may round out your picture of the music o' the isle. (A blarge, by the way, is an oversize mandolin made especially for Donal Lunny. It was so named by Seamus Heaney, who wrote the liner notes for this album. On first hearing it, Heaney exclaimed that it made "a blarge of a sound.") N.C.

KINGSTON TRIO: Aspen Gold. Kingston Trio (vocals and instrumentals). Worried Man; Greenback Dollar; Reuben James: Early Morning Rain; Scotch and Soda; and five others. 51 WEST Q 16116, no list price.

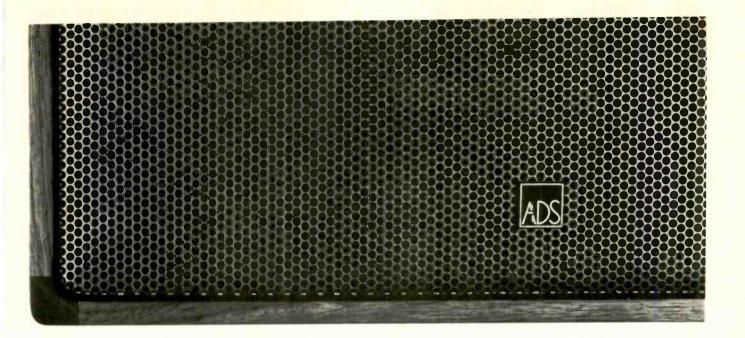
Performance: Tired Recording: Good

One of the first and most successful of the folknik groups, the Kingston Trio is back recording after a series of personal vicissitudes that reads like something out of Dostoyevsky. They still sound as bland, goodhumored, and banal as ever. Even when they were new and burgeoning, they always had a slightly manufactured aura and sound; in 1981 they sound tired to the point of calcification. P.R.

STEELEYE SPAN: Sails of Silver (see best of the Month, page 76)

STEREO REVIEW

Zip



ADS L710 ENGINEERING DETAIL

There are hundreds of design choices to make in engineering and producing a loudspeaker. In the best of loudspeakers, the choices are made with a maximum of information, a thorough knowledge of materials, and the understanding that when all these details are added together, the sum is performance.

Monitor loudspeakers require that each design decision is made for absolute maximum performance. Control over every aspect of driver design and manufacture put ADS at the cutting edge of the development of monitor speakers for the new digital recording technology.

The ADS L710 shares the advanced engineering, design, and manufacturing techniques of the ADS monitor loudspeakers. Both are capable of reproducing with remarkable clarity and focus the added detail that digital recording technology has made possible.

The L710 is a reference standard for high performance loudspeakers. It achieves in total the full bandwidth, wide dynamic range, and power handling that define a high technology loudspeaker.

For complete technical details on the L710 call toll free 1-800-824-7888 (in California 1-800-852-7777). Ask for operator 483, Dept. SR1. We'll send you complete information and a list of ADS Dealers near you. If you care about details, you owe it to yourself to visit your ADS Dealer and listen to the L710.

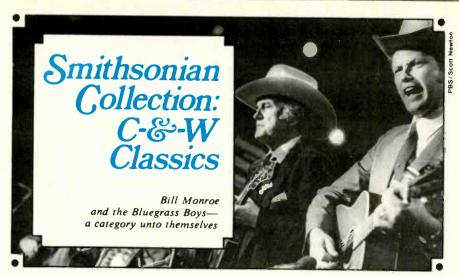
Hear how ADS speakers earned their reputation for quality and pacesetting performance.



Where Technology Serves Music One Progress Way, Wilmington, MA 01887







F you were born during or after World War II and in the country instead of a city or suburb, you may feel today—I know firsthand—a little like an immigrant. Starting about then, rural America moved to town with the gusto of a hound dog tailing a coon, and it's hard now to realize, looking around at all the concrete and neon and hustling trend merchants, that this country was mostly rural for most of its existence.

But music has powers. Before me is a giant-size, sixteen-side, 143-song record album that brings (down) home our rural roots and our corn-dodger heritage. "The Smithsonian Collection of Classic Country Music'' was Bill C. Malone's project. Malone, a teacher at Tulane University and author of several books, is probably the most respected country-music historian we have, and he and our most respected conservatory institution have put together an anthology that not only charts this nation's "progress" from the cornfields and red-clay hillsides to barstools in honky-tonks and urban-cowboy hangouts but, since it contains the music that was played at the time, gives you the very feel of it.

Starting with a 1922 recording of Eck Robertson's unaccompanied fiddling on Sally Gooden and ending with Willie Nelson's 1975 version of Blue Eyes Cryin' in the Rain, the collection reflects just about everything important that happened during that fifty-odd-year span in America except its black experience. Add to it a parallel project covering ragtime, blues, and jazz, and you'd have the best American history course ever put together. As it is, the country collection covers everything period of the soap-making and hog-killing period of the folk heritage to the wartime migration to the cities, the postwar boom, and beyond.

It works so well as a painless history lesson because country music has always talked about what real people were doing and thinking and feeling. For instance, America's seemingly built-in yen to be on the move resulted in an early fascination with trains, among other things, and this restlessness is evoked here in a classic Jimmie Rodgers recording, Waiting for a Train, as well as in Vernon Dalhart's Wreck of the Old 97, one of the first hillbilly hits.

All the selections are arranged chronologically except for the two bluegrass sides. Bluegrass, producer Malone writes, is "the sole recognizable style or subgenre of country music that has developed and preserved a life of its own." The engineers got an unusual amount of music on each side, nine cuts on most, possibly by remastering them at a relatively low level. The older recordings are in mono, of course, but the sound is surprisingly good throughout. You just have to crank up your volume knob a bit.

I would have liked to see Waylon Jennings and Emmylou Harris included, but outside of that it's difficult to quarrel with the selections. Oh, there are a few small things: Patsy Cline singing Faded Love instead of the Bob Wills band playing it, and then no Patsy singing Crazy or I Fall to Pieces. And they left out Okie from Muskogee. But it's hard to complain much. For those oddballs among us who were born in the country, the memories evoked by such things as the remarkable tenor voice of Cowboy Copas singing Filipino Baby more than make up for small oversights, and hearing Hank Williams sing Lovesick Blues again is what we former hicks call a puredee blessing.

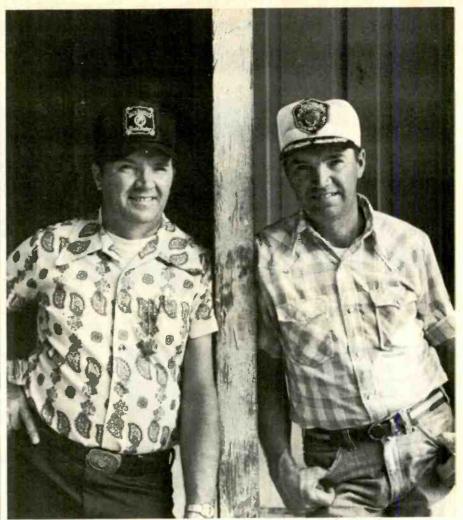
VERE here on earth to learn, I have concluded (possibly because it's clear that I'm never going to make any real money), and this collection has provided the pleasantest learning experience I've had in years. The booklet Malone wrote to accompany it, with notes on each selection, is almost as valuable as the records. Reading it, I notice that whereas the state of Kentucky produced a number of repositories of the folk tradition-Bradley Kinkaid, Buell Kazee, Cliff Carlisle, Molly O'Day, Grandpa Jones-North Carolina tended to turn out hot instrumentalists such as Chet Atkins, Doc Watson, and J. E. Mainer and His Mountaineers, and the Southwest gave us more varied, "modern" jazz- and blues- and pop-influenced musicians. Even better is the esoterica: Frank Sinatra, during his Lucky Strike Hit Parade days, had to sing, week after week, Al Dexter's Pistol Packin'

Mama. Picture that. Or how about the full name of Harty of the team of Karl and Harty: Hartford Connecticut Taylor! Ah, they don't name 'em like that any more, now that we've all gotten so citified. You can return in memory to those rural days of yesteryear, though, with this collection, which is the next best thing to reliving them.

-Noel Coppage

THE SMITHSONIAN COLLECTION OF CLASSIC COUNTRY MUSIC. Selected and annotated by Bill C. Malone. 1920s. Eck Robertson: Sally Gooden, Fiddlin' John Carson: The Little Old Log Cabin in the Lane. Grayson and Whitter: Going Down the Lee Highway. Uncle Dave Macon: Jordan Is a Hard Road to Travel. Vernon Dalhart: The Prisoner's Song; Wreck of the Old 97. Charlie Poole: Goodbye Sweet Liza Jane. Gid Tanner and His Skillet Lickers: Soldier's Joy. Smith's Sacred Singers: Where We'll Never Grow Old. East Texas Serenaders: Shannon Waltz, Darby and Tarlton: Birmingham Jail. Buell Kazee: Lady Gay. Bradley Kinkaid: The Fatal Wedding. Carl Sprague: When the Work's All Done This Fall. Pop Stoneman: The Titanic. Carter Family: Wildwood Flower; Can the Circle Be Unbroken? Jimmie Rodgers: Daddy and Home; Waiting for a Train. 1930s Southeast. Arthur Smith: Mocking Bird. Riley Puckett: Ragged but Right. Cliff Carlisle: Black Jack David. Coon Creek Girls: Pretty Polly. Mac and Bob: Twenty-One Years. Callahan Brothers: She's My Curley Headed Baby. Blue Sky Boys: East Bound Train. Delmore Brothers: Brown's Ferry Blues. Monroe Brothers: What Would You Give? Rouse Brothers: Orange Blossom Special. Red Foley: Old Shep. Karl and Harty: I'm Here to Get My Baby Out of Jail. Lulu Belle and Scotty: Remember Me. J. E. Mainer's Mountaineers: Maple on the Hill. Rex Griffin: The Last Letter. Roy Acuff: The Great Speckled Bird; The Precious Jewel. 1930s Southwest. Gene Autry and Jimmy Long: Silver Haired Daddy of Mine. Sons of the Pioneers: Tumbling Tumbleweeds; Cool Water. Patsy Montana: I Want to Be a Cowboy's Sweetheart. Montana Slim: My Swiss Moonlight Lullaby. Stuart Hamblen: Texas Plains. W. Lee O'Daniel and His Light Crust Doughboys: My Mary. Shelton Brothers: Deep Elem Blues. Jimmie Davis: Nobody's Darlin' but Mine. Bill Boyd: Under the Double Eagle. Milton Brown and His Brownies: St. Louis Blues. Bob Wills and His Texas Playboys: Steel Guitar Rag: New San Antonio Rose. Leo Soileau: Le Valse de Geydon. Woody Guthrie: Do Re Mi. Chuck Wagon Gang: Jesus Hold My Hand. Cliff Bruner's Texas Wanderers: It Makes No Difference Now. Gene Autry: You Are My Sunshine. 1941-1953. Ernest Tubb: Walking the Floor Over You. Wiley Walker and Gene Sullivan: When My Blue Moon Turns to Gold Again. Ted Daffan's Texans: Born to Lose. Elton Britt: There's a Star-Spangled Banner Waving Somewhere. Al Dexter: Pistol Packin' Mama. Tex Ritter: Have I Stayed Away Too Long; Rye Whiskey. Molly O'Day: Teardrops Falling in the Snow; The Tramp on the Street. Jack

Guthrie: Oklahoma Hills. Bailes Brothers: Dust on the Bible. Roy Acuff: Wabash Cannon Ball. Merle Travis: I Am a Pilgrim. Eddy Arnold: Cattle Call. Tex Williams: Smoke, Smoke, Smoke. Johnny and Jack: What About You? Jimmie Dickens: Take an Old Cold Tater. Maddox Brothers and Rose: Philadelphia Lawyer. Red Foley: Peace in the Valley. Grandpa Jones: Eight More Miles to Louisville. Cowboy Copas: Filipino Baby. Blue Sky Boys: Kentucky. Moon Mullican: New Jole Blon. Slim Whitman: Bandera Waltz. Hank Snow: Movin' On. Leon Payne: I Love You Because. Pee Wee King: Tennessee Waltz. Martha Carson: Satisfied. Floyd Tillman: Slippin' Around. Lefty Frizzell: I Love You a Thousand Ways. Carl Smith: Darlin' Am I the One? Hank Thompson: The Wild Side of Life. Kitty Wells: It Wasn't God Who Made Honky Tonk Angels. Wilma Lee and Stoney Cooper: Thirty Pieces of Silver. Hank Williams: I'm So Lonesome I Could Cry; Lovesick Blues. 1953-1963. Webb Pierce: There Stands the Glass. Johnny Cash: I Walk the Line. Tennessee Ernie Ford: Sixteen Tons. Everly Brothers: Down in the Willow Garden. Chet Atkins: Country Gentleman. Jim Reeves: He'll Have to Go. Ray Price: City Lights; Crazy Arms. Bobby Helms: Fraulein. Louvin Brothers: When I Stop Dreaming; Knoxville Girl. Johnny Horton: Battle of New Orleans. Lefty Frizzell: Long Black Veil. Marty Robbins: El Paso. Rusty and Doug: Louisiana Man. Patsy Cline: Faded Love. Buck Owens: Excuse Me. George Jones and Melba Montgomery: We Must Have Been Out of Our Minds. Bluegrass. Bill Monroe and His Blue Grass Boys: Muleskinner Blues; It's Mighty Dark to Travel. Flatt and Scruggs: Earl's Breakdown. Stanley Brothers: The Lonesome River. Mac Wiseman: Dreaming of a Little Cabin. Jim and Jesse: Are You Missing Me. Osborne Brothers: Rocky Top. Bill Clifton: Mary Dear. Reno and Smiley: I'm Using My Bible for a Roadmap. Lilly Brothers: John Henry. Hylo Brown: I'll Be All Smiles Tonight. Jimmy Martin: Sunny Side of the Mountain. Kenny Baker: Jerusalem Ridge. Doc Watson: Black Mountain Rag. Charlie Moore: Legend of the Rebel Soldier. Cliff Waldron and the New Shades of Grass: Four Strong Winds. Country Gentlemen: Two Little Boys. Seldom Scene: Bottom of the Glass. 1963-1975. Dave Dudley: Six Days on the Road. Bobby Bare: Detroit City. Porter Wagoner: Green Grass of Home. Roger Miller: King of the Road. Charley Pride: Is Anybody Going to San Antone? Tom T. Hall: Homecoming. Dolly Parton: Coat of Many Colors. Merle Haggard: Hungry Eyes; Mama Tried. Ernest Tubb: Waltz Across Texas. Loretta Lynn: Coal Miner's Daughter. Tammy Wynette: D-I-V-O-R-C-E. George Jones: The Grand Tour. Moe Bandy: It Was Always So Easy. Flying Burrito Brothers: Sin City. Willie Nelson: Funny How Time Slips Away; Blue Eyes Crying in the Rain. SMITHSONIAN COLLECTION R 025 eight discs \$54.95 (plus \$2.75 shipping and handling from Smithsonian Recordings, P.O. Box 10230, Des Moines, Iowa 50336).



If you'd like a booklet explaining how we smooth out Jack Daniel's with charcoal, just drop us a line.

ASK THE ROGERS TWINS how Jack Daniel's Whiskey gains smoothness, and the reply will be identical.

Either Ray or Clay, who guide visitors here, will take you to a room where just-made whiskey is seeped through vats of tightly packed charcoal. And they'll point out

how we've insisted on this whiskey-smoothing method since 1866. Of course, you may have trouble telling Ray from Clay. But if you compare Jack Daniel's to any other whiskey, you'll spot the difference in just a sip.

CHARCOAL MELLOWED DROP BY DROP

Tennessee Whiskey • 90 Proof • Distilled and Bottled by Jack Daniel Distillery Lem Motlow, Prop., Inc., Route 1, Lynchbarg (Pop. 361). Tennessee 37352 Placed in the National Register of Historic Places by the United States Government.

Classical Music Briefs





Gwyneth Jones is Brünnhilde in the first digital recording of Wagner's Ring, among this month's releases from Philips.

SINCE sales of digital recordings are about double what could be expected for analog recordings of the same repertoire, record companies label their digital recordings with prominent stickers these days. And the claim "First Digital Recording" is as useful to record companies today as "First Time on LP" and "First Stereo Recording" were in the past.

The first digital recording of Richard Wagner's monumental operatic tetralogy *The Ring of the Nibelung* has been expected on the Eurodisc label to be imported here by Arista. It was to be a studio recording from East Germany, and the first installment, *Das Rheingold*, was due for U.S. release in the fall. But Philips is snatching the claim of the first digital *Ring* away from Eurodisc and plans to release a *complete* digital re-

EXPECTED in stores by October 1 is a five-disc set of the recordings of the American tenor Mario Lanza (1921-1959) reissued by RCA. Born Alfredo Cocozza in Philadelcording of the four-opera cycle in October. It was recorded live at the Bayreuth Festival during performances conducted by Pierre Boulez with such soloists as Peter Hofman, Donald McIntyre, Manfred Jung, Matti Salminen, Siegfried Jerusalem, Jeannine Altmeyer, Gwyneth Jones, and others. The set will be complete on sixteen discs packaged in a carrying case that has a retractable handle for easy portability.

The most recent Bayreuth production of the *Ring*, the one preserved in audio on the new Philips set, was staged by the French director Patrice Chéreau. Using the same artists who are on the records, performances of that *Ring* production were taped for television last year, and they will be shown on the Public Broadcasting Service in January of 1983 if all goes according to current plans.

phia, Lanza made his career not in opera houses, but in such Hollywood movies as *The Great Caruso, Because You're Mine*, and *Serenade*. Discriminating opera fans generally criticized Lanza's singing, finding it vulgar, but that did not hamper the sale of his recordings, which have continued to find a market. The new set of reissues has been out in Germany for some time, and its success there has been so great that the royalties to Lanza's heirs for only one quarter in 1981 totaled \$140,000.

FTER opening its ninth sea-A son on September 28 with Carlisle Floyd's opera Willie Stark, Exxon's Great Performances on PBS will offer varied musical fare to TV viewers in October. Eugene Ormandy conducts the Philadelphia Orchestra from the Academy of Music on October 5 in a program that includes a suite from Strauss' Der Rosenkavalier and Mussorgsky's Pictures at an Exhibition. On October 19, Mozart's La Clemenza di Tito will be telecast in a performance filmed in Rome. The singers include Carol Neblett, Tatiana Troyanos, Catherine Malfitano,

Nureyev as Nijinsky as Faun



Eric Tappy, and Kurt Rydl, and James Levine conducts the Vienna Philharmonic.

In a tribute to dancer Vaslav Nijinsky on October 26, Rudolf Nureyev and members of the Joffrey Ballet will re-create three of the ballets most closely associated with Nijinsky: *Petrouchka* (with a score by Stravinsky), *Le Spectre de la Rose* (performed to music of Weber), and *L'Après-midi d'un Faune* (danced to the familiar Debussy prelude). Check local PBS stations for time.

HE musical composition that was heard by the largest audience at its world première is too new yet to be included in the Guinness Book of World Records. It is Welsh composer William Mathias' setting of Psalm 67 ("Let the people praise Thee, O God"), composed for the wedding of the Prince of Wales and Lady Diana Spencer and first performed on that occasion at St. Paul's Cathedral in London on July 29. The worldwide television audience that watched the wedding and heard the anthem when it concluded the ceremony has been estimated to exceed one billion people.

The anthem, a work for organ and chorus made up of sopranos, altos, tenors, and basses, lasts just over four minutes. It was published by Oxford University Press the day after the wedding, and the publishers authorized the first performance in the United States at Plymouth Congregational Church in Minneapolis, Minnesota, on September 13. That church won the honor simply because its choir director, Philip Brunelle, was the first to say "May I?" Single copies of the sheet music, on whose red cover are depicted the plumes of the Prince of Wales and the Spencer coat of arms, are available for \$2 postpaid from Oxford University Press, Inc., 200 Madison Avenue, New York, N.Y. 10016.

Prince Charles' varied musical activities include playing the cello and singing in a Bach choir, but none of his performances have been recorded. At his request New Zealand soprano Kiri Te Kanawa sang "Let the Bright Seraphim" from Handel's Samson at the wedding and thereby gained the distinction of being the opera singer heard (with TV assistance) by the largest audience in human history. So far as we have been able to ascertain, she has not recorded this aria. but she has many albums for souvenir seekers to choose from, including a new recital of songs by Schubert, Schumann, Fauré, and Wolf out in October on CBS Masterworks.

According to American TV newscasts, bootleg recordings of the wedding ceremony were on the street in London twentyfour hours later. At press time none of these had reached shops in New York. On hand, though, was Canadian jazz pianist Oscar Peterson's "A Royal Wedding Suite" (Pablo Today 2312 129, distributed by RCA), Containing such compositions as London Gets Ready. Royal Honeymoon, and Lady Di's Waltz, it was recorded in Toronto and London in April. Also recorded before the fact were two imports from England: **'One Thousand English Voices** Sing God Bless the Prince of Wales" (Chandos ABRD 1030, \$17.98), a program of choral and brass music by massed English male choirs and the Royal Doulton Band recorded digitally in live concert on May 23, 1981, and "Madrigals and Wedding Songs for Diana" (Hyperion A 66019, \$15.98), a collection of songs from wedding masques by Thomas Campion and others performed by the Consort of Musicke directed by Anthony Rooley. The two imports are available in shops or by mail from Brilly Corp., 155 North San Vicente Boulevard, Beverly Hills, Calif. 90211.

WHEN CBS Masterworks an-nounced in the mid-1970s that it was turning its attention to vocal music, the company planned to avoid duplicating repertoire already available in good recordings and to fill gaps in the catalog of recorded opera. Still living up to that promise. CBS has scheduled three operatic rarities for October release: Handel's Xerxes conducted by Jean-Claude



John Denver and Placido Domingo, new plattermates on CBS

Malgoire, Jaromir Weinberger's Schwanda the Bagpiper conducted by Heinz Wallberg, and Mussorgsky's Salammbô conducted by Zoltan Pesko. Also to be released in October is a digital recording of Wolf-Ferrari's // Segreto di Susanna, with soloists Renata Scotto and Renato Bruson, conducted by John Pritchard.

CBS Masterworks has also signed an agreement with Italy's FonitCetra to distribute that company's products in the United States; included in the catalog are some Rossini operas previously unavailable in commercial recordings. The two companies will also join in a number of co-productions, mostly of operatic repertoire. Already scheduled are a recital alburn by Marilyn Horne and a recording of Rossini's // Turco in Italia with Samuel Ramey and Montserrat Caballé conducted by Riccardo Chailly

A FonitCetra album to be released here by CBS in October is a recital of early Verdi arias by none other than tenor Luciano Pavarotti, who has hitherto recorded almost exclusively for London. That's not likely to please Pavarotti's chief rival Placido Domingo, who has made no secret of his resentment of the superstar status accorded to Pavarotti. Domingo has just made his own bid for a share of the mass audience by recording the album "Perhaps Love" with pop star John Denver, released by CBS in September. CBS' October release also includes a Christmas alburn by Domingo.



Performance: Strong Recording: Lush

6

Considering that Carl Phillipp Emanuel Bach composed more keyboard concertos (almost fifty!) than anybody else down to this day, it is surprising that so few are still played, and even those rarely. They are remarkable works: the outer movements are bursting with the energy and emotion of the Sturm und Drang, and the middle movements are filled with the yearning melodies corded repertoire.

Hamilton's playing is straightforward, driving through the fast movements with an unflagging sense of purpose. The orchestra under Schwarz's direction is equally relentless, creating a tense dialogue. Although Hamilton's lyric playing is on the stiff side, the orchestra makes up for it with dynamic shaping of the long phrases.

Balance between a harpsichord and an orchestra is always a problem, and it remains so here; the harpsichord is heard clearly by itself but gets lost when it is acwith the twist of a volume knob? Be that as it may, the music of old Bach's second son still comes off magnificently, and I wish we had more of it on records. S.L.

BARTÓK: Quintet for Piano and Strings. Sylvia Glickman (piano); Alard Quartet. LEONARDA LPI 108 \$8.98.

Performance: Committed Recording: Quite good

Bartók was twenty-three when he composed this still virtually unknown quintet, which

HERBERT VON KARAJAN is an admirable conductor—that is to say, there is always something to admire in any of his performances. There is a lot to admire in his new Deutsche Grammophon collection of music by the Strauss family, which includes ten of the best and best-known waltzes, the two famous overtures, and a good sampling of the polkas, marches, and miscellaneous pieces. The treatment is both straightforward and spirited as well as quite subtle at times. The orchestral execution is neat and precise and, in places, breathtakingly beautiful. The sound of the Berlin strings in such passages as the main theme in Wiener Blut is among the glories of contemporary music making: neither romantically throbbing nor antiseptic but pure, gorgeous silk. The brass too has its high points in this set. Karajan brings a particularly nice feel to the polkas, though the Eljen a Magyar! shows that he is not much of a Hungarian (he is, of course, Austrian).

The digital recording is wonderfully clean and open; one can actually hear the very discreet doubling of the zither melody by the first violins in *Tales from the Vienna Woods*. The dynamic range is gratefully wide, and, though the percussion is slightly over-favored for my taste, it does add to the excitement and may well be appreciated by many listeners. I find a few slight but disturbing changes of tempo in odd places and a few equally slight changes of ambiance, both indicating to me (perhaps incorrectly) splices that ought not to have been made. But all in all this is a really excellent set with some glorious high points.

That much said, I confess that I like better a newly imported Eurodisc set conducted by the late Robert Stolz. Why? Stolz, who died six years ago at the age of ninety-five, was certainly not the orchestral master Karajan is. The Berlin and Vienna Symphonies (no indication is given which orchestra plays which selection) are certainly not in the class of the Berlin Philharmonic. And the undated (but obviously more than six years old) analog recording is not to be compared with DG's digitally mastered one. But Stolz had a foot firmly placed in the older Viennese tradition (he knew Strauss and Brahms, was friends with Lehár), and the idiomatic Viennese acceler-



Robert Stolz

Ge Waltz Family

ation, rubato, and Luftpausen were second nature to him. Not that he pulls these pieces apart-in the older days he was probably looked upon as a fairly strict time keeperbut his waltz performances have a lilt, a quality of floating, a freedom, an expression, and a sense of underlying melancholy (the bittersweetness of so much of the best so-called "light" music) that Karajan's, for all their beauty of sound, simply do not possess. The truth comes out in the several selections present in both albums, and I would certainly urge those who can afford the luxury to buy and listen to both. Even the sound Stolz coaxes from his orchestras, while it is something less than silk, is somehow more evocative, less "internationalized," more Viennese.

There are famous works all through the Stolz album too, but it includes at least one delightful piece I had not heard before—the Heiligenstädter Rendez-vous—and a couple of waltzes by Strauss Senior's contemporary, friend, and competitor Josef Lanner. The Eurodisc recording is really quite decent, though hardly up to the best contemporary standards, miked a bit further away than the DG and with correspondingly less detail, more reverberation—in other words, slightly opaque but not unpleasant. But the absence of any sort of notes at all with a full-price two-record set is not to be condoned. —James Goodfriend

JOHANN STRAUSS JR.: Kaiser-Walzer, Op. 437; Rosen aus dem Süden, Op. 388; Wein, Weib, und Gesang, Op. 333; G'schichten aus dem Wienerwald, Op. 325; Wiener Blut, Op. 354; An der Schönen, Blauen Donau, Op. 314; Accellerationen, Op. 234; Künstlerleben, Op. 316; Tritsch-Tratsch-Polka, Op. 214; Annen-Polka, Op. 117; Auf der Jagd, Op. 373; Eljen a Magyar!, Op. 332; Leichtes Blut, Op. 319; Unter Donner und Blitz, Op. 324; Napoleon-Marsch, Op. 156; Persischer Marsch, Op. 289; Der Ziguenerbaron Overture; Die Fledermaus Overture; Fledermaus Quadrille, Op. 363; Perpetuum Mobile, Op. 257. JOHANN STRAUSS SR.: Radetzky-Marsch, Op. 228. JOSEF STRAUSS: Delirien-Walzer. Op. 212; Sphärenklänge, Op. 235. Berlin Philharmonic, Herbert von Karajan cond. DEUTSCHE GRAMMOPHON @ 2741 003 three discs \$32.94, © 3382 003 \$32.94.

JOHANN STRAUSS JR.: Accellerationen, Op. 234; Rosen aus dem Süden, Op. 388; Wein, Weib, und Gesang, Op. 333; Wo die Citronen Blüh'n, Op. 364; Morgenblätter, Op. 279; Annen-Polka, Op. 117; Heiligenstädter Rendez-vous, Op. 78; Unter Donner und Blitz, Op. 324; Tritsch-Tratsch-Polka, Op. 214; Persischer Marsch, Op. 289; Indigo-Marsch, Op. 349; Perpetuum Mobile, Op. 257. JOHANN AND JOSEF STRAUSS: Pizzicato Polka. JOHANN STRAUSS SR.: Loreley-Rhein-Klänge, Op. 154; Einzugs-Galopp, Op. 35; Jubel-Quadrille, Op. 130. JOSEF STRAUSS: Frauenherz, Op. 166; Feuerfest, Op. 269. JOSEF LANNER: Hofballtänze, Op. 161; Die Schönbrunner, Op. 200. Berlin Symphony Orchestra, Vienna Symphony Orchestra, Robert Stolz cond. EURODISC 87 360 XBU two discs \$19.96.

was not published until 1970. Although I believe there was a recording of it on an import label a few years ago, I had not heard the work until I received this disc for review, and I doubt that I would have connected the music with Bartók if I hadn't seen his name on the label. The ripe Romanticism, obviously Brahmsian, and the allusions to a Magyarism a bit beyond Brahms' similar flavoring suggest Dohnányi, who was Bartók's piano teacher at the time he began this composition in 1903. But already in the exuberant scherzo there is an earthy, foursquare peasant quality whose nervous impetuosity suggests something new: indeed, the trio seems a deliberate attempt to calm this irruption with another dose of Brahms, but the second part of the scherzo proper does more than hint at the identity of the composer whose First String Ouartet would appear in 1908, to be followed by the Allegro Barbaro three years later. In the long slow movement one finds a sort of groping for the characteristic "night music" that was to pervade so many of Bartók's mature scores-but only a groping, all but submerged in an effusiveness that was not to characterize his style. In the final movement Bartók's own personality, in the voice of the piano, seems almost to be breaking through the Brahms/Dohnányi sumptuousness sustained by the strings; eventually the strings join in what sounds like a hymnic folk tune, and then, all in their upper register, abandon sumptuousness for a pre-echo of the real Bartók.

While this may be neither an especially characteristic work nor an especially important one, it does tell us more about Bartók and his development than, for example, Beethoven's early E-flat Major Piano Concerto and his piano quartets tell us about Beethoven, and it is not without appeal in its own right. The strong, disciplined, communicative performance of Sylvia Glickman and the Alard Quartet bespeaks real commitment, and the sound is quite good. *R.F.*

RECORDING OF SPECIAL MERIT

BARTÓK: Suite, Op. 14; Piano Sonata; Improvisations on Hungarian Peasant Songs, (Continued on page 118)

Imagination has just become reality.

Finally. The elusive goal, attained.

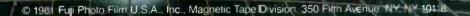
Audiocassettes of such remarkable accuracy and clarity that differences between original and recording virtually vanish.

This is the sound of the future. Tapes with the widest possible dynamic range. The flattest frequency response obtainable. And freedom from noise and distortion. New Fuji tapes: Born of microscopic particles made smaller, more uniformly than ever before. Permanently mated to polymer film so precise, its surface is mirror smooth. The product of intensive research that unites physics, chemistry, computer technology and psychoacoustics.

The sound of the future. Hear it at your audio dealer today. In four superb tapes that share a single name.



Imagination has just become reality.





Op. 20; Out of Doors. Murray Perahia (piano). CBS M 36704, © MT 36704, no list price.

Performance: Lively Recording: Okay

When I listen to Bartók's Suite, Op. 14, especially in a wonderful performance like this one, a little shiver goes up my spine. I have always liked this piece (I still do)—so much, in fact, that I once wrote a piano suite of my own that I now realize, lo these many years later, sounds an awful lot like the Bartók Suite, Op. 14.

Well, in those days Bartók was modern music and hot stuff. Then he became regular symphonic fare and almost even symphonic pops. And from there he passed into that special limbo reserved for once-popular contemporary composers. It makes sense for pianists to take him up now. It was mostly (although certainly not exclusively) orchestral and string music that we heard back then. But Bartók was perhaps the most interesting writer of piano music among the modernists of the first half of this century, and his piano works are both original and appealing.

On this disc we get that charmer, Op. 14, and another suite, the colorful, dissonant, but effective Out of Doors. The sonata is a little tougher, more percussive and dissonant but with a lively, engaging finale. And the little Improvisations, Op. 20, entirely neglected until recently, have been included on several recent recordings. It has become fashionable to connect these very folksy studies with Viennese serialism, and I can't for the life of me see why (someone must have written an overly clever essay somewhere, or perhaps there is a confused remark in some reference book and everyone copies it). This music is not particularly modernistic or expressionistic or serialeven compared with many other things Bartók himself did before and after. But it is exceedingly strong, well-written, beautiful music that impresses and moves, especially in this performance. Murray Perahia is an excellent Bartók performer; his playing is clear, lively, full of rhythmic impulse and expressive curve. The piano sound is a bit inconsistent for my taste but, as they say, serviceable. ES

BEETHOVEN: Trio in G Major for Piano, Flute, and Bassoon (WoO 37); Sonata in F Major for Piano and Horn, Op. 17. Daniel Barenboim (piano); Michel Debost (flute); André Sennedat (bassoon); Myron Bloom (horn). DEUTSCHE GRAMMOPHON 2531 293 \$9.98.

Performance: Good Recording: Fine

The most attractive part of this album is the delightful Trio in G Major, composed in 1786. Written in the spirit of a divertimento, the music is full of youthful vigor and melodic charm. The better-known Horn Sonata remains a somewhat unwieldy curiosity because of the balance problems, though many of these would be solved if the work were played on the early instruments for which it was intended.

Daniel Barenboim, Michel Debost, and André Sennedat, all in fine form, bring lightness and grace to the trio. There are, (Continued on page 121)

R402 160 R406 167 RE512 160 Re5200 155 R406 175 RE512 155 R406 175 RE512 155 R406 175 RE512 155 R406 176 RE512 155 R406 176 RE512 155 R406 176 RE512 176 RE51	WIRADI		IN-DA:	SH w/RA	
RE512 256 XE2100 270 Spakers Priced Per Pair KE5100 216 J1035 49 Coas H 52 J1036 95 Coas H 52 J1037 49 Coas H 52 J1037 49 Coas H 52 J1046 95 Coas H 52 J1037 49 Coas H 52 J1047 59 Coas H 52 RE5100 17 Solay Solay 58 BLAUPUNKT 75 CR2001 333 CR2000 259 SONY SISS00 109 SONY SISS00 109 PORTABLES 250 SONY Waitman WM1 25 SONY SIF40 75 SONY SIF40 75 SONY Waitman WM1 25 SONY SIF40 AAA 100 PIONEER PLOUT TOTABLES AUDO TC CAL PIONEER PLOUT TOTABLES SAUBA RISTERS 240 SONY SIF40 AAA 100 SONY WAITS 240 SONY WAITS 24	R200		KP1500. KP5500.		86
1033 di attrice il erg KK 20 214 1037 di Gona il erg Spasters Priced Per Par 1036 di Gona et erg 5 1036 di Gona et erg 5 1037 di Gona et erg 5 1030 radio et erg 6 1040 radio et erg 7 1050 ra	RE512	256	KE2100		170
Judg ab Uralin Carlot Speakers Priced Per Pair Judg 29 Coar IL Sa CR3001 429 CR3001 429 CR3001 429 CR3001 429 CR3001 429 CR3001 429 SONY VISSOO 489 SONY VISSOO 499 SONY VISSOO 4000 Casa Deck 399 SONY VISSOO 4000	11032 6-0 Tel		KEX20		214
JUB3 593 Cdas 42	J1065 6x9 Tr	nax	TSM23 1	weeler.	Pair
BLAUPUINKT 429 These 5rs 3way 98 CR3001 429 VIDEO & VIDEO TAPES CR3001 239 ATARICX2800. 149 CR3001 239 MORELINP HISTOR. 149 CR3001 239 SONY SL5900. Call Sony SL5900. 149 SONY 239 SONY SL5900. Call Sony VISSON. CALL YR70 239 SONY SL5900. Call Sony VISSON. CALL YC Call Sony VISSON. CALL SONY VISSON. CALL YC Call Sony VISSON. CALL SONY VISSON. CALL YOR YARAN. 19 AUDIO TOCH ARE. 19 SONY STR VG. YSSON YISSON. CALL AUDIO TOCH ATTSC. YOR SHARANANY WIL SON. 19 AAUDIO TAPE 39 SONY WARMANY WIL SON. 19 AAUDIO TAPE 39 YURA HISTON WIL SON. 190 MAZELL LDXCN. 100 YON STR YG. AUDIO TOCH ATTSC. 19 MAZELL LDXCN. 190 YUNA STR YG. <	J1069 6x9 Co	oax II	TS 107 4 TS 168 6	12 3way.	. 39
CR3001 239 CR4000 239 CR4000 239 CR4000 239 CR4000 239 CR4000 MATTEL Intellitision 239 CR4000 SONY Stable MATTEL Intellitision 239 CR4000 MATTEL Intellitision 239 CR4000 SONY Stable Sony Stable CALL SONY Stable Sony Stable CALL PARASONIC CALL Sony Stable CALL PORTABLES Sony Stable CALL Sony Stable PORTABLES Sony Stable Power Statalow Concord, Vladik, Saryo Power Statalow Power Statalow POWER Stable Power Statalow Power Statalow Contord, Vladik, Saryo Power Statalow Power Statalow Sony WRAG Table Power Statalow Power Statalow MUAD TECH ATTABLES Stable Power Statalow Power Statalow Sony WRAG Table Power Statalow Power Statalow Allon TECH ATTABLES Power Statalow Power Statalow Power Statalow Sony WRAG Table Power Statalow	BLAUPUNK	na»	TS695 67	19 3way.	98
EEA200 1507 SEA200 1507 SONY 5004 SONY 259 XR70 259 XR70 259 XR70 259 XR70 259 YR70 259 YR70 250 YR70 260	CR5001	339	ATARI C	& VIDEO TAI	PES
BERADO 150 PAD 51300 CALL XR70 259 XR30 CALL YR30 CALL XR70 259 SOMY SOMY </td <td>CR4000.</td> <td>259</td> <td>PIONEE</td> <td>Intellivision.</td> <td></td>	CR4000.	259	PIONEE	Intellivision.	
SONY PARASUNC CALL XR70 259 XR70 259 XR70 259 XR70 259 ABSO available JC WH48adphores SONY USE SONY Walkman WM1 25 SONY Walkman WM1 25 SONY Walkman WM1 25 SONY Walkman WM1 25 SONY Walkman WM2 45 WHA C50.0 CALL PONEER PL200 Trolb 28 WOMA TPS10 190 Cost Hidagadphores 39 SMURE W151W 99 AUDIO TECH AT162C 64 AUDIO TECH AT162C 79 SONY MDR5 46 SONY MDR5 46 MUD TECH AT162C 79 SONY MDR5 46 SONY MDR5 46 MUDIO TECH AT162C 79 SONY MER5 46 SONY MER5 46 MUDIO TECH AT162C 749 MALLOCON TECH SAUZONE 249 <td>8EA200</td> <td></td> <td>SONY SI</td> <td>5600. 15800</td> <td>899</td>	8EA200		SONY SI	5600. 15800	899
XHSG 199 Concord, Valis, Sanyo FUJ. 1720. 15 SONY Valis, Sanyo SONY TV's CALL PORTABLES SONY TV's CALL PORTABLES SONY TV's CALL PORTABLES SONY SRF40 75 SONY SRF40 75 SONY TV's CALL AUDIO TON LARGE SA320 Rec. 219 TECMNICS SA222 Rec. 190 SONY SRF40 159 PIONEER SX3700 Rec. 219 100NEER SX3700 Rec. 219 MURA MISTEDRE 159 PIONEER SX3700 Rec. 198 100NEER PL30 Trable BP MURA MISTES 159 PIONEER SX3700 Rec. 198 100NEER PL30 Trable BP SONY MARY MISTES 25 SONY TR VX ARE 289 MURA MISTES 159 MARELL LOSCO. 199 ALL DORGE ARAMA AUDIO TECH ATH3 35 SONY FEE CSO 2.79 SONY EFE CSO 2.79 SONY FEE CSO 2.79 SONY MDR7 SSONY FEE CSO 2.79 SONY FEE CSO SONY MEARAD ANGE CON CONSERS CEPETO SHIPPE DIN FACTORY SEALED CARTONS MASTERACAD, AND CO DO PORES ASAL	XF17.	299	JVC.	INIG	CALL
Parabonic, Grundig EPI, also available Charles PORTABLES Charles SONY Vall-machine SONY SRF 40 Charles SONY Vall-machine SONY SRF 40 Charles SONY Vall-machine Sony Vall-machine Sony Vall-machine Sony Vall-machine Sony Vall-machine Sony Vall-machine Sony Vall-machine Sony Vall-machine Sony SRF 40 Charles Sony Vall-machine Sony Vall-machine Sony SRF 40 Charles Sony Vall-machine Sony SRF 40 Charles Sony SRF 40	XR50.	. 199	SONY L	750	
Biol Mailelie Projection TV's CALL WHeadpones Witheadpones AUDIO CALL SONY Waikman WM1 B2 SONY Waikman WM1 B2 SONY Waikman WM1 B2 SONY Waikman WM1 B2 AWA FPS20 156 SONY SREAC 219 SONY Waikman WM2 145 SONY SREAC 219 AWA FDS20 Catrifdges/Headphones SONY SREAC 219 SWIRE W310 Catrifdges/Headphones SONY SREAC 319 SWIRE W310A SONY SREAC 319 AUDIO TECH ATH3 39 SONY SREAC 219 SONY MDR5 46 TOK AS90 249 AUDIO TECH ATH3 39 SONY MOR5 46 SONY MOR5 46 FUJ FISIO 219 SONY MOR5 40 AUDIO TON LANE SUNT FISIO FU	Panasonic,	Grundig, EPI,	TDK T12	0	15
wilkeadphones AUDIO SONY Waikman WM1 82 SONY Waikman WM2 82 SONY Waikman WM2 82 SONY STR VXA REG 289 PIONEER SX1700 Rec. 219 SONY STR VXA REG 289 AIWA TPSJO 136 AIWA TPSJO 139 DUAL 125750 Changer. 139 DUAL 125750 Changer. 139 SNM RE VISI NE 22 SMURE MSTRE SX. 139 SMURE MSTRE. 24 AUDIO TECH AT163CC. 139 AUDIO TECH AT163CC. 100 MAREL UDCG1. II CG0 3.28 SONY MDR3 33 SONY MDR4 2.89 MURA RED SET 25 MURA RED SCO 00 Changer PIONECAAD, AND CAD AVALLABILTY. MASEL UDCCI II CAD MASELOCA <	PORTABLE	S	Projectio	n TV's	CALL
SOMY Walkman WW2 145 AIWA TPS30 SOMY STR VX4 Rec. MWA CJ51 156 AIWA TPS30 159 PIONEER PL100 Tribl. 80 DUAL 126/45 Changer. 139 DUAL 126/45 Changer. 139 PIONEER CTF1200 Cass. Deck. 319 PIONEER CTF1200 Cass. Deck. SMURE W151/V 99 AUDIO TECH AT163 LC 109 AUDIO TECH AT163 LC 109 AUDIO TECH AT163 LS 109 AUDIO TECH AT163 LS 109 AUDIO TECH AT163 LS 109 AUDIO TECH AT163 LS 109 SONY EFECR 200 2.79 SONY MDR5 46 FUJI FL30 139 SONY EFECR 200 2.79 SONY EFECR 200 2.89 FUJI FL30 139 SONY EFECR 200 2.99 FUJI FL30 139 SONY EFECR 200 2.99 FUJI FL30 139 SONY EFECR 200 2.99 FUJI FL30 130 SONY EFECR 200 2.99 FUJI FL30	SONY SHEA	/Headphones 075	PIONEEI		
Aliva A 17530 159 PIONEER PL200 Trinbl. 89 Miva CJ51 159 DUAL 126455 Changer. 199 NGS Music Box. 64 DUAL 126455 Changer. 199 Cass. Deck. 319 SMURE WISTING 92 SMURE M97HE 52 MUDIO TECH ATH302 MAKELL UNCO. AUDIO TECH ATH3 59 SONY BARS 40 TOK AD90 189 SONY MDR5 46 MULL MANUFACTURERS 289 SONY MDR5 46 FUJI FL90 138 SONY MDR5 46 MURA RED SET 25 SONY MDR5 46 MULL MANUFACTURERS 289 SONY MDR5 46 MUL MANUFACTURERS 020 MURA RED SET 299 DC-45 SONY MDR5 46 190 MURA RED SET 299 DC-45 SON	SONY Walker	34.1 CMW 060	SONY S	TR VX4 Rec	289
Ruff Bolto, Ts2 CALL NOSHEA, KISS, Color Balance and the adphone NOSK Music Box. Balance and the adphone SMURE MSYNE S2 SHURE MSYNE S2 AUDIO TECH ATH/S2 MAKEL UDC90, 2.49 MAREL UDC90, 2.49 MAKEL UDC90, 2.49 AUDIO TECH ATH/S3 SONY MDR5 SONY MDR5 46 MURA RED SET SS SONY MDR5 46 MURA RED SET SS SONY MDR5 46 MASTERCARD AND CO DORDERS ACCEPTED SHIP PING CHARGES ARE 4% OR SDOMINIMUM, CALL FOR EACT QUOTES AND AVAILABILITY VITH FULL MANUFACTURERS WITH MARCARD OD CO DORDERS ACCEPTED SHIP PING CHARCES ARE 4% OR SDOMINIMUM, CALL FOR EACT QUOTES AND AVAILABILITY VILON LAB ON READER SERVICE CARIT MARCARD ON SON SAC 60<			PIONEE	9 PL200 Trntbl	. 89
ROSS Music Box. 64 Cass. Deck. 319 Cast. Josen. 94 2 Cass. Deck. 319 SMURE WISHWe 055 94 4 Diot Tape 319 AUDIO TECH ATI63CL 109 MAXELL UN20. 2.49 AUDIO TECH ATI63CL 109 MAXELL UN20. 2.49 AUDIO TECH ATI63CL 109 MAXELL UDC90. 2.49 AUDIO TECH ATI63 39 SONY ECR 200. 2.49 AUDIO TECH ATH7 59 SONY MDR5 46 MURA RED SET 25 FUJI FL30. 1.89 SONY MDR5 46 FUJI FL30. 2.89 MUTH FULL MANUFACTURERS' WARANTY VISA. MASTERCARD. AND CO D OBDERS ACCEPTED SHIP. PING CHARGES ARE 4% OR 3300 MINIMUM. CALL FOR 2.49 IRCLE NO. 18 ON READER SERVICE CARITONS 2.40 MACC 30 2.99 DC-45 MACC 30 2.99	AIWA CJ51	196	DUAL 12	64/55 Changer.	198
Cass Deck 38 SHURE MINE 93 SHURE MINE 93 AUDIO TAPE 93 AUDIO TAPE 93 AUDIO TECH ATISISC. 19 MARELLUDOGO. 1.99 MARE MINE 94 AUDIO TECH ATISISC. 19 MARELLUDOGO. 1.99 AUDIO TECH ATISISC. 19 MARELLUDOGO. 1.99 AUDIO TECH ATISISC. 19 MARELLUDOGO. 2.99 SONY MDRS 94 AUDIO TECH ATISISC. 19 SONY FEGR C30 SONY MDRS 94 MURA RED SET 25 SONY MDRS 94 MURA RED SET 25 MARCARCHARCTURERS 200 MARCARCARCTURERS 0010 MARCARCARCTURERS 00100 MARCARCARCTURERS 00100 MARCARCARCTURERS 00100 MARCARCARCTURERS 00100 MARCARCARCARCONTRACTUR	KOSS Music	80×. 64	Cass.	Deck.	319
SHURE M97HE 52 AUDIO TAPE MAXEL UDO 1.99 SHURE M910AK 19 MAXELL LUOCG 2.49 AUDIO TECH AT163CC 65 MAXELL UDCG 2.49 MUDIO TECH AT163CC 65 MAXELL UDCG 2.49 AUDIO TECH AT147 99 SONY FECR C90 2.79 SONY MDR3 33 SONY FECR C90 2.79 SONY MDR3 33 SONY FECR C90 2.79 SONY MDR3 33 SONY FECR C90 2.79 SONY MDR3 23 SONY FECR C90 2.79 MURA RED SET 23 FUII FXI 90 2.89 MURA RED SET 23 I/362 HOLTON LANE 2.89 MAXEL UDCS. MAXELBURCK VISA I/362 HOLTON LANE SAC 90 2.99 DC 45 MARCEL NO. 18 ON READER SERVICE CARTONS MAXEL MARCEND AVAILABILTY VISA DC 45 SAC 60 2.99 DC 45 ACC 60 2.69 DC 45 </td <td>SHURE V15 I</td> <td>IV 99</td> <td>Cass.</td> <td>Deck.</td> <td>389</td>	SHURE V15 I	IV 99	Cass.	Deck.	389
SHURE M310AK 19 AUDIO TECH AT163C. 05 KOSS PRO AAA MAXELL UDC90. 2:49 TOK D90. AUDIO TECH AT163C. 05 KOSS PRO AAA MAXELL UDC90. 189 TOK A90. 190 TOK A90. 2:49 TOK A90. AUDIO TECH ATH7. 99 SONY MDR3 33 SONY FECR C30 2:49 SONY MDR3 33 SONY FECR C30 2:49 SONY MDR3 33 SONY FECR C30 2:49 FULL FXI 90 2:49 SONY MDR3 2:49 SONY MER C30 2:40 SONY MER C	SHURE M971	HE. 52 HE. 35	MAXELL	LN90	1.99
ROSS PRO 4AAA, 46 46 AUDIO TECH ATH7, 39 TOK A90, 2.99 AUDIO TECH ATH7, 39 SONY HER C30, 2.89 SONY MDR5, 46 SONY HER C30, 2.89 MURA RED SET 23 SONY MDR5, 46 FUJI FL30, 1.99 MURA RED SET 23 SONY MDR5, 46 FUJI FL30, 2.89 MURA RED SET 23 SONY MDR5, 46 FUJI FL30, 2.89 MURA RED SET 23 SONY MDR5, 46 FUJI FL30, 2.89 MURA RED SET 23 MASTERCARD, AND CO DO ROBERS ACCEPTED SHIP. PING CHARGES ARE 4/0 R 3300 MINIMUM. CALL FOR EXACT QUOTES AND AVAILABILITY. MITH, OTGET = 10 AUGID OF S VIGEO TAPES, OT ASSOT IRCLE NO. 18 ON READER SERVICE CARI MID. Order = 10 AUGID OF S VIGEO TAPES, OT ASSOT MID. Order = 10 AUGID OF S VIGEO TAPES, OT ASSOT MID. Order = 10 AUGID OF S VIGEO TAPES, OT ASSOT MID. Order = 10 AUGID OF S VIGEO TAPES, OT ASSOT MID. Order = 10 AUGID OF S VIGEO TAPES, OT ASSOT MID. Order = 10 AUGID OF S VIGEO TAPES, OT ASSOT MID. Order = 10 AUGID OF S VIGEO TAPES, OT ASSOT MID. Order = 10 AUGID OF S VIGEO TAPES, OT ASSOT MID. Order	SHUDE MOT	0.6.M 10	MAXELL	UDC90	2.49
SONY MDR3 33 SONY FECR CS0 2.89 SONY MDR7 56 FULL FRU 90 1.99 SONY MDR7 56 FULL FRU 90 2.89 MUTA RED SET 25 FULL FRU 90 2.89 MASTERCARD, AND CO DO ORDERS ACCEPTED SHIP- PING CHARGES ARE 4% OR 3100 MINIMUM. CALL FOR FULL FRU 90 2.89 MASTERCARD, AND CO DO ORDERS ACCEPTED SHIP. PING CHARGES ARE 4% OR 3100 MINIMUM. CALL FOR FULL FRU 90 FULL FRU 90 MASTERCARD, AND CO DO ORDERS ACCEPTED SHIP. PING CHARGES ARE 4% OR 3100 MINIMUM. CALL FOR FULL FRU 90 FULL FRU 90 MASTERCARD, AND CO DO ORDERS ACCEPTED SHIP. PING CHARGES ARE 4% OR 3100 MINIMUM. CALL FOR FULL FRU 90 FULL FRU 90 MASTERCARD, AND CO DO ORDERS ACCEPTED SHIP. PING CHARGES ARE 4% OR 3100 MINIMUM. CALL FOR FULL FRU 90 FULL FRU 90 MAGTER AND 2007B3 [GOT1 434-5330] JESCH JESCH IRCLE NO. 18 ON READER SERVICE CART SAC 60 2.99 DC 45 SAC 60 2.99 DC 45 JESCH JESCH SAC 60 2.99 DC 45 JESCH JESCH SAC 60 2.99 DC 45 JESCH JES	AUDIO TECH KOSS PRO 44	AT1402C 65	TDK D90	0	1.89
SONY MDR3 33 SONY FECR CS0 2.89 SONY MDR7 56 FULL FRU 90 1.99 SONY MDR7 56 FULL FRU 90 2.89 MUTA RED SET 25 FULL FRU 90 2.89 MASTERCARD, AND CO DO ORDERS ACCEPTED SHIP- PING CHARGES ARE 4% OR 3100 MINIMUM. CALL FOR FULL FRU 90 2.89 MASTERCARD, AND CO DO ORDERS ACCEPTED SHIP. PING CHARGES ARE 4% OR 3100 MINIMUM. CALL FOR FULL FRU 90 FULL FRU 90 MASTERCARD, AND CO DO ORDERS ACCEPTED SHIP. PING CHARGES ARE 4% OR 3100 MINIMUM. CALL FOR FULL FRU 90 FULL FRU 90 MASTERCARD, AND CO DO ORDERS ACCEPTED SHIP. PING CHARGES ARE 4% OR 3100 MINIMUM. CALL FOR FULL FRU 90 FULL FRU 90 MASTERCARD, AND CO DO ORDERS ACCEPTED SHIP. PING CHARGES ARE 4% OR 3100 MINIMUM. CALL FOR FULL FRU 90 FULL FRU 90 MAGTER AND 2007B3 [GOT1 434-5330] JESCH JESCH IRCLE NO. 18 ON READER SERVICE CART SAC 60 2.99 DC 45 SAC 60 2.99 DC 45 JESCH JESCH SAC 60 2.99 DC 45 JESCH JESCH SAC 60 2.99 DC 45 JESCH JES	AUDIO TECH	ATH7 99 ATH3	TOK SA9 SONY EF	0, . IF C90.	2.79
MURA RED SET 25 FUJI METAL 90 5.49 ALL ORDERS SHIPPED IN FACTORY SEALED CARTONS MARTONY VISA. MASTERCARD. AND CO D ORDERS ACCEPTED SHIP- PING CHARGES ARE 4% OR 3300 MINIMUM CALL FOR EXACT QUOTES AND AVAILABILITY. Image: Search of 3300 MINIMUM. CALL FOR IMASTERCARD. AND CO D ORDERS ACCEPTED SHIP- Image: Search of 3300 MINIMUM. CALL FOR Image: Search of 3300 MINIMUM. CALL FOR Image: Search of 3300 MINIMUM. CALL FOR Image: Search of 3300 MINIMUM. CALL FOR Image: Search of 3300 MINIMUM. CALL FOR Image: Search of 3300 MINIMUM. CALL FOR Image: Search of 3300 MINIMUM. CALL FOR Image: Search of 3300 MINIMUM. CALL FOR Image: Search of 3300 MINIMUM. CALL FOR Image: Search of 3300 MINIMUM. CALL FOR Image: Search of 3300 MINIMUM. CALL FOR Image: Search of 3300 MINIMUM. CALL FOR Image: Search of 3300 MINIMUM. CALL FOR Image: Search of 3300 MINIMUM. CALL FOR Image: Search of 330 MINIMUM. CALL FOR Image: Search of 3300 MINIMUM. CALL FOR Image: Search of 3300 MINIMUM. CALL FOR Image: Search of 330 MINIMUM. CALL FOR Image: Search of 3300 MINIMUM. CALL FOR Image: Search of 3300 MINIMUM. CALL FOR Image: Search of 340 MINIMUM. Call FOR Image: Search of 3300 MINIMUM. Call FOR Image: Search of 3300 MINIMUM. Call FOR Image: Search of 340 MINIMUM. Call FOR Image: Search of 3300 MINIMU	SONY MDR3. SONY MDR5.	33	FUJI FL9	CFI C90	1.99
WITH FULL MANUFACTURERS WARRATTY VISA. MASTERGARD. AND COD ORDERS ACCEPTED SHIP. PING CHARGES ARE 4% OR 3300 MINIMUM. CALL FOR EXACT QUOTES AND AVAILABILIT. MASTERGARD. AND CANALASA MARCHAR. MO 20763 VISA. IB2 HOLTON LANE IB2 HOLTON LANE VISA. LANGLEY PARK. MO 20763 ISCHOLTON LANE ISCHOLTON LANE MASTERED DISCOUNTS – STER MIN. Order – 10 Audilo or 5 Video Tapes. or assor SAC:60 2.99 DC-45 DC ADC:60 2.99 DC-45 DC ADC:60 2.99 DC-160 DC ADC:60 2.99 DC-180 DC ADC:60 2.99 DC-180 DC ADC:60 2.99 DC-180 DC ADC:60 2.99 DC-160 2 MASTERED 7.49 EM	SUNY MDR7.		FUJI FXII FUJI MET	90. FAL 90	
SONY Metal C-60 Metal C-90 FECR C-96 FECR C-96 FECR C-96 PECR C-96 PECR C-96 FECR C-96 PECR C-97 PECR C-97	C	CONS	UME	ERVICE C	:O ER
Metal C-60 Metal C-90 5.55 FFC-7.49 EHF C-90 EHF C-60 2 EHF C-60 10 VHS T-120 14.29 L-500 10 10 10 10 INFLATION FIGHTERS SA-203 Row 18 EHF C-12 SA-203 Row 18 EHF C-12 10 EHF E 3 EHF E<	C APES Min. Orde	D. 18 ON R CONS - DISC - DISC - TO Audio - TO Audio - SAC:90 - SAC:90 - SAC:60 - ADC:90 - SAX C:60 - SAX C:90 - SA	UME OUNT or 5 Video COUNT 2.19 1.66 2.39 1.66 3.49 3.49 3.49 3.49 3.49 3.49 3.49 3.49	ERVICE C ERS C S — ST Tapes, or a OC:45 OC:90 OC:90 OC:120	
FECR C:96 2.89 LNX C:90 1 VIDEO BETAL:500 10.69 L.750 13.75 L:830 15 PRO HI C:90 2.95 PRO IC:90 2 PRO HI C:90 2.95 PRO IC:90 2 PRO HI C:90 2.99 PRO IC:90 2 PRO III C:60 2.29 PRO IC:60 1 PRO III C:60 2.99 PERF.C:60 1 PRO III C:60 2.99 PERF.C:90 1 VIDEO VHS T:120 14.29 L:500 10 INFLATION FIGHTERS SANYO CAR STEREO TECHNICS SA:203 Revr 148 FT:20 142.95 RSM:225 Cass Dk 179 SLD:303 Trinbi 125 FT:2.4 64.50 SHURE CARTRIDCE SHURE CARTRIDCE 125 FTC:1 199.90 EMP/RE CART'S 2000 E/III 16 FTC:1 115.90 M 95 HE 3.30 3.30 MEMOREX MAXELL UDXL 1 or II C:90 3.30 MEMOREX MASHE MAXELL	C APES Min. Orde	2. 18 ON R CONS - DISC - DISC - 10 Audio - 10 Audio - 10 Audio - 20 -	2.99 2.19 2.99 2.19 1.66 2.39 2.99 2.19 1.66 2.39 2.99 2.19 1.66 2.39 2.99 2.99 2.19 1.66 2.39 2.99 2.99 2.19 1.66 2.99 2.99 2.99 2.99 2.99 2.99 2.99 2	ERVICE (ERS C S – STI Tapes, or a C-45 C-60 C-60 C-120 DC-120 DC-120 DC-120 DC-130 Demagtar vHS-VIE VHS-V	
VIDEO BETAL 500 10.69 L-750 13.75 L-830 15 PRO HI C-90 PRO HI C-60 2.95 PRO HI C-60 PRO I C-90 PRO I C-60 2.9 PRO I C-60 PRO I C-90 2 PRO I C-90 2 10 VH5 T-120 142.9 L-500 10 TEC/HNICS SA-203 Revr 148 125 FT-20 142.95 RSM-225 Cass Dk 179 SLD-303 Trnibi 125 125 FTC-4 64.50 SHURE CARTRIDEG SHURE CARTRIDEG 125 M 95 HE 33 FTC-15 147.90 2000 E/III 16 16 16 16 FTC-16 147.90 2000 E/III 16 16 3.33 All merchandise fresh, manufacturer guaranteed. MI-Bias, C-90.3pk 5.99 UDXL 1 o	C APES Min. Orde	2. 18 ON R CONS - DISC - 10 Audio - 10	B4-5330 EADER S OUNT or 5 Video COUNT or 5 Video 2.99 2.19 1.66 1.66 1.66 2.39 2.39 2.39 2.39 2.39 2.39 2.39 2.39	ERVICE (ERS C S — ST Tapes. or a DC:45 DC:60 DC:20	C ER 155507 14 12 2 2 2
PRO HI C 90 2.95 PRO I C 80 2.95 I 1000 VHS T-120 14.29 L-500 10. INFLATION FIGHTERS SANYO CAR STEREO TECHNICS FT-240 14.29 SAN202 Cass Dk 179 FT-20 142.95 SA-203 Rcvr 184 FT-20 142.95 SL-2033 Trnibit 125 FT-20 142.95 SL-203 Trnibit 125 FT-20 142.95 SL-2033 Trnibit 125 FTC-2 14.99 SU303 Trnibit 125 FTC-12 109.90 SHURE CART S 34 FTC-12 109.90 2000 Certill 18 FT-482 115.90 MOD TC 23	C TAPES Min. Orde	2. 18 ON R CONS - DISC - 10 Audio - 10	34-5330 EADER S OUNT or 5 Video 2.99 2.19 1.66 2.39 2.98 4.79 4.79 5.95 4.79 5.95 5.95 5.95 7.49 E CON 5.95 5.95 2.99 2.99 2.99 2.99 2.99 2.99	ERVICE (ERS C S - ST Tapes, or a C:45 0:50	22 22 22 22 22 22 22 22 22 22 22 22 22
PRO III C.60 2:29 PRO PRO 2:89 PERF.C.90 1 PRO II.C60 2:89 PERF.C.90 1 PERF.C.90 1 VIDEO VIDEO VIDEO VIDEO 10.00 10.00 INFLATION FIGHTERS SANYO CAR STEREO TECMNICS SA-203 Revr 18.8 FT:20 14.29 SA-203 Revr 18.4 18.25 Cases Da T25 FT:20 142.95 SA-203 Revr 18.4 18.25 Cases Da T25 FT:20 142.95 SHUBE CASTRIDE TECMNICS SHUBE CASTRIDE 18.25 FT:2.4 64.50 SHURE CASTRIDE SHURE CASTRIDE 19.50 FTC.6 75.50 M 97 HE 53 FTC:4 99.50 EMP/RE CASTS EMP/RE CASTS 2000 E/III 18 FTC:12 109.90 EMP/RE CASTS 2000 E/III 18 FTC:16 147.90 2000 E/III 18 400 TC 23 33 MEMOREX UDXL 10 II C.60	C APES Min. Orde	2. 18 ON R CONS - DISC - DISC - TO Audio - TO A	34-5330 EADER S OUNT or 5 Video TECK 2.99 2.19 2.19 3.49 1.56 1.56 1.56 1.58 1.58 1.58 1.58 1.58 1.59 1.245 1.59 1.245 1.59 1.245 1.59 1.245 1.59 1.245 1.59 1.245 1.59 1.245 1.59 1.245 1.59 1.245 1.59 1.245 1.59 1.245 1.59 1.245	ERVICE C ERS C S – ST Tapes, or a DC-45 DC-50 DC-90 DC-120 DC-	C ER I I I I I I I I I I I I I I I I I I
PRO II C-90 2.89 PERF. C-60 T. VIDEO 2.29 PERF. C-60 T. VIDEO 14.29 L-500 TO. INFLATION FIGHTERS SANYO CAR STEREO FT-2400 199.95 SA-203 Rcvr TechNICS FT-20 142.95 SA-203 Rcvr TechNICS FTC-2 54.90 SHURE CARTRIDGE TechNICS FTC-6 75.50 M 97 HE 53 FTC-12 109.90 EMP/RE CARTS TechNICS FTC-16 147.90 2000 EJIII TechNICS FTC-18 95.59 UDXL 10r II C-90 3.3 MEMOREX MAXELL UDXL 10r II C-90 3.3 MEMOREX MAXELL IN.Y.S. Call IN.Y.S. Call IN.Y.S. Call IN Y.S. Call 141.90 40.0 Cet.10	C APES Min. Orde	2. 18 ON R CONS - DISC - DISC - TO Audio - TO A	34-5330 EADER S OUNT or 5 Video TECK 2.99 2.19 2.19 2.99 2.19 2.99 2.19 2.99 2.19 2.98 2.99 2.99 2.99 2.99 2.99 2.99 2.9	ERVICE C ERS C S – ST Tapes, or a DC-45 DC-50 DC-90 DC-120 DC-	C ER I I I I I I I I I I I I I I I I I I
VIDEO VIDEO VHS T-120 14.29 L:500 10. INFLATION FIGHTERS SANYO CAR STEREO TECHNICS FT-2400 199.95 SA203 Rcvr 184 FT-20 142.95 SA203 Rcvr 184 FTC-2 54.90 SHURE CARTRIDGE TEC-10 FTC-6 75.50 M 97 HE 34 FTC-12 109.90 M 97 HE 34 FTC-16 147.90 2000 E/III 18 FT-482 115.90 400 TC 23 MEMOREX MAXELL UDXL 10r II C-90 3.33 All merchandise fresh, manufacturer guaranteed. IN Y.S Call IN Y.S Call IN Y.S Call 191.41 664-2909 IV/541	C APES Min. Orde	D. 18 ON R CONS - DISC - 10 Audio - 10	24-5330 EADER S OUNT or 5 Video TDK 2.99 2.19 1.66 2.39 1.66 2.39 1.66 2.39 1.66 2.39 1.66 2.39 1.66 2.39 1.66 2.39 1.66 2.39 1.66 2.39 1.66 2.39 1.66 2.99 2.99 2.99 2.99 2.99 2.99 2.99 2	ERVICE (ERS C S - ST Tapes, or a DC:45 DC:90 DC:120 Demagtzr vHS-VIC vHS-VIC vHS-VIC vHS-VIC vHS-VIC NX C:90 NX C:90 NX C:90 NX C:90 NX C:90 NX C:90 NX C:90 ROIC:90 CI20	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
INFLATION FIGHTERS SANYO CAR STEREO TECHNICS FT.200 199.95 SANYO CAR STEREO TECHNICS FT.20 142.95 FT.30 179.95 FTC.4 54.903 FTC.4 54.90 SHURE CARTRIDGE SHURE CARTRIDGE FTC.4 99.50 FTC.6 99.50 FTC.12 109.90 FTC.16 147.90 2000 E/III 18 FT.482 115.90 MEMOREX MAXELL MEMOREX MAXELL MEMOREX MAXELL Imerchandise fresh, manufacturer guaranteed. Phone Orders Call Toil Free IN.Y.S. Call 101 Free IN.Y.S. Call 101 Free IN.Y.S. Call 101 Free ISO IN 43 1-29 32 1////////////////////////////////////	VIDEO E	D. 18 ON R CONS - DISC - 10 Audio - 10	245330 EADER S OUNT or 5 Video TDK 2.99 2.19 2.19 2.19 2.19 2.99 2.19 2.99 2.19 2.99 2.19 2.99 2.9	ERVICE C ERS C S — ST Tapes, or a DC-45 DC-45 DC-45 DC-65 DC-120 DC-1	2 2 2 2 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1
SANYO CAR STEREO TECHNICS FT-2400 199.95 SA-203 Rcvr 138 FT-20 142.95 RSM-225 Cass Dk 179 FT-30 179.95 SLD-303 Trntbi 125 FT-2-2 54.90 SHURE CARTRIDGE 54 FTC-4 64.50 SHURE CARTRIDGE 57 FTC-12 199.90 EMPIRE CARTS 57 FTC-12 199.90 EMPIRE CARTS 57 FTC-13 115.90 400 TC 3.30 MEMOREX MAXELL UDXL 1or II C-90 3.30 All merchandise fresh, manufacturer guaranteed. 191.41 664-2909 1/544		D. 18 ON R CONS - DISC - 10 Audio CAC-90 SAC-60 SAC-60 SAC-60 SAC-60 SAC-60 SAC-60 SAC-60 SAC-60 SAC-90 MARC-90 MARC-90 MARC-90 MARC-90 SAC-60 SAC-90 SAC-	34-5330 EADER S OUNT or 5 Video OUNT or 5 Video 1.66 2.99 1.66 2.99 1.66 3.49 3.49 3.49 2.98 4.79 5.95 2.88 0.59 2.89 2.95 2.89 2.95 2.89 2.95 2.89 2.91 2.95 2.89 2.91 2.95 2.95 2.95 2.95 2.95 2.95 2.29 2.95 2.29 2.95	ERVICE (ERS C S - ST Tapes. or a C:45 C:50 C:50 C:10 D:120 4hr VHS-VIC 4hr C:90 13.75 L:80 NX C:90 NX C:90 NX C:90 NX C:90 NX C:90 NX C:90 ERF.	2 2 2 2 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1
FT-2400 199.95 SA-203 Rcvr 184 FT-20 142.95 RSM-225 Cass Dk 179 FT-30 179.95 SL-2033 Troth 125 SL-2033 Troth 125 FTC-2 154.90 SHURE CARTRIDGE SHURE CARTRIDGE FTC-4 64.50 M 97 HE 53 FTC-6 99.50 M 97 HE 54 FTC-12 109.90 EMP/RE CARTS 34 FTC-16 147.90 2000 E/III 18 FT-482 115.90 MOTC 23 MEMOREX UDXL1orIIC 703.33 All merchandise fresh, manufacturer guaranteed. Phone Orders, Call Toil Free (30.0) 1.43 2.9322 In N.Y.S. Call 191.49 642.2909 1754		D. 18 ON R CONS - DISC - 10 Audio CAC-90 SAC-60 SAC-60 SAC-60 SAC-60 SAC-60 SAC-60 SAC-60 SAC-60 SAC-90 MARC-90 MARC-90 MARC-90 MARC-90 SAC-60 SAC-90 SAC-	34-5330 EADER S OUNT or 5 Video 1.56 2.99 2.19 2.18 2.38 2.38 2.38 2.38 2.38 2.38 2.38 2.38 2.38 2.45 0 5.95 2.49<	ERVICE (ERS C S — ST Tapes, or a DC-45 DC-45 DC-65 DC-90 DC-120 DC-1	2 2 1 1 1 2 2 2 1 4 1 2 2 1 1 1 1 2 2 1 1 1 1
FT-20 142.95 RSM-225 Cass Dk 179 FT:20 142.95 SLD:303 Tribit 125 FT:C-2 54.90 SHURE CARTRIDGE FT:C-6 75.50 M 97 HE 53 FT:C-6 75.50 M 97 HE 53 FT:C-12 109.90 EMP/RE CARTS 54 FT:C-15 147.90 2000 E/III 18 FT:482 115.90 MOTC 23 MEMOREX MAXELL UDXL 1or II C-30 3.3 All merchandise fresh, manufacturer guaranteed. Phone Orders Call Toll Free (800) 1/541 FOLGER 1914) 664-2909 1/541	VIDEO	2. 18 ON R CONS - DISC - DISC - 10 Audio SAC:90 SAC:90 SAC:90 OD C:60 OD C:90 SAX C:90 MAC:	34-5330 EADER S OUNT or 5 Video 165 2.99 1.16 2.99 1.65 2.98 3.49 2.98 3.49 4.79 1.2.39 2.98 3.89 1.2.45 ONN 2.98 2.49 2.49 2.49 2.49 2.49 2.49 2.49 2.49 2.49 2.49 2.49 2.49 2.49 2.49 2.49 2.49 2.29 2.99 2.29 2.99 2.29 2.99 2.29 14.29 14.29	ERVICE C ERS C S - ST Tapes, or a DC-45	2 2 1 1 1 2 2 2 1 4 1 2 2 1 1 1 1 2 2 1 1 1 1
FTC-2 54.90 SHURE CARTRIDGE FTC-4 64.50 M 97 HE 54 FTC-6 75.50 M 97 HE 54 FTC-6 99.50 M 97 HE 54 FTC-7 109.90 EMP/RE CARTS 54 FTC-12 109.90 EMP/RE CARTS 2000 E/III 18 FT-462 115.90 400 TC 23 MEMOREX MAXELL UDXL 1or II C-90 3.30 All merchandise fresh, manufacturer guaranteed. Phone Orders Call Toll Free. 10/54 FOR OTO 430 - 2932 In N.Y.S. Call 1/54 FOR DREM 141 664-2909 1/54	VIDEO E	D. 18 ON R CONS - DISC - 10 Audio - 10	34-5330 EADER S OUNT or 5 Video 1.66 2.99 1.66 2.99 1.66 2.99 1.66 3.49 3.49 3.49 3.49 1.66 2.98 1.245 ON 5.95 2.49 2.49 2.49 2.49 2.95 2.95 2.95 2.95 2.95 2.95 2.95 2.95 2.95 2.95 2.95 2.95 2.95 2.95 2.95 2.97 2.98 2.99 2.99 2.90 VUDEC 14.29 1	ERVICE (ERS C S - ST Tapes, or a DC:45 DC:50 DC:120 DC:120 DC:120 DC:120 Demagtzr WHS-VIC VHS-VIC VHS-VIC VHS-VIC VHS-VIC VHS-VIC VHS-VIC VHS-VIC VHS-VIC VHS-VIC S C:10 Demagtzr VHS-VIC S DC:10 Demagtzr VHS-VIC S DC:10 DEMagtzr S DC:10 DEMagtzr S DC:10 DEMagtzr S DC:10 DEMagtzr S DC:10 DEMagtzr S DC:10 DEMagtzr S DC:10 DEMagtzr S DC:10 DEMagtzr S DC:10 DEMagtzr S DC:10 DEMagtzr S DC:10 DEMagtzr S DC:10 DEMagtzr S DC:10 DEMagtzr S DEMagtzr S DC:10 DEMagtzr S DC:10 DEMagtzr S DC:10 DEMagtzr S DEMagtzr S DC:10 DEMagtzr S DEMagtzr DEMagt	ER 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1
FTC-6 75.50 M 97 HE 53 FTC-8 99.50 M 95 HE 34 FTC-12 109.90 EMP/RE CART'S 2000 E/III FT-615 147.90 2000 E/III 16 FT-62 115.90 400 TC 23 MEMOREX MAXELL UDXL for II C-90 3.33 All merchandles fresh, manufacturer guaranteed. Phone Orders Call Toil Free. V/SA (BOO) 4.31 - 29.32 In N.Y.S. Cell (914) 664-2909 FU Homptidelings, editional 40.0 Cred Hock Cred Hock	CAPES Min. Orde	D. 18 ON R CONS - DISC - 10 Audio - 10	34-5330 EADER S OUNT or 5 Video OUNT or 5 Video TDK 2.99 2.19 1.56 2.39 2.91 1.56 2.39 1.56 2.99 1.56 2.99 1.56 0.759 1.245 ON 5.95 2.49 69 2.49 2.49 2.49 2.49 2.95 2.95 2.95 2.97 2.98 VIDEC 14.29 14.29 11.29 11.20 11.20 11.21 11.22 11.23 11.23 11.23 11.23 11.23 11.23 11.23 <	ERVICE (ERS C S - STI Tapes, or a DC:45 DC:60 DC:120 DC:120 DC:120 DC:120 Demagtin with S-VIC V1:20 4 hr V1:50 4 hr V1:20 4 hr V1:20 4 hr V1:20 4 hr KS-VIC NX C:60 13.75 L:83 PROIC:90 PROIC:90 PROIC:90 PROIC:90 PROIC:90 TERS TECHNIC: 03.Rev TECHNIC: 03	222 11 122 14 122 14 122 14 122 14 122 13 14 122 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15
FTC-12 109.90 EMP/RE CART:S FTC-16 147.90 2000 E/III 18 FT-482 115.90 400 TC 23 MEMOREX MAXELL UDXL for II C.90 3.30 All merchandlse fresh, manufacturer guaranteed. Phone Orders Call Toll Free. 1754 Phone Orders Call Toll Free. (800) 4.31-2932 1754 In N.Y.S. Call (914) 664-2909 2754	CAPES Min. Orde	D. 18 ON R CONS - DISC - 10 Audio - 10 Au	34-5330 EADER S OUNT or 5 Video 1.66 1.67 2.99 1.68 2.99 1.68 2.99 1.68 3.49 3.49 1.68 2.99 1.69 2.99 1.245 ONN 5.95 2.49 C.49 2.49 C.49 2.49 VIDEC 2.29 2.29 VIDEC 14.29 VIDEC SLD SH	ERVICE (ERS C S - ST Tapes, or a DC-45 DC-45 DC-60 DC-90 DC-120 DC-1	CO ER Issor 1 1 2 3 3 1 4 2 2 1 1 1 2 2 1 1 1 1 1 1 1 1 1 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 2 2 1
FT-482 115.90 400 TC 23 MEMOREX MAXELL UDXL for II C-90 3.30 All merchandlse fresh, manufacturer guaranteed. Phone Orders Call Toll Free. V/54 Phone Orders Call Toll Free. (800) 431-2932 V/54 In N.Y.S. Call (914) 664-2909 V/54	SANYOC FT-200 FT	D. 18 ON R CONS - DISC - DISC - 10 Audio - 10 Audi	34-5330 EADER S OUNT or 5 Video TDK 2.99 2.19 1.66 2.38 2.38 2.38 2.38 2.38 2.38 2.38 2.38 2.38 2.38 2.38 2.99 12.45 ON 5.95 2.49 C.49 2.49 C.49 2.49 C.49 C.49 C.49 C.49 C.49 C.49 C.49 C.49 VIDEC SASF C.59 P 2.29 VIDEC SL SH M 97 M 95	ERVICE (CAS – ST Tapes, or a DC-45 DC-60 DC-90 DC-120	CO ER 11 12 23 33 14 20 14 20 14 20 14 20 14 20 14 20 14 20 14 20 14 20 14 20 14 14 20 14 14 20 14 14 20 14 14 10 15 50 14 10 15 50 14 10 15 50 14 10 15 50 16 10 10 10 10 10 10 10 10 10 10 10 10 10
HI-Bias, C-90, 3pk 5.99 UDXL for II C-90 3.30 All merchandlse fresh, manufacturer guaranteed. Phone Orders Call Toll Free. (800) 431-2932 In N.Y.S. Call (914) 664-2909	SANYO C FT-2400 FT-2400 FT-20 FT-2400 FT-20 FT-20 FT-2400 FT-20 FT-2400 FT-20 FT-2400 FT-20 FT-2400 FT-20 FT-2400 FT-2	D. 18 ON R CONS - DISC - 10 Audio - 10	34-5330 EADER S OUNT or 5 Video OUNT or 5 Video 1.56 2.99 1.66 2.39 1.56 2.39 1.56 2.39 1.56 3.49 3.49 1.57 1.56 0.739 1.245 0.749 2.49 0.759 2.49 0.750 2.49 0.750 2.91 0.750 2.92 0.750 0.750 0.750 0.750 0.750 0.750 0.750 0.750 0.729 0.729 0.750 0.750 0.750 0.750 0.750 0.750 0.750 0.750	ERVICE (ERS C S – STI Tapes, or a C-45 C-45 C-60 C-120 C-120 DC-120	CO ER 11 12 23 34 34 34 12 23 14 12 23 14 12 20 12 12 12 12 12 12 12 12 12 12 12 12 12
Phone Orders Call Toll Free. (800) 431-2932 In N.Y.S. Call (914) 664-2909 Control delivery, and M.G. Carl Christian Cardinal	SANYO C FT-2400 FT-2400 FT-2400 FT-2	D. 18 ON R CONS - DISC - 10 Audio - 10 A	34-5330 EADER S OUNT or 5 Video 7.99 2.99 2.99 2.98 2.98 2.98 2.98 2.98 2.98 2.98 2.98 2.98 2.98 2.98 2.98 2.98 2.98 2.98 2.98 2.99 2.49 2.49 2.49 2.49 2.49 2.49 2.49 2.49 2.49 2.49 2.49 2.29 2.99 2.99 2.99 2.99 2.99 2.99 2.99 2.99 2.90 VIDEC 14.29 SLD SH 9 </td <td>ERVICE C ERS C S — ST Tapes, or a DC-45 DC-45 DC-65 DC-90 DC-120 DC-1</td> <td>CO ER 11 12 13 14 12 12 12 12 12 12 12 12 12 12 12 12 12</td>	ERVICE C ERS C S — ST Tapes, or a DC-45 DC-45 DC-65 DC-90 DC-120 DC-1	CO ER 11 12 13 14 12 12 12 12 12 12 12 12 12 12 12 12 12
(800) 431-2932 in N.Y.S. Cell (914) 664-2909		D. 18 ON R CONS - DISC - DISC - 10 Audio - 10	34-5330 EADER S OUNT or 5 Video OUNT or 5 Video TDK 2.99 2.99 2.99 2.99 2.99 2.99 2.99 2.99 2.99 2.99 2.99 2.99 2.99 2.99 2.49 2.49 2.49 2.49 2.49 2.49 2.49 2.49 2.49 2.49 2.49 2.49 2.49 2.49 2.29 9 2.29 9 2.29 9 2.29 9 2.99 2.99 2.99 2.90 2.91 SLD SLD	ERVICE C ERS C S — ST Tapes, or a DC-45	CO ER 14 12 14 12 14 12 14 12 14 12 12 12 12 12 12 12 12 12 12 12 12 12
(914) 664-2909	SANYO C FT-2400 FT-240 FT-2400 FT-240 F	D. 18 ON R CONS - DISC - DISC - 10 Audio - 10 Audi	34-5330 EADER S OUNT or 5 Video 7 5 Video 7 5 Video 7 99 1.165 2.99 1.165 2.98 3.49 1.245 0 0.59 7.49 2.98 3.49 1.245 0 0.59 7.49 2.49 1.4750 2.49 2.49 1.45 0 0.69 2.29 2.99 2.29 1.4.29 1.4.29 1.4.29 1.4.29 SL SH M 97 M 95 20000 400 T UDXL	ERVICE C ERS C S — ST Tapes, or a DC-45	CO ER 14 12 14 12 14 12 14 12 14 12 12 12 12 12 12 12 12 12 12 12 12 12
For prompt delivery, send M.O., Cert. Check or use Credit Ca Person'i checks, 2 wk. del'y, Shpg & hdig: Add 5% of total ord	SANYO C FT-2400 FT-240 FT-2400 FT-24	D. 18 ON R D. 18 ON R CONS - DISC - 10 Audio SAC:90 OD C:60 OD C:60	34-5330 EADER S OUNT or 5 Video OUNT or 5 Video TDK 2.99 2.19 1.66 2.39 2.91 1.66 2.93 1.67 5.95 2.99 2.99 1.245 ONS 5.95 2.99 2.99 2.99 2.99 2.99 2.99 2.99 2.99 2.99 2.99 VIDEC ASAF SA-2 RSM M 97 M 95 2000 UDXL manufact UDXL	ERVICE (ERVICE (S – STI Tapes, or a DC-45 CC-60 DC-120	CO ER 1 1 2 3 1 4 1 2 2 2 2 1 1 1 1 2 2 2 2 1 1 1 1 1
	SANYOC FT.200 FT	D. 18 ON R CONS - DISC - 10 Audio SAC:90 OD C:60 OD	34-5330 EADER S OUNT or 5 Video OUNT or 5 Video TDK 2.99 2.19 1.66 2.39 2.91 1.66 2.93 1.245 ON 5.95 2.98 12.45 ON 5.95 2.98 12.45 ON 5.95 2.98 12.45 ON 5.95 2.99 2.99 VIDEC ASAF SA-2 SB VIDEC SA-2 SCON M 97 M	ERVICE (ERVICE (S-ST Tapes, or a DC-45 CC-60 DC-120 D	C ER 1 2 2 2 2 2 2 2 2 2 2 2 2 2

CIRCLE NO. 8 ON READER SERVICE CARD

ť

118





Here's an easy way for you to get manutacturer'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. (idey numbers for advertised products also appear in the Advertisers' Index.)

Simply mail the card. One card per person is all that is necessary. No postage is required.

This address is for our "Free Infor-mation Service" only. All other inquiries are to be directed to, Stereo Review, One Park Ave., New York, N.Y. 10016.

FREE INFORMATION SERVICE

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	
	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	
	61	62	63	64	65	66	67	68	69	70	71	72	73	74	<mark>75</mark>	
	76	77	78	79	80	81	82	83	84	85	86	87	88	89	9 0	
	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	
	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	
	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	
	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	
	151	152	153	154	155	156	157	158	159	160						
	4 🔲							ereo F	Review	v for	\$4.99	and	bill m	ne.		
(Full subscription price \$9.98)												0	3 108	12		
	PLEA	SE PF	RINT-	- Use	only o	ne car	d per	person	1.				Sr	100	13	
NAME													_			

ADDRESS

CITY

ZIP CODE

STATE_ (Zip Code must be included to insure delivery.) [Void after December 31, 1981)

	_													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40	41	42	43	44	<mark>45</mark>
46	47	48	49	50	51	52	53	54	55	56	57	58	59	<mark>6</mark> 0
61	62	63	64	65	66	67	<mark>68</mark>	69	70	71	72	73	74	75
76	77	78	79	80			83						89	9 0
91		93		-									104	
													119	
													134	
										146	147	148	149	150
151	152	153	154	155	156	157	158	159	160					

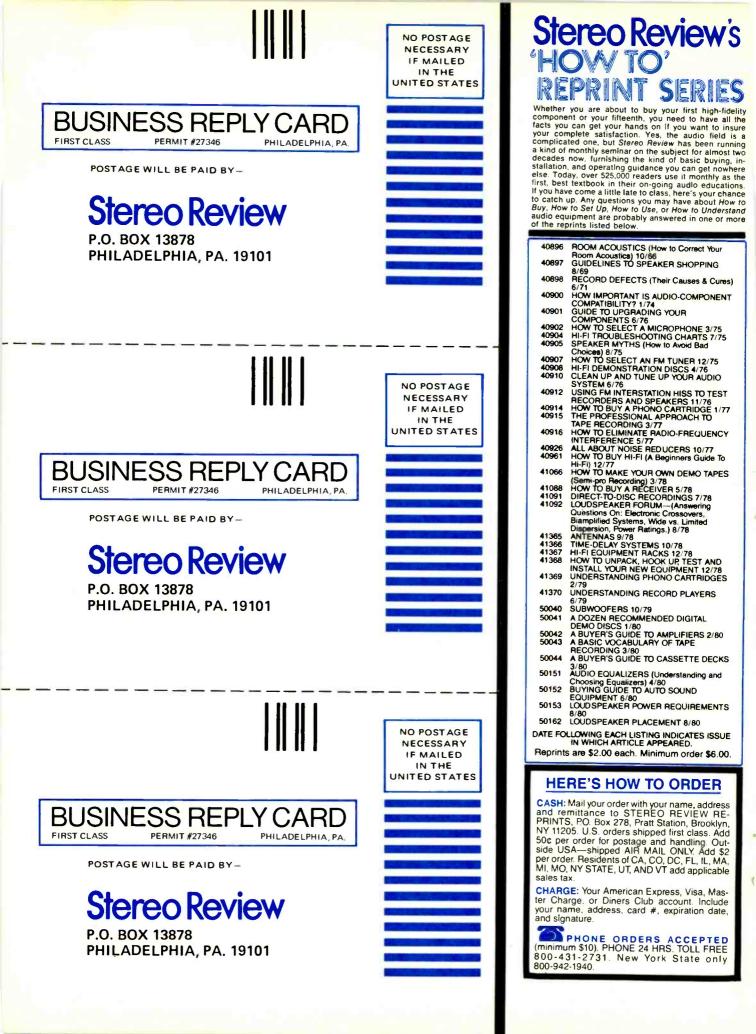
4 Please send me 12 issues of Stereo Review for \$4.99 and bill me. (Full subscription price \$9.98) SR 10812 PLEASE PRINT - Use only one card per person.

NAME_

ADDRESS.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	1
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40	41	42	43	44	4
46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70	71	72	73	74	7
76	77	78	79	80	81	82	83	84	<mark>85</mark>	86	87	88	89	90
91	92	93	94	95	96	97			100					10
		108												120
		123												
136	137	138	139	140	141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160					
4 🗌	(Ful	se ser I subs	script	ion p	rice \$	9.98)				\$4.9	9 and	_	ne. 108	11
PLE/	ASE P	RINT	– Use	only	one ca	rd per	perso	n.					1 100	

(Zip Code must be included to insure delivery.) (Void after December 31, 1981)





The New 1981 Basic Repertoire

STEREO REVIEW again presents the annual revision of the Basic Repertoire. In pamphlet form, the 1981 updating includes disc and tape recommendations for over 180 standard musical works. For your copy, send \$1 in cash, plus a stamped (20¢), self-addressed No. 10 envelope (91/2 x 41/8 in.), to Esther Maldonado, STEREO REVIEW. 1 Park Avenue, New York, N.Y. 10016.



Your National Headquarters for Name Brand Electronics by Mail

* Full Manufacturer Guarantee Applies to All Sales!!

- ★ Orders Shipped in Factory-Sealed Cartons-Most Within 24 Hours
- Multi-Million \$\$\$ Inventory



Phone Order Hours: M-W-E 8AM-4-30PM T-Th 8AM-8PM, Sat. 9AM-Noon WE CARRY THE TECHNICS PRO SERIES-Call for Quotes!

In Minois, Alaska & Hawaii call (312) 293-1825 CIRCLE NO. 57 ON READER SERVICE CARD

however, some ensemble problems in the final variations, where the double passage work between the flute and piano is slightly off kilter. The Horn Sonata is less successful: Myron Bloom's gruff approach and sometimes unfocused tone do not blend with Barenboim's more delicate reading, and a great deal of the musical structure is lost because of constantly fluctuating tempos. The album is of interest nonetheless, thanks to the relative rarity of these pieces. S.L.

BERNSTEIN: West Side Story, Symphonic Dances (see TCHAIKOVSKY)

BRAHMS: Piano Concerto No. 1, in D Minor, Op. 15. Lazar Berman (piano); Chicago Symphony Orchestra, Erich Leinsdorf cond. CBS MASTERSOUND @ IM 35850, © HMT 35850, no list price.

Performance: On the cool side Recording: Very good

BRAHMS: Piano Concerto No. 1, in D Minor, Op. 15. Jakob Gimpel (piano); Berlin Philharmonic Orchestra, Rudolf Kempe cond. PELICAN LP 2021 \$8.98.

Performance: Echt romantisch Recording: Vintage stereo

Many of the more striking aspects of the Lazar Berman/Erich Leinsdorf reading of Brahms' First Concerto grow out of the recording itself: digital mastering and a wide stereo "spread" do much to alleviate the denseness of the opening tutti, and the fugato episode in the finale has seldom sounded forth with such vitality and clarity. Interpretively, I find this reading something of a puzzler. I sense a conflict between Leinsdorf's essentially cool treatment of the orchestral part and Berman's free phrasing and lyricism. Only at the deeply moving climax of the slow movement do things really come together, reaching a peak of genuine eloquence. For all its sonic excellence, this performance largely fails to convey the impetuosity of the music.

The Jakob Gimpel recording derives from 1958 sessions with the late Rudolf Kempe that also produced a Beethoven Emperor Concerto reading still available on Genesis 1002. Gimpel, like Berman, offers a freely romantic, poetically ruminative interpretation, but he and his conductor seem decidedly more together than do Berman and Leinsdorf. Whether one agrees with this approach or not (1 prefer a more urgent one), Gimpel and Kempe make a very strong case for it, and Gimpel's handling of the solo role is full of felicitous details. The sound itself is clearly of early stereo vintage, with the piano's midrange rather on the steely side. Some judicious playback equalization may help. D.H.

RECORDING OF SPECIAL MERIT

BRAHMS: Sonata for Clarinet and Piano in F Minor, Op. 120, No. 1; Sonata for Clarinet and Piano in E-flat Major, Op. 120, No. 2. George Pieterson (clarinet); Hephzibah Menuhin (piano). PHILIPS 9500 784 \$9.98, © 7300 858 \$9.98.

Performance: Smooth Recording: Transparent

George Pieterson's beautiful recording of the Brahms and Beethoven clarinet trios



LISTS	THOUSANDS	OF RECOROS	& TAPES

LOW LOW PRICES. . . FAST SERVICE
 CLASSICAL, OPERA, POP, JAZZ, C&W

CATALOG

ANU	14 (3)	**	AIDED	PHOOLI	160	

Call Toll Free 1-800-331-1750 OP 590

International Record & Tape Club Dept. SR-590 315 WEST 36th St. NYC. NY 10018

PLEASE SEND ME YOUR SPECIAL 80-PAGE RECORD & TAPE CATALOG

	PLEASE A	LSO SEND	MEN	YOUR	VIDEO	CASSET	TE CAT	ALOG
--	----------	----------	-----	------	-------	--------	--------	------

NAME

CITY

STATE

ADDRESS

ZIP



CIRCLE NO. 51 ON READER SERVICE CARD

Rarajan: Mahler Minth

MAHLER'S profoundly affecting Ninth Symphony seems to have elicited more outstanding recorded performances than any of his others, beginning with the historic 1938 reading by the work's first interpreter, Bruno Walter (available currently on Turnabout). The new Deutsche Grammophon recording by Herbert von Karajan is firmly in that tradition, and the conductor brings to the heart-wrenching finale a white-hot intensity that I have not heard matched elsewhere on or off records. Klaus Tennstedt's finale (Angel) is probably the most spiritualized, and Carlo Maria Giulini's (DG) the richest in sheer sound, but Karajan probes even more deeply in his special way. His interpretation of the middle movements is on the same remarkable level. The Ländler offers not only flawless pacing but a gauging of coloration and internal balances that is of a wholly exceptional caliber. As for the Rondo Burleske, it would be all but impossible to find a match for this one's savagery and biting sarcasm, or its sense of fancy gone wild in the later pages. Of course, it is not only Karajan's con-

ductorial prowess and insight that make these achievements possible, but also the nearly superhuman virtuosity of the Berlin Philharmonic players, both individually and in ensemble. Purely in terms of wonderful playing, this is one of the greatest of that orchestra's many great discs, with and without Karajan. Only the marvelous first movement of the symphony disappoints here, failing to build a full measure of emotional and sonic impact for the great "death knell" climax, and for that I am inclined to blame the recording, which on this twentynine-minute side sounds a mite thin compared with the other three. The general effect is of a "coolness" in the reading that does not hold true elsewhere. But if you want to hear stunning orchestral executions of the middle movements and yet another great reading of the last, don't pass up this album -David Hall

MAHLER: Symphony No. 9, in D Major. Berlin Philharmonic Orchestra, Herbert von Karajan cond. DEUTSCHE GRAMMO-PHON 2707 125 two discs \$19.96, © 3370 038 \$19.96.

with members of the Beaux Arts Trio (Philips 9500 670) has been on my turntable with some frequency since it was assigned to me for review (see the March 1981 issue), and it gave me the highest expectations for this new release. These were raised further by the participation of the late Hephzibah Menuhin, that superb chambermusic player, in what may well have been her last recording and is one of the very few, if not indeed the only one, in which she did not perform together with her celebrated brother. This unexpected partnership is a most successful one. The playing, on both their parts, is extremely smooth but at no point superficial, and Pieterson and Menuhin play into each other's hands with the sort of inspired give-and-take that makes a performance an Event. The recorded sound is transparently realistic. R.F.

BRITTEN: Les Illuminations. SUDER-BURG: Concerto (Voyage de Nuit, d'Après Baudelaire). Elizabeth Suderburg (soprano); Piedmont Chamber Orchestra, Nicholas Harsanyi cond. TURNABOUT TV 34776 \$5.98.

Performance: Compelling Recording: Boxy

Robert Suderburg has been the dean of the North Carolina School of the Arts—with which the very capable Piedmont Chamber Orchestra is affiliated—since 1974; Elizabeth Suderburg, his wife, is one of the leading singers of new (and sometimes old) music in this country. This very attractive album from Turnabout matches Benjamin Britten's settings of Rimbaud's Les Illuminations—a relatively early and dashingly (Continued on page 124)

With Pride and Pleasure the Musical Heritage Society offers The Finest Violin Concerto Recording of this Generation For Just \$ 1 Peter Ilyitch Tchaikovsky

The Tchaikovsky Concerto in D Major

Igor Oistrakh, Soloist David Oistrakh, Conductor The Moscow Philharmonic Orchestra

The Tchaikovsky Violin Concerto might well be called the Crown Jewel of romanticism. Brilliant, moving, demanding, and richly orchestrated, it remains among the most popular concertos to this day and a worthy representative of romantic musical literature.

This interpretation (record MHS 4049, cassette MHC 6049) raises the level of beauty, emotional intensity, virtuosity, invention and taste of this work to never-beforeachieved heights. David Oistrakh, the conductor, himself one of the greatest violinists of the 20th century is in this recording surpassed by his son Igor, who plays under his father's direction.

The orchestra, the conductor, and the soloist combine to produce, a sound, a mood and ensemble balance so exquisite as to defy description. IT MUST BE HEARD and when heard generates a pleasure and excitement, emotional, intellectual, and even physical. Society members say it is among their most cherished recordings.

We offer the Tchaikovsky Concerto as a sample of the truly superb quality of our records and cassettes.

FREE-NO OBLIGATION MEMBERSHIP

Now you can have this record for just \$1, or cassette for \$2, together with an absolutely free no-obligation-to-buy-anything-ever membership in the Musical Heritage Society.

When the Society receives your request for this trial record or cassette, we will activate a membership account in your name, and, along with your introductory recording, will include "Selections from Our Master Catalog" containing records and cassettes covering every musical period, carefully chosen from our collection of almost 3,000 records and cassettes.

•The first issue of your FREE, one-year MUSICAL HERITAGE REVIEW subscription will be mailed to you. Published every 3 weeks, the Review is authoritative, lively, and will inform and enhance your enjoyment of classical music.

*Outstanding selections will be scheduled for shipment to you in record or cassette format, whichever you prefer (see bottom of coupon) from each issue of the Review--but there is NO OBLIGATION to accept them. A special response form is enclosed with each Review...and you may use it to order or reject any selections simply by mailing it by the date specified. If you want only the scheduled selections, you need do nothing--they will be shipped to you automatically. You'll have at least 10 days in which to make your decision--if you CONCERTO IN D MAJOR FOR VIOLIN & ORCHESTRA, OP.35



ever have less time than that, just return the special selections at our expense, for full credit.

•You can avail yourself of the opportunity to purchase Musical Heritage Society recordings at your special member price of \$4.95 per LP or cassette, plus postage and handling (deluxe-boxed editions and digital recordings are slightly higher).

Unforgettable Moments of Musical Pleasure Await You-Send for this Record or Cassette and your Free Society Membership Today!



MUSICAL HERITAGE SOCIETY 14 Park Road Tinton Falls, New Jersey 07724

·0511110

Please send me Tchaikovsky's CONCERTO IN D MAJOR along with my ''Selections from Our Master Catalog.'' You may enter my subscription to the Society's recording program and set up an account in my name. However, it is understood that I may cancel at any time, and there is absolutely no purchase obligation on my part. My payment for this order is enclosed.

SEND "CONCERTO IN D MAJOR" IN THIS TYPE OF RECORDING: Record #4049. \$1.00 Cassette #6049, \$2.00 # 9037 "Selections From Our Master Catalog

NAME _

CITY

ADDRESS

STATE

ZIP CODE

YOUR SIGNATURE

Send my FUTURE Selections in: Records Cassettes Offer open to new members enly. All applications are subject to review before membership is granted. Offer valid within the connecting United States only.

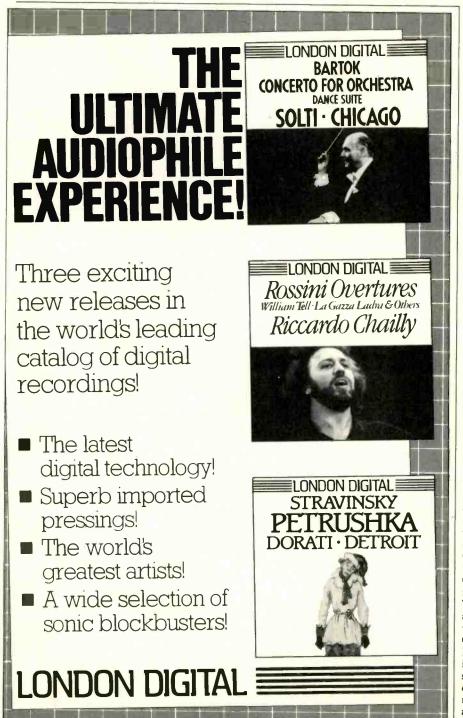
brilliant work-with Robert Suderburg's composition on Baudelaire, written for this singer and this orchestra. The surprise is the unabashedly romantic character of the latter, a "concerto" for voice, solo instruments. and chamber orchestra. Suderburg's work is generally associated with the serious twelve-tone idiom, but here he is writing skillful, expressive tonal music rather than abstract-expressionist atonal music. It's very effective too, especially in this lovely performance. The Britten piece, one of that composer's masterpieces, is also very well sung and played. The recording is somewhat boxy and doesn't have a lot of presence, but the music and the performances have plenty to spare. E.S.

RECORDING OF SPECIAL MERIT

DEBUSSY: Préludes, Book II. Claudio Arrau (piano). PHILIPS 9500 747 \$9.98, © 7300 832 \$9.98.

Performance: Magical Recording: Excellent

Last year Philips gave us Claudio Arrau's recording of Book I of the *Préludes* (9500 676), his first recording of Debussy in more than thirty years and his first phonographic encounter ever with the *Préludes*. Fortunately, we have not had to wait another thirty years for him to get to Book II, and now that it is here I can only repeat the enthusiastic welcome I gave his Book I (De-



cember 1980 issue). Arrau's magnificent way with this music must upset a lot of notions of how it should sound. I suggested last year that the pianist's long identification with the music of Liszt may have had something to do with his approach toward Debussy, for "there is nothing reticent in his large-scale, clear-textured approach, none of the veiled or blurred quality so often cultivated in the name of 'Impressionism,' nor is there a trace of the mincing crispness favored by those determined to relate Debussy directly to Rameau. In terms of fullbodied color as well as breadth and clarity, these performances are magical."

I feel a little self-conscious quoting myself, but Arrau makes the same commanding impression in Book II that he did in Book I, and I am more than doubly grateful to have the series entire. His big and bold approach, as noted before, does not rule out subtlety, tenderness, or wit, and one of the wonders of these performances (as, indeed, of these compositions) is the way a microcosm is revealed in such a piece as Feux d'Artifice, which is of course no mere virtuoso vehicle but a phantasmagoric evocation in which the idea of fireworks is almost incidental. As in the previous set, the heady exoticism of La Puerta del Vino, the humor of "General Lavine" and Hommage à S. Pickwick, and, in fact, the character of each of the twelve pieces are all the more telling for Arrau's insistence on clarity

Also as before, this is a beautifully lifelike recording, so much so that there is again audible an occasional gasping or sniffing sound that is hard to pin down as either human or mechanical. On a less meticulous pressing it might have been masked by surface noise; it does not occur frequently enough to be a serious irritant, and it in no way minimizes the appeal of this marvelous record. R.F.

FOSS: Thirteen Ways of Looking at a Blackbird (see MOLLICONE)

FRANCK: Organ Music (see Best of the Month, page 72)

GRIEG: Symphony in C Minor. Bergen Symphony Orchestra, Karsten Andersen cond. LONDON O LDR 71037 \$10.98.

Performance: Nicely turned Recording: A-1

We have a double surprise here: this first U.S. release by the Bergen Symphony Orchestra offers a hitherto unknown symphony by that city's most illustrious son, Edvard Grieg, written when he was twenty-one and barely two years out of the Leipzig Conservatory. Grieg had shown some small piano pieces and songs to Denmark's Niels Gade, who proceeded to goad the young man into trying his hand at a symphony. The last three movements were performed at the Tivoli Gardens in Copenhagen under the baton of Hans Christian Lumbye, and Grieg himself conducted the work twice in Bergen-after which he deposited the score in the Bergen Public Library with the instructions, "Never to be performed." He did, however, later arrange the middle movements for piano four-hands (published as Op. 14). The 1981 Bergen International Music Festival was the occasion of the sec-(Continued on page 126)

CIRCLE NO. 39 ON READER SERVICE CARD

The new song and dance about imported classical music.

If you are already convinced of the superior quality of imported classical music, labels like Deutsche Grammophone, EMI, Phillps, Telefunken, etc. you're going to love this ad. If you're not, check out your stereo system. Classical music buffs (and addicts) often pay dearly for the European connection: around \$13 a disk, with few exceptions. Blue Angel is the exceptional connection because we buy large quantities of the best classical music there is directly from Europe,

eliminate the percent-hungry middleperson and sell directly to you by mail. That's why our imported and famous label recordings often cost even less than their domestic counterparts. Now that you've heard the song and dance, get the real thing: factory-fresh European name brands, pressed, printed and sturdly boxed in Europe. All are Stereo unless indicated otherwise. And as many of these sets are available for the first time in the U.S.A., "not" prices are for comparison only, based on the suggested list price of comparable LP sets.



Wagner: The Ring. Complete Edition: Rheingold, Walkuere. Siegfried, Goetterdaemme-rung Herbert von Karajan con-ducts the Berl, Phil. & Opera. Gundula Janowitz Christa Ludwig, Dietrich Fischer Dies-kau, Karl Ridderbusch, etc. First-row Deutsche Gram.(2740 240). Made in Ger. Txtbk. Ger. * * * * * * * * 19 LPs no \$190 only \$99,99. It#29595

Vivaldi, 82 Concerti, The most complete anthology, perf. by I Musicl. Grand Prix du Disque: Edison Award, Deutscher Schallplattenpreis. 12 hrs. of Barog. mus. Phillps (6747029). not \$161 only \$65.99 11#29502

Schumann: Plano Works. With Claudio Arrau. Dp. 2, 11, 13, 17, 18, 19, 20, 21, 26, 28, etc. Phillps (6768084). Made in Hol-land. Text Eng./Ger./Fr. + + * * * * * * 9 LPs \$80 only \$59.99 It#29410 s not

Brahms: Complete Chamber Music. With Haas, Grumi-aux, Beaux Art Trio, Quartet-to Italiano, Ber. Phil. Octet. Good 'ol Philips (6768146) Made I Ger./Fr in Holland. Text: Eng. Fr. ••• * * * * * * 15 LPs not \$150 only \$79.99 It#29558



Berlin Philharmonics perform Berlin Philharmonics perform Beethoven 1-9, Brahms 1-4, Mendelssohn 1-5, Mozart 32 35, 36, 38, 41, Schumann 1-4 Tchaikovsky 1-6, Lavish Deu mophone edition sche Gram (2720 104). Made in Germany. 6 booklets Eng./Fr./Ger. 28 LPs in 6 volume boxes in 1 silp-case. + + + + + +

Carmina Burana: 33 Songs from the Orig. Manuscript ca. 1300, Fore-fore-fore fathers music. Early Music Quartet. Very, very rare Telefunker/Das Werk (6.35319) Made in Ger. Text: Latin/Eng/Ger. + + only \$19.99 It#29294

Plainsong: An Anthology of Gregorian Chant Gregorian Chant Per-tormed by Plainsong Choir of the Capelia Antiqua. Mu-nich. Fabulous Textbook in Latin/Eng/Ger/Fr. Precise MPS -Metronome (88010-4). Made in Germany. • • • • 4 LPs not \$40 only \$24.99 It#29461

Mozart: Idomeneo. Nicola Harnoncourt, DIGITAL Tele-Junken /6 35547) Made in Ger * * * * 4 LPs not \$43.92 only \$34.99 It#29584

Telemann: The 300th Birth-day Edition. On March 14. Georg Philipp Telemann celebrated his 300th birthday And look at the party which Telefunken is giving him: His Orchestra Works (Darmstadt Overtures, Overtures and Concertos from the Banquet Mu-sic): his Chamber Music (10 Trio Sonatas, 6 Trio Sonatas, Trios, Quartets, Soli and Con Trios, Quartets, son and con-clusions from the Banquet Music; and Telemann's Vocal Music (Pimpione, The Day of Judgement, on the original instruments). Performed by Concerto Amsterdam unde Frans Brueggen and by Con-centus Musicus under Nic-olas Harnoncourl. Excellent Telefunken/Das Alte Werk

(6.35554 . 6.35556) Made in Ger. 3 booklets (Eng/Ger.) 15 LPs in 3 volume boxes in 1 slip-case. * * * * * * * * * * \$150 only \$89.99. It#29594



Telemann: Banquet Music Complete recording. G Leonhardt, Concerto Amster F. Brueggen. Grand Prix Disque. First rate Teledu Disque. First rate Tele-funken (6.35298). Made in Ger. Text Ger/Eng/Fr. Sumptuous box. + + + + + 6 LPs not \$60 only \$34.99 It#29295

The Most Beautiful Madri The Most Beautiful Madri-gals, with the Collegium Vocale, Cologne. W. Fromm. CBS Masterworks (79333). Made in Germany. Text Eng/ Ger. • • • 3 LPs not \$30 only \$22.99 11#29579

Gustav Mahler: The 9 Symphonies. Sir George Solti conducts London & Chicago Symphonies Concertgebo Symphonies, Concertgebouw Orch. (Amsterd.). With H. Watts, R. Kollo, Lucia Popp, etc. Long row of awards. Tele-funken Decca (6.35230). Made in Germany. Text German. Silver embossed clothbd box.

J.S. Bach: 6 Suites for Violoncello. Played by Pablo Casals. Grand Prix du Disque. Rare historical mono recording. EMI/Dacapo (1C14700892/4). Made in Germany. Text: Ger. + + 3 LPs not \$30 only \$19.99 It#29511

J.S. Bach On the Original In-J.S. Bach on the Original th-struments. Collegium Areum plays Brandenburg Concer-tos 1-6 & Overtures 1-4; as performed in the 18th cen-tury Sought-after EMI/Har-monia Mundi (1C19753000). Made in Germany. Text: Ger. • • • • 4 LPs not \$40 only \$19,99 11#29510

Jacques Loussier, Play Bach. "Loussier finally tracked down the swinging common denominator between baroque music and Jazz." (Rhein ische Post Duesseld.) All 5 Play Bach LPs freshly pres sed by Telefunken-Decca (6 30115). Made in Germany A BLUE ANGEL EXCLUSIVE * * * * 5 LPs not \$39.90 only \$25.99 It#32101

The Beaux Arts Trio plays Beethoven: Complete Sym-Plano Trios, Plano Quartets phonies. Gewandhausorch. and Plano Quintets by Haydn. Leipzig, Franz Konwitschny. Mozart, Beethoven, Schubert, Mendelssohn, Schumann, Brahms, Dvorak, Tchaikovsky & Ravel, Phillps (6768238). Made in Holland, Text Eng/



The Second Viennese School

"The String Quartets". Arnold

Schoenberg, together with his pupils Alban Berg and Anton von Webern created what has cone down in history as the Second Viennese School "Second Viennese School". The String Quarets performed by the LaSalle Quarets erformed any award you can think of: Grand Prix du Disque, prix Mondial Montreux. Record Academy Prize. Edison etc. Sought-after Deutsche Gram.

mophone (2720 029). Textbook Eng./Fr Ger. Made in Ger-many, * * * * 5LPs only \$49.99.11#29474 Schubert: The String Quar-

Schubert: The String Quar-tets. Melos Quartet, Stutt-gart, Deutsche Grammoph. (2740123). Made In Germany. Text Engl./Ger./Fr. * * * * * * 7 LPs List \$62 only \$40.00 urg0225

\$49.99 11#29475 Concentus Musicus: N. Har Hay noncourt & Ensemble. dn. Purcell, Telemann, Biber Muffat, Schmelzer, Legrenzi, 16th cent. Fr., Engl., Italy & Ger. Metronome/Amadeo (189003-7). Made in Germany. Text Ger.

\$29.99 11#29085 Harasiewicz plays Chopin Collegium Musicum: "Haras rewicz is presently considered the top interpreter of Chopin. and this record is in big de-mand." Grand Prix Chopin. Philips (6747017). Made In

Shan Seleption Lout.

J.S. Bach: Complete Concertos for Harpsichord (cembalo). On the original in struments by Concentus Mu-sicus and Leonhardt Con-sort. (A new gem for the seem ingly insatiable Original Inent lovers amonast our friends.) Beautiful Tele-funken/Das Alte Werk edition (6 35049). Made in Ger. Txtbk Eng./Fr./Ger. Edison Award.

only \$29.99. It#29524 Bach: Complete Organ Works. Lionei Rogg. Considered by Grammophone Mag. to be the ultimate collection. EMI/Elec-trola (1C19714101/20). Made In Germany, Text Ger. • • • • • • • 20 LPs not \$179

only \$79.99 It#29300 Bach: Brandenburg-Concer Bach: brandenburg-Concer-tos 1-6. On the orig. Instrum. with orig. orchestration. Con-centus Musicus. Harnoncourt. Grand Prix. du Disque Tele-funken/Das Atte Werk (635043). Made In Ger, Text Eng/Ger/Fr

+ + 2 LPs \$17.99 11#29205

phonies. Gewandhausorch. Leipzig, Franz Konwitschny. With T. Adam, I. Wenglor, U. Zollenkopt etc. Radio Breen: "Beethoven like he has not been in a long time." For-tana (K71BA600). Made in Holland, Text German, * * * * * * 6 LPs not \$54 only \$24.99 H#29213

Beethoven: Complete Piano So natas, Fried, Gulda, Awardnner Metronome/Amadeo (89007/11). Made in Ger. Text

Beethoven: The 5 Plano Con certos & Choral Fantasia, Op. 80, New Philha, Orch. Lon-don. Barenboim & Klemperer. John Alidis Cholr, Grand Prix du Disque Edison EMI/Elec du Disque, Edison, EMI/Elec-trota (1C19701890/93).Made in Ger, Text Ger, + + + 4 LPs not \$35 only \$19.99 It#29249



Beethoven: The String Quar tets, Juliard Quarter, R. Mann, C. Adam, etc. CBS Master-works (GM 101), Made In Ger. Text Eng./Ger./Fr. * * * * * * * 10LPs not\$71 only \$49.99 tt#29307

Klemnerer Conducts Beetho ven. Complete: 9 Symph. Mis-sa Solemnis. Fidelio. 5 concer-tos for Piano & Orch. Leonore Overtures etc., etc. With Baren boim, Menuhin, Nilsson et al. EMI/Electrola (1C19753400/19) Made in Germany, Text Ger. BLUE ANGEL EXCLUSIVE. •

Beethoven: 9 Symphonies 1977 Berlin, Phil, H. v. Karajar 1977 Berlin, Phil, H. v. Karajan, Tomowa-Sintow, Schreier, etc. Deutsche Grammo. (2740172). Made In Germany, Text Ger. • • • • • • 8 LPs List \$71 only \$59,99 It#29422

Paganini: 6 Concertos for Viotin & Orch. With Salvatore Ac-cardo who "was able to read a score even before he could score even before he could read or write"; Charles Dutoit & London Phil, Top-quat. Deut. Gram. (2740121). Made in Ger. Text: Ger/Eng/Fr/Itat. • • • • 5 LPS not 550 only \$39.99 It#29470

Nandel: Works for Orchestra & Concertos. Complete Con-certi Grossi op. 3 & 6. 16 Or gan Concertos, Water Music Royal Fireworks. Music for Ballet. Oboe conc. etc. Acad-emy of St. Martin, con. N. Marriner, Telefunken/Decca (6 35381) Made in Germany

Handel: 16 Concerti for Or gan & Orch. Lionel Rogg on the organ of St. Michel. Fine EMi/Electrola (1C16314051/54). Made in Ger. Text Eng./Ger. \$19.99 (1#29248

The Best Plano Concertos Beethoven #3, 4, 5, Mozart #8, 20, 21, 23, 26, 27, Chopin II, 2, Grieg Op. 16, Schumann Op. 54, Brahms 1, 2, Liszt 1, 2, Tchai, #1, Rach, #1, 2, 4, Ravel, etc. Barenborn, Arrau, Weissenberg, Richter, etc. EMI/Electrola (1C19753680/94) Made in Ger. Text Ger. * * * * * * * * * * * * * * * * 15 LPs only \$65.99 It#29505

CIRCLE NO. 69 ON READER SERVICE CARD

The World of Symphony, Pro- The Cream Collection, A bably the largest single col-lection of records that has ever been offered in the U.S.A. An exclusive 91 record set in 5 collector boxes. The complete symphonies of Beethoven, Mozart, Bruckner, Brahms, Tchalkovsky, Sibellus, Mah ler Dvorak, Bartholdy, Schumann, Schubert, And the best of Haydn, Conductors: Abba do, Jochum, Boehm, Kubelik, Karajan, Orig, Deutsche Gram, Karajan Orig, Deutsche Gram, (stamped, dated poly-lined sleeves). Made in Germany. Throughout Stereo. A heavy (31 lbs) bargain: 91 LPs not \$900 only \$379. tt#29308

Brahms: Complete Sympho-Brahms: Complete Sympio-nies, Acad, Festival & Tragic Overtures Op. 80 + 81. Phil. Orch. London, Klemperer. EMV Electrola (1C19750034/7). Md. in Germany, Text German, + + + 4 LPs not \$35 only \$16.99 it#29131

Sviatoslav Richler Famous Russian Plano Concertos Tchaik, No. 1, Rimsky-Korsa-kov Op. 30, Rachmaninov 1 & kov Op. 30, Hachmaninov 1 & 2, Prokoviev No. 1, Glazunov No. 1, Leningrad Phil., Mos-cow Sym, and TV Sym. Orch. with Sanderling, Mrawinskilj and Kondraschin. Recorded in the USSR. Made in Germ by Melodia Eurodisc (89 831 XGK), Text Germ. • • • 3LPs not \$30 only \$24.99

W.A. Mozart: The most beau-tiful Serenades. Eine kleine Nachtmusik (Berlin Phil. Ka-rajan.); Haftner Serenade. Colloredo Serenade (Y. Me-Control de Serenaue (1. 146 Serenade, Serenata notturna (Consortium Musicum). EMI/ Electrola (1C153-52345/47) Made In Germany. Text in Eng./Ger. 3 LPs not \$27 only \$19.99. It#29250

Mozart: Wind Concertos Mozart: Wind Concertos. Bassoon B Maj; Flute No 1 G Maj; Clarinette A Maj; Oboe C Maj; Flute, Harp & Orch. C Maj; etc. Herbert v. Karajan cond, Berlin Philharmonics. EMI/Electrola (1Ct9702238 40). Made in Germany. Tex Ger. + + 3 LPs not \$26 or ly \$19.99 lt#29369 Text

Klemperer Conducts Mozart Complete: Cosi fan tutte Nozze dl Figaro, Magic Flute etc. Sym: No. 25, 29, 31, 33-41 etc. etc. Philharmonia & New Phil. London Wind Ens., etc. EMI/Electrola (1C19753714/ 38). Made in Ger. Text Ger. BLUE ANGEL EXCLUSIVE. • * * * * <mark>* * * * * *</mark> * * 25 LPs only \$95.99 It#29500

Mozart: Complete Plano Con certos. Daniel Barenboim & the English Chamber Orch the English Chamber Or Cited as being a masterw by a still young interpre EMI/Electrola (1C197522 60). Made In Germany. T Eng./Ger. • • • • • • • • • • 12 LPs not \$ only \$49.99 (#29231

Mozart: Symphonies 1-41

Mozart: Complete Violin certos. Bath Festival Orch Menuhin cond. & plays. EMI Electrola (1C15352341/44) Made in Germany. Text Ger. • • • • • 4 LPs not \$35 only \$19.99 It#29347

The Cream Collection, A piece of musical history: the orig..Cream recordings. Fresh Cream. Live Cream I. Live Cream II. Wheels of Fire (2 recs). Disraeli Gears. Goodbye. Original covers in a beau-tiful box. RSO 2658 142. Made in Germ. by Deutsche Gran phone. + + + + + + + not \$49.88 only \$44.99. It#24214

All orig. Beatles LPs. No over

laps. Collector's Item: Orig. albums as released in Eng-land.orig.covers! PIs. Please Me, With. Hard Day's Night.

Me, With, Hard Day's Night. For Sale, Heip, Rubber Soul. Revolver, Sgl. Pepper, While Album (2 LP), Yellow Sub, Ab-bey road. Let it Be, Rarities. EML. Made in Holland. Gold-embossed box, very imilied slock! • • • • • • • • • • • • • 14 LPs not \$11t only \$99.99 !!#23392

Verve Jazz Box: A hommage

to one of the most important Jazz labels and to one of the best Jazz producers. Norman

Granz. A collection of Jazz heavies from the beginnings

to now. On 1 LP side each. A history of Jazz in a bitter

sweet chocolate brown box Gold-printed booklet. Verve 2625011. + + + + + + + + 10 LPs not \$80, only \$49.99 It#32100

Dinu Linatti (The James Dean

of Classical Music.) Selected Works from Bach. Brahms. Chopin. Enescu, Grieg, Liszt.

Mozart Ravel, Schubert, Schu

mann & Scarlatti Important

hist, Mono rec. EMI/Electrola (1C19753780/86). Made in Ger.

Text Germ. + + + + + + 7 LPs only \$29.99 It#29554



Rolling Stones Story: The good old Decca times. Stones 1. Around & ar. Stones 2. Out of our heads. Aftermath. Got of our heads. Aftermath Got live if you want. Satahic Maj-esty... Beggar's Banq. Let it Bleed, Ya-yas Out, Metamor-phosis. Btw. The Buttons 2 historical Mono LPs. Tele-funten/Decca (6.30118). Made In Germany. * * * * * * * * * * * * * * * * * 12 LPs only \$74.99 It#24213

12 Orio, Hendrix LPs, Orio, covers (Inc. Ladyland). Are you experienced. Bold as love. Band of Gypsies. Isle of Wight. Crypt love, West. War Herces Midnight Lightning, Crash Land-Ing Blues End, Ladyland, Plus rare single. Book. Polydoi (2625038). Made in Germany

Call Toll Free: (800) 446-7964

Virginlans, pls. call (804) 293-5197. We are here from 9 - 5 EST. Ask for Bambi, or leave a message.

Okay, folks, I'll give you a try!

Quant.	Of Item#.	\$ each.
1		
_		
_		

Quantitles are limited. Add \$3 for post&hdlg. VA residents add 4% sales tax. 10 day money back quarantee for unplayed records.

FOREIGN ORDERS: Visa/MC, Intl. money order or cashier's check in U.S. funds only. Add 10% for p&h, \$7.50 minimum.

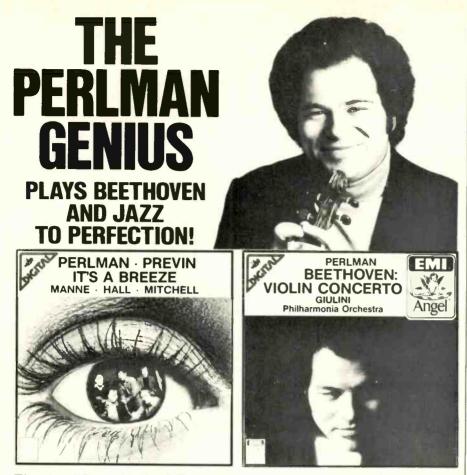
) I have enclosed check/money order for \$_ (allow 3 weeks for personal checks). () Send it C.D.D. I will pay add. post & here's \$10 as a deposit.

) Charge it to my () MC () Visa (fast delivery!).

State	Zip
	State

) Please send me your catalogue.

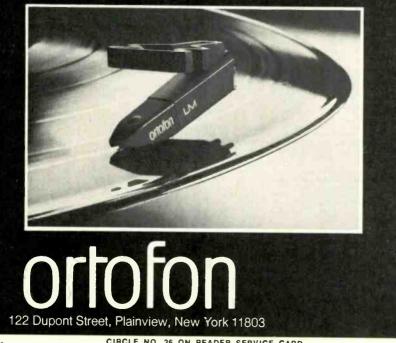
Blue Angel, Inc. 1738 Allied St. Charlottesville, VA 22901



The New Standard of Excellence on Angel Records & Tapes

Ortofon LM cartridges have changed the audio world. Super low mass eliminates resonance distortion and unwanted signals from warped records, while our exclusive, patented VMS generating system lets you hear your records with unprecedented clarity.

What in the world are you doing with a cartridge other than an Ortofon LM?



ond "première" of the orchestral work as well as the present recording.

To be honest, there are no startling revelations here. Like many "youth" symphonies, the end movements of this one are almost too full of ideas and a bit short on developmental know-how. Grieg's judgment was right in allowing the slow movement and scherzo, the latter having something of a Swedish polska feel to it, to survive as keyboard pieces. The work as a whole is highly redolent of Schumann (and not of Grieg as we know him), and the finale is rather lengthy for its substance. Karsten Andersen and his players turn out a neat and rhythmically precise performance, and London's digitally mastered recording is absolutely first-rate, but this remains a disc for Grieg buffs and specialists in the Romantic symphony only. DH

RECORDING OF SPECIAL MERIT

LISZT: Piano Concerto No. 1, in E-flat Major; Piano Concerto No. 2, in A Major. Jorge Bolet (piano); Rochester Philharmonic Orchestra, David Zinman cond. Vox CUM LAUDE VCL 9001 \$8.98, © VCS 9001 88 98

Performance: Powerful and poetic Recording: Bright

Jorge Bolet recorded Liszt's First Concerto about twenty years ago with Robert Irving and the Symphony of the Air for Everest, but that disc has not been available for some time, and he has apparently not recorded the A Major before. It is good to have these omissions corrected at last, for there is no finer performer of Liszt's piano music. Like all of Bolet's Liszt performances, these are exemplary in terms of both power and poetry. The former quality is all the more impressive for his giving the sense of so much more being held in judicious reserve; the latter is similarly refreshing for his avoidance of heaving and churning in favor of delicate but pointed reminders that even in these often derided concertos subtlety can make the difference between a "vehicle" and music of substance. David Zinman's contributions are sensitive and sympathetic, and his orchestra's winds in particular make a fine showing. The sound is bright and attractive. RF

RECORDING OF SPECIAL MERIT

MAHLER: Symphony No. 2, in C Minor ("Resurrection"). Isobel Buchanan (soprano); Mira Zakai (contralto); Chicago Symphony Chorus and Orchestra, Sir Georg Solti cond. LONDON @ LDR 72006 two discs \$21.96.

Performance: Intensely dramatic Recording: Revelatory!

This is the first digitally mastered Mahler Resurrection Symphony, and the combination of Sir Georg Solti and his Chicago forces is a formidable one indeed, backed by a London production crew in top form. Solti is considerably freer in the opening movement here than he was in his 1966 recording with the London Symphony Orchestra. I sense not only a careful restudy of the score, with meticulous attention to Mahler's portamento markings for the violins, but also perhaps an acquaintance with Leonard

Bernstein's wildly visionary 1974 reading at Ely Cathedral (Columbia M2 32681), the film of which was broadcast earlier this year on public television.

The second movement here has just the right Ländler lilt and a most effective handling of the contrasting middle section. The pizzicato reprise is utterly breathtaking in digital sonics. In the scherzo the recording is revelatory in fine details of balance and sonority: for once the rustling sound of the Ruthe (birch broom) on bass drum is not lost in background noise. The Urlicht movement is rather lushly sung by Mira Kakai, who is no match for Janet Baker (in Bernstein's Ely recording) in conveying the rapt ecstasy this music demands. The apocalyptic finale is all one could ask for in terms of drama, though it's a bit hectic in the march episode in which the trumpet introduces the "Aufersteh'" theme later intoned by a cappella chorus. The Chicago Symphony Chorus does itself proud here, and the "Bereite dich!" outburst by the men will really curl your hair. The truly lovely vocalism of soprano Isobel Buchanan throughout the last pages of the finale also deserves mention.

In short, this is yet another distinguished recorded performance of the *Resurrection* Symphony. What sets it apart from a halfdozen others—among them those by Bruno Walter, Claudio Abbado, and Zubin Mehta, as well as both of Bernstein's (the dareall Ely Cathedral reading was preceded by a fine studio recording with the New York Philharmonic)—is that here the performance is supported by just about the most impressive sound this symphonic colossus has yet been accorded. *D.H.*

MOLLICONE: The Face on the Barroom Floor. Leanne McGiffin (soprano), Isabelle/Madeline; Barry McCauley (tenor), Larry/Matt; David Holloway (baritone), Tom/John. Alice Lenicheck (flute); George Banks (cello); Henry Mollicone (piano). FOSS: Thirteen Ways of Looking at a Blackbird. RoseMarie Freni (mezzo-soprano); Robert Dick (flute); Jan Williams (percussion); Ivar Mikhashoff (piano). COMPOSERS RECORDINGS, INC. SD 442 \$7.98.

Performance: Very good Recording: Excellent

Henry Mollicone, who used to be an assistant conductor at the New York City Opera, wrote the original version of his one-act opera The Face on the Barroom Floor for the 1978 hundredth-anniversary celebration of the opera house in Central City, Colorado. The Teller House saloon there is where the famous face was really painted on the floor by a drunken artist in the 1930s. The face in question, of course, is the one in the venerable poem by H. Antoine D'Arcy that used to be part of the repertoire of every parlor elocutionist. It tells the story of Matt, "who comes to the West to find fame and gold" and wants to share it with the beautiful Madeline. He paints her face on the barroom floor and fights over her with her lover, John, who runs the place. When she hurls herself between them after John pulls a gun, she is shot dead; Matt and John survive.

Mollicone's short opera, with a crisp li-(Continued on page 129)



CIRCLE NO. 40 ON READER SERVICE CARD

STEREO CATALOG and FM DIRECTORY



Get all the newest and latest information on the new McIntosh catalog. In addition you will receive an FM station directory that covers all of North America.



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.

Astonishing.



"The sound of this diminutive speaker is nothing less than astonishing.

"Listen to the Four if you possibly can. It is worth hearing — even if you are not shopping for a speaker — just for a demonstration of how good a small box can sound."

STEREO REVIEW June, 1978. Copyright Ziff-Davis Publ. Co. For literature and information call (800) 225-4791 or send coupon.

The Allison: Four — costs \$280 each in oiled walnut, \$290 in oiled oak cabinet.



State

Name

Address

City _____

Zip ____





Rzewski: Piano Music

As I have said, lo these many years, the real split in contemporary music, of whatever genre, is between the minimalists and the maximalists. And having said so, I feel compelled to add that I hate people who talk and write like that. But the division is real nonetheless.

The composers and critics who support minimalism are legion, and the phenomenon is well understood. Awash as we all are in the informational overload of the past few decades, it is perhaps not surprising that so many have fled into simpler creative worlds where the eternal verities-some eternal verities, any eternal verities-still reign. More complex and ultimately more interesting are those artists of maximalism who try to confront, use, or sort out the manifold inputs that bombard us. I'll admit right off that this approach catches my sympathy more than its opposite, in part because I have tried to do the same thing myself in various ways since the early Sixties (sometimes in concert pieces, but mostly in a series of music-theater pieces written with Michael Sahl).

Composer-pianist Frederic Rzewski has impeccable avant-garde credentials; he is also a musician interested in social issues. In his recent work he has tried to integrate the European classical tradition, the American popular/folk tradition, and the avantgarde. In his case, the re-creation of traditional elements is not, I think, in any way a return or a looking backward (as it may be with certain other contemporary composers) but a genuine attempt to achieve a higher synthesis. Rzewski's best-known work in this vein is the big piano piece The People United Will Never Be Defeated on Vanguard 71248, and now the same label has brought us a record full of smaller pieces for the instrument, played by the composer, that are even more ingratiating,

tighter, perhaps in a way more "complete" in themselves.

The 1977 Four Pieces (really a piano sonata without benefit of clergy) are colorful, insistent, multifaceted works. This is playing music—a kind of contemporary Gebrauchsmusik but without Hindemith's neo-Baroque pedantry. Unlike a lot of the best new music, these pieces belong to the central concert tradition, but in its widest, least snobbish form. As such, they ought to be played in concert halls, and played quite a lot.

The Ballad No. 3, called Which Side Are You On?, is a bit more like the earlier The People United. This is the third of four ballads based on North American folk and protest songs that Rzewski wrote for pianist Paul Jacobs (who recorded them for Nonesuch). The basis for this one is a protest song on a traditional tune written by Florence Reese in 1931 about the coal-miners' strike in Harlan County, Kentucky. The traditional tune turns up in its original form only after its elaborate balladic interpretation. Rzewski's version here differs considerably from Jacobs', not least in its inclusion of an extensive improvisational section that is as long as the written-out part of the work. Rzewski has been doing quite a bit of exploring in the area of improvisation, and some of the best fruits of his exploration are to be found in both the improvised and the written-out portions of this music.

Rzewski's virtuosic performances—reminiscent of the composer-pianists of the past—are excellent, and the digital recording is good. A most worthwhile release. —Eric Salzman

RZEWSKI: Four Pieces; Ballad No. 3, Which Side Are You On? Frederic Rzewski (piano). VANGUARD @ VA-25001 \$12.98, © CVA-25001 \$12.98. bretto by John S. Bowman, frames the saga of Madeline, Matt, and John inside a parallel drama involving a contemporary bartender, a visiting tourist, and his opera-singer girl friend who are fated to re-enact the earlier tragedy. The score is an attractive if somewhat simple-minded one in the Menotti tradition, suffused with a wonderful sense of period atmosphere. The opera actually premiered at the Teller House saloon instead of the opera house, and it has toured successfully since then. On the recording, Leanne McGiffin (who created the role of Isabelle/Madeline), Barry McCauley, and David Holloway perform impeccably under the composer's direction, and the work makes for fascinating listening.

Lukas Foss' setting of Wallace Stevens' poem Thirteen Ways of Looking at a Blackbird, with its startling still-life imagery that has stimulated a number of composers, was commissioned in 1978 by Chicago's fine-arts radio station WFMT. For it Foss combined his early tonal style with his later experimental approach to create a score that is both intricate and spectacular. It is intensely interpreted here by mezzosoprano RoseMarie Freni with the vocal line closely woven into the instrumental texture. I still prefer composer Alan Blank's bleaker treatment of the same text as a series of variations; Foss puts the poet at his service while Blank puts his music at the service of the poem. Yet the Foss work is a distinguished one in its flamboyant way, and it is excitingly performed here. P.K.

MOZART: Flute Concerto No. 1, in G Major (K. 313); Flute Concerto No. 2, in D Major (K. 314); Andante in C Major (K. 315); Rondo in D Major (K. Anh. 184); Concerto in C Major for Flute, Harp, and Orchestra (K. 299). Frans Vester (flute); Edward Witsenburg (harp, in K. 299); Mozart-Ensemble Amsterdam, Frans Brüggen cond. PRO ARTE 2PAL-2004 two discs \$19.98, © 2PAC-2004 \$19.98.

Performance: Dreary Recording: All right

MOZART: Concerto in C Major for Flute, Harp, and Orchestra (K. 299); Oboe Concerto in C Major (K. 314); Rondo in D Major for Flute and Orchestra (K. Anh. 184), Jean-Pierre Rampal (flute); Marielle Nordmann (harp); Pierre Pierlot (oboe); English Chamber Orchestra, Jean-Pierre Rampal cond. CBS M 35875, © MT 35875, no list price.

Performance: Inspiriting Recording: Bright

This Dutch Mozart set, recorded ten years ago, has been around at least once before, and not too long ago, as ABC/Seon 67040. The new Pro Arte pressings are cleaner but still offer the same dreary performances, not at all what one would expect from the usually enlivening Frans Brüggen and his associates. The "original instruments" offer little enticement here. The acoustic ambiance, too, is rather dead, the labeling is inadequate, and the half-hour K. 299 is gratuitously spread over a side and a half.

With the Jean-Pierre Rampal record we are, not at all unexpectedly, in a different world. Heaven knows how many times Rampal has recorded each of these works (not as conductor heretofore, but as soloist,

IT DOESN'T COST ANY MORE TO OWN A BANG & OLUFSEN CARTRIDGE.

One of the most prestigious names in audio offers a remarkably affordable way to improve your stereo system. Bang & Olufsen MMC Cartridges.

Their audibly superior innovations will now fit virtually all of today's better tonearms. What is MMC? It's the patented

Moving Micro Cross[®] armature found in all five Bang & Olufsen cartridges. This MMC delivers exceptionally

This MMC delivers exceptionally accurate stereo separation, depth and realistic stereo imaging which pinpoints the placement of individual instruments. One audition will convince you.

Our extremely low Effective Tip Mass affords much longer record life and better tracking even on "hopelessly" warped records.

BANG & OLUFS

You'll find a solid, single-crystal sapphire cantilever on the remarkable MMC-20CL.



MMC

10

Model MMC 20 CL with Universal Adapter.

Why sapphire? Because it has very low mass yet is 21% more rigid than beryllium and 500% more rigid than aluminum commonly used in other cartridges.

This rigidity virtually eliminates any distortion-causing vibration within the cantilever. Every subtle movement of the stylus tip is translated into transparent sound and musical detail.

Hear for yourself why the critics respect our MMC cartridges...and learn how for the price of a fine cartridge you can own a Bang & Olufsen.

For more information, write to:

Bang & Olufsen

Bang & Olufsen of America, Inc. 515 Busse Road Elk Grove Village, Illinois 60007

*Moving Micro Cross is a registered trademark of Bang & Olufsen. CIRCLE NO. 4 ON READER SERVICE CARD

the Oboe Concerto being identical with the Flute Concerto No. 2), but each time around they come up sounding just as fresh as before. Rampal is an unfailingly inspiriting musician, and the joy he communicates is in almost cruel contrast with the lifelessness of the Dutch performances-especially in the D Major Rondo (Franz Anton Hoffmeister's transcription of Mozart's Rondo in C Major for violin and orchestra, K. 373), which even Rampal has not brought off with such winning élan before. In conducting for his longtime associate Pierre Pierlot and in his dual partnership with the presumably young and demonstrably gifted Marielle Nordmann, Rampal's delighted response to the stimulus of good company as well as good music is unmistakable and irresistible. There are other attractive recordings of both concertos, by Rampal and others, but if this combination of titles appeals to you, you can't go wrong with this package. Bright, airy sound too, from an Erato original. RF

MUSSORGSKY: Night on Bald Mountain; Khovanschina, Prelude and Entr'acte; Scherzo in B-flat Major; Triumphal March; Joshua; Three Choruses (see Best of the Month, page 75)

RECORDING OF SPECIAL MERIT PROKOFIEV: Alexander Nevsky. Larissa Avdeyeva (mezzo-soprano); Republican Russian Chorus; USSR Academy Sympho-

ny Orchestra, Yevgeni Svetlanov cond. War

and Peace (Highlights). Galina Vishnevskaya (soprano), Natasha; Valentina Klepatskaya (mezzo-soprano), Sonya; Yevgeny Kibkalo (baritone), Bolkonsky; Aleksei Krivchenya (bass), Kutuzov; Boris Shapenko (tenor), Denisov; Leonid Ktitorov (bass), Tikhon; others. Chorus and Orchestra of the Bolshoi Theater, Alexander Melik-Pashayev cond. MUSICAL HERITAGE SociEry MHS 824351 two discs \$15.50 (plus \$1.60 postage and handling charge from the Musical Heritage Society, 14 Park Road, Tinton Falls, N.J. 07724).

Performance: Vital and idiomatic Recording: Very good

These two major works of Sergei Prokofiev have a great deal in common. Aside from their historical material, which provides a natural link, political events played a crucial part in their musical creation. The triumphant film score to Alexander Nevsky (1938), which is the source of this cantata, was written under the threatening shadow of World War II: the implications of this reminder of past Russian glory in repelling the "Teuton" invaders could hardly be lost on the public. The composition of War and Peace was begun three years later, when the German invasion of Russia made the Napoleonic horrors related in Tolstoy's epic novel terrifyingly contemporary. The opera's martial episodes echo similar portions in Nevsky, and it is not difficult to find counterparts to the cantata's occasional lyric portions in the vast panorama of the opera.

Both of these recordings were previously available as Melodiya/Angel 40011 and 40053, originally released around 1968. Several versions of Alexander Nevsky have been recorded since then, and they may surpass this one in sonic terms, but I find this Russian performance excellent. The colors and clangors of Prokofiev's music are captured with vivid sharpness, with nicely detailed choral and orchestral sonorities. Moreover, Yevgeny Svetlanov's identification with the music appears to be total. His sensible tempos, generally on the lively side, move it briskly forward and keep the sentimental episodes from turning lugubrious. Mezzo Larissa Avdeyeva intones her Lament movingly, with deep-felt but not excessive emotion.

War and Peace is a more complicated matter. The opera itself is an uneven work, more convincing in the intimate confrontations than in the massed and exhortatory scenes Prokofiev was urged to expand for patriotic purposes. To take a realistic view, just as the opera cannot be a true representation of Tolstoy's vast epic, so highlights cannot do justice to the opera. (The complete War and Peace is available on a fourdisc CBS set, M4 33111.) However, these highlights offer a great deal of worthy music, very well performed.

Galina Vishnevskaya's impressive theatrical gifts are matched by pleasing vocal strengths to create a sympathetic Natasha. Yevgeny Kibkalo, a fine lyric baritone, is very touching in the strange but effective music Prokofiev contrived for Bolkonsky's

To fully appreciate the design advantages of our headphones simply put on a pair and listen. The AKG K340 is truly unique. Each earpiece

contains an electrostatic high frequency transducer, shown here, a moving-coil, dynamic low frequency transducer, and AKG patented <u>passive diaphragms</u>. This combination of components allows the full spectrum of sound to be reproduced with unequaled detail, clarity and realism.



Every AKG headphone has been designed for comfort as well as performance ... and there are more than 5 models to choose from.

Your AKG dealer is ready to give you a demonstration of all the design advantages inherent in what many professionals consider to be the best sounding headphones in the world... and the most comfortable.



AKG Akustische und Kino/Geräte GmbH. Austria

death scene. The music of the heroic Field Marshal Kutuzov is more functional than memorable; Aleksei Krivchenya delivers it in a lusty, powerful, and unsubtle fashion. The crucial roles of Hélène and Pierre Bezukhov have been squeezed out of these "highlights," but in the brief episode of the burning of Moscow (side four, band two) you can briefly hear two exceptional singers: baritone Pavel Lisitsian (Napoleon) and bass Artur Eizen (Rambal). The musical leadership and the choral work are both exemplary. In all, then, these are very praiseworthy recordings, and the set is enhanced by Peter J. Rabinowitz's informative annotations. G.J.

RECORDING OF SPECIAL MERIT

PROKOFIEV: The Love of Three Oranges, Symphonic Suite, Op. 33bis; Lieutenant Kijé, Op. 60; Symphony No. 1, in D Major, Op. 25 ("Classical"). London Symphony Orchestra, Neville Marriner cond. PHILIPS 9500 903 \$9.98, © 7300 903 \$9.98.

Performance: Lively Recording: Excellent

Prokofiev was, in the great tradition of Rimsky and early Stravinsky, a composer who could evoke magic and fantasy. Almost alone among modern operas, his *The Love* of *Three Oranges* has fantasy without breast-beating or pies in the face. *Kijé*, although the subject is satirical rather than fantastical, has some of the same qualities, and so, in fact, does the *Classical* Symphony. Russian composers are supposed to be tormented souls, but there seems to have been hardly a shred of self-pity in Prokofiev or his music, and, unlike the urban, acerbic aesthete Stravinsky, he wore his neo-Classicism with charm and good spirit.

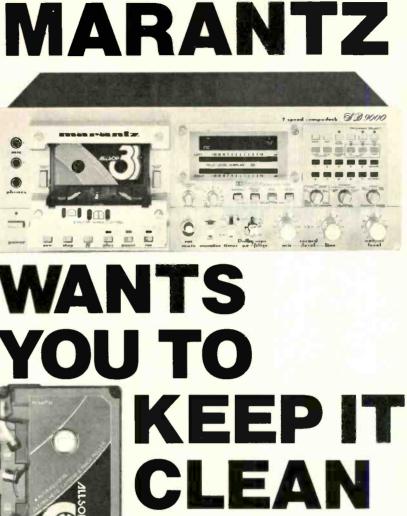
These new recorded performances help a lot. The *Classical* Symphony here is quite different from what we are used to hearing; instead of the hard edge, brilliant sound, and bite that nearly everyone prefers nowadays, it is an almost pastoral reading charming, elegant, laid-back, full of happy detail. The two suites are also simple, a bit livelier, and completely ingratiating. The recording sounds good too. Enjoy. *E.S.*

PUNTO: Horn Concertos: No. 5, in F Major; No. 6, in E-flat Major; No. 10, in F Major; No. 11, in E Major. Barry Tuckwell (French horn); Academy of St. Martin-inthe-Fields, Neville Marriner cond. ANGEL SZ-37781 \$9.98.

Performance: Pleasing Recording: Excellent

The young Beethoven wrote his Horn Sonata, Op. 17, for the great virtuoso Giovanni Punto. This prompted a Budapest critic to write, "Who is this Beethover [*sic*]? His name is not known in musical circles. Of course Punto is very well known."

Punto was a Bohemian (that is, a Czech) whose real name was Jan Václav Štich. Like many of the great virtuosos of another day, he wrote fancy concertos to show off his own abilities—supposedly more than a dozen concertos all told, although some of the scores are now lost, defective, or misattributed. They are difficult; they belong to the developed high Classical style, and, al-(Continued on page 133)



Marantz[™] solid gold cassette decks represent the new standard in audio technology. The Marantz SD 9000G utilizes 24 karat gold plated input and

ALLSOP

output jacks for the ultimate in oxidation free/low distortion audio connections. Regular maintenance to keep its heads, capstan and pinch roller free of dust, pollutants and tape oxides will guarantee state of the art performance.

The Allsop 3 audio cassette deck cleaner is just about the fastest and easiest way to keep your Marantz or other cassette deck operating at its peak. Simply moisten the Allsop 3 with Allsop's specially formulated solution and insert into the deck like a regular cassette.

In seconds, the Allsop's virgin wool pads gently clean the capstan, pinch roller and head leaving your deck ready to produce sounds that will make your ears tingle. The Allsop 3 cleans quickly and safely which is why it is recommended by Marantz and other leading makers of quality audio products.

WE KEEP IT CLEAN ALLSOP, INC., POST OFFICE BOX 23, BELLINGHAM, WASHINGTON 98227







A sone of the happy few who really *like* to listen to English art songs, I have long since resigned myself to the fact that most people don't. What I have never really resigned myself to is that recorded versions of the songs come only in dribs and drabs over the years, rarely by major artists, all too frequently by inferior ones or by those who have seen, or have yet to see, a better day. Why don't they get somebody good, I've often thought, and make a nice two-record set of a whole pack of songs. Well, "they" did (nice to give some credit to "they" once in a while rather than just blame them for everything that goes wrong).

Peters International has released an Oxford University Press recording of Ian Partridge singing thirty-nine "English" songs, dating from 1889 to 1929, by four composers. The quotation marks around "English" are there because of five of the Delius songs which, while invariably sung in English. were originally composed to texts in Norwegian. Partridge is one of the best English tenors around today; his voice, while not of the sort raved about in operatic circles, is capable of producing beautiful and affecting tones, his phrasing is musicianly, his diction excellent and not overdone. His major drawback is that he is not a particularly imaginative or daring singer, and his accompanist here, Jennifer Partridge, is also rather soberly musical. But it is a very well performed album.

I doubt, though, that it will do much toward making English art song *more* than a minority taste. You simply can't play these four sides through at a single sitting; there's too much sameness of sound. To an extent the music is responsible, but it would have been a far more listenable program if shared with a woman's voice, perhaps with a couple of duets.

As a compendium from which to select, however, the set makes perfect sense. Warlock's modern reincarnation of the Elizabethan song is represented by some of his best pieces (they are mostly the ones that have been recorded before). *Sleep*, with its wonderful modulation to nowhere at the end, is a splendid example and quite a little masterpiece. Most of the Delius songs are less familiar, and they show the composer, interestingly, struggling against the limitations of the medium, yearning for orchestral sonorities, and generally trying to write

"big." The songs are successful in varying degrees, but the best of them, Twilight Fancies, is certainly a great one. The Vaughan Williams songs show the greatest stylistic range, despite the fact that all but one were composed within a three-year span. The New Ghost and The Water Mill are both masterly, but as different from one another as day and night. Ivor Gurney is the least familiar name here, and his songs are even more rarely heard in the U.S. than the others. He was a highly sensitive man, no doubt, and there are some very beautiful and effective passages in his songs, but his pacing is generally so slow that the songs lose overall impact. His Down by the Salley Gardens, though, with a tune utterly unlike the famous one, is a gem.

HERE is little point in comparing, for example, Partridge's performance of Yarmouth Fair with Alexander Young's or his The New Ghost with Jennifer Vyvyan's, for both of those earlier versions, and others too, are long since gone from the catalog. Devotees of English song will want this album in addition to whatever older ones they possess, and those coming new to the field had best avail themselves of the current opportunity before this set too passes into the limbo of unavailability. The recording is excellent, and complete texts are provided.

James Goodfriend

IAN PARTRIDGE: English Songs. Warlock: Passing By; Pretty Ring Time; Sweetand-Twenty; Rest, Sweet Nymphs; Sleep; Away to Twiver; The Frostbound Wood; Yarmouth Fair; Balulalow; Jillian of Berry; After Two Years; My Own Country. Delius: Hidden Love; The Birds' Story; The Nightingale; The Homeward Way; Young Venevil; Twilight Fancies. Gurney: The Fields Are Full; Severn Meadows; Desire in Spring; The Singer; An Epitaph; The Folly of Being Comforted; Bread and Cherries; All Night Under the Moon; Down by the Salley Gardens; Snow; The Cloths of Heaven; Brown Is My Love. Vaughan Williams: The Twilight People; How Can the Tree but Wither?; Four Nights; Nocturne: A Clear Midnight; Joy, Shipmate, Joy!; The New Ghost; Motion and Stillness; The Water Mill. Ian Partridge (tenor); Jennifer Partridge (piano). PETERS INTERNATIONAL PLE 136/7 two discs \$17.96.

though no one would claim they are immortal works of genius, they still have the power to please. Especially in the hands—and lips—of Barry Tuckwell, a worthy successor to the great Punto/Stich. And it certain ly does no harm that this is another chapter in Tuckwell's collaboration with Neville Marriner and the Academy of St. Martinin-the-Fields. Angel's attractive sound completes the charming picture. *E.S.*

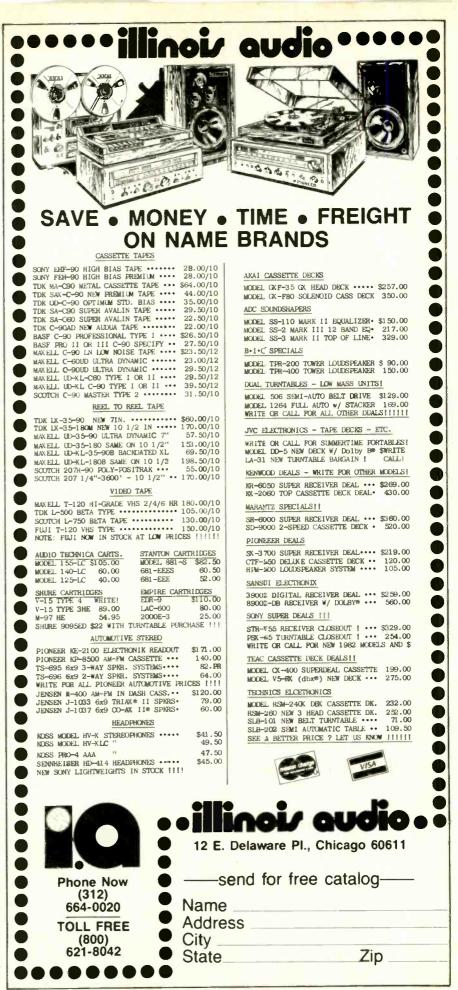
SALZMAN/SAHL: Civilization and Its Discontents. Karl Patrick Krause (tenor), Carlos Arachnid; Candice Early (soprano), Jill Goodheart; William Parry (baritone), Derek Dude; Paul Binotto (tenor), Jeremy Jive; Michael Sahl (piano, organ); Cleve Pozar (drums, percussion). NONESUCH N-78009 \$8.98, © N1-78009 \$8.98.

Performance: Excellent Recording: Very good

My good colleague Eric Salzman, who started his composing career with a string guartet and a flute sonata, has so wholeheartedly embraced avant-garde techniques and so dealt with the challenges of mixed media (his studies with Otto Luening, Vladimir Ussachevsky, Milton Babbitt, and Roger Sessions were bound to rub off eventually) that each new piece from him has caused something of a sensation: Feedback and The Nude Paper Sermon in 1968; the spectacle Noah ten years later; the aleatory pieces called The Electric Ear introduced at the Electric Circus in Greenwich Village. Civilization and Its Discontents, a collaborative effort with Michael Sahl, won the RAI Music Prize of the Prix Italia. Subtitled "a music theater comedy," it was written and composed in 1977 and first presented in that year at the American Musical and Dramatic Academy in New York. The performance heard on this record is based on a 1978 production for National Public Radio.

Despite Salzman and Sahl's comments in their liner notes about traditional European "operatic opera" as a fossilized, elitist form, I think an opera is what they have written here, unconventional as their approach may be. The title, blithely borrowed from the work by Freud, is certainly appropriate. The action takes us first to the Club Bidea-Wee where a group of painfully recognizable types at play are spouting the pseudopsychiatric clichés of the moment against a jazzy background. Here, on her twentyninth birthday, we meet heroine Jill Goodheart, who encounters a young agent named Jeremy Jive and takes him home-where he waits while, in a Menotti-like recitative, she reads a letter from her mother, answers innumerable phone calls (which drive him to destroy the instrument), and finally welcomes, to Jeremy's further frustration, her friend the producer Derek Dude. The arrival of a third male, Carlos Arachnid, further complicates matters and leads to a perfectly smashing vocal quartet in a modern yet melodious idiom. Things wind up back at the Bide-a-Wee, I forget exactly why or to what end, with Jill appearing as "The Singing Chicken," clucking that she has been "born again," with everything culminating in the liberating message, "If it feels good, do it."

The characters in Civilization and Its Discontents are all colorfully neurotic, and



CIRCLE NO. 19 ON READER SERVICE CARD

WHY BUY A COPY WHEN YOU CAN BUY THE ORIGINAL

otch

We introduced the original metal tape, Scotch[®] Metafine[®]. The same dedication to technological achievement that created Metafine tape goes into every Scotch Cassette. So don't accept seconds. Get Scotch Cassettes.

To find out more about recording on Metafine tape, write to: Metafine Tape, Home Entertainment Products Department, 3M Center, St. Paul, MN 55144.

SCOTCH® CASSETTES. THE TRUTH COMES OUT.

CIRCLE NO. 28 ON READER SERVICE CARD



Chrome Bias \$280 ea. \$280 ea. \$280 ea. \$400 control co	Special Closeout Sansui	SONY: SL-S800						
Dolby & Metal Capable	Digital Synthesizer \$157 SONY: STJ 60	12" 3-Way Speakers \$49 ea. 5 Year Limited Parts & Labor						
TOLL FREE 800-356-9514 Weekdays 9-9 Saturdays 9-5 Over 100 Brands like:								
Technics Maxell Sony Pioneer Empire Teac Marantz Altec Akai Kenwood Sharp Dual Sansui Phillips Koss Jensen Shure TDK	rectifica staritori	CONSIN DISCOUNT STEREO w. badger rd. madison, wi 53713						

CIRCLE NO. 60 ON READER SERVICE CARD

in the course of portraying them and their curious evening together the performers get to do some excellent acting as well as singing. Soprano Candice Early is in every way equal to the part of Jill, a role that in less canny hands might have bogged down in bathos-especially when she announces "My life is over" and tries to end it with a knife. The shenanigans of Jill and her pals unfold against a luminous, always idiomatic instrumental background that is never less than appropriate and that sometimes, as in a kind of jazz fugue toward the end, achieves real distinction. Following the action would be a bit easier if Nonesuch had provided a libretto, but the singers' enunciation is very clear and I think you'll enjoy the record anyway. P.K.

RECORDING OF SPECIAL MERIT

SCHUMANN: Frauenliebe und Leben, Op. 42; Lied der Suleika; Weit! Weit!; Liebeslied; Schmetterling; Hinaus ins Freie; Der Sandmann; Kinderwacht; Die Blume der Ergebung; Singet Nicht in Trauertönen; Mond, Meiner Seele Liebling; Reich Mir die Hand; Die Letzten Blumen; Frühlingslust. Edith Mathis (soprano); Christoph Eschenbach (piano). DEUTSCHE GRAMMOPHON 2531 323 \$9.98, © 3301 323 \$9.98.

Performance: Outstanding partnership Recording: Excellent

Record companies have been rather overgenerous with their releases of Schumann's *Frauenliebe und Leben* lately, but a performance on the level of excellence of the one here leaves no room for complaint. Edith Mathis sings with involvement but without undue exaggeration and communicates the highly sentimental Chamisso lyrics with clarity, sensitivity, and—apart from a few spots where the tessitura is a bit low—a lovely rounded tone.

To balance this much-recorded cycle. Miss Mathis offers on the reverse side thirteen Schumann songs that are quite unfamiliar. Ranging in date from 1840, the famous "song year," to 1851, the sequence is of variable significance. Four of the best songs of Op. 79 (Album für die Jugend) are here, all poetic trifles but enriched by delightful musical ideas (the excellent Christoph Eschenbach is particularly sparkling in these songs). The later songs (1850-1851) show a decline of musical inspiration, but singer and accompanist make a strong case for every single item in this imaginative release. G.J.

SIBELIUS: Symphony No. 4, in A Minor, Op. 63; Luonnotar, Op. 70; Finlandia, Op. 26, No. 7 (see Best of the Month, page 72)

R. STRAUSS: Songs. Heimliche Aufforderung; Befreit; Freundliche Vision; Drei Lieder der Ophelia aus "Hamlet"; Schlechtes Wetter; Breit' über Mein Haupt; Ständchen; Ich Schwebe; Nichts; Wiegenlied; Die Zeitlose; Wozu noch Mädchen; Am Ufer; Wie Sollten Wir Geheim. Helen-Kay Eberley (soprano); Donald Isaak (piano). EB-Sko ES-1005 \$8.98.

Performance: Very good Recording: Very good

There are several unfamiliar Strauss songs here, including the three songs of Ophelia

set to a German translation of Shakespeare's text in 1919. They are brief and not particularly interesting, but Helen-Kay Eberley lavishes on them the same care and tonal refinement with which she endows the better-known Heimliche Aufforderung, Ständchen, Freundliche Vision, Befreit, and the rest. She is a well-trained singer with a voice of natural loveliness and an extension that enables her to handle high tessituras without effort and without compromising the limpid quality of her singing. I would have welcomed a more varied program from such a fine interpreter. But she does offer a feast for the Strauss aficionado with her loving treatment of sixteen songs, never falling into the temptation of excessive sentimentality posed by some of Strauss' favored lyricists. The accompaniments are excellent. G.J.

SUDERBURG: Concerto—Voyage de Nuit, d'Après Baudelaire (see BRITTEN)

RECORDINGS OF SPECIAL MERIT

TCHAIKOVSKY: Romeo and Juliet. BERNSTEIN: West Side Story: Symphonic Dances. Atlanta Symphony Orchestra, Robert Shaw cond. VOX CUM LAUDE VCL 9002 \$8.98, © VCS 9002 \$8.98.

Performance: Galvanic Recording: Excellent

TCHAIKOVSKY: Romeo and Juliet; Francesca da Rimini. Concertgebouw Orchestra, Amsterdam, Edo de Waart cond. PHILIPS **1** 9500 745 \$10.98, © 7300 830 \$10.98.

Performance: Splendid Francesca Recording: Excellent

As if he weren't unhappy enough already, Tchaikovsky was also unfortunate in his critics. When Mahler conducted the Romeo and Juliet Fantasy-Overture in Hamburg in 1893, one critic declared it "devoid of melodic invention." Today the work is played so often, and has been recorded so many times, that it takes an exceptional rendition indeed to bring its passionate pages to life again for jaded ears. Of these two latest attempts, both impressive in terms of recorded sound, Robert Shaw's is the more dashing. It was, moreover, a happy idea to couple the piece with the suite of dances from Bernstein's score for West Side Story, in which essentially the same starcrossed lovers are reincarnated in the streets of Manhattan. Here also Shaw delivers a high-energy performance, quite. matching the composer's own in intensity and more advanced sonically.

The Concertgebouw Orchestra, however, is a more remarkable ensemble than the Atlanta Symphony, and Edo de Waart's less turbulent but expansively lyrical treatment of Romeo and Juliet is also well worth hearing. It is backed by a contrastingly fiery version of another love story, Francesca da Rimini-which is set in the second circle of Dante's hell. As the winds whirl and rage about the shrieking, tormented sinners, the full richness of Tchaikovsky's exciting orchestration comes through. Thanks to the digital mastering, the brasses sound especially brilliant, and the string tone is supple and silken. There are numerous Francescas for sale at more modest prices-notably Giulini's, a bargain on Seraphim-but none



CIRCLE NO. 1 ON READER SERVICE CARD

quite as hair-raising as this one by De Waart. PK

RECORDING OF SPECIAL MERIT

TELEMANN: Concerto in E Minor for Recorder, Flute, and Strings; Concerto in A Major for Oboe d'Amore and Strings; Concerto in E-flat Major for Oboe and Strings; Concerto in B-flat Major for Two Flutes, Two Oboes, and Strings. Michael Copley (recorder); Aurèle and Christiane Nicolet (flutes); Heinz Holliger (oboe d'amore, oboe); Louise Pellerin (oboe); Camerata Bern, Thomas Füri cond. ARCHIV 2533 454 \$9.98, @ 3310 454 \$9.98.

Performance: Suave Recording: Beautiful

Not all stereo or video systems are alike. Far

from it. There are many

components to choose from

now, and many more on the

way. With Stereo Discounters

new Fall '81 Hi-Fi and Home Enter-

tainment Buying Guide it's easy for

you to custom design your own system

to meet your particular needs. Tomorrow's

needs as wall as to dent

When it comes to wind concertos, especially for multiple instruments, Georg Philipp Telemann must be awarded top rank. The subtle interplay of flute and recorder in the E Minor Concerto and the intriguing contrast between a pair of pithy oboes and a pair of silken flutes in the B-flat Major Concerto demonstrate his understanding of the instruments and his mastery of sonority. Although the timbres of early instruments would provide more striking contrasts than does the more homogenized blend of modern instruments used for this recording, Telemann's sound images are well served by an admirable delicacy of balance between the soloists and strings of the Camerata Bern. Like all the other musicians involved here, Heinz Holliger uses the seamless legato of the twentieth-century performer rather than the articulation so favored during Telemann's time. His ability to make an oboe d'amore sound musically like a modern oboe is amazing, if not authentic, but in the long run it is of course his superb musicianship that counts most, not his stylistic preferences.

Except for the somewhat routine E-flat Major Oboe Concerto, the concertos in this album are all strong pieces. Indeed, they provide new ammunition for those who believe in Telemann's genius to shoot down his numerous detractors. S.L.

COLLECTIONS

FREDERIC HAND: Baroque and on the Street. Vivaldi/J. S. Bach: Harpsichord Concerto in D Major, First Movement. Vivaldi: Concerto in C Major for Mandolin, Strings, and Continuo, First and Third Movements; Sonata in G Minor for Lute and Continuo, Larghetto; Concerto in D Major for Lute, Strings, and Continuo; Concerto in A Major for Guitar, Strings, and Continuo; Il Pastor Fido, Gigue. Purcell: The Gordian Knot Untied, Rondeau Minuet. Frederic Hand (guitar); Eric Weissberg (banjo); Andy Statmand (mandolin); Jane Bloom (soprano saxophone); Paul Dunkel (flutes); Keith Underwood (sopranino recorder); Joe Passaro (temple blocks, cymbal). CBS FM 36687, © FMT 36687, no list price.

Performance: Charming Recording: Excellent

The instrumentation of his own work by Antonio Vivaldi has always been good enough for me, although it is true that he (Continued on page 139)

STEREO DISCOUNTERS	CALL TOLL FR 1-800-639-39 For price quotes on 1-800-639-39
6730 Santa Barbara Ct. Baltimore, MD. 21227	VISA For our catalog of t latest in Audio & Vid Equipme
	AFFIX OLD LABEL
MOVING?	If you have no label handy, print OLD address
	Name
	(please print) AddressA
Please let us know 8 weeks in advance so you	City
won't miss a single issue of STEREO REVIEW. Attach old label where indicated and print new	StateZip
nailing label whenever you write us about your	NEW ADDRESS HERE 80
Vrite to: P.O. Box 2771, Boulder, CO 80322	Name(please print)
giving the following information:	AddressApt
Extend subscription	Clty
☐ 1 year (12 Issues) \$9.98	StateZip_ Foreign postage: Add \$1 a year for Canada, \$5 a year (cash payme
issue-13 Issues in all!)	U.S. currency only) for other countries outside U.S. and possessi Please allow 30 to 60 days for delivery of first issue.

STEREO REVIEW CLASSIFIE

CLASSIFIED RATES: Per Word, 15 Word Minimum. COMMERCIAL: \$3.70. EXPAND-AD*: \$5.55. PERSONAL RATE: \$2.00. DISPLAY: 1" x 21/4", \$450.00. 2" x 21/4", \$900.00. 3" x 21/4", \$1,350.00. GENERAL INFORMATION: Frequency rates and prepayment discounts available. Payment must accompany order except credit card — Am. Ex., Diners, MC, VISA (include exp. date) — or accredited ad agency insertions. Copy subject to publisher's approval; must be typewritten or printed. First word set in caps. Advertisers using P.O. Boxes MUST supply permanent address and telephone number. Orders not acknowledged. They will appear in next available issue after receipt. Closing date: 5th of the 2nd month preceding cover date (e.g., Mar. issue closes Jan. 5th). Send order & remittance to: Classified Advertising, STEREO REVIEW Magazine, 1 Park Avenue, New York, NY 10016. Direct inquiries to Rose Lynch, (212) 725-7686.

EQUIPMENT

DIAMOND NEEDLES and STEREO CARTRIDGES at DIS-COUNT PRICES for SHURE, PICKERING, STANTON, EM-PIRE, GRADO, AUDIO TECHNICA, ORTOFON and ADC. Send for free catalog. LYLE CARTRIDGES, Dept. S., Box 69, Brooklyn, NY 11218. For fast service Toll Free 800-221-0906. 9AM - 8PM except Sunday.

WHOLESALE PRICES on stereo/esoteric components, cartridges, tonearms, tapes. Free Catalog. Audio Unlimited, 1798 Technology Drive, San Jose, CA 95110, (408) 279-0122 1-6 M-Th





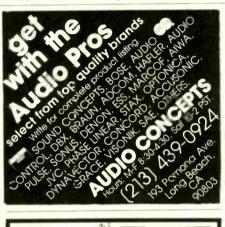
CALL TOLL FREE 1-800-826-0520 for Nakamichi, Acoustat, Carver, NAD, Polk, Boston, 3D, Onkyo, B&W. Amber, Micro-Selki, Dahlquist, Denon, Hafler, DBX, Taudberg and more! THE SOUND SELLER, 1706 Main St., Marinette, WI 54143. (715) 735-9002

SPEAKERS SAVE 50%. Build your own speaker system. Write: McGee Radio Electronics, 1901 McGee Street, Kansas City, Missouri 64108.

TOP QUALITY SPEAKERS AND KITS. Send \$2.00. Speaker Warehouse, 801 North Route 441, Hollywood, FL 33021.

LOWEST PRICES. BOSE, SAE, HAFLER, and MORE. Dy namic Sound, Box 168(A), Starkville, MS 39759. (601) 323-0750, 1 P.M. - 9 P.M.

USED HI FI. Buy, Sell, Trade: Broker. Bob Heenan, Box 782, Brookline Village, MA 02147. (617) 969-2727. Wanted McIn-tosh, Marantz: Western Electric Tube Equipment.





CABLE TV DESCRAMBLERS AND CONVERTERS Plans and parts. Build or buy. For information send \$2.00. C&D Company, P.O. Box 21, Jenisen, MI 49428.



BEST IN THE WEST! Haffler, Nakamichi, Dahlquist, DCM, Magneplanar, Beveridge, APT, Threshold, Polk, Oracle, Harmon Kardon, B&W, Adcom. Rocky Mountain HI-FI, 812 Central, Great Falls, MT 59401. (406) 761-8683.

Simple Makes Perfect



HIGH MAIL ORDER PRICES? NOT AT STEREO VILLAGE! ADC, Advent, Akal, AR, Audiovox, Audio Technica, Bose Car Stereo, Cerwin Vega, Clubman, Craig, dbx, Dahlquist, Dual. EPI, ESS, Fisher, Grado, Hitachi, Jensen, JVC. Kenwood, Koss, Klipsch, Maxell, Micro Acoustics. Mitsubishi, Nakami-chi, Onkyo, Panasonic, Pioneer. Polk Audio, Sansui, Sanyo, Sony, Sharp, Shure, Sonus, Stanton, Teao, Technics, TDK, Visonik, Yamaha and more! CALL TOLL FREE 800-241-0626.

HIGH MAIL ORDER PRICES? Not at Stereo Village! 3021 Peachtree Rd., NE/Atlanta, GA 30305. (800) 241-0626.

HIGH MAIL ORDER PRICES? Not at Stereo Village! 2411 South Coob Parkway, Smyrna, GA 30080. (800) 241-0626.

HIGH MAIL ORDER PRICES? Not at Stereo Village! 1067 Morrow Industrial Blvd./Morrow, GA 30260. (800) 241-0626.

HIGH MAIL ORDER PRICES? Not at Stereo Village! 5029 Veterans Memorial Blvd./Metairie, LA 70002. (800) 241-0626.

HIGH MAIL ORDER PRICES? Not at Stereo Village! 516 West Bank Expwy/Grethna, LA 70053. (800) 241-0626

HARMON/KARDON HIGH TECHNOLOGY SEPARATES. Receivers, Cassette decks. Immediate shipment - Best Prices, West (213) 243-1168. East (305) 462-1976

PHILIPS AND AUDAX LOUDSPEAKERS in stock at good prices with component service. Crossover components also. Madisound Speaker Components, 431 West Gorham, Box 4283, Madison, Wisconsin 53711. (608) 256-7337.

ACCURATE, QUALITY AUDIO: Reasonable Prices. Car/ Home. Denco, P.O. Box 6104-R, El Monte, CA 91734. (213) 961-6158 Evenings, Weekends. Monthly Specials.

ANNIS Han-D-Mag IS THE BEST Demagnetizer for magnetic Annus hair Drag is the best perhapited of the Notes" and tape equipment. Price is \$29.70, "Demagnetizing Notes" and Biterature on request. Annisco, 1101 N. Delaware, Indianapofis. Indiana 46202

The First Low Distortion Car Speakers.

Good news travels fast and sounds great because it's from Speakerlab-now with new polypropylene woofer/tweeter/crossover combinations that are hand-built. So if you have quality car audio

electionics DON'T WASTE MONEY on poor speakers. Write for our **FREE Raw Speaker**



Seattle, Washington 98103

CHICAGO SPEAKERWORKS designs and builds true audiophile speaker systems. Large selection of factory direct speaker systems, finest European & American drivers, kits, crossovers and accessories at lowest prices. Factory showroom open 7 days/week. Also: Hafler, Fried, Ortofon, & more. Send \$1. for catalog to: CSW, Dept. SR, 5125 N. Damen, Chicago, IL 60625. (312) 769-5640.

HAFLER IN STOCK TRADES ACCEPTED. Morel Electronics, 57 Park Place-SR, New York, NY 10007. (212) 964-4570.

ATTENTION SOUTHERN AUDIOPHILES: Yamaha, Nakamichi, Carver, Dahlquist, Polk Audio, Bang & Olufsen, Orlofon, Visonik, Alpine and Jensen car stereo, Kloss and Sanyo video. Maif order inquirles welcome. We pay all shipping charges. Available at: Sound Advice, Village Plaza, Ruston, LA 71270. (318) 255-8000.

WOOFERS-MIDS-TWEETERS-CROSSOVERS at tremendous savings. EV, Becker, Seas, Polydax, Peerless, Philips, Emilar, Gai and many others in stock for Immediate delivery. Speakers for Ni-Fi, custom auto, repairs, pro-Sound and musiclans. Largest selection of parts and accessories in the U.S. For speaker builders and hobbyists. Send \$2.00 for the ALL NEW '81 CATALOG (refundable with first purchase) to: SRC Audio, Dept. SR3, 3238 Towerwood Dr., Dallas, Texas 75234

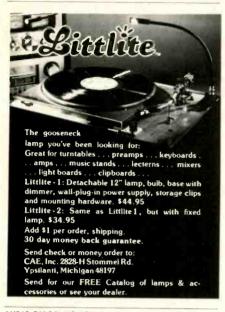
UNDERGROUND SOUND - Luxman, Hafler, Carver, AGI, Revox, Kef, Grado. 2125 Central Ave., Memphis, TN 38104. (901) 272-1275.

CONNECTICUT: ADVENT APT-Holman, B&O, Carver, Dahlquist, DCM Time Windows, Polk, Hafler, Mitsubishi, Nakami-chi, Ortofon, Micro-Acoustics, N.A.D., Stax, Yamaha, 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.

ATTENTION! The most extensive line of STEREO, VIDEO, and CAR EQUIPMENT at WHOLESALE PRICES. Campus representatives needed! THE AUDIO FACTORY, 42-40 BELL BOULEVARD, Mailorder division #203, Bayside, NY 11361. CALL (212) 939-8561.

3D. Acoustics, N.A.D., Mission, Amber, etc. Shipping paid. Audio File, 1202 South Congress, Austin, Texas 78704. (512) 443-9295.

HIGH MAIL ORDER PRICES? Not at Stereo Village! 9800 Lake Forest Blvd./New Orleans, LA 70127. (800) 241-0626.



AUDIO DISCOUNT OFFERS a large selection of quality components at low discount prices. Including AR, Alwa, Advent, Alpine, Audio-Control, Bose, DBX, EXX, Grado, Hafler, Harmon-Kardon, Infinity, JBBL, JVC, Nikko, Onkyo, Ortofon, Phase Linear, SAE, Tandberg, Thornes, and many more! For more information Mon-Sat., please call 301-593-8244. Audio Discount, 1026 McCeney Ave., Silver Spring, MD 20901. We honor VISA/MC.

HANDCRAFTED AUDIO CABINETS. you design. Free information. Custom Electronics Display Cabinetry, 1547 Birchwood, Saint Germain, WI 54558.

ADS, Carver, Dbx, Hafler, Nakamishi, NAD, Yamaha and more. \$1.00 for brochure: Beck's Hi-Fi, One South Street, Middletown, NY 10940. (914) 343-5150. 10AM-5PM (M-F).

HAFLER, FRIED kits, CARVER, SAE, KLIPSCH, more. In stock. Immediate, FREE shippingI READ BROTHERS STE-REO, 593-88 King Street, Charleston, South Carolina 29403. (803) 723-7276.

DISCOUNT prices on stereo equipment, radios, blank cassettes, accessories and morel Some name brands! Great gifsl Catalog S1 (relundable on S5 purchase). Variety Gift House, Box 120856S, Nashville, Tennessee. 37212.

Microwave TV Antenna receives relayed satellite TV at home \$225.00, PO 7057, Norfolk, VA 23509.

UNIQUE, FOOLPROOF, ALL-IN-ONE classical record/tapeindexing/shipping/inventory system with EXCLUSIVE VISU-AL DISPLAY - much more! indexPLUS, Dept. S, Box 460, Royal Oak, MI 48068.

SPEAKER BUILDERS: JBL, EV. AUDAX & computer designed plans. Catalog \$2., refundable. Gold Sound, Box 141SR, Englewood, CO 80151.

PATCHCORD JUMBLE? Stereo Component Interface will interconnect seven components for \$75. Write: Domar Corporation, 14 Pleasant Drive, Londonderry, NH 03053.

CUSTOM FOAM SPEAKER GRILLS. Any size, color, pattern, quantity. Send SASE to: Custom Sounds, Algonac, MI 48001.

QUALITY EQUIPMENT DEMANDS quality records. European, Japanese, private domestic pressings. Familiar titles and the obscure. The catalogue is ready. ILLUMINATEAR, Dept. S. 500 North St. Ext., Winooski, VT 05404.

STEREO/VIDEO FURNITURE OUR SPECIALTY. Gusdorf, Barzilay, Presidential, Nomadic. and several others. Brochures and BEST price list. \$1.00. Presidential Industries, Box 2531, Riverside, CA 92516.

REAL TIME CHROME CASSETTES from Connoisseur Society masters. Free catalogue. In Sync Laboratories. Dept. S. 2211 Broadway, NYC 10024. HIGH-END RAW SPLittERS, kits and auto systems. Audax, Becker, Dynaudio, Dalesford, JVC, Philips, SEAS, Peerless, others. Free price list. A&S SPEAKERS, P.O. Box 7022, Denver, CO 80207. (303) 399-8609.

DISTRIBUTOR PRICING! Tascam, Hafler, E.V., Ampex, JBL, Technics. Onkyo, Nikko, Infinity, Lux ... P.K. AUDIO, 4773 Convention Street, Baton Rouge, LA 70806.

PHILIPS, AUDAX AND DYNAUDIO LOUDSPEAKERS in stock with good prices and competent service. Crossover components also. MADISOUND SPEAKER COMPONENTS, 8982 Tablebluff, Box 4283, Madison, WI 53711. (608) 767-2673.

BEFORE YOU BUY — CHECK OUR PRICES. Send for free catalog featuring audio and video equipment and accessories at discount prices. House of Tape, P.O. Box 191, Mineola, NY 11501.

AUDIO DEN in Lake Grove carries. Adcom, Audio Research, Dahlquist. Infinity, Nakamichi, Polk, SAE and Yamaha. 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.

AUDITION NOW IN A FRIENDLY AND COMFORTABLE ATMOSPHERE: Adcom — Allison — Alpine — Amber — Apature — Audible Illusions, Audi Control, Audiopro, Beyer Dynamics, Cizek, Connoisseur, D.N.R., D.C.M., Dynavictor, Fried, Grace, Isobase, L.A.S.T., Luxman, Mobil Fidelity, Monster Cable, Mordaunt Short, N.A.D., Nagitronics, Niles Audio, Plexus, Pyramid, Jim Rogers, Sound Connections, Spectre Audio, Spectro Acoustics, Stax, S.T.D., 3D Acoustics. Prompt, courteous service. FREE shipping in USA. Feel free to call for information. SOUND STAGE AUDIO, 184-10 Horace Harding Expressway, Fresh Meadows, NY 11365. (212) 762-3220. Exit 25 (Utopia Pkwy) L.I.E. MC/VISA.

SAVE ON ALL AUDIOPHILE QUALITY COMPONENTS. FAST. helpful service. Call before your next purchase. Audio-World, Box 6202R. Grand Rapids. MI 49506. (616) 451-3868. WHERE ARE YOUR ALBUMS? Why not display them In a beautiful, hand-finished solid walnut case. FREE brochure or send \$29.95 (specify album or cassette) to: CARV, Box 6084, Omaha. NE 68106. Money back guarantee.

TAPES & RECORDERS

SCOTCH RECORDING TAPE. exclusively, all new, lowest prices. TAPE CENTER, Box 4305. Washington, D.C. 20012. 1930-1962 RADIO PROGRAMS. Beats Television!! Tapes, S1.00 Hour! Established esteemed dealer. Informative 250 page catalog, S1.25. AM Treasures, Box 192SR, Babylon, N.Y. 11702.

YESTERDAY'S RADIO ON TAPE. Reels-Cassettes. Quality Sound. Reliable Service. Catalog \$2.00. ADVENTURES. Box 4822-S. Inglewood, CA 90302.

VIENNESE LIGHT MUSIC SOCIETY — Strauss, Lanner, Etc. on Dolby Cassettes. KC Company, Box 793, Augusta. Maine 04330.

EXCITING OLD RADIO TAPES. Large selection available. Free catalog. Radio Memories, Box 56-R, California. MD 20619.

OLD RADIO PROGRAMS, \$1.99 hour cassettes- open-reels. Big catalog \$1.50 refundable with order. Nostalgia, Box 254, Simi VIy, CA 93065.

GOLDEN AGE RADIO—Your best source for radio tapes. Free catalog. Box 25215-T, Portland, Oregon 97225.

	QUALITY	TAPES AT	WHOLESAL	E PRICES	
MAALLL UUAL	1 or 2 C-90.		PANASONIC T-	120 (Video)	513
MAXELL UD C.	90	2 4 1	MAXELL UD 35	00 1900*	
TON SA C.OO		2.83	MAALLE UU 33	75 000	
TON CA C CO			MAXELL UDXL	12-208 1800.	
TUR SA L-OU			TOK LX 35-90	1800'	5
IDA SAX L-90		4 59	TDK 1X 35-908	1900'	6
IDR AU L-91		2 12	TOK CASS HE	ID DEMAC HD	01 14
TUK D (90		1.42	DISCWASHED (ALIDI ETE CVC	ICM 10
TOK MA C-90		6 35	DISCWASHER D	A 16 DEP	Em 10
10H HPS 0-30.			DISCHASHER	7-4 10 0Z, KEPI	LL 10
ADD SHIPPING-	US \$3 50 or	5% whichever is	more. Foreign \$7	50 or \$3 00 pe	10 cassed
whichever is mo	we Send chec	k MO Visa or Mi	C. Cards add 2% I	andling Call 7	17 330 80
04	ALLEN TARES	-,, +138 UI m	Dept MS Rm	anonig. Call 2	15-222-20

RARE OPERA, Symphonic music on open reel tapes. World wide broadcasts. Free catalogue. Underhill, Bellport, NY 11713.

OPEN REEL TAPE - Mostly Ampex, used once, unspliced (Unboxed) 7⁻1800⁻ or 2400⁻ - 50 Reels for \$60.00 (Postpaid) 3600⁻ 10¹/₂⁻ reels \$2.00 each. Sample reel \$1.50. AUDIO TAPES. Box 9584-K, Alexandria, VA 22304.

NOSTALGIA BUFFS. RADIO, Music — all types. Historic Commentaries, etc. Discount prices. Extensive Ilbrary. Your choice on quality cassette, B—track, reels, Catalog \$2.00 refundable. PKP Recording, 1121 Barstow, Eugene, OR 97404. OLD TIME RADIO — original broadcasts on quality tapes. Free catalog, Carl R. Froelich, Route One, New Freedom, Pennsylvania 17349.

	ATOK		EPEE S	00 T-SHI	PT	
TDK.	D-C60	1.35	TDK MAR	-090	A1	11.99
	D-C90		TDK. LX35	-90		5.39
TDK:	AD-C60	1.79	TOK LX35	-180		16.69
TDK:	AD-C90	2.39	TDK: LX35	-90B		5.89
TDK:	00-090	3.59	TDK: LX35	-1808		18.59
TDK.	SA-C60	2.19	TDK: GX35	-908		8.49
TDK	SA-C90	2.89	TDK. VHS	VAT-120		13.99
TDK.	SAX-C90	4,49	TDK: VHS:	HI-GRADE	120	21.99
TDK.	MA-C90	6.39	TDK. HD-0	1 Cass H	lead Demag.	14.89
Fi	ree T-Shirt with every order over	50.00.	State Siz	e All tan	s can Re as	softed
Shipp	ing, 3.50. We will honor any pric	e in th	is book or	TON Ma	rell Scotch	RASE and
	Ampex 100% guaranteed.	412.25	83.8621	M.F. 8.4 1	lisa and MC	Brior, 6110
	Tape World 220	Soring	St B	utler PA	6001	

OPEN REEL TAPES from studio masters. Phillps, Argo, Telefunken. Vanguard, Unicorn. Catalogue \$1.00. Barclay-Crocker, Room 1470-S, 11 Broadway. NYC 10004.

500,000 + LPS: soundtracks. casts! Catalogue/newsletter \$1.00. Soundtrack Valueguide - \$5.50. RTSR. Box 687, Costa Mesa, California 92627.

FREE PROMOTIONAL ALBUMS, concert tickets, stereos, etc. . . Information: J. Saez Promotions, Sulte S-151, 323 S. Franklin Bldg., Chicago, ILL. 60606.



is the leader in sales & service with America's recording tape needs. Choose from our wide tape selection

of audio & video tape, cassette recorders & decks, and recording accessories from such industry leaders as Maxell, TDK, Scotch, Sony, BASF, B-I-C, Aiwa, Technics, Superscope, Audio-Technica. EV and more! Master Charge & Visa honored for 24-hour shipping. Join the thousands of satisfied customers who know why Saxitone is #1 All Across America! (2021 462-0800.



OLD TIME RADIO TAPES (cassettes, open reels). Latest supplement \$3. Box 82—SR, Redmond, WA 98052.

TOSCANINI, great conductors, instrumentalists. Live concerts; reels, cassettes. Free lists, state artists. WSA, Box 1112SR, El Cerrito, CA 94530.

DISCOUNT VIDEO TAPES, movies, accessories, lowest prices. Free price list. VTR, Box 234, Herald, CA 95638.

FASCINATING! OLDTIME RADIO CASSETTES. "Outstand-Ing Selections/Value! Superspeed Service! FREE Catalog: Heritage-SFO, 412 Redbud, Oxford, MS 38655.

SELLING PRIVATE COLLECTION complete operas, operettas, vocal recitals, guitar, plano, Spanish. Many European or out-of-print. Lists \$1 refundable. SIERLE, 88 Boulevard, Suite 203, Passaic. NJ 07055.

LIVE OPERA TAPES CASSETTES. Incredible collection. Free Catalogue. Live Opera. Box 3141, Steinway Station, L.I.C., NY 11103.

RECORDS

SHOW ALBUMS, Rare, Out-of-Print LP's. 64 pg. list. \$1.00. King of Hearts — original cast LP S9.95. Broadway/Hollywood Recordings, 68 Sugar Hollow (Route 7) Danbury, Conn.

PROTECT your LP's —Poly sleeves for jackets 12 cents; Round Bottom Inner Sleeves 10 cents; Square Bottom 6 cents; Poly lined paper 15 cents; white jackets 35 cents. Postage \$2.00. Record House, Hillburn, N.Y. 10931.

COLLECTORS' Soundtracks. Mint. 75 cents (refundable). Jemm's. P.O. Box 157, Glenview, III. 60025.

OLDIES oldies, 45rpm, Also current hits, Free Catalog, Corny's Record Shop, Box 166G, Mason, Ohio 45040.

PROTECT YOUR ALBUMS. White cardboard replacement jackets 35 cents. Plastic lined sleeves 15 cents. Postage \$1.25. Opera Boxes, 78 Sleeves. Free Catalog. CABCO 400-1, Box 8212, Columbus, Ohio 43201.

THOUSANDS of like new LPs and prerecorded tapes catalogue \$2.50. Records, Hillburn, New York 10931.

RARE ORIGINAL RECORDS, all kinds, mostly mint. 5000 list \$2.00, refundable. Carl, Box 828, Princeton, NC 27569.

RECORD HOUND, Box 88, Eagleville, PA 19408. Fills "wantlists"? DOGGONE RIGHT!! 33-1/3 Specialist. Fast, Friendly Service.

CUTOUT OVERSTOCK RECORDS —UNBELIEVABLE SE-LECTION. \$2.99 Super Specials. \$1.00 for catalog (refundable). Cutouts, 742 Route 18, East Brunswick, NJ 08816.

FREE RECORD CATALOG. New releases at discount prices and huge selection of classical, soundtrack, popular and jazz special values. Rose Records, Dept. R, 214 S. Wabash, Chicago, IL 60604. DIRECT - DISC, DIGITAL, half-speed masters, and DBX encoded discs. Free catalog. DISConnection, P.O. Box 10705, Tampa, FL 33679.

WORLD'S LARGEST, computerized catalog of rare records, 24,000 entries. Classical, showbiz, popular, jazz, comedy, spoken. \$3.50 refundable. RoundSound West, P.O. Box 2248, Leucadia, CA 92024.

CRYSTAL RECORDS, Inc., Free Catalog featuring exceptionally fine Brass and Woodwind recordings. Sedro Woolley, Washington 98284.

COLLECTORS RECORDS - Lists \$2.00, refundable. Specify speeds collected, classical or popular. Low prices. Frank Bednar, P.O. Box 695, Stamford, CT 06904.

OUT-OF-PRINT LP's (no rock/classical) - Free list. Davidson, 5114 Gist, Baltimore, MD 21215.

FREE AUCTION LISTS: Soundtrack/Original Cast, Vocal, Jazz/Danceband, Comedy. Specify interests. Send large stamped, addressed envelope. NCTM, 15 Oakland, Harrison. NY 10528.

MELODIA LABEL CLASSICS. Opera, orchestral and volce. Large selection. FREE catalog. ZNANIE IMPORTS, 5237 Geary Blvd., San Francisco, CA 94118. (415) 752-7555.

FESTIVAL OF CAROLS - Gregg Smith Singers, LP/Cassette \$5.98 ppd. Specify. FREE 64 page catalog: MUSICAL CON-CEPTS, Box 53SRO, Cedarhurst, NY 11516.

ORION'S AVAILABLE by mail! \$7 record includes postage \$13 2. \$18 3 or more. Box 4087, Malibu, CA 90265.

RECORD COLLECTORS BEWARE!! Buying records elsewhere means paying more! 350+ pages of LPs and tapes. Send for free info! SOUARE DEAL RECORDS, PO BOX 1002, San Luis Obispo, CA 934061002.

TUBES

TV and Radio Tubes 49 cents. Free 48 page color catalog. Cornell; 4215-H University, San Diego, California 92105.

WANTED

GOLD, silver, platinum, mercury, tantalum wanted. Highest prices paid by refinery. Ores assayed. Free circular. Mercury Terminal, Norwood, MA 02062.

CASH FOR YOUR Unwanted LP's and Prerecorded Reel to Reel Tapes. Reder, Box 323S, Hillburn, NY 10931

MCINTOSH & MARANTZ tube tape equipment wanted, (213) 576-2642 or 576-9103. David Yo, P.O. Box 832, M.P., CA 91754

TOP DOLLAR PAID for good condition LP's. All types, quantities. FESTOON'S, 15 Whitney, New Haven, CT 06510. (203) 789-8210.

TOP PRICES paid for: WESTERN ELECTRIC drivers, horns, etc. Toyohashi, Box 18009, Seattle, WA 98118. (206) 323-4987

TOP DOLLAR PAID for all types LP's & 45's in good conditions. We'll travel for quality. Nuggets, (617) 536-0679.

HYPNOTISM

FREE Hypnotism, Self-Hypnosis, Sleep Learning Catalog! Drawer H400, Ruidoso, New Mexico 88345.

RUBBER STAMPS

RUBBER ADDRESS STAMPS, BUSINESS CARDS. Free Catalog - Fast Service, Jackson's, Brownsville Road-E-101, Mt. Vernon, III. 62864.

BUSINESS OPPORTUNITIES

STEREO REPRESENTATIVES NEEDED!!! Lowest Possible Prices!! Over 100 Brands!!! Krasco-Rep SR, 998 Orange Ave., West Haven, Conn. 06516.

EBASE DEBTS with little-known law - CREATE wealth! De tails FREE - Blueprints, No. DD10, La Grangeville, NY 12540

BORROW \$25,000 "OVERNIGHT". Any purpose. Keep Indefinitely! Free report! Success Research, Box 29070-RJ, Indianapolis, IN 46229.

FREE BOOK "2042 Unique, Proven Enterprises." Fabulous "unknowns," second inflation income. Haylings-M, Carlsbad, CA 92008.

COLLEGE STUDENTS-EARN EXTRA MONEY SELL AUDIO EQUIPMENT AT YOUR SCHOOL. No investment. Professional sales help. 60 top brands. Incentive programs. Limited positions available. Call or write: Audio Outlet, Inc., 10 Commerce Court, Newark, NJ 07102. 201-622-3250.

STEREO SALESMEN sell name brands to friends and coworkers, good commissions, free training, Call toll free 1-800-638-8806 or 1-301-488-9600. Mr. Murray or Mr. Krizman.

FREE BOOK describing many loans available to deserving individuals refused elsewhere. Associates, Box 98(K6). Brooklyn. NY 11235.

WANT YOUR OWN RADIO STATION? Investment/experience unnecessary. Free information. **Broadcasting, Box 130-R10, Paradise, CA 95969.

COLLEGE DEALERS- Write for details on College Programs. Fast Shipments, Low Prices, Specify College, Sound Reproduction, 7 Industrial Rd., Fairfield, NJ 07006.

BORROW \$30,000 without interest! All eligible. Repay anytime. Free details. Infohouse, Box 1004-S10, New York, NY 10003

MAKE OVER \$22.50 an hour. Spare time at home! Rubber Stamp industry needs small manufacturers. We furnish all equipment and know-how! Particulars free! Write: Roberts, Room RC-374-KL, 1512 Jarvis, Chicago, IL 60626.

CAMPUS REPRESENTATIVES earn commissions, start a career selling Hi-Fi equipment on campus. Large national firm. Call toll free 1-800-638-8806. 9a.m. to 9p.m.

GOVERNMENT SURPLUS

JEEPS SIVE DIRECTORY AVAILABLE Tells how, where to buy San Francisco, California 94109.

ELECTRONICS

ELECTRONICS BARGAINS, Closeouts, Surplus! Parts, stereo, industrial, educational. Amazing values! Fascinating items unavailable in stores or catalogs anywhere. Unusual FREE catalog. ETCO-014, Box 762, Plattsburgh, NY 12901.

PRINTED CIRCUIT boards with running water! Technological breakthrough. Precise reproduction. Ideal for beginners. Free info. COVAL, Dept. SR10, 2706 Kirby, Champaign, IL 61820.

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

OPERA VIDEO - Magnificent performances from Europe on BETA, VHS Videocassettes. Free listings. H.R.E., Box 12, Kew Gardens, NY 11415.

VIDEOTAPES - 8MM/16MM MOVIES, TWO 72 page catalogs \$1.00 each. Both \$1.50. Reelimages, Box 137SR, Monroe, Connecticut 06468.

DEVELOP FILM AT HOME. Complete instructions \$3.95. BKD Enterprises, 141 N. Catalina, Ventura, CA 93001

BOOKS & MAGAZINES

PUBLISHERS' OVERSTOCK. BARGAIN BOOKS 2.000 titles, all subjects! Free catalog: Hamilton, 98-86 Clapboard, Danbury, CT 06810.

EVOLUTION - The Sound Magazine. Quad and audiophile software plus hardware. For Information: Evolution, 23757 Canzonet, Woodland Hills, CA 91367.

DELETED Classics Free lists from: Jones, 120 North Oak Park Avenue, Oak Park, Illinois, 60301.

EDUCATIONAL OPPORTUNITIES

LEARN WHILE ASLEEP. Hypnotize! Astonishing details, strange catalog free! Autosuggestion, Box 24-ZD, Olympia, Washington, 98507

FOR INVENTORS



Disclosure registration. Potential cash or royalties-from manufacturers seeking new ideas. For free information on how to register your ideas, call or write

AMERICAN INVENTORS CORP.

59 Interstate Dr. Dept SR West Springfield, MA 01089 (413) 737-5376 A Fee Based Marketing Company

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, Box 89SR, Brooklyn, New York 11235.

CORRESPONDENCE FOR FRIENDSHIP IN PHILIPPINES, MALAYSIA. Free Information. AACC-(SR). Box 1542, Canoga Park. CA 91304.

was rather flexible on this point and was known to switch arrangements from one instrument to another on short notice. What guitarist Frederic Hand (he was seen for seven seconds as the street musician in the movie Kramer vs. Kramer) has done here is to arrange a lot of Vivaldi, plus part of a suite by Purcell, for himself and other "street musicians." Guitar, banjo, harp, harmonica, recorder, and flute are freelyand imaginatively and effectively-substituted for what is indicated in the original scores. The music itself is all so charming that I imagine it could bemuse the ear if played on a kazoo. Especially attractive is II Pastor Fido, for which Hand adds temple blocks for percussive effects. The record ends with a coda of traffic noises, scattered applause, and a "thank you" with which this listener concurred. PK

RENATA SCOTTO: Opera Arias and Duets. Verdi: Nabucco: Anch'io dischiu-. Salgo già del trono. Puccini: Ma-50 . . dama Butterfly: Love Duet, Act I; Un bel dì: Con onor muore. La Bohème: Sì. Mi chiamano Mimì; O soave fanciulla; Donde lieta uscì. Turandot: Signore, ascolta!; Tu che di gel sei cinta. Leoncavallo: Pagliacci: Oual fiamma avea nel guardo. Renata Scotto (soprano); Robert Lloyd (bass); Carlo Bergonzi, Alfredo Kraus (tenors); various orchestras, Riccardo Muti, Sir John Barbirolli, Francesco Molinari-Pradelli, and James Levine cond. ANGEL SZ-37819 \$9.98, @ 4XS-37819 \$9.98.

Performance: Illuminating Recording: Good to very good

These excerpts, all taken from complete opera sets, yield an interesting view of Renata Scotto's artistry over a period of several years, from Turandot (1965) to La Bohème (1980). Vocally, she is in top form in Liù's two arias and in the three Butterfly scenes. In the latter, her character projection too is immensely affecting, and it is all achieved through subtle vocal means. Although stemming from a later production, the Pagliacci aria discloses similar winning values. In the excerpts from La Bohème, however, Scotto's vocal resources are no longer what they were. There is considerable stridency in high passages and some tonal unsteadiness, both at times skillfully mitigated by the artist's interpretive skill. The Nabucco scene is a bit of characteristic Scotto: she dauntlessly attacks music not really designed for her type of lyric voice and, being a resourceful and intense artist, brings it off creditably nonetheless. Even when she is vocally less than pleasing, Miss Scotto is an imaginative, illuminating singer whose work commands attention.

In the Butterfly Love Duct, she is partnered by the impeccable Carlo Bergonzi, in La Bohème by the tasteful but tonally undernourished Alfredo Kraus. As for the conductors, between the precise but hectic Muti (Nabucco) and the indulgent Levine (La Bohème), the routine competence of Molinari-Pradelli (Turandot) is soothing and the richly nuanced, marvelously expressive and compassionate leadership of Sir John Barbirolli (Madama Butterfly) is a cause for joy. The Bohème scenes are oddly balanced sonically; otherwise the sound is consistently impressive. Texts and translations are supplied. G.J.

A DVERTISERS' INDEX

A	DVERTISERS' IND	EX
	EADER ADVERTISER	PAGE
-	Acoustic Research	9
	ADC (Audio Dynamic Corp.) ADC (Audio Dynamic Corp.)	
	ADS	
	Akai America, Ltd.	
	AKG Acoustics	
68	Allsop, Inc.	
	American Audio American Express	
	Angel/EMI Records	
1	Audiomatic Electronica Audio-Technica U.S., Inc.	135
3	Audio-Technica U.S., Inc.	108
4	Austin Nichola Distilling Co Bang & Olutsen	
5	BASF	
69	Blue Angel Robert C. Bosch	125
84	Bose Corporation	Cover 3
65 61	Bose Corporation BSR (USA) Ltd.	
	Canon	93
67	Carver Corporation Celestion Industries, Inc.	
8	Consumera Company	118
9 10	Crown International	
	dbx, Inc. Delco Electronica Division	
11	Denon America, Inc.	73
13	Discount Music Club Discount Sound	135
14 15	Diacwasher	
	Discwasher	
16	Empire Scientific Corp. Fisher Corp.	
	Fuji Photo Film, USA	
17	GE Audio Electronics	41
	Harman Kardon, Inc. Harman Kardon, Inc.	
18 19	Hi-Fi Buys	
20	Illinois Audio International Hi-Fi Dist.	133
21	International Record & Tape Club	
21	International Wholesalers Jack Daniel'a	113
23	J & R Music World	
24	JBL Jensen/Automotive Div.	
26	Kenwood Electronics	
25	Koss Corporation.	Cover 4
27 28	Loran 3M Company	74
	Marantz	
30	Mariboro Maxell Corp. of America	
31	McIntosh Laboratory, Inc.	127
32 33	Mura Corp. Mura Corp.	
34	Musical Heritage Society	123
42	Nakamichi Omnisoniz, Ltd.	
42	Onkyo	
36 37	Ortofon	126
38	J.C. Penney Pickering & Company	
58 59	U.S. Pioneer	Par 2 1
41	U.S. Pioneer Polk Audio	
39 40	Polygram P.R.I.C.E	124
	Radio Shack	2
35	R.J. Reynolds / Camel Sansui Electronics Corp.	43
43	Santa Fe Express	132
44	Shure Brothers	85
47	Sony Corp. Sony Corp.	105
46 48	Sony Corp.	
49	Soundcraftsmen	
50	Sound Reproduction, Inc	132
	Speakerlab	106
51	Stereo Corp. of America	122
86	Sweet Thunder	101
52 57	TDK Electronics	
53	TDK Electronics Teac Corporation of America	103
54	Technicolor Audio Visual	19
55 56	Technics Technics by Panasonic	
57	Top Discount Audlo	121
	United Audio U.S. JVC Corp.	
30	Warner Bros. Records	104
-	Wisconsin Discount Stereo	

OCTOBER 1981



The Alaska Adams

The San Francisco Adams

Two John Adamses

RECENTLY two different small labels issued recordings of music by two entirely different contemporary composers named John Adams. You can tell they're different because the Opus One album of John Adams' *Songbirdsongs* has a picture of a man with a beard playing a recorder in the midst of a wilderness while the 1750 Arch record of John Adams' *Shaker Loops* for strings and *Phrygian Gates* for piano shows a clean-shaven fellow with glasses in a corduroy jacket, sweater, and soft straw hat standing in front of the lights of San Francisco.

You can tell from the music too. The John Adams of the bird songs was born in Mississippi in 1953, was raised in the Southeast (whence most of his bird-song inspiration clearly comes), was educated at the California Institute of the Arts (whence his laconic, Western musical frame of reference no doubt comes), homesteaded or ranch-handed or something in Idaho, and now resides in Alaska, where he is an environmentalist and wilderness guide. The other John Adams is six years older, hails from New England (Vermont and New Hampshire), was educated at Harvard, and now spends his time in San Francisco composing and directing the New Music Ensemble of the San Francisco Conservatory of Music.

Olivier Messiaen has held the patent on bird song in music in modern times, but you may be surprised to discover, as I was, that his "exotic birds" are actually the robin, the cardinal, the wood thrush, and the like. I know the birds, but I recognized nary a one from Messiaen's transcriptions. Except for the mourning dove-neatly imitated with an ocarina-I don't think I would have recognized the originals from John Adams' versions either. No matter. Inspiration is where you find it, and there is obviously room for more than one interpretation of the material. (My own compositional effort in this direction, Birdwalk, is basically a tape of the actual bird songs with optional live commentaries.)

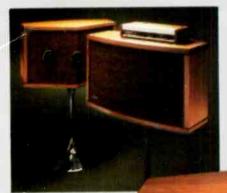
Songbirdsongs takes a simple approach. Most of the songs are transcribed for piccolos with various percussion accompaniments. Like many other bird-song transcriptions, these focus on the elusive melodies and miss some of the variations of color, phrase, articulation, and form that so strongly characterize the different songs of different species and make them distinguishable in the wild. Nevertheless, the pieces have charm and a real feeling for the nature of nature's music. Nice touches are provided by the percussion, which in a way sets and frames the scene, providing a kind of aural landscape through which the songs float. The disc is well recorded too (though there's one horrendous splice).

HE music of the San Francisco John Adams is in many ways very different, but it shares a kind of unaffected simplicity that is appealing. The starting point here is the minimalism of Steve Reich and Philip Glass, but, as with many such pieces in recent years, the rate of change is quicker, the music more through-composed, more directional than that of those models. These are slow, relaxed, expansive, elegant, extremely pleasant journeys that actually move on and even eventually get somewhere. Good performances and recordings too.

-Eric Salzman

JOHN ADAMS: Songbirdsongs. Wood Thrush; Morningfieldsong; Meadowdance; August Voices; Mourning Dove; Apple Blossom Round; Not-Quitespringdawn; Joyful Noise; Evensong. Anne Mcfarland, Michel Cook (piccolos, ocarinas); Kevin Culver (percussion, ocarina); Tim Emery, Scott Douglas, John Adams (percussion). OPUS ONE 66 \$5.98.

JOHN ADAMS: Shaker Loops. Ridge String Quartet; Dan Smiley (violin); Judiyaba (cello); Gary Lowendusky (bass). Phrygian Gates. Mack McCray (piano). 1750 ARCH S-1784 \$6.98.



Steresphonic imaging and the Bose * 901 * Direct/Reflecting * Loudspeaker.

Front View

Single full-range driver provides the direct sound energy necessary for realistic perception of transient detail.



Phased 4-driver arrays focus and reflect 89% of total system power output off interior surfaces of listening room.





he "ideal" home loudspeaker system would possess the following stereo imaging characteristics:

A sound field wider than the space between the speakers;

Clear localization from almost any listening position;

Elimination of enclosures or drivers as point sources;

Stable center imaging with natural transparency and depth.

A few speakers can meet one or two of these requirements. But no conventional design will ever be able to satisfy them all. That's why we abandoned traditional design philosophy in developing our 901 Direct/Reflecting [®] Loudspeaker System.

Each 901 speaker contains nine full-range drivers mounted in a proprietary multi-directional array. Sound energy is focused and reflected in a complex 3-dimensional pattern that virtually eliminates the imaging restrictions imposed by conventional speaker designs. The result is an astonishingly wide and spacious stereo presentation, without the need for special seating arrangements or signal processing.

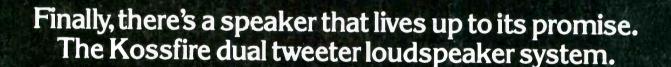
Bose 901 Direct/Reflecting [®] Loudspeakers. The ultimate speaker investment, regardless of size or price.

Bose has prepared a technical booklet on the unique engineering concepts incorporated into the 901 Direct/Reflecting® Loudspeaker System. For a free copy, visit your authorized Bose dealer or write Bose Corporation, Dept. SR, The Mountain, Framingham, Massachusetts 01701.



Covered by patent rights issued and/or pending 901 speaker design is a registered trademark of Bose Corporation g. Copyright 1981 Bose Corporation

CIRCLE NO. 64 ON READER SERVICE CARD



It's about time a speaker at a reasonable price lived up to its promise. Not just in the bass and midrange. But in the all-important treble range where power handling really counts. That's why we've designed the Kossfire/210

loudspeaker with not only a 12-inch woofer and a 5-inch midrange, but also with unique dual Kossfire tweeters that double the power handling capability over the high frequency ra-ge while virtually eliminating distortion. By placing the Kossfire dual tweeters in the optimum geometric alignment, we've created an ideal horizontal listening plane that's remarkable in its wide and uniform dispersion characteristics. The result is an exciting 4-driver speaker system that won't make you choose between the high road and the low road. And that's a promise!

KOSS

But then, the Kossfire/210 loudspeaker

has a lot of very promising things going for it. There's a linear phase constant voltage crossover network for seamless transition between drivers. There's a built-in circuit breaker that automatically resets so no fuses are

necessary. There's a vertical alignment of woofer, midrange and tweeter array for perfect stereo imaging. And there are separate continuous level controls for midrange and treble response ranges. Notto mention, the Kossfire's beautiful pecan-veneer cabinet.

FIRE

All in all, these 4-driver Kossfire speakers were created to fill the void between loudspeakers that cost too much and those that promise too much and deliver too little. The superb performance of Kossfire speakers will amaze you. But then, so will their price. And that's a promise!

C 1980 Koss Corp.

Sterecphones /Loudspeakers/Digital Delay Systems hearing is believing®

INTERNATIONAL HEADQUARTERS 4129 N. Port Waterington Avenue Mitwaukee, Wisconsin 53212 Facilities: Canada, France, Germany, Ireland CIRCLE NO. 25 ON READER SERVICE CARD

