

Stereo Review

COPYING CASSETTES:

LABORATORY TESTS
OF FOUR GOOD
DUBBING DECKS

RODRIGUES ON VIDEO

THE ART OF MAKING
TAPE RECORDINGS

HOW TO USE
TONE CONTROLS



*****5-DIGIT 40222
 430492 BCH 3104D095 641J JAN85
 03#DH
 MR DAVID BUCHANAN
 3104 DUNLEITH CT
 LOUISVILLE KY 40222



Technics Linear Tracking and Quartz Drive. If your next turntable gives you less, you're settling for less of a turntable.

To create a turntable with either linear tracking or quartz drive is an achievement in itself. But to create a turntable with both linear tracking and quartz drive is pure Technics.

A Technics turntable with linear tracking gives you a tonearm that moves straight across the record. The way the record was originally cut. So you get none of the distortion or tracking error that are so common with conventional turntables.

Quartz drive is the most accurate drive system in the world. That means the wow and flutter that plagues conventional turntables is inaudible.

So Technics turntables, with both linear tracking and quartz drive, deliver performance few turntables anywhere can match.

The new Technics SL-J2 offers completely automatic operation: automatic speed selection, automatic disc size selection, automatic start, stop, return and more. There are front-panel controls. Including a digital display of the track number you're listening to. And all of this technology has been placed in a turntable about the size of a record jacket.

Technics turntables also feature the innovative P-Mount plug-in cartridge system. For optimum tonearm/cartridge performance and ease of cartridge installation.

So why settle for less. Explore the entire line of Technics turntables at a dealer near you.

Technics
The science of sound

by Gordon Sell and Christie Barter

NEW VIDEO LINE

RCA/Columbia Pictures Home Video has launched MusicVision, a comprehensive brand line of music videos featuring 36 titles by such artists as Luciano Pavarotti, Rick Springfield, and Hall and Oates. Aimed at collectors rather than people who rent videos, the line includes new releases from Lionel Richie, the Go-Go's, Laura Branigan, and Krokus. "Prime Time" by the Go-Go's and Richie's "All Night Long" will have the special introductory price of \$14.95.

MUSICVISION

BERNSTEIN HONORED

Conductor-composer Leonard Bernstein is the recipient of the Lifetime Achievement Award to be presented by the National Academy of Recording Arts and Sciences on its annual Grammy Awards Show, February 26. Bernstein has made over 300 recordings. Nine of them have received the Academy's prestigious Grammy.

TECH NOTES

Pioneer has announced a \$1,200 price tag for the CLD-900 CD and LaserDisc player....Teac is said to be introducing a LaserDisc player and a VHS Hi-Fi VCR.... Several manufacturers are working on 8-mm VCR's with half-speed transports that will allow for three-hour recording....Sony is introducing an upgraded version of its popular Trinitron TV, the Trinitron XBR, which has built-in stereo TV reception and APM loudspeakers....A pioneering company in digital audio, Soundstream, is launching a line of car stereo amplifiers....Klipsch's new kg⁴ is a two-way speaker system with a horn tweeter, two 8-inch bass drivers, and a passive radiator. In the works is a Klipsch three-

way system....TDK is extending its \$3 video-tape rebate program to the end of April....Uher, back in the U.S. audio market, has opened offices in North Hollywood, Calif.

VIDEO WINNERS

Vestron is the first to come up with "non-theatrical" music videos qualifying for awards under new guidelines set by RIAA/Video at the end of 1984. They are the Rolling Stones' "Video Rewind" and the all-star "Do They Know It's Christmas?" Both videos, reviewed in this issue, have shipped well in excess of 100,000 units each, earning them Gold and Platinum certification simultaneously.

AM STEREO

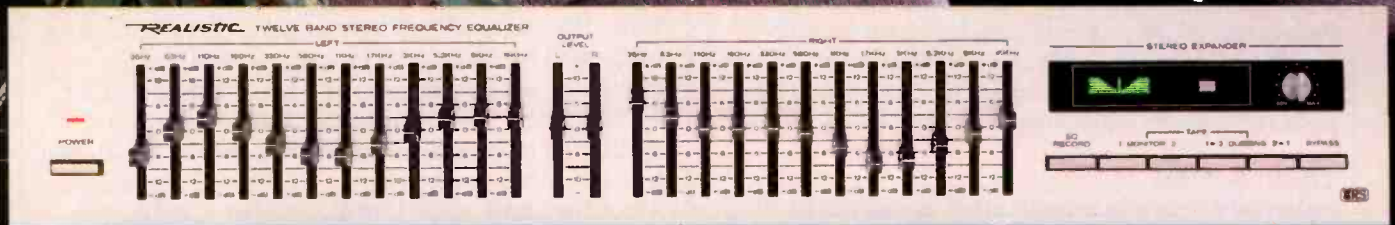
Two and a half years after the FCC decision to let the four proposed AM stereo systems battle it out in the marketplace, Motorola's C-QUAM system seems so far ahead that it could almost be called the winner. The Harris Corporation, one of the two main competitors, recently signed an agreement to modify the existing Harris stations to the Motorola system and to make C-QUAM broadcast exciters under license. At the end of 1984, Kahn Corp., the only remaining competitor, had less than half as many radio stations on the air as Motorola. Even more significant, perhaps, is that receiver manufacturers Pioneer, Delco, Jensen, Concord, Nissan, Ford, Chrysler, Sherwood, Marantz, and McIntosh are already making C-QUAM-only radios.



Bring the Dramatic Sound of a Live Performance to Any Room



Radio Shack's New 12-Band Equalizer With Stereo Expander™



Unleash the potential of your stereo system with our Realistic® graphic equalizer. Thanks to its built-in Stereo Expander, you'll hear sound that's remarkably similar to a live concert.

The Stereo Expander dramatically alters the apparent location of sound. Normally, what you hear is concentrated between the two speakers. The expander creates the convincing illusion that sounds are coming from outside this area. The result is a "live" effect comparable to what you hear in a theater or concert hall. But that's only the beginning . . .

It's a fact that furniture, carpet, and the size and shape of your room can affect frequency response. But with twenty-four narrowband tone controls, the acoustic distortion present in most rooms is practically eliminated. They let you add "punch" to certain instruments or vocals, and adjust frequency response up to 12 dB from 36-16,000 Hz. You'll enjoy total command over your listening environment.

You also can make your own custom-equalized recordings. The built-in dual-tape control center lets you record, monitor and dub equalized sound from tape deck to tape deck.

Come in today for an exciting hands-on demonstration. And bring your Radio Shack/CitiLine or other credit card. Only \$119.95.

Radio Shack
A DIVISION OF TANDY CORPORATION

Send for FREE 1985 Catalog

Mail coupon to Radio Shack, Dept. 85A-752
300 One Tandy Center, Ft. Worth, TX 76102

Name _____
Address _____
City _____
State _____ Zip _____

Price applies at participating Radio Shack stores and dealers.

Stereo Review

Bulletin.....	1	Technical Talk.....	24
Editorial.....	4	Popular Music.....	69
Letters.....	6	Video Reviews.....	79
New Products.....	9	Classical Music.....	83
Video Basics.....	16	What They're Watching...	93
Audio Q&A.....	18	The High End.....	94

EQUIPMENT

Hirsch-Houck Labs Equipment Test Reports	29
JVC KD-V6 cassette deck	
JBL 250Ti speaker system	
Parasound PR200 preamplifier	
Monster Cable Alpha 1 phono cartridge	
Mitsubishi HS400UR VHS Hi-Fi VCR	
The Art of Tape Recording	44
Practice and experimentation help you make creative use of your equipment <i>by Ian G. Masters</i>	
4 Tape Dubbing Decks	49
Hirsch-Houck lab tests and an evaluation of the features of some tape decks designed to make copying cassettes easier <i>by Julian Hirsch</i>	
Rodrigues on Video	56
Controlling Tone	61
What happens when you try to correct the recording engineer's mistakes? <i>by Larry Klein</i>	

MUSIC

Basic Repertoire	58
The best recordings of favorite orchestral works <i>by Richard Freed</i>	
Record Makers	63
Boy George fashions, <i>The Real Thing</i> , the Met's new Bess, "White Boys' Blues," and more	
Video V.I.P.'s	64
Bob Marley, Vincent Van Gogh, Joan Jett, Martha Graham, and more	
Best of the Month	65
Mozart piano quartets, Rickie Lee Jones, Earl Thomas Conley, and Peter Lieberon's piano concerto	



page 63



page 49



page 63

Vol. 50 No. 3 March 1985 (ISSN 0039-1220)

Cover: Design by Sue Llewellyn, photo Jook Leung

COPYRIGHT © 1985 BY ZIFF-DAVIS PUBLISHING COMPANY. All rights reserved. Stereo Review, March 1985, Volume 50, Number 3. Published monthly by Ziff-Davis Publishing Company at 3460 Wilshire Boulevard, Los Angeles, Calif. 90010. Editorial and Executive Offices at One Park Avenue, New York, N.Y. 10016; Telephone: 212 503-3500. Richard P. Friese, President; Selwyn Taubman, Treasurer; Bertram A. Abrams, Secretary. Also publishers of Boating, Car and Driver, Cycle, Flying, Popular Photography, Skiing, Stereo Buyers Guide, Tape Recording & Buying Guide, and Yachting. One-year subscription rate for the United States and its possessions, \$9.98; Canada, \$10.98; all other countries, \$14.98, cash orders only, payable in U.S. currency. Second-class postage paid at Los Angeles, Calif. 90052 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, Colo. 80302. SUBSCRIPTION SERVICE: All subscription correspondence should be addressed to Stereo Review, Circulation Department, P.O. Box 2771, Boulder, Colo. 80302. Please allow at least eight weeks for change of address. Include old address as well as new—enclosing if possible on 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 Irving Benig, Rights and Permissions, Ziff-Davis Publishing Company, One Park Avenue, New York, N.Y. 10016.

by William Livingstone



With Dr. Amar Bose (left)

New Technology

TIME has been merciful to the man who suggested that the patent office be closed because everything had already been invented. Today no one can even remember his name.

At the rate new patents are granted these days, it is unlikely that anyone will make such a suggestion again any time soon. Now that we've gotten through 1984 without becoming slaves of technology as the novelist George Orwell thought we might, it's pleasant to contemplate some of the ways that new technological developments can serve us, entertain us, or otherwise spice up our lives.

I don't know of any imminent breakthrough that will revolutionize the way we listen to music in the home, but research and development in the technology of communications continue constantly. We don't get something so dramatic as the introduction of the digital Compact Disc every year, but we do get a steady stream of new products that incorporate improvements in flexibility or performance.

I'm not thinking of such products as ShoweRING, "the revolutionary hands-free, water-resistant shower telephone" marketed by Millennium International Corporation (price \$50 to \$80, depending on features). Nor am I thinking of the five-in-one combination telephone, clock, alarm, television, AM/FM radio (Quasar Model AP1495YH, \$179.95), which has a certain gadgety charm.

Instead, what's on my mind is the way manufacturers are able to continue to improve on so basic a home audio component as the loudspeaker. In recent years greater attention has been given to stereo imaging, and, partly through psychoacoustic research, such companies as Polk and dbx have been able to make speakers with spatial properties superior to those of conventionally designed models. Acoustic Research is on the point of introducing a new line of speakers which have outward-firing drivers on their sides to provide richer ambience.

Dr. Amar Bose, founder of the manufacturing firm that bears his name, is well known for his unconventional speaker designs. Bose Corporation has recently introduced a one-piece stereo system, the Acoustic Wave Music System, that includes the speakers in the same chassis with a cassette deck and an AM/FM receiver. In this unit the bass is handled by a most unusual speaker, which is described by Julian Hirsch on page 24.

When Dr. Bose presented the system to the audio press, I was curious to know how the new technology might be applied in future products. Dr. Bose declined to discuss other applications beyond a demonstration of a prototype TV set incorporating the new bass speaker.

If you're thinking of upgrading your video installation, should you wait until the Bose Acoustic Wave technology is available on a TV set? Interesting though that may be, I don't think so. I waited far too long to buy my first color set, thinking they would soon get bigger, better, and cheaper or add stereo or more channels. When I finally ordered one, the patent office didn't close down, and bigger, better, brighter sets were soon introduced. Mine, however, continued to serve.

If you have postponed the acquisition of a video cassette recorder or a Compact Disc player, I think you owe it to yourself to consider buying both now, although both will undoubtedly be improved in the future. Just think, if when stereo was introduced you had decided to wait for imaging to reach the mid-Eighties state of the art, you'd have missed a quarter of a century of musical pleasure. □

Stereo Review

PUBLISHER
WILLIAM T. LIPPE

EDITOR IN CHIEF
WILLIAM LIVINGSTONE
MANAGING EDITOR
LOUISE GOOCH BOUNDAS

ART DIRECTOR
SUE ILEWELLYN

TECHNICAL EDITORS
DAVID RANADA, GORDON SELL

MUSIC EDITOR
CHRISTIE BARTER

ASSISTANT MANAGING EDITOR
DAVID STEIN

ASSOCIATE EDITOR
WILLIAM BURTON

ASSISTANT ART DIRECTOR
BOKYOUNG KIM

EDITORIAL ASSISTANTS
BARBARA AIKEN, ROCCO MATTERA,
WILLIAM NEILL, FRAN ROSENBLATT
LONDON EDITOR
HENRY PLEASANTS

CONTRIBUTING EDITORS

ROBERT ACKART	LOUIS MEREDITH
CHRIS ALBERTSON	ALANNA NASH
RICHARD FREED	MARK PEEL
PHYL GARIAND	LINCOLN PERRY
CHRIS GREENLEAF	PETER REILLY
DAVID HALL	CHARLES RODRIGUES
JULIAN D. HIRSCH	ERIC SALZMAN
RALPH HODGES	STEVE SIMELS
LARRY KLEIN	CRAIG STARK
STODDARD LINCOLN	JOEL VANCE

Editorial and Executive Offices: 212 503-3500
Ziff-Davis Publishing Company
One Park Avenue, New York, New York 10016
National Advertising Manager: Richard J. Halpern
Eastern Advertising Manager: Charles L. P. Watson

Midwestern Office, The Patis Group: 312 679-1100
4761 West Touhy Ave., Lincolnwood, Illinois 60466
Arnold S. Hoffman, Dirk E. Barenbrugge

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

Japan: Iwai Trading Co., Ltd.
J. S. Yogi
603 Ginza Sky Heights Building
18-13, Ginza 7-Chome
Chuo-Ku, Tokyo, Japan 104
Telephone: (03) 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, the 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. Fries
President, Consumer Magazine Division:
Albert S. Traino
Executive Vice President, Marketing
and Circulation: Paul Chack
Senior Vice Presidents: Philip T. Heffernan,
Sidney Holtz, Edward D. Muhlfield, Philip Sine
Vice Presidents: Baird Davis, George Morrissey,
Rory Parisi, William L. Phillips
Treasurer: Selwyn Taubman
Secretary: Bertram A. Abrams

VALUE

Introducing Karat — a new generation of bookshelf speakers from Canton.

With Karat, Canton leads the way into the digital era of sound reproduction. The result is sound so natural and free of coloration you must hear them to appreciate the acoustic achievement this series represents.

Like the entire Canton product line, from our mini-speakers to our floor-standing speakers, the Karat bookshelf series offers value. Value in sound reproduction is first and foremost: that's why every element in the Karat series is designed, engineered and manufactured at the Canton factory in Germany.

Value in terms of detailing goes into every Canton speaker as well. That's why we offer our speakers in a variety of fine finishes, like walnut and oak veneers, rich black, bronze and white lacquers and now a premium finish, gloss mahogany. For at Canton, we believe speakers should look as good as they sound.

Visit your local Canton dealer today and learn the value of a sound investment: Canton's Karat series — products of German quality and craftsmanship.

Canton North America, Inc.
254 First Avenue North
Minneapolis, MN 55401



CANTON

Die reine Musik

For Dealer Nearest You Call TOLL-FREE 800-633-2252 Ext. 828

CIRCLE NO. 33 ON READER SERVICE CARD

The Basic Repertoire

What has happened to Richard Freed's monthly installments of "The Basic Repertoire"? They contained what I considered significant changes compared with the 1982 compilation, the last in pamphlet form. I've withheld purchasing anything falling alphabetically after Schubert. I anxiously await what will probably be covered in two final installments. Please don't stop running it now!

JEROME J. KROCHMAL
Dayton, Ohio

See page 58 in this issue.

Super-Woofer

In reading Ralph Hodges's November column, "Speakers: Distinguishing Marks," I noticed the following misstatement: "... the 30-inch woofer made until recently by Electro-Voice . . ." Much like Samuel Clemens, the Electro-Voice Model 30W would like to say that "the rumors of my demise are greatly exaggerated."

Still substituted for the 32-foot organ

pipes at Robert Schuler's Crystal Cathedral in Garden Grove, California, Electro-Voice's famed 30W is still manufactured in Newport, Tennessee, and distributed internationally. If I may assist any STEREO REVIEW readers with information about the speaker capable of producing 119 dB at 25 Hz, they may call me at (616) 695-6831.

JAMES S. EDWARDS
Market Development Manager
Electro-Voice, Inc.
Buchanan, Mich.

Looking Good

I just got my January STEREO REVIEW out of the mailbox and haven't read it yet. Superb graphics! Your layout designs look better each month. Nice way to start the new year. Cheers!

HAL SCOTT
Atlanta, Ga.

Legit Beatles CD

The reply to a January letter about CD's of Beatles albums said that the Japanese issue on CD of "Abbey Road" was "probably a pirate." This is a ridi-

culous statement! At present there are fewer than a dozen Compact Disc manufacturing facilities throughout the entire world. With the RIAA, FBI, and other criminal authorities on ever-increasing alert for illegal records and tapes, it would be nigh on impossible, and certainly foolhardy, for any "pirate" CD's to be manufactured.

The "Abbey Road" CD, Toshiba/EMI CP35-3016, is a perfectly legitimate release. It is available on special order from any of the better record stores or Compact Disc mail-order houses around the country. And, by the way, it is a fairly good-sounding disc, quite a bit better than any Beatles LP available except those in Mobile Fidelity Sound Lab's remastered set, "The Beatles: The Collection."

DAVID SCHWARTZ
Voorhees, N.J.

Footnotes

How soon they forget! Stoddard Lincoln, in his January review of James Galway's flute recording of Schubert's *Arpeggione* Sonata, says "there have been recordings . . . on every instru-

CALL OUR TOLL
FREE NUMBER
800-
TO FIND OUT WHERE
TO SEE AND HEAR
633-
PRODUCTS ADVERTISED
IN STEREO REVIEW.
2252

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

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

The following advertisers are participating in the STEREO REVIEW "Where-To-Buy-It" Program. Dial 800-633-2252 and ask for the extension of the advertiser whose products interest you:

ADS	x 825
Audio Technica U.S. Inc.	x 826
Boston Acoustics	x 827
Canton North America	x 828
Carver Corporation	x 829
Fujitsu Ten	x 830
Mission Electronics	x 831
Polk Audio	x 832
Studer Revox	x 833
Yamaha Electronics	x 834

Stereo Review

ment but the arpeggione." But what about Klaus Storck's arpeggione recording on Archiv 2533 175? And on the same page Richard Freed refers to the Prey/Sawallisch recording of *Die Winterreise*, saying it "was apparently never issued here." In fact, that record (Philips 6747 033) was issued domestically in the fall of 1973, if memory serves, and was listed in Schwann for a couple of years thereafter.

ROBERT S. GOLDFARB
Los Angeles, Calif.

Recorder Nostalgia

The nostalgic opening of "Tape Wins Again" (November) by Ian G. Masters brought back memories for this fifty-four-year-old recording buff. The adventure of going from home disc recorders to tape was indeed a wonder. Actually, though, the first affordable home recorder was the wire recorder, usually part of a 78-rpm record player with an AM radio for direct off-the-air recording. I still have my wire recordings (though transferred to tape) of Bing Crosby's 1947-1949 programs. When the wire broke from a fast stop, finding

the ends lost in the spools was useless, and when the wire unraveled . . . pain and frustration.

I trust that Mr. Masters didn't miss the wire-recording experience. After that, home tape was indeed a blessing.

JOE ONORATO
Northfield, Vt.

Alannaphiles

I just had to write and sincerely thank Alanna Nash from the bottom of my heart for being one of the very few critics who've got the decency and insight to set aside the boring and repetitious glittery bar and bedroom garbage that's continually being driven at the public as the best. I've been following her reviews since her long-overdue, well-deserved, and superb one of Guy Clark's "Better Days" in November 1983. Her realism led to my getting a subscription to STEREO REVIEW, which you can count on being renewed as long as she or someone else is there willingly sidestepping the cute fakes for the real and dedicated.

BLAINE BECHTULD
Moose Jaw, Sask.

Alanna Nash's reviews are the first pages in STEREO REVIEW to be read and highly regarded by this country audiophile. So here's a question for her: any idea when records by such country artists as Reba McEntire, the Judds, and T. G. Sheppard, to name a few, will be released on Compact Disc? I've been waiting two years in some cases.

KEITH JONES
Olney, Ill.

We're waiting too. For a quick check on new CD releases of notable older titles, watch our "Now on CD" column in the "Best of the Month" section.

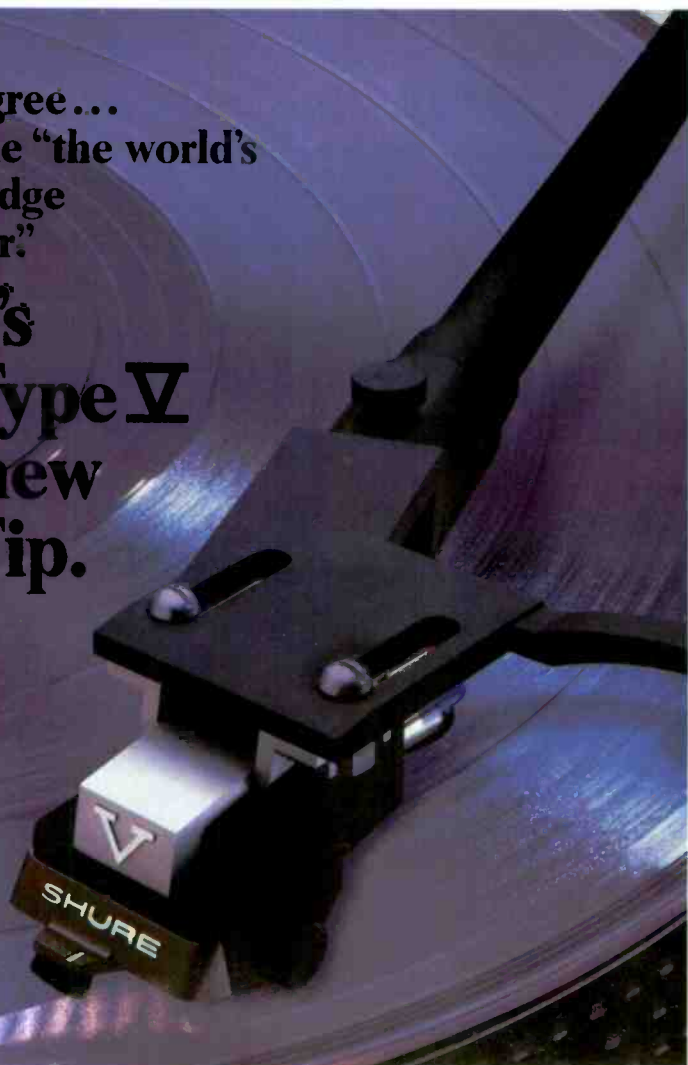
Tubes vs. Transistors

I really enjoyed Larry Klein's objective and tongue-in-cheek comments on tubes and transistors ("Audio Q. & A.," September). I'm somewhere between a layman and a double EE, generally able to perambulate through a schematic. When I see the prices of (and virtues ascribed to) tube equipment, I think of old P.T.B.

STEVE KOHN
APO San Francisco

Experts agree...
we've made "the world's
best cartridge
even better."

Shure's
V15 Type V
with new
MR Tip.



"We were hardly surprised to find that the V15 Type V-MR is a sterling performer...with unsurpassed clarity and freedom from distortion...Shure has made one of the world's best cartridges even better."

High Fidelity Magazine

"Shure's new V15 Type V-MR actually provides a substantial improvement in the tracking ability of what was already the best tracking cartridge we know of."

Stereo Review Magazine

The Shure V15 Type V-MR—no other component can bring so much sound out of your system for so little money. A combination of the revolutionary Micro-Ridge Tip and Shure's extraordinary Beryllium Stylus Shank, this cartridge has redefined the upper limits of high-frequency trackability.



Save up to \$25

Save on the V15 Type V-MR as well as other selected cartridges

and styli February 18 thru April 19, 1985. See your Shure dealer for complete details!

SHURE

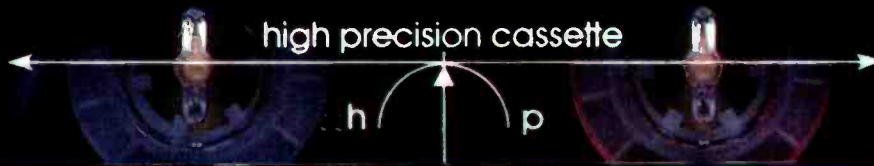
You'll hear more from us.

CIRCLE NO. 41 ON READER SERVICE CARD

New Improved!
Pro II Chrome.



BASF 90



BASF CR-E II 90

IEC II

chromdioxid extra II
hifi stereo cassette · 2 x 45 min · 132 m

BASF Chrome. **The world's quietest tape.**

When you buy most audio tapes, you get a little something extra whether you like it or not.
It sounds like thisssssss.

Unless the tape is BASF Chrome. Because unlike ferric oxide tapes, BASF Pure Chrome is made of perfectly shaped chromium dioxide particles in an exclusive formulation that delivers the lowest background noise of any tape in the world. It also delivers outstanding sensitivity in the critical high-frequency range. In fact, it's designed especially for the Type II Chrome Bias position on your tape machine. And it's guaranteed for a lifetime.

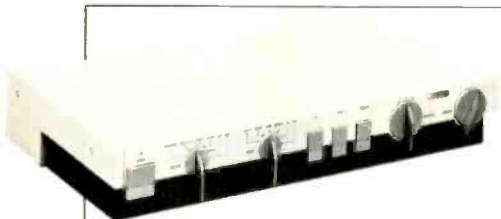
So, if all you want to hear is the music you record, this little message should be music to your ears. BASF Chrome. The world's quietest tape.



BASF

Chrome Audio & Video Tapes
The quality never fades.

NEW PRODUCTS



Canton

Canton's first preamplifier, the EC-P1, can be used with a standard power amplifier or with Canton's self-powered speakers. Included are inputs for moving-coil and moving-magnet cartridges, a CD player, a tuner, two tape decks, and an auxiliary source. In addition to the input selector, a recording selector enables a tape to be dubbed while the user is listening to another source. The control knobs for volume, balance, function, and recording and input selection clearly indicate their settings. The volume control attenuates in increments of 1.5 dB. Switches select MM or MC inputs, mono or stereo operation, and a 20-dB audio mute. Two pairs of auxiliary jacks permit easy connection of a signal processor. All input contacts are gold plated. Two of the outputs are RCA jacks; the third, a Cannon connector, fits the connecting cable of Canton's active speakers.

Rated frequency response at the MC phono input is 18 to 100,000 Hz. Harmonic distortion is 0.002 percent at line level. Sensitivity for line-level inputs is 96 dB, and noise is -100 dB. The EC-P1 measures about 17 inches wide, 2¾ inches high, and 9½ inches deep. Price: \$1,500. Canton, Dept. SR, 245 First Ave. N., Minneapolis, Minn. 55401.

Circle 120 on reader service card



Panasonic

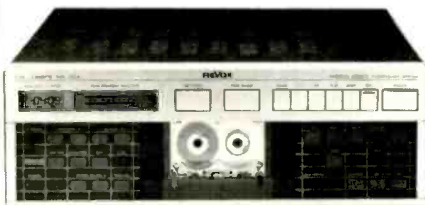
The CQ-S774 car stereo cassette player/receiver from Panasonic features an autoreverse tape mechanism, Dolby B noise reduction, and a built-in 7.5-watt-per-channel amplifier. Tapes are automatically disengaged when the car's engine is turned off so as to protect the heads, the cassette, and the pinch-rollers. The tape selector has settings for normal, metal, and CrO₂-type tapes. There is a four-way balance control (left-right and front-rear) and separate bass and treble tone controls. AM sensitivity is said to be improved by a distributed multistage automatic gain control, which also helps the tuner pick up

travelers' advisory broadcasts. The CQ-S774 has MOSFET FM circuitry and an automatic antenna relay lead. Price: \$259.95. Panasonic, Dept. SR, One Panasonic Way, Secaucus, N.J. 07094.

Circle 121 on reader service card

Revox

The Revox B215 cassette deck automatically determines and stores in memory the optimum recording bias for six different kinds of tape. To set proper recording levels, the deck samples the peaks of the program material. Any point on the tape can be accessed by entering its location in minutes and seconds from the beginning of the tape. Separate Dolby B and Dolby C microprocessors for recording and playback allow monitoring during recording from the separate playback head. The Dolby HX Professional system continuously varies recording bias for maximum high-frequency headroom.



Four d.c. motors are used in the tape transport: two for the direct-drive capstans and two for spooling. The signal-to-noise ratio is rated as better than 72 dB with Type II or Type IV tape using Dolby C and A-weighting. Frequency response with the same tape is 30 to 20,000 Hz +2, -3 dB. Wow-and-flutter is given as 0.035 percent wrms. Rewind time is approximately 75 seconds with a C-90 cassette. The deck measures about 17¾ inches wide, 6 inches high, and 13 inches deep. It weighs 20¼ pounds. Price: \$1,390. Revox, Dept. SR, 1425 Elm Hill Pike, Nashville, Tenn. 37210.

Circle 122 on reader service card

Nakamichi

The first twenty-five releases in Nakamichi's Reference Recording series of cassettes derive from albums on the Delos, Telarc, Artist, and Sheffield labels. Among them are "The Classic Trumpet Concerti of Haydn and Hummel," "The World of the Harp," and "Water Music of the Impressionists" from Delos; Sheffield's "The Missing Link" with Lincoln Mayorga and "The King James Version" with the Harry James Big Band; the Atlanta Symphony's recording of *The Firebird*, the Cleveland Orchestra playing Schubert's *Unfinished* and Beethoven's Eighth, and orchestral works of Ravel with the

Saint Louis Symphony Orchestra and Chorus, all on Telarc; and recordings by Victor Feldman, Lalo Schifrin, and the Generation Band on Artist.

The cassettes are duplicated in real time on TDK metal tape with Dolby B or Dolby C noise reduction using a modified Nakamichi ZX-9 deck. The tapes are recorded inside their own cassette shells so that tape tracking and alignment are maintained from recorder to player. The frequency response of each recorder is tested with the cassette loaded to ensure accuracy of 20 to 20,000 Hz ± 1 dB. The running masters are first-generation digital copies of the original masters that are said to have perfectly flat response from 20 to 20,000 Hz and a dynamic range of more than 90 dB. No compression, limiting, or gain riding is used during duplication. Price per cassette: \$17.95. Pacific Cassette Laboratories, Dept. SR, P.O. Box 6248, Torrance, Calif. 90504.

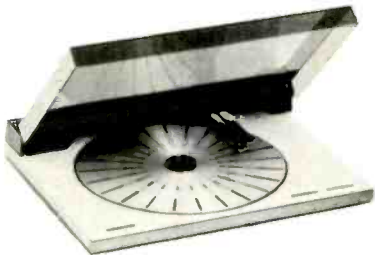
Circle 123 on reader service card

Bang & Olufsen

A dual-chassis design that is said to resist feedback is incorporated into three new tangential-tracking turntables from Bang & Olufsen, the Beogram TX 2 (shown), the Beogram 3000, and the Beogram 5005. The main chassis supports the subchassis on three pendulums suspended from leaf springs. The platter and arm are both mounted on the subchassis in order to maintain the correct geometric relationship, thus minimizing resonance. An Optimum Pivot Point technique is claimed to prevent vibration from the drive motors and gears from reaching the stylus. The Beogram 3000 and 5005 contain Data Link circuitry to connect them with the Beosystem 3000 and 5000 remote-control units.

Specifications for all three turntables include rated wow-and-flutter of less than 0.03 percent wrms, rumble less than 55 dB (DIN unweighted), and speed deviation of less than ±0.2 percent. Each turntable is 16½ inches wide, 3 inches high, and 12¾ inches deep. Prices: Beogram 5005, \$399; Beogram 3000, \$380; TX 2, \$340. Bang & Olufsen, Dept. SR, 1150 Feehanville Dr., Mount Prospect, Ill. 60056.

Circle 124 on reader service card



NEW PRODUCTS



Linn

An improved version of the Linn Basik LVX tone arm, the Linn Basik Plus has a rigidly fixed headshell instead of a detachable one, and the tone arm's bearings are said to be of higher quality than in the previous model. The result of both changes is decreased effective mass, making the arm compatible with low-compliance moving-coil cartridges. The Basik Plus comes with the Linn Basik III cartridge, mounted with gold-plated cartridge connectors.

The tone arm is 284 millimeters (11 $\frac{3}{16}$ inches) long overall, with an effective length of 230 mm (9 $\frac{1}{16}$ inches). Its effective mass is less than 12 grams, and it is suitable for use with cartridges weighing from 2 to 10 grams. Tracking force may range from 0 to 3 grams. Price: \$160. Audiophile Systems, Ltd., Dept. SR, 6842 Hawthorn Park Dr., Indianapolis, Ind. 46220.

Circle 125 on reader service card



ADS

The ADS Atelier P4 automatic direct-drive turntable employs three separate motors: a brushless d.c. motor with a quartz-controlled phase-locked loop to spin the platter, a linear motor for arm indexing, and a cueing motor. The separation of functions eliminates linkages and their concomitant noise, according to the manufacturer. The indexing control moves the tone arm in either direction over the surface of the record at a slow or fast speed.

The tone arm is dynamically balanced in both the vertical and horizontal planes for stability and tracking precision. Tracking error is said to be lower than that of most tangential tone arms. The tone arm and the suspension are tuned to have different resonant frequencies in order to avoid distortion

and decrease sensitivity to feedback. Ball-bearing pivots are used in both horizontal and vertical axes. Instead of a spring, antiskating force is applied by the tone-arm motor.

The P4 will play records at 33 $\frac{1}{3}$ and 45 rpm, and there is a pitch control to vary platter speed ± 5 percent. The universal headshell accepts all standard cartridges. Price: \$495. Analog & Digital Systems, Dept. SR, One Progress Way, Wilmington, Mass. 01887.

Circle 126 on reader service card



Minim

Audio + Design is distributing two Minim Ambisonic Surround Sound decoders, which extract the spatial information in Ambisonic-encoded recordings. More than two hundred Ambisonic-encoded LP's and Compact Discs are said to be available, and National Public Radio is expected to broadcast concerts with Ambisonic encoding. For the ambience effect to be realized, an additional amplifier and two additional (rear) speakers must be added to standard stereo systems.

Both models, the AD10 and the AD7, decode two-channel UHJ-encoded signals from LP's, Compact Discs, and tape, broadcast, and video sources as well as B-format signals for professional playback systems. The AD10 has a wide variety of control functions. A LAYOUT control compensates for different speaker arrangements. When speakers are placed more than 10 feet from the listener, the DIST(ance) button compensates for the time it takes sound waves to reach the listener. The POSITION control changes the balance of the front and rear speakers to create the illusion of sitting closer to or further from the front. Other alterations in the sound field can be made with the FOCUS control. Conventional stereo material can be enhanced with the STEREO control to widen the sound stage. Ordinary stereo playback from front speakers only can be selected with the BYPASS button. Price: \$575. The simpler AD7 includes only the LAYOUT, STEREO, and BYPASS controls. Price: \$190. Distortion for both models is rated at less than 0.01 percent, and hum and noise are less than 90 dB. Audio + Design Calrec, Dept. SR, P.O. Box 786, Bremerton, Wash. 98310.

Circle 127 on reader service card



Sawafuji

The transducer in the SFI 17 headphones from Sawafuji uses high-energy strontium magnets and a heat-resistant polymer membrane with an integral unitized voice coil. The benefits of this design are said to be linear phase response and fast transient response. The "flat-wave" transducer has a rated frequency response of 10 to 100,000 Hz ± 3 dB. The ear cushion is an open-air design. Sensitivity is rated at 98-dB sound-pressure level. The headphone set weighs 180 grams. Price: \$79.95. SFI Sawafuji America, Dept. SR, 23440 Hawthorne Blvd., Torrance, Calif. 90505.

Circle 128 on reader service card

Acoustic Research

The new Connoisseur Series from Acoustic Research consists of three two-way acoustic-suspension loudspeakers. All use a 1-inch liquid-cooled dome tweeter with venting for improved high frequencies and power handling. The cabinets, finished in walnut-grain vinyl veneer, have rounded front edges to minimize diffraction effects. Nominal impedance is 8 ohms. The floor-standing Model 30 (center in photo) has a 10-inch woofer. Its frequency response is given as 46 to 22,000 Hz ± 3 dB. Sensitivity is 88 dB sound-pressure level with a 1-watt input measured at 1 meter. The crossover frequency is 1,800 Hz. Price: \$460 per pair.

The other speakers are small enough for bookshelf placement. The Model 20 has an 8-inch woofer and a crossover frequency of 3,000 Hz. Its frequency response is down 3 dB at 52 Hz. Price: \$320 per pair. The Model 19 has a 6-inch woofer that crosses over to the tweeter at 3,500 Hz. Its frequency response is -3 dB at 62 Hz. Price: \$250 per pair. AR offers an optional speaker stand for the Models 19 and 20, the SW-1, which can be filled with a damping material such as sand or lead shot. Price: \$100 per pair. Teledyne Acoustic Research, Dept. SR, 10 American Dr., Norwood, Mass. 02062.

Circle 129 on reader service card





Fly First Class.

**Wild Turkey. It's not the best because it's expensive.
It's expensive because it's the best.**



Now you can send a gift of Wild Turkey® 101 Proof anywhere* by phone through Nationwide Gift Liquor. Call Toll Free* 1-800-CHEER-UP (Arizona 602-957-4923). * Except where prohibited. Major credit cards accepted. Austin, Nichols Distilling Co., Lawrenceburg, KY © 1985.

For smokers who prefer
the convenience of five more cigarettes per pack.

New Marlboro 25's



Now, famous Marlboro Red and
Marlboro Lights are also available
in a convenient new 25's pack.

Not available in some areas © Philip Morris Inc. 1985

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

Lights: 11 mg "tar," 0.7 mg nicotine—Kings: 17 mg "tar,"
1.1 mg nicotine av. per cigarette by FTC method.

AUDIO/VIDEO NEW PRODUCTS



Sony

The Sony SL-HF500 is a low-priced, stereo-ready Beta Hi-Fi VCR with a six-event tuner-timer, freeze frame, and other convenience features. The Beta Hi-Fi stereo sound signal is frequency-modulated and recorded together with the video chrominance and luminance signal, resulting in a dynamic range better than 80 dB. A built-in MPX jack can be connected to a Sony MLV-1100 stereo TV adaptor to enable the VCR to record stereo and bilingual broadcasts. It is also possible to record FM simulcasts with the SL-HF500.

The freeze-frame feature is said to stop the action without snow or electronic interference. Frame-by-frame advance allows each frame to be viewed individually. Stop-action/advance continuously advances the tape a frame at a time for a slow-motion effect. The Beta-Scan search proceeds at fifteen times normal speed with the picture still viewable. BetaSkipScan permits instant switching from fast forward to rewind to BetaScan search with the picture visible. A remote control operates both the VCR and Sony Trinitron television sets. The VCR measures 17 inches wide, 4 1/8 inches high, and 15 inches deep. It weighs 22 pounds. Price: \$850. Sony Corp., Dept. SR, Sony Dr., Park Ridge, N.J. 07656.

Circle 130 on reader service card



Danefurn

The basic model in Danefurn's line of video furniture is the DFAV-1 TV/video cabinet. The television or video monitor rests on top of the cabinet, and a video-cassette recorder or other video electronics unit fits on the shelf below. The DFAV-1 is 30 1/4 inches long, 20 inches deep, and 17 inches high. It weighs 37 pounds. The finish is solid walnut veneer. Price: \$168. Danefurn, Dept. SR, 425 Huehl Road, Building 3A, Northbrook, Ill. 60062.

Circle 131 on reader service card

Showtime Video Ventures

The Model 7110 audio-visual processor from Showtime Video Ventures provides routing and processing for both video and audio signals. It has four video inputs and four video outputs. It also routes four stereo audio inputs and four audio outputs (two stereo). The unit provides picture enhancement and stabilizing, audio and video distribution amplifiers, and a built-in r.f. converter. The vertical delay mode allows the screen to be split vertically and horizontally for side-by-side comparison and adjustment. Price: \$478.95. Showtime Video Ventures, Dept. SR, 2715 Fifth St., Tillamook, Ore. 97141.

Circle 132 on reader service card



NEC

Two rear-projection TV's from NEC, the 46-inch PJ-4600EN (shown) and the 37-inch PJ-3700EN, have built-in decoding circuitry for stereo and SAP (Secondary Audio Program) broadcasts. They each have amplifiers rated at 10 watts per channel driving pairs of 6-inch woofers and 2-inch tweeters. The f/1.0 lens used in the projectors results in brightness levels of 160 foot-lamberts for the PJ-4600EN and 200 foot-lamberts for the PJ-3700EN. Both models offer 142-channel CATV-ready quartz-synthesis tuning, a quartz clock, on-screen display, and remote control. A built-in comb filter improves picture quality.

The sets each have two r.f. inputs, one output for TV, CATV, and external source connections, two video/audio inputs, and one loop output. Prices: PJ-3700EN, \$2,600; PJ-4600EN, \$3,200.



NEC Home Electronics, Dept. SR, 1401 Estes Ave., Elk Grove Village, Ill. 60007.

Circle 133 on reader service card

Naiad

A rather unconventional stereo amplifier is combined with a video-component stand with built-in speakers in Naiad's "Hifidelivision." The F-20 integrated amplifier includes a video r.f. detector to separate out the audio portion of a video component's output on Channels 2, 3, or 4 or the signal from a cable-TV converter. It also has audio inputs for connection to a cable-TV converter, video-cassette recorder, video-disc player, stereo TV tuner, or satellite TV tuner as well as an FM tuner for reception of simulcasts. All switching is done electronically. The F-20 includes Dynamic Noise Reduction and a circuit to synthesize stereo sound from mono sources. It has a multiplex connector for stereo TV adaptors from several manu-



facturers. The amplifier's power output is given as 20 watts per channel. Rated total harmonic distortion at 1,000 Hz is 0.07 percent. Frequency response is 30 to 20,000 Hz \pm 3 dB. Signal-to-noise ratio is 75 dB or better. Price: \$199.95.

The T-60 stand has speakers built in on each side of the cabinet. Each speaker has a 6 1/2-inch woofer and a 1 1/2-inch tweeter with a first-order crossover between them. There are two shelves between the speakers, one of them adjustable. A safety-glass door covers the shelves, which may be used to store video cassettes and discs. The cabinet's back panel is removable, and it is finished in rosewood- or walnut-grain vinyl veneer.

Frequency response of the speakers is given as 40 to 16,000 Hz \pm 3 dB, sensitivity as 90 dB sound-pressure level with a 1-watt input measured at 1 meter. Impedance is 8 ohms. The T-60 unit measures 37 1/4 x 16 x 20 1/4 inches and weighs 60 lbs. Price: \$179.95. Naiad Products, Dept. SR, P.O. Box 1840, Falls Station, Niagara Falls, N.Y. 14303-0260.

Circle 134 on reader service card

CLOSE YOUR EYES.

IT'S THE BEST
CD PLAYER
YOU EVER HEARD.

OPEN YOUR EYES.

IT'S THE BEST
HOME VIDEO PLAYER
YOU EVER SAW.



PIONEER INTRODUCES THE FIRST COMBINATION COMPACT DISC AND LASERVISION PLAYER.

The new Pioneer® CLD-900 will play CD discs digitally. It will play conventional laser videodiscs with analogue sound. And it'll play the new-generation laser videodiscs with digital sound. It is clearly the most versatile audio/video system yet devised.

Given all this versatility, it's easy to assume we've made some kind of compromise. How could one player possibly be the best at all these things? Better, in fact, than if it did one thing alone?

Believe it or not, the new Pioneer CLD-900 LaserDisc™ brand videodisc player is better at everything. Without any question. And for a very simple reason.

The precision and sensitivity required to make a great LaserDisc player is far greater than what's required to make a CD player. (The laser beam itself must focus 20-25% more accurately on an LV disc than on a CD disc.)

Because of this precision, the CD portion of our new combo player offers superb specs: a frequency response of 5 Hz-20 KHz, an S/N ratio and dynamic range of 96 dB, and a separation of 94 dB.

And it comes as no surprise that, by adding digital sound to the laser picture, LV sound is, as *Video Magazine* reports, "the best available in a home video-plus audio system."

As everyone knows, a CD disc is physically very different from an LV disc. So how do you create a player that reads both so well? That wasn't easy.

First, we gave our new CLD-900 two distinct motors: one for CD, another higher-torque motor for LV. (We could have made a player with one motor and a lot of gears, but that would have been a compromise.) And we mounted these motors in an aluminum frame

independent from the cabinet.

Next, we gave our combo player 6 separate servos. (CD players have at best 3 or 4.) We even added a separate servo to compensate for warped discs, something that no CD player has ever had.

Since stability is of such consequence in a laser system, we gave our player the largest, most stable clamping system yet devised. Substantially larger than the clamping system on any CD.

And to ensure that none of this quality is lost, we built our player with unprecedented quality. Ours is the first to employ oxygen-free copper cables in the circuitry itself. As well as gold-plated connectors.

For all its technical advances, the CLD-900 is childishly simple to use. One remote control controls both CD and LV functions. And sensors in the system automatically set the player for either LV or CD discs. All you do is put the disc on the tray, slide it in, and press "Play." As *Video Magazine* put it, "It could become simpler only by accepting voice commands..."

The Pioneer CLD-900 costs more than CD players. It costs more than conventional laser-videodisc players. But since it's clearly the best at everything, shouldn't it?



The 12" Standard Videodisc.



The 8" Music Videodisc.



The Compact Audiodisc.



 **PIONEER**
Video for those
who really care about audio.

by David Ranada



Scanning, Part II

STRAIGHT-LINE scanning, the way the eye reads a page, forms the basis of television image analysis and reconstruction. It is also the fundamental process behind electronic facsimile transmission. Television, however, has one characteristic not shared with any electronic facsimile process—the ability to convey motion. While the depiction of motion on video is very similar to the technique used in motion pictures, television adds a few twists of its own, some of which have a bearing on the ultimate quality of video images.

In the cinema, image motion is conveyed by a series of still pictures, each differing slightly from the next. A motion-picture camera takes twenty-four still photographs per second (shooting at normal speed). When these photographs are projected in series at a sufficiently rapid rate, the eye will see a moving image. But a film shown at the original rate of twenty-four frames per second will appear to flash or flicker because of too low a *frequency of illumination* of the motion-picture frames. The solution to this problem could involve increasing the frame rates of both the camera and the projector, but increasing the projection rate above the *flicker-threshold* is really all that's needed.

With film the necessary speed-up is accomplished by use of a rotating

shutter that flashes each frame on the screen twice before the next frame is brought into place for projection. Thus, even though there are only twenty-four different frames per second, each of them is shown twice, giving an effective illumination frequency of forty-eight frames per second. Note that for the eye to perceive apparently smooth, continuous motion without flicker does not require more visual information (the camera's frame rate remains twenty-four per second), merely a rapid repetition of images.

Television's basic unit of information is also a frame. Thirty frames occur during every second of a television picture, each slightly different from the next. This rate is also not rapid enough to avoid flicker, since that requires repetition rates of around forty to fifty frames per second. Video's answer to the flicker problem is like cinema's: show each frame twice so that the effective frequency of illumination is doubled to sixty frames per second. But here bandwidth limitations step in. The bandwidth adopted for video allows only a 525-scan-line picture with a frame rate of thirty per second. Doubling the frame rate while maintaining picture detail (resolution) would require doubling the video bandwidth. To eliminate flicker without expanding the video bandwidth requires a clever and elegant technique: *interlacing*.

Since you don't need an increase in visual information to eliminate flicker, but merely an increase in the illumination frequency, the interlacing technique shows *half* of each video frame at a time at a rate of sixty *halves* per second. The half shown is not the top or the bottom, the left or the right of the whole frame but rather *every other scan line*. Each frame is divided into two *fields*. The first starts in the upper-left corner of the screen and is

scanned from left to right downward to halfway across the bottom of the image (Figure 1a). The second field is similarly scanned, but it starts halfway across the top of the screen so that its scanning pattern can be interlaced with the scan lines of the first field (Figure 1b).

During each video frame, then, two interlaced fields containing 262.5 scan lines each are shown (Figure 2). Each field takes a sixtieth of a second to display, so the frame rate is still thirty frames per second, but since the frequency of illumination has been doubled, flicker is eliminated. On television sets and monitors with vertical-hold controls, you can see how interlacing works by slightly misadjusting the vertical hold so that the very bottom edge of the picture is visible. Halfway across the bottom of the picture you should be able to make out the end of the last line in the first video field.

Interlacing has some interesting properties, not all of them desirable. It requires precise alignment of both camera and picture-tube scanning to avoid any loss of detail. On projection TV's in particular, improperly aligned fields can result in visible gaps between scan lines and a corresponding loss of detail in the vertical dimension. Also, since a scanning trace is always "live"—a TV frame is not "frozen" like a motion-picture frame—a rapidly moving object can show up in different positions on successive fields as well as in successive frames, resulting in a blurred image.

Future generations of digitally assisted television sets will solve some of these problems by actually freezing a video frame in digital memory, where it can be operated on by signal-processing circuitry. And on digital TV the separate scan lines will be even less visible than they are now because the circuitry will fill in the gaps between them. □



Figures 1a (left) and 1b (center) show how a video frame is scanned in two separate fields. Figure 2 (right) shows the scan lines interlaced to form a complete image.

"Spectacular" "Astounding"

Stereo Review Magazine

High Fidelity Magazine

The Nation's Top Audio Experts Agree:
Polk's Revolutionary True Stereo SDAs
Always Sound Better Than Conventional Speakers



"The result is always better than would be achieved by conventional speakers."

Stereo Review Magazine

"They truly represent a breakthrough."

Rolling Stone Magazine

Polk's AudioVideo® Grand Prix Award winning SDA technology has been called the most important fundamental advance in loudspeaker design in the last 25 years. In fact, Polk's remarkable SDAs are the world's first and only True Stereo loudspeakers.

Hear the Remarkable Sonic Benefits Now!

Polk's exclusive True Stereo SDA technology results in spectacularly lifelike, three-dimensional sound. *Stereo Review* said, "Literally a new dimension in sound." *High Fidelity* said, "Astounding . . . Mind-boggling . . . Flabbergasting . . . An amazing experience . . . You owe it to yourself to audition them."

Polk Audio Inc., 1915 Annapolis Rd. Baltimore, MD 21230.

Digital Disc Ready

polkaudio
The Speaker Specialists®

CIRCLE NO. 27 ON READER SERVICE CARD

For Dealer Nearest You Call TOLL-FREE 800-633-2252 Ext. 832

AUDIO Q. AND A.

by Larry Klein



Tubes vs. Transistors, II

Q You do a disservice to both the consumer and the audio industry by dismissing tube amplifiers in your column. I have owned both transistor

and tube equipment, I have followed the technical audio literature for many years, and I can assert that there is an important place for both technologies in today's audio world.

Transistor amplifiers are far cheaper in per-watt costs, and their high-current capabilities make them far superior to tube amplifiers in bass reproduction. In other portions of the sound spectrum, however, tube amplifiers preserve harmonic structure better at all levels of output, not just at clipping, than transistors do. The subtle distortions produced by transistor amplifiers are not documented by relatively insensitive THD and IM measurements, but many audio engineers are aware of them and, consequently, have tube amplifiers themselves.

Ironically, the one advantage of tube amplifiers that you grant, clipping softness, will become more important in coming years as digital recordings become more prominent. Many of the transient peaks in digital recordings severely tax transistor amplifiers. Getting a larger amp is not a practical solution for most audio consumers because many of these peaks will exceed 300 watts in

real-world power demand. Amplifiers that powerful are very expensive and not always of high-fidelity quality.

RONALD B. LEVINE
Philadelphia, Pa.

A In my view, a "disservice" is rendered when overly expensive products whose parts deteriorate rapidly from the moment of turn-on are recommended for spurious reasons.

The high-current capabilities of some, not all, transistor equipment has nothing to do with bass performance per se. Output transformers, which are part of every tube design I know of except one, are responsible for both the frequency limitations and large phase shift of tube amplifiers. And, in fact, the inherently wider bandwidth and lower phase shift of transistor amplifiers make them superior to tube units in their ability to "preserve harmonic structure . . . at all levels of output."

In regard to the "subtle distortions" heard by "many audio engineers," my reading of the technical literature indicates that these "distortions" usually turn out to be minor frequency-response aberrations—or are so "subtle"

Outstanding

Designed by Dieter Rams, award-winning ADS Atelier components are rational, uncluttered audio equipment that emphasize both excellent real-

world performance, and human factors. For more reasons why you can't live without them call 800-824-7888 (in CA 800-852-7777) operator 483. Or write to

Chris Browder (our sales manager), ADS, 543 Progress Way, Wilmington, MA 01887. He'll send literature and the name of your nearby dealer.

T2 Tuner

Digitally synthesized tuning includes unique fine-tuning capability. **1**

16 preset stations, AM or FM. **2**

Plus two other tuning modes; scan and manual. **3**

Excellent selectivity for exceptionally interference-free reception.

"...The T2 (tuner) sounds as good as it looks..."
Computers & Electronics

A2 Amplifier

Separate inputs for moving magnet and moving coil cartridges.

Rail-switching power supply.

Separate listening and taping outputs. **4**

Audio inputs for VCR or VideoDisc player. **5**

"... (On the A2 amplifier) you find some options that many separates omit, including high-cut and infrasonic filters." *High Fidelity*

C2 Cassette deck

Cassette drawer illuminated from within. **6**

Drawer slides out under its own power when you push button. **7**

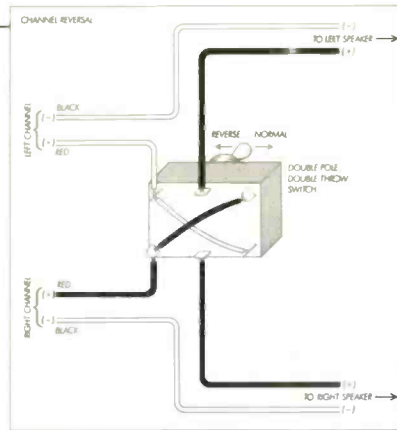
Dolby B & C noise reduction controls placed logically inside cassette drawer. **8**



that they vanish when subjected to rigorous double-blind subjective testing.

As for "clipping softness," a soft-clipping 50-watt tube amplifier trying to put out 300-watt peaks is going to sound a lot worse than a hard-clipping 200-watt transistor amplifier with several decibels of dynamic headroom pushed to the same level. And in terms of cost, my 1985 *Stereo Buyers Guide* reveals a number of tube power amplifiers that are rated at 25 to 200 watts per channel and cost from \$2,000 to \$6,000. There are transistor amplifiers with better specifications and several times the power at less than half the price listed in the same section.

I'm sure that some speakers do manifest a *slightly* different frequency response (*not* distortion level) when driven by some tube amplifiers. Not better or worse, just slightly different. And it is evident that some audiophiles find that difference—which will vary from speaker to speaker—to be worth the cost, power limitations, and inconvenience of tubes. Everyone is entitled to spend his money in any way he likes; my concern is that you understand exactly what it is that you are buying.



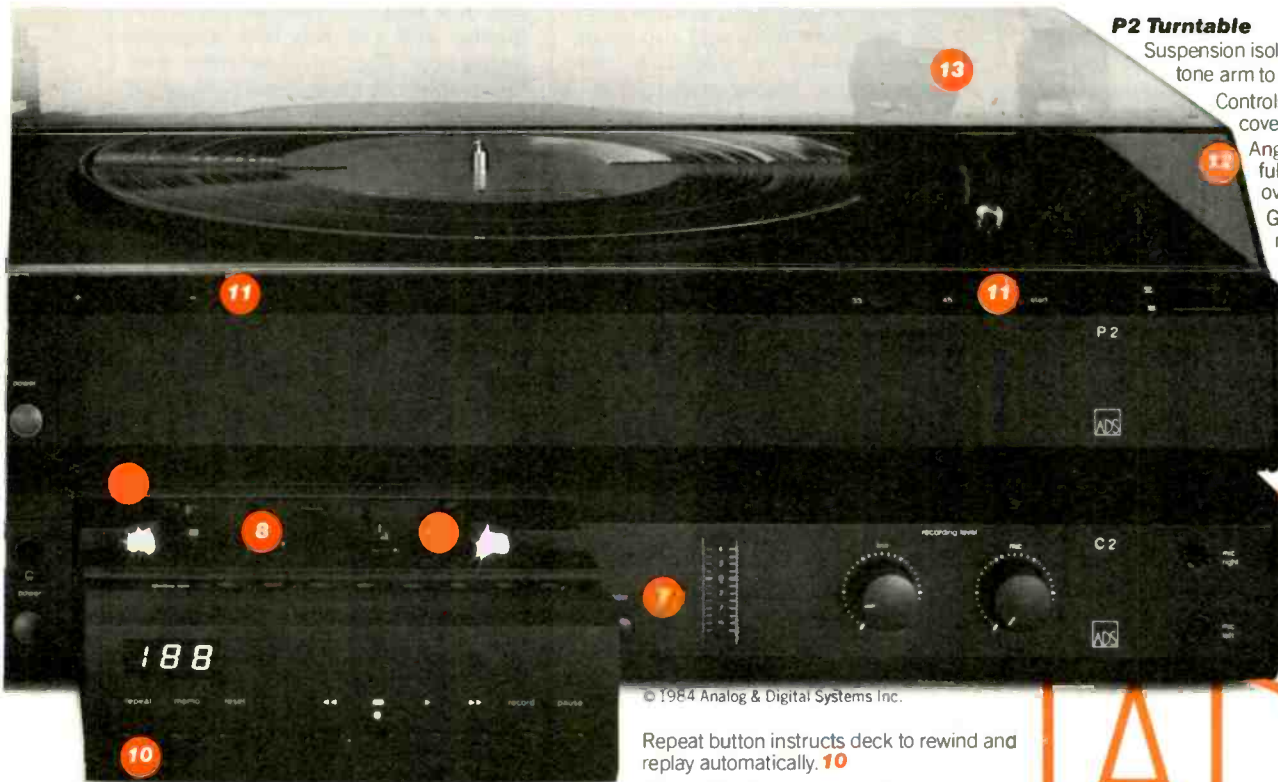
Channel reversal

Q I have a large collection of classical open-reel tapes that friends and I have recorded over the years. The audio quality is satisfactory except that there's a right-left channel reversal on many of the tapes that really bothers me. My amplifier doesn't have a channel-reverse switch. Is there some way I could add such a switch?

MENDENHALL SCHROEDER
Anniston, Ala.

A Two different approaches come to mind. The first one is the simplest and was sent in several months ago by a reader, Eric DeVirgilis of Waverly, Pennsylvania. Mr. DeVirgilis suggests that if you have an unused second tape-monitor loop it's easy to convert its tape-monitor switch into a channel-reverse switch. All you need do is connect the tape-out of the right channel into the tape-in of the left channel, and vice versa. You may have to experiment a bit with the amplifier's dubbing and the reverse switch working properly together.

The second approach requires a standard double-pole, double-throw toggle switch, with a 3A or higher current rating, connected at the amplifier end of the speaker line as shown in the diagram. The switch is connected only to the positive leads of the amplifier and will work only with amplifiers that have a common ground for both channels. The same switch connections can be used with shielded wire instead of the speaker wire and installed between an amp and preamp or wired to the pre/main connectors on an integrated amp or receiver. □



P2 Turntable

Suspension isolates platter and tone arm to eliminate feedback.

Controls located outside dust cover. **11**

Angled dust cover allows full opening under overhanging shelf. **12**

Geometry of ultra low-mass tone arm reduces tracking error to theoretical limit. **13**

"...we believe that (the P2 turntable's) straightforward design contributes to extremely high performance..."
Audiophile Buyer's Guide

Bias and Eq controls for all 4 tape types also placed in cassette drawer. **9**

© 1984 Analog & Digital Systems Inc.

Repeat button instructs deck to rewind and replay automatically. **10**

"The ADS C2 (cassette deck) provides excellent response, well-designed metering, low noise and distortion—all for a moderate price." *Audio*



ADS Atelier.

For Dealer Nearest You Call TOLL-FREE 800-633-2252 Ext. 825

SPARKOMATIC SR315

by Julian Hirsch and Christopher Greenleaf



SPARKOMATIC'S SR315 is an electronically tuned AM/FM receiver with an autoreverse tape player. Designed to drive either one or two pairs of speakers with its 36-watt (total output) integrated amplifier, the SR315 has no line-level preamplifier outputs. Its well-filled faceplate includes virtually every control you might expect along with some less common but decidedly useful ones—such as three pushbutton “Frequency Enhancement” controls that activate a 4-dB boost around 100, 200, or 300 Hz (these are in addition to a switchable loudness contour and the usual treble and bass tone controls).

The digital tuner provides five AM and five FM station presets, switchable local/distant sensitivity settings, choice of DNR or no noise reduction, and an FM mono/stereo switch. Besides the presets, tuning can be accomplished manually in either direction with the usual knob or automatically with button-activated seek and scan functions, which advance upward to the next receivable frequency. (The sensitivity setting does not appear to affect the number of stations selected in the seek or scan modes.) The LED display panel indicates the frequency band (AM or FM), stereo (on FM), and either the tuned frequency or the time (without a.m. or p.m. indications).

The tape player reverses the direction of play either at the end of a side or when the volume knob is pushed. Cassettes are ejected manually by tapping the tuning knob; they are automatically ejected when

either the player or the car's ignition is turned off, thus eliminating the possibility of damaging a tape or the pinch-roller by accidentally leaving a cassette engaged.

A switchable blank-skip function fast-winds the tape past blank or low-level segments lasting more than 7 seconds, then cues up to the start of the next recorded selection. The seek and scan functions work for the tape player also; the first goes to the next selection, and the latter samples successive selections for 5 seconds each before proceeding.

The Sparkomatic SR315 is a very full-featured car receiver that has just about every option most people will ever need . . . and it was very easy to use.

Tape noise reduction is non-defeatable. Dolby B or Dolby C can be selected, but in their absence DNR automatically functions to eliminate noise in quiet passages. LED's in the display panel indicate when Dolby B or Dolby C is in use. Some of the other control buttons have illuminated indicators above them to show their status. A button labeled METAL selects either high-bias (70- μ s) or normal-bias (120- μ s) settings.

There are three power connections: a ground, a main power lead for connection to an ignition-keyed bus bar, and a clock/memory-retention lead that goes straight to a permanently live bus or the car's bat-

tery itself. The four loudspeaker leads must be insulated from ground to prevent accidental contact with the car's chassis, which might damage the amplifier.

The Sparkomatic SR315 measures 7 inches wide, 5¼ inches deep, and 2 inches high. The nosepiece is 4¼ x 1¾ inches. Price: \$349.95. Sparkomatic Corp., Dept. SR, Milford, Pa. 18337.

Lab Tests

Our bench tests of the Sparkomatic SR315 were made with each channel driving a single 4-ohm load (output power at clipping was also measured with 2- and 8-ohm loads). The input signal was obtained by modulating our FM signal generator or by using standard test tapes, so that all our measurements include the effects of the tuner or tape deck plus those of the audio amplifier.

The power output at clipping was 15.2 watts per channel, close to the manufacturer's rating. The tone controls had the usual characteristics of a hinged treble turnover frequency and a sliding bass turnover frequency. The tone, balance, and fader controls have center-detented knobs that were easy to set to their nominally flat positions. However, as on many car stereo amplifiers, the tone controls produced a slight high-frequency rolloff when in the flat position and a much more pronounced low-frequency attenuation below 60 Hz. The three Frequency Enhancement controls had the specified properties. The loudness control introduced a boost at both low and high frequencies as the volume setting was reduced from maximum. Interestingly, the amount of boost was constant for all volume settings below about -15 dB, and the high-frequency boost turned out to be *greater* than the low-frequency one.

Like most automobile FM tuners, the SR315 has a signal-controlled, channel-blending circuit to minimize noise in reception of weak or variable stereo signals. A 65-dBf signal provided good channel separation and frequency response, but a reduction to 45 dBf cut the separation in half (which is still adequate for a good stereo effect, however). At 25 dBf, a moderately weak but

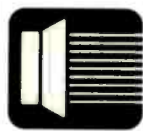


VCR: stereo or hi-fi?

You can hear the difference.

by Dr. William R. Short

Project Engineer



The first article in this series discussed the importance of audio in your video system. As a fellow videophile, I want to elaborate on that topic, especially since there seems to be much confusion about the difference between stereo VCR and *hi-fi* stereo VCR.

When video tape recorders were first introduced, the engineering emphasis was on picture reproduction quality. After all, there was nothing new about recording audio on magnetic tape. In the first VCR tapes, a very narrow track—about half the width of a track on a standard audio cassette—was allotted for audio. To make matters worse, VCR recording speed was about half the 17 $\frac{1}{8}$ ips used in audio cassette recording. Naturally, the sound quality was not very good.

When VCR's became available for home use, audio quality still was not of major concern. One reason was that people used their VCR's primarily for "time shifting" network programming (frequently broadcast with poor audio quality) for subsequent viewing.

Today, however, VCR audio quality is playing a larger role. The advent of stereo TV, music videos and a wider selection of prerecorded material provides better listening options. And, of course, the sound capabilities of VCR hardware have kept pace with developments in software, in both VHS and Beta formats.

Actually, the first advance in VCR sound

came when manufacturers divided the sound track into two channels for stereo recording. While this was an improvement, using the same overall track width to hold twice the amount of program material resulted in a noise level that was twice as

mately must reproduce the recorded sound.

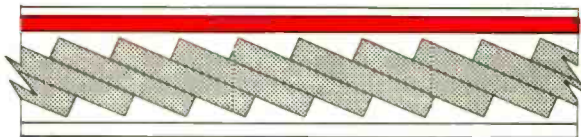
Bose® has spent the last 20 years developing unique Direct/Reflecting® speakers—components that are capable of filling your entire listening room, not just a limited section of it, with exciting, lifelike sound. It may be the "widescreen sound" you experience at the movies . . . or the rich sonic ambience that surrounds you in the concert hall . . .

We invite you to experience Bose speaker sound at any of our authorized dealers. They are now playing the Bose Music Video—a *hi-fi* VCR program which demonstrates the breakthroughs we've discussed. We think you'll enjoy *hi-fi* VCR. And we think that Bose speakers will help you enjoy it the most.

For more information on Bose products, and a list of authorized dealers, please write: Bose Corporation, Dept. SR, 10 Speen Street, Framingham, MA 01701.

Dr. Short holds an Sc.D. in Electrical Engineering from MIT.

Comparison of VCR and Hi-Fi VCR Tape Formats.



On conventional stereo, or 2-channel, videocassettes, sound is recorded on two narrow tracks located at the edge of the tape.



On new *hi-fi* stereo videocassettes, sound is recorded across nearly the entire width of the tape, using methods which allow simultaneous recording of video within the same area.

high as before. The inherent limitations of the track width demanded further research.

At last, big breakthroughs in VCR sound were realized with the creation of *hi-fi* stereo tapes and decks—first Beta *Hi-Fi*, then VHS *Hi-Fi*. Both systems use nearly the entire width of the tape for audio signals, without affecting video signals which are recorded across the same area.

The true significance of these technological advances is the dramatic improvement they can make in your home entertainment experience. But the full potential of the technology cannot be realized unless every component in your system measures up to stringent standards. And, speakers are the components that must meet the highest standards, since they ulti-



not uncommon signal level in moving vehicles, the tuner's output was essentially monophonic, and its high-frequency response was substantially rolled off, but the stereo indicator light remained on until the signal level dropped to 15 dBf. The AM tuner's frequency response was typical of the AM sections of both the car and home receivers we have tested.

Measurements on the tape deck of the SR315 were complicated by the fact that one of the three noise-reduction systems is always active. The DNR pushbutton gives a choice of either DNR or one of the Dolby systems, and a second button switches between Dolby B and Dolby C. Any of these will introduce a playback high-frequency rolloff whose frequency and magnitude depends on the signal level recorded on the tape. We chose to leave the DNR system operating during our basic tape response measurements.

The tape frequency response was essentially flat up to about 5,000 to 8,000 Hz, depending on the selected equalization and the direction of play. It rolled off at higher frequencies, typically to about -10 dB at

It was a genuine pleasure to have traditional bass and treble controls, a loudness button, and the three independent bass-boost buttons. . . Sparkomatic judged this one nicely.

12,000 to 13,000 Hz. The differences between forward and reverse directions of play were minor. There was also a minor output dip at 40 Hz. The response fluctuations at high frequencies were somewhat larger than usual, indicating poor head-to-tape contact in the transport mechanism.

The Sparkomatic SR315 is a very full-featured car stereo receiver with just about every option most people will ever need. Like most car stereo units today, it has a densely populated front panel, but on the test bench it was easy to use, and everything operated with a satisfyingly smooth and positive action.

HIRSCH-HOUCK LAB MEASUREMENTS

FM mono usable sensitivity (75-ohm input): 19 dBf (2.5 μ V)
Mono 50-dB-quieting sensitivity (75-ohm input): 19 dBf (2.5 μ V)
Stereo 50-dB-quieting sensitivity (75-ohm input): 35 dBf (1.5 μ V)
Tuner signal-to-noise ratio at 65 dBf: 72.5 dB
Tuner distortion at 65 dBf: 1.2%
FM frequency response (-3-dB limits): 66 to 16,000 Hz
Stereo separation at 100, 1,000, and 10,000 Hz (at 65 dBf): 17.5, 29, and 27 dB
Capture ratio at 65 dBf: 2.5 dB
AM rejection at 65 dBf: 57 dB
Alternate-channel selectivity: 63 dB
Adjacent-channel selectivity: 3.1 dB
Image rejection: 68.5 dB
AM frequency response (-6-dB limits): 50 to 3,000 Hz

Tape-playback frequency response (standard BASF test tapes, -3-dB limits): 120- μ s EQ—45 to 7,500 Hz forward, 45 to 8,000 Hz reverse; 70- μ s EQ—50 to 6,500 Hz forward, 46 to 4,800 Hz reverse
Tape signal-to-noise ratio (referred to 250 nWb/m at 315 Hz, 120- μ s EQ): 56 dB unweighted with DNR; 63 dB with Dolby B and CCIR/ARM weighting; 71 dB with Dolby C and CCIR/ARM weighting
Flutter: \pm 0.2% CCIR-weighted peak; 0.15% JIS-weighted rms
Tape speed accuracy: +0.3% forward, +0.2% reverse (at start or finish of tape)
Fast rewind time for C-60: 98 seconds
Tone-control range: +10, -12 dB at 100 Hz; \pm 10 dB at 10,000 Hz
Amplifier output at clipping (per channel at 1,000 Hz): 2-ohm loads, 21.1 watts; 4-ohm loads, 15.2 watts; 8-ohm loads, 9.7 watts

Among the other things we liked about this unit were the positive detents on its rotary controls and the excellent visual indicators, which left no doubt whether the tape player or tuner was in use and in which direction and speed the tape was moving. Our chief criticism concerns the sometimes confusing marking on some of the control buttons. For example, BLK turns on the tape blank-skip function, and MOST means mono/stereo. True, these and all the other features of the receiver are clearly explained in the instruction manual, but how many people bother to study the manual before using their car radio? Also, the otherwise complete installation instructions fail to warn that *neither* side of the speaker outputs can be grounded to the chassis. This could be inferred, perhaps, from the rated power output, which would have been possible only from a bridged amplifier circuit, but we feel strongly that such conditions should be spelled out clearly. Fortunately, failure to observe this requirement does not damage the radio, but its audio outputs are silenced until the ground is removed. J.H.

Road Tests

My encounters with earlier Sparkomatic car stereo head units were disappointing since each model I saw lacked both Dolby noise reduction (DNR was available in some of the higher-priced models) and adequate tone controls. The SR315 remedies these deficiencies with a

choice of both Dolby home-tape systems and an unusually wide variety of tone-control options. I could see immediately that the crowded but logically arranged faceplate offered more control flexibility than the company had ever attempted before. With few exceptions, the appearance of careful attention to design details was borne out during my two weeks of listening tests, which involved about a thousand miles of rural and urban driving.

It was a genuine pleasure to have traditional bass and treble controls, a loudness button, and the three independent bass-boost buttons. Careful combinations of these controls produced tonal contours in my Volvo's chancy midrange/bass balance that worked well. I have no quarrels at all with the SR315 in this department, especially since the mild boosts produced by the loudness control and the bass buttons encouraged careful listening rather than making large alterations in the music. I was glad to be able to avoid excessive equalization, which, in my experience can throw more than just the timbral balances out of whack. Sparkomatic judged this one nicely.

The FM tuner gave me a considerable variety of listenable stations, but it was not usually possible to receive most of them as well as I would have liked; the tonal quality, though quite listenable in both stereo and mono, lacked the sheen and polish of very clean treble and a firm, clear bass. Receivable AM stations were relatively few in compar-



FUJITSU TEN
Car Audio

*For those with a
passion for perfection!*



ison, even in the AM thicket of the New York-to-Washington highway corridor during one daytime and one nighttime trip. Tuning was positive, but the sound quality on AM was noisier and fuzzier than from many other car tuners we have tested over the years. For most radio listening I kept the DNR engaged, since its slight attenuation of treble was offset by cleaner, less grainy sound in AM and a decrease in FM hiss or "rushing" sounds. Multipath rejection was fair, but both AM and FM reception were rather prone to external impulse noise from welding, truck brake lights, and motorcycles.

The tape player could be said to perform identically in both directions. I heard a slight bit of flutter and pitch variation at the beginning, middle, and end of any tape I tried, particularly when the car hit any serious bumps. Treble performance plainly diminished above about 10,000 Hz, though this was not apparent at highway speeds. The unit's many transport controls will appeal to those who have tapes with fairly constant high-level music (rock, pop, easy listening), since it is possible to find any selection on such tapes quickly and easily. But the skip, seek, scan, and repeat functions won't do classical listeners much good, since to this player (and many similar ones) a pianissimo is as good as a pause. The tape-handling mechanism itself is first-rate and easily passed my C-120 test.

The SR315 is an auspicious model to begin Sparkomatic's quest for mid- and high-end car stereo customers. Its flexible tone controls largely obviate the need for a separate equalizer or passive equalization of loudspeakers. The audio quality needs polishing, but it is quite acceptable most of the time for a vehicle on the road. Though the amplifier is not generously powered, I would give a higher priority to extending the high frequencies and improving clarity throughout the audio range.

In terms of handling, however, the SR315 is dead easy to use. The controls are grouped in clusters that are either logical or familiar, and only those with mittens on will experience difficulty punching the desired buttons. *C.G.*



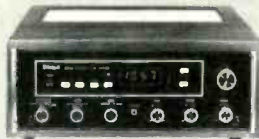
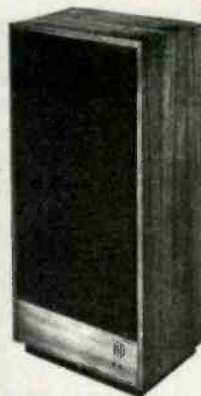
Car audio is our life. There's no way we would settle for less than the best. Why should you?

For Dealer Nearest You Call TOLL-FREE 800-633-2252 Ext. 830
CIRCLE NO. 18 ON READER SERVICE CARD

FREE

McIntosh STEREO CATALOG and FM DIRECTORY

Get all the newest and latest information on the new McIntosh stereo equipment in the McIntosh catalog. In addition you will receive an FM station directory that covers all of North America.



**SEND
TODAY!**

McIntosh Laboratory Inc. SR
East Side Station P.O. Box 96
Binghamton, N.Y. 13904-0096

NAME

ADDRESS

CITY STATE ZIP

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.

CIRCLE NO. 32 ON READER SERVICE CARD

by Julian Hirsch



A New Low-Frequency Speaker Design

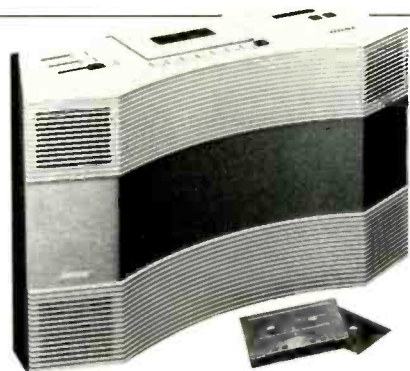
SOME fourteen years ago, not long after founding the company bearing his name, Dr. Amar Bose initiated development of a compact and low-cost but high-quality music system for the general public. Among the project's more elusive prerequisites was the design of a radically different type of low-frequency speaker, one that would combine high sensitivity, small size, and low weight with acceptable bass performance. A solution to the problem was eventually found, and it has been incorporated into the new one-piece Bose AW-1, or Acoustic Wave Music System, which includes an AM/FM receiver, a tape deck with Dolby B, and two high-frequency speakers.

The most unusual technical feature of the Bose AW-1 is the single low-frequency speaker that provides the bass for both channels. It is not a "box," either sealed or vented, nor is it a horn. It should probably be called a resonant-waveguide system. The concept can perhaps best be understood, though in a greatly oversimplified form, by visualizing a pipe, or waveguide, that is about 4 inches in diameter

and 6 feet long, with a small cone speaker located 1½ feet from one end. One side of the cone faces into a 4½-foot segment of the waveguide, and the other side drives the shorter segment. (The length of the two segments must be in a ratio of exactly 1:3.) Both parts of the waveguide are open-ended, and they are folded so as to place their ends ("ports") about 1½ feet apart. The speaker used in the AW-1 is a 4-inch driver quite similar to the ones used in the Bose 901 Series speakers.

The Acoustic Wave design flies in the face of conventional theory by its seemingly incompatible qualities of being a very resonant ("high-Q") system yet delivering a relatively uniform acoustic output over a wide frequency range (about 3½ octaves). If only one of the waveguide segments were considered, the acoustic-pressure frequency response at its port would be quite irregular. However, the output of the other segment differs in phase as well as amplitude. If the two openings are spaced correctly, their acoustic contributions will tend to reinforce each other over a broad frequency range, filling in the response irregularities that would result from having only a single very resonant source. In the AW-1 system, the bass speaker operates only up to about 500 Hz, where the acoustic wavelength is about 2 feet, so its two output-port signals (spaced 1½ feet apart) tend to blend and are not perceived as coming from separate sources. The Acoustic Wave design obviously could have other applications—car stereo and stereo television applications are being investigated by Bose.

Although the woofer design is the major novelty of the Bose AW-1 music system, its implementation



required considerable packaging ingenuity. Most impressive (to me, at any rate) is the manner in which the two waveguide sections are folded in three dimensions to fit into an incredibly small space, particularly since the cross-sectional area of the guide is also a critical factor in its operation and must be maintained constant over its length. While I do not know the actual effective length of the waveguide in the AW-1 (though I would guess it to be roughly the value I used in my example), it was surely no easy matter to squeeze it into an irregular volume of about 0.4 cubic foot (by my estimate), in a manufacturable form, while maintaining airtight seams throughout. Nevertheless, it was done, and it apparently works pretty much as the theory predicts.

The Bose AW-1 is small, with overall dimensions of 18 x 7½ x 10½ inches. The housing is a light-gray injection-molded plastic cabinet with a gold band across its front. All the operating controls for the AM/FM receiver and the cassette deck are flush with the top surface of the cabinet, and a collapsible FM rod antenna is permanently attached to the top and stores in a clip on the rear (there are also connections for an external FM antenna).

The ports for the two ends of the bass waveguide are at the lower front corners, and at the upper front corners are two similar openings for the left- and right-channel tweeters. These are small (3-inch) cone speakers, each driven by its own amplifier. The woofer is powered by a third amplifier, with an electronic crossover and channel blend taking place at about 500 Hz.

Set into the rear of the AW-1 are phono jacks for an auxiliary high-level input and line-output jacks to

Tested This Month

JVC KD-V6 Cassette Deck

JBL 250Ti Speaker

Parasound PR200

Preamplifier

Monster Cable Alpha 1

Phono Cartridge

Mitsubishi HS400UR

VHS Hi-Fi VCR

drive an external component. When the detachable power cord is unplugged, a sliding cover over its socket can be shifted to provide access to a 12-volt d.c. input connector for use with an automobile battery or the battery pack in an optional carrying case. (There is no handle on the cabinet itself, however, making it a bit awkward to carry around without the optional case.) Although many of the physical and electroacoustic features of the Bose AW-1 are unlike those of any other currently available compact music system, the most obvious difference becomes apparent when it is lifted. The entire system weighs a mere twelve pounds!

Following our introduction to the AW-1 at the Bose plant, we were able to test a sample. We were principally interested in the behavior of the acoustic waveguide and, in particular, in whether we could make any meaningful measurements to confirm its mode of operation. Room-response curves proved to be too ragged for significant interpretation. Close-miked low-frequency measurements showed very different frequency-response and distortion readings from the two waveguide ports, including all the peaks and dips one would expect from the standing-wave pattern on a pipe-like resonant transmission line. However, with the two curves plotted on the same chart, it was plain that the dips in one coincided with the peaks in the other, at least up to 500 Hz. The bass distortion readings were neither particularly low nor high, typically about 2 to 3 percent at a 90-dB sound-pressure level. The useful frequency range of the AW-1 appeared to be from 50 to 16,000 Hz, cutting off sharply beyond those frequencies.

Since we were evaluating the entire AW-1, we also made some measurements of its cassette deck and receiver sections. The tuner section's performance indicated (as we already knew) that it was not designed to compete with component tuners in a battle of specifications. (The FM usable sensitivity was only 22 dBf, or 6.9 microvolts, for example.) Nevertheless, it was quite capable of providing perfectly satisfactory audible performance in a typical urban or suburban environment.

In listening to the system, both before and after testing it, the only weakness our ears detected was in the FM sensitivity—critical orientation of the antenna was necessary to achieve satisfactory reception on some of our favorite stations.

The tape deck was certainly easy to use (both the automatic record-level control and the Dolby B circuits are non-defeatable), and it was also surprisingly easy to listen to. Its record-playback frequency response (using TDK SA-X tape) was flat within ± 1.5 dB from below 30 Hz to about 12,000 Hz at a fairly low input level (below the threshold of the automatic level-control system). At higher levels high-frequency tape saturation was in evidence, but distortion did not become significant until the input level was at least 1 volt. Since there is no record-level indication on the AW-1, recording from external sources that have variable output-level controls should be done by trial and error until the correct level is established. The level from its own tuner, of course, is automatically correct.

By now, you might be wondering what the Bose AW-1 sounds like. For example, is it really a "hi-fi" system? First, it must be understood that this is a mass-market product, intended to bring good sound quality to the vast number of people who are not audio hobbyists. To an audio purist, it would probably qualify as a "medium-fi" system. To the great majority of the non-audiophile public, it is unquestionably "hi-fi." Except for the sound from headphones used with a Walkman-type tape player or radio, it is possibly the best-reproduced sound many people have ever heard.

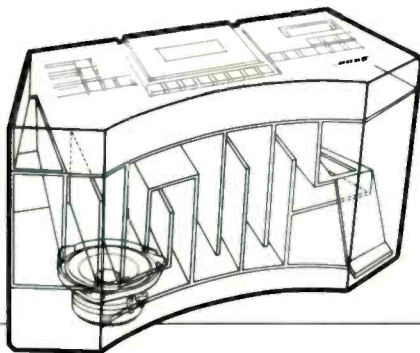
The AW-1 probably could not compete in sound quality with most medium-priced component music systems, but most of those

would cost considerably more than the \$649 list price of the AW-1, to say nothing of being far bulkier and heavier. Try picking up your music system, speakers and all, tucking it under one arm, and taking it into the kitchen or to the beach, along with enough batteries to play it for a full day, if you want to appreciate the convenience of the AW-1!

Just the same, no apologies are required for the sound of this ingenious product—it can produce a prodigious amount of highly listenable, clean sound. The sound also has a definite spaciousness, at least within a normal-sized room (because of the season, we were unable to experience the AW-1's listening properties out of doors). The outward-aiming treble speakers provide a creditable sense of separation and depth (though no stereo "image" in the conventional sense), while the bass is clean and well balanced with the rest of the spectrum. And if you think 50 Hz is not *real* bass, you owe it to yourself to listen to this system with suitable taped materials; you might be surprised. As for volume, this is one of the few numerical specifications that Bose provided at the press introduction, claiming that the AW-1 can deliver a 100-dB sound-pressure level. In our tests, we did measure about a 97-dB SPL at 1 meter with a 1,000-Hz tone-burst signal before significant distortion occurred. That is pretty loud by most standards.

Our conclusion is that the new Bose waveguide bass speaker works essentially as claimed and that the AW-1 system is a practical means of bringing good sound to millions who have not become involved in the world of component hi-fi. And I suspect that it would even be sonically acceptable, at least as a second system, to some of us (myself included) who are familiar with more conventional audio hardware. It would be nice if its tape deck had a recording-level indicator and an index counter, but then it wouldn't be the ultra-simple product it now is.

For anyone who is more concerned with pleasing sound than with hardware and gadgets, the Bose AW-1 should be a perfectly satisfactory all-in-one music system. At its size, weight, and price it has no competition. □





Chrysler creates LeBaron GTS. The American sedan

The design is bold. Sleek, daring aerodynamic lines.

The performance: heart-pounding.

This is GTS. A new kind of LeBaron; a performance LeBaron engineered to outperform Europe's best sedans.*

And it does. When you equip it with turbo, special sport handling suspension and 15" wheels, LeBaron GTS is faster from 0 to 50 than Audi 5000S Turbo, BMW 528e, Mercedes 190E.

And front-wheel drive GTS outperforms the European trio through the twists and turns of a slalom course.

In braking, GTS with dual proportional braking system outperforms them once again.

And yet this disciplined road car is a comfortable sedan





that outperforms BMW 528e and Mercedes 190E.*

for five. LeBaron GTS Premium's cabin is marked by advanced electronics and functional luxury. And supple leathers can be fitted to its ergonomically designed seats.

Even its Protection Plan is outstanding: 5 years or 50,000 miles** on turbo, drivetrain and outer body rust through.

LeBaron GTS would be impressive at any price. At \$10,000† less than the least expensive of the three European sedans, it is stunning.

We engineered it to outperform Europe's best. It does.*

LE BARON **GTS** 

Division of Chrysler Corporation

*Results of USAC tests vs. standard equipped 1984 competitive test models. **Whichever comes first. Limited warranties. Deductible applies. Excludes fleet/leases. Dealer has details. †Based on sticker price comparisons of test cars. Standard equipment levels may vary. ††Lowest percent of NHTSA safety recalls for '82 and '83 sales model years for vehicles designed and built in North America. Best backed based on warranty comparison of competitive vehicles.

Chrysler. Best built, best backed American cars.††



OPEN IT UP.

Most car audio systems can deliver the sound of performance. Enough sound to exceed the human ear's threshold of pain.

But if your taste in music runs the gamut, from the smash of Heavy Metal to the intricate passages of Mozart, volume alone isn't enough. Without sonic excellence, loud sound is just so much musical mush.

PLAY IT GOOD AND LOUD.

Now you can have it both ways with Yamaha car audio. The system that takes some of the world's finest home component performance and puts it on the road.

Yamaha cassette-receivers utilize independent dual microprocessors with over 6K of memory. One precisely controls tape handling. The second fine-tunes signals in difficult reception areas.

Yamaha fully digital power amps provide superior, virtually distortion-free amplification.

And easily cope with such road hazards as voltage, impedance and temperature variations.

Yamaha car speaker systems use titanium carbide in the tweeters and carbon fiber in the woofers. Resulting in unrivaled accuracy.

And unequalled performance.

ALL TOGETHER, A GREAT PERFORMANCE.

Just as important, Yamaha car audio is a total system with no weak links. Because every Yamaha component is designed to complement and enhance the performance of the system as a whole.

The result is sound that's clean and natural, reproduced with full clarity and resonance. Sound that makes the music.

No matter how loud it's played.



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

For Dealer Nearest You Call TOLL-FREE 800-633-2252 Ext. 834

JVC KD-V6 CASSETTE DECK

Craig Stark,
Hirsch-Houck Laboratories

DESIGNED to appeal to audiophiles who seek an above-average combination of performance and features, the JVC KD-V6 is a three-head, single-capstan cassette deck with both Dolby B and Dolby C noise reduction, memory-play functions, and an unusual digital peak-level display.

The separate record and playback heads of the KD-V6 permit instant comparison between the input signal and its recorded version. The record head is made of long-wearing sennalloy; the playback head uses a hardened permalloy material that is softer but will probably last the useful life of the deck. A single electronically regulated d.c. motor is used to drive both the capstan and the take-up hub. A second d.c. motor is used for the fast-forward and rewind functions, and a third moves the tape heads and the pinch-roller into position.

Mechanically, the deck is well laid out, quiet and sure in operation, and generally easy to use.

The KD-V6 uses a deeper than average cassette well to accommodate a group of LED indicators behind its transparent door. Three of these show when the record, record-mute, and pause functions are activated; two others are arranged with the pause LED to form a flashing series that indicates the direction and speed of tape travel. Rear illumination shows the tape on each hub, but label visibility is only fair. The door is removable for head cleaning and degaussing.

Recording and playback levels are shown on peak-indicating, fifteen-element-per-channel fluorescent dis-



FEATURES

- Separate record and playback heads
- Dolby B and Dolby C noise reduction
- Peak-indicating level display with additional numeric readout for highest levels
- Level control for line and headphone outputs
- External timer activation in record or play
- Direct-coupled amplifiers
- Automatic bias/equalization switching
- Switchable FM-multiplex filter
- Three-motor tape transport; electronically regulated d.c. capstan motor

plays that are calibrated from -20 to +9 dB. These displays are supplemented by a two-digit peak indicator that shows the higher channel's reading in 1-dB steps from +1 to +12. The additional numeric indicator is needed because the "normal" recording level is marked at +5 dB for ferric and chrome-type tapes and at +9 dB for metal-particle cassettes. The highest level encountered is stored in memory and can be recalled at the touch of a button, which should help in making transfers from discs. As an additional aid in level setting, the long-throw master recording-level slider has dot markings at very close to 1-dB increments.

The KD-V6 has music-search facilities and also enables the user to designate a section of tape for repeat playing. The tape counter is conventional, counting reel-hub revolutions, but a "stop-watch" feature is also provided to allow timing when

the transport is in record or playback mode. Additional controls are provided for output/headphone level and recording balance. Switches are used for selection of the noise-reduction system, the stereo FM-multiplex filter, and external timer activation. There is no provision for microphone recording.

The dimensions of the KD-V6 are 17 1/8 x 10 1/2 x 4 1/4 inches, and it weighs a little under 10 pounds. Price: \$350. JVC America, Dept. SR, 41 Slater Dr., Elmwood Park, N.J. 07407.

Lab Tests

Measured with our IEC-standard BASF test tapes, the playback frequency response of the KD-V6 was exceptionally flat with either the ferric or the chrome/metal playback equalization. To check the overall record-playback performance of the deck we used the samples of Maxell

UD (ferric), TDK SA (CrO₂-equivalent), and JVC ME (metal) cassettes supplied with the unit. At the low frequencies the KD-V6 retained flat response all the way down to 20 Hz (most decks give up in the octave between 20 and 40 Hz). At the IEC 0-dB recording level the degree of rolloff at the highest frequencies was very respectable for a deck of this price (see graph). The measured signal-to-noise ratios were good.

The KD-V6 uses a "0 dB" marking that is 3 dB below the IEC-standard 0 dB at which our distortion measurements were made. Similarly, the +8-dB meter reading registered at the 3 percent third-harmonic distortion point with Maxell UD was actually +5.2 dB above the IEC 0-dB level.

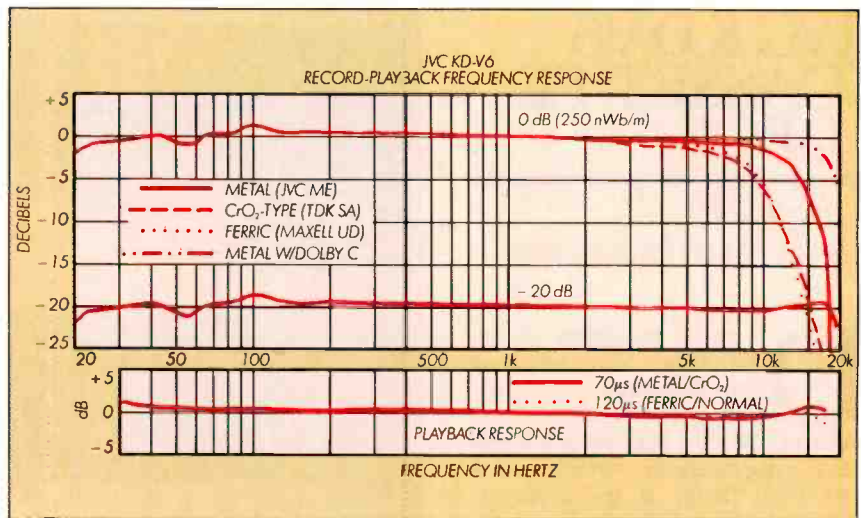
Although our measured wow-and-flutter figures were only fair by today's standards, the effect was inaudible on almost all music selections. Flutter was identifiable only in source/tape comparisons of sustained piano tones and the like. Fast-winding times were average, and line-level sensitivity, though slightly low, was well within the acceptable range.

Comments

The JVC KD-V6 cassette deck succeeds well in meeting its design aims. It represents solid value well worth consideration for all but the most critical applications. Although it lacked the sonic transparency and high-frequency detail of our reference deck, it costs only a fraction as much. Its sound qualities are good, especially in the bass region, and the effectiveness of the Dolby C noise-reduction system in eliminating high-frequency hiss is remarkable.

Mechanically, the deck is well laid out, quiet and sure in operation, and generally easy to use. While there are some additional features we would have liked (such as an elapsed/remaining time tape counter), for a deck at this price JVC made excellent choices of what to include and what to omit. Especially noteworthy was the decision to provide separate record and playback heads so that users can readily tell how good a recording they are getting.

Circle 140 on reader service card



HIRSCH-HOUCK LAB MEASUREMENTS

Fast-forward time (C-60): 85 seconds
Rewind time (C-60): 82 seconds
Speed error: +0.4%
Dolby B tracking error: +0.7, -0.5 dB
Dolby C tracking error: +2.5, -0.5 dB
Wow-and-flutter: 0.054% wrms, 0.10% DIN peak-weighted
Line input for indicated 0 dB: 85 mV
Line output at indicated 0 dB: 0.48 volt
Meter indication at IEC-standard 0 dB: +3 dB

■ **Tape used: Maxell UD (Type I, ferric)**
IEC 0-dB distortion: 0.45%
Meter indication at 3% third-harmonic distortion: +8 dB
Signal-to-noise ratios (in decibels):

	Unwid.	A-wid.	CCIR
NR off	52.2	56.1	53.3
Dolby B	59.5	65.2	63.4
Dolby C	62.0	71.0	72.4

■ **Tape used: TDK SA (Type II, chrome-equivalent)**
IEC 0-dB distortion: 1.2%
Meter indication at 3% third-harmonic distortion: +6 dB
Signal-to-noise ratios (in decibels):

	Unwid.	A-wid.	CCIR
NR off	54.5	59.1	56.9
Dolby B	59.5	67.1	66.6
Dolby C	61.5	73.1	74.8

■ **Tape used: JVC ME (Type IV, metal)**
IEC 0-dB distortion: 0.65%
Meter indication at 3% third-harmonic distortion: +9 dB
Signal-to-noise ratios (in decibels):

	Unwid.	A-wid.	CCIR
NR off	56.2	59.9	57.1
Dolby B	62.0	68.3	67.1
Dolby C	64.5	75.0	75.8



"... You know the regulations, Ramirez! Stereos are permitted in tanks, but power cannot exceed 150 watts per channel, and subwoofers are forbidden entirely!"

Hear how we're making our competition face the music.

Sansui does it again! You'll love what you're about to hear, but the competition won't. No other system comes close to our new Intelligent Super Compo for pure sonic pleasure, pure operational convenience—and total programmability. That's because Sansui never compromises on sound quality or features: like our flexible parametric equalizer, and graphic equalizer with "multi-dimensional" sound.

Hear, see and touch what you've been missing all these years—up close with Sansui's exclusive One-touch Compo switching system—or from the comfort of your favorite chair with our amazing 26 button remote. It's micro-computer controlled and lets you operate the graphic equalizer with

pre-set memory—from anywhere in the room.

But don't get up yet. You can even play both sides of a record without turning it over; thanks to Sansui's exclusive programmable dual linear tone arm turntable.

And, switch instantly from turntable to tuner to tape deck to digital disc player; skip, scan, edit, review, record, rewind, and replay—at the touch of a button—with Sansui's computer control system. Then lay back and relax with phenomenal sound from superior Sansui speakers.

No other system matches the pleasure and convenience of new Intelligent Super Compo—even remotely. You'll know why we're first, the second you hear us.



Sansui's Remote Control with built-in equalizer



Sansui

For the name of your nearest Sansui dealer, write: Sansui Electronics Corporation, Lyndhurst, N.J. 07071; Carson, CA. 90746; Sansui Electric Co., Ltd., Tokyo, Japan.

Putting More Pleasure in Sound.

CIRCLE NO. 44 ON READER SERVICE CARD

JBL 250Ti SPEAKER SYSTEM

*Julian Hirsch,
Hirsch-Houck Laboratories*

THE new flagship model of JBL's home speaker line is the 250Ti, a large four-way system that is described as a "no compromise" design, a characterization with which we would agree. The "Ti" in the name refers to the ribbed titanium diaphragm of the 1-inch dome tweeter, which is designed for an extended, smooth high-frequency response (up to 27,000 Hz on axis). The 250Ti supersedes the JBL L250, differing from it principally in the tweeter and upper-midrange drivers. The new drivers are also used in several other, smaller JBL systems in the Ti series.

The 250Ti has a unique and instantly identifiable shape: an asymmetrical, truncated, rectangular pyramid with a slightly backward-sloping front panel. The shape is said to offer the optimum baffle width for each driver and thus to minimize diffraction effects and improve imaging. The speakers are sold in mirror-image pairs, to be used with the vertical sides toward each other and the sloping ones on the outside. The speakers should be free-standing, away from walls.

The 250Ti's four drivers are vertically aligned, from the 14-inch low-frequency driver in its own subenclosure at the bottom of the cabinet to the Ti tweeter at the top. The low-frequency driver crosses over to an 8-inch lower-midrange driver at 400 Hz. The next crossover, at 1,400 Hz, is to a 5-inch midrange cone. The final crossover, to the tweeter, takes place at 5,200 Hz. Each driver is acoustically isolated from the others (only the woofer system is ported, with the opening on the rear of the cabinet).

The woofer and lower-midrange drivers appear to be conventional cone radiators, though with very



The JBL 250Ti's appearance is as striking as its special design features—probably even more striking to most people.

heavy magnetic systems (about 18½ and 6 pounds, respectively) and large-diameter voice coils edge-wound with flat, copper wire. Their cone material is described by JBL as "Aquaplas," apparently a laminate of paper and plastic materials that feels unusually stiff and solid to the touch. The upper-midrange cone is polypropylene with a gray filler.

Clearly, the titanium tweeter dome is the most striking feature of the speaker's design. Titanium is extremely strong and light, but it is not easily fabricated by convention-

al techniques. JBL makes the domes, complete with stiffening ribs and a specially formed integral titanium surround, by swirling compressed nitrogen gas against a 25-micron (0.001-inch) film of titanium. The result is a remarkably light yet strong high-frequency dome radiator, which is driven by an aluminum voice coil in the field of a 2-pound magnetic structure.

The outputs of the two midrange drivers can be individually reduced in two 1-dB steps, and the tweeter level can be reduced by 1, 2.5, or 4

CAMEL FILTERS

It's a whole new world.



Today's
Camel Filters,
surprisingly smooth.

16 mg. "tar", 1.2 mg. nicotine av. per cigarette by FTC method.

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

dB. However, the adjustment process involves loosening screws and moving shorting links, a cumbersome procedure at best. We suspect that most people will settle for the factory settings (the tweeter at -1 dB, the other two at 0 dB). The input terminals are heavy-duty binding posts that are compatible with special "audiophile" cables and connectors.

The visual appearance of the JBL 250Ti is as striking as its special design features—probably even *more* striking to most people. It is finished in Burmese teak, with rounded edges, that is hand rubbed and oiled on all visible surfaces (the rear panel is in flat black). A dark-brown cloth grille covers all the drivers except the tweeter. Six sturdy plastic snaps hold the grille about $\frac{3}{4}$ inch away from the front panel to minimize diffraction effects. If the cones are not subject to damage from children or pets, the speakers may be operated with their grilles removed, exposing the fully finished front of the cabinet.

The JBL 250Ti is 52 inches high, 22½ inches wide, and 14¼ inches deep. Its weight is specified as 150 pounds. Although we did not weigh these speakers we can testify that one of them is beyond the capability of a single normal human being to lift (the shipping box resembles a refrigerator carton!). Price: \$3,000 per pair. JBL, Inc., Dept. SR, P.O. Box 2200, 8500 Balboa Blvd., Northridge, Calif. 91329.

Lab Tests

All measurements and listening tests were done using the factory settings of the level-balance adjustments. Unlike most speakers we have tested, the JBL 250Ti's produced very similar frequency-response curves with the two rather different measurement techniques we employ. Our on-axis quasi-anechoic measurements using the IQS FFT signal-analysis system showed a mere ± 2 -dB response variation from 1,000 to 20,000 Hz. The lower-frequency response remained strong (in fact, it was as much as 2 or 3 dB greater than the output in the range of 1,000 to 1,500 Hz) as far down as the approximate 250-Hz lower limit of this measurement. Further-

HIRSCH-HOUCK LAB MEASUREMENTS

Frequency response: 20 to 20,000 Hz ± 5 dB

Sensitivity: 89-dB SPL at 1 meter with 2.83 volts input (1 watt into 8 ohms)

Impedance: 6 to 20 ohms from 20 to 20,000 Hz (5.5-ohm minimum at 10,000 Hz, 20-ohm maximum at 44 Hz)

Group-delay variation: ± 0.3 millisecond from 2,000 to 28,000 Hz

Bass distortion (measured at level needed for 90-dB SPL output at 1,000 Hz): 0.6% at 100 Hz, 4% at 20 Hz

Power-handling ability (into 8 ohms): 410 watts at 100 Hz, 625 watts at 1,000 Hz (both figures limited by amplifier clipping)



more, the output remained quite uniform above the audible range, up to at least 27,000 Hz, which is the effective upper limit of our FFT measurement system.

Our other response measurement, made in a live room at distances of 12 to 15 feet from the speakers, uses a swept (warble-tone) sine-wave signal. Normally this measurement is of little value below a few hundred hertz, where room resonances produce large irregularities in the curve. Therefore, we measure the low frequencies separately with the microphone placed close to the woofer cone or port and "splice" it to the room response to form a single composite curve that is more or less representative of what the speaker is doing in our room—but is not necessarily reproducible in another environment.

To our surprise, even the bass portion of the room curve was very much like the close-miked measurement, and the composite curve was

strikingly similar to the FFT plot. Even including a couple of mid-range "jogs," which could have been room effects, the composite response was within ± 5 dB from 20 to 20,000 Hz, and it obviously extended to much higher frequencies, although our test equipment is limited to that frequency range. In all, the JBL 250Ti certainly had one of the widest overall speaker responses we have ever measured—approximately 11½ octaves.

The 250Ti's polar dispersion (horizontally) was good but not as noteworthy as its overall frequency range. Measurements made 45 degrees off the speaker's axis revealed high-frequency "beaming" beginning at about 9,000 Hz as well as in the 2,000- to 5,000-Hz range (that covered by the 5-inch cone driver). The speakers' phase linearity was good. Over most of the audio range, the impedance was between 6 and 12 ohms, indicating that the 250Ti should present a comfortable load to any amplifier.

We measured bass distortion with a 3.1-volt input (equivalent to a 90-dB midrange sound-pressure level). After combining the port and cone contributions, the results were excellent: the distortion was well under 1 percent from 100 Hz down to nearly 40 Hz, and there was a strong and usable fundamental output as low as 10 Hz! In short-term power-handling tests with tone-burst signals, the amplifier output clipped before the speakers reached their limit.

Comments

Our measurements of the JBL 250Ti clearly describe an exceptional loudspeaker, and that is pretty much the way it sounded to us. The sound stage was open, both in width and depth, giving little impression of coming from a pair of huge speakers that dominated our moderate-sized (15- by 20-foot) listening room. The spectral balance on some program material seemed to favor the mid-bass, with a tendency toward warmth that occasionally overshadowed the speakers' extremely smooth and extended high-frequency response. Apparently our microphone heard much the same things as our ears, since the slightly

elevated output below 200 Hz could be seen in all our measurements. The effect was not enough, however, to make the speaker sound unbalanced or unnaturally heavy. Rather, our overall impression was of a very smooth response.

JBL stresses the dynamic capability of the 250Ti (its lack of compression at high peak levels), and we put this to the test with some particularly potent LP's as well as CD's. The utter ease of the speakers' output led us to increase the playback level beyond what would have been prudent (or even safe) with most speakers, but the 250Ti's took everything our amplifier could give them. This amounted to average levels in the 30- to 50-watt range, frequent peaks to 350 watts, and occasional peaks of more than 600 watts. (Not wishing to imperil the speakers, or our ears, we refrained from lighting *all* the amplifier's level indicators for extended periods.)

The impact of the acoustic output of the speakers, especially with percussion and organ recordings, was tremendous. We don't normally listen at house-shaking levels, but the sound from the 250Ti speakers was so clean even at such levels that we felt no discomfort from it. There can be no doubt of the great dynamic capabilities of these speakers, or of their ability to handle the full output of the most powerful amplifiers likely to be used in a home environment.

What about more usual listening conditions? The 250Ti is relatively efficient and can operate happily with the output from any good 30- to 50-watt amplifier—or even less, although we doubt that many people who buy these speakers will use a low-powered amp. They sound as good at background levels as when attempting to re-create the sound of an orchestral concert. On the appearance side, perhaps not everyone will find the unusual shape (or massiveness) of the 250Ti to his liking, but no one will deny that the quality of the workmanship and finishing of the wooden enclosure is unsurpassed. And, all things considered, for this level of performance and craftsmanship, the 250Ti is not even a particularly expensive system.

Circle 141 on reader service card

PARASOUND PR200 PREAMPLIFIER

Julian Hirsch, Hirsch-Houck Laboratories



FEATURES

- Bass EQ circuit extends useful bass response of small speakers and provides effective infrasonic filtering
- Connections and switching for two tape decks
- Pushbutton selection of phono (moving-magnet), tuner, and CD/video inputs
- Separate loudness control works in conjunction with the volume control
- Detented bass and treble controls; switches for tone-control defeat and mono operation
- Front-panel headphone jack
- Three a.c. convenience outlets (one switched)

ALTHOUGH the external appearance of the Parasound PR200, like most of its specifications, is not unlike that of some other high-quality preamplifiers, its \$200 price places it in a class of its own. Despite its low cost, the all-black PR200 is a fully equipped unit with some features not found even on many high-end preamps. For example, some of the PR200's pushbutton controls have their own LED status indicators, and all of its knobs except BALANCE have multiple detents (the balance control is detented only at its center position).

More significant from the listening standpoint is the PR200's BASS EQ feature. When this is switched in, it activates a circuit that provides a fixed low-frequency boost, which reaches a maximum of 6 dB at about 55 Hz and has a steep (18-dB-per-octave) rolloff at lower frequencies. The feature is designed to flat-

ten and extend the bass response of many small speakers while protecting them against damage from excessive infrasonic signals. Similar features on other amplifiers have been found to be beneficial.

The LOUDNESS knob of the PR200 is somewhat unconventional also. Operating independently of the volume setting, it reduces the midrange level over a broad band (centered at about 1,000 Hz) as the knob is rotated counterclockwise from its maximum (flat) setting. The gain at very low and very high frequencies is unaffected, giving the loudness compensation the effect of a mid-range tone control having only a cut mode and a 12-dB control range.

On the rear panel of the unit, in addition to the source-input jacks and the tape-recorder connections, are two sets of output jacks, identified as NORMAL and HI-LEVEL. The HI-LEVEL jacks are intended for use only with amplifiers having a lower

TEST REPORTS

than normal input sensitivity, typically power amps intended for the European market. One of the three a.c. outlets is switched.

The Parasound PR200 measures 17¼ x 8½ x 2¾ inches and weighs 8½ pounds. It comes with an unusually thorough and well-written manual. Parasound Products, Inc., Dept. SR, 680 Beach St., San Francisco, Calif. 94109.

Lab Tests

We tested the Parasound PR200 with its output terminated in a standard load of 10,000 ohms in parallel with 1,000 picofarads of capacitance. The A-weighted noise levels at EIA standard gain settings represented excellent performance. So did the RIAA phono response, which was essentially the same as the basic response of the preamplifier, indicating very accurate phono equalization. However, the phono input impedance could not be modeled as a simple parallel resistor-capacitor combination, and the phono response was affected very slightly by the inductance of a phono cartridge.

As to be expected, the HI-LEVEL outputs clipped at a slightly higher voltage than the NORMAL outputs, but the essential difference between the two was in the amplifier gain

HIRSCH-HOUCK LAB MEASUREMENTS

Sensitivity (0.5-volt output): tuner and CD/video, 83 mV; phono, 1.7 mV
Maximum output at clipping (1,000 Hz): 6.6 volts (normal); 9 volts (high-output)
Harmonic distortion (1,000 Hz): less than 0.0063% from 0.3 to 3 volts output
Signal-to-noise ratio (referred to 0.5-volt output): tuner and CD/video, 86 dB unweighted, 89.5 dB A-weighted; phono, 73.5 dB unweighted, 84 dB A-weighted
Tone-control range: +11, -12 dB at 100 Hz; +10, -13.5 dB at 10,000 Hz
RIAA phono equalization error: 20 to 20,000 Hz +1.5 dB (at 50 Hz), -0.5 dB (at 20,000 Hz)
Phono-input overload: 150 to 175 mV depending on frequency
Phono-input impedance: 55,000 ohms at 1,000 Hz, 21,000 ohms at 20,000 Hz (see text)

rather than the available output voltage. For a given input level, the output at the HI-LEVEL jacks was four times as great as the NORMAL output (a 12-dB gain increase). Output volume with typical medium-impedance headphones was excellent, quite sufficient for enjoyable listening without the use of a power amplifier.

The PR200's tone controls have conventional characteristics, and the response of the BASS EQ feature was as specified. The loudness control also conformed to the description given in the manual and on the front-panel markings, producing a

maximum drop of 11 dB in mid-range level and almost none at the frequency extremes.

Comments

Unfortunately, we did not find the PR200's loudness control particularly useful. Reducing its setting had virtually no effect on the subjective loudness. Instead, by attenuating the midrange, it resulted in a hollow sound quality.

Still, we would not judge the merit of a component on the way it performs a function that might be of little or no importance to many users. As regular readers know, we have found that most loudness-compensation circuits are of little, if any, value to serious listeners.

Everything else about the design and performance of the Parasound PR200 is good or better. The noise level was extremely low, the maximum unclipped output was more than sufficient to drive any power amplifier, and the controls operated

The noise level of the Parasound PR200 was very low, the output was more than sufficient, and the controls operated with a smoothness and silence we would expect from a much more expensive product.

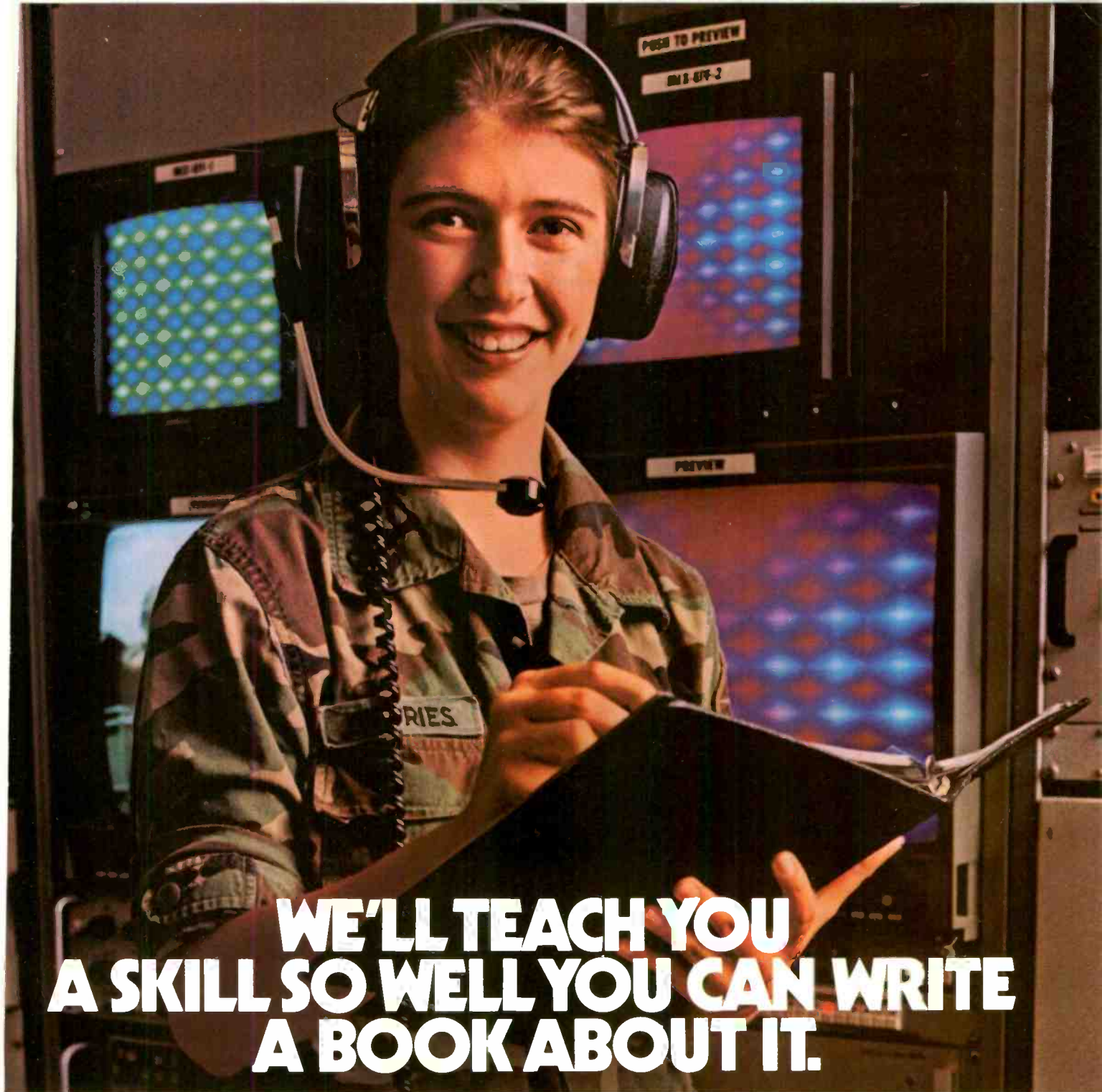
with a degree of smoothness and silence we would expect from a much more expensive product. We appreciated the absolutely noise-free input switching at any setting of the volume control, as well as the turn-on delay, which allows a power amplifier to stabilize before the preamp becomes fully operational.

To us, the PR200's total lack of unwanted noises and other side effects, its accurate RIAA equalization, and its genuinely useful BASS EQ feature more than make up for the failings of its loudness-compensation system. Features and performance like this are what one would expect to find in a product costing several times the price of the Parasound PR200.

Circle 142 on reader service card



"... Here comes that damned pest again, playing that awful La Dame de Shalott by Olivier Messiaen with the volume all the way up!"



WE'LL TEACH YOU A SKILL SO WELL YOU CAN WRITE A BOOK ABOUT IT.

If your future plans don't include college, you should be planning to learn a marketable job skill. You can learn one in the Army. And you can increase the value of that skill with a certificate through the Army Apprenticeship Program.

Here's how it works. You're trained and assigned to work in one of over 130 Army skills, like Radio/TV Technology, Welding, Construction Equipment Operation, Plumbing, or Aircraft Maintenance. You enroll in a program and start keeping a book. In it, you record the number of hours you spend working in your skill.

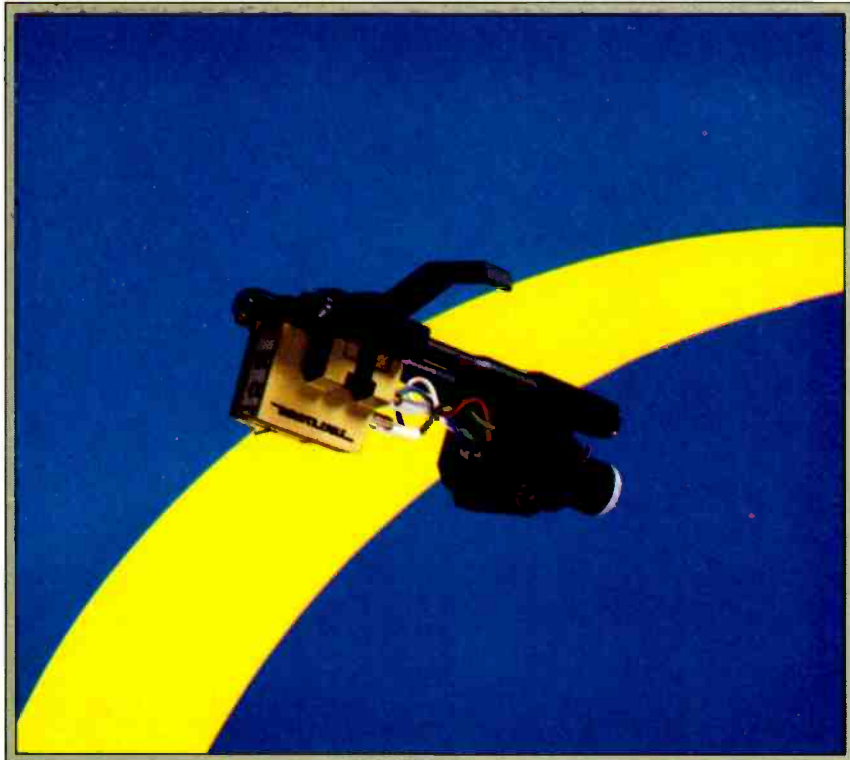
When you've logged enough hours, you receive a Certificate of Completion of Apprenticeship from the U.S. Department of Labor. After your enlistment, you'll have something to show employers that proves you're a thoroughly skilled craftsman.

If this sounds like a good way to get an edge on the job market after high school, find out more about the Army Apprenticeship Program. Call toll-free 1-800-USA-ARMY. And write a book that will have a happy ending.

ARMY. BE ALL YOU CAN BE.

MONSTER CABLE ALPHA 1 CARTRIDGE

Julian Hirsch, Hirsch-Houck Laboratories



MONSTER CABLE, a company best known for exotic audio connectors and cables, also markets a pair of moving-coil phono cartridges, the Alpha 1 and Alpha 2. Both are expensive units aimed at the "high-end" market. The Alpha 1 is the less expensive model.

Like most moving-coil cartridges, the Alpha 1 does not have a user-replaceable stylus assembly. Its cantilever is a hollow 6-millimeter tube of rigid but extremely brittle boron. Because of its fragility, more than usual care should be exercised in mounting and using the cartridge to avoid damage to the cantilever (more about this later). The Alpha 1 incorporates a patented "magnetic feedback control" feature, which according to Monster Cable "eliminates unwanted eddy currents that cause both poor phase response and intermodulation distortion."

The Alpha 1's line-contact diamond stylus has tip dimensions of 6 x 35 micrometers, and it is designed to track at a force of 1.75 grams. The installation instructions stress the importance of optimal adjustment of the vertical tracking angle (VTA) to achieve the best sound quality. The basic cartridge weight of 6.5 grams is compatible with most tone arms.

The photograph above shows the Alpha 1 cartridge mounted in a rather unusual twin-post shell, which was the way our test sample was supplied. The total weight of the cartridge and shell was more than 30 grams, beyond the balance-adjustment range of our tone arm (or of any other arm that we know of). The recommended load impedance is from 40 to 100 ohms. Price: \$475. Monster Cable Products, Inc., Dept. SR, 101 Townsend St., San Francisco, Calif. 94107.

Lab Tests

Because of the weight of the supplied shell, we had to remount the Alpha 1 on a lightweight shell that was compatible with our tone arm. The tracking force was set to the recommended 1.75 grams for all our tests. Except when measuring the cartridge's actual output voltage, we used it with a high-quality step-up transformer, which presented it

The Alpha 1 has excellent tracking ability, fairly high output, and a very low impedance that makes it quite independent of the external load.

with a compatible low-load impedance (switchable to 30 or 150 ohms) and gave a higher output voltage.

Monster Cable uses the JVC TRS-1007 test record to obtain the individual response curve that accompanies each cartridge, so in addition to the measurement we made with the CBS STR 100 disc (shown in the graph), we repeated the test with the JVC disc. The result was a flatter overall response, though it also showed a greater rise at high frequencies than appeared on the manufacturer's graph. The overall response was flat within 3.5 dB over the audio range up to 20,000 Hz, and the separation was about the same as with the CBS record (slightly better at high frequencies, with readings of 15 to 20 dB at 20,000 Hz). The square-wave response with the CBS STR 112 test record indicated a high-frequency stylus resonance at about 33,000 Hz; the ringing at that frequency was about half the amplitude of the 1,000-Hz square-wave signal.

The Alpha 1 had very good tracking ability at its rated force, easily playing the high-level 32-Hz portions of the Cook 60 test record and the 30-cm/s 1,000-Hz tones on the Fairchild 101 record. Its tracking ability at 300 Hz was also good, reaching the 80-micrometer level of the German HiFi #2 record. We also used a DIN 45 549 test record, which has a similar test band at 315 Hz. The Alpha 1 was able to play

the 90-micrometer level of this record without audible mistracking.

The cartridge also did well in our tracking distortion measurements using the Shure TTR-102 and TTR-103 test records. The mixed 400- and 4,000-Hz tones of the former were played without obvious mistracking at any level. High-frequency tracking, tested with the 10.8-kHz tone bursts of the TTR-103, was excellent.

The effective mass of the Alpha 1 and our moderate-mass tone arm was 28 grams, and the low-frequency resonance was at about 7 Hz (though its amplitude was low). The combination was satisfactory for playing almost all records, but some in our collection of warped discs were too much for the pickup system to follow. Had we been able to balance the arm with the high-mass shell supplied with our test Alpha 1, the resonance would have shifted to the low-infrasonic range and would undoubtedly have caused severe tracking problems with even slightly warped discs. We also found that the lowest level of the cannon shots in the *1812 Overture* section of the Telarc "Omni-disc" test album ejected the pickup from the groove. Few pickups can pass this test, however, so it should not be given undue importance.

Comments

Our earlier warning about the fragility of the Monster Cable Alpha 1 reflects our sad experience, near the end of the measurement process, of having the tone arm "get away" from us and skitter across the turntable mat. We never found the stylus cantilever, which had snapped off at the point of entry into the cartridge body. Of course, the same thing *could* happen with any cartridge, but the Alpha 1's boron cantilever appears to be about as fragile as a tempered glass needle of similar dimensions. Considering that the instructions suggest a trial-and-error process to adjust the arm height for the optimum VTA, the stylus could be placed in considerable jeopardy during installation. Repairing a damaged cartridge costs 80 percent of the price of a new one, so be careful.

After our mishap, we received a

second Alpha 1 cartridge and repeated most of our earlier measurements to verify that the two were essentially alike. They were, except for a slightly higher output voltage from the second unit. Since the height of our tone arm is not adjustable, however, we felt no need to expose the second sample to unusual risks with VTA adjustments. The measured vertical stylus angle of 26 degrees was fairly typical of today's cartridges.

Besides the cantilever's fragility, our only other caveat about the Monster Cable Alpha 1 concerns the arm mass. This cartridge should be used with a moderately low-mass arm in order to place the combined resonance of the arm/cartridge system in the 10- to 15-Hz region. Preferably, the arm should also have sufficient damping to keep the stylus in the groove when it is tracking high-level modulations.

We listened to the Alpha 1 through a couple of different amplifiers, both using the step-up transformer to feed the moving-magnet inputs and going directly into the moving-coil inputs. The output of

the Alpha 1 is fairly high for a moving-coil cartridge, suggesting that it might be directly compatible (without a step-up transformer) with the MM phono inputs of some amplifiers having a high phono gain and low noise.

In listening tests the Alpha 1's performance was consistent with our measurements and with our past experience with moving-coil cartridges. This is one of the better

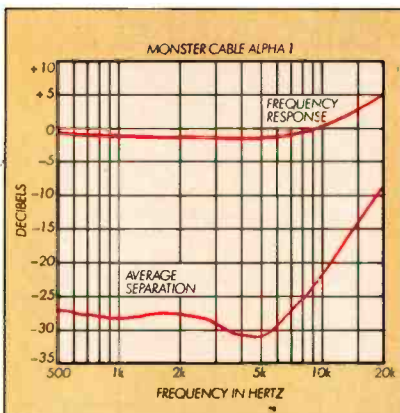
The sound of the Alpha 1 had a clean, airy, and open quality, which we attribute to its high-frequency boost together with its ability to track high recorded levels.

examples of that genre that we have used. It has excellent tracking ability, moderately high output, and a very low internal impedance, which makes its performance quite independent of the external load. Like many MC cartridges, it has a rising high-frequency response resulting from a relatively undamped high-frequency stylus resonance and the absence of the high-inductance coils that perform an equalizing function in moving-magnet cartridges.

The sound from the Alpha 1 had a clean, airy, and open quality, which we are convinced is primarily the result of its high-frequency boost in combination with its ability to track high recorded levels throughout the audio range without generating serious distortion. The latter quality has been absent from some of the moving-coil cartridges we have used in past years, but the sounds the Alpha 1 produced from both old and new records were all the proof we needed of its merit.

It is no great achievement for a cartridge to sound superb when playing the best of today's recordings; it is quite another matter to do that with records made ten, twenty, or even thirty years ago. Since many of us have a number of such discs in our collections, the ability to produce fresh, clean, and open sound from them is a strong asset, and one that the first-rate Monster Cable Alpha 1 has in full measure.

Circle 143 on reader service card



HIRSCH-HOUCK LAB MEASUREMENTS

Frequency response (with CBS STR 100 test record): 40 to 20,000 Hz +6, -0.5 dB referred to 1,000-Hz level

Output voltage (at 3.54-cm/s groove velocity, 1,000 Hz): 0.42 mV

Channel balance: 0.0 dB

Vertical stylus angle: 26 degrees

Tracking ability (at 300 Hz with German HiFi #2 test disc): 80 micrometers at 1.75 grams tracking force

Tone-burst distortion (with TTR-103 test disc): 0.5% at 15 cm/s groove velocity, rising smoothly to 1% at 30 cm/s

Intermodulation distortion (with TTR-102 test disc): 3% at 6.9 cm/s groove velocity, rising smoothly to 6% at 27.1 cm/s

MITSUBISHI HS400UR VHS HI-FI VCR

Julian Hirsch, Hirsch-Houck Laboratories



FEATURES

- Front-loading VHS Hi-Fi video-cassette recorder
- Three-speed capability (SP, LP, EP)
- Tuner receives stereo TV and SAP transmissions
- Supplied infrared remote control duplicates most front-panel controls
- Front-panel mini phone jack for headphones, with volume control
- Programmable for unattended recording of up to four programs over a two-week period
- TV tuner receives VHF channels 2-13, UHF 14-83, and cable A-W
- Radio-frequency output to TV set is switchable between Channels 3 and 4
- Fluorescent audio-level display with peak hold, twelve-segment resolution with range of -20 to +8 dB
- One Touch Recording button starts recording immediately in periods of 30 minutes per touch, for up to 2 hours
- Light-touch transport controls for normal modes plus Speed-Search and still frame; slow motion controlled with remote unit
- Switchable to record a TV signal, audio only, or an external audio source with or without video (for simulcasts)
- Normal (longitudinal) audio track receives L + R mono signal or SAP signal
- Audio output selector supplies audio outputs with either left- or right-channel signal, stereo, or mono (L + R)
- Switchable automatic or manual record-level control

BESIDES having a full complement of conventional VHS Hi-Fi functions, the Mitsubishi HS400UR is one of the first home video-cassette recorders to include decoding circuits for stereo TV broadcasts as well as the ability to receive (and record) a Secondary Audio Program (SAP) transmitted via a subcarrier on the TV audio channel(s).

The HS400UR is one of the new generation of relatively compact, low-profile VCR's, with many of its

specialized controls and adjustments located either behind a hinged door on the front panel or under a removable cover on top of the machine. Most of its features are listed in the box on this page. Among the more unusual ones are front-panel red indicator lights that show when a stereo TV signal is being received and when an SAP subcarrier is present.

The Mitsubishi HS400UR is about 16¾ inches wide, 15¼ inches deep, and 4 inches high, and it

weighs 21 pounds. The supplied infrared remote control is especially compact—only 5¾ inches long, 2¼ inches wide, and ½ inch thick. Price: \$900. Mitsubishi Electric Sales America, Inc., Dept. SR, 3030 E. Victoria, Rancho Dominguez, Calif. 90021.

Lab Tests

We measured only the audio performance of the HS400UR, though we also used it with a 25-inch video monitor to record and play back programs, including some with both stereo sound and an SAP channel. In most other respects, our tests followed the same procedures we use for audio tape recorders, except that no standard test tapes are available to check the playback frequency response of VCR's.

The recording and playback quality of the Mitsubishi HS400UR were beyond reproach with both video and audio material.

The measurements listed in the accompanying box take as their reference the indicated 0-dB recording level (when the first red segment of the fluorescent level indicator lights up). The distortion in the VHS Hi-Fi mode was low (under 3 percent) until clipping occurred at a level of almost +16 dB (far beyond the +8-dB maximum of the level indicators). The clipping was apparently caused by exceeding the linear limits of the frequency-modulation hi-fi recording system. At any level, the normal longitudinal audio track had much higher distortion than the hi-fi tracks. The longitudinal distortion actually *decreased* somewhat at levels above 0 dB, however. This effect may have been caused by an internal limiting or compressing action on the signal, although all of our tests were made using manual gain control.

The signal-to-noise ratios (S/N's) in both the hi-fi and normal modes were measured separately for the fastest (SP) and slowest (EP) speeds. The A-weighted noise readings were referred to the 0-dB output, and the

additional "headroom" out to the 3 percent distortion point was added to develop an overall S/N figure. Flutter readings were also taken at each speed and in both recording modes. To our surprise, in the hi-fi mode the flutter measured slightly higher at the faster speed than at the slower one, though it was negligible in either case. Channel separation (in the hi-fi mode only, since the longitudinal recording is mono) was measured at 1,000 and 10,000 Hz.

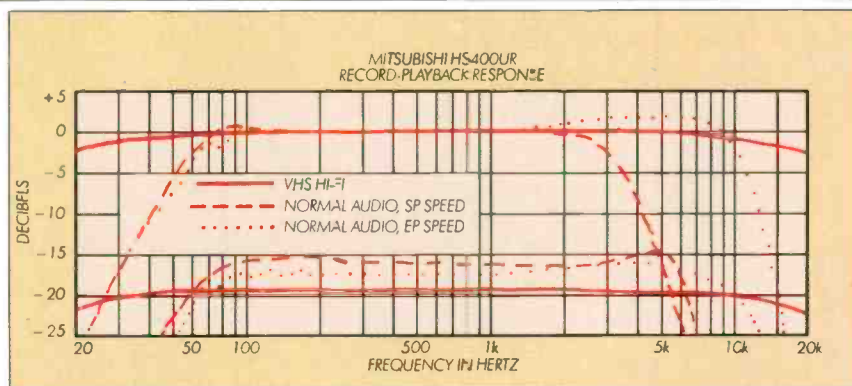
We found that the audio inputs of the HS400UR can be overloaded, with clipping evident at 2.7 volts even at low settings of the manual recording gain controls. Fortunately, this level is high enough that no conventional line-level source is likely to drive the recorder into distortion.

Comments

The installation and operation manual supplied with the HS400UR is quite detailed, though its apparently logical division into technical subsections can sometimes make it difficult to determine the function of some controls. The exceptional versatility of the machine also makes it hard to operate with full effectiveness until you have had a lot of practice. In particular, we found the initial setup to be unusually frustrating because of unclear instructions in the manual. Of course, this only has to be done once; the day-to-day programming is very easy.

The recording and playback quality of the HS400UR were beyond reproach with both video and audio material. We were able to make excellent off-the-air recordings at the SP speed, and even at the EP setting (one-third as fast) the video quality was perfectly satisfactory, if not quite as sharp.

We made audio recordings from stereo TV (WNBC-TV), FM radio, records, and good-quality cassette tapes, and in some cases we were able to make A/B comparisons between the source and the recording. The results were pretty much as would be expected from our test data. There was negligible difference in the hi-fi mode, at any recording speed, between the incoming program and the playback



HIRSCH-HOUCK LAB MEASUREMENTS

Input sensitivity for 0-dB recording: 66 mV

Playback output level at 1,000 Hz from 0-dB recording: 315 mV (fixed)

Input overload level at 1,000 Hz: 2.7 volts

Record-playback frequency response:

hi-fi mode (SP and EP), 20 to 20,000 Hz ± 0 , -2.5 dB at 0- and -20 -dB levels (see graph); normal mode (SP), 62 to 11,000 Hz ± 3 dB at 0- and -20 -dB levels; normal mode (EP), 75 to 2,400 Hz ± 0 , -3 dB at 0-dB level and 62 to 6,000 Hz ± 3 dB at -20 -dB level

Playback distortion (THD + N) at 1,000 Hz: hi-fi (0-dB level), 0.34% (SP), 0.38% (EP); normal (0-dB level), 2.15% (SP), 3.1% (EP)

Recording level for 3% THD + N (1,000 Hz): hi-fi, $+15.5$ dB; normal, not measurable, essentially 0-dB distortion readings at levels up to $+8$ dB

Record/playback flutter: hi-fi (SP), 0.007% wrms, ± 0.01 % CCIR-weighted peak; hi-fi (EP), 0.004% wrms, 0.008% CCIR-weighted peak; normal (SP), 0.11% wrms, ± 0.17 % CCIR-weighted peak; normal (EP), 0.22% wrms, ± 0.35 % CCIR-weighted peak

Signal-to-noise ratio (A-weighted) referred to 3% THD: hi-fi (SP and EP speeds), 91 dB; normal (SP and EP speeds) about 57 dB

Channel separation (hi-fi mode only): 65 dB at 1,000 Hz, 49 dB at 10,000 Hz

Rewind time for T-60 cassette: 99.5



Controls for programming, tape-speed selection, input selection, audio-output selection, headphone level, and video-cassette tracking are hidden behind a fold-down door.

from the VCR. Even the normal longitudinal recording sounded remarkably like the source program (although in mono) at the SP speed, with audible hiss being the most obvious degradation in program quality. Of course, at the slower EP speed, the longitudinal track gave a rather limited frequency response, among other deficiencies; the sound was essentially what we think of as AM-radio quality.

The ease with which one can make truly high-quality recordings lasting as long as 8 hours makes the Mitsubishi HS400UR a logical choice for people who need long uninterrupted playing times for recordings of full-length ballets or operas, extended background-music

programs, and so forth. Even though tape editing in the usual sense is not practical with a video cassette, the high sound quality and extended duration offered by the Mitsubishi HS400UR make it an excellent choice for audio-only applications. And, of course, it is simultaneously a superb video recorder.

Our only caveat with this machine is that some users new to a VCR may not be able to set it up or operate it effectively for some time because of its large number of features and complete but sometimes obscure manual. Patience, however, will pay rich sonic and visual dividends in this case.

Circle 144 on reader service card

MER

A world of flavor



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

8 mg "tar," 0.6 mg nicotine av. per cigarette, by FTC method.

IT

in a low tar.



THE ART OF TAPE RECORDING

Practice, experimentation, and rehearsal will help you make creative use of your audio system and tape equipment.

by Ian G. Masters



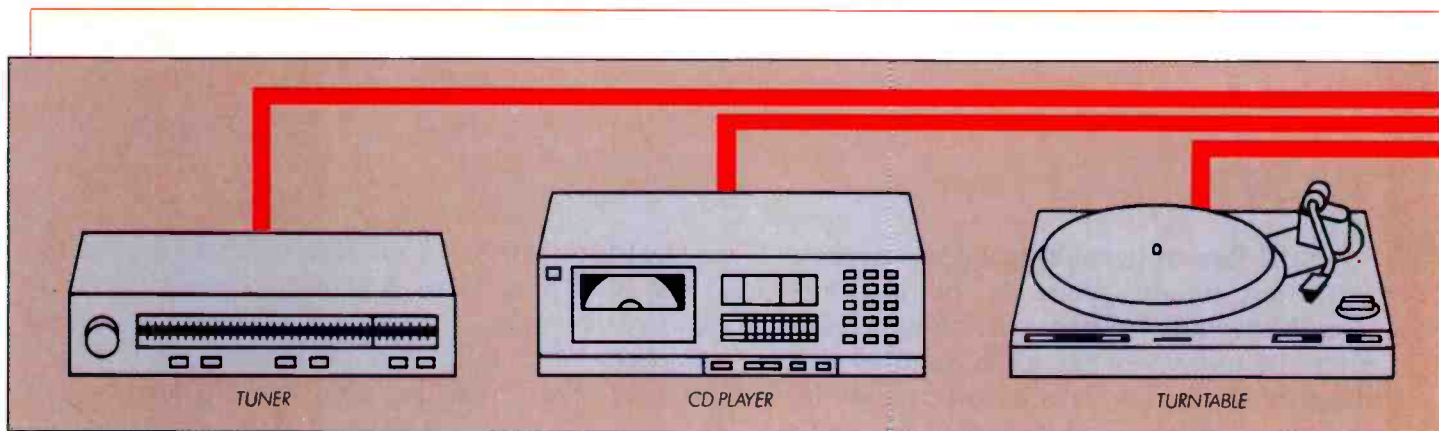
On the face of it, making a good cassette recording would seem to be a pretty straightforward matter, particularly since many of today's decks have features that simplify setting levels and optimizing bias and equalization. And it *is* easy, but that's not to say that some special care and planning cannot turn what would otherwise be a merely adequate tape into a truly professional-sounding effort. Even if your hi-fi equipment is quite modest, you can still make excellent tapes by taking full advan-

tage of the facilities your deck does have.

The first step is to find out just what your cassette deck and related hi-fi equipment can and cannot do. (If you are considering upgrading, this analysis will also help you decide what to buy, since certain features will make the job of recording much easier while others will be irrelevant.) The place to start is your deck's instruction manual, which should tell you which buttons to push to make it do it. Bear in mind, however, that most manu-

PHOTO: ROBERTO BROSAN





als are written by people whose command of English leaves something to be desired, which can cause confusion. While they usually tell you what features are included in a machine, they often fail to explain the best ways to make use of them.

To connect the instructions in the manual with reality, therefore, it's very important that you do some experimentation. Check out all the transport controls, for instance, to see what sort of delays, if any, are built into them. You will probably find yourself doing some split-second starts at some point, and you need to know how tight you can get. Some recorders have a built-in short delay when they go into the record mode directly or from pause; if you're not aware of this you could chop off a note or two of music.

If your machine is a three-head model, find out if it can do "punch-in" recording—going directly from play to record without stopping the tape first. Few instruction manuals mention this capability even when the deck has it, so you just have to try and see if it works. Simply hold down the play button and then push the record button at the right moment. If the deck shifts silently into the record mode, you'll have a lot easier time when it comes to making an actual recording. While you're checking things out, be sure to clean and demagnetize your deck's tape heads, capstan(s), and pinch-roller(s). Accumulated dirt or magnetized metal parts will certainly undermine performance.

Once you have gotten thoroughly familiar with the way your recorder works, it's a good idea to do some similar rehearsing with the rest of your equipment. Tuners, CD players, and other cassette decks are relatively easy to record from, but turntables and open-reel decks can

have quirks you'll have to take account of in recording—particularly when it comes to cueing. Ideally, you should "back-cue" your records and open-reel tapes: that is, find the exact beginning of the selection you want to record, turn the player's motor off, then turn the disc or tape backward by hand just far enough so the machine can get up to full speed by the time the music starts.

Unfortunately, back-cueing is not always possible. Belt-driven turntables, for example, react badly to being rotated backwards, and some of the more delicate phono cartridges can be seriously damaged in this fashion. Even some direct-drive models cannot be started and stopped without going through their whole automatic cycle, and some go into their reject phase when you try to swing the arm past the midpoint of the disc's radius, making it hard to cue up the last one or two bands on a side. Check what the manual says and carefully experiment (with the stylus *out* of the groove) before attempting to back-cue. If you can't do it safely, you can get much the same effect by listening several times to the lead-in to the selection you want to record so you'll know just when to stop the machine in straightforward play without rotating the disc or tape backwards.

Depending on the sort of recording you are going to do, you might also want to check out your electronics. For the most part, the ordinary tape-monitor loop included in virtually every receiver, integrated amplifier, or preamplifier is all you will need, but in some circumstances you may want to be able to alter the signal to correct for damaged or badly recorded discs. The ideal means for this is an equalizer, either one built into your amp or a

separate component, but not all equalizers will enable you to alter a signal before recording without redoing some of your system's connections. If you don't have an equalizer, ordinary tone controls can sometimes be used for rough corrections simply by wiring the tape recorder into the system between the preamplifier and amplifier, if they are separate components, or by connecting it between the pre-out and main-in jacks of your receiver or integrated amplifier if it has them. Bear in mind, though, that this kind of setup is practical only if your cassette deck has an output level control or if your power amplifier has its own input level controls. Otherwise, feeding the full line output of your recorder to your amp will probably produce unbearable, and possibly damaging, sound levels.

A very important part of this familiarization process is selecting the right tape to use. Cassette decks vary widely in their ability to get the most out of different tapes, and it can sometimes be a frustrating task to find a tape that will enable your machine to perform at its best. Many newer models have circuits designed to optimize their recording parameters for a wide variety of tapes, with greater or lesser amounts of automation, but these don't necessarily guarantee that you should use any tape that comes to hand. Virtually all such devices vary the recording bias level, and many adjust playback equalization as well, but only the more recent ones compensate for differences in maximum output level (MOL), which can have a dramatic effect on Dolby tracking. It is worth doing some experimentation, therefore, to make sure that the tape you want to use can give good results with your machine.

THE ART OF TAPE RECORDING



TAPE DECK

More modest decks, or older models, usually lack such facilities, so a good deal more trial and error is necessary to find the best tape to use with them. In some cases the owner's manual will tell you which tape(s) the unit is adjusted for, but more often the manufacturer will simply list a large number of tapes that will more or less work in the machine without giving any indication of which is best. And tape makers have a way of subtly improving their products over the course of time without publicity, so even if a given brand and type of tape was perfect for your deck five years ago, it may not be perfect now. Unless you want to go to the trouble of having an engineer set up your machine for a specific tape (the ideal solution), about the only thing you can do is to get your hands on a number of tapes that are likely to work and experiment with them until you find the one that matches your deck most closely, then stick with it.

There may be times, of course, when optimum fidelity is simply not important and virtually any tape will do (including all those you rejected while trying to find the ideal match). There may also be circumstances in which a deliberate "mismatch" is desirable—old records with a lot of surface noise often sound better dubbed on a tape that rolls off the highs, for example. Nonetheless, this sort of effect should be a matter of choice rather than necessity; you should make an effort to determine what works best even if you elect not to use it.

Once you are thoroughly familiar with the possibilities of your equipment and tape, it's worth giving some consideration to its physical arrangement. For most people, the placement of components should primarily take into account convenience

when playing records or tapes, since that is what you will be doing most of the time, but you shouldn't make it awkward for yourself when you choose to record. Ideally, the turntable and cassette deck should be as close together as possible and arranged so that you can operate one with your left hand and the other with your right. On the other hand, the cassette deck should not be so close to the turntable that any mechanical thumps it produces are picked up by the cartridge (the optimal spacing is a function of both components, and finding it may require some experimentation). The deck should also be placed so that you can see its level indicators clearly.

Mastering the intricacies of your equipment is something that really only has to be done once. Then you can put all your experimentation to use and actually record something. One way is simply to stuff a cassette in the machine, hit the record button, and hope for the best. Sometimes, in fact, this results in a good recording, thanks to the labor-saving devices on today's decks. But you can virtually guarantee a good tape by doing a little organization beforehand and taking some pains with the recording itself.

To begin with, you should plan each recording very carefully. If the tape is going to be a mixture of selections from different records, it's usually a good idea to make a list in some sort of pleasing sequence, noting the times for each cut. Totaling up the times will enable you to add or subtract selections to come out to the right overall length, and you can shuffle selections around so that each side is full—there's nothing quite as annoying as a long pause at the end of the first side of a two-sided pro-

gram. For the same reason, you should time a sample of each brand of tape you intend to use. All tapes exceed their nominal length by a certain amount, but they differ in how much. If your music ends up running, say, exactly 45 minutes a side, you are likely to have a minute or more of silence at the end of each side of a C-45. (On the other hand, if you record to within seconds of the end of a cassette and later dub this tape onto one of another brand, the length may be different and you'll risk chopping off some music.)

Even if you are simply copying a complete record onto cassette, a quick total of the side lengths may

Mastering the intricacies of your equipment really only has to be done once. Then you can put all your experimentation to use and record something.

show that you can use a shorter cassette. You can even reduce slightly the time a record will need, should that be necessary, simply by shortening the pauses between sections or selections. Doing so requires stopping and re cueing after each cut, but you may find it worthwhile in reducing costs. If your turntable has a speed control, it's even possible to squeeze a slightly over-long record onto a tape by playing it a touch fast. An increase of 1 percent is unlikely to be perceptible unless you have absolute pitch, and it can save a minute or so on a C-90.

How you should set up your deck for recording has a lot to do with how the tape you're making will be used. If you intend to play it on

THE ART OF TAPE RECORDING

your own system, it makes sense to use the best possible tape and the most sophisticated noise-reduction system you have, whether it be Dolby B, Dolby C, or dbx. But if you are making the tape for someone else, you cannot count on Dolby C or dbx being available, so it's better to use Dolby B, which is more or less standard for home machines. And if the tape is to be played on a car system or a portable that lacks noise reduction entirely, it may be advisable to make the recording with no noise reduction, although the high-frequency boost from undecoded Dolby B might well be pleasurable.

Any record with lots of permanent surface noise will be much quieter if bridged to mono—at least half of the noise is out of phase, and this part cancels out in mono. Even if the record is stereo, it may be more enjoyable in quiet mono than noisy stereo. A judicious mixture of mono recording and high-end roll-off can do wonders for many old records. If your system has no provision for switching to mono (and very few do in the recording loop), a pair of back-to-back Y-connectors will do the trick.

Once you are ready to roll, you should begin to think of each selection as a separate recording. Each should be cleaned individually just before it is recorded, and levels should be reset for every cut, unless you are recording a whole album. Two things have to be kept in mind when setting levels. First, tape recorders, and cassette decks in particular, are notoriously intolerant of high levels, so you should search out the loudest part of each selection and use that as your high-water mark. Second, your brain perceives loudness as average sound levels rather than instantaneous peaks, so if you slavishly set levels by letting the peaks just touch the 0-dB mark on your meters, you are likely to end up with a tape whose level seems to jump up and down. Only

experience can teach you how to set optimal levels for different kinds of music. In the meantime, "cheating" the level up or down so that each cut resembles the previous one in loudness is the best rule. This is easier to do if your deck has average-reading (VU) meters rather than peak-reading ones.

Some of the newer decks include automatic level-setting circuits, and these can be useful if approached with caution. They can be fooled if there are extreme variations in overall level between different parts of the music, but they can also be a good form of insurance against overload distortion. The best thing to do is to try these circuits out and see whether they have any unpleasant effects—"pumping" or sudden drops in level, for instance. If so, go back to manual level setting.

Achieving smooth transitions between selections can be as simple or as complicated as you choose to make it. The most straightforward way is to let a cut finish, activate the pause control, set the level for the next cut, place the stylus in the silent grooves before the music starts, then release pause to continue recording. This orthodox technique can be augmented by use of the recording-mute circuits included in many decks; these place a few seconds of silence between cuts, which can be useful if your deck has a search feature that reads such pauses. Even if you choose not to use the mute function, the method described will probably leave adequate gaps between recorded selections for the search feature to distinguish them.

Often, however, it is desirable to reduce the space between cuts to the minimum, either to make the music fit on the tape or simply for reasons of pace. If that is what you want, the trick is essentially to determine exactly when the music is going to start, either by back-cueing or by timing from the end of the material that precedes it on the record. Only experience can teach you the limits of your particular combination of cassette deck and turntable, but you may find that making some false starts and even a few ruined recordings is worth it in the long run.

Making recordings from other cassette tapes presents similar challenges, though cueing up a tape can be a simpler matter than cueing a disc. Either let the piece you want start, noting the counter reading,

and rewind to a point just ahead of this reading, or simply stop the tape, take it out of the machine, and rewind it a tiny bit by hand. Then simply roll both machines simultaneously.

There is one approach to tape dubbing that seems to make sense but actually doesn't, and that is to copy a Dolby-encoded tape without decoding, thus ending up with another Dolby-encoded tape. In theory, this could work, but only if the machines are *exactly* matched. Few are, so it's always much safer to decode and then re-encode, which also lets you make level adjustments, perform fades, or even convert to another noise-reduction system if you wish.

Off-the-air recordings, from either AM or FM, are simpler in some respects because the engineers at the radio stations do much of the work, particularly in the matter of riding levels. As long as your tuner is adjusted properly and you have enough tape to hold the complete program, it's really a matter of turning the deck on and forgetting it. With broadcast dubs, the automatic-fade capabilities of some units can be useful if you want to tape only part of the program (this is true for taping parts of discs as well), but fading in or out can also be done easily by hand.

Finally, some audiophiles are finding it desirable to make tapes of Compact Discs. In one respect, CD's are the easiest source to record from, since most machines cue up quickly and the discs are unlikely to present sonic problems that will have to be corrected by equalization. But the high quality of CD's also taxes the abilities of the cassette medium to its utmost. Taping them requires using the very best tape and the most sophisticated noise reduction you can muster if you are to end up with anything like the original dynamic range. Still, properly handled, Compact Discs are likely to produce the best tapes you can possibly make.

For most of us, audio has usually been a passive pursuit. A lot of effort goes into the choice of equipment, but after that it's often a matter of putting a record or tape on and letting it play. Making your own professional-sounding tapes is one way for audio to become a creative pastime. And all it takes is some knowledge of your equipment and a lot of practice. □

4 DUBBING CASSETTE DECKS

Hirsch-Houck lab tests and an evaluation of the features of some tape decks designed to make copying cassettes easier.

by Julian Hirsch

SINCE its introduction a few years ago, the dual cassette recorder, or "dubbing deck," has been growing in popularity. These machines, essentially two separate tape transports in a single cabinet, with some interlocking of their control functions and record-playback circuitry, were initially offered as a convenience for copying tapes ("dubbing").

Before dubbing decks became available, tape copying required the use of two separate cassette decks, with the outputs of one connected to the inputs of the other. After some preliminary setting of levels, the two machines were put into operation simultaneously, one playing back the tape to be copied, the other recording the dub. This is not always a convenient process. For one thing, it is slow, since the tape to be copied must be played completely through in "real time" (that is at normal speed). Moreover, not everyone has a pair of cassette recorders of suitable quality.

Single-unit dubbing decks have simplified the process considerably. Some machines provide such conveniences as a single button to start both mechanisms in synchronization and preset gain settings for dubbing. A few of these decks can

dub with both transports running at double speed ($3\frac{3}{4}$ inches per second instead of $1\frac{7}{8}$ ips), halving the time required for the process, and at least one can also copy both sides of the tape simultaneously in a single pass, cutting the time needed to dub a tape to 25 percent of playing time.

We tested four representative dubbing cassette decks—from Akai, Hitachi, Realistic, and Sansui—evaluating them as ordinary (single) cassette recorders as well as for their tape-dubbing capabilities. Although there are many differences among the four decks, they do share some common characteristics. All of them are equipped to use the three most popular tape formulations: ferric, chrome, and metal. None is suitable for use with ferrichrome (Type II) tape. All provide both Dolby B and Dolby C noise reduction, and all have some form of rapid program location that operates by searching for a silent (unrecorded) interval of at least 4 seconds while in a fast-forward or rewind mode.

Each machine has a headphone output, though most of these have fixed output levels, and each has a microphone input, though all but one can only record in mono from that input—the signal from the one mike ends up on both channels.



(These decks do, however, permit mixing the mike input with another program source on the copy tape, for instance, to dub music with a voice-over narration.) Finally, each machine has a recording-mute button to ensure silent program gaps so that the sensor will be able to recognize separate segments.

Beyond these common characteristics, the four machines we tested have numerous minor differences. For example, one advantage that is claimed for this type of recorder (in addition to simplified dubbing) is the ability to use optimally designed heads for the recording and playback functions, one of the basic features of normal "three-head" tape decks. On three of the four machines tested, one of the transports (usually referred to as "decks") contains only a playback head, which has the narrow gap required for the best high-frequency performance. The other transport has a conventional combined record/play head, as well as the usual erase head, and can function for either recording or playback. However, the wider gap in the combination head (necessary for good recording) makes it less effective for playback. The instructions for such machines usually recommend making a recording in one deck and transferring the tape to the other for playback. Most of them have only one index counter (for the record/playback deck), and therefore do not indicate which portion of the tape is being heard from the playback deck.

All dubbing decks can, of course, also be used as standard cassette recorders. Each has a pair of line-

level inputs and outputs in the rear and the usual operating controls and indicators. Some present a formidable appearance, because of their operating flexibility, but actually they are no more difficult to use than any ordinary cassette machine. In order to make the most effective use of some of their extra features (such as program searching or programming to play selections in a different order), however, it is advisable to study the instructions.

Each machine's major features are listed in Table I on page 52. Some of the more important features will be covered in the individual descriptions that follow.

Aiwa AD-WX220

The unconventionally styled Aiwa AD-WX220 has its controls on a flat, nearly horizontal panel extending out from its front, where they are both visible and accessible when the recorder is at or below eye level. Most of the controls are buttons requiring only a light pressure. Sliders are used for setting the recording and playback levels as well as the microphone mixing level. The recording sliders have detents for dubbing-level settings.

Besides being able to copy tapes at double speed, the AD-WX220 can be switched to copy both forward and reverse tracks simultaneously, dubbing a C-60 in only 15 minutes. For double-speed copying, the Dolby noise-reduction circuits are disabled so that the tape is copied directly, without Dolby decoding and re-encoding. In normal-speed dubbing, each transport has its own

noise-reduction controls activated.

A group of pushbutton controls allows the playback sequence of several program segments on a tape to be arranged in any order (provided at least 4 seconds of silence separates the segments). If desired, the dubbed tape can be copied in the same order, making it possible to "edit" the dub by excluding some of the segments from the original version. A miniature phone jack in the rear of the machine enables recording to be synchronized with certain Aiwa record players so that specific portions of a record will be automatically dubbed to tape.

The Aiwa AD-WX220 is the only machine we tested that has a bias adjustment, a small knob with a continuous but limited control range and a center detent. Since the actual recording cannot be monitored while in progress, this adjustment is best made with an input of pink noise or FM hiss to which the playback can be compared.

Hitachi D-W800

As dubbing decks go, the Hitachi D-W800 is almost "conventional." It offers a full complement of the expected features, without notably unique additions or any conspicuous omissions. In other words, its Deck 1 is a dedicated playback deck and its Deck 2 a record/playback deck, most of its operating controls are light-touch buttons operating through solenoids, and it has single-button initiation of normal dubbing as well as the capability of double-speed dubbing.

A single slider switch with a rath-



PHOTOS BY RED AXON

HITACHI D-W800



er unusual combination of functions controls the timer operation of Deck 2 (record, play, off) and other, unrelated functions on either deck, such as LONG PLAY (automatic sequential playback from the two decks for as many as eight complete passes through both tapes) and automatic rewind (for up to sixteen consecutive plays of a single tape in Deck 1). When the fast-forward and rewind buttons of either deck are pressed simultaneously, the tape rewinds rapidly and advances past the leader tape to prevent cutting off the beginning of the program.

Two vertical sliders adjust the recording levels, which are shown on a clear two-channel display in the window between the two transports. Unlike most dubbing decks, whose level indication is rudimentary at best, the Hitachi provides good resolution, about 1 dB near the 0-dB mark. During dubbing, levels are set automatically and the noise reduction is disabled.

The display window of the Hitachi D-W800 also has a single fluorescent three-digit index counter and status identifiers showing which of the transports are in use, the status of the Dolby system, and whether the deck is in the dubbing mode. There is a random program-search and dubbing feature.

Realistic SCT-90

The Realistic SCT-90, which gives the impression of being plainer and less adorned than some of the other decks we tested, is also considerably less expensive than the others. Nevertheless, it still pro-

vides most of the features needed to dub tapes effectively and easily. Its transport controls drive the mechanical linkages directly, instead of through electromechanical solenoids. As a result, the controls require more force to operate, and the transports cannot be readily controlled by an external timer. But that appears to be the only sacrifice one makes for a lower price.

The tinted plastic windows in front of the two cassette compartments of the SCT-90 expose almost the entire cassette to view, but the interior is unlit and visibility suffers as a result. The two vertical rows of signal-level lights between the transports have a resolution of about 5 dB per light, which is much too coarse to give more than a rough idea of the signal level. Recording level is set by two concentric knobs, with a calibration mark for the suggested dubbing level (although the user is advised by the manual to experiment with other settings). As in most dubbing decks, one transport (Deck 1) is for playback only and has automatic selection of playback equalization. The other (Deck 2), however, records and plays back, and it requires manual selection of the bias and EQ by means of three pushbuttons. The single index counter is used for Deck 2.

There are two microphone jacks on the front panel, and a microphone plugged into the left jack only will supply its signal in mono to both channels. Using the microphones cuts off the line inputs but does not affect the dubbing process. Although the SCT-90 cannot be programmed to play a special se-

quence of selections from a tape, it has a manual search feature that advances or rewinds the tape at high speed to the next silent interval, where it resumes normal play.

Sansui D-W9

The Sansui D-W9 is a somewhat unusual machine in that both of its transports have the same record/playback capabilities. However, since dubbing is possible only from Deck A to Deck B (as Sansui calls them), Deck A becomes the *de facto* playback deck. Another unusual aspect of the D-W9 is that, except for a small "mic-level" control, it has no external adjustments. The recording gain is set by an automatic level control (ALC) circuit that continuously monitors the maximum program level and almost instantly reduces the gain electronically to prevent excessive recording levels. Once reduced, the gain does not increase when the signal level drops (until, of course, the machine is either taken out of the recording mode or turned off), so its effect is usually to reduce the level gradually during the recording process. The fluorescent level-indicator display (combined for both channels), though essentially unnecessary for normal use of the recorder, does show the operation of the ALC system (a sudden level increase appears as a brief red flash, immediately changing to a green "0-dB" indication as the ALC takes over).

When the machine is turned on, only Deck A is initially activated and controlled by the front-panel controls. Pressing the B button on

**TABLE I
FEATURES**

	AIWA AD-WX220	HITACHI D-W800	REALISTIC STC-90	SANSUI D-W9
Solenoid controls	✓	✓		✓
Tape counters	1	1	1	2
High-speed dubbing	✓	✓	✓	
Simultaneous recording				✓
Sequential recording		✓	✓	✓
Dub both sides in one pass	✓			
One-button dubbing	✓	✓		✓
Auto bias setting (Rec)	✓	✓		✓
Auto EQ setting (Play)	✓	✓	✓	✓
Timer operation	✓	✓		✓
Number of random programming selections	10	15		3
Program selection by silent intervals	✓	✓	✓	✓
Dubbing of selected sequence	✓	✓		✓
Tape repeat	✓	✓		
Leader take-up		✓		✓
Mike mixing	✓	✓		✓
Fine bias adjustment	✓			

**TABLE II
TEST DATA**

Specification	AIWA AD-WX220	HITACHI D-W800	REALISTIC STC-90	SANSUI D-W9
Input sensitivity for 0 db (mV, 1 kHz)	58	125	95	300
Output (mV) from 0-dB recording (range for tape Types I, II, IV)	320-410	500-570	510-600	450
Third-harmonic distortion (%) at 0 dB, 1 kHz	Type I	0.8	1.55	3.2
	Type II	3.2	3.1	7.4
	Type IV	1.1	1.65	2.9
Input (dB) for 3% distortion	Type I	+4	+3	0
	Type II	0	0	-6
	Type IV	+4	+3	+0.5
S/N (db, ref. to 0 dB) with Dolby B, CCIR weighting	Type I	57	59.3	58.5
	Type II	56	58	55
	Type IV	66.3	60	60.2
S/N (dB, ref. to 0 dB) with Dolby C, CCIR weighting	Type I	66.5	69	68
	Type II	65	67.7	64.8
	Type IV	72	70	70
Flutter (%)	JIS-weighted	0.045	0.04	0.08
	CCIR-weighted	0.075	0.06	0.15
Speed error (%)	Deck 1	-0.06	-1.1	+1.4
	Deck 2	+0.6	+0.05	+1.8
Rewind time (seconds, C-60)	Deck 1	79	74	96
	Deck 2	78	75	90
Dimensions (inches)	Height	4%	4%	4%
	Width	16½	17½	16½
	Depth	12¼	10¾	9¼
Weight (pounds)		12¼	10¼	10¼
Price		\$460	\$390	\$280

*Unmeasurable because of automatic level control (see text)

The graphs at right show selected frequency-response curves for the four dubbing decks we tested. To facilitate direct comparisons, in most cases we tested the decks under the same conditions.

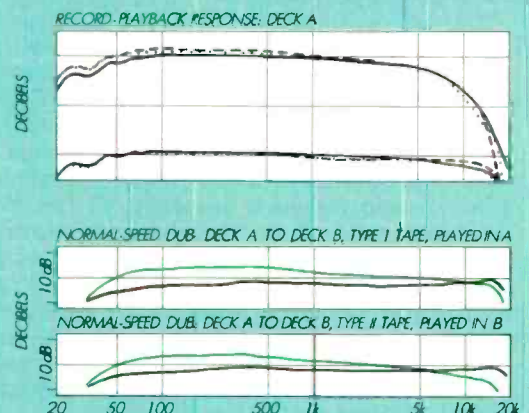
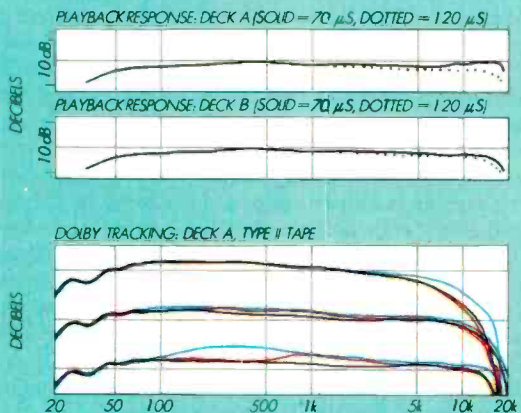
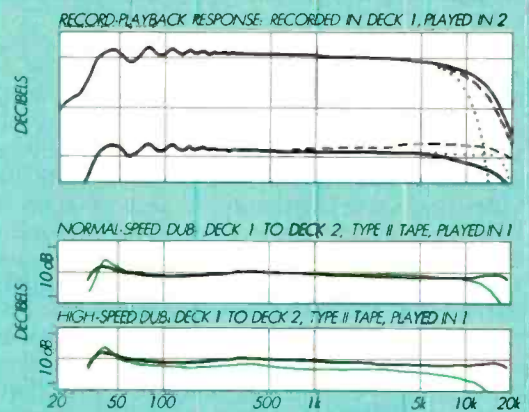
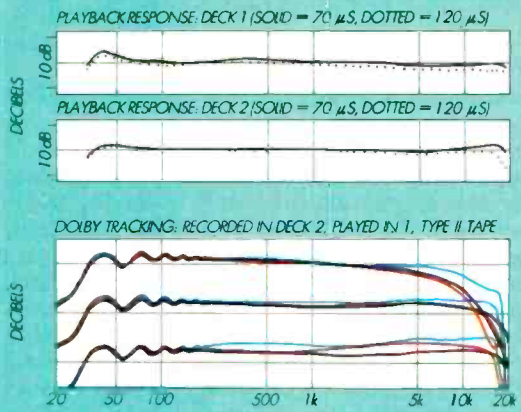
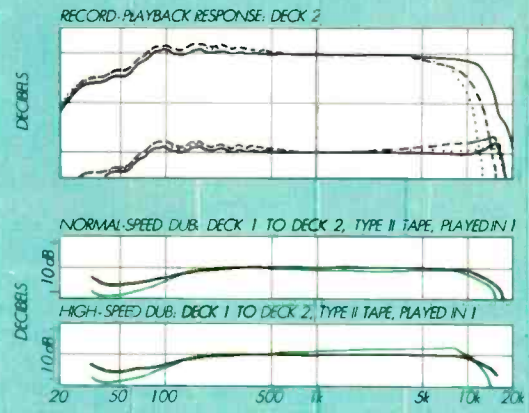
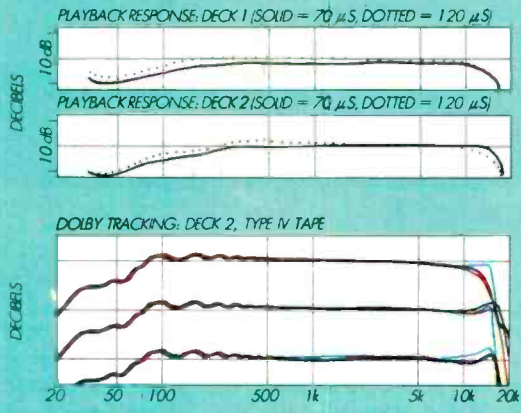
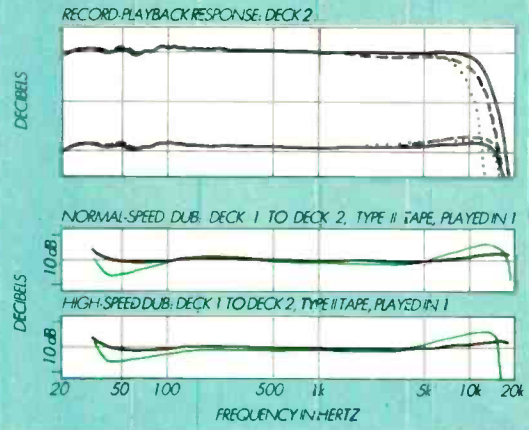
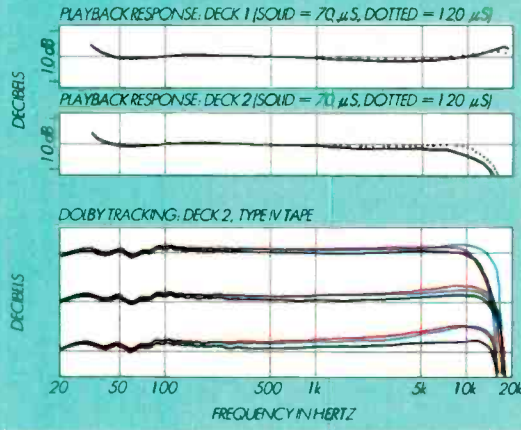
The playback-only curves (upper left graph in each group) indicate the decks' performance with pre-

recorded tapes; the flatter and wider the response the better.

The record-playback curves (upper right) were made with metal tape (solid line), CrO₂-type tape (dashed line), and ferric tape (dotted line). The decks' own 0-dB and -20-dB level readings were used to set the 0- and -20-dB recording levels.

In the Dolby-tracking curves (lower left), the important thing to look for is not the overall flatness but the amount of difference between the deck's response curve with Dolby B (red) or Dolby C (blue) and its response with no noise reduction (black curve). The less change in response the better.

In the dubbing curves (lower right), look for how much the response of the dubbed cassette (green) differs from that of the original tape (black). Since the Sansui deck has no high-speed dubbing capability, we measured the dubbed cassette as played back in both transports.



REALISTIC SCT-90



the panel transfers the operation to Deck B. If the **AB** button is pressed, both decks are operational, but only in the recording mode (for making two simultaneous recordings of the same program). The **SERIES** button connects the transports for continuous (serial) operation in either the recording or playback mode. In series operation, Deck A comes on first, and at the end of its tape, the operation is automatically transferred to Deck B while Deck A rewinds. The **DUBBING** button provides single-touch activation of tape dubbing from Deck A to Deck B. A nice feature is a single-button control that not only takes up any slack in the tapes, but advances them just past the leader to prevent losing any recorded material at the start of the dub. The basic transport functions are controlled by large, flat buttons that require little pressure.

Next to each cassette door are lights to show the status of that transport (pause, play, record) as well as the type of tape in it (normal, high-bias, metal). Small three-position slide switches along the bottom of the panel control the Dolby noise reduction and the timer operation. Under timer control, the machine is set for continuous (series) operation, making extended continuous recording or playback possible by loading both decks with tape.

Each deck of the Sansui D-W9 has a separate index counter. Two switches, in conjunction with a large numeric indicator, are used to pro-

gram the machine for random program search and playback. Sansui's Compu-Edit feature simplifies editing a dubbed tape while it is being made and can be used to control the operation of the machine from certain Sansui record players.

The Tests

We used our normal cassette-deck test procedures to examine these dubbing decks, although we made a few modifications and additions to allow for the special abilities and requirements of the machines. The response curves and the numerical results are shown on pages 52 and 53. To generate the record-playback response curves, we selected three tapes to represent typical cassette performance. For ferric (Type I) we used Maxell UDXL I, for CrO₂ or chrome-equivalent (Type II) we chose Maxell UDXL II-S, and for metal-particle (Type IV) we used Maxell MX.

The playback portions of these record-playback response measurements were made on both transports in each machine, though only one set of curves is shown. It is not clear from our tests whether a dedicated playback deck has a frequency-response advantage. We found that the high-frequency response was sometimes very slightly better, but not significantly so, through the playback-only deck.

An extension of this double-playback procedure was used to meas-

ure the accuracy with which the decks' Dolby circuits "tracked" the action of their encoder circuits. For these tests we used the tape that gave the flattest overall response on each machine, since the Dolby system exaggerates any departures from flatness.

For playback-only response measurements we used IEC-standard BASF calibration tapes. Results are shown for both transports. The effectiveness of each machine's dubbing functions was evaluated by playing one of the standard tapes in the playback deck while plotting that deck's output on a graphic recorder and at the same time recording it on the other deck. Then the copy tape was transferred to the playback deck, played, and charted. What is most important in these tests is not a set of flat responses, though that would be ideal. Rather, the response curves should overlap, indicating no change in frequency balance caused by the copying process. If the tested deck offered high-speed dubbing, we ran this test at the higher speed as well.

A deck's input sensitivity is the level of a 1,000-Hz signal necessary to obtain a 0-dB level reading on the deck's indicators. The input level (referred to the indicators) generating a third-harmonic distortion level of 3 percent was the reference for our signal-to-noise tests.

While absolute speed error is seldom a major concern with cassette decks, an appreciable difference be-



tween the playback and record transports of a dubbing machine may cause problems. A large error could not only affect the program pitch but could also result in a timing error sufficient to prevent making a complete copy of a well-filled original tape.

The Results

The record-playback response curves show no serious deficiencies in any of the four machines we tested. The response curves for the Sansui and Hitachi machines appear to be slightly less wide than for the other two, but this principally reflects some low-frequency rolloff resulting from the playback equalization, and it did not affect their sound greatly. The dubbing frequency response from all of these machines was surprisingly good, although the dubbing transfers were not of laboratory-standard quality and had typical frequency-response errors of 3 dB or so, mainly at the higher frequencies. Still, the tapes we dubbed sounded just fine.

We were especially impressed with the results of double-speed dubbing, in which a machine has to handle frequencies beyond 30,000 Hz. There was little difference in most cases between the playback from double-speed and normal dubbing up to about 10,000 Hz. Above that frequency the output tended to drop rapidly, but the result was always quite listenable.

The Dolby tracking errors sometimes exceeded Dolby Labs specifications (which allow a change of no more than 2 dB in overall response as a result of the encode/decode process). However, the errors were not so large as to be annoyingly audible with program material (2.5 to 3.5 dB in the worst cases), and the overall S/N performance with Dolby processing was satisfactory. The low flutter levels of all the units was gratifying, with three of them measuring in the 0.04 to 0.045 percent range (JIS weighting) and the fourth a still quite decent 0.08 percent.

The most unexpected test finding concerned the limited recording-level capability of the Type II tape in all four machines. It produced 3 percent playback distortion from a meter-indicated 0-dB recorded signal in two of them, and in another (the Realistic) the waveform was so severely distorted at 0 dB that we had to reduce the input level to -6 dB to obtain 3 percent distortion. The effect of this in each case was to reduce the apparent S/N reading for Type II tape, making it no better, and in some cases poorer, than the Type-I readings. The Type II tape we used, however, is an "enhanced" chrome-equivalent, and a "standard" chrome tape may act somewhat differently.

A Valid Approach

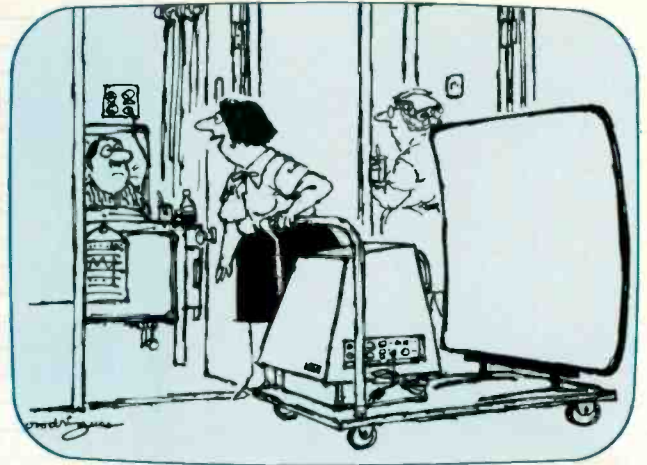
Our conclusion is that these dubbing decks offer a very convenient

way to copy types that, while not fully equivalent to using two separate high-quality decks, does not exact a significant performance penalty. Presumably many of the dubbed tapes made with these machines would be used in a car stereo system, where none of the weaknesses we found would be noticeable. In any case, we would not expect anyone to attempt to produce a state-of-the-art cassette recording through cassette-to-cassette dubbing, even using two high-priced machines.

Having done considerable cassette dubbing using two separate machines, we really appreciated the convenience offered by these double decks. Even the Sansui D-W9, whose ALC system made normal measurements difficult or impossible, would probably be ideal for a casual user who doesn't wish to be bothered with such details as correct record-level settings. It *cannot* make a really bad recording (we found no significant differences in distortion or playback level over a range of input levels from about 0.1 volt to over 6 volts), although by the same token it is not likely to preserve the true dynamics of a wide-range musical program because of the ALC system's limiting action.

All things considered, our evaluation of these machines left us with very positive feelings about the value per dollar of this sort of product integration and the good (if not quite super-hi-fi) sound quality it can deliver. □

RODRIGUES ON VIDEO



"Would you like to rent a projection TV, sir?
Only \$385 a day! . . ."



"... Gee, Maureen, even for a home video
movie this is a pretty thin plot: 'Husband
comes home from work, eats meatloaf wife made,
tells her it was delicious. The End.' . . ."



"... the video cassette of our wedding? Oh,
they had this Three Stooges film festival on
a cable TV station last week and I didn't
have any blank cassettes . . ."



"Ed McConnell in 5D has three video movies tonight:
Alien, On Golden Pond, and Tootsie for \$2.25 per person.
And Phil and Ginny Rose in 3B are showing Zelig and
La Strada for \$2.50 per person, and that includes
pizza and Pepsi. And, hey!—the Cohens have an
all-Bogart night for only \$3 a couple. . . ."



"... Joe, it's the man from the Pirate Video Movie Club with this week's selections . . ."



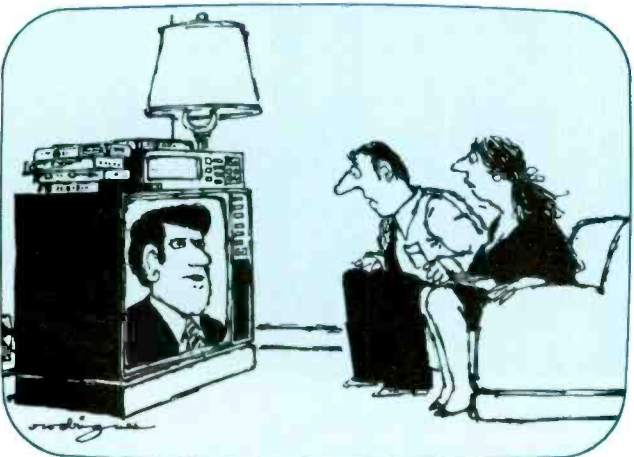
"... course, you understand that's a simulated TV picture, Bill . . ."



"Sorry, sir. You know the penalty for not returning rented video tapes on time—take this video cassette to Demo Booth 3 and watch Attack of the Killer Tomatoes!"



"Look—I don't know who you are, and I'm not interested in buying a video cassette of you catching 'twenty-eight big suckers' when you went bluefishing off Montauk Point!"

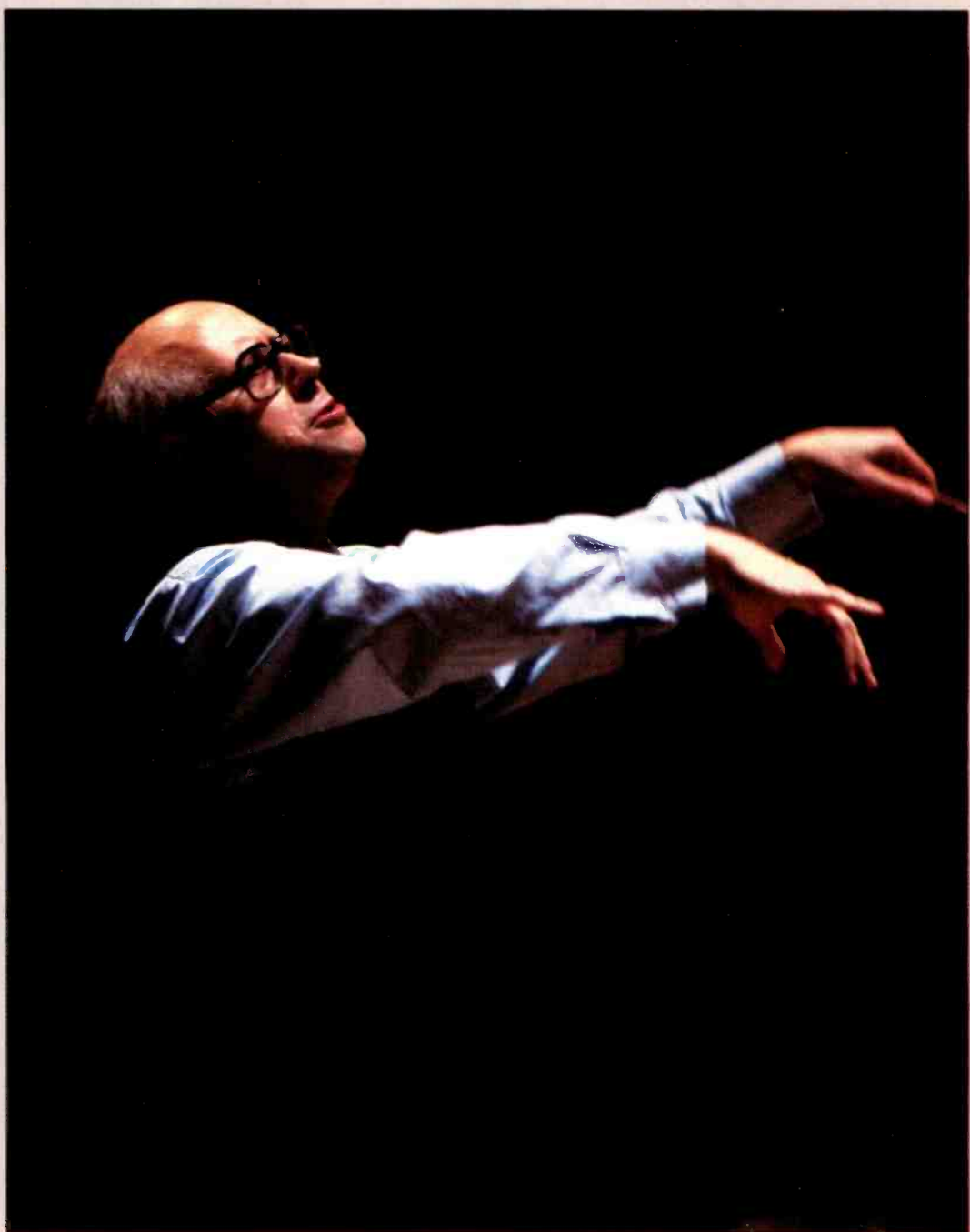


"Hi! I'm Jeff, the owner of Jeff's Video Movie Rental, where you rented this video cassette. I'll let you get back to the movie you were watching shortly, but first, did you know that Jeff's now carries a complete line of computer software at our store in Brentwood? Yes, Jeff's now offers . . ."



Basic REPERTOIRE

by *Richard Freed*



Conductor Mstislav Rostropovich makes Shostakovich's Fifth a searing personal document.

For some years critic Richard Freed, a contributing editor of *STEREO REVIEW*, has listened to all available recordings of the symphonic works that form the essential core of classical record collections. We have been publishing his selections of the best ones in a *Basic Repertoire* series, which concludes with this installment.

ANGEL/EMI RECORDS

THE FINEST



RECORDINGS

□ **SCHUMANN: *Piano Concerto in A Minor***. Especially attractive, in a large field of fine versions, are the Ashkenazy/Segal (London CS 7082), Lupu/Previn (London CS 6840), Argerich/Rostropovich (DG 2531 042, © 3301 042, or 2531 357, © 3301 357), and the belatedly issued Janis/Reiner (RCA ARP1-4668, © ARE1-4668). Best buys: Fleisher/Szell (CBS MP 38757, © MPT 38757), Serkin/Ormandy (CBS MY 37256, © MYT 37256). One of the two recordings by Dinu Lipatti should be considered too (with Karajan on Odyssey © Y 32160141, © YT 32160141, or with Ansermet on London STS 15176).

□ **SCHUMANN: *Symphony No. 1, in B-flat Major ("Spring")***. Wolfgang Sawallisch and the Dresden State Orchestra have given us the finest integral set of the Schumann symphonies, and their First is especially fetching (Arabesque 8102-3, © 9102-3). This work is also very well served in a surprisingly ingratiating account by Klemperer (Angel RL-32063, © 4RL-32063).

□ **SCHUMANN: *Symphony No. 2, in C Major***. Giuseppe Patané's intensely convincing performance with the Hungarian State Orchestra (Hungaroton SLPX-12278) is worth considering along with the Sawallisch set. The fine accounts conducted by Karajan and Barenboim, both with interesting fillers, are available now only in their respective integral sets on DG.

□ **SCHUMANN: *Symphony No. 3, in E-flat Major ("Rhenish")***. Bernard Haitink, magnificently recorded, is the hands-down winner in every format (Philips ① 411 104-1, © 411 104-4, © 411 104-2). Sawallisch is also first-rate.

□ **SHOSTAKOVICH: *Symphony No. 5***. Mstislav Rostropovich, conducting the National Symphony, makes the Fifth a searing personal document, shattering in its intensity beyond any other version (DG ① 2532 076, © 3302 076, © 410 509-2). Bernard Haitink, also broad and solemn in his approach, gets smooth playing from the Concertgebouw Orchestra (London ① LDR 71051, © LDR5 71051, © 410 017-2) but misses Rostropovich's stark power and passion.

□ **SIBELIUS: *Violin Concerto in D Minor***. The splendid Francescatti/Bernstein performance has been effectively remastered by CBS (MP 38770, © MPT

Herbert von Karajan's latest versions of the Strauss tone poems are tops musically and sonically.

38770) along with the more interesting Walton Concerto—a great buy. The best-sounding version is still Dylana Jensen's with Ormandy (RCA ① ARC1-4548, © ARE1-4548, © RCD1-4548). Other outstanding versions are the Perlman/Previn (Angel SZ-37663, © 4ZS-37663), the Stern/Ormandy (CBS M 30068), and the two by Heifetz (with Beecham in 1935 on Seraphim ⑥ 60221, with Walter Hendl on RCA LSC-2435 and LSC-4010).

□ **SIBELIUS: *Symphony No. 1, in E Minor***. Surprisingly few versions are available now. Karajan's (Angel ① DS-37811, © 4XS-37811) is outstanding. Neeme Järvi's surpasses it sonically if not musically (Bis LP-221, © CD-221). José Serebrier's is a good buy (RCA AGL1-4093, © AGK1-4093).

□ **SIBELIUS: *Symphony No. 5, in E-flat Major***. Bernstein's magnificent account, deleted for a while, is back and economically priced (CBS MY 38474, © MYT 38474). Karajan's DG version is another bargain in cassette form (© 413 607-4), and Simon Rattle is impressive on CD (Angel ⑥ CDC-47006).

□ **SMETANA: *The Moldau***. Ferenc Fricsay's vigorous, gutsy approach to this score makes his recording uniquely persuasive (DG Privilege 2535 406, © 3335 406). Barenboim, somewhat more urbane but no less impassioned, is also outstanding (DG 2531 054, © 3301 054). This piece really ought to be heard, though, in its position in Smetana's epic cycle *Má vlast (My Country)*.

□ **JOHANN STRAUSS: *Waltzes, etc.*** Outstanding are the Vienna Philharmonic collections conducted by Karajan (London STS 15163, © STS5 15163) and Willi Boskovksy (London STS 15376, STS 15391, STS 15392, STS 15509, and STS 15596); Karajan's two analog Berlin recordings (DG 139014, 2530 027); and Reiner's sumptuous Chicago recording (RCA LSC-2500).

On cassette, RCA's "Strauss Family Album" is a "double-play" bargain including Reiner's *Wiener Blut*, Ormandy's *Emperor*, Fiedler's uncut *Wine, Woman and Song*, and a dozen other real gems (Victrola © ALK2-4619). Karajan's CD's are more impressive for the sound than the performances (DG © 410 022-2, 400 026-2).

□ **R. STRAUSS: *Death and Transfiguration***. Karajan's latest remake, aptly coupled with *Metamorphosen*, is simply awesome (DG ① 2532 074, © 410 892-2). Abbado, with more familiar companion pieces, is even more handsomely recorded (DG ① 2532 099, © 3302 099, © 410 518-2). Both the Szell (CBS MY 36721, © MYT 36721) and the Reiner (London STS 15582, © STS5 15582) are fine buys.

□ **R. STRAUSS: *Don Juan***. Kempe's economical Dresden version is as fine as any and comes with Strauss's rarely heard *Macbeth* (Seraphim S-60288, © 4XG-60288). Karajan's new version is splendid, both musically and sonically (with *Zarathustra* on DG ① 410 959-1, © 410 959-4, © 410 959-2). On cassette, the Schippers recording makes quite an impression (InSync © C4113).

□ **R. STRAUSS: *Thus Spake Zarathustra***. Reiner's classic 1954 recording has been enhanced through half-speed remastering, though the opening section has lost a bit of its crispness (RCA ARP1-4583, © ARE1-4583). Karajan's newest is tops sonically and comes with his terrific *Don Juan* (DG ① 410 959-1, © 410 959-4, © 410 959-2), while the latest reissue of his earlier Viennese recording is quite a buy (London Jubilee JL 41017, © JL5 41017).

□ **STRAVINSKY: *The Firebird Suite***. The Atlanta Symphony's fine performance under Robert Shaw benefits from superb sound (Telarc ① DG-10039, © CD-80039). The newly released Skrowaczewski/Minnesota is perhaps equally stunning on an InSync cassette (© C4119) and is a fine buy on disc (Turnabout TV 34794). I'm still partial to the last of Stokowski's eight recordings of this suite, with the London Symphony, despite his retouchings of the score (London SPC 21026). Stravinsky himself recorded the 1945 suite, which includes material from both the 1912 and 1919 versions (CBS M 31841, © MT 31841). The complete ballet makes good listening too, especially in Christoph von Dohnányi's stunning record-

• • • OF FAVORITE ORCHESTRAL WORKS

ing with the Vienna Philharmonic (London ● LDR 10012, © LDR5 10012) or the CD transfer of Colin Davis's fine analog recording (Philips © 400 074-2).

□ **STRAVINSKY: *The Rite of Spring*.** For sheer sonic impact, the recent Dorati/Detroit version sweeps the field (London ● LDR 71048, © LDR5 71048, © 400 084-2). The Ozawa/Boston analog recording is almost as strong (Philips 9500 781, © 7300 855), and some of the older ones may be still more appealing: Monteux's magnificent mono version with the BSO, remastered digitally (RCA ● AGM1-5239, © AGK1-5239), the exciting Solti/Chicago (London CS 6885), the stark and subtle Boulez/Cleveland (CBS MY 37764, © MYT 37764), and Stravinsky's own final recording of the work (CBS MS 6319).

□ **TCHAIKOVSKY: *Piano Concerto No. 1, in B-flat Minor*.** Martha Argerich's recording, with Dutoit conducting, remains remarkably persuasive in its various packagings (DG 2535 295, © 3335 295; 2543 503, © 3343 503; © 413 161-4). Emil Gilels with Zubin Mehta, live, is the CD recommendation (CBS © MK 36660), and the vintage Solomon/Dobrowen reading (Turnabout ● THS 65108, © CT 4835) makes sonic shortcomings easy to overlook.

□ **TCHAIKOVSKY: *Violin Concerto in D Major*.** The most appealing recordings are still the Perlman/Ormandy (Angel SZ-37640, 4ZS-37640), Milstein/Abbado (DG 2530 359), Oistrakh/Ormandy (Odyssey Y 30312, © YT 30312), and Heifetz/Reiner (remastered at half-speed on RCA ARP1-4567, © ARE-4567). Kyung-Wha Chung's remake with Dutoit is superb (London ● LDR 71058, © LDR5 71058, © 410 011-2).

□ **TCHAIKOVSKY: *The Nutcracker*.** Gennady Rozhdestvensky is more in character than any other conductor who has recorded this music, though less well recorded than most (Musical Heritage Society MHS 823888, © MHC 225888; also CBS M2 33116). Dorati's Concertgebouw recording is the best sounding (Philips 6747 257, © 7505 076), and Previn, also handsomely recorded, is at his best in this work (Angel SB-3788, © 4XS2-3788). Tchaikovsky's own concert suite is done with greatest appeal by Karajan in his first Berlin recording (DG 139 030, © 923 046) and quite stylishly also by Fiedler (London

SPC 21142), Rostropovich (DG 2531 112, © 3301 112), and Mehta (London ● LDR 10008, © LDR5 10008, © 410 551-2).

□ **TCHAIKOVSKY: *Romeo and Juliet*.** Bernstein's live remake, with the Israel Philharmonic, is superb (DG 2531 211, © 3301 211). Boult's straightforward reading (Odyssey 32160238, © YT 32160238) and Giulini's impassioned one (Seraphim S-60311, © 4XG-60311) still sound fine. The InSync transfer of Robert Shaw's sympathetic performance is a knockout (© C-4105). Maazel's Cleveland remake sounds smooth on CD (Telarc © CD-80068).

□ **TCHAIKOVSKY: *Symphony No. 4, in F Minor*.** Karajan's DG version is the all-round strongest now (2530 883, © 3300 883). Luis Herrera de la Fuente makes a strong showing, with gorgeous sound and an enticing price (Vox Cum Laude ● D-VCL 9068, © D-VCS 9068). On CD it's Maazel (Telarc © CD-80047).

□ **TCHAIKOVSKY: *Symphony No. 5, in E Minor*.** Ormandy's fifth Fifth is sumptuously satisfying on both LP and CD (Delos ● DMS-3015, © CD-3015). For something a little different, try Karl Böhm's soberly persuasive account (DG ● 2532 005, © 3302 005). Among analog recordings, Karajan's latest yields the greatest emotional peaks (DG 2530 699, © 3300 699), Ashkenazy's offers sanity and spontaneity (London CS 7107, © CS5 7107), and Mravinsky's is a terrific buy (DG © 410 569-4).

□ **TCHAIKOVSKY: *Symphony No. 6, in B Minor ("Pathétique")*.** Markevitch missed absolutely nothing in his magnificent reading (Philips Festivo 6570 047, © 7310 047). Newer recordings by Ormandy (Delos ● DMS-3016, © CD-3016) and Carlos Païta (Lodia ● LOD 778, © LOC 778) are in the same class musically and boast superior sonics. Karajan's Philharmonia recording, imported to this country only recently (HMV/EMI SXLP-30534, © TC-SXLP-30534), shares a place of honor with his intense and passionate latest Berlin version (DG 2530 774, © 3300 774) and Mobile Fidelity's remastering of his slightly earlier Angel recording (MFSL 1-512).

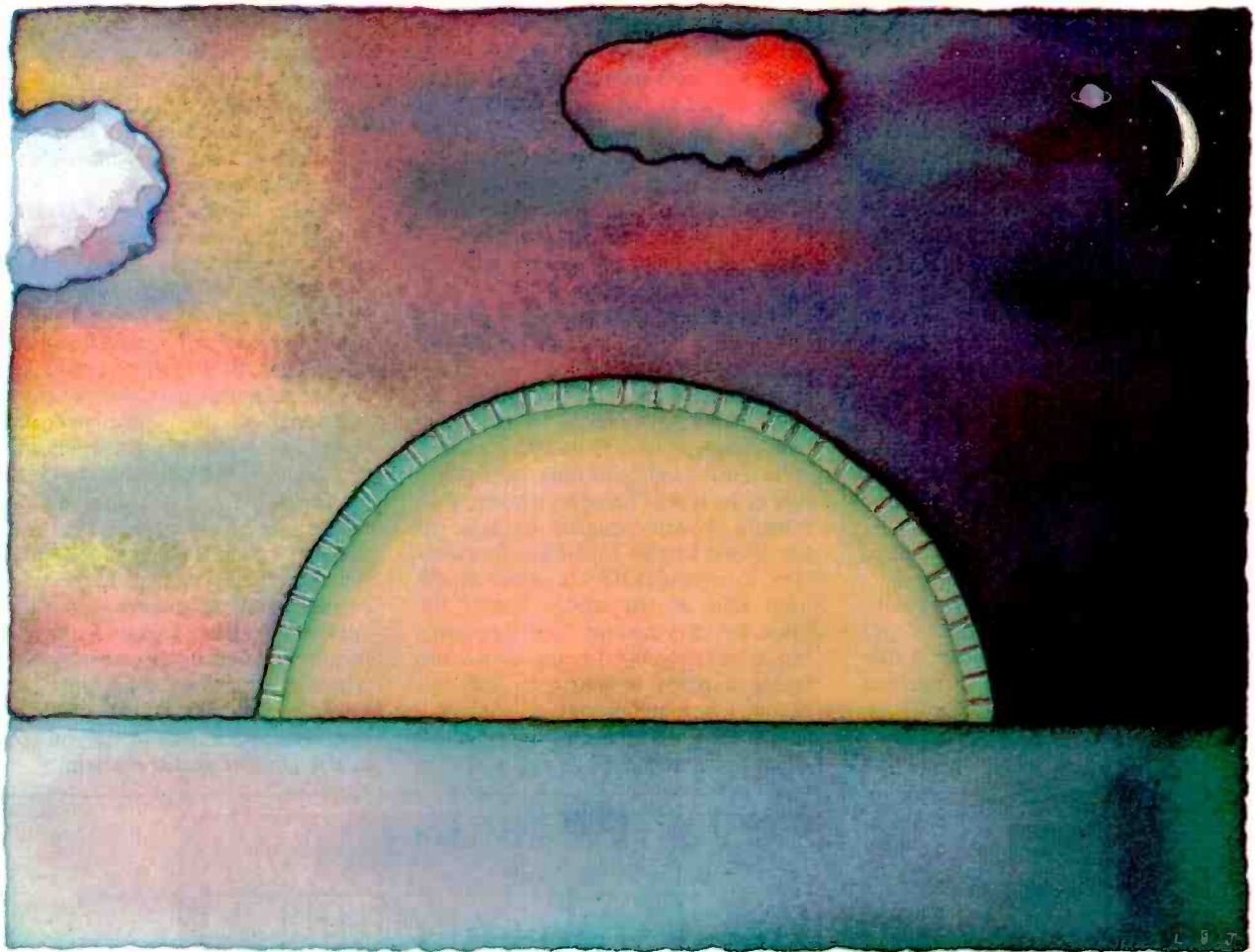
□ **VAUGHAN WILLIAMS: *Fantasia on a Theme by Thomas Tallis*.** The mood of the piece is perfectly captured by Leonard Slatkin and the Saint Louis Symphony strings, abetted by gorgeous

recording (Telarc ● DG-10059, © CD-80059). Also outstanding musically, if less striking sonically, are the final recordings of this work by two great conductors who were closely identified with it: Sir Adrian Boult (Angel S-37211) and Sir John Barbirolli (Angel S-36101).

□ **VIVALDI: *The Four Seasons*.** There are now more than fifty current recordings of this biggest of Baroque hits, and nearly all of them are enjoyable. For authentic instruments, authentic style, and lots of life, my first choice is the performance conducted by Christopher Hogwood in his complete recording of *Il cimento dell' armonia e dell' invenzione*, Op. 8, of which *The Four Seasons* are Nos. 1-4 (L'Oiseau-Lyre ● D279D 2, © K279K 2). The *Seasons* alone, from this set: ● 410 126-1, © 410 126-4. Also outstanding is the remake by Trevor Pinnock and the English Concert (DG Archiv ● 2534 003, © 3311 003, © 400 045-2), whose earlier analog recording is still attractive too (Vanguard VSD-71257). Gidon Kremer's solo playing, matched with Claudio Abbado's sympathetic conducting, makes for unusually exciting listening (DG 2531 287, © 3301 287), and the live recording from Israel's 1982 Huberman Festival, with Isaac Stern, Shlomo Mintz, Pinchas Zukerman, and Itzhak Perlman alternating as soloists in the four concertos and Zubin Mehta conducting, has an abundance of beautiful playing (DG ● 2741 026, © 3382 026).

□ **WAGNER: *Overtures and Orchestral Excerpts*.** Daniel Barenboim's new collection of material from *Tristan and Isolde*, *Die Meistersinger*, and *The Flying Dutchman* comes with a most ingratiating bonus in the form of the virtually unknown early choral piece *La Descende de la Courtille* (DG ● 2532 086, © 3302 086). Szell's mono New York recording of the overtures to *Tannhäuser*, *Meistersinger*, *Rienzi*, and the *Dutchman* is unsurpassed for electrifying impact (in Odyssey ● Y3 35231). Stokowski's account of the Overture and Venusberg Music from *Tannhäuser* (the so-called Paris Version) is well preserved on RCA (AGL1-1336) along with excerpts from *The Ring*. Szell's full disc of *Ring* excerpts is a genuine bargain (CBS MY 36715, © MYT 36715). Tennstedt's CD an impressive showpiece (Angel © CDC-47007). RCA's half-speed remastering of Reiner's disc of excerpts from *Meistersinger* and *Götterdämmerung* is outstandingly successful (ARP1-4738, © ARE1-4738). □

CONTROLLING TONE



What happens when you try to correct the recording engineer's mistakes?

by Larry Klein

TONE controls have been described as the only feature in hi-fi equipment that devout audiophiles will pay extra *not* to have. Considering that there may be more truth than humor in this comment, the pros and cons of tone controls are worth discussing.

One point of view seems to be

that it is somehow sacrilegious to second-guess the tonal balances established by the producer, recording engineer, mastering engineer, or whoever else was involved in the original production. Ridiculous! The enormous number of sonic disasters found in the record bins indicates that

The typical bass or treble control affects too broad a range of frequencies. Compensating for one problem may create others.

there is no reason to trust any of those individuals to produce a product whose tonal balances are anywhere close to what an original performance might sound like. And even when the music on your tape or disc player is a plausible sonic recreation of an original performance, the particular acoustic characteristics of your speakers and listening room might render the results somewhat less than realistic.

Another purist complaint about tone-control stages is that they affect the sound even when switched out or set to their detented, zero-center, twelve-o'clock, guaranteed-flat positions. This may have been a problem at one time, but there are now many circuits and design techniques that totally remove any possibility of effects from switched-out controls. Nevertheless, some super-audiophiles still feel that the only satisfactory preamplifier is one without the slightest vestige of tone control—*which in their definition also includes loudness compensators and infrasonic and ultrasonic filters.*

Aside from these essentially spurious objections, however, there is one excellent reason to abjure conventional tone controls: they don't work very well. Let's look at the problem. Despite those misguided listeners whose notion of hi-fi reproduction is to play everything with full bass and treble boost, the

intended purpose of tone controls is to correct spurious frequency-response variations in a system's acoustic output. These variations can originate in the program material (records, tapes, FM broadcasts), in the tape player, in the phono cartridge, in the speaker systems, and in the room acoustics.

Theoretically, tone controls provide compensatory boosts or attenuations in a system's frequency response to correct for unwanted deviations from flat response. Unfortunately, the theory doesn't work out very well in practice because the typical bass or treble tone control affects too broad a range of frequencies. In compensating for one frequency-response problem, you are likely to create others.

For example, let's say your system has weak bass below 100 Hz. Using the bass tone control to boost the lower bass range, from 50 to 100 Hz, say, is also going to boost the mid-bass range from 100 to 500 Hz. As a result, although you may hear more low bass, it will have an undesirable muddy, boomy quality because of the boost in the mid-bass frequencies. Equivalent effects occur at the high end of the audio band; for instance, any attempt to cure mid-range nasality by turning down the treble control is going to kill the higher frequencies too.

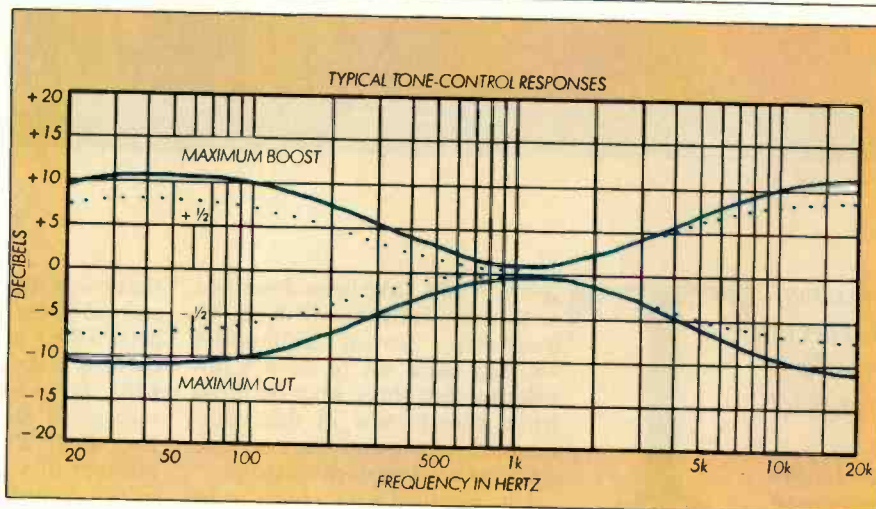
Is there a better solution? Several, all of them designed to apply the fix

to the frequencies where it's needed. The simplest improvement on conventional bass and treble controls is to provide a choice of "turnover" frequencies, the point at which each control starts to operate. Adding a separate switchable *low-bass* boost can do wonders for bass-shy speakers. And a separate midrange control can also be very helpful, not only because of the opportunity for independent control of the mid frequencies, but also because the conventional bass and treble controls can be designed to do their work more toward the low and high ends of the audio spectrum.

For precise tailoring of your system's frequency response to the needs of your program material, the limitations of your components, and your room acoustics, there's nothing as effective as a multiband equalizer. An equalizer enables you to boost or cut a relatively narrow segment of the audio frequency spectrum with minimal effect on response in the neighboring bands.

Working toward a goal of audio realism is always preferable to the kind of passive purism that leaves you a helpless victim of the whims of recording engineers and the response vagaries of your system. And *intelligent* use of any tone control, whether a simple bass and treble knob or an elaborate thirty-two-band equalizer, will bring you closer to the goal of audio realism. □

Solid curves show the maximum boost or cut, dotted curves the halfway boost or cut of typical bass and treble tone controls.



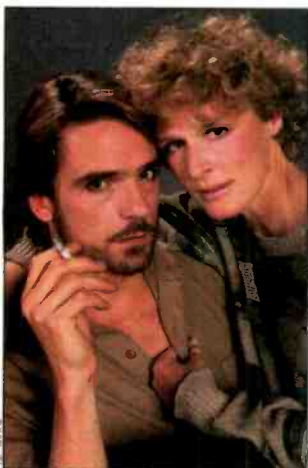


by Christie Barter & Steve Simels

NONESUCH RECORDS has released the first spoken-word record in its history. It is the original-Broadway-cast album of Tom Stoppard's long-running hit play *The Real Thing*, featuring the two stars of the New York production, **Jeremy Irons** and **Glenn Close**.

According to Nonesuch, the event is noteworthy because this is the first time a major label has recorded a complete Broadway or off-Broadway non-musical play in nearly fifteen years. The last one was the A&M recording of *The Boys in the Band*, released in the early 1970's. *The Real Thing* is available in a Nonesuch set of two LP's or on a single, long-playing cassette.

A second company of *The Real Thing* is currently on tour. It is scheduled to play Dallas and San Antonio in March and continue through the Midwest and the East during the spring and summer, reaching Toronto by mid-October. □



Irons and Close: co-stars

LAST year's winner of STEREO REVIEW's Mabel Mercer Award, singer **Frank Sinatra**, is the subject of a new book, *Sinatra, An American Classic*. Written by **John Rockwell** and published by Random House, the book is dedicated to this magazine's London Editor, **Henry Pleasants**, who has written a great deal about Sinatra. The dedication reads, "For Henry Pleasants and phrasing aficionados everywhere." Price: \$29.95. □



INSTEAD of sitting around and simply looking at **Boy George**, why not catch up with the Eighties and set about looking like *Boy George*? A new guide published by W. H. Smith, *The Boy George Fashion & Make-Up Book*, provides simple

step-by-step instructions and plenty of graphics to help admirers re-create the clothes, hats, hair styles, and make-up of **Culture Club's** androgynous lead singer. And there are lots of full-color photographs of the real thing, 100. All for \$3.98. □

CELEBRATING the release of "RCA/Met: 100 Singers, 100 Years," RCA Records recently threw a party for as many as they could gather of the Metropolitan Opera singers represented in the collection. Pictured below (from the left) are **Rose Bampton**, **Jerome Hines**, **Rosalind Elias**, **Licia Albanese**, **Anna Moffo**, **Jarmila Novotna**, **Sherrill Milnes**, and **Patrice Munsel**.

The eight-record centennial set comprises recordings by leading Met artists entered chronologically by the year of their debuts. The first is **Marcella Sembrich**, who made her Met debut at the "old

house" during its initial season in 1883. She sang the title role in Donizetti's *Lucia di Lammermoor* and is heard in this album in Lucia's Mad Scene in a recording that was made in 1906.

Katia Ricciarelli, who made her Met debut at Lincoln Center in 1975, is the last singer represented in the package. In between is a pantheon of names like **Jussi Bjoerling**, **Zinka Milanov**, **Dorothy Kirsten**, and **Leonard Warren**. Some of the recordings have never before been released on LP or tape, and some have never been commercially released in any form. Price: \$69.95. □



THE American soprano **Roberta Alexander**, who has been based in Amsterdam for several years, returns to the United States this month for performances at the Metropolitan Opera. She is singing *Bess* in the Met's new production of Gershwin's *Porgy and Bess* beginning March 15, and she will be heard nationwide in the Met's Saturday-afternoon radio broadcast of that opera on March 23. Almost simultaneously, Philips Records will release an album of highlights from *Porgy and Bess* with Alexander and **Simon Estes**, who is her co-star on the Met stage as well.

Other recent Alexander recordings include the new Philips album of Mahler's Fourth Symphony conducted by **Bernard Haitink**. On the Etcetera label imported by Qualiton Records she sings a program of songs by Charles Ives (reviewed in this issue), and awaiting release, also on Etcetera, are her recitals of songs by Mozart and Richard Strauss. □



Alexander: Met's new star

GRACENOTES: Look for **Miles Davis's** forthcoming Columbia album to include surprising versions of **Cyndi Lauper's** *Time After Time* and **Tina Turner's** *What's Love Got to Do with It?*... Also look for a new compilation, on Compleat Records, featuring **Eric Clapton**, **Jeff Beck**, and **Jimmy Page**. Titled "White Boys' Blues," the package collects some of the more obscure work from the mid-Sixties by these great guitarists. □

by Christie Barter & Steve Simels



Van Gogh: self-portrait

THE home-video repertoire continues to expand into cultural territory, and the Metropolitan Museum of Art in New York has broken new ground by releasing two cassettes devoted to the lives and works of two nineteenth-century French painters, **Edouard Manet** and **Vincent Van Gogh**. Both tapes derive from recent major shows at the museum.

rates most of the film, explains how crucial and productive those months were.

The two video cassettes are available in VHS and Beta formats at the museum's shop and by mail order from its Special Services Office, Middle Village, N.Y. 10381. To order by telephone call (516) 794-6270. The Van Gogh tape lasts just under an hour and costs \$54.95. The Manet tape, twenty-eight minutes long, is \$45. □

FANS of the late reggae superstar **Bob Marley** will be happy to know that *Heartland Reggae*, a documentary film of the 1977 One Love Peace Concert, has been released to the home video market. A sort of Jamaican version of Woodstock, the film contains approximately thirty minutes of performance footage of Marley with the **Wailers** and the **I-Threes**,



Marley: on stage in Jamaica

"Edouard Manet: Painter of Modern Life" documents the show mounted in Paris and New York in 1983 and billed as the most extensive retrospective of Manet's work since his death one hundred years earlier. The narration is by the museum's director, Philippe de Montebello.

The second tape, "In a Brilliant Light: Van Gogh in Arles," focuses on the highly acclaimed show that has just closed at the Metropolitan. It covers fifteen months Van Gogh spent in the southern French city of Arles, from February 1888 to May 1889. The curator of the exhibition, Ronald Pickvance, who nar-

as well as appearances by **Peter Tosh**, **Dennis Brown**, **U-Roy**, and **Althea and Donna**. It costs \$29.95 from Continental Video.

Also, some of the same performers in the Marley film, notably **Tosh** and **Bunny Wailer**, have dubbed state-of-the-art new instrumentals onto previously unreleased Marley vocal tracks for an all-star tribute album that is just out on Jamaica Records. □

THE most influential living pioneer of modern dance is **Martha Graham**, now in her nineties. She was only twice caught on film dancing in one of her own



Graham, with dancer Paul Taylor: on stage in the Sixties

works, and one of these films has just been released by Homevideo Exclusives. It is *Night Journey*, Graham's interpretation of the Oedipus legend, with music by **William Schuman**, filmed in 1960. (A new recording on CRI is reviewed on page 87.) Graham's other performance on film is in *Appalachian Spring*, for which **Aaron Copland** wrote the score. It is scheduled for release in the near future.

Current releases from Homevideo Exclusives also include filmed master classes conducted during the 1960's by cellist **Pablo Casals**, guitarist **Andrés Segovia**, and violinist **Jascha Heifetz**. Also on cassette is a considerably more recent master class conducted at the Juilliard School in New York by tenor **Luciano Pavarotti**. Not sold in stores, these cassettes are available for \$69.50 each from Homevideo Exclusives, 2105 Lakeland Ave., Lakeland, N.Y. 11779. Credit-card holders may call 1-800-228-2028 toll-free. □

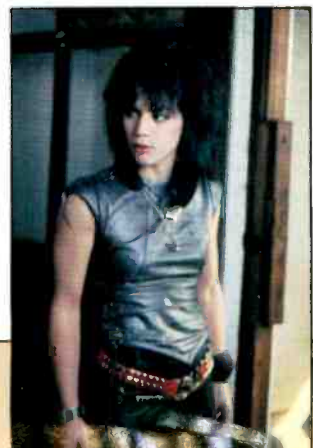
HERE looking rather more pensive than usual is the irrepressible **Joan Jett** (at right). The undisputed queen of Heavy Metal/Punk/Grunge Band/Pop Rock (a genre whose existence nobody had heretofore suspected), Jett has been busy lately. She has just become the *first* rock star (ta-DUM!)

to release two different videos simultaneously—*I Love You Love* and *I Need Someone*.

Jett and the band have just finished backing up legendary Phil Spector chanteuse **Darlene Love** on a remake of the Rolling Stones' *Tell Me*, for which a video will be forthcoming. Currently Jett is preparing for spring release one of those now-fashionable long-form videos in the manner of **David Bowie's** "Jazzin' for Blue Jean."

Jett was among the performers accused of excessive violence in their music videos by the National Coalition on Television Violence, a consumer protection group. The coalition claims that violence in videos is having a detrimental effect on the young. Cited along with Jett are such artists as the **Rolling Stones**, **Billy Idol**, **Kiss**, **Devo**, **Duran Duran**, and **Cyndi Lauper**. At the top of the most-violent list is none other than **Michael Jackson**. □

Jett: too violent?



Stereo Review's critics choose the outstanding current releases

MOZART WITH AUTHORITY

MOZART'S two quartets for piano and strings have fared well in the recording studio; there is not one less than satisfying recording among all those currently available. But the new Philips recording by the Beaux Arts Trio with violist Bruno Giuranna strikes me as the best ever in every respect.

First of all, the Beaux Arts Trio's pianist, Menahem Pressler, is simply one of the finest Mozart players of our time, and he is at his formidable best here, making the most of the concertante writing for his instrument, yet always the superb partner and accompanist in passages in which his colleagues take the spotlight. Second, the level of

integration between piano and strings in these performances is at least a bit beyond what has been shown in any of the earlier recordings of the works. Giuranna, a member of the Trio Italiano d'Archi, shares all the fine qualities of the Beaux Arts players and meshes with them as if he had always been one of the team. Third, virtually all the repeats are taken (for the first time on records, not just one but both in each of the first movements). There is nothing perfunctory about this taking of repeats: it not only enables us to savor the wonderful material longer but serves to give the quartets a sense of proportion that is commensurate with their substance.

Finally, the recording itself is surpassingly realistic—warm of focus, ideally balanced, and on such quiet surfaces that the LP might well be mistaken for a CD. In whatever format you chose, this is an absolutely indispensable issue.

Richard Freed

MOZART: Piano Quartet No. 1, in G Minor (K. 478); Piano Quartet No. 2, in E-flat Major (K. 493). Beaux Arts Trio; Bruno Giuranna (viola). PHILIPS 410 391-1 \$11.98, © 410 391-4 \$11.98, © 410 391-2 no list price.



RON ROYSON/GETTY

THE IMAGES OF RICKIE LEE JONES

RICKIE LEE JONES is both a stylist and a storyteller. Last year's "Girl at Her Volcano," on which she offered her own idiosyncratic readings of jazz and rock-and-roll classics, was a disappointment largely because it emphasized her stylistic side to the exclusion of her narrative powers. Her new Warner Bros. album, "The Magazine," is a return to the kind of mean-street, juke-box world she created on "Pirates," but with an important difference. The focus now is not on the denizens of some observed world but on Rickie Lee Jones herself, as revealed in a series of first-person sketches, laments, and lessons.

"The Magazine" is a strange and difficult album, but a beautiful and moving one. Jones's songs are marked by abrupt changes in tempo, dynamics, and tonality, and equally abrupt changes in mood and even narrative focus. They range from shuffles to nocturnes, and the arrangements alternately thunder and whisper as Jones bends her bluesy piano and dreamy synthesizers, along with a small jazz combo, a horn section, and a string choir, to her changing moods and purposes. *Runaround*, for example, begins like a choking sob as Jones sings, "My baby's always crying,/My baby wants to see me cry, too" to the shuffling accompaniment of the



BART MUDER/PHONOGRAM

The Beaux Arts Trio: Isidore Cohen, Menahem Pressler, Bernard Greenhouse

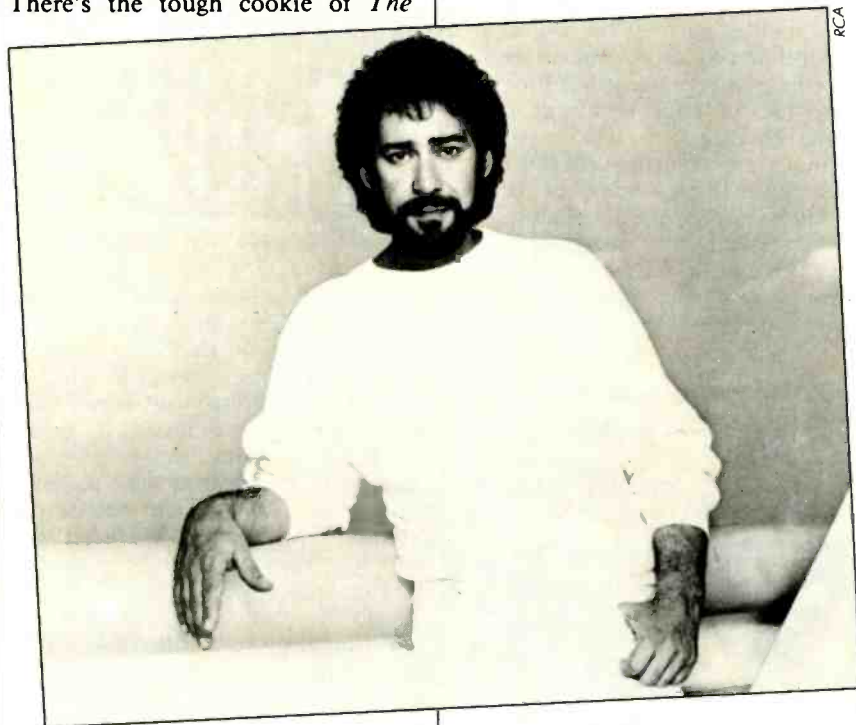
rhythm section. You can see her hunched over the juke box, her eyes red and angry, as she slams a dime in the slot and punches out her song with an I-don't-need-this-heartache fury. Then the tempo suddenly shifts into high gear as she rises to dance the dance of defiance.

All the songs on "The Magazine" attempt to find a balance between image and self-image, between the private self and the self we share in love. On each side of the scales, a different Rickie Lee Jones emerges. There's the tough cookie of *The*

albums, with that first Rickie Lee Jones. It's the great gift of "The Magazine" to give us a glimpse of the second. *Mark Peel*

RICKIE LEE JONES: *The Magazine*.

Rickie Lee Jones (vocals, piano, synthesizers); instrumental accompaniment. *Prelude to Gravity; Gravity; Juke Box Fury; It Must Be Love; Magazine; The Real End; Deep Space; Runaround; Rorschachs; Theme for the Pope; The Unsigned Painting; The Weird Beast.* WARNER BROS. 25117-1 \$8.98, © 25117-4 \$8.98, © 25117-2 no list price.



Real End, who counsels, "Once you find yourself/a better man/Treat him special all of the time/Make him some catfish . . . /But keep him guessing/Don't tell him where you are." The same tough cookie hangs out in the back room of the soda shop feeding the juke box in *Juke Box Fury* and sets fire to a newsstand with her friends in *Gravity*. Then there's the vulnerable, uncertain girl, also in *Gravity*, who tries "to imagine another planet, another sun/Where I don't look like me/and everything I do matters." And the one who waits with a sad, fragile optimism for her love in *Magazine*: "He could be anywhere/I don't know where he is/I know he's coming."

We're familiar, from her previous

CONLEY: STYLE AND VISION

HERE comes Earl Thomas Conley again, looking like Jesus on the cover of his new RCA album, "Treadin' Water." I don't want to take this metaphor too far, but, as far as I'm concerned, Conley is a messiah of sorts for modern country music, infusing those tired old *Billboard* charts with a shot of vitality and a double dose of vision and style.

Conley, who received honorable mention in *STEREO REVIEW*'s 1983 Record of the Year awards, has

been kicking around for a spell now, and along the way he picked up the elements for this, his fourth album, which is about as perfect a modern country record as I ever expect to hear. From his first charge out of the chute, a bluesy rocker called *Too Hot to Handle*, Conley establishes himself as a take-charge performer, an artist brimming with verve and authority. No longer content to write only sensitive singer/songwriter material, Conley is out for the brass ring these days. When he punches home the lyrics about good-time girls who "moan like a one-ton bridge with a two-ton load," he means business.

Most of Conley's songs don't grab you quite as low down as that one, and the majority of them aim for the head and the heart at the same time. Love is still his primary theme, of course, and, in Conley's world, he finds himself losing—or just treading water—more often than winning. This is the situation in which Conley is at his most commanding, where his melodies and lyrics form a fusion of pleading and prayer, as in *Labor of Love*. Even as an interpreter of other writers' work, Conley gravitates toward the same theme, often with the agonizing twist of having to decide between two powerful forces—be they two women, as in his hit of last year, *Holding Her and Loving You*, or simply the desire to go and the duty to stay, as in the dark jewel from this album, *Honor Bound*.

In 1984, Conley became the first artist in musical history to produce four No. 1 hits from a single album. So compelling are the material, the performance, and the production on "Treadin' Water" that it wouldn't surprise me if he pulled five off this LP. Meanwhile, if there were a Record of the Decade award, this one would get my vote. *Alanna Nash*

EARL THOMAS CONLEY: *Treadin' Water*. Earl Thomas Conley (vocals); vocal and instrumental accompaniment. *Too Hot to Handle; Love Don't Care (Whose Heart It Breaks); Labor of Love; Your Love Says All There Is; Love's on the Move Again; Chance of Lovin' You; Honor Bound; Treadin' Water; Feels Like a Saturday Night; Turn This Bus Around (Bad Bob's).* RCA AHL1-5175 \$8.98, © AHK1-5175 \$8.98.

LIEBERSON'S MUSCULAR NEW MUSIC

THE Boston Symphony Orchestra under Seiji Ozawa continues to record the works commissioned for its 1981 centenary, and Peter Lieber-son's Piano Concerto on New World Records may prove to be the most fascinating and durable of the whole fairly distinguished lot.

The thirty-eight-year-old composer, whose first orchestral work this is, brings a formidable background to his music. His father was the late Goddard Lieber-son, a composer himself as well as a remarkably creative record producer; his mother is Vera Zorina; his major teachers were Milton Babbitt, Charles Wuorinen, and Donald Martino. And, by no means incidentally, he is East Coast regional director of a Tibetan Vajrayana Buddhist meditation program. This last is pertinent to the concerto because, according to Steven Ledbetter's invaluable annotation, the work was conceived as a reflection of Lieber-son's "poetic vision" of the Buddhist principles of earth (first movement), man (an adagio wrapped in a scherzo), and heaven (finale).

I must say that the Buddhist character of the concerto didn't strike me, and I'm sure other listeners need not concern themselves about it to enjoy the work. What did strike me was a certain Ivesian flavor—Ives the mystic, if you will, without his folkloric element. The music is in more or less what we now call the "New Romantic" vein, with some alluring waves of mystical sound and scintillating flashes from the various percussion instruments (the piano itself functioning now and then as one of them). It is broad-scaled, yet at the same time lean and muscular. It is more subtle than showy and is conspicuously contemporary in its language, yet it lacks only the Big Tunes to compete directly with the most celebrated Romantic concertos.

Peter Serkin, for whom the work was written, has also been intrigued by Asian thought, and perhaps he and Ozawa did feel and respond to the "Buddhist" content. In any event, I doubt that even the composer could imagine a more effective performance than the one recorded here, and New World's excellent sound enhances the music's impact in the best sense.

Richard Freed

P. LIEBERSON: Piano Concerto. Peter Serkin (piano); Boston Symphony Orchestra, Seiji Ozawa cond. NEW WORLD ● NW 325 \$9.98.



Ozawa, Serkin. Boston Symphony members: celebrating a centennial

NOW ON CD Compact Discs of previously released LP's

POPULAR

- **AZYMUTH: Telecommunication.** MILESTONE FCD-602-9101. "Rewarding Brazilian jazz" (September 1982).
- **DAVID BOWIE: Pinups.** RCA PCD1-0291. "Distinctive" (May 1974).
- **BILL EVANS: Quintessence.** FANTASY FCD-611-9529. "Relaxed, no-gimmicks jazz" (September 1982).
- **EVERLY BROTHERS: EB 84.** MERCURY 822 431-2. "Gorgeous singing" (December 1984).
- **HALL & OATES: Big Bam Boom.** RCA PCD1-5336. "Consummate pros" (February 1985).
- **ELTON JOHN: Goodbye Yellow Brick Road.** MCA MCAD-6894. "Emotionally on target" (March 1974).
- **TALKING HEADS: Stop Making Sense.** SIRE 25121-2. "Great live performance" (January 1985).
- **RHINESTONE (Dolly Parton).** RCA PCD1-5032. Original-soundtrack recording (October 1984).

CLASSICAL

- **BACH: Suites for Cello.** Tortelier. ANGEL CDC-47090/91/92. "Plenty of fire" (April 1984).
- **BEETHOVEN: Missa Solemnis.** Bernstein. DEUTSCHE GRAMMOPHON 413 780-2GH2. "Dignified and committed" (April 1980).
- **BRUCKNER: Symphony No. 8.** Païta. LODIA LO-CD 783/4. "Finest yet of any Bruckner" (May 1984).
- **DVORÁK: Symphony No. 7.** Païta. LODIA LO-CD 782. "Controlled passion" (May 1984).
- **PAGANINI: Violin Concerto No. 1.** SARASATE: *Carmen Fantasy.* Perlman, Foster. ANGEL CDC-47101. "Clean articulation, total security" (November 1972).
- **R. STRAUSS: Thus Spake Zarathustra; Till Eulenspiegel; Don Juan.** Solti. LONDON 414 043-2LH. "Super-virtuoso" (August 1976).
- **VERDI: Falstaff.** Bruson, Giulini. DEUTSCHE GRAMMOPHON 410 503-2GH2. "Gleaming high spirits" (May 1983).
- **WAGNER: Die Walküre.** Böhm. PHILIPS 412 478-2PH4. "Matchless" (October 1973).

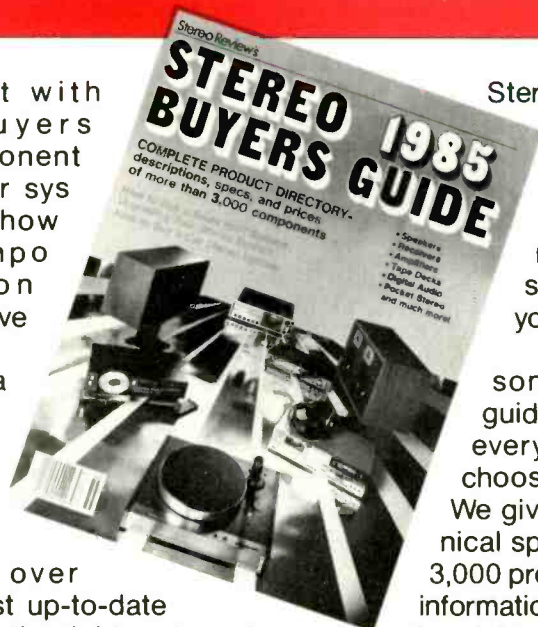
SOUND DECISIONS ARE EASY WITH...

Check first with Stereo Buyers \$3.95 component build a better sys

We know how stereo compo comparison vance can save money.

It's the rea one complete find virtually to help you components —from tech prices—on over

It's the most up-to-date you decide on the right system at we call Stereo Review's 1985 Stereo Buyers Guide the first component in making a sound decision.



Stereo Review's 1985 Guide—the that helps you tem.

confusing buying nents can be, but shopping in ad-you lots of time and

son we publish the guide where you can everything you need choose and buy stereo We give you all the facts nical specifications to list 3,000 products.

information available to help the right price. That's why

You'll find information on:

- Pocket stereos
- Receivers
- Tuners
- Tonearms
- Cassette Decks
- Speaker Systems
- Digital Audio Equipment
- Amplifiers
- Turntables
- Cartridges
- Open-reel Decks
- Headphones
- Mixers
- Car Stereos
- Microphones
- Signal Processors
- Blank Tape
- Accessories

AND THERE'S MORE! How-to articles by experts on buying and upgrading stereo systems *plus* an easy-to-understand glossary of audio terms.

ORDER YOUR COPY TODAY—ONLY \$3.95

STEREO BUYERS GUIDE • CN 1914, MORRISTOWN, NJ 07960

YES! Please send me my copy of Stereo Review's 1985 Stereo Buyers Guide. I've enclosed \$4.95 (\$3.95* plus \$1.00 postage and handling). Price outside USA \$6.00.

Mr./Mrs./Ms. _____ (please print full name)

Address _____

City/State/Zip _____

*Residents of CA, CO, CT, DC, FL, IL, MA, MI, MO, NJ, and NY State please add applicable sales tax.

Discs and tapes reviewed by
 Chris Albertson
 Phyl Garland
 Louis Meredith
 Alanna Nash
 Mark Peel
 Peter Reilly
 Steve Simels

ASHFORD AND SIMPSON: *Solid.* Ashford and Simpson (vocals); vocal and instrumental accompaniment. *Outta the World; The Jungle; Honey I Love You;* and five others. CAPITOL ST-12366 \$8.98, © 4XT-12366 \$8.98.

Performance: *Solid indeed*
 Recording: *Very good*

Nick Ashford and Valerie Simpson have one of the highest batting averages in contemporary pop music. They got on a winning streak with their composition *Let's Go Get Stoned*, a 1966 hit for Ray Charles, and scored with an impressive number of hit songs that enhanced the careers of such Motown stars as Diana Ross and Marvin Gaye. And they just kept on going after they decided to step to center stage as performers in 1973. Their latest effort, "Solid," is aptly named and highly recommended. In fact, it is their best in a long time—and, considering their record, that's high praise. C.A.

PHILIP BAILEY: *Chinese Wall.* Philip Bailey (vocals); vocal and instrumental accompaniment. *Photogenic Memory; I Go Crazy; Easy Lover; Go; Walking on the Chinese Wall;* and five others. COLUMBIA BFC 39542, © BFT 39542, no list price.

Performance: *In a rut*
 Recording: *Good*

For more than a decade, Philip Bailey's high-pitched lead vocals were almost a trademark for Earth, Wind & Fire, but in 1983 Bailey decided on a solo career, which has now brought him to his second album, "Chinese Wall." A little falsetto goes a long way with me, and I soon found my attention straying from the vocals to the back-up: faceless stuff that neither offends nor titillates. "I always want the music to stay fresh and new," Bailey says in an accompanying press blurb. Sorry to say, he did not succeed this time around. C.A.

Explanation of symbols:

- Ⓛ = Digital-master analog LP
- Ⓢ = Stereo cassette
- ⓐ = Digital Compact Disc
- Ⓜ = Monophonic recording



THE JUDDS: FRESH COUNTRY

WITH exactly one mini-LP under their belts, the Judds, a mother-daughter duo from Morrill, Kentucky, won the Country Music Association's Horizon Award last October for the best new country act. While the award surprised a lot of people, the truth was that the Judds deserved it. Along with their producer, Brent Maher, who writes much of their material, and their band leader, Don Potter, they have managed to do what everybody in Nashville must dream about: come up with a fresh, original sound that stands out on commercial country radio like a shiny new Caddy in a string of battered pickups.

The Judds' first album signaled Wynonna and Naomi as something special. Their new release, "Why Not Me," continues the evolution of their difficult-to-define direction. Working with high-caliber, custom-crafted material that reflects their strong and occasionally sassy personalities, the Judds apply what are essentially mountain voices to an amalgam of diverse styles. *Bye Bye Baby Blues*, for example, sounds like the kind of jazzy, old-fashioned lament Maria Muldaur might have revived. The title song, *Why Not Me*, brings to mind Gordon Lightfoot's *Sundown*. *Girls Night Out* pays homage to Fifties rockabilly blues, and *Sleeping Heart* is the kind of song modern folkies would probably kill for. But through sheer ingenuity, all of the material somehow emerges

sounding country and seems rooted both in the classic, old style and in a more modern sensibility.

Vocally, the Judds have the kind of familial harmony that no two non-relatives could ever duplicate, but daughter Wynonna, with her heavy eyelids and her Elvis Presley sneer, is the one with the pipes. A singer of surprising maturity and depth, she knows how to caress a sculptured melody, arouse a sleepy lyric, and belt one out when the need arises. She is so good at it, in fact, that her professional-model mother, who has written one song for each of the duo's albums, seems to be satisfied just to supply the harmony, remaining, for my taste, a little too much in the background.

If I have another small objection to this album, it is that RCA has included *Mama He's Crazy* as the last cut. This was one of the Judds' first hits, appearing on their mini-LP, and I can't help but feel a little cheated out of a fresh tune. That aside, "Why Not Me" rates as one of the strongest country albums of the year. Put this one on your "must-have" list. Alanna Nash

THE JUDDS: *Why Not Me.* Wynonna and Naomi Judd (vocals); instrumental accompaniment. *Why Not Me; Mr. Pain; Drops of Water; Sleeping Heart; My Baby's Gone; Bye Bye Baby Blues; Girls Night Out; Love Is Alive; Endless Sleep; Mama He's Crazy.* RCA AHL1-5319 \$8.98, © AHK1-5319 \$8.98.

ANGELA BOFILL: *Let Me Be the One*. Angela Bofill (vocals); vocal and instrumental accompaniment. *Can't Slow Down; Let Me Be the One; Who Knows You Better; You're Always There*; and four others. ARISTA AL8-8258 \$8.98, © AC8-8258 \$8.98.

Performance: *Variable*
Recording: *Good*

Angela Bofill's new album takes a giant step toward the street beat of hip-hop, but the material wavers oddly between the atrociously overblown and the more carefully crafted and appealing music that has been the singer's hallmark. Both sides blast off with selections best described as electronic nightmares; to call them music for the tone-deaf would be a compliment. Once things settle down a bit, however, we are treated to flashes of the old Bofill, mostly in three of the four songs she co-wrote, where she shows a talent for creating hauntingly lovely melodies with interesting, undulating lines: *Let Me Be the One*, *You're Always There*, and *No Love in Sight*. Some of the other tracks are downright ugly, best suited for driving mice from the house. P.G.

JIMMY BUFFETT: *Riddles in the Sand*. Jimmy Buffett (vocals, guitar); vocal and instrumental accompaniment. *Who's the Blonde Stranger; When the Wild Life Betrays Me; Ragtop Day; She's Going out of My Mind; Knees of My Heart; Come to the Moon*; and four others. MCA MCA-5512 \$7.98, © MCAC-5512 \$7.98.

Performance: *Renewed vigor*
Recording: *Very good*

Jimmy Buffett has always been an erratic performer on record. His most obvious talent, songwriting, tends to splinter into two categories—comedy/camp and pensive—and the results can be either wholly captivating or unworthy of even casual listening. For "Riddles in the Sand" Buffett has returned to

Nashville (where his career stalled on the tracks years ago), and it shows a re-awakened spirit, a recommitment to the Muse that seduced him into songwriting in the first place.

The Gulf-and-Western watermark on so much of Buffett's work is still very much in evidence, but his indulgence in boozy-woozy, overly wry humor has been toned down to just the right degree (*Who's the Blonde Stranger*). Even more impressive is the lyrical quality of Buffett's new writing, which not only adds balance to his frequent smart-ass posturing but occasionally results in a song of splendid beauty (*When the Wild Life Betrays Me*).

All in all, this is the strongest album Buffett has put out in years, signifying not only his maturity as an artist but his determined desire to aim for substance over image. Anyone who ever appreciated the richness of Buffett's early work shouldn't miss it. A.N.

EARL THOMAS CONLEY: *Treadin' Water* (see Best of the Month, page 66)

CULTURE CLUB: *Waking Up with the House on Fire*. Culture Club (vocals and instrumentals); vocal and instrumental accompaniment. *Dangerous Man; The War Song; Unfortunate Thing; Crime Time; Mistake No. 3*; and five others. VIRGIN/EPIC OE 39881, © OET 39881, no list price.

Performance: *Some flaws*
Recording: *Very good*

I can't decide whether the enormous popularity of Boy George is evidence of society's increasing tolerance for divergent life styles and mores, or whether it is just one more signal of our decline into decadence of Roman proportions. Two things I am sure of: Boy George's current hairdo, a frizzy cascade of red, seemingly electrified tresses, is a significant improvement on the former dreadlocks, and his band's current album is a

notch or two below both "Kissing to Be Clever" and "Colour by Numbers."

"Waking Up with the House on Fire," while it sports a somewhat richer, more elaborately arranged and polished quality, lacks the strong songwriting and crisp energy of its predecessors. The melodies lack direction, and the lyrics miss the sense of self-revelation that made Culture Club's first recordings an integral part of the much larger Boy George phenomenon. Perhaps more significant, Boy George's voice is not shown here to best advantage. Whether owing to caprice or necessity, it's multi-tracked on most of the songs, making him sound more like a chorus than a lead vocalist. Still, these are subtle flaws, not major failures. For my money, Boy George and Culture Club remain among the most pleasant, endearing pop-culture sensations riding the airwaves today. M.P.

AL JARREAU: *High Crime*. Al Jarreau (vocals); instrumental accompaniment. *Raging Waters; Imagination; Murphy's Law; Tell Me; High Crime*; and five others. WARNER BROS. 25106-1 \$8.98, © 25106-4 \$8.98.

Performance: *Raucous*
Recording: *Okay*

For some strange reason, Al Jarreau continues to be classified as a jazz singer although his recent recordings bear no greater resemblance to jazz than Michael Jackson does to Joe Williams. Jarreau's latest album, "High Crime," is mostly high-energy dance music heavily influenced by funk-laced rock. The instrumentation is heavy on metallic synthesizer gimmicks and lean on melody, with no improvisation, and a raucous high-decibel wall of sound is hurled at the listener, so that most of the time Jarreau's singing seems merely incidental. On those rare occasions when we can hear more of him, however, he displays his old, thrilling vocal ability. The best tracks are *Tell Me*, which has a lilting,

**Full Size
Sound...**

**Only 3.3
Ounces!**



New ATH-20 Stereophones with more sound-per-ounce than you can imagine. Enjoy the full, rich bass missing from the ultra-lights. With personalized bass damping control to match each ear. Ounce-for-ounce the best sound is at your Audio-Technica dealer now. Or write for latest catalog today.

ATH-20 \$54.95



audio-technica

1221 Commerce Dr., Stow, OH 44224

For Dealer Nearest You Call TOLL-FREE 800-633-2252 Ext. 826

CIRCLE NO. 20 ON READER SERVICE CARD

tasteful beat with space for a little scat, and *After All*, a sweetly sung romantic ballad. P.G.

RICKIE LEE JONES: *The Magazine* (see Best of the Month, page 65)

CHAKA KAHN: *I Feel for You*. Chaka Kahn (vocals); vocal and instrumental accompaniment. *This Is My Night; Stronger Than Before; Caught in the Act; Chinatown; La Flamme*; and five others. WARNER BROS. 25162-1 \$8.98, © 25162-2 \$8.98.

Performance: *Good*
Recording: *Very good*

The fine hand of producer Arif Mardin is in evidence throughout Chaka Kahn's new album, "I Feel for You," which dresses the singer up in suitable arrangements with varied textures. Kahn *could* be better presented, but Mardin at least has her on the right track, especially in the title song, which has wonderful rap input from Grandmaster Melle Mel and what sounds like cleverly laid-in harmonica from a very early Stevie Wonder recording. Also worth noting is *Through the Fire*, which allows Kahn to demonstrate her vocal quality at its best. C.A.

ALBERT KING: *I'm in a Phone Booth, Baby*. Albert King (vocals, guitar); instrumental accompaniments. *Dust My Broom; Firing Line; The Game Goes On; You Gotta Sacrifice; The Sky Is Cryin'*; and four others. FANTASY F-9633 \$8.98, © 5-9633 \$8.98.

Performance: *Definitive*
Recording: *Very good*

You can take all the ersatz blues of John Hammond, Jr., Eric Clapton, Carrie Smith—the list is endless—but none of them will have the impact of just one chorus from Albert King. King kept a low profile for several years, but today he is every bit as strong as he was when he first emerged on the Chicago blues scene some thirty years ago. "I'm in a Phone Booth, Baby" is a wonderful album, but at least one track, *The Sky Is Cryin'*, will have you reaching for the Kleenex—not to mention your turntable's repeat button. C.A.

THE KINKS: *Word of Mouth*. The Kinks (vocals and instrumentals). *Do It Again; Word of Mouth; Good Day; Living on a Thin Line; Sold Me Out*; and six others. ARISTA AL8-8264 \$8.98, © AC8-8264 \$8.98.

Performance: *Spotty*
Recording: *Very nice*

"Word of Mouth" is generally just like all the Kinks' other Arista albums, which is to say that it's extremely uneven. The reason is the same as before: Ray Davies writing about himself is less interesting than Ray Davies writing about the little tragedies of everyday life he used to chronicle so movingly. Still, the album is not without its moments. *Good Day*, for in-

PRECEDENT

Never, in the history of audio, has response to a tuner equalled the acclaim received by the CARVER TX-11 FM Stereo Tuner with the Asymmetrical Charge Coupled FM Stereo Detector.

"Breakthrough in FM tuner performance: Carver TX-11"

"The significance of its design can only be fully appreciated by setting up the unit, tuning to the weakest, most unacceptable stereo signals you can find, then pushing those two magic buttons."

"Separation was still there; only the background noise had been diminished, and with it, much of the sibilance and hiss edginess so characteristic of multipath interference."

"A tuner which long-suffering fringe area residents and those plagued by multi-path distortion and interference have probably been praying for." *Leonard Feldman Audio* (December, 1982)

"It is by a wide margin the best tuner we have tested to date."

"What distinguishes the TX-11 is its ability to pull clean noise-free sound out of weak or multi-path ridden signals that would have you lunging for the mono switch on any other tuner we know of." *High Fidelity* (January, 1983)

"...enjoy the music and forget about noise and distortion."

"under conditions of weak signal stereo reception the effectiveness is almost magical!" *Ovation* (December 1982)

"A major advance..." "Its noise reduction for stereo reception ranged from appreciable to tremendous." "It makes the majority of stereo signals sound virtually as quiet as mono signals, yet it does not dilute the stereo effect." *Julian D. Hirsch, Stereo Review* (December, 1982)

Audition this superlative instrument incorporating Bob Carver's latest circuit refinements at your authorized CARVER dealer.

And Now...

If you have substantially invested in another stereo FM tuner—or perhaps in a receiver—you will appreciate the CARVER TX-11.

The TX-11 embodies Asymmetrical Charge-Coupled technology in a sophisticated add-on high fidelity component.

For a 20 dB improvement of the stereo quieting (that's 10 times quieter!) and a 10dB improvement in multipath noise reduction, simply connect the CARVER TX-11 between your FM stereo tuner and the pre-amplifier or through the tape monitor/external processor loop of present system. Hear fully separated stereo FM reception with space, depth and ambience—only hiss, noise and distortion is eliminated.



CARVER

POWERFUL

CORPORATION PO. Box 1237 Lynnwood, WA 98036

MUSICAL

ACCURATE

Distributed in Canada by Evolution Audio, Ltd.

For Dealer Nearest You Call TOLL-FREE 800-633-2252 Ext 829

CIRCLE NO. 49 ON READER SERVICE CARD

stance, an ironic paean to optimism seemingly inspired by the death of British film star Diana Dors, is as chillingly desperate a song as we've heard lately, and *Summer's Gone*, a remembrance of things past that is also an authoritative rocker, struck me as ineffably poignant. The rest, with the two exceptions of *Too Hot* (a cautionary tale about the perils of exercise) and *Going Solo* (a rocked-up rewrite of the Beatles' *She's Leaving Home*), is mostly over-amped stadium stuff. It's partially redeemed by Davies's always inimitable singing but not by much else. **S.S.**

JOHNNY MATHIS: *Live*. Johnny Mathis (vocals); orchestra, Jim Ganduglia cond. *Misty; Begin the Beguine; Chances Are; Orange Colored Sky; 99 Miles from L.A.*; and seven others. COLUMBIA FC 38699, © FCT 38699, no list price.

Performance: *The usual*
Recording: *Good*

Recorded live, more or less, at London's Apollo Victoria in May 1983, this new Johnny Mathis album is actually a lot of old Johnny Mathis (repertoire) sung before a hugely appreciative audience. They obviously loved it. You, if you are a fan, might like it. I, who have heard it all before, was only mildly interested. **P.R.**

STEVE MILLER BAND: *Italian X Rays*. Steve Miller Band (vocals and instrumentals). *Radio 1; Italian X Rays; Daybreak; Shangri-La; Who Do You Love; Harmony of the Spheres 1; Radio 2*; and six others. CAPITOL SJ-12339 \$8.98, © 4XJ-12339 \$8.98.

Performance: *Laid back*
Recording: *Good*

There are two basic kinds of music on "Italian X Rays," Steve Miller's first album in two years. The first and predominant kind is the typical Steve Miller song—usually a lazy shuffle or a bloodless rhythm-and-blues that's pieced together from scraps of melody or instrumental signatures swiped from other people's hit records (Malcolm McLaren, Parliament, the Fixx) and sung in Miller's distinctive, boy-asleep-under-a-shade-tree mode, a style so laid back you fear Miller may stop breathing altogether.

Much better is the second kind of music here, of which there are five pieces, short, atmospheric preludes or interludes, with titles like *Radio 1* and *Harmony of the Spheres 2*, composed and performed on synthesizer by Byron Allred. These are spacey, ebullient delights, but since they add up to only six and a half out of forty minutes of music, they hardly justify the acquisition of "Italian X Rays." **M.P.**

ANNE MURRAY: *Heart over Mind*. Anne Murray (vocals); vocal and instrumental accompaniment. *Once You've Had It; Our Love; I Should Know by Now; Nobody Loves Me Like You Do;*

Let Your Heart Do the Talking; and five others. CAPITOL SJ-12363 \$8.98, © 4XS-12363 \$8.98.

Performance: *Good*
Recording: *Good*

Here's another Anne Murray album, which is rather like saying here's another one of Mom's apple pies. Cheerful, wholesome, and down-home basic is the Murray style, and she dishes up such things as *I Should Know by Now* or *Our Love* with sincerity and warmth. Her duet with Dave Loggins on *Nobody Loves Me Like You Do* is a complete success. Murray has chosen the broad mainstream of pop-vocal music as her performing arena, and within it she is one of its best practitioners. **P.R.**



Anne Murray

JEFFREY OSBORNE: *Don't Stop*. Jeffrey Osborne (vocals); instrumental accompaniment. *Don't Stop; Let Me Know; The Borderlines; The Power; Is It Right*; and four others. A&M SP-5017 \$8.98, © CS-5017 \$8.98.

Performance: *Upbeat*
Recording: *Good*

While Jeffrey Osborne's new album is packed with high-quality dance music, producer George Duke made a big mistake in assembling it. He has used almost exclusively upbeat tunes with boisterous arrangements, though it was a ballad, *On the Wings of Love*, that lofted Osborne out of the cultural ghetto of sound-alike commercial black popular music and into mainstream recognition. Osborne can sing as well as anyone in the business, as that hit demonstrated, but there's no song here with similar crossover possibilities. Infectious numbers like *Don't Stop* and *You Can't Be Serious* will find favor with the funk and r-&-b crowd, but the album fails to exploit Osborne's full range, which is a pity. **P.G.**

REO SPEEDWAGON: *Wheels Are Turnin'*. REO Speedwagon (vocals and

instrumentals). *I Do' Wanna Know; One Lonely Night; Thru the Window; Live Every Moment; Gotta Feel More*; and four others. EPIC QE 39593, © QET 39593, no list price.

Performance: *Bland*
Recording: *Okay*

REO Speedwagon is to rock what Southern Comfort is to drink—a little too sweet, a little too slick, a little too safe. "Wheels Are Turnin'" kicks in with Kevin Cronin's energetic but canned guitar work propelling the driving Southern boogie of *I Do' Wanna Know*, but the album almost immediately degenerates into the bland predictability of L.A./Nashville country-rock product, a genre best confined to theme music for TV sitcoms set in California condos. **M.P.**

TOM ROBINSON: *Hope and Glory*. Tom Robinson (vocals); other musicians. *Murder at the End of the Day; Prison; Rikki Don't Lose That Number; Old Friend; Looking for a Bonfire*; and five others. GEFLEN GHS 24053-1 \$8.98, © 24053-4 \$8.98.

Performance: *Lackluster*
Recording: *Good*

The original Tom Robinson Band was one of the glories of the English punk explosion of the Seventies. It was noted for solid musicianship, good tunes, and, in Robinson, a lead singer/songwriter of enormous charm and deeply held political beliefs that he was able to articulate without hectoring. Robinson solo, however, is another story. Most of the songs here have fairly unambiguous gay themes, but otherwise they're the kind of vaguely personal, wishy-washy things that straight writers have been turning out for years—rather unremarkable examples of Los Angeles pool-side rock. To add insult to injury, Robinson is revealed here as a less than convincing vocalist (what seemed like gruff honesty in 1976 now seems merely crabbed), and the one remake, of Steely Dan's unspeakably lovely *Rikki Don't Lose That Number*, comes off as downright ugly. Thoroughly disappointing. **S.S.**

ROMEO VOID: *Instincts*. Romeo Void (vocals and instrumentals). *Out on My Own; Just Too Easy; Billy's Birthday; Going to Neon*; and four others. COLUMBIA BFC 39155, © BCT 39155, no list price.

Performance: *Brooding*
Recording: *Good*

One of the last of the true New Wave bands, Romeo Void makes music that could serve as the soundtrack for a stroll down New York's St. Mark's Place, where dreadlocks and knee-length tweed overcoats vie for space with black leather, metal studs, and neon-blue Mohawk haircuts. "Instincts," a Stephen King novel on vinyl, comes as close to finding a musical voice for this macabre generation as any record in recent memory. It's a brood-

ing, dark, yet continually fascinating and insightful album.

Led by singer Debora Iyall, a rather commanding figure cut in the classic, CBGB's girl-singer mold—that is, alternately bored, disgusted, and outraged, but always, it seems, holding the upper hand—Romeo Void plays a somber brand of Halloween rock. Aaron Smith's lurching, lock-step tom-tom beat approaches menacingly, shadowed by Frank Zincavage's sinister bass. Guitarist Peter Woods and saxophonist Ben Bossi exchange leads, both employing a fun house full of echoes and other surreal embellishments.

Most of the songs on "Instincts" are from Iyall's—or at least a woman's—point of view, and there's a brutal frankness to them that seems to define the emotional vocabulary of post-Punk. Typical are *Just Too Easy*, in which Iyall gives the kiss-off to a decidedly wimpy Mr. Wrong; *Billy's Birthday*, a case study of agoraphobia; the sardonic sagacity of *A Girl in Trouble (Is a Temporary Thing)*; and the candid appraisal of *Your Life Is a Lie*. While she is not a technically polished singer, Iyall has a formidable presence that helps Romeo Void achieve the strong impression it makes on this album. *M.P.*

J. D. SOUTHER: *Home by Dawn*. J. D. Souther (vocals, guitar, drums); vocal and instrumental accompaniment. *Home by Dawn; Go Ahead and Rain; Say You Will; All for You; All I Want;* and four others. WARNER BROS. 25081-1 \$8.98, © 25081-4 \$8.98.

Performance: *Percolating*
Recording: *Good*

The photos on the jacket and sleeve of "Home by Dawn" show the haggard face of a man haunted not only by personal demons but by nightmares that demand ransom during the day. How surprising, then, to find that so much of the music inside is upbeat and positive—on the surface. But then Souther has always been a quirky story.

After a debut album of exceptional promise thirteen years ago, Souther became almost legendary for writing *Faithless Love* and for being an integral part of the genesis of California rock. Meanwhile, for years his own albums failed to live up to expectations. And then his remarkable "You're Only Lonely" came along in 1979.

Here now is another effort, and there's a lot to say for it, mostly good. There isn't anything as easily accessible as *Faithless Love*, but there are a number of sweet, melodic love songs, especially the winsome *I'll Take Care of You, All I Want, and Go Ahead and Rain*, the last of which sounds a lot like the old Everly Brothers. But you can find all kinds of other rock allusions here: the ghost of Buddy Holly rides shotgun on *Say You Will*, where Linda Ronstadt shows up in person for a strong *déjà vu* duet. This still isn't the album Souther has inside him, but he's getting there, surely. *A.N.*

SPARKS: *Pulling Rabbits Out of a Hat*. Sparks (vocals and instrumentals). *Pulling Rabbits Out of a Hat; Love Scenes; Pretending to Be Drunk; Progress; With All My Might;* and five others. ATLANTIC 80160-1 \$8.98, © 80160-4 \$8.98.

Performance: *Fluff*
Recording: *Very good*

Business as usual here. The Mael Brothers (the only Sparks that matter) continue to make music that is clever, attractive in a light-poppy way, and oh-so-affected and arch. Of course, the tick-tock rhythms and synthesizer textures

sound a lot less interesting than they did in the early Seventies when the Maels invented them (to give these guys their due, they've been an enormous unacknowledged influence on a lot of the New Wave), and at times the cutesy-poo stuff gets a tad out of hand. The title tune is an example, but *Pretending to Be Drunk* and a few of the others have a space-age cabaret feel to them that is not unpleasant if you're in the mood. *S.S.*

STEVEN STILLS: *Right by You*. Stephen Stills (vocals, guitars, bass, per-

MISSION ELECTRONICS

The DAD 7000 is an advanced third generation compact disc player and the first of its kind from a quality specialist manufacturer. In the light of great controversy concerning both the absolute standard of reproduction from CD players as well as tremendous variations between the machines from different manufacturers, Mission Electronics hung fire until the fundamentals of the technology had settled and until their own extensive research programme had resulted in what promises to be the world's most advanced CD player.

The DAD 7000 is a 4 times over sampling machine with 16 bit resolution. The machine offers full facilities including motorized front loading tray with anti-jamming protection, studio class access time of average 2.5 seconds, full programmability of up to 99 tracks and in any sequence with repeat capability, queuing to within one second accuracy, automatic disc read after loading the CD, high speed forward or backward music search plus fine step-adjustments. The DAD 7000 also offers user-friendly ergonomics.

Other technical features of the DAD 7000 include two separate digital to analogue converters for true stereo reproduction, the unique Philips digital transversal pre-DAC filter as well as Mission's own patented post-DAC filtering. This sophisticated two stage filtering system combined with high sampling frequency results in a perfect audio band frequency response without phase shifts and other aberrations and with mathematically near-perfect impulse response and the associated transient performance. Here it must be noted that most machines on the market suffer from severe inter channel phase shifts or absolute phase shift, and in most cases both. The laser read system is a single focus design eliminating the dangers of manufacturing alignments or subsequent field disturbances. Unlike most inexpensive designs, the DAD 7000 is manufactured in a most sophisticated set of pressure die-cast chassis and structures to ensure total stability and integrity of the fragile transport system and a subsequent reduction in reproduced errors. The machine is precision manufactured to the highest standards using high grade components to offer the best sound quality and long term user satisfaction.

Above all, Mission has a worldwide reputation for state-of-the-art in high fidelity and our design team are confident that the DAD 7000 meets Mission's stringent requirements for the ultimate in sonic performance.



Call Mission North America: Tel: (416) 673 3777

For Dealer Nearest You Call TOLL-FREE 800-633-2252 Ext 831

CIRCLE NO. 50 ON READER SERVICE CARD

cussion, keyboards); vocal and instrumental accompaniment. *50/50; Stranger; Flaming Heart; Can't Let Go; Grey to Green; Only Love Can Break Your Heart; No Hiding Place*; and three others. ATLANTIC 80177-1 \$8.98, © 80177-4 \$8.98.

Performance: *Well . . .*
Recording: *Good*

As with a lot of Stephen Stills's albums, this one takes a little while to get used to since there's a bit more—and a bit less—to it than first meets the ear. In some ways, "Right by You" is reminiscent of what Stills did on "Manassas" in 1972. The emphasis is on an ensemble sound, though Stills occasionally shares vocal duties.

Also like "Manassas," this album carries an occasional Latin feel, and it runs the gamut from country to bluegrass to country-rock and blues to his ever-present protest songs. But Stills also tries a couple of uptown MOR ballads, and they sound strange coming from him—though not as pathetic as his version of Neil Young's *Only Love Can Break Your Heart*. In my heart of hearts, I know that Stills should have hung it up long ago, but his hopeful romanticism still has its appeal, and occasionally its moments. *A.N.*

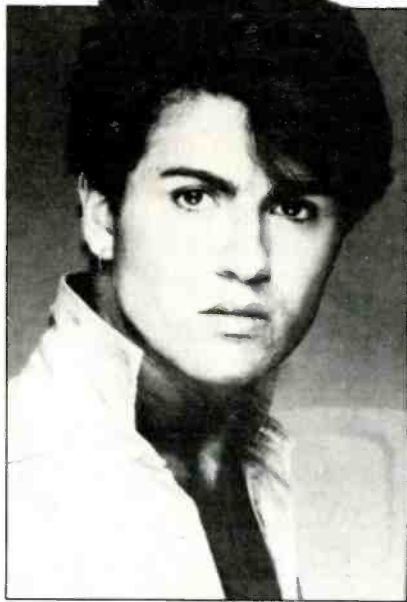
RICHARD THOMPSON: *Small Town Romance*. Richard Thompson (vocals, guitar). *Time to Ring Some Changes; Beat the Retreat; Woman or a Man?; A Heart Needs a Home; For Shame of Doing Wrong; Genesis Hall; Honky-Tonk Blues; Small Town Romance; I Want to See the Bright Lights Tonight*; and five others. HANNIBAL HNBL 1316 \$8.98.

Performance: *Couldn't be better*
Recording: *Like being there*

RICHARD THOMPSON: *Strict Tempo*. Richard Thompson (acoustic/electric guitars); Dave Mattacks (drums, piano). *New Fangled Flogging Reel/Kerry Reel; Vaillance Polka Militaire/Belfast Polka; Scott Skinner Medley; Banish Misfortune; Dundee Hornpipe/Poppy-Leaf Hornpipe; Ruffy Tufty/Nonsuch à la mode de France*; and six others. CARTHAGE CGLP 4409 \$8.98 (from Hannibal Records, 611 Broadway, Suite 415, New York, N.Y. 10012).

Performance: *Delightful*
Recording: *Good*

The first of these albums catches the world's greatest living folk-rocker on his first American solo tour (that is, without a back-up band). Speaking as somebody who attended the shows at which the performances were recorded, I am grateful that they've been documented for posterity. Thompson runs down a bunch of new tunes—including *Woman or a Man*, which now vies with the Kinks' *Lola* for the title of Best Song Ever About a Transvestite—as well as a generous selection of his older classics, and he is moving, funny, and instrumentally brilliant throughout. High



BRIAN ARIS/COLUMBIA RECORDS

George Michael of Wham!

points: a great Hank Williams cover (*Honky-Tonk Blues*) and a version of *A Heart Needs a Home* that could induce tears in a pet rock.

"Strict Tempo" is completely different but equally noteworthy—an eclectic collection of instrumentals ranging from traditional English tunes to Duke Ellington. They provide Thompson (through the miracle of overdubbing) a chance to shine on a multitude of electric and acoustic guitars. It's the kind of stuff that Sixties folkies like Sandy Bull used to try, but Thompson is infinitely more accomplished (and a lot less pretentious). Basically, the album is lightweight, high-class fun, an opportunity to hear a great musician (who really ought to be declared a national treasure) in what might be termed a laboratory environment. Miss either of these at your peril. *S.S.*

UB-40: Geffery Morgan. UB-40 (vocals and instrumentals). *The Pillow; Seasons; You're Not an Army; Your Eyes Were Open; If It Happens Again; Riddle Me; I'm Not Fooled So Easily*; and two others. VIRGIN/A&M SP-5033 \$8.98, © CS-5033 \$8.98.

Performance: *Ferocious*
Recording: *Good*

Those who know UB-40 only from its 1983 release, "Labor of Love," will discover quite another band on "Geffery Morgan." Combining ferocious ska and dub arrangements with equally potent lyrics, the band's third American release is a statement of anger and frustration, a stark contrast to the affectionate collection of reggae standards on "Labor."

"Geffery Morgan" lashes out at the inequities of the British class system (*Riddle Me*), the powerlessness of the individual to resist a repressive government (*You're Not an Army*), humanity's suicidal nuclear dilemma (*Your Eyes Were Open*), and the wrongheadedness of the Thatcher government (*As Always*

You Were Wrong Again). Even the songs of a less public, more personal nature are brimming with rage, such as *The Pillow*, a sympathetic but bitter profile of a prostitute; *If It Happens Again*, a rather stern ultimatum; and *Seasons*, a lament for a love that's entered its own winter. The layers of guitar, horns, and percussion are added and removed abruptly, and the lyrics are sung by Ali Campbell, and sometimes by trumpeter Astro, with razor-sharp assertiveness.

Musically, "Geffery Morgan" isn't a significant departure from or development of the band's earlier albums such as "Present Arms" and "UB-40" (both available here only as imports). But it is surely the angriest expression of this politically and socially concerned band yet released in this country. *M.P.*

WHAM!: Make It Big. Wham! (vocals and instrumentals). *Wake Me Up Before You Go-Go; Everything She Wants; Heartbeat; Like a Baby; Freedom; If You Were There*; and two others. COLUMBIA FC 39595, © FCT 39595, no list price.

Performance: *Cutesy*
Recording: *Nice*

If you've heard any of these guys' hits, particularly *Wake Me Up Before You Go-Go*, you already know that their goal in life is to make records that could pass muster as unreleased Motown singles from 1965. That is not an ignoble purpose, and, in fact, this is a pleasant enough little album, taken a cut a time. Cumulatively, however, it leaves a bad taste because the Wham! boys sing sort of the way they look—just too cute for words. Perhaps as a result, the music here has a certain insincerity to it that undercuts the charm they seem to be striving for. Not a bad album, mind you, but I'd stick with the singles. *S.S.*

XTC: The Big Express. XTC (vocals and instrumentals). *Wake Up; All You Pretty Girls; Shake You Donkey Up; Seagulls Screaming Kiss Her, Kiss Her*; and five others. GEFEN GHS 24054-1 \$8.98, © 24054-4 \$8.98.

Performance: *Accomplished*
Recording: *Very good*

XTC has made some great records, and the band includes some of the most imaginative and untrendy people currently making music in England, but their considerable cleverness sometimes gets in their way. Too often they're so concerned with getting the right odd sounds, with fragmenting meter and line, and with being "surprising" that the songs—the reason we're listening, after all—get lost. On "The Big Express," I'm afraid, that's mostly what happens. There are some nice things—the musical onomatopoeia of *Train Running Low on Soul Coal*, the passionately delivered anti-violence sentiments of *Reign of Blows*—but most of the material is, as the English say, too clever by half. *S.S.*

JAZZ



ART BLAKEY: *New York Scene*. Art Blakey and the Jazz Messengers (instrumentals). *Oh, By the Way; Tenderly; Controversy*; and two others. CONCORD JAZZ CJ-256 \$8.98, © CJ-256-C \$8.98.

Performance: *The beat goes on*
Recording: *Very good remote*

Over the years, the Art Blakey workshop known as the Jazz Messengers has nurtured extraordinary talent and spawned a veritable Who's Who of great jazz instrumentalists. That the class of '84 was no exception is demonstrated in "New York Scene," a live set recorded last May when the group included trumpeter Terence Blanchard (whose *Tenderly* will linger in your memory), pianist Mulgrew Miller, bassist Lonnie Plaxico, and saxophonists Donald Harrison and Jean Toussaint. Characteristically, Blakey has made sure that all are heard to advantage, but this is not merely a showcase of individual talent. The ensemble playing is equally impressive. Most impressive, however, is Art Blakey himself, not only for his drum work, which continues to be phenomenal, but also for his uncanny ability to pick fresh talent and allow it to ripen. C.A.

ROSEMARY CLOONEY: *The Music of Irving Berlin*. Rosemary Clooney (vocals); Warren Vaché (cornet, flugelhorn); Scott Hamilton (tenor saxophone); other musicians. *Cheek to Cheek; How About Me; What'll I Do; I Got Lost in His Arms; Be Careful, It's My Heart*; and five others. CONCORD JAZZ CJ-255 \$8.98, © CJ-255-C \$8.98.

Performance: *Terrific*
Recording: *Very good*

I have just played "Rosemary Clooney Sings the Music of Irving Berlin" for the third time, but certainly not the last time. It has the briefest of liner notes, a quote from Fred Astaire, but he says it all in six words: "Rosemary is as terrific as ever!" Let me add that Clooney's accompanists, including Scott Hamilton, Warren Vaché, and guitarists Chris Flory and Ed Bickert, are no less terrific. This is her ninth album for the Concord label, and it's a graceful, articulate set that brings out the best in the ten Berlin tunes she caresses. C.A.

ARETHA FRANKLIN: *Aretha's Jazz*. Aretha Franklin (vocals, piano); instrumental accompaniment. *Ramblin'; Today I Sing the Blues; Crazy He Calls Me; Somewhere; Pitiful; Bring It On*

Home to Me; and two others. ATLANTIC 81230-1 \$8.98, © 81230-4 \$8.98.

Performance: *Masterly*
Recording: *Good*

Aretha Franklin has been so strongly identified with "soul music" or contemporary rhythm-and-blues that it is easy to overlook her roots in gospel and jazz. Back in the early Sixties, she sang a bluesy kind of jazz and was being touted as a successor to Dinah Washington. It's quite appropriate, therefore, for Atlantic to put out a new album of previously released selections that point up

Aretha's affinity for jazz. With their full-bodied, big-band sound and complex arrangements, these cuts from 1969 and 1973 today seem fresh all over again.

The standout in the album is the classic *Somewhere* from *West Side Story*. Aretha is here at her most pensive and sensitive, and she's complemented by the brilliant alto saxophone solos of Phil Woods in a fine Quincy Jones arrangement. For many years I've considered this recording of *Somewhere* to be one of Aretha's finest, and I'm glad it's back in the catalog. P.G.

Get the most from the music you love, with Stereo Review's **GUIDE TO UNDERSTANDING MUSIC!**

Our four-record set will help you understand the basics—and finer points—of music. Noted composer and lecturer David Randolph explains music theory and techniques intelligently and thoughtfully. Each point he makes is illustrated with an excerpt from a famous piece of music performed by such artists as Isaac Stern and Richard Tucker. It's a delightful way to learn about what makes music great!



Get STEREO REVIEW'S GUIDE TO UNDERSTANDING MUSIC and

you'll get more out of your favorite music. Use the coupon below to order yours today!

GUM Dept. 30009, CN 1914, Morristown, NJ 07960

YES! Please send me *Guide to Understanding Music*—four-record set for just \$21.98 (\$26.98 outside U.S.A.) # 30009

Payment enclosed. (Residents of CA, CO, CT, DC, FL, IL, MA, MI, MO, NJ and NY STATE please add applicable sales tax.)

Charge my:
 American Express MasterCard Visa

Card No. _____ Exp. Date _____

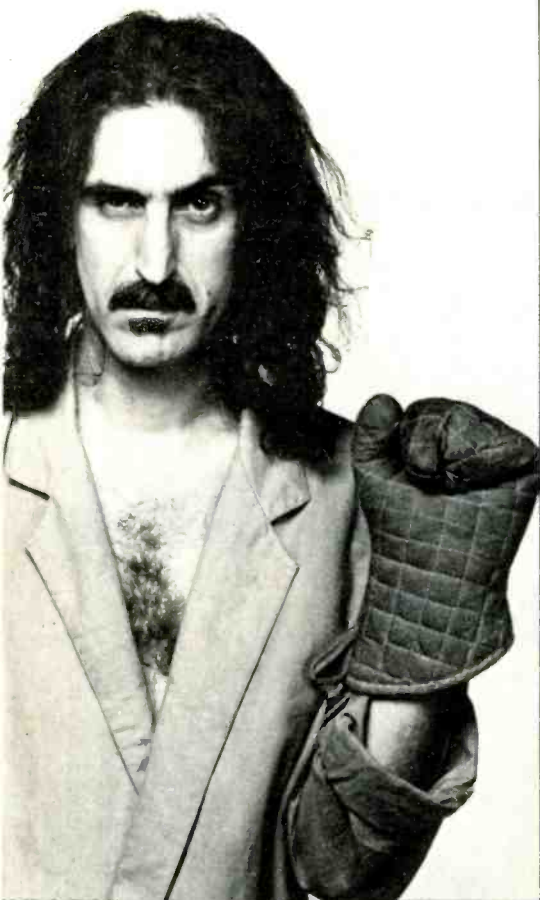
Signature _____

Mr./Mrs./Ms. _____

Address _____ Apt. _____

City/State/Zip _____

For faster service
**CALL
TOLL
FREE:**
800-526-0790
(In NJ only 201-540-0445)



FRANK ZAPPA ESTABLISHED

FRANK ZAPPA has always sought recognition as a serious composer, although he has gone about it in a rather elliptical, calculatedly unserious way. He's had pieces performed by the Los Angeles Philharmonic and the London Philharmonic, and last year he released "Zappa, Volume 1," an album of orchestral works performed by the London Symphony that showed him to be a master of orchestral effects and color but a mannered, somewhat narrow composer. With "The Perfect Stranger," his new album for Angel Records conducted by Pierre Boulez, Zappa has finally earned the establishment credentials he so studiously makes light of. The imprimatur of Boulez, one of our leading contemporary composers and conductors, is a very large feather in Zappa's cap. That Boulez actually commissioned "The

Perfect Stranger" from Zappa is even more impressive.

Like all of Zappa's orchestral writing, the seven short chamber pieces here are marvels of instrumental detail that generally come up short on thematic interest. *The Perfect Stranger* is a flat landscape of wobbly strings dotted with thundering snare drums and busy, furtive woodwinds. According to the composer's notes, it depicts a licentious encounter between a vacuum-cleaner salesman and a slovenly housewife. Nothing in the piece is as interesting or amusing as the description. *Naval Aviation Art* is even more minimalist, if that's possible. A long, unvarying tone is dragged across the strings while clipped phrases in the winds and horns are superimposed upon it. In short, nothing happens.

But things get more interesting after Boulez's new-music chamber orchestra, the Ensemble InterContemporain, is dismissed and the Barking Pumpkin Digital Gratification Consort—Zappa's own studio computer-synthesizer—takes over. *The Girl in the Magnesium Dress*, a percussion piece, is so vivace that it must have been played at normal speed on the xylophone, speeded up on tape, then shifted back down an octave or two to its normal pitch. *Outside Now, Again* is even more interesting—a modern-day March of the Dwarfs for two-voiced synthesizer with xylophone and contrabass continuo. A one-minute interlude called *Love Story* ostensibly portrays "an elderly Republican couple attempting sex while break dancing." It sounds as though every string in the orchestra were snapping, one by one.

Dupree's Paradise is the closest Zappa ever gets to being conventional. Its lilt-ing rhythm and the block chords played on the piano suggest an Aaron Copland ballet, although the delightfully absurd shifts in tempo and orchestration could only be Zappa. The album concludes in terrifying fashion with *Jonestown*, a zombie-like, slow-motion theme that winds itself tighter and tighter like a watchspring until it reaches an almost unbearable tension.

It may say less about Frank Zappa's stature as a composer than about the state of modern music, but "The Perfect Stranger" is as inventive and intelligent a collection of contemporary chamber works as those of any currently active "serious" composer. That it comes from the notorious dirty old man of rock makes the album that much more satisfying.

Twice as long as "The Perfect Stranger" and not half as interesting, Zappa's latest rock album, the two-disc "Them or Us," is a vintage Zappa burlesque, a rude variety show during which the dirty old man casts his leering judgments

over a rather predictable assortment of cultural icons and institutions—rock videos, Michael Jackson, current sexual practices, Carl Sagan (a few years too late), and even the French.

Some of Zappa's music here, such as the instrumental *Sinister Footwear*, is lively and intricately inventive. Some of it is funny—*Planet of My Dreams*, for example, is a wonderfully drippy parody of the sort of soft, spotlight solo number that leaves audiences grabbing their handkerchiefs on Broadway. But an awful lot of it is Zappa's familiar soft porn, with no redeeming musical value. It must be a constant source of annoyance to Zappa to see Prince praised for candid sexuality when he has been getting critical brickbats for years for doing the same thing Prince does, though Zappa's approach is more that of a carnival strip-show comedian than a rutting naïf.

While "Them or Us" may be a landmark of sorts, heralding the debut of Dweezil and Ahmet Zappa as guitarist and songwriter, respectively, it's not much of an advance in the elder Zappa's rock work. The best example of the musical dead end into which Zappa has driven is his cover of the Allman Brothers' classic *Whipping Post*. A muddy arrangement of the song erodes even further when Zappa takes up his solo—a busy, aimless, finger-tying mess that makes the late Jimmy Page sound as clean and precise as a Sor study and is a positive embarrassment next to Duane Allman and Dicky Betts.

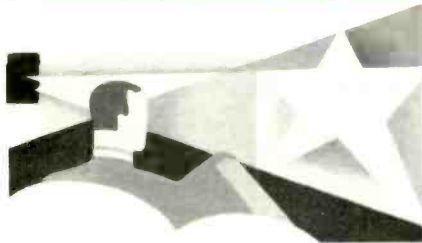
It's time, I think, for Zappa to retire to the cozy life of a "serious" composer, appearing as guest conductor with symphony orchestras, lecturing to college audiences, and giving us something like "The Perfect Stranger" every other year or so.

Mark Peeli

FRANK ZAPPA: *Boulez Conducts Zappa: The Perfect Stranger*. Ensemble InterContemporain; Barking Pumpkin Digital Gratification Consort. *The Perfect Stranger*; *Naval Aviation in Art?*; *The Girl in the Magnesium Dress*; *Outside Now, Again*; *Love Story*; *Dupree's Paradise*; *Jonestown*. ANGEL ◉ DS-38170 \$11.98, ◉ 4XS-38170 \$11.98.

FRANK ZAPPA: *Them or Us*. Frank Zappa (vocals, guitar), vocal and instrumental accompaniment. *The Closer You Are*; *In France*; *Ya Honza*; *Sharleena*; *Sinister Footwear II*; *Truck Driver Divorce*; *Stevie's Spanking*; *Baby, Take Your Teeth Out*; *Marque-Son's Chicken*; *Plant of My Dreams*; *Be in My Video*; *Them or Us*; *Frogs with Dirty Little Lips*; *Whipping Post*. BARKING PUMPKIN ◉ SVBO-74200 two discs \$15.98, ◉ 4XBO-74200 two cassettes \$15.98.

FILM & THEATER



BOLERO (Peter Bernstein). Original-soundtrack recording. Orchestra, Elmer Bernstein cond. VARÈSE SARABANDE STV 81228 \$8.98.

Performance: *Okay*
Recording: *Good*

Bo Derek has a face and a body that just won't quit. Neither, apparently, will John Derek, her husband, mentor, producer, and director, in his attempt to turn her into the reigning screen sex goddess. So far, the films he has devised for her, for all of their flesh, leave most critics and audiences as frigid as an Eskimo's toe. *Bolero*, the latest, is no exception. In a feeble effort to lend some class to the proceedings, Derek engaged Peter Bernstein to write a fairly "serious" score. Elmer Bernstein, one of the great names in film music, and Peter's father, was brought in to "supervise" and conduct. Unfortunately, the younger Bernstein's music is as turgid and leaden as Mrs. Derek's acting and as pretentious as Mr. Derek's Thalbergian ambitions. P.R.

ELECTRIC DREAMS. Original-soundtrack recording. Giorgio Moroder, Culture Club, Philip Oakey, Jeff Lynne, Heaven 17, Helen Terry, P. P. Arnold (vocals and instrumentals). VIRGIN/EPIC SE 39600, © SET 39600, no list price.

Performance: *High dreck*
Recording: *Who cares?*

Who did Epic think was going to buy this? Giorgio Moroder fans? There is no such thing. People who saw the movie? That market's disposable income goes to video cassettes and game software. I think the real answer is that nobody was expected to buy it, that what we have here is a tax write-off. Giorgio Moroder is starting to use his synthesizer the way a streetwalker uses fishnet stockings. And Jeff Lynne is a lot less popular than his hooks might warrant, possibly because the public is subconsciously repelled by his calculated artifice. Even Boy George is on automatic pilot here in the two cuts by Culture Club. This music is as false as the boy-girl-computer love triangle that's the absurd premise of *Electric Dreams*. M.P.

GIVE MY REGARDS TO BROAD STREET (Paul McCartney). Original-soundtrack recording. Paul McCartney (vocals and instrumentals); Dave Edmunds (guitar); Ringo Starr (drums);

other musicians. COLUMBIA SC 39613, © SCT 39613, no list price.

Performance: *Unredeemable dreck*
Recording: *Good*

I haven't seen the feature film from which this latest chapter in the continuing artistic decline of Paul McCartney derives, but if this soundtrack product is any indication, I think I'll wait till it's on HBO. Frankly, what's here is as disposable as any pop product of the last twenty years. The new songs (except for *No More Lonely Nights*, a reasonably affecting ballad rendered somewhat less

so by a Muzak-styled second version at the album's conclusion) are among the most halfhearted throwaways McCartney has ever done. To add insult to injury, his remakes of Beatles tunes from the Sixties, including the formerly sublime *Here There and Everywhere*, have all the energy, conviction, and authority of a matinee performance of *Beatlemania*.

If, like me, you still retain a sentimental affection for this guy, I suggest you save your money for a new copy of "Revolver" or a rental video cassette of *A Hard Day's Night*. S.S.

What should you expect from a Swiss receiver?

You should expect thoughtful design and quality construction. And you'll find it in the new B285 AM/FM receiver from Revox. The B285 is elegantly styled, meticulously crafted, and solidly built. As you'd expect from the Swiss.

What you might not expect is the most sophisticated microprocessor control system available in any receiver made anywhere in the world. Two micro-computers are built into the B285: one controls the quartz-locked digital tuner while the other governs an unprecedented array of programming and control functions. All input sensitivities are stored in digital memory, along with separate levels for each of the 29 AM or FM station pre-sets. A multi-mode LCD display gives a complete status check of all tuner and pre-amp functions. For your added convenience, the B285 - along with all other Revox components - may be operated with a single infrared remote control unit (optional). Multi room remote control, as well as external computer control, is possible through the B285's serial data bus.

The B285's class AB power stage, with a rise time of 3 μ -seconds, delivers transparently detailed high frequency transient response. And the exceptional signal-to-noise performance provides a silent backdrop for optimum digital sound reproduction.

As with all Revox components, the B285 receiver is built in quiet defiance of planned obsolescence. Because, since you expect a Swiss receiver to cost more, you should also expect it to be the best of its kind - for a long, long time. Visit your Revox dealer for an audition. Bring high expectations.



REVOX

1425 Elm Hill Pike, Nashville, TN 37210 / (615) 254-5651

For Dealer Nearest You Call TOLL-FREE 800-633-2252 Ext 833

CIRCLE NO. 47 ON READER SERVICE CARD

Please Call And Reserve If You Plan To Buy And Pick Up At Store • Quantities Are Limited And Subject To Availability

We accept Visa, Mastercard, American Express & Diner's Club. Ask about details on COD orders. Money orders accepted. Allow 4 weeks clearance on personal checks. OPEN SUNDAYS THRU FRIDAYS 9:30AM to 8:00 PM CLOSED SATURDAYS

LABELLE

CAMERA & STEREO OF MAINE

PRICES AND PRODUCTS IN EFFECT FEB. 21 TO MARCH 20

IN MAINE
155 MAIN STREET
BIDDEFORD, MAINE
207-283-1401

IN NEW YORK
224 WEST JERICO TPK.
SYOSSET, L.I., NY
1-516-496-2235

send all mail order checks to
155 Main Street, Biddeford, ME 04005

NEW YORK AND MAINE RESIDENTS ADD LOCAL SALES TAX • ALL MERCHANDISE IS NEW AND GUARANTEED • Please Call And Reserve If You Plan To Buy And Pick Up At Store

OPEN MON. THRU FRI. AND SUNDAY 9:30AM-8PM EST. CLOSED SATURDAY

Send \$1 for our catalog FOR MAIL ORDERS

CALL TOLL FREE 1-800-341-0783

In Maine, Alaska and Hawaii, Call 1-207-283-1401

Call for shipping and handling charges

AM-FM RECEIVERS

AKAI AA-A35 229⁹⁵
48 watts per channel • Quartz Lock Digital Tuning

Akai AA-RIS (22 watts)	119.95
Akai AA-A25 (22 watts)	109.95
Akai AA-A45 (65 watts)	299.95
JVC R-K 100 (25 watts)	119.95
JVC R-K 200 (40 watts)	159.95
JVC R-X300 (55 watts)	219.95
JVC R-X350 (55 watts)	239.95
JVC R-X400 (70 watts)	CALL
JVC R-X500 (100 watts)	CALL
Technics SA120 (35 watts)	119.95
Technics SA150 (25 watts)	139.95
Technics SA350 (40 watts)	189.95
Technics SA450 (50 watts)	209.95
Technics SA550 (70 watts)	299.95
Nikko NR320 (28 watts)	109.95
Nikko NR550 (35 watts)	179.95
Nikko NR700 (40 watts)	209.95
Nikko NR800 (50 watts)	259.95
Nikko NR1000 (65 watts)	299.95
Scott 379RS (70 watts)	289.95
Scott 359RS (45 watts)	239.95
Scott 339RS (25 watts)	169.95
Marantz SR640 (45 watts)	299.95
Marantz SR840 (70 watts)	329.95

CASSETTE DECKS

Technics Dolby®B, Dolby®C and DBX noise reduction • 2 motor reel model RSM-245X 219⁹⁵

TECHNICS RS-B12	100.95
TECHNICS RS-B14	129.95
TECHNICS RS-B18	139.95
TECHNICS RS-B50	189.95
TECHNICS RS-B68R	229.95
TECHNICS RS-B78R	269.95
Akai HX-A1	89.95
Akai HX-A2	109.95
Akai HX-1C	109.95
Akai HX-3	149.95
Akai HX-R44	199.95
Akai GX-R55	239.95
Akai GX-7	259.95
Akai GX-R88	399.95
Akai GX-R99	519.95
JVC KD-V100Q	99.95
JVC KD-V300Q	149.95
JVC KD-V6J	229.95
JVC DD-VRT	319.95
TEAC V-700	279.95
TEAC V-800X	379.95
TEAC V-900X	469.95
TEAC V-777X	409.95
JVC LL-1	319.95
Marantz SD530	239.95

TURNTABLES

Technics SLJ-2 Direct Drive Linear Tracking Quartz Turntable 109⁹⁵

Technics SLB-100	56.95
Technics SLB-200	66.95
Technics SLO200	78.95
Technics SLO300	86.95
Technics SLOX200	119.95
Technics SLOX300	134.95
Technics SLJ1	99.95
Technics SLJ3	139.95
Technics SLOL-15	179.95
Technics SL 1200 MK2	CALL
Akai APA-1	54.95
Akai APA-2	67.95
Akai APD-3	89.95
Akai AFM-33S	119.95
JVC LA-200	54.95
JVC QLA-220	74.95
JVC LF-210	79.95
JVC QLF-320	94.95
JVC LE-22	99.95
JVC LL-1	109.95
JVC QLL-2	129.95

Cartridge of the Month

SHURE DT-25P
Frequency response 20 to 20,000 • channel separation to 20 decibels • fits all p-mounts and conventional turntables

DT-15P	\$39.95
DT-35P	\$79.95
V-15VMR	\$149.95
M94LT	\$29.95
audio/technica	
HR-101 EU	39.95
HR-201 EU	\$59.95
HR-301 EU	74.95
HR-401 EU	89.95
STANTON	
PRO 3000	29.95
PRO 4000	59.95
PRO 5000	79.95
PRO 96	89.95
PICKERING	
XP-1	19.95
XP-10	39.95
XP-15	64.95

VIDEO RECORDERS

Zenith VR-2000 VHS • 4-head • wireless remote control • 14 day programming 429⁹⁵

Zenith VR-3010 VHS	519.95
Zenith VR-4000 VHS	CALL
Panasonic PV1225 VHS	349.95
Panasonic PV1231R VHS	399.95
Panasonic PV1530 stereo VHS	559.95
Panasonic PV-8500 stereo VHS	919.95
Panasonic PV-5800 portable	619.95
Akai VS31	419.95
JVC HRD 120 VHS	439.95
JVC HRD 220 VHS	459.95
JVC HRD 725 VHS	879.95
RCA VKT 300 VHS	429.95
RCA VKP 170 portable VHS	639.95
RCA VKP 900 portable VHS	819.95
RCA VPK 950 portable hi-fi	CALL
SONY BETA SL30	439.95
SONY BETA SL-SFR30	449.95
SONY BETA SL-2300	299.95
T 120 Tapes 6-hour	4.99 ea

CONCORD

HPL-122 R • 10 watts per channel, Dolby®B, digital. 229⁹⁵

CAR STEREOs	
HPL-502	189.95
HPL-516	239.95
HPL-520	309.95
HPL-532	349.95
HPL-550	479.95
HPO-89	59.95
HPO-90	59.95

BLAUPUNKT TUCSON

• AM-FM digital stereo, push button tuner, auto reverse. Dolby®B, fader. 339⁹⁵

AM-FM CAR STEREOs	
Seattle	179.95
Washington Sq	429.95
Richmond	219.95
New Yorker Sq	519.95
Manhattan	219.95
Chicago	219.95
Aspen SQ 24	239.95
BEO	119.95
Sacramento	279.95
BEA 40	89.95
Tucson	339.95
BEA 80	139.95
Houston	469.95
BPA 415	89.95
BPA-260	209.95
BPA 430	209.95

JENSEN RE-900

Original unit, quartz clock, 12 presets, scan tuning, fader control, 10 watts. 129⁹⁵

AM-FM CAR STEREOs	
ATZ 400	349.95
RE 980	199.95
ATZ 500	309.95
RE 960	179.95
ATZ 300	279.95
RE 940	164.95
ATZ 200	249.95
RE-920	149.95
ATZ 100	219.95
RE 900	129.95
EOA 5000	89.95
R 220	149.95
EOA 2500	69.95
A-35	44.95

SONY XR G5

Dolby®B, separate base & treble, automatic music sensor, auto-reverse, quartz tuning, auto-search turning. CALL

AM-FM CAR STEREOs	
XR-20	CALL
XR-30	CALL
XR-40	CALL
XR-45	CALL
XR-65	CALL
XR-75	CALL
XR-85	CALL
XR-90	CALL
XR-570	CALL
XR-555	CALL
XR-120	CALL

Clarion 8500R

Digital AM-FM stereo tuner auto-reverse tape, separate base and treble. 159⁹⁵

8500R	159.95
8100R	139.95
6900R	169.95
6300R	119.95
4100R	114.95
4100R	79.95
200 EQB-2	99.95
6700R	139.95
6100R	119.95

Panasonic CQS-793

AM-FM stereo cassette player, auto reverse DBX, NR, & push button. 159⁹⁵

COS-884	219.95
COS-934	269.95
COS-958	309.95
COS-747	119.95
COS-834	209.95
CYSG-100	139.95
CYSG-50	89.95

SANYO FTE-25

All night illumination, Dolby®B & C, A.M.S.S., 9.5 watts per channel, fader, clock, full auto reverse. 194⁹⁵

AM-FM CAR STEREOs	
FTE-15	149.95
FTU-55	139.95
FTE-20	169.95
FTU-22	79.95
FTD-4	159.95
FTU-42	119.95
FTD-6	189.95
PA-6050	99.95
FTD-7	219.95
PA-6100	119.95
FTU-35	99.95
PA-6110	139.95

MITSUBISHI RX-735 199⁹⁵

Quartz tuning • auto seek or scan • auto reverse.

CZ-757	259.95
RX-737	239.95
RX-733	179.95
RX-726	129.95
RX-724	99.95
GX-103	99.95
RX-711	119.95
CV-251	89.95
GX-111	89.95

CAR SPEAKERS

Call for the lowest prices on: Philips/Kricket, Yamaha, ADS/EPI, Infinity, Boston/Acoustics, Cerwin Vega and more!!

Jensen J3003 4 1/2" X Thin Coax	49.95
Jensen J3033 6 1/2" X9" Triax	79.95
Clarion SE-620 6 1/2" X9" Coax	49.95
Clarion SE-970 6 1/2" X9" Coax	49.95
AFS Cricket 8976 6 1/2" X9"	99.95
AFS Cricket 8424 4"	59.95
AFS Cricket 8272 5 1/2"	69.95

SONY WM-10

Super Walkman stereo cassette player with Dolby® 59⁹⁵

STEREO TO GO	
Sony WMF-10	89.95
Sony WMF-8	89.95
Sony WMD-6C	259.95
Sony WMD-6	209.95
Sony WMF-5	99.95
Sony WM-16	69.95
Sony WM-8	39.95
Sony SRF-5	59.95
Anwa HSJ-300	124.95
Anwa HSJ-400	139.95
Anwa HSF-07	119.95
Anwa HSP-07	89.95
Anwa HSP-06	109.95
Toshiba KTV-200	74.95
Toshiba KTAS-1	69.95
Toshiba KTRS-1	114.95
Toshiba KTAS-10	114.95
Sanyo MG-41	44.95
Sanyo MG-90	54.95
Sanyo MG-80D	54.95
Sanyo MG-95	84.95
Sanyo MG-98D	89.95

BLANK TAPES

maxell.	
UDXLII-C90	1.99
UDXLIII-C90	2.49
MX-90	4.99
T-120	4.99
T-120-HGX	7.49
TDK	
SA-C90	1.99
SAX-C90	2.49
T-120	4.99
T-120EHG	7.49
MINIMUM ORDER 10 TAPES	
Radars Detectors	
WHISTLER SPECTRUM	
Quadracycle Radar Detector	\$189 ⁹⁵
WHISTLER SPECTRUM REMOTE	
Remote Quadracycle Radar Detector	\$199 ⁹⁵

Canon Typewriter 5 Deluxe \$179.95

TYPEWRITERS	
Canon Typewriter 6	229.95
Canon Typewriter 10	189.95
Brother EP-20	159.95
Brother EP-22	199.95
Brother EP-44	269.95

Panasonic KXT-1515

Telephone answering machine, remote controls & voice activate. 99⁹⁵

Telephone Answering Machines	
Panasonic KXT-1410	79.95
Panasonic KXT-1415	104.95
Panasonic KXT-2415	149.95
Panasonic KXT-2425	199.95
Panasonic VA-8035	189.95
Code-A-Phone 2530	199.95
Code-A-Phone 2520	139.95
Sanyo TAS-1100	79.95
Sanyo TAS-3000	99.95
Phonemate IQ-940	109.95
Phonemate IQ-2845	129.95
Record-A-Call 685	119.95
Telephones	
Panasonic KXT-3203	79.95
Panasonic KXT-3130	139.95
Panasonic KXT-2340	89.95
Panasonic KXT-2200	29.95

EQUALIZERS

ADC Sound Shaper SS315X Graphic Equalizer, 10 band per channel, spectrum analyzer. 249⁹⁵

EQUALIZERS/MIXERS		
ADC S55	49.95	
ADC SS115	134.95	
ADC SS215	174.95	
ADC SS33	249.95	
TEAC EQA-10	89.95	
TEAC EQA-20	119.95	
Technics SH-8025	89.95	
Technics SH-8044	149.95	
Technics SH-8055	229.95	
Sansui SE-77X	CALL	
Sansui SE-8X	CALL	
Sansui SE-9	CALL	
Numerik DM-500	89.95	
Numerik DM-1150	139.95	
Numerik DM-1550	179.95	
Numerik DM-1650	199.95	
Numerik DM-1800	289.95	
Akai EA-A2	109.95	
Akai EA-7	179.95	
COMPACT DISC PLAYERS		
Technics SLP-1		
Compact disc player, 23 track programmable, search system. 299 ⁹⁵		
Technics SLP-2		389.95
Technics SLP-3		CALL
SCOTT 9390A		399.95
Sansui PCV-300		CALL
Sansui PCV-100		CALL
TEAC PD-11		389.95
Hitachi DA-3500		349.95
Marantz CD-73		CALL
Marantz CD-54		499.95
Send \$1 for Labelle's 220 page catalog		
Name		
Street		
City or Town		
State & Zip		
155 Main Street, Biddeford, ME 04005		
ATTENTION BARGAIN HUNTERS! Call for Labelle's Close-Out Specials!		

20 day return policy. All returns must be phoned in for prior authorization and must be received within 20 days from receipt of original shipment. All products must be returned in original factory packaging, clean and unscratched, and blank warranty card. Do not tape, or deface manufacturers' original cartons. Shipping and handling charges not refundable. Pictures are for illustrations only... and do not represent the product exactly as shown. Rainchecks available upon request.

Discs and tapes
reviewed by
Chris Albertson
Louis Meredith
Alanna Nash

BAND AID: *Do They Know It's Christmas?* Boy George, Sting, Jody Watley, Paul Young, Phil Collins, Marilyn, Paul Weller, Boomtown Rats, Bananarama, Spandau Ballet, Duran Duran, others (vocals and instrumentals). VESTRON VHS VA 0995 \$9.95, Beta VB 0995 \$9.95.

Performance: *Well-intentioned*
Recording: *Good*

Can nearly forty pop stars get along together in a recording studio without clawing each other's eyes out? On the basis of what we see here, yes—if there's a certifiable Good Cause involved. The Good Cause in question is, of course, helping the victims of the Ethiopian famine. Midge Ure of Ultravox and Bob Geldof from the Boomtown Rats persuaded just about every extant British pop star since Cliff Richard (plus America's Kool and the Gang) to sing a line or a chorus of an inspirational song they concocted, the proceeds to be donated to the starving Africans. This video is a straightforward documentary account of the recording sessions.

The results, well intentioned as they may be, are only moderately entertaining. There's an annoying air of self-congratulation about the whole business, reminiscent of what you used to see on the Jerry Lewis telethons, and the song itself, putting it charitably, is only fair to middling. Still, a few of the rockers on hand—U2's Bono, Paul Young, even (surprise!) Boy George—come off as reasonably real people, and Francis Rossi and Rick Parfitt of Status Quo demonstrate a talent for broad clowning that mitigates to a degree the smarminess of some of their colleagues. In short, while "Do They Know It's Christmas?" is not a major work of video art, given the low price and that Good Cause (proceeds from the video, like the record's, are going directly to the famine victims), you probably should buy a copy. After all, how often do you get a chance to salve your social conscience for under ten bucks? *L.M.*

JOE COCKER: *Live from Tokyo.* Joe Cocker (vocals); vocal and instrumental accompaniment. *Who Is He and What Is He to You?*; *Fun Time*; *A Whiter Shade of Pale*; *You Are So Beautiful to Me*; *Sweet Little Woman*; *The Letter*; *With a Little Help from My Friends*; and five others. TRANS WORLD ENTERTAINMENT TWE 21000 VHS and Beta \$29.95 (from Trans World Entertain-

THE EXPLOSION OF ROCK

JUST what the world needs—another rock documentary, right? Well, yes, when it's as good as *Rock and Roll, The Early Days*. This video offers as well-balanced and well-researched a look at its subject matter as anybody has ever come up with.

Put together by some of the people who earlier gave us the *Complete Beatles* and *Girl Groups* videos, the program, narrated with obvious relish by actor John Heard, gives you a real feeling for the sort of bolt-out-of-the-blue excitement that people experienced when rock-and-roll exploded the complacency of the Fifties. And it does so simply by allowing the music to speak for itself, with simply gobs and gobs of great performance footage, much of it unfamiliar (including a genuinely riveting sequence of Frankie Lymon, the teen idol who was the Michael Jackson of his day).

Among the high points are Little Ricky Nelson's phonograph literally exploding to the strains of Big Mama Thornton's *Hound Dog*, a nervously intense Buddy Holly pummeling *Peggy Sue* for Ed Sullivan, a Carl Perkins TV appearance (*Blue Suede Shoes*, of course), Pat Boone seeming whiter-than-white while mangling *Tutti Frutti* and *Ain't That a Shame*, followed immediately by the Real Thing in the incomparable persons of Little Richard and Fats Domino, and a great montage

of Chuck Berry's lascivious duck-walking routine. There's also an effective segment on some of the black harmony groups (Clyde McPhatter and Jackie Wilson are both briefly glimpsed) and even a rare scene of a blues recording session at the legendary Chess Studios.

Of course, it's not a perfect package. There are a couple of annoying omissions (where's Dion?), the narration is a tad superficial, and a little more music pre-history would have been helpful (there was rock before the Fifties). Still, *Rock and Roll* is a terrific tape and well worth buying. For anybody who thinks that Fifties rock was the cacophonous creation of talentless musical cretins and corporate hucksters, it should be an eye (and ear) opener. For anybody who was there at the time, lying awake nights listening to some of these songs under the covers on a transistor radio, it's likely to be a real jolt of rock-and-roll adrenalin. And for kids who simply want to know what all the fuss was about, it's as entertaining a history lesson as has ever made its way onto video tape. Highly recommended.

Louis Meredith

ROCK AND ROLL, THE EARLY DAYS. Elvis Presley, Fats Domino, Bill Haley and the Comets, Chuck Berry, the Everly Brothers, Buddy Holly, others (vocals and instrumentals). RCA/COLUMBIA VHS Hi-Fi 60379 \$29.95, Beta Hi-Fi 20379 \$29.95.

Remember Chuck Berry's lascivious duck walk?



BACK ISSUES AVAILABLE...



If you've missed any of the previously published issues of Stereo Review Magazine a wide selection is still available. Copies may be ordered for issues published during the past 12 months. In the event a particular issue ordered is out of print your payment will be returned promptly.

Order by mailing \$3.00 per copy (postage & handling included) to Stereo Review, CN 1914, Morristown, NJ 07960.

(Outside U.S.A. copies are \$4.00 each.)

Please be sure to enclose payment and identify the specific issues you wish to receive.

ment, 6430 Sunset Blvd., Suite 501, Hollywood, Calif. 90028).

Performance: *Rough and ready*
Recording: *Satisfactory remote*

Joe Cocker never had much of a singing voice, and many people found his erratic demeanor objectionable, but he delivered his songs with unmistakable feeling and a certain intangible "something" that won over huge audiences as we entered the Seventies. That same something, perhaps it's honesty, comes through on "Live from Tokyo," taped at a recent outdoor concert. Cocker's style has not changed, nor has he updated his material, but the youthful Japanese audience clearly found no fault with that—not even a rain shower hampered their enjoyment. There is little to be said about the camera work and direction, except that it captures an hour of this event. The stereo sound, though, is quite good. Cocker fans will feel blessed with this one. *C.A.*

GIORNO VIDEO PAK. The Lenny Kaye Connection: *I Got a Right*. William S. Burroughs: *Dr. Benway*. John Giorno: *Life Is a Killer*. **GIORNO POETRY SYSTEMS GPS 031 VHS and Beta \$29.95.**

Performance: *Nifty*
Recording: *Okay*

Here's a video that offers convincing proof that even in the age of Ronald Reagan and Traditional American Values, an underground still lives. Guitarist Lenny Kaye, who used to play with Patti Smith, weighs in with a genuine protest song (!), a thoroughly rousing rocker that makes an impassioned plea for tolerance against a backdrop of urban violence and Depression-era breadlines. *Naked Lunch* author William Burroughs is glimpsed in an excerpt from Howard Brookner's documentary film on him. Apart from being morbidly funny, it also offers a view of noted transvestite cult figure Jackie Curtis in the role of a nurse. And, finally, John Giorno performs a sort of High Art rap number, a quasi-beatnick poem with a funk backing track, in which he screams a lot and asks, "How the hell did I end up doing this for a job?" Which might sum up the essential dilemma of the poet in our society. Highly recommended. *L.M.*

JEFFERSON STARSHIP. Jefferson Starship (vocals and instrumentals). *Winds of Change; Ride the Tiger; Stranger; Black Widow; Someone to Love; Find Your Way Back*; and six others. **PIONEER ARTISTS LaserDisc PA-84-088 \$24.95.**

Performance: *Beside the point*
Recording: *Pretty good*

Here's a concert video that more or less defines the term "no-win situation." If, say, you're old enough to remember when Grace Slick and her colleagues prided themselves on being innovators (or at least stood for something more

interesting than how good they look in black leather), you may find this a depressing package. And even if you're not that ancient, you're likely to find it tedious. Sumptuously shot at a 1983 show in Vancouver, it catches the latter-day Starship doing its damndest to sound like fellow San Franciscans Journey. Even allowing for the questionable nature of the undertaking, the problem is that this particular outfit has never been slick *enough* to pull it off.

Everything is a little ragged around the edges here; the harmonies and the instrumental work never really jell. New depths of perfunctoriness are plumbed in the obligatory halfhearted rendering of the former classic *Somebody to Love*, but even the band's more recent material sounds, overall, either undernourished (*Find Your Way Back*) or undernourished and petulant (*Stairway to Cleveland*). Picture and sound quality are up to LaserDisc standards, but there's nothing here that I'd care to sit through more than once. *L.M.*

THE ROLLING STONES: Video Rewind. The Rolling Stones (vocals and instrumentals). *She Was Hot; She's So Cold; Emotional Rescue; Waiting on a Friend; Angie; Brown Sugar; Neighbors*; and five others. **VESTRON VHS Hi-Fi VA 1016, Beta Hi-Fi VB 1016, CED VC 1016, LaserDisc VL 1016, \$29.95 (all formats).**

Performance: *Hilarious*
Recording: *Very good*

Set in a rock-and-roll museum whose exhibits include Gary Glitter's chest wig from 1975 ("Very authentic," says tour guide Bill Wyman), "Video Rewind" is an anthology of (mostly) recent work by the world's Oldest Rock-and-Roll Band. It suggests, somewhat surprisingly, that the Rolling Stones now see themselves as comedians, and baggy-pants comedians at that. Most of the clips feature them shamelessly mugging their way through songs that clearly strike them as hilarious—*Neighbors*, for example. The framing material concocted by writer-director Julien Temple is not only wickedly satirical (the rock scene in general has rarely been so aptly and accurately twitted) but gives Mick Jagger and Bill Wyman a chance to carry on like Abbott and Costello, which they do with obvious relish and unexpected skill.

Speaking as a lapsed Stones fan, I would have preferred some of the band's Sixties work—the *Jumping Jack Flash* promo film, perhaps, or the legendary psychedelic version of *Have You Seen Your Mother, Baby?*—but the stuff that's here, particularly the powerful *Undercover of the Night*, with Mick making like Our Man in Havana, hangs together far better than I would have imagined. Jet-set excess and middle age notwithstanding, this is a band not yet past its prime. Unless you're thoroughly bored with the whole idea of the Rolling Stones, "Video Rewind" is definitely worth a look. *L.M.*

FREE details... A DIFFERENT KIND OF RECORD CLUB

TREMENDOUS SAVINGS INCLUDING COMPACT DISCS...

on every record and tape in print—no "agree-to-purchase" obligation of any kind.

DISCOUNTS OF 20% TO 73%
off mfg. suggested list... special catalog features hundreds of titles and artists.

MOST LABELS AVAILABLE

including most imports through special custom ordering service—guarantees satisfaction

SCHWANN CATALOG

lists thousands of titles.

DISCOUNT DIVIDEND COUPONS

redeemable immediately for extra discounts.

NEWSLETTERS

informational news and happenings in the world of music... special super sale listings.

DISCOUNT NEEDLE GUIDE

most mfg. replacements available.

QUICK SERVICE

same day shipping on many orders... rarely later than the next several days.

100% IRON-CLAD GUARANTEES

on all products and services—your total satisfaction is unconditionally guaranteed

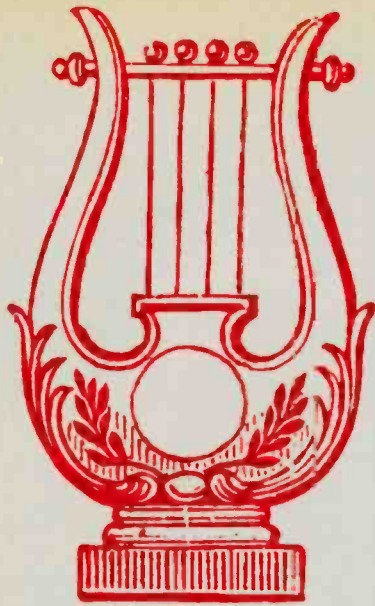
Discount Music Club is a no-obligation membership club that guarantees tremendous discounts on all stereo records, tapes and CD's and let you buy what you want...when you want...or not at all if you choose.

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.

dmc DISCOUNT MUSIC CLUB, INC. DEPT.009-0385
650 Main Street, New Rochelle, N.Y. 10801

Name _____
Address _____
City _____
State _____ Zip _____

CIRCLE NO. 71 ON READER SERVICE CARD



FREE INFORMATION SERVICE

Here's an easy way for you to get manufacturer's information about products advertised or mentioned editorially in this issue. Just follow the directions below...and the literature will be sent to you free of charge from the manufacturer.

a Tear out one of the perforated postage-free cards. Please print or type your name and address where indicated. Use only one card per person.

b Circle the numbers on the card that correspond to the key numbers at the bottom of the advertisement or editorial mention that interests you. (Key numbers for advertised products also appear in the Advertisers' Index.)

c Simply mail the card. One card per person is all that is necessary. No postage is required.

d This address is for our "Free Information Service" only. All other inquiries are to be directed to, Stereo Review, One Park Ave., New York, N.Y. 10016.

FREE INFORMATION SERVICE

1	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	75
76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
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 Please send me 12 issues of Stereo Review for \$4.99 and bill me. (Full subscription price \$9.98)

PLEASE PRINT— Use only one card per person.

SR3853

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP CODE _____

(Zip Code must be included to insure delivery.) Void after May 31, 1985

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	75
76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
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 Please send me 12 issues of Stereo Review for \$4.99 and bill me. (Full subscription price \$9.98)

PLEASE PRINT— Use only one card per person.

SR3852

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP CODE _____

(Zip Code must be included to insure delivery.) Void after May 31, 1985

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	75
76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
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 Please send me 12 issues of Stereo Review for \$4.99 and bill me. (Full subscription price \$9.98)

PLEASE PRINT— Use only one card per person.

SR3851

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP CODE _____

(Zip Code must be included to insure delivery.) Void after May 31, 1985



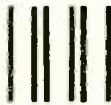
NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY CARD
FIRST CLASS PERMIT #27346 PHILADELPHIA, PA.

POSTAGE WILL BE PAID BY ADDRESSEE

Stereo Review

P.O. BOX 13878
PHILADELPHIA, PA. 19101



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY CARD
FIRST CLASS PERMIT #27346 PHILADELPHIA, PA.

POSTAGE WILL BE PAID BY ADDRESSEE

Stereo Review

P.O. BOX 13878
PHILADELPHIA, PA. 19101



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY CARD
FIRST CLASS PERMIT #27346 PHILADELPHIA, PA.

POSTAGE WILL BE PAID BY ADDRESSEE

Stereo Review

P.O. BOX 13878
PHILADELPHIA, PA. 19101



Revised and updated!
Stereo Review's SRT14-A

STEREO TEST RECORD



THE EDITORS AND TECHNICAL STAFF OF STEREO REVIEW PRESENT THE MOST COMPREHENSIVE, ACCURATE AND EASY-TO-USE TEST RECORD EVER DEVELOPED—REVISED AND UPDATED FROM THE ORIGINAL SRT14 VERSION.

This latest version contains everything you need to get the fullest, most realistic reproduction from your stereo equipment. You can actually perform a complete stereo system checkup by ear alone.

A test lab in a record jacket

Employing the most advanced recording, mastering, and pressing techniques, the Stereo Review SRT14-A is produced to strict laboratory standards. Engraved in its grooves are a series of precisely recorded test tones, frequency sweeps, and pink noise signals that enable you to accurately analyze and check your stereo system for:

- Frequency response.
- Stereo separation.
- Cartridge tracking ability.
- Channel balance.
- Hum and noise, including turntable rumble.
- Wow and flutter.
- Optimum speaker placement.
- Cartridge Tracking Force & Anti-skating.
- Musical Instrument Tuning Standards, and more . . . much more.

Step-by-step instructions

Included with SRT14-A is a detailed instruction manual, complete with charts, tables, and diagrams. It explains the significance of each test. It tells you what to listen for. It clearly describes any aberrations in system response. And it details corrective procedures.

For professionals too

Included on the record are a series of tests that call for the use of sophisticated measuring instruments, such as oscilloscopes, chart recorders, and distortion analyzers. These tests permit the advanced audiophile and professional to make precise measurements of transient response, recorded signal velocity, anti-skating compensation, IM distortion, and a host of other performance characteristics.

SRT14-A record contents

- CARTRIDGE TRACKING, HIGH FREQUENCY
- FREQUENCY RESPONSE, 20 kHz to 25 Hz
- SEPARATION, LEFT-TO-RIGHT / RIGHT-TO-LEFT
- CARTRIDGE TRACKING, LOW FREQUENCY
- CHANNEL BALANCE • LOW-FREQUENCY NOISE
- TURNTABLE FLUTTER • TONE-BURST
- CARTRIDGE AND SPEAKER PHASING
- FREQUENCY-RESPONSE SWEEP, 500 TO 20,000 Hz
- LEFT AND RIGHT CHANNEL
- INTERMODULATION DISTORTION
- ANTI-SKATING ADJUSTMENT
- 1000-Hz REFERENCE TONES
- FLUTTER AND SPEED ACCURACY
- STEREO SPREAD • CHROMATIC OCTAVE
- STANDARD "A" • GUITAR TUNING TONES

The final step

Start getting the most out of your stereo system. Make the SRT14-A your next record purchase. Just complete the coupon and mail it along with your remittance . . . today!

CHARGE ORDERS—for your convenience
PHONE TOLL FREE 800-526-0790.
IN NEW JERSEY ONLY 201-540-0445.

Test Record, Dept. 30013
CN 1914, Morristown, NJ 07960

Please send _____ SRT14-A Stereo Test Records
@ \$9.95 each. (\$11.95 outside U.S.A.)

- Enclosed is \$ _____
- CHARGE: Visa
 MasterCard
 American Express

Account # _____ Exp. Date _____

Signature _____

Print Name _____

Address _____

City/State/Zip _____

*Residents of CA, CO, CT, DC, FL, IL, MA, MI, MO, NJ and NY State add applicable sales tax.

Discs and tapes reviewed by
Robert Ackart
Richard Freed
David Hall
Stoddard Lincoln

BACH: *The French Suites (BWV 812-819)*. Christopher Hogwood (harpsichord). L'OISEAU-LYRE 411 811-1 two discs \$19.96, © 411 811-4 two cassettes \$19.96.

Performance: *Warm*
 Recording: *Fine*

Playing on an Andreas Ruckers harpsichord of 1646 redone by Taskin in 1780 and a Jean-Claude Coujon of 1749 redone by Jacques Joachim Swanen in 1784, Christopher Hogwood brings all his warmth as a performer and knowledge as a historian to the Bach French Suites. The combination is a good one, highly gratifying to both the ear and the mind. As a bonus, this recording contains the suites in E-flat Major and A Minor that Bach eliminated from the six French Suites proper, probably because it was common at the time (the early 1700's) to publish works in batches of six or twelve. The A Minor, with its vigorous prelude, is especially welcome. *S.L.*

BEETHOVEN: *String Quartets, Op. 18, Nos. 1-6*. Melos Quartet. DEUTSCHE GRAMMOPHON 410 971-1 three discs \$29.94.

Performance: *Too polished*
 Recording: *X-ray clarity*

This first installment in the Melos Quartet's new Beethoven cycle is not the group's first Beethoven. The Melos recorded all the quartets for Intercord in the late Sixties. They have also played these works many times since and thought about them a great deal. In view of this and of the expectations raised by the group's other recordings on DG, however, the new Op. 18 strikes me as rather a disappointment.

The playing per se is superbly polished, but it is the sort of playing one admires more than enjoys. The notes are conveyed accurately, with handsome tone and a good sense of balance, but all the fastidious bowing and impeccable ensemble really says rather little about Beethoven. It is not just a matter

Explanation of symbols:

- = Digital-master analog LP
- Ⓢ = Stereo cassette
- Ⓢ = Digital Compact Disc
- Ⓢ = Monophonic recording



Conductor Carlo Maria Giulini (right) with Rosalind Plowright and Placido Domingo

A RICH NEW TROVATORE

To anyone already in love with Verdi's dramatic tour de force, *Il Trovatore*, the new Deutsche Grammophon recording conducted by Carlo Maria Giulini offers an embarrassment of riches. The listener who has hitherto found the score a sort of um-pah-pah melodrama will be convinced after listening attentively to this recording (and after reading the excellent commentary accompanying it) that *Il Trovatore* is a most exciting opera.

The recording, made in the hall of the Accademia di Santa Cecilia in Rome, reflects Giulini the musical scholar as well as the meticulous conductor. In preparation for the recording, he returned to Verdi's autograph material on the work and restudied the score completely. Indeed, this recording, like Giulini's collaborations with film director Luchino Visconti in the Sixties, has been prepared anew, from the ground up, both musically and dramatically.

Because most of the action takes place offstage in this opera, the drama is what we hear—the reactions of the characters make the score dramatic. The symmetrical plot and the counterbalances of emotions in the characters make for a strongly formal theater piece, and Giulini's reading of the score underlines these balances musically. His is a most unified performance, a crystallization of the composer's intent.

This cohesiveness is undoubtedly the result of Giulini's restudy of the work as well as the response he elicits from his singers. All of them are in fine voice and give you the feeling they are singing their parts for the first time. Indeed, Brigitte Fassbaender here sings her first Azucena ever, and Rosalind Plowright sings the role of Leonora for the first time under studio-recording conditions, which make unique demands on the artist. And Placido Domingo and Giorgio Zancanaro reworked their parts specifically for this recording.

Throughout, the tempos are unhur-

ried, intensifying the drama by sustaining it rather than dissipating it by hurrying it along. From the opera's opening chords, best described as spooky under Giulini's baton, through Ferrando's narrative, richly sung by Evgeny Nesterenko, to Leonora's "Tacea la notte," sung by Plowright with silvery flow, the first act moves forward with the inevitability of a Greek drama. And at the end of the section you're hooked.

There are many musical highlights, but the omnipresent quality is Giulini's sense of vocal line, which seems to call forth the best in his singers. I have never heard Manrico's "Mal reggendo all'aspro" sung with a more moving legato; indeed, the entire duet with Azucena is unusually affecting. Another striking passage is "Di quella pira," taken throughout at a very moderate tempo and, in the *stretta*, deliberately slowed to a point that makes it intensely suspenseful. Nor does Domingo clutch at and hang onto the final C. He sings it short, as written. The precision and ardor of the choral singing is consistently evident, and the sound of the orchestra in this superbly engineered recording is glistening, full, and rich.

Like his Covent Garden *Falstaff* recording of a few seasons back, Giulini's interpretation of *Il Trovatore* will probably stand as the exemplar for many years to come. *Robert Ackart*

VERDI: *Il Trovatore*. Placido Domingo (tenor), Manrico; Rosalind Plowright (soprano), Leonora; Giorgio Zancanaro (baritone), Count di Luna; Brigitte Fassbaender (mezzo-soprano), Azucena; Evgeny Nesterenko (bass), Ferrando; Anna di Stasio (soprano), Ines; Walter Gullino (tenor), Ruiz. Chorus and Orchestra of the Accademia Nazionale di Santa Cecilia, Carlo Maria Giulini cond. DEUTSCHE GRAMMOPHON 413 355-1 three discs \$29.94, © 413 355-4 two cassettes \$29.94, © 413 355-2 three CD's no list price.

IF YOU'RE OBSESSIVE ABOUT DIGITAL AUDIO, WELCOME TO THE CLUB.

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

This year, to welcome you to the club, you'll receive special promotions on compact discs; discounts on digital accessories; our quarterly newsletter, "The Sony Pulse"; The Sony Book of Digital Audio Technology (over 300 pages of facts and details); a 30" x 40" digital audio poster; a digitally-recorded compact disc; and extensive information about the latest advances in digital products from Sony—the leader in digital audio.

To become a member, simply mail the coupon below, along with a check or money order for \$15* to Sony Digital Audio Club, P.O. Box 161, Lowell, Mass. 01852.**

And join the thousands of people who are already well on their way to satisfying their obsessions.

Name _____

Address _____

City _____

State _____ Zip _____

*\$3.00 additional for postage and handling outside the U.S.** Please allow 4-6 weeks for delivery.



SONY
THE LEADER IN DIGITAL AUDIO™

SRM 3/85

of pacing (tempos are generally on the brisk side). These performances have a sort of antiseptic feeling, one might even say heartlessness, where one wants breadth, warmth, and compassion.

The recording itself, for all its vividness and detail, has about as much warmth as an X-ray negative. How is it possible for the finale of the F Major to come across so humorlessly and its second theme to be so devoid of warmth? It would be too glib, perhaps, to dismiss such accomplished playing as "sound and fury," but the Smetana Quartet, on Denon, shows how compelling this music can be in more human terms, and there are superior analog recordings by the Talich Quartet (Calliope), the Quartetto Italiano (Philips), the Cleveland Quartet (RCA), and others. R.F.

BUSONI: *Turandot, Suite, Op. 41; Two Studies for Doktor Faust, Op. 51.* Women of the May Festival Chorus; Cincinnati Symphony Orchestra, Michael Gielen cond. VOX CUM LAUDE ● D-VCL 9072 \$7.98, © D-VCS 9072 \$7.98, © MCD-10019 no list price.

Performance: *A-1*
Recording: *A bit distant*

Protean pianist, teacher, and still-controversial composer Ferruccio Busoni first became engrossed with Carlo Gozzi's 1762 Chinese fairy-tale play *Turandot* in 1904. He composed eight movements of incidental music for it in that year and added two more in 1911 for a Max Reinhardt production. This disc offers the original suite plus one of the Reinhardt movements.

Unlike Puccini, whose grand operatic treatment of *Turandot* in the early Twenties romanticized the tale, Busoni responded to the irony in Gozzi's text, both in his incidental music and in his own two-act opera of 1917. The music here is a fascinating mixture of the sinister, the grotesque, and the exotic—akin in its special style to the elaborate scores of incidental music supplied by Grieg for Ibsen's *Peer Gynt* and by Sibelius for Shakespeare's *The Tempest*. Among the odder twists in Busoni's music is the appearance of the Elizabethan *Greensleeves* tune in the *Turandot's* Chamber scene.

Of considerably more substance is the pair of studies for the opera *Doktor Faust*, uncompleted at the time of the composer's death in 1924. Busoni's *Doktor Faust* is "pre-Goethe" and derives from the ancient *Volksbuch* puppet play. Those who are able to respond to a treatment of the Faust legend as a kind of twentieth-century *Everyman* will find the full opera (as completed by Busoni's pupil, Philipp Jarnach) deeply stirring in the recently reissued DG recording starring Dietrich Fischer-Dieskau. The two orchestral pieces, *Sarabande* and *Cortège*, come in reverse order relative to the drama. *Cortège* is action music evocative of the astounding magical visions *Doktor Faust* evokes at the wedding feast for the Duchess of Parma. The *Sarabande*,

built in essence on a ground bass, is drenched in an atmosphere of foreboding. The neo-Classical aspect of Busoni's later musical language is much in evidence here, anticipating the work of Paul Hindemith.

Busoni's brilliant writing and superb orchestration are beautifully realized by the Cincinnati Symphony under Michael Gielen, with razor-sharp rhythmic attacks and utter clarity of texture. Despite a rather distant orchestral perspective, sound is first-rate. D.H.

CHOPIN: *Piano Concerto No. 2, in F Minor.* SAINT-SAËNS: *Piano Concerto No. 2, in G Minor.* Cécile Licad (piano); London Philharmonic Orchestra, André Previn cond. CBS ● IM 39153, © IMT 39153, no list price.

Performance: *Masterly*
Recording: *Very good*

The Chopin F Minor Concerto was the vehicle for Cécile Licad's September 1981 performance with Zubin Mehta and the New York Philharmonic following her winning of the coveted Leventritt Foundation Award. It was the first time in a decade that it had been given.

Actually the first of Chopin's two concertos in order of composition, the F Minor has an opening movement that for me has always been rather uninteresting, but the slow movement, with its melting melodic content, wealth of ornamentation, and dramatic central *arioso recitativo*, is the real stuff of Chopin. It also gives Licad a chance truly to shine, as indeed she does here. Likewise, the quasi-mazurka finale, with the bucolic hunting horn turning up midway, is delightful stuff. The pianist and conductor André Previn bring it off with all the requisite brilliance.

The Saint-Saëns G Minor Concerto summons up the fiery and mercurial aspects of Licad's temperament. Seldom have I heard the tarantella-style finale played with such fierceness as here, and Previn accompanies her handsomely. The recording is amply rich, with a cutting edge where needed and a spotlight on the piano.

Given the number of strong recordings of both the Chopin and the Saint-Saëns, coupling becomes a factor in making a choice, and I confess to finding the CBS pairing somewhat less than ideal. Cécile Ousset's recent digital recording of the Saint-Saëns on Angel is a performance of great panache and is coupled more appropriately, with the Liszt E-flat. D.H.

FALLA: *El amor brujo; Nights in the Gardens of Spain.* Victoria Vergara (mezzo-soprano); Eva Maria Zuk (piano); Orquesta Sinfónica del Estado de México, Enrique Bátiz cond. VARÈSE SARABANDE ● 704 110 \$10.98.

Performance: *Splendidly idiomatic*
Recording: *Very good*

Victoria Vergara's dark mezzo-soprano is a major asset of this new recording of

Manuel de Falla's popular Andalusian dance masterpiece. Enrique Bátiz and his compatriots deliver a superbly idiomatic account of the orchestral music, though this version is not quite as finely honed as Charles Dutoit's remarkable Montreal recording for London.

Nights in the Gardens of Spain is the nearest Falla ever came to writing a full-blown piano concerto, and it remains one of the choicest achievements in the realm of musical impressionism. Indeed, it is the virtuosic, almost Lisztian aspect of the piece that comes through most in the incisive solo performance here by Eva Maria Zuk (the sleeve notes offer no information on her). Bátiz again draws highly responsive playing from his orchestra, and the sonics are full-bodied and crystal clear. *D.H.*

GERSHWIN: *An American in Paris.*
GRAINGER: *Fantasy on Gershwin's Porgy and Bess.* Katia and Marielle Labèque (pianos). ANGEL Ⓢ DS-38130 \$11.98, Ⓞ 4DS-38130 \$11.98, Ⓞ CDC-47044 no list price.

Performance: *Classy*
 Recording: *Very good*

GERSHWIN: *Rhapsody in Blue; I Got Rhythm, Variations; Catfish Row, Suite from Porgy and Bess.* Alexis Weissenberg (piano); Berlin Philharmonic Orchestra, Seiji Ozawa cond. ANGEL Ⓢ DS-38050 \$11.98, Ⓞ 4DS-38050 \$11.98.

Performance: *Good*
 Recording: *Spacious*

The duo-piano album is the choice item here, not only because it gives us Gershwin's own two-piano version of *An American in Paris*, which includes some music not in the orchestral score, and Percy Grainger's masterly *Porgy and Bess* fantasy, but especially because both are played by the Labèque sisters with a combination of lilt and polish that would have been the envy of Gershwin himself. Moreover, the recording manages to avoid the sonic clatter and clutter that, for me, has marred all too many duo-piano LP's over the years. In terms of stereo imaging the pianos are spaced quite widely within an acoustic envelope that allows plenty of room for the sound both to make its impact and to dissipate—all without a trace of over-reverberance. As a result, there's no aural fatigue, and you're even able to distinguish which pianist is playing what. I enjoyed every moment of this record both as music and as musicianship. Don't pass it up, especially if you are a Gershwin enthusiast.

The combination of a piano soloist born in Bulgaria and living in Europe, a Japanese-born conductor, and the Karajan-ruled Berlin Philharmonic would seem to be a most unlikely source for definitive performances of George Gershwin. And definitive these performances certainly are not, but they have their solid merits, most notably Alexis Weissenberg's glittery handling of the *I Got Rhythm* variations. It's somewhat after the manner of a cock-

At home with serious music lovers. Masterworks Portrait.

Every Masterworks Portrait is a masterpiece of program, performance and even processing.

Digitally remastered from original session tapes, these landmark recordings, from the distinguished CBS Masterworks catalog, have never sounded better.

Whatever your musical passion, you're sure to find yourself in a Masterworks Portrait. Selections range from Baroque to 20th Century works...from symphonic staples to esoteric chamber pieces. The artists are the finest in the world. The performances are internationally acclaimed.

There are close to 100 programs from which to choose, including a new series of boxed-sets with records and cassettes imported from Europe. All are reasonably priced.

Serious music lovers will find many Portraits just right for their homes.



MP 38749



M3P 39627*



MPT 38776



31P 39639*

Fine Reproductions
 At A Price You Can Live With.
 Masterworks Portrait Records And Cassettes.

MASTERWORKS PORTRAIT

*Available in March.

"CBS," "Masterworks," "Masterworks Portrait" are trademarks of CBS Inc. © 1985 CBS Inc.

CIRCLE NO. 54 ON READER SERVICE CARD

M A S T E R W O R K S



tail-lounge pianist, but the music can take that very well. First-chair clarinet Karl Leister, whom I associate more with Brahms and Mozart than with Gershwin, gets off a remarkably fine opening glissando in the *Rhapsody in Blue*, which for me works best here in the lyrical episodes. Elsewhere more propulsiveness and rhythmic zest would have been welcome.

Gershwin's own suite from *Porgy and Bess*, like the *I Got Rhythm* variations, gets its first digital recording here, and except for Weissenberg's heavy-handed *Jazzbo Brown* solo at the outset, it comes off quite handsomely. Whoever plays banjo in this performance should have gotten some credit since he does a right snappy job. The sonics are spacious, brilliant, and well balanced throughout. *D.H.*

IVES: Songs. Songs My Mother Taught Me; Slow March; Dreams; Memories; Berceuse; Romanzo (di Central Park); Slugging a Vampire; Spring Song; and eighteen others. Roberta Alexander (soprano); Tan Crone (piano). ETCETERA ◉ ETC 1020 \$12.98, © XTC 1020 \$12.98, © KTC 1020 \$18.98.

Performance: *Outstanding*
Recording: *Likewise*

Klaas Posthuma, a Dutch producer and one of the founders of the Etcetera label,

has shown a great deal of productive interest in American music and American performers. For this package of Ives songs, he wrote the extensive annotation himself, and his selection of Roberta Alexander to sing them proves to have been an excellent idea guided by a real understanding of what the music is all about. Everything about this production suggests lifelong familiarity with and affection for the material.

It is a very generous collection, with surprisingly few duplications. Only six of these twenty-six songs, for example, are among the seventeen recorded by Jan De Gaetani and Gilbert Kalish on their Nonesuch disc. That is an indispensable part of the Ives discography, and so, I think, is this new one. Alexander is perhaps less successful in realizing the stark mood of *The Cage* and *Like a Sick Eagle*, but in virtually every other number her approach and execution are unfailingly and completely convincing. *Charlie Ruttage* is delivered more or less in the style of a country pop singer; *Serenity* glows with the uncontrived simplicity of a spiritual that knows no color. The accompaniment is similarly sympathetic.

The recording itself is just about perfect in its warm-focused realism and is further enhanced by Direct Metal Mastering. An insert includes complete texts for all the songs. *R.F.*

LIEBERSON: Piano Concerto (see *Best of the Month*, page 67)

MOZART: Mass in C Major (K. 317, "Coronation"). **SCHUBERT: Mass in G Major.** Magda Kalmár (soprano); Jutta Bokor (contralto); Attila Fülöp (tenor); Kolos Kováts (bass); Slovak Philharmonic Chorus and Orchestra, János Ferencsik cond. HUNGAROTON ◉ SLPD 12513 \$12.98, © MC 12513 \$9.98.

Performance: *Relaxed*
Recording: *Good*

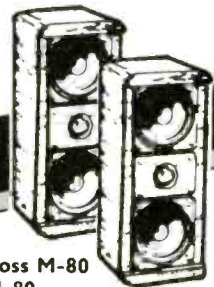
Nothing could better represent Viennese religious feeling than the festive gaiety of Mozart's *Coronation Mass* and the out-and-out sentimentality of Schubert's *Mass in G Major*. And János Ferencsik's readings bring out just these qualities in comfortably paced performances with warm orchestral and choral sonorities. The soloists are fine, especially Magda Kalmár, whose bright, clear voice soars out beautifully. All told, this album makes for excellent, relaxed listening to which the fine recorded sound amply contributes. *S.L.*

MOZART: Piano Quartets (see *Best of the Month*, page 65)

MOZART: Serenade in E-flat Major (K. 375); Serenade in C Minor (K. 388).

WHY PAY MORE? COMPARE PRICES..

TOLL FREE 800-356-9514



Koss M-80
M-80
\$62
Special
Below
Dealer Cost

CLARION SPECIALS

8500	Call
300EQB3	\$99
SE980	\$65 pr
4500	\$99
8100	\$129
6900	\$149



Teac
V-909
\$319
CLOSE-OUT
BELOW DEALER
COST



Toshiba
XRZ-50
Disc Player • Top Rated
Call For New Low Price



Technics
RSB18
\$124
Dolby B&C + dbX



Sansui
Z-7000
\$329
CLOSE-OUT
BELOW DEALER COST



AKAI
GXA5X
\$179
BRAND NEW
3-Head B&C + dbx



Teac X-2000
CALL FOR
SPECIAL PRICE
Limited Offer



Sansui S-517
Floor-Standing
3-Way

\$52

Why You Should Buy From WDS

1. Professional Audio and Video Consultants
2. Lowest DELIVERED Prices on Stereo's, VCR's, TV's, Tapes, and Accessories
3. Over \$10,000,000.00 Inventory
4. All Factory Fresh with U.S. Warranties
5. We Ship Complete C.O.D.
6. All Products Carry Our Famous Buyer Protection Plan
7. We Dare You To Compare

WDS

WISCONSIN DISCOUNT STEREO
2417 w badger rd. madison, wi 53713

Master Charge VISA C.O.D.

Mon-Thurs 8-8 Friday 9-8 Sat. 10-5

CIRCLE NO. 56 ON READER SERVICE CARD

Los Angeles Chamber Orchestra Winds.
 NONESUCH ● 79073-1 \$11.98, © 79073-4 \$11.98.

Performance: *Superb*
 Recording: *Fine*

From the very first phrase of the E-flat Major Serenade, you realize that the Los Angeles Chamber Orchestra Winds is special among wind ensembles. The phrasing and nuances are sensitive, the sound lucid, and the playing marvelously cohesive. The performances also capture the differences between these two monumental works, bringing out the lyricism of the E-flat and the tragic pathos of the C Minor. Outstanding readings and fine sound to boot. *S.L.*

ORFF: *Carmina Burana*. Sylvia Greenberg (soprano); James Bowman (countertenor); Stephen Roberts (baritone); Knabenchor der Staats und Domchors Berlin; Berlin Radio Symphony Orchestra and Chorus, Riccardo Chailly cond. LONDON ● 411 702-1 \$10.98, © 411 702-4 \$10.98, © 411 702-2 no list price.

Performance: *Zestful*
 Recording: *Blockbuster*

This is the third digital recording of the popular Orff cantata, and except for a weakish baritone in the tavern episodes, the performance is a very fine one

indeed, graced by spectacular recording. The bass-drum thwacks in the opening and closing "*O Fortuna*" will give your speakers a real workout.

Countertenor Stephen Roberts offers a vivid and highly-colored song of the roasting swan, and Sylvia Greenberg is enticingly chaste and sensual in her demanding solo role in the *Cours d'amour* section. Conductor Riccardo Chailly moves the faster movements along at a good swift pace, and the choruses sing with tremendous zest and drive or with tenderness where called for. The stereo imaging very effectively provides a clear division between the semi-chorus and the main chorus as well as between the male and female contingents. *D.H.*

RACHMANINOFF: *Symphony No. 2, in E Minor*. Los Angeles Philharmonic Orchestra, Simon Rattle cond. ANGEL ● DS-38100 \$11.98, © 4DS-38100 \$11.98, © CDC-47062 no list price.

Performance: *Impassioned*
 Recording: *Disappointing*

The Rachmaninoff Second Symphony, in its uncut version, receives a brilliant and impassioned reading here from Simon Rattle. His and the orchestra's efforts are undone, however, by the singularly inhospitable acoustic surround of the Dorothy Chandler Pavilion,

where the Los Angeles Philharmonic gives its regular concert season. The music's sheer expressive expansiveness needs a hall that will give a singing tone to the strings, a truly brazen sonority to the brass choir, and scintillating brilliance to cymbals and glockenspiel. I can only describe the sound this recording produced through my speakers as raw in the violin body, less than flawless in the cymbal department, and generally constricted at the major climaxes. The digital audio technology reveals the shortcomings of the recording locale all too honestly. *D.H.*

SAINT-SAËNS: *Piano Concerto No. 2, in G Minor* (see CHOPIN)

SCHUBERT: *Mass No. 2, in G Major* (see MOZART)

SCHUMAN: *Judith*. Eastman Philharmonia, David Effron cond. *Night Journey*. Endymion Ensemble, Jon Goldberg cond. CRI SD 500 \$9.95.

Performance: *Powerful*
 Recording: *Very good*

William Schuman's discography, in his seventy-fifth year, has some major gaps. This handsomely recorded disc fills two of them with distinction, restoring *Judith* to the current catalog and introducing *Night Journey*, both in powerful,

TRY & BEAT OUR PRICES & SERVICE

This is just a small sampling of our great prices.

<p>TEAC V-530X • Dolby B&C N.R. • DBX • 2 DC-Servo motors \$214</p>	<p>JVC RX-400 • 70 watts/ch • digital tuning • 7-band EQ Call for price!</p>	<p>YOUR CHOICE BASF/SONY PRO II UC-XC90 C-90 \$1.69 each \$25 Minimum Purchase</p>	<p>Technics SL-J3 • programmable linear tracking T.T. • record jacket size • quartz-locked D.D. \$156</p>	<p>TEAC R-777X • Dolby B&C & DBX 2 motor/2 head • auto reverse \$389</p>	<p>BOSE SPEAKERS! Complete line of Bose speakers now available. Call for price!</p>
<p>SONY WM-10 RV WALKMAN • super-Walkman • auto-reverse • Dolby N.R. \$99</p>	<p>SHURE V15-5MR CART. Our Price\$138 Mfr. Rebate starting 2/16 ... - 25 Your Net Cost \$113 <small>(offer expires 4/15/85)</small></p>	<p>Sansui S-X1130 RECEIVER • 130 watts/ch. • 16 sta. presets • video sound & picture circuits Call for price!</p>	<p>Panasonic PV-1730 • 2 wk/8 event • VHS-hi-fi • wireless remote Call for price!</p>	<p>Sansui AV-77 AUDIO VIDEO PROCESSOR • video effector • bi-directional VCR tape dubbing Call for price!</p>	<p>POLO T-120 Our Price \$5.49 ea. Less Mfr. Rebate - 1.00 ea. Your Net Cost \$4.49 ea. <small>Minimum purchase of 10</small></p>

All merchandise is brand new & fully warranted. Quantities limited. Prices subject to change. Minimum shipping and handling charge \$5.

CALL OUR AUDIO/VIDEO HOTLINE TOLL-FREE! **800-221-0974** (ex. N.Y., AK, HI)
 Mon-Sat 9AM-5:30PM E.S.T. in N.Y. State Call: (718) 253-8888

STEREO CORPORATION OF AMERICA

Dept. 103 1629 Flatbush Avenue, Brooklyn, N.Y. 11210

CIRCLE NO. 38 ON READER SERVICE CARD

authoritative performances. Both of these "choreographic poems" were composed for Martha Graham, who is pictured on the cover as she appeared in the 1947 premiere of *Night Journey*. Schuman prepared the concert version of this score, for fifteen instruments, much later; it was first performed in February 1981 by Jon Goldberg and the Endymion Ensemble, who recorded it at the time of the New York premiere two months later.

Judith has been recorded twice in the past by Robert Whitney and the Louisville Orchestra, who gave the premiere of that work in 1950. David Efron and the Eastman Philharmonia show how substantial a work it is, and in so doing present quite a showcase for the capacity of one of our top student orchestras. In all respects this is a winner, a stunning addition to the discography of American music. R.F.

STRAVINSKY: *The Firebird* (1911 version): *Orchestral Suite*. Vienna Philharmonic Orchestra, Wolfgang Sawallisch cond. ***Piano Suite* (arr. Naoumoff).** Emile Naoumoff (piano). ORFEO Ⓢ 044381 \$13.98, © C 044381 \$20.

Performance: *Mostly very good*
Recording: *Very good*

As far as I know, this is the first recording of a concert suite from the original

1911 score of *The Firebird* since Stravinsky's own on 78's. Aside from a rather sluggish opening, Wolfgang Sawallisch gets a good performance from the Vienna Philharmonic, and the recording, from the Musikvereinsaal in Vienna, is impressively full-bodied and brilliant.

I don't quite see the point of the piano version. Transcribing *The Firebird* for piano seems to me rather like doing a Mussorgsky *Pictures at an Exhibition* in reverse, reducing Ravel's orchestration. Furthermore, I would wager that somewhere among the Stravinsky papers in Switzerland is a manuscript piano version by Stravinsky himself. Emile Naoumoff's performance, however, is excellent, and the piano recording is also unusually full and brilliant. D.H.

WEILL: *The Seven Deadly Sins*. Milva, Anna; Wolf Appel, Otto Heuer (tenors); Rolf Kühne (baritone); Josef Becker (bass); Orchestra of the Deutschen Oper, Berlin, Bruno Weil cond. METRONOME/PSI 0060.558 \$8.98, © 0660.558 \$8.98 (from PolyGram Special Imports, 810 Seventh Ave., New York, N.Y. 10019).

Performance: *Good cabaret style*
Recording: *Good*

Kurt Weill and Berthold Brecht were both stranded in Paris following their flight from Germany upon Hitler's ac-

cession to power. As luck would have it they were brought together by way of a commission from a wealthy Englishman to create a work for his wife, the famed dancer Tilly Losch. The result was the "ballet-cantata" *Die sieben Todsünden der Kleinbürger* (*The Seven Deadly Sins of the Lower Middle Class*). It premiered in Paris on June 7, 1933, with choreography by George Balanchine, who in later years revived the work in New York with an English text by W. H. Auden and Chester Kallman, and with Weill's widow, Lotte Lenya, in the singing part of the work's protagonist, Anna.

The Seven Deadly Sins is essentially a "morality" wherein the sins of Sloth, Pride, Anger, Gluttony, Lust, Greed, and Envy are presented as episodes in the struggle by Anna to earn money so that her father, mother (sung by the bass in the male quartet), and two brothers can buy their little house in "Louisiana where the Mississippi River flows." The music, though on its surface akin to the 1920's pop idiom of *The Threepenny Opera*, actually is considerably more complex and sophisticated, notably in its use of chorale, fugato, and related procedures in the later pages.

In this 1981 recording, the popular European singing star Milva (Maria Ilva Biolcati) is decidedly less abrasive as Anna than Lenya was but still pro-

illinois audio

SAVE MONEY • TIME • FREIGHT ON NAME BRAND STEREO

<p style="text-align: center;">COMPONENTS</p> <p>AKAI AAA-35 NEW! AM-FM DIGITAL RECEIVER (48x2) \$225.00</p> <p>AKAI GX-7 3 HEAD DOLBY B & C CASSETTE DECK 259.00</p> <p>AKAI GXR-99 NEW AUTO-REVERSE 3 HD COMPUTER RECORD 520.00</p> <p>AKAI GXR-66 DOLBY B&C, dbx W/AUTO. REV. CASS. 273.00</p> <p>KENWOOD KR-950B COMPUTERIZED HI-SPEED RCVR. (80x2) 278.00</p> <p>KENWOOD KR-930B 60x2 DIGITAL RECEIVER SPECIAL 200.00</p> <p>ADC SS-315X 10 BD PER CH. EQUALIZER with ANALYZER CALL</p> <p>SANSUI DW-9 SANSUI'S BEST DOUBLE CASSETTE DECK CALL</p> <p>SANSUI SX-1130 New! TOP RECEIVER W/AM STEREO CALL</p> <p>TEAC EQ-A10 10 BAND/CHN. EQUALIZER W/ANALYZER 90.00</p> <p>TEAC EQ-A20 SAME AS ABOVE WITH MORE FEATURES 110.00</p> <p>TEAC R-666X DOLBY B, C, & dbx & AUTO-REV. CALL</p> <p>TECHNICS SBL-72 12" 3-WAY LOUDSPEAKER SYS. (PAIR) 130.00</p> <p>TECHNICS SA-450 'NEW' (50x2) DIGITAL RECEIVER 199.00</p> <p>TECHNICS SLQ-300 FULLY AUTO. QUARTZ DD TURNTABLE 86.00</p> <p>TECHNICS RSB-78R AUTO-REV. DOLBY B,C, & dbx CASS. DK. CALL</p> <p style="text-align: center;">PORTABLES</p> <p>SONY WM-F8 AM-FM CASSETTE 63.00</p> <p>SONY WM-16 WITH DOLBY & AUTO REVERSE 63.00</p> <p>SONY WM-F10 SUPER WALKMAN CASS. WITH DOLBY & FM 88.00</p> <p>JVC PC-200 3-PIECE PORTABLE SYSTEM W/AUTO. REV. 210.00</p> <p style="text-align: center;">AUTOMOTIVE</p> <p>JENSEN ATZ-300 NEW! AM/FM COMP. CONTROLLED CASS. 275.00</p> <p>JENSEN EQA-5000 7 BAND GRAPHIC EQUAL/40 WATT AMP 89.95</p> <p>JENSEN J-3033 6x9 TRIAX SPEAKERS (PAIR) 79.95</p> <p>SANYO FTE-D6 'NEW' AM/FM, DOLBY B, AUTO-REV. CASS. 178.50</p> <p>SANYO FTU-52 AM/FM CASS. W/DOLBY B&C, METAL CAPABLE. 145.00</p> <p style="text-align: center;">VIDEO RECORDER</p> <p>SANYO VCR-7200 BETA HI-FI STEREO W/WIRELESS REMOTE 500.00</p>	<p style="text-align: center;">HEADPHONES</p> <p>KOSS PORTA PRO NEW HEADPHONE \$44.95</p> <p>SONY MDR-CD5 'NEW' DIGITAL READY 65.00</p> <p>SENNHEISER HD-414 LIGHT WT., OPEN AIR 44.00</p> <p style="text-align: center;">TAPE—AUDIO & VIDEO</p> <p>SONY UCXS-90 NEW HIGH BIAS CASSETTE TAPE 26.00/10</p> <p>SONY UCX-90 TYPE I POSITION, HIGH BIAS 20.00/10</p> <p>TDK SA-90 SUPER AVILYN CASSETTE TAPE 19.00/10</p> <p>TDK SAX-90 DOUBLE COATED 'SA' TYPE CASSETTE 30.00/10</p> <p>TDK D-90 LOW NOISE CASSETTE TAPE 15.00/10</p> <p>BASF PRO II-90 "WORLD'S QUIETEST HIGH BIAS TAPE" 17.00/10</p> <p>FUJII M-90 METAL CASSETTE 30.00/10</p> <p>MAXELL XL-90 TYPE I OR II (PLEASE SPECIFY) 22.00/10</p> <p>MAXELL XL 'S' 90 TYPE I OR II (PLEASE SPECIFY) 29.00/10</p> <p>TDK T-120 OR L-750 VIDEO CASSETTES 58.00/10</p> <p>BASF L-750 OR T-120 VIDEO CASSETTES 55.00/10</p> <p style="text-align: center;">CARTRIDGES</p> <p>SHURE V-15 TYPE 5 MR NEW TYPE "5" CALL</p> <p>SHURE V-15 VP TYPE 5 "P" MOUNT CALL</p> <p>AUDIO-TECHNICA AT-155LC REGULAR MOUNT 79.95</p> <p>AUDIO-TECHNICA AT-122LP "P" MOUNT 27.95</p> <p style="text-align: center;">COMPACT DISC PLAYERS</p> <p>SHARP DX-100B PROGRAMMABLE, LOW PRICE CALL</p> <p>TECHNICS SL-P1 'NEW' COMPACT SIZE CALL</p> <p>TECHNICS SL-P3 'NEW' WIRELESS REMOTE, PROGRAMMABLE CALL</p> <p>9 BRANDS OF CD PLAYERS IN STOCK CALL FOR INFORMATION</p> <p style="text-align: center;">SEE A BETTER PRICE? CALL US! WE WANT YOUR BUSINESS!!</p> <p>UPS rates apply on these units. Prices and Availability Subject to Change</p>
---	--

illinois audio

12 E. Delaware Pl., Chicago 60611

Hours:
10:00-5:00
Mon. thru Sat.

Phone Now
1-312-664-0020

TOLL FREE
1-800-621-8042

— send for free price list —

Name _____

Address _____

City _____

State _____ Zip _____

or use your address label

vides ample sentiment. The male quartet acquires itself well, and the orchestral back-up is warm and polished. The sonics are full and spacious, with the singers comfortably spotlighted, but the imported package lacks the German text (let alone a translation). *D.H.*

Collections

BARBARA HENDRICKS: *Spirituals. Sometimes I Feel Like a Motherless Child; Plenty Good Room; Nobody Knows de Trouble I've Seen; Git on Board Little Children; Oh What a Beautiful City!; His Name So Sweet;* and ten others. Barbara Hendricks (soprano); Dmitri Alexeev (piano). ANGEL • DS-38024 \$11.98, © 4DS-38024 \$11.98. © CDC 7 47026-2 no list price.

Performance: *Excellent*
Recording: *Lifelike*

This may look like an unlikely collaboration, but Dmitri Alexeev, the young Russian pianist who not so long ago was represented by very appealing recordings of some Brahms solo pieces and the Rachmaninoff Second Concerto, proves to be an inspired choice to accompany Barbara Hendricks's exceptionally tasteful and musical performances of a superbly balanced program of spirituals. The unpretentious conviction projected here suggests the real

thing—natural, unadorned, from the heart—rather than concert arrangements, and Alexeev seems to have as instinctive a feeling for the material as Hendricks has. *R.F.*

WYNTON MARSALIS. *Fasch: Trumpet Concerto in D Major. Handel: Samson: Let the Bright Seraphim. Birthday Ode for Queen Anne: Eternal Source of Light. Molter: Trumpet Concerto No. 2. Purcell: Come Ye Sons of Art: Sound the Trumpet; Chaconne. The Indian Queen: Entrada; Trumpet Air; Trumpet Overture. King Arthur: Trumpet Tune. Torelli: Due Sonate a cinque.* Edita Gruberova (soprano); Wynton Marsalis (trumpet); English Chamber Orchestra, Raymond Leppard cond. CBS • IM 39061, © IMT 39061, © MK 39061, no list price.

Performance: *Brilliant*
Recording: *Very good*

Those who catalog their record collections in detail will find this package exhausting, but it makes for very agreeable listening, and it's a fresh sort of showcase for Wynton Marsalis, who not unexpectedly plays everything brilliantly. Edita Gruberova gets rather incidental billing for her three arias (texts for which are not provided, though there is plenty of blank space on the liner), but she discharges them all on the same

high level as that of the purely instrumental pieces. In Raymond Leppard's more than capable hands the program is not only stylistically satisfying but about as well balanced as anything of this sort could be. The sound is well balanced, too, with warmth aplenty. *R.F.*

THE WESTERN WIND: *The Happy Journey—Early American Vocal Music, Volume II.* Albert de Ruiter (bass); the Western Wind. NONESUCH • 79075-1 \$11.98, © 79075-4 \$11.98.

Performance: *Haunting*
Recording: *Splendid*

Since the space here precludes a complete listing of the song titles in this album, or their composers (many are anonymous), I must ask you to take it on faith that it is a well-chosen, representative collection of early American vocal music offering a nice variety of moods. Especially haunting are the modal pieces that defy harmonization.

Joined here by guest bass Albert de Ruiter, the vocal sextet that calls itself the Western Wind has eschewed a trained *bel canto* sound and, instead, has adapted its singing to the rugged, primitive style of our forefathers. The singers' diction is so precise that you can follow the words without reference to the written texts that are supplied. All in all, a splendid reconstruction. *S.L.*

"RATED #1 FOR SERVICE & RELIABILITY"

CALL TOLL-FREE
800-221-8180
IN NEW YORK STATE
CALL (212) 732-8600



23 PARK ROW
NEW YORK CITY
NEW YORK 10038
DEPT. SR-3



SPECIALS OF THE MONTH

discwasher
Record Care System
\$995

discwasher
Zerostat
Anti-Static
Gun
\$1395

AUDIO RECEIVERS

AKAI AA225 50w (Ch) Dig Preset \$169.95
AKAI AA435 80w (Ch) Dig Preset \$219.95
AKAI AA445 65w (Ch) Dig Preset \$299.95
TECHNICS SA120 50w (Ch) Analog \$119.95
TECHNICS SA150 70w (Ch) Digital \$119.95
TECHNICS SA450 50w (Ch) AM/FM/TV \$199.95
TECHNICS SA550 70w (Ch) AM/FM/TV \$269.95
SANSUR SX1070 100w (Ch) S-BCD \$269.95
SANSUR SX1150 130w (Ch) AM/FM/TV \$639.95

TURNTABLES

TECHNICS SL8200 Semi-Auto Belt \$69.95
TECHNICS SL15 Uni-Drive DD Prog. \$149.95
TECHNICS SL030 Auto-Drive DD \$99.95
TECHNICS SL015 0-Auto Lin Prog. \$179.95
TECHNICS SL045 0-Auto DD Lin \$129.95

CARTRIDGES

SHURE V15 Type VB \$109.95
SHURE V15 Type VMR Micro-Ridge \$149.95
AUDIO TECHNICA 122LP Pakout \$127.95
AUDIO TECHNICA 152LP Pakout \$179.95
STANTON 680EL Disco W/Ext Stylus \$44.95

SPEAKERS

TECHNICS SBLS2 10" 2-Way pair \$99.95
TECHNICS SBLS2 12" 2-Way pair \$129.95
BSR B2 8" 2-Way \$64.95

SHIPPED FREIGHT COLLECT

HEADPHONES

SONY MDR012 \$144.95
SONY MDR232 Earphones/Black \$119.95
SONY MDR001 Micro Dig Ready \$59.95
SENNHEISER HD350 Open Air \$79.95
KOSS PORTAPOP Featherweight \$44.95
KOSS PROX4 Midrange \$54.95

EQUALIZERS/MIXERS

TECHNICS SBH025 7-Band/Ch EQ \$79.95
TECHNICS SBH055 18-Band/Ch EQ \$219.95
TECHNICS SBH065 18-Band/Ch EQ \$279.95
ADC SS315X 10-Band/Ch Antr \$139.95
AUDIO CONTROL C101 10-Band/Ch Antr \$299.95
AudioSource EQ-1 10-Band/Ch Antr \$259.95
NUMARK EQ200 10-Band/Ch Antr \$184.95
NUMARK DM1650 Mixer/Preamp/EO \$399.95

COMPACT DISC PLAYERS

TECHNICS SLP1 Programmable \$299.95
TECHNICS SLP2 Remote Prog. \$189.95
TECHNICS SLP3 Rem/Prog/Noi \$399.95
SHERWOOD CDP100 Programmable \$369.95
TEAC PD 11 Programmable \$249.95
TITANIUM D4000 Programmable \$359.95
HITACHI DA600 Remote/Prog. \$399.95

AKAI CX-7



• Computer Controlled Cassette Deck
• 3-Head, Dolby B & C
\$25995

CASSETTE DECKS

TECHNICS RS811W Double Deck \$159.95
TECHNICS RS878R A/B Dual B/C Prog. \$199.95
TECHNICS RS814 Dolby B/C Metal \$109.95
AKAI MX3 Feather Touch Dby B/C \$149.95
AKAI MX300 Dolby B/C (Ch) Prog. \$179.95
TEAC V800X 3-Head B/C Prog. \$179.95

MICROPHONES

SONY ECM939 Uni-Point Stereo \$179.95
SHURE SM57 Dynamic \$119.95
AUDIO TECHNICA AT9100 Dynamic \$16.95

Panasonic KX-T1420



• Telephone Answering Machine
• Remote, VOX, 2-Step Ringing
\$9995

TELEPHONES/DIALERS

PANASONIC KXT2203 Phone 10/Dir. \$39.95
ATT GENESIS Televstem/Exds. \$239.95
dialmark Touch-Tone Your Choice Of: White/Black, Red/Black \$89.95
ATC MICKY MOUSE Phone TT \$54.95
EXTEND-A-PHONE 8000 Cordless \$149.95
COBRA CP355 Cordless Mem Spkr \$159.95
NORTHERN TELECOM HARMONY Your Choice \$149.95
Almond, Blue, Black, Grey, Brown

ANSWERING MACHINES

TECHNICS V8B030 3-Ph Ans-Mach. \$179.95
PANASONIC KXT2425 Tel Ans Mach. \$189.95
RECORD-A-CALL 655 Beepless Rem. \$99.95
CODE-A-PHONE 2550 Beepless Rem. \$139.95

HOW TO ORDER BY MAIL: FOR PROMPT AND COURTEOUS SHIPMENT, SEND MONEY ORDER, CERTIFIED CHECK, CASHIER'S CHECK, MASTERCARD/VISA (include card number, Interbank No. expiration date and signature) **DO NOT SEND CASH.** PERSONAL AND BUSINESS CHECKS MUST CLEAR OUR BANK BEFORE PROCESSING. **\$25 MINIMUM ORDER.** Shipping, Handling & Insurance Charge is 5% of Total Order with a \$3.95 minimum. We ship TO CONTINENTAL U.S., ALASKA, HAWAII, PUERTO RICO, AND CANADA ONLY. (Canadian Orders Add 15% Shipping, with a \$9.95 minimum charge.) For shipments by air, please include these charges. **SORRY, NO C.O.D.'s.** NEW YORK RESIDENTS PLEASE ADD SALES TAX. **WE ARE NOT RESPONSIBLE FOR ANY TYPOGRAPHICAL ERRORS.**

BASF



BASF T-120 or L-750 Chrome Tape
\$425

After 1.00 Mfg. Mail-In Rebate

ACCESSORIES

ALLSOP 59000 CD Cleaner \$19.95
ALLSOP 71300 Tape Head Cleaner \$16.95
AUDIO TECHNICA AT6002 Dust Bug \$6.99
AUDIO TECHNICA AT605 Insulator \$19.95
CARTALOG Cartridge Alignment Kit \$24.95
DISCWASHER DISKIT \$32.95
DISCWASHER Demagnetizer \$12.95
DISCWASHER TCS Tape Care System \$9.95
KUSTOM CREATIONS 676 Bookshelf Unit \$14.95
HOOS 20 CD's \$13.95
LAST STYLUS TREATMENT KIT \$12.95
MAXELL HE-44 Cassette Head Demag. \$24.95
NAGAKOXA CD1100 CD Cleaning Kit \$24.95
NORTHERN COMET Pro Head Demag. \$17.95
NORTHERN VCR130 VHS Head Cleaner \$13.95
NORTHERN VCR135 BETA Head Cleaner \$13.95
SHURE SP02 Stylus Pressure Gauge \$7.95
TDK MD-01 Cass Head Demag. \$12.95

NOTE: WE CARRY A FULL LINE OF AUDIO VIDEO AND COMPUTERS IN EVERY MAJOR BRAND. THIS LISTING IS JUST A SMALL SAMPLE IN OUR 110,000,000 INVENTORY. PLEASE CALL US TOLL FREE OR WRITE TO US FOR PRICES ON ITEMS NOT LISTED IN THIS AD.

ALL MERCHANDISE SHIPPED BRAND NEW, FACTORY FRESH, AND 100% GUARANTEED.

Clarion



8500 Compact Cassin or 8550 Mini Chassis

• Digital Presets, APC
• 6 Watts per Channel, Fader
\$14995

CAR STEREO

BLAUPUNKT SACRAMENTO Dig/Air \$259.95
BLAUPUNKT SEATTLE Air Dig \$179.95
CONCORD 122R Doby Digital \$229.95
JENSEN ATZ300 25w (Ch) Dig A/T \$269.95
SANYO FT225 10w (Ch) S-BCD \$199.95

CAR SPEAKERS

JENSEN JS033 6" 99 Thru \$79.95
CLARION SE310 5" 50W \$54.95
CONCORD HPS152 5" 50W \$44.95

RADAR DETECTORS

WHISTLER SPECTRUM QuadraScan \$199.95
WHISTLER SPECTRUM REMOTE \$229.95
FUZZBUSTER PS-04 Supermet \$159.95
FOX XBR Remote \$99.95
COBRA RD4100 Supermet \$159.95

SONY

WM-F10II



• Super Walkman
AM/FM
Cassette
• Dobby B NR
Metal Tape
\$8995

STEREO-TO-GO

AIWA HS4000 Air-It AM/FM Rec Dobby \$139.95
AIWA HS1400 3-Way Air Dobby \$119.95
PANASONIC RX355 FM-Cass Dobby/Metal \$74.95
SANYO MC15A Cassette \$29.95
SONY SFS 5-1/2 Walkman \$54.95
SONY WM10 Super Walkman \$59.95
SONY WMD6C Pro Walkman Dobby B/C \$249.95
SONY WMD2 Quartz, Dobby B/C \$149.95
SONY WMFS Sports FM-Cass Walkman \$99.95
SONY WMFB AM/FM Cass Walkman \$64.95

maxell



MAXELL UDXLI-90 Hi-Level Bias \$1.99
MAXELL UDXLI-90 Hi-Easy \$2.49
MAXELL UDXSI-90 Hi-Bias \$1.59
MAXELL UDXSH-90 Hi-Bias \$2.29

AUDIO TAPES

TDK SAC-90 Super Avilyn \$1.79
MAXELL UDXLI-90 Normal Bias \$1.99
MINIMUM ORDER 12 AUDIO TAPES

BASF PROXII0 Chrome \$1.79
MAXELL UDXS5-90 Reel-to-Reel \$4.99
MAXELL UDXLI-90 UDXLI-C-60 \$1.79
MAXELL UDXSI-90 Super Normal Bias \$2.99
SONY UDX500 Super High Bias \$1.99
TDK ADX90 Super Normal Bias \$2.79
TDK MX590 Metal Partial Bias \$1.79
TDK MMR-90 Metal \$3.99
TDK SAJ90 Hi-Bias \$2.99
TEAC CR590 Normal Reel-to-Reel Cassette \$1.99
TEAC CR90 Hi-Bias Reel-to-Reel Cassette \$3.49

VIDEO RECORDERS

BETA

NEC VCN40E 210 Rev Cap Remote \$439.95
SANYO VC4000 30w 1/2 Rem. \$239.95
JVC HR225 Doby Stereo Rem. \$139.95
NEC VCN895 Hi-Fi Dobby Rem. Cap \$87.95
PANASONIC PV1225 120/160 Rem. \$329.95
PANASONIC PV1150 80/120 Rem. \$269.95
RCA VCRP50 Hi-Fi Portable \$599.95
RCA VTR150 Hi-Fi Stereo Rem. \$629.95

VHS

AKAI VSE61 Dobby Stereo Cap \$599.95
HITACHI VT88A Hi-Fi 340 Rem. \$609.95
JVC HR225 Doby Stereo Rem. \$139.95
NEC VCN895 Hi-Fi Dobby Rem. Cap \$87.95
PANASONIC PV1225 120/160 Rem. \$329.95
PANASONIC PV1150 80/120 Rem. \$269.95
RCA VCRP50 Hi-Fi Portable \$599.95
RCA VTR150 Hi-Fi Stereo Rem. \$629.95

VIDEO TAPES

TDK T-120 \$14.49
TDK HST-120 New Formulation \$4.99
After 1.00 per Tape Rebate From TDK
MINIMUM THREE TAPES

MAXELL MCXT-120 High Grade \$6.89
MAXELL HCBZ-120 Ultra High Grade \$6.89
SONY T-120JULC Ultra High Grade \$6.79
SCOTT T-120JULC Ultra High Grade \$6.79

SUPER SPECIALS

JVC T-120 \$4.79
RCA T-120 \$4.89
Hi-Fi X200 T-160 \$8.89
SONY T-120JULC \$4.89
SONY L830 \$6.89

*** FREE GIANT CATALOGS: CALL TOLL FREE 800-221-6027 • 568 PAGE AUDIO/VIDEO/COMPUTER CATALOG • 80 PAGE RECORD AND CASSETTE CATALOG • 128 PAGE VIDEO MOVIE CATALOG. Please Send \$1.00 for Postage and Handling**

CIRCLE NO. 39 ON READER SERVICE CARD

STEREO REVIEW MARCH 1985 89

STEREO REVIEW CLASSIFIED

EQUIPMENT

audio-technica **ADC**

EMPIRE LAT STANTON

SONUS

PICKERING

DIAMONDS ARE NOT FOREVER!

IF YOU CAN'T REMEMBER THE LAST TIME YOU CHANGED YOUR STYLUS, THEN IT MAY ALREADY BE TOO LATE!!!

We Are The Factory Authorized Original Cartridge & Replacement Stylus Specialists!!

(800) 221-0906

CALL TOLL-FREE FOR FREE PRICE QUOTES VISA/MC/C.O.D. ORDERS N.Y. State (718) 871-3303

SEND SELF ADDRESSED STAMPED ENVELOPE FOR OUR FREE CATALOG.

LYLE CARTRIDGES
Dept. SR Box 69 Brooklyn, N.Y. 11218

Phones Open Mon. - Sat. 9am - 8pm

ortofon SHURE ma

Stereo Express **CALL NOW** (714) 594-5749

CALL FOR PRICE FAST & FRIENDLY SERVICE
Most Orders Shipped Within 48 Hours
HOME AUDIO

YAMAHA, ADS, BOSE, HAFLER, HARMAN KARDON, INFINITY, AR, ALTEC, SONY, DBX, JBL, JVC, AIWA, TECHNICS, AKAI, SAE, MICRO SEIKI, ADCOM, TEAC, STAX, ADVANT AUDIO SOURCE, AND MANY MORE

CAR AUDIO
ADS, ALPINE, BLAUPUNKT, CONCORD, SONY, KENWOOD, PIONEER, CLIFFORD ALARMS

VIDEO
SONY, JVC, RCA, PANASONIC
709 Brea Canyon Rd., Suite 9, Walnut, CA 91789

FREE CATALOG—LOWEST DISCOUNT PRICES on Stereo/esoteric components and accessories for the home and car: Sony, Bose, JVC, AR, SAE, other "high quality" brands. **AUDIO UNLIMITED**, 1798A Technology Drive, San Jose, CA 95110. (408) 946-0340, 11-6, M-Th, 1-3 Fri.

QUALITY, USED AUDIO EQUIPMENT! Newsletter; hundreds of listings, items for sale, items sought, published 6X annually. \$8 one year subscription. Hard to find audiophile records! Play it Again Sam, 12611-SR, Madison Avenue, Lakewood, Ohio 44107. (216) 228-0040. MC, Visa.

DISCOUNT PRICES on woofers, mids, tweeters, crossovers, grille cloth, plans, much more. Send \$1.00 for information packed catalog. **UNIVERSAL SOUND**, Dept SR, P.O. Box 36052, Sarasota, FL 33583. (813) 953-5363.

HIGH-END SPEAKER KITS, raw drivers and auto speaker systems from the world's finest manufacturers. For beginners and audiophiles. Audax, Fried, Dynaudio, Dalestford, Jordan, JVC, SEAS, Morel, Slare, Peerless. Free price list. A&S SPEAKERS, Box 7462S, Denver, CO 80207. (303) 399-8609.

CALL TOLL FREE! 1-(800) 826-0520 for NAD, Dahlquist, Hafler, Denon, Proton, dbx, 3D, Tandberg, Belles, M&K, Monster Cable, Nititty Gritty, Oracle, Grado, Snell, B&W, Thorens, CWD, Sota, Duntec, Audioquest, NEC, VSP, Stax, Grace, Astatic Dynavector, DCM, Tallisman. **THE SOUND SELLER**, 1706 Main St., Marinette, WI 54143 (715) 735-9002.

UP TO 40% SAVINGS: Nakamichi, Denon, Grace, Teac Series Z, Alpine, Quad, etc. VISA/MC, C.O.D. (206) 323-4987.

FREE! 1985 CATALOGUE. 1001 bargains. Speakers—parts—tubes—video cassettes—record changers—tape recorders—kits. EVERYTHING IN ELECTRONICS. Write: **McGEE RADIO & ELECTRONICS**, 1901 McGee Street, Kansas City, MO 64108-1891.

AUDIO DISCOUNTS offers quality audio equipment including esoterics and car stereo at DISCOUNT PRICES! Monday thru Saturday call: (301) 593-8833. **AUDIO DISCOUNTS**, 1026 McConeny, Silver Spring, MD 20901. VISA, M/C, C.O.D. for your convenience.

BEST PRICE & IN STOCK! Perreaux, Bedini, Acoustat, Thorens, Hafler, Onkyo, B&W, Meridian, Vandersteen, Dynavector, Tascam, Spendor, Quads, 3D Acoustic, Belles, Meitner, Harmon Kardon, PS Audio, Video... Paul Kadar's Audio Video, 11420 Airline Highway, Baton Rouge, LA 70816 (800) 331-9893.

HARMAN/KARDON, Nakamichi, Crown, Revox, Tandberg, DBX, Hafler, Carver, Luxman, NAD DCM, Electro-Voice, and other quality components. Best prices—Professional Consultation. East: (904) 262-4000; West: (818) 840-0878.

BANG & OLUFSEN, ADS, Luxman, NAD, Thorens, Kyoocera. Reasonable prices. **Soundcrest Inc.**, (201) 756-4858.

COMPACT DIGITAL PLAYERS, MITSUBISHI, HAFLER, ACOUSTAT, SAE, NAKAMICHI, KLIPSCH, PS, THORENS, GRADO, FRIED, ADCOM, MIRAGE, more. Immediate, FREE, shipping! **READ BROTHERS STEREO**, 593-B King Street, Charleston, South Carolina 29403. (803) 723-7276.

ATTENTION HAFLER, DYNA, CROWN OWNERS. We build new higher performance circuits in Hafler, Dyna, Crown audio components. Not "modifications", but new PC cards and stable, non-slewing circuits that drive real world loads with music signals. Write or call for free catalog and sample of Audio Basics, our monthly newsletter. **Jensens Stereo Shop**, 2202 River Hills Dr., Burnsville, Minn. 55337. (612) 890-3517.

Speakerkit Catalog—30 proven designs for home, cars & (and) pro. JBL, Audax, Hafler, polypropylene drivers, & crossovers. \$2. **Gold Sound**, Box 141SR, Englewood, CO 80151.

THEY DON'T DISCOUNT IT? WE DO! GET LOW PRICES on ALL types of audio equipment—including high-end and even esoteric products not normally discounted! Now we can save you money on the equipment you REALLY WANT. Extensive selection—no need to settle for second choice. Thousands of satisfied customers nationwide. Call us for price quotes or friendly, expert advice. **Catalog L1**. (616) 451-3868. **VISA/MC/AMEX. THE AUDIO ADVISOR, INC.**, BOX 6202, GRAND RAPIDS, MI 49506.

CONNECTICUT: APT-Holman, Boston Acoustics, B&W, Carver, DCM TIME windows, Dynavector, Fourier, Hafler, Keff, KLH, Mitsubishi, Micro-Acoustics, Marcoff, Nakamichi, NAD, Ortofon, Panasonic, Proton, Pioneer, Quad, Robertson, Sanyo, Signet, Thorens, Walker, Pioneer Video, Mitsubishi Video. Will ship prepaid. **SOUNDS INCREDIBLE**, 39 Federal Road, Brookfield, CT 06804. PHONE QUOTES ONLY CALL: IRA, (203) 775-1122.

Amplifiers • Preamplifiers Signal Processing

KINERGETICS INCORPORATED

6029 RESEDA BOULEVARD • TARZANA, CA 91356
(818) 345-2851

PAY DEALER COST

On Home & Car Stereo... Video Equipment also Satellite T.V. All top brands. No deposit, same day shipping, no lemon guarantee. Full lifetime service. Call 9am to 9pm daily, 'til 5pm Saturday.

1-301-488-9600
INTERNATIONAL HI FI DISTRIBUTORS
Moravia Center Industrial Park
Baltimore, Maryland 21206

Visit a Showcase of AudioVideo Values in N.Y.C.-L.I.-Metro Area

ADS-BES-DCM-STAX-GRADO-ALPINE-GRACE-AMBER-ADCOM-SIGMET-FOSTEX-RENOH-LUXMAN-ALLISON-PYRAMID-ALOSS-TA-SMAN-PROTON-AUDIO-PRO-3D-ACOUSTICS-AUDIOCONTROL-UNGO-ROA-RANG-I-DOLBY-BOSTON-ACOUSTICS

Call for hours: 212 961-9888. No mail orders.

173 Broadway, New York City, NY 10007
(N.W. corner of 57th & Cortland. One flight up, entrance on Cortland.)
184-10 Horace Harding Express, Fresh Meadows, NY 11365
East 25 L.I.E., Tuxedo Plaza (Three blocks from Bloomingdale St.)

SOUND STAGE
AUDIO VIDEO

NAKAMICHI • KOETBU • ACCURPHASE • LUX • MICRO SEIKI

ALL JAPANESE HIGH-END DISCOUNTED

America's Largest Selection
OVER 100 CARTRIDGES, 50 TONEARMS, 30 TURNTABLES, 100 ACCESSORIES, & MORE
CATALOG - \$3.00

JAPANESE STEREO
930 N. La Cienega Blvd.
Los Angeles, CA 90069 • (818) 659-8550

• SABC • HIGHPHONIC • SONY ES • ESPRIT • ENTRE • STAX •

NOTICE TO REVEX BUYERS: Unauthorized dealers are selling Revox products not designated for sale in the USA. **STUDER REVEX AMERICA** CANNOT BE RESPONSIBLE FOR ANY WARRANTY SERVICING OF PRODUCTS SOLD BY THESE DEALERS. For the location of your nearest authorized Revox dealer, call or write: **Studer Revox America**, 1425 Elm Hill Pike, Nashville, TN 37210; (615) 254-5651.

CABLE TV CONVERTERS, Police Radar Detectors and Scanners. Send \$1.00 for catalog. **Great Lakes Communications Inc.**, 0-2026, Chicago Drive, Jenison, MI 49428.

HAFLER, CARVER, YAMAHA, BOSE, MCINTOSH, etc., in stock. Trades welcomed. **Audio Exchange**, 57 Park Place-SR, NY, NY 10007. (212) 964-4570.

Quality Tapes

THIS MONTH'S SUPER SPECIALS

TDK		MAXELL			
SA 90	1.75	MA 90	4.19	UDXL II 90	1.89
SA 60	1.69	NA 60	3.89	UDXL II 60	1.75
SAX 90	2.69	HX-S 90 New	4.15	XLI S 90	2.65
SAX 60	2.49	HX-S 60 New	3.89	MX 90	4.59
ADX 90	2.55	MAR 90	5.85	UD 90	1.85
AD 90	1.85	MAR 60	4.79	UD 60	1.65
AD 60	1.45	LX 35-90	4.79	LN 90	1.15
D 90	1.15	LX 35-90B	5.85	LN 60	1.05
D 60	1.05	T-120	5.25	UD 35-90	4.89
HD-01 D'mag	12.49	T-120 HS	6.49	XLI 35-90B	6.39
		T-120	5.25		
		FUJI			
		FR META. 90	3.49	T-120 HCX	6.29
		FR II 90	1.99		
		SONY			
UCXS 90	1.95	FR II 90	1.99	DISCWASHER	
UCXS 60	1.85	T-120	5.35	DISKIT	32.49
LNK 90	1.05	T-120 SHC	6.75	SYSTEM	9.49
LNK 60	.85	TEAC		Tape Care Set	9.49
L-750	4.99	Reels in Casset.		16 oz. Fluid	9.99
L-750 HG	7.49	DC 90	2.89	D'mag	12.49
T-120	4.99	CR 90	3.19	DISCSET	14.49

CALL NOW 718-434-3117 OR ORDER BY MAIL
in Continental USA add \$3.50 for shipping on orders up to \$30. Over \$70 add 5% of total order. Elsewhere in USA add \$7 on orders up to \$70. Over \$70 add 10%. Outside USA write. MC/VISA additional 3%.

QUALITY TAPES
864 East 7th Street, Dept. SR 3, Brooklyn NY 11230

ELECTRACRAFT features Aiwa, Audio Control, B&O, Dahlquist, DCM, Grado, Hafler, Linear, Mitsubishi, NAD, NEC, Signet, Revox, Tandberg, Thiel. **ELECTRACRAFT**, 212 North First Avenue, Sandpoint, ID 83864 (208) 263-9516.

SAVE UP TO 75%! Esoteric loudspeaker kits, acoustic foam, drivers, enclosures, capacitors etc. Catalog \$2.00. Refundable. **Audio Concepts**, 1631 Caledonia St., La Crosse, Wisconsin 54602. (608) 781-2110.

MONSTER CABLE at LOWEST PRICES cut to any length. We carry all Monster Cable accessories. Hafler, Kenwood, Systemdek, Thorens, Grado, DCM, JBL, Nititty Gritty, Tweek, Maxell UDXL II C90 \$1.89 each minimum of 12. Call or write for other great prices. \$4.00 shipping charge. **MC/VISA. Trolley Stereo**, 364 Trapelo Road, Belmont, MA 02178. (617) 484-7847.

AUDIO DEN, call us for our service, our experience, and especially our prices. We carry Adcom, Audio Research, Denon Hafler, Infinity, Klipsch, Nakamichi, Proton, SAE, Thorens. We ship anywhere in the USA. **AUDIO DEN LTD.**, Smith Haven Plaza, 2021 Nesconset Highway, Lake Grove, New York 11755. (516) 360-1990.

FREE SOUNDTRACK LP. Send \$2.50, refundable with order, for soundtrack catalog subscription and free LP. Star, Dept. SR-10, Box 7, Quarryville, PA 17566. Phone (717) 284-2573.

AUDIOPHILE ALBUMS, COMPACT DISCS! DISCOUNT PRICES! Prompt shipping. FREE catalog. FOR THE RECORD. Box 21201SR. Columbus. OH 43221.

PROTECT YOUR LP's—Poly, Paper, cardboard jackets. Send for FREE catalog. Record House, Hillburn, NY 10931.

LIVE OPERA PERFORMANCE ON DISCS-VIDEOS. Unbelievable treasures—free catalog. Legendary Recordings, Box 104, Ansonia Station, New York City, NY 10023.

WHILE YOU WERE LOOKING FOR "Out-of-Print" Records you should've been looking for us! DISContinued (213) 846-9192.

\$100 FOR TOP HIT RECORDS AND CASSETTES. Only \$1.00 each plus postage and handling when you buy another at regular price—usually \$8.98. Booklet of 30 coupons cost only \$30.00 (over \$200.00 value), can be redeemed for records or cassettes anytime. Satisfaction guaranteed. Send \$30.00 check or MO to: Childs Play Prod., 85-01 Wilshire Blvd., Suite 140, Beverly Hills, CA 90211.

JAZZ RECORDS, Big Bands, Mainstream, Dixieland, Discographies, Imports. Craig Recording, PO Box 943, El Dorado, AR 71731-0943.

WORLD'S LARGEST, COMPUTERIZED CATALOG of rare records 28,000 entries. Classical showbiz popular jazz, comedy spoken. \$5.00 refundable. Round Sound West, P.O. Box 2248, Leucadia, CA 92024.

SPECIAL SELECTIONS OF CLASSICAL LP's and cassette at discounts up to 70%. Send for free catalog. Chesterfield Music Shops, Dept. S, 226 Washington St., Mount Vernon, New York 10553.

MFSL Stones collection \$200.00. Low price audiophile collector albums/CD's. Complete price list \$2.00, refunded first order. VISA/MC ACCEPTED. MFYE, P.O. Box 668585-A, Charlotte, NC 28266-8585.

OUT-OF-PRINT LP's (no rock/classical)—Free list: Davidson, 6114 Gist, Baltimore, MD 21215.

CASH for unwanted LP's, prerecorded reel tapes and cassettes. RECORDS HOUSE, Box 323, Hillburn, NY 10931.

COMPACT DISC

COMPACT DISCS & ACCESSORIES. Call TOLL FREE 1(800)-ALL-DISC, (in CT. 1 452-0203), for FREE CATALOG M-F 10-8, Saturday 10-6, Sunday 11-4. ALL DISC MUSIC INC., 133 Wheeler Road, Monroe, CT 06468.

COMPACT DISCS! Most \$11.99-\$13.99. 2000 plus titles in stock. Free catalog plus monthly updates. OZ RECORDS, 5246 Memorial Drive, Stone Mountain, Georgia 30083. (404) 292-5452.

COMPACT DISCS! Over 1900 titles priced from \$10.49. Send \$1.00 for catalog. DISC HAVEN, Box 16B, Storrs, CT 06268.



COMPACT DISC CENTER
P.O. Box 616 S. Clifton Park, NY 12065
(518) 664-2550

Many Discs \$13.99
Quantity 10 and over only \$12.99
\$2.00 Cont. U.S. shipping
FREE CATALOGUE

COMPACT DISCS! Over 2000 titles available—immediate delivery—FREE catalog. LAURY'S RECORDS, 9800 North Milwaukee Ave., Des Plaines, IL 60016. CALL TOLL FREE 1 (800) CD-DISKS—outside Illinois. (312) 296-0420 in Illinois.

COMPACT DIGITAL DISCS AT DISCOUNT PRICES. Southeast's CD Headquarters. Free Catalog. Cat's Records and Tapes, PO Box 22773, Nashville, TN 37202.

COMPACT DISCS—Import/domestic labels— thousands of titles in stock—low, low prices. Comprehensive CD catalog available for \$2.00, applicable to your first order. Bimonthly newsletter covering new releases for CD's/LP's/tapes free upon request—Serenade Record Shop, Dept SR85, 1713 "G" St. N.W., Washington, DC 20006. (202) 638-6648.

COMPACT DISC/AUDIOPHILE AND IMPORT ALBUMS. Large selection, fair prices, fast service, detailed monthly Bulletin. 20% Discount on initial purchase. Call or write for FREE catalog issue. The Essentials Marketing, Dept. S85, Box 7724, Eugene, OR 97401.

COMPACT DISCS: Complete Selection, Super Low Prices. Catalog \$1, Refundable with Order. Compact Disc Warehouse, PO Box 1082, Agoura, CA 91361.

COMPACT DISCS, over 900 Classical/Opera/Jazz/Musicals IN-STOCK. Detailed catalog \$1.00. ETHEL ENTERPRISES, Box 3301, Falls Church, VA 22043.

COMPACT STORAGE.

DISCBOX.™



This new storage system for the Compact Disc is a unique method of housing your expanding record collection. Discbox modules may be arranged in rows or stacks, using the exclusive interlocking feature.

Each module, which may be shelf or wall mounted, holds up to ten Compact Discs complete with their cases. Quick, easy access to your Compacts is assured no matter how large your library grows.

DISCBOX SYSTEM*. GROWS WITH YOUR COLLECTION.

***Registered Design**

Circle amount below	Total
4 Discboxes @ \$5.24 Each. Shipping \$1.75	\$22.71
8 Discboxes @ \$4.86 Each. Shipping \$3.00	\$41.88
16 Discboxes @ \$4.48 Each. Shipping \$4.75	\$76.43
24 Discboxes @ \$4.11 Each. Shipping \$7.25	\$106.39

Kindly enclose check/money order or complete charge card information for Visa/MC/Amex.



INTERNATIONAL BOOK & RECORD DIST.
40-11 24th Street L.I.C., N.Y. 11011
(212) 784-3929

GOING PORTABLE? New Compact Disc carrier offers you safe, durable, compact protection for six discs. Handmade of top quality nylon with velour lining and velcro closure. Money back guarantee. Available in black, blue and red. Send \$12.95 plus \$1.50 postage and handling to: Shore Brothers Ltd., Box S, 2323 Corlith Avenue, Los Angeles, CA 90064.

GET ORGANIZED BEAUTIFUL SOLID OAK STORAGE RACK. Holds 60. Three shelves. Handsome finish. 9 1/2" wide, 15" high. Fine quality. Unconditional full refund guarantee. Low price, \$19.95. THE OAK PEOPLE, 5503 17th NW, B 205-SR, Seattle, WA 98107.

AUDIOPHILE CLASSICAL, JAZZ, POULAR, and DEMO CD's at 20-40% off. Virtually all DOMESTICS, many IMPORTS. PROMPT DELIVERY—FREE CATALOGUE—MasterCard/VISA. PRIME SOURCE, Box 2222-SRD, Sarasota, CA 95070. (408) 867-6666.

COMPACT DISCS AND LASER VIDEO DISCS. Nice prices—free lists. MC/VISA. SIGHT & SOUND INC., 18 Bennett St., Boston, MA 02135. (617) 787-4465.

BUSINESS OPPORTUNITIES

ERASE DEBTS with little-known law—CREATE wealth! Details FREE—WealthKit, No. DD3, Billings, N.Y. 12510.

BORROW \$300—\$30,000 INTEREST FREE! Keep indefinitely! Free Details. Write: American, 1601 Main, Plainfield, Indiana 46168.

\$360 WEEKLY/UP, MAILING CIRCULARS! No quotas. Sincerely interested, rush stamped envelope: Marketing International, Box 15877-TR3, San Diego, CA 92115.

MAIL ORDER OPPORTUNITY! Start profitable home business without experience or capital. Information free. Mail Order Associates, Dept 621, Montvale, NJ 07645.

ELECTRONIC REPRESENTATIVES NEEDED! Lowest possible prices!! Over 100 brands! Audio, Video, Car Stereo, Computers, Electronic Experts, 1000 Orange Ave., West Haven, CT 06516.

GOV SURPLUS

IS IT TRUE you can buy jeeps for \$44 through the US government? Get the facts today! Call (312) 742-1143 ext. 4670.

INSTRUCTIONS

YOUR OWN RADIO STATION! AM, FM, cable, licensed, unlicensed, low-cost transmitters! Free information: Broadcasting, Box 130-R3, Paradise, CA 95969.

BE A RECORDING ENGINEER! New classes quarterly. Institute of Audio/Video Engineering, 1831 Hy-perion, Dept L, Hollywood, CA 90027. (213) 666-3003.

BOOKS & MAGAZINES

PUBLISHERS' OVERSTOCKS, BARGAIN BOOKS 2,000 titles, all subjects! Free catalog: Hamilton, Box 15-D, Falls Village, CT 06031.

SATELLITE TV VIEWERS

Get the most complete weekly listings
Send \$1 for sample copy.



"P.O. Box 308Z, Fortuna, CA 95540"
800-358-9997 (U.S.) • 800-556-8787 (Call.)
707-725-2476 (all others)

WANTED

WANTED: LPs/CASSETTES. New, used. Top dollar paid. Send lists. Princeton Record Exchange, 20 Nassau Street, Princeton, NJ 08542. (609) 921-0881.

MOVIE FILM/VIDEOTAPES

GREAT ARTISTS VIDEO. The exciting alternative for operatic video collectors. Box 797, Bronx, New York 10469.

COLLECT HOME VIDEO MOVIES! Everything imaginable! All ratings. VHS, Beta. Catalog \$2.00. Tower, Dunkirk, MD 20754-0213.

LASER WORKS. Videodisc NEWSLETTER. \$12.00/yr. Write for FREE sample. P.O. Box 250031-E, Los Angeles, CA 90025.

EDUCATIONAL OPPORTUNITIES

LEARN WHILE ASLEEP. Hypnotize! Astonishing details, strange catalog free! Autosuggestion, Box 24-ZD, Olympia, Washington 98507.

FOR INVENTORS

INVENTORS! IDEAS HAVE VALUE!

Ever think of an idea, forget it and see it later on the market? Many people don't forget, act quickly and are rewarded by American Industry. Write down your idea! We offer free disclosure registration and initial consultation regarding your idea's potential value. Call or write without delay for your free information package.

AMERICAN INVENTORS CORPORATION
82 Broad St., Dept. SR
Westfield, MA 01086
413-568-3753

A Fee Based Marketing Company
Offices Coast to Coast

PERSONALS

MAKE FRIENDS WORLDWIDE through International correspondence. Illustrated brochure free. Hermes-Verlag, Box 10660/Z, D-1000 Berlin 11, W. Germany.

ORIENTAL SINGLES seeking cultural exchange, friendship, sharing, marriage. WRITE: CHERRY BLOSSOMS, Box 1021P, Honokaa, Hawaii 96727.

MEET ASIAN LADIES! Send \$2.00 for photo album. DETAILS: Friendship, 4959SC Hollywood Blvd., Hollywood CA 90027.

CORRESPONDENCE TO ASIA FOR LASTING RELATIONSHIP. Free information. AAWS-SR, Box 2777, Orcutt, CA 93455-0777.

LOVELY CULTURED ASIANS desire correspondence/marriage. Educated/Faithful, ISCC, 3857 Birch, Suite 596-PR, Newport Beach, CA 92660.

ORIENTAL BEAUTY SEEKS ROMANCE! Warm, loving, sincere, lonely. Thousands residing USA, worldwide. All ages. FREE PHOTO ALBUM! Pacific, Suite 18-A, 8033 Sunset, Hollywood, CA 90046.

CLASSICAL MUSIC LOVERS' EXCHANGE. Nationwide link between unattached music lovers. Write CMLE, Box 31, Pelham, NY 10803.

INDIVIDUALS. COUPLES—Friends for sports, hobbies, travel, vacations, correspondence—nationwide, worldwide. ELECTRONIC EXCHANGE, Box 68-S41, Manhattan Beach, CA 90266.

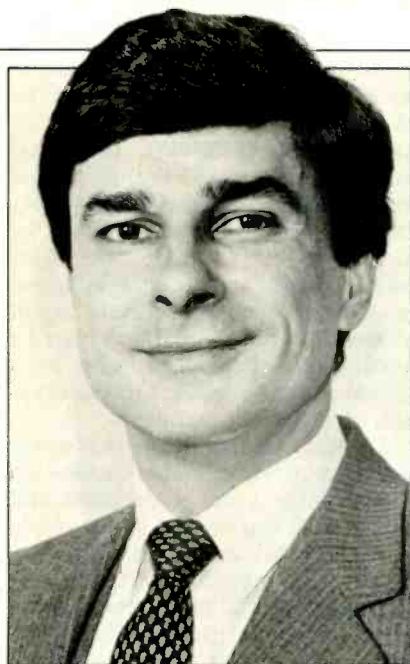
FRIENDSHIP WORLDWIDE! 153 nations! All ages. Free details. International Pen Friends, Box 443R, Lindsborg, KS 67456.

WHAT THEY'RE WATCHING

ADVERTISERS' INDEX

READER SERVICE NO.	ADVERTISER	PAGE NUMBER
--------------------	------------	-------------

20	ADS Audio-Technica U.S., Inc. Austin Nichols—Wild Turkey	19 70 11
15	BASF Bose Corporation Boston Acoustics	8 21 75
33	Canton	5
49	Carver Corporation	71
54	CBS Masterworks Chrysler Corporation	85 26-27
71	Discount Music Club	80
18	Fujitsu Ten	23
	Illinois Audio	88
39	J & R Music World	82
30	LaBelle Camera & Stereo of Maine	78
	Marlboro	12
32	McIntosh Laboratory Inc.	23
	Merit	42-43
50	Mission Electronics	73
25	Pioneer Video, Inc.	14-15
37	Polk Audio	17
	Radio Shack	2
	R. J. Reynolds/Camel	33
	R. J. Reynolds/Winston	Cover 3
44	Sansui Electronics Corp.	28
41	Shure Brothers	7
	Sony	84
38	Stereo Corp. of America	87
47	Studer Revox	77
48	TDK Electronics	Cover 4
1	Technics	Cover 2
	U.S. Army	37
56	Wisconsin Discount Stereo	86
	Yamaha International Corp.	31



JIM OBLAK

Manager, Car Hi-Fi Division
of Sansui Electronics

ALTHOUGH professionally he has long been involved with car stereo, Jim Oblak confesses that privately he is also a video freak. His New York apartment is equipped with an Advent projection-TV system, but commercial TV rarely lights up its large screen. He watches the local PBS channel a bit and sees a fair amount of MTV, but that's about it for broadcasts. "Consequently, I hardly ever do any taping off the air," Oblak says, "and only occasionally use my VCR equipment in its time-shift mode."

In all other modes, however, his VCR and video-disc player are put to heavy use. "I watch a lot when I'm alone, letting the video serve as a kind of wallpaper while I'm doing something else," he says. "Of course, I also enjoy having friends in to watch my favorite videos with me. Some of these are classics, some are relatively new. A recent favorite is Madonna's *Like a Virgin*, and I like the new one Herbie Hancock recorded in London with his Rockit Band."

Also high on Oblak's list are the eight-inch David Bowie LaserDisc

"Let's Dance," which contains the unexpurgated *China Girl*, the one they won't show on MTV, and Linda Ronstadt's "What's New" concert disc, which she made with Nelson Riddle. "Both of these," Oblak says, "are great pieces of video and feature first-rate sound."

Another LaserDisc he plays often is Vivaldi's *The Four Seasons*, a version in which each season is pictured in a different world capital—winter in Moscow, spring in New York, and so forth—with occasional cuts back to the instrumentalists and the conductor, Lorin Maazel. "The imagery is superb, and so is the stereo sound."

To get the best sound quality from these video discs and tapes Oblak has a Pioneer LaserDisc player and one of the new VHS Hi-Fi video-cassette recorders produced by his own company, Sansui. Both are fully compatible with his favorite "older" video program material. This includes Michael Nesmith's "Elephant Parts." Oblak says, "It was one of the first concept videos, and it's still great to pull out every once in a while."

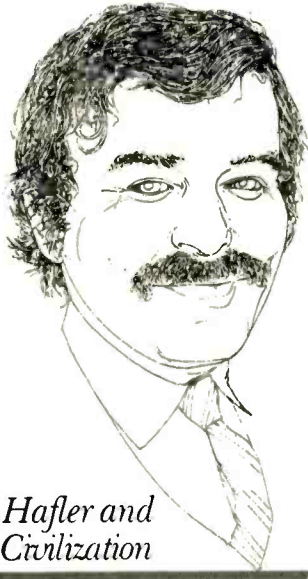
A film classic he plays a lot is *Cabaret* with Liza Minnelli. "Although the sound is mono, it's good sound. *Death in Venice* is another classic movie that gets an extended run in my house."

For those with an artistic bent, video offers other possibilities. Oblak, for example, makes collages. "With my Sansui video processor I can take any kind of video image and fiddle with it on the screen, then lay a soundtrack over it to create my own video art. It's like watching scrambled cable without the cable decoder, but this way you can put yourself in the act and modulate the picture right along with the music."

Doing all this requires equipment, of course, and for an admitted video freak there is a lot to choose from. What's next for Oblak? "Well, I'd like to get one of those Dolby Surround Sound decoders to give me multichannel playback capability. Then when *2010* becomes available on video tape and *Indiana Jones and the Temple of Doom* comes along, with their incredible soundtracks, I'll be ready." *Christie Barter*

MARCH 1985

by Ralph Hodges



David Hafler and
Audio Civilization

I WAS NOT born when David Hafler began to do his high-performance, low-price number on the high-fidelity industry during the late Thirties. By the time I was sixteen, he had it worked up to the point where even a teenager could afford to be an audiophile. That was one factor among many that made Dynaco, Hafler's first company (before that he had been involved with making output transformers for tube amplifiers), a household word in the high-fidelity community. Another was his fortuitous arrival on the market with a 50-watt amplifier, at a time when such power outputs were exceedingly rare, simultaneously with the first of the power-hungry Acoustic Research loudspeaker systems. That the two products could have been made for each other escaped no one's notice.

Dynaco's credibility may have suffered a bit because the new amp was bafflingly cheap compared with what was being offered by McIntosh and Marantz at the time, and furthermore, like everything else Hafler has ever offered, it was sold principally as a kit! But when it was compared in auditions with the best of the competition and not found wanting, doubts began to dissolve.

Hafler decided to sell Dynaco just after the four-channel phenomenon

bottomed out, and he went off to become deeply involved with Ortofon. When he sold it, Dynaco was in robust good health, but Hafler saw no immediate prospects for significant improvement in audio electronics, whereas transducers begged for attention. Dynaco's new proprietors altered the Hafler formula, and when he was ready to return to electronics the company had long since gone under, leaving a ready-made vacuum for the new David Hafler Company to move into. The current David Hafler products—amplifiers, preamplifiers, and a tuner, all available as kits as well as fully assembled and tested—are plainly exactly what the Dynaco line would have been had Hafler remained at the helm.

The best word to describe Hafler's attitude toward the high-fidelity market is probably "civilized." Values such as continuity, common sense, and obligation to the customer have deep importance for him, and a loyal, extremely responsive following sticks with him through thick and thin. Hafler's devotion to music reveals itself in extraordinary ways. Some years ago, at a Consumer Electronics Show in Chicago, he and Bud Fried of Fried Products gave a lavish dinner party. As guests were greeted by their hosts, they were told that while conversation about music was permitted and even encouraged, conversation about product could be checked at the door. It was a reminder, all too rare of late, that what the audio industry is really about is hearing music of worth and endurance as well as possible.

What you hear from a product of David Hafler's devising tends to offer a fascinating commentary on audio design and its ultimate objectives as interpreted by a very strong personality. Back in the Sixties, when Hafler undertook the creation of Dynaco's first transistorized amplifier, the Stereo 120, he was determined that the new product should in every way be the aural equivalent of the company's top vacuum-tube amplifier, the celebrated Mark III. Today it is part of the audiophile litany that transistors don't sound like tubes, but in those days they *really* didn't sound like tubes, and Hafler's announced

intention was viewed with fond but skeptical interest. In the end he didn't fully succeed; the Stereo 120 persisted in sounding somewhat like a transistorized amplifier, and behaving like one in other ways too. Yet the product demonstrated, for the first time, that "transistor sound" wasn't an inflexible tyranny, that through appropriate circuit design it could be made to alter its character in significant and even pleasing ways—at least in the opinion of many audiophiles.

I think it is fair to say that every once in a while Hafler makes an indefensible product decision and sticks to it too rigidly. An example would be his over-eager adoption some years ago of the IEC's suggested infrasonic rolloff characteristic for phono preamplifiers, the slope of which is too moderate to avoid affecting the audio band entirely; it was clearly chosen to cater to the cost constraints and performance levels of mid-fi equipment, not state-of-the-art gear. However, the typical Hafler customer does not worry overmuch about such things. Any philosophical disagreement he has with a circuit he simply modifies out in building the equipment from the kit. The Dynaco equipment, tube and transistor, enjoyed the distinction of being the most modified in audio history, and the David Hafler products are rapidly approaching the same status. It gets modified because kit designs are easy to work on and because the basis for an excellent product is already there. Understandably, Hafler confesses to mixed emotions about all this, but he won't deny anyone the right to experiment. And when he sees a modification that just might have merit, he has it checked and checked again. If it proves out, he will probably use it in a later version of the product.

Recently the David Hafler Company acquired Acoustat, a distinguished manufacturer of electrostatic loudspeakers and electronics that was floundering economically. Does this indicate that Hafler wants to expand? Not really, he says. Even though the Acoustat products competed with Hafler's own in some areas, they were just too good to lose. It would have been uncivilized to let Acoustat go under. □

Winston. America's Best.

Excellence.
The best live up to it.



11 mg. "tar", 0.7 mg. nicotine av. per cigarette by FTC method.

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

Supreme Extremes with TDK.



The classic problem with recording classical music is faithfully reproducing an enormous spectrum of sounds. Some audio cassettes give you improved highs. Some, improved lows. Others, improved in-betweens.

Only one cassette can offer you the best of everything. TDK SA-X. It's one of our Pro Reference Series of audio cassettes designed to produce unmatched performance for every style of music.

Surpassing all other conventional high bias cassettes in its class, SA-X handles strong signals without distortion or saturation, thanks to its super-wide dynamic range and higher MOL.

With an exclusive dual coating of Super Avilyn particles, SA-X orchestrates optimum performance at all frequency levels. From rich, solid bass, to mellow cello, to the peaks of a piccolo, it reproduces the crispest, clearest, purest audio pleasure.

And to assure a standing ovation play after play, our specially-engineered Laboratory Standard mechanism provides a smoother tape transport and better tape-to-head contact for total reliability and trouble-free performance.

You'll also get incredible performance from our other three TDK Pro

Reference cassettes: MA-R metal, HX-S metal particle high-bias, and AD-X Avilyn-based normal bias.

Each is designed to deliver pure listening pleasure and long-time reliability...backed by our Lifetime Warranty.

Maximize the performance of your musical library. Pick up TDK Pro Reference cassettes today.

We go to extremes to improve your listening pleasure.

 **TDK**[®]
THE MACHINE FOR YOUR MACHINE.[®]
CIRCLE NO. 48 ON READER SERVICE CARD