

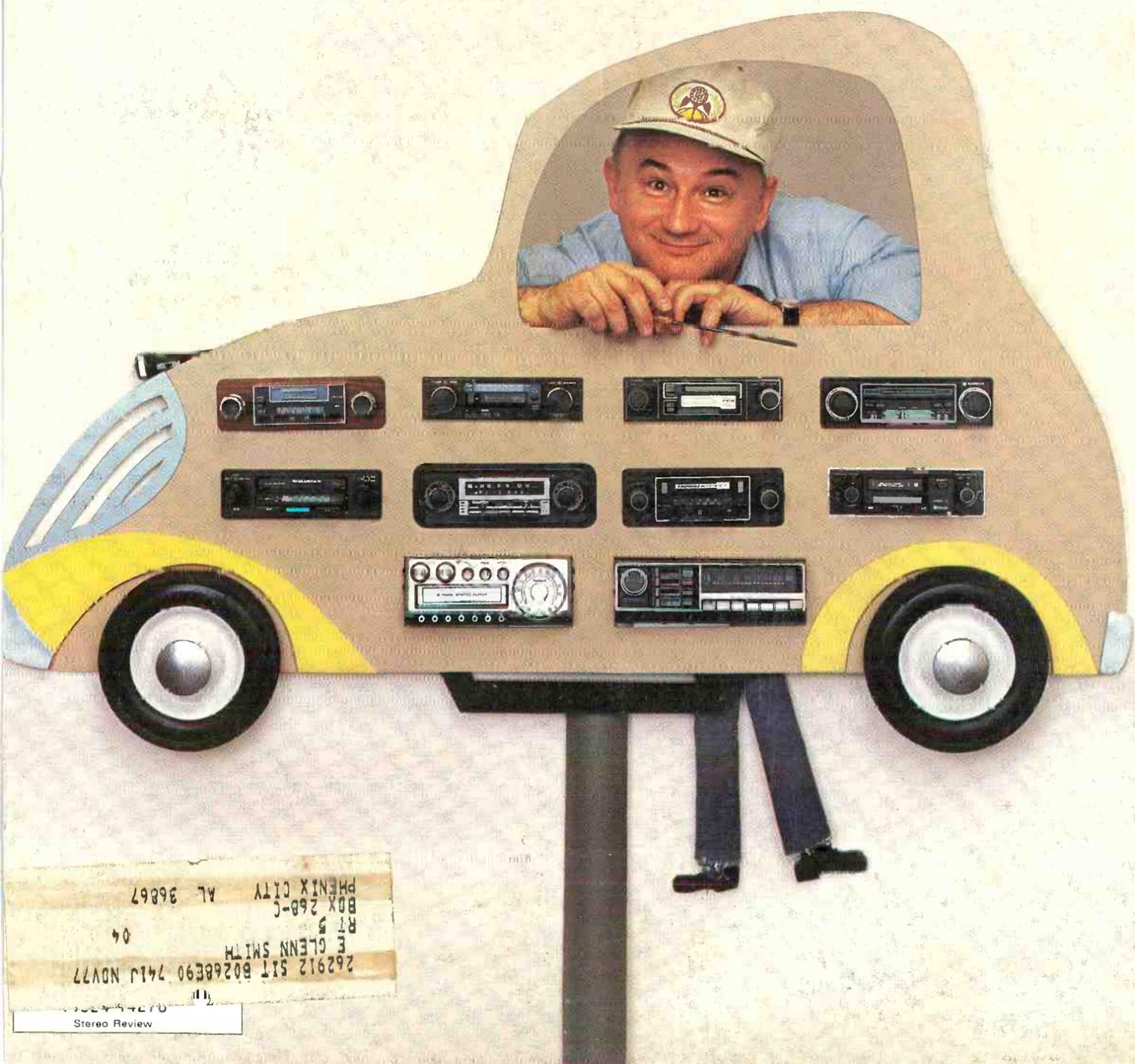
Stereo Review

14276

APRIL 1977 • ONE DOLLAR

Cautions and Precautions: Buying Hi-fi for Your Car
Getting Ready for Elgar • How to Learn to Love Reggae

HIRSCH-HOUCK LABS TEST REPORTS: Audio Pulse Model One Time-delay System • Avid 101 Speaker System
Realistic SA-2000 Integrated Stereo Amplifier • Shure M24H Stereo/Quadraphonic Phono Cartridge



**IN THE LAST 24 MONTHS
11 COMPANIES
HAVE INTRODUCED
“SUPER AMPLIFIERS”
THAT YOU CAN’T FULLY
APPRECIATE UNTIL YOU
HEAR THEM THROUGH
THESE SPEAKERS.**

INTRODUCING HPM-200. THE FIRST SPEAKERS DESIGNED TO DELIVER ALL THE SOUND EXPENSIVE, HIGH-POWER AMPLIFIERS CAN PRODUCE.

Most speakers available today were designed at a time when most of the powerful amplifiers you could buy produced under 100 watts a channel.

Which means if you have invested in one of the new super amplifiers, your speakers could well be keeping you from appreciating the full extent of your investment.

So Pioneer has developed a speaker system that can bring you all the peak levels, all the

transients, every last bit of listening enjoyment your super amplifier is capable of giving you.

It's called HPM-200. "HPM" stands for "High Polymer Molecular" film, a material that makes it possible to transform electrical energy into acoustical energy with complete accuracy.

The HPM-200 tweeter and supertweeter are made of this unique material, which produces sound directly at the film surface.

There are no magnets. And no voice coils. So there are no mechanical moving parts to get between the sound your amplifier puts out and the sound you hear.

And High Polymer Molecular film can handle an almost limitless range of power. Without distortion. Without any loss in linear response.

Since High Polymer Molecular film can be shaped into a 360° cylinder, the HPM-200 tweeter and supertweeter produce equal high frequency dispersion over a full 360°.

Instead of one woofer, HPM-200 has two. One optimized for deep bass. The other optimized for upper bass. Together, they cover the frequencies from 25 to 700 Hertz, with minimum distortion and maximum damping.

They may look like conventional

drivers. But they're not made like conventional drivers. The cone materials include special carbon fibers that give them exceptional rigidity and low mass. So they can fully reproduce transients, without breaking up. Even when driven by enormous amounts of power.

The HPM-200 also has a specially-designed midrange

driver. A 2-1/2" neoprene-impregnated cloth dome unit that, unlike most speakers, is peripherally driven for low distortion. Also unlike most speakers, this midrange unit is accurate to within 3 dB, even at 60° off axis.

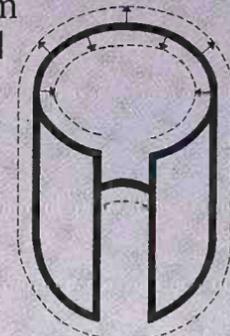
And, to keep all five HPM-200 drivers in balance and working together, we've engineered a massive crossover network that keeps all sound waves in phase over the entire listening area.

But no design dissertation can fully describe what the HPM-200 actually sounds like.

Irving Kolodin wrote for *Saturday Review*, after hearing Berlioz' "Symphonie Fantastique" over a pair of HPM-200s "... such towering presence that one could diagram the disposition of the Chicago Symphony just from the reproduced sound."



The revolutionary High Polymer Molecular film tweeter and supertweeter. They don't look, or work like conventional speakers.



High Polymer Molecular film produces sound directly on the surface. So there's no need for voice coils or magnets.



We believe the HPM-200 represents a new standard of accuracy in loudspeakers. Its dynamic range, transparency and overall lifelike impact are without precedent.

Ask your Pioneer dealer to play the super amplifier of your choice through speakers similar to the ones you're now using. Then ask him to play it through HPM-200s.

We assure you, you'll hear things you've never heard before.

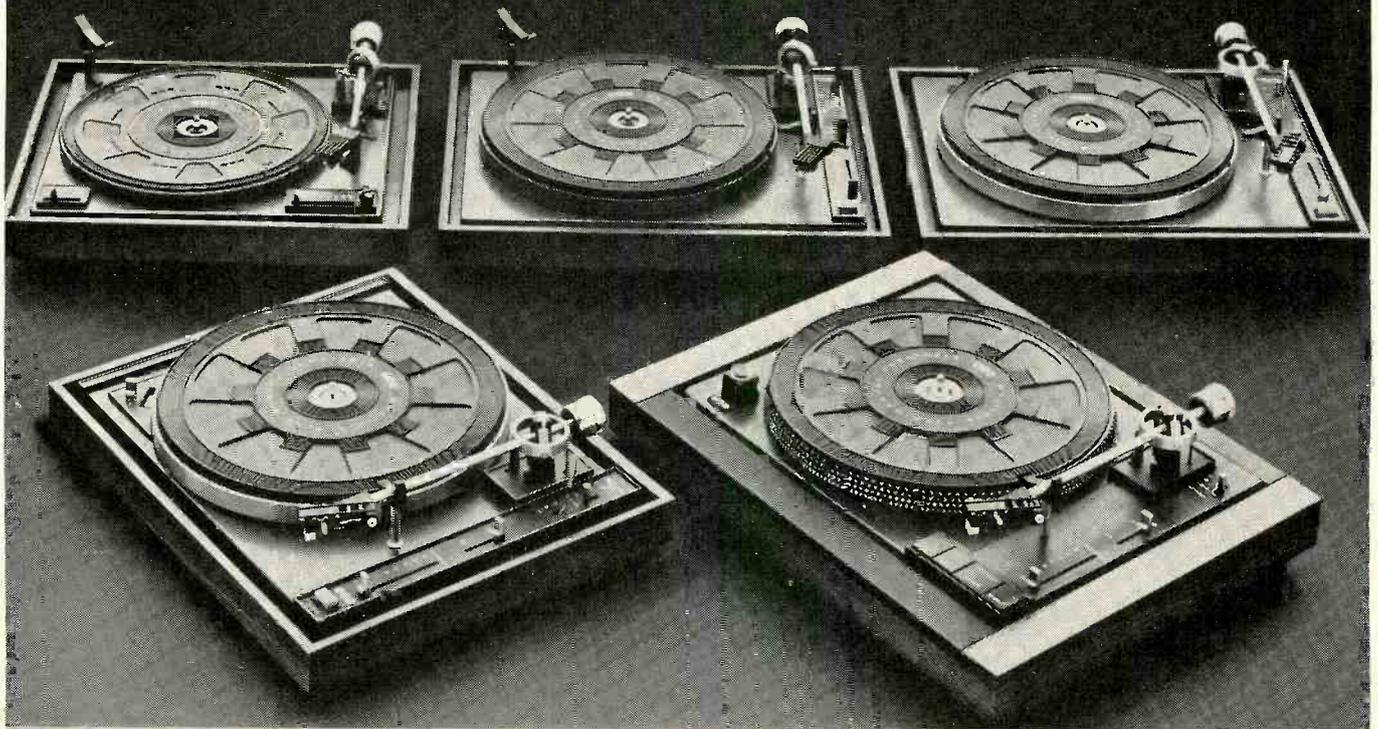
HPM-200
PIONEER
 U.S. Pioneer Electronics Corp.,
 75 Oxford Drive, Moonachie, New Jersey 07074.



CIRCLE NO. 61 ON READER SERVICE CARD

©U.S. PIONEER ELECTRONICS CORP., 1976.

**Anyone who tells you
that a single play
turntable is better
than one of these has
never checked out
one of these.**



These are the five belt-drive turntables from B-I-C (pronounced "bee eye cee"). All feature low speed 300 rpm motor, program system, and superior tone arm that give them the high performance of comparable manual turntables plus multiple-play capability. For details pick up our "5 Turntables" folder at high-fidelity dealers or write to British Industries Co., Westbury, N.Y. 11590.

5 Turntables B I C™

Model 920 about \$79—940 about \$109—960 about \$159—980 about \$199—1000 about \$279. © 1976 British Industries Co. A Division of Aynet Inc.

CIRCLE NO. 9 ON READER SERVICE CARD

FORMERLY HI FI/STEREO REVIEW

Stereo Review®

APRIL 1977 • VOLUME 38 • NUMBER 4

The Equipment

NEW PRODUCTS	
<i>Roundup of latest audio equipment and accessories</i>	13
AUDIO QUESTIONS AND ANSWERS	
<i>Advice on readers' technical problems</i>	LARRY KLEIN 20
AUDIO BASICS	
<i>The Customized Tuner</i>	RALPH HODGES 26
TAPE TALK	
<i>Theoretical and practical tape problems solved</i>	CRAIG STARK 28
AUDIO NEWS	
<i>Will Quadraphonics Rise Again?</i>	RALPH HODGES 33
EQUIPMENT TEST REPORTS	
<i>Hirsch-Houck Laboratory test results on the Audio Pulse Model One time-delay system, Avid 101 speaker system, Realistic SA-2000 integrated stereo amplifier, and Shure M24H stereo/quadraphonic phono cartridge</i>	JULIAN D. HIRSCH 35
BUYING GUIDELINES FOR CAR STEREO	
<i>It's coming closer to home</i>	IVAN BERGER 56

The Music

HOW TO LEARN TO LOVE REGGAE	
<i>It brims over with passion, love, and joy just like the best of all music</i>	LESTER BANGS 64
STEREO REVIEW THROWS A PARTY	
<i>Celebrating 1976's Record of the Year Awards</i>	72
MAKING THE CASE FOR ELGAR	
<i>He was, after all, the first composer to take the phonograph seriously</i>	BERNARD JACOBSON 76
BEST RECORDINGS OF THE MONTH	
Vocal: <i>Loretta Lynn's "Somebody Somewhere"; Volume II of Fischer-Dieskau's Hugo Wolf lieder project; and "Vermont Harmony 2," music of Ingalls and Moors</i>	
Opera: <i>Giuseppe Verdi's La Forza del Destino</i>	
Rock: <i>the Eagles' "Hotel California"</i>	
Chamber Music: <i>the Tátrai Quartet in Haydn's Op. 77</i>	83
POPULAR DISCS AND TAPES	88
<i>Lani Hall's "Sweet Bird"</i>	NOEL COPPAGE 89
<i>Gladys Knight and the Pips: 25 Years!</i>	HENRY PLEASANTS 92
<i>The Hollies: Live</i>	STEVE SIMELS 98
<i>Phil Ochs and the Death of Innocence</i>	NOEL COPPAGE 104
<i>"Evita": Another Little Eva Altogether</i>	ERIC SALZMAN 108
CLASSICAL DISCS AND TAPES	114
<i>The French Bidú</i>	GEORGE JELLINEK 115
<i>Head to Head on Beethoven's Nine</i>	KAREN MONSON 120
<i>Weber/Mahler: Die Drei Pintos</i>	ROGER C. DETTMER 130

The Regulars

EDITORIALLY SPEAKING	WILLIAM ANDERSON 4
LETTERS TO THE EDITOR	6
TECHNICAL TALK	JULIAN D. HIRSCH 34
INSTALLATION OF THE MONTH	RICHARD SARBIN 50
GOING ON RECORD	JAMES GOODFRIEND 52
THE POP BEAT	PAULETTE WEISS 54
ADVERTISERS' INDEX	146

COVER: design by Borys Patchowsky; photo by Bruce Pendleton

COPYRIGHT © 1977 BY ZIFF-DAVIS PUBLISHING COMPANY. All rights reserved. Stereo Review, April 1977, Volume 38, Number 4. Published monthly by Ziff-Davis Publishing Company. Editorial and Executive Offices at One Park Avenue, New York, N.Y. 10016; Telephone: 212 725-3500. Hershel B. Sarbin, President; Furman Hebb, Executive Vice President; John R. Emery, Senior Financial Vice President and Treasurer; Charles B. Seton, Secretary. Also the publishers of Boating, Car and Driver, Cycle, Flying, Modern Bride, Popular Electronics, Popular Photography, and Skiing. One-year subscription rate for U.S., \$7.98; U.S. possessions and Canada, \$10.98. All other countries, one-year subscription rate \$12.98, cash orders only, payable in U.S. currency. Second-class postage paid at New York, N.Y. and at additional mailing offices. Authorized as second-class mail by the Post Office Department, Ottawa, Canada, and for payment of postage in cash. SUBSCRIPTION SERVICE: Forms 3579 and all subscription correspondence should be addressed to Stereo Review, Circulation Department, P.O. Box 2771, Boulder, Colorado 80323. Please allow at least eight weeks for change of address. Include your old address, as well as new—enclosing if possible an address label from a recent issue. Material in this publication may not be reproduced in any form without permission. Requests for permission should be directed to Jerry Schneider, Rights and Permissions, Ziff-Davis Publishing Company, One Park Avenue, New York, New York 10016.

Editorially Speaking

By William Anderson



CRITICAL INFALLIBILITY

My fundament has for some ten years now been warming the leather of this editor's chair, a period long enough and a vantage point high enough to give me a probably privileged view of some of the goings-on in the arena wherein the worlds of music and hi-fi collide. One of the things I have noticed in that time is a steady decrease in the number of reader letters deploring the "lack of objectivity" in our record reviewers. Though it is certainly possible that this decline means people have either ceased to notice or to care, I prefer to find it, incorrigible optimist that I am, a sign of increased sophistication in this much of the reading public.

A number of years ago the French novelist Gustave Flaubert made an intriguing observation about critics of Shakespeare's *Hamlet*: whatever their theories about the play (*Hamlet* was/was not crazy, he was/was not in love with his mother and/or Ophelia), their observations boiled down to just one thing: rank subjectivity. This caused Flaubert to conclude (quite rightly, I think) that we speak of

ourselves whenever we lack the courage to remain silent.

Critics, by and large, have no need of such courage, for they are *paid* to speak up. And most of them know that, when they do, it would be silly even to pretend to objectivity. Lately, however, I have noticed a budding tendency toward such pretense among record reviewers. It would be bad enough if it developed that they are misguidedly trying to please the least informed (though most vocal) members of their public; it would be absolutely scandalous if it means their ranks have been infiltrated by the Mensurationists, those temerarious technophiles who will not rest until they have the whole gamut of human experience taped, so to speak.

Whatever the reason, I have had the opportunity to be amused by, among others, a critic who delightfully reported discovering a "true pianissimo" (whatever that might be) in a recent recording (he did not mention a coincidental discovery of his volume-control knob). And I was absolutely startled to find another

squandering what might have been useful review space on an "objective" exercise that charted individual performance times (with totals, of course) of all twelve of Liszt's Transcendental Etudes for no fewer than six mostly obscure recorded performances—perhaps to lend an illusory credibility to other less focused observations that simply blushed with naked subjectivity (just what is a "fluffy" staccato?).

But learning that the Liszt Etudes have been played in as little as 58' 17" was not without its uses, for it inspired me to a little conjecture about what a *really* objective review of, say, a recorded piano recital might contain. The hall or studio first, of course—its dimensions and decor (wood or plaster walls), its reverberation and decay times for the significant frequency range (including harmonics). For the piano we might perhaps dispense with the specific gravity of the wood, the purity of the metal in the frame. But we would need the name of the maker (for type of action), the instrument's age (for both tactile and acoustic reasons), the material used in the keys (plastic is simply not the same as ivory to the touch), heat and humidity figures, and certain facts about the piano tuner (years of experience, results of his latest hearing test, whether he tunes by ear or with electronic aids). For the pianist, we would need some notion of his *mood* (up, down, or sideways), and perhaps the closest we could come to that objectively (we can't ask *him*—or his wife, mother, or lover) would be a note from his analyst plus his biorhythm chart for the day. We would also need some minimum *bona fides* such as names of teachers, contests won, earnings record for the previous year (we can skip this for debut artists), speed and accuracy in playing Chopin's *Minute Waltz*, and, finally, a fingernail check (we are looking for hangnails, of course). Next the number, type, and placement of the microphones, response curves on the tape to be used . . . but you see what I mean. All of this information is perfectly objective—and perfectly useless. What we want from our critics is informed, subjective opinion, however fallible. Accept no substitutes.

Stereo Review

PUBLISHER
EDGAR W. HOPPER

EDITOR
WILLIAM ANDERSON

MANAGING EDITOR
WILLIAM LIVINGSTONE

EDITORIAL COORDINATOR
LOUISE GOOCH BOUNDAS

MUSIC EDITOR
JAMES GOODFRIEND

TECHNICAL EDITOR
LARRY KLEIN

ART DIRECTOR
BORYS PATCHOWSKY

ASSOCIATE TECHNICAL EDITOR
RALPH HODGES

POPULAR MUSIC EDITOR
PAULETTE WEISS

ASSISTANT MUSIC EDITOR
VIVienne WINTERRY GOODMAN

PRODUCTION EDITOR
JOHN HARRISON

EDITORIAL ASSISTANTS
BARBARA AIKEN, DIANE
NAKAMURA, RICHARD SARBIN

LONDON EDITOR
HENRY PLEASANTS

CONTRIBUTING EDITORS

CHRIS ALBERTSON	STODDARD LINCOLN
NOEL COPPAGE	J MARKS-HIGHWATER
RICHARD FREED	LINCOLN PERRY
DAVID HALL	PETER REILLY
ROY HEMMING	CHARLES RODRIGUES
JULIAN D. HIRSCH	ERIC SALZMAN
GEORGE JELLINEK	STEVE SIMELS
IGOR KIPNIS	CRAIG STARK
IRVING KOLODIN	JOEL VANCE
PAUL KRESH	

ADVERTISING DIRECTOR
JAMES J. SULLIVAN

ADVERTISING SERVICE MANAGER
LINDA BLUM

EXECUTIVE ASSISTANT
PEGI McENEANEY

ASSOCIATE PUBLISHER
STANLEY NEUFELD

Editorial and Executive Offices
Ziff-Davis Publishing Company
One Park Avenue, New York, New York 10016
212 725-3500
Eastern Advertising Manager: Richard J. Halpern

Midwestern Office: The Pattis Group
4761 West Touhy Ave., Lincolnwood, Illinois 60664
312 679-1100
Arnold S. Hoffman

Western Office
9025 Wilshire Boulevard
Beverly Hills, California 90211
213 273-8050; 272-1161
Western Advertising Manager: Bud Dean

Japan: James Yagi
Oji Palace Aoyama, 6-25, Minami Aoyama
6-Chome, Minato-ku, Tokyo, Japan
Telephone: 407-1930/6821, 582-2851

Circulation Office
P.O. Box 2771, Boulder, Colorado 80323

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

Member Audit Bureau of Circulations



ZIFF-DAVIS PUBLISHING COMPANY

Hershel B. Sarbin, President
Furman Hebb, Executive Vice President
John R. Emery, Senior Vice President-Finance/Treasurer
Phillip T. Heffernan, Senior Vice President
Edward D. Muhlfeld, Senior Vice President, Sports Div.
Philip Sine, Senior Vice President
Frank Pomerantz, Vice President, Creative Services
Arthur W. Butzow, Vice President, Production
Lawrence Sporn, Vice President, Circulation
George Morrissey, Vice President
Sydney H. Rogers, Vice President
Sidney Holtz, Vice President
Albert S. Traina, Vice President
Phillip Korsant, Vice President
Paul H. Chook, Vice President
Edgar W. Hopper, Vice President
Charles B. Seton, Secretary
William Ziff, Chairman
W. Bradford Briggs, Vice Chairman

You've got to be serious.

If you're interested in Phase Linear, you've got to be serious. Serious about music. Serious about enjoying the most realistic sound possible from a home stereo system. Serious about acquiring quality state-of-the-art components built to deliver a lifetime of top performance.

The three components featured here represent the very finest technical achievements of the Phase Linear Corporation:

The Phase Linear

5000 FM Tuner: An advanced tuner with a Dynamic Range Expander that restores FM broadcast signals to rival your records and tapes.

The Phase Linear 4000 Preamplifier: An incredibly sophisticated preamp and control center that actually compensates for limitations inherent in the recording and playback process through noise reduction and dynamic range expansion.

The Phase Linear 700B Power Amplifier: The most powerful, most dependable stereo amplifier you can buy, at any price.

Phase Linear manufactures a complete line of amplifiers and preamplifiers, a noise reduction unit, and a speaker system. Ask your dealer for an audition. If you're serious.

Phase Linear
The Powerful Difference

Manufactured in the USA. Distributed in Canada by H. Roy Gray, LTD.
CIRCLE NO. 39 ON READER SERVICE CARD



LETTERS TO THE EDITOR

Awards

● Please accept my gratitude to the staff and critics of *STEREO REVIEW* for including a great jazz record by a most deserving band in the 1976 Record of the Year awards (February). The Toshiko Akiyoshi/Lew Tabackin Big Band has an astounding consistency in recording good arrangements and compositions with first-rate musicians. In the awards spread, however, though the album title ("Long Yellow Road") and the album number (RCA JPL1-1350) were correctly listed, the album cover shown was their second American release, "Tales of a Courtesan." I would like to assume that both were liked so well that you intended to include them both. I hope RCA can be influenced to release the other superb albums that Akiyoshi and Tabackin have made which are available only in Europe and Japan.

JERRY L. ATKINS
Texarkana, Tex.

● I would like to point out an error in your Best of the Year awards in the February issue: Honorable Mention, Patti Smith ("Horses"). According to James Goodfriend, "The standards were and are those of genuine musical and technical excellence, of real contributions to the arts, *not* of commercial success." Ballet slippers, torn shirts, obscenities, and heavy promo *do not* create "genuine musical excellence," just dollars and a few mini-cults! I saw Patti Smith in concert and *all* I did was *see*; I didn't hear anything! I hope Linda Ronstadt and Paul Simon can recover from association with Patti Smith.

BOB STILIH
Southbury, Conn.

● Rock takes another step backward in the February issue when Patti Smith's "Horses" and the Rolling Stones' "Black and Blue" are given Honorable Mention awards. Couldn't you come up with anything better than that? There may still be hope since "No Reason to Cry" by Clapton *et al.* was designated a Recording of Special Merit in the same issue. However, the guitar work on *Sign Language* of that album belongs to Robbie Robertson of the Band and not to Eric Clapton.

L.O. KEELL
Woodlynne, N.J.

● As I proceeded on my cover-to-cover romp through the February issue I noted a slight error in the Record of the Year awards. Although the article lists Toshiko Akiyoshi/Lew Tabackin Big Band: "Long Yellow Road," the album cover shown is from the same group's "Tales of a Courtesan." This would seem to prove even *STEREO REVIEW* is not infallible (though always interesting).

LARRY D. ARNOLD
Russellville, Ark.

Ah, how sharper than an eagle's eye . . . !

Boston Pops

● I was shocked to read in the February issue that the Boston Pops are without a recording contract. If no record company decides to make a contract with the Pops, can the Pops fans band together to form our own recording society? It'll probably take a lot to get it off the ground, but I, for one, would like to see Pops recordings on a regular basis encompassing its vast repertoire.

KENNETH DZUS
Dorchester, Mass.

Toy Trumpet

● I enjoyed reading Irving Kolodin's "Fiedler, Builder of America's Musical Bridges" in February. But I'm puzzled by the attribution of *Toy Trumpet* to Leroy Anderson. My 78-rpm Victor disc (4456-A) shows Raymond Scott as the composer.

WILLIAM B. FURMAN
House Springs, Mo.

Music Editor James Goodfriend replies: Mr. Furman is absolutely right. We apologize.

Rubber Ducky

● It's about time a responsible voice in the audio field spoke up about the menace of CB (Ralph Hodges, "The Greater Good," January). Radio-frequency interference is not the audiophile's fault, and audiophiles should not have to pay the price of its elimination. RFI suppression devices cannot help but degrade

audio quality. To solve RFI by putting a suppression device in audio equipment is akin to solving the problem of gun control by forcing everyone to wear bullet-proof vests.

The Goldwater-Vanick bill referred to in the column may have died in the last Congress, but it or something very similar is sure to be introduced again. It is very important that the serious audio fan write his congressman in opposition of such bills. The CB industry and its lobbyists are sure to put considerable pressure on Congress for such legislation; opposition from the audio field is simple self-defense. CB magazines and newspaper columns have urged CB'ers to write in support of Goldwater-Vanick, but I'm sure well-thought-out letters from serious audiophiles could balance out the letters expressing CB'er views.

Giving the FCC power to regulate the home entertainment industry is the last thing the industry needs. After all, the FCC created the CB mess and has been unable to clear it up. The FCC appears to have little sympathy for the interests of the serious audiophile. I shudder at the thought of what they might do if given the power to regulate stereo equipment unrelated to broadcast operations.

G. GERRISH WILLIAMS
Maple Shade, N.J.

● Hurrah! Ralph Hodges' January column, "The Greater Good," has struck a resounding chord of truth for audio listeners across the land. The CB radio-frequency interference onslaught is intensifying and ever widening into our homes. As I live close to a major interstate highway, the annoyance is especially acute for me and my stereo listening enjoyment. I hope Mr. Hodges' article and the forthcoming RFI feature in *STEREO REVIEW* will awaken enough readers to write Washington concerning this menace and have Congress act on it. Some types of silence *are* indeed golden!

MIKE OUBRE
Crowley, La.

● Senator Goldwater and other hams should beware of making common cause with CB'ers in the matter of RFI in home audio systems unless they want to be lumped with those foolish players of Cops and Scofflaws and other childish games on our highways.

J. GOMEZ
Southampton, N.Y.

● Over the past few years ham and CB transmissions have been coming in over my stereo system, TV, and even our church public-address system (during Mass it's not at all good to hear these people). I spoke to some local hi-fi manufacturers about what seems to me to be a strange FCC response to RFI problems. The manufacturers claim they are individually too small to do anything about the problems. Perhaps *STEREO REVIEW* can rally the audio manufacturers together and go after the FCC. I fear, though, that nothing will really be done because of the small percentage of people who have *serious* r.f. interference.

Our church is in a congested area; the ham operator was 150 feet away, and the CB operator (80 feet away) comes in so clear one would think we had run a microphone line into his home. The ham operator tuned himself out of the church PA with a huge filter he placed on his antenna wire, but within three months he was back in again. He came

(Continued on page 8)



Jensen's Triaxial[®] 3-Way Speaker... Quite simply, the most advanced car stereo speaker ever.

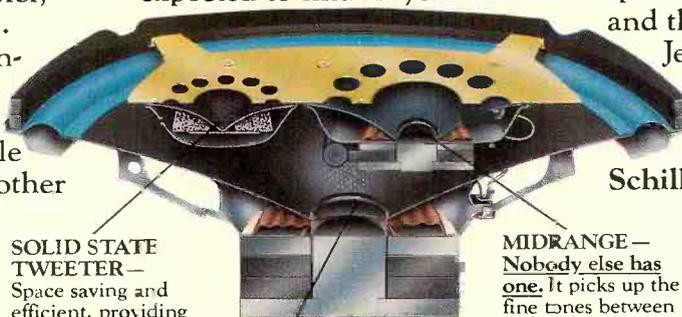
For the best sound ever in your car. The first car stereo speaker with a woofer, a tweeter and a midrange.

Identical in principle to the best home stereo speakers. Jensen's midrange picks up a whole range of tones lost to any other car speaker.

The result: warm, rich, full sounds you never expected to find in your car.

Only with Jensen's Triaxial[®], the only 3-way car stereo speaker. For more information and the name of your nearest Jensen dealer, write

Jensen Sound Laboratories, Dept. SR-47
4310 Trans World Road,
Schiller Park, Illinois 60176.



SOLID STATE TWEETER — Space saving and efficient, providing distortion-free high frequency response.

WOOFER — Designed to reproduce lower frequency tones just as you would hear them in person.

MIDRANGE — Nobody else has one. It picks up the fine tones between the high and low frequencies that other speakers miss.

"Triax" and "Triaxial" are registered trademarks identifying the 3-way car stereo speaker of Jensen Sound Laboratories, Division of Pemcor, Inc.

JENSEN
SOUND LABORATORIES
Division of Pemcor, Inc.

through my stereo even after the manufacturer "fixed" my receiver for it. The problem was finally solved when the gentleman electrocuted himself, but we await another ham in the area with fear.

The CB'er put a filter on his antenna which did little—very little. The manufacturer of my PA amplifier recommended some changes, but we found them already built in. PA installers have told us they would charge over \$18 per hour to find the place of RFI entry, but with no guarantee except that the bill would be over \$150.

Hi-fi and PA manufacturers blame the FCC. They say their products are designed correctly and it's the poor design of ham/CB equipment that is at fault. The local FCC blames the hi-fi and PA manufacturers for not

putting in anti-RFI circuits which they say will not degrade fidelity. In any case, we are not alone. People call in frequently to local station WBUR's hi-fi shop-talk program complaining about RFI.

FR. KEN RIDGEWAY
Our Lady of the Assumption
Chelsea, Mass.

Technical Editor Larry Klein replies: It is rare that a legally operating ham or CB'er can do anything substantial to his rig—or his antenna system—to minimize its potential for creating interference. A ham can redirect his antenna and/or cut down his radiated power, neither of which he can legally be forced to do no matter how much interference he creates. In some cases it may be harmonics of his radiated sig-

nal that are causing the trouble, but usually (if he is obeying the existing FCC rules) these harmonics are few and weak. And, in any case, filtering out harmonics will be helpful only when there is interference with FM and TV. In short, I don't see how any sort of filter at a transmitter would help keep an r.f. signal out of an audio amplifier.

In truth, audio manufacturers have not taken all reasonable steps available to minimize their equipment's r.f. sensitivity. During the initial product planning, circuits should be designed, the chassis constructed, and the ferrite beads installed with a view toward minimizing the effects of r.f. fields. But when the impinging signal is strong enough, nothing short of a major (and expensive) redesign of the entire installation will be of any help.

Although anti-RFI circuits need not necessarily degrade fidelity, I would hate to leave it up to the FCC to make the design decisions as to which do and which don't. And in no case will such fixes be totally effective against a nearby ham who puts out a kilowatt of r.f. power.

To my way of thinking, the question of RFI is not totally susceptible to a technical solution but requires an ethical approach. Ralph Hodges made this point beautifully in his reply to a reader last month. At present, hams and CB'ers are legally entitled to do their thing. And the fact that they are doing it all over our Joni Mitchell, Mozart, or even Musak is not any concern of the law. I'm told that in the near future a Higher Authority is going to take a hand in the matter: sunspots, which strongly affect radio transmission and reception, will be with us starting some time in 1978 and perhaps peaking in 1981. There's a good chance that they may act to make much of the CB band unusable.

☉ I enjoyed Ralph Hodges' article about RFI and CB users in January, especially the point about RFI being a form of invasion of privacy. But the Goldwater-Vanick bill is not my idea of a solution. If RFI is to be suppressed, it should be done at the source, in this case, CB radios. It is my decision as a free person to determine if I want to use a stereo that is immune to RFI, not the government's, and it is up to component manufacturers, not the government, to decide whether to offer equipment that is immune to RFI at the risk of impaired performance.

Maybe if the CB'ers had a taste of their own medicine they'd be a little more considerate. If electronics companies can manufacture CB radios for the illegal purpose of avoiding speed traps, why can't they also manufacture jamming devices that would scramble offending CB transmissions?

FRANCIS PIVAR
New Kensington, Pa.

Ralph Hodges replies: Any attempt at jamming will get you into the biggest jam imaginable with the FCC. However, perhaps you can take some comfort from the fact that, in populous regions, the CB'ers seem to be doing a good job of jamming each other.

☉ Ralph Hodges' discussion of the RFI controversy struck a nerve amid the ranks of the many sufferers facing mounting waves of rubber ducks. With federal intervention presently tenuous at best, there is little long-term consolation offered by Walter Mitty pipe dreams of electronic countermeasures. Because a congressional majority may not be

Both of these are made in Elkhart, Indiana



The one on the right provides permanent relief from the pain of headache caused by poor room response

The good sound that comes out of your speakers can be different by the time it gets to wherever your ears are. Air, walls, rugs, drapes, furniture — can all affect frequency response.

The new Crown EQ-2 Equalization System is designed to correct that particular headache. The system

includes the Crown EQ-2 eleven-band, octave-center, stereo equalizer; plus the Crown equalization record, room response chart paper, and a manual which tells you how to make it happen.

Write today for full-color brochure. The information could be very good for your system.



CROWN
Box 1000, Elkhart IN 46514

tuned in to these pages, I'd suggest the audiophile write a persuasive, informative letter to Washington, perhaps enclosing a copy of the "Audio Basics" column.

BRIAN G. FETTE
Jackson, Mich.

⊗ We at Advent Corporation would like to add a comment to Ralph Hodges' January column on radio-frequency interference (RFI) and the pending legislation intended to deal with it. In our study of phonograph preamplifiers we were unable to design a circuit which was utterly effective in curing RFI problems without interacting with the cartridge source impedance so as to produce an audible frequency-response error. Legislation which dictates the susceptibility of phono preamps to RFI will have to take into account this apparent fact of life. Good practices such as shielded metal containers and good grounding and shielding are about all one can do to prevent RFI without audible consequences.

TOMLINSON HOLMAN
Research and Development
Advent Corporation
Cambridge, Mass.

Villainous Hisses

⊗ In his February review of Al Stewart's "Year of the Cat," Peter Reilly mentioned something about Stewart's hissing of his "s's." This situation has been driving me up the walls. I noticed it on his previous LP, "Modern Times," too, and I think I've pinned the cause down to two possibilities—either the way the record is produced and engineered in the studio or the way it is pressed. I tend to go for the second, but then it could be my equipment. I'm still not sure—maybe you have some ideas.

ARTHUR G. NIEHAUS
Jersey City, N.J.

Could be that Al Stewart hisses.

Musical Landmarks

⊗ The January issue of STEREO REVIEW with William Livingstone's terrific story on musical landmarks has been preserved for posterity. It was chemically treated and sealed in a time capsule installed at the Kennedy Center on December 31, 1976—to be opened in January 2076. The capsule contains highlights of Bicentennial arts activities associated with the Kennedy Center, and we felt nothing better commemorated the National Historic Music Landmark portion of the Bicentennial Parade than Mr. Livingstone's clear, concise journalism and the attractive layout of the article.

MARTI JONES
Bicentennial Parade of American Music
New York, N.Y.

The Guitar

⊗ I very much enjoyed Stephanie von Buchau's "Music for Classical Guitar" (January). I was especially intrigued by the section in which she leaned on critics who accuse classical guitar music of having "no guts." The question occurs to me, however, of whether it is the technical style of play or the context in which the instrument is played that

Is it live, or is it Memorex?



The amplified voice
of Ella Fitzgerald can shatter
a glass. And anything Ella
can do, Memorex cassette tape
with MRX₂ Oxide can do.

If you record your own music,
Memorex can make all
the difference in the world.

MEMOREX Recording Tape.
Is it live, or is it Memorex?

©1976, Memorex Corporation, Santa Clara, California 95052

annoys detractors more. For those in the second category, I can think of at least one current popular acoustic guitarist who successfully uses a classically inspired contrapuntal technique to color both his group and solo accompaniment styles: Bert Jansch. No one has ever accused his material (through nearly twenty recordings as both a solo performer and a group leader of the now defunct Pentangle) of lacking guts. Perhaps more exposure to such "gap-bridgers" as Jansch could turn on a few primarily classical listeners to some new contexts, and a primarily popular enthusiast or two to the possibilities of use of classical technique in this remarkably flexible instrument.

CHARLES H. SMITH
New Hartford, Conn.

Erroll Garner

● The jazz world recently lost yet another "great" as a result of the untimely death of pianist Erroll Garner. He will always be remembered as a superb pianist, a delightful entertainer, and, most important, a remarkable human being. Erroll Garner will be missed but never forgotten.

D. R. HENDLEY
Milwaukee, Wis.

Bee Gees

● Few things infuriate me more than reading a review like that by Noel Coppage of the latest Bee Gees album (January). His self-

appointed authority on the workings of the mind of Western man comes across sounding like one of those pseudo-intellectuals trying desperately to compensate for the fact that he simply cannot dance. The ridiculous pap about Marshall McLuhan and brain hemispheres is so irrelevant to the subject of the album being reviewed that I wonder if Coppage is more concerned about expounding his own trivial ideas than trying to say something about the creative work of a group of musicians. Personally, Mr. Coppage, I think you should be dancing.

EDWARD M. GRANT
Boston, Mass.

● I would just like to say that for once I agree with the pseudo-intellectual blatherings of Noel Coppage. I am referring to the January review of the Bee Gees' "Children of the World." The Bee Gees have dumped not only a very unique and successful sound but a sound that was much more—it was good. I long to hear the old Bee Gees with their musically sophisticated melodies, soft sounds, and fantastic harmonies. But, most of all, I miss their presence as producers of great make-out music.

WILLIAM D. THRUSH
Valparaiso, Fla.

Free details on a different kind of record club

offering... BACH, BEETHOVEN, BRAHMS,
CHICAGO, JOHN DENVER, EARTH-WIND & FIRE,
C. W. McCALL, FREDDY FENDER, LINDA RONSTADT,
GROVER WASHINGTON JR., DONALD BYRD
and every other composer and artist in print

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

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

Look at these benefits:

TREMENDOUS SAVINGS on every record and tape in print—no "agree-to-purchase" obligations of any kind.

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

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

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

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

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

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

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

100% IRON-CLAD GUARANTEES on all products and services. Everything is guaranteed factory fresh and free of defects or damages of any sort. Your total satisfaction is unconditionally guaranteed.

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

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



Discount Music Club
Department 9-0477
650 Main St., New Rochelle, N.Y. 10801

NAME _____

ADDRESS _____

CITY _____

STATE _____ ZIP _____

Hawaiian Music

● I think Steve Simels should pull his head out of the sand—it has affected his hearing. Don Ho ("The Pop Beat," January) represents Hawaiian music as much as Alice Cooper represents the girl next door. In the last five years there have been a rejuvenation of and an exploration into the roots of Hawaiian music. The young Hawaiians who disliked what "Tiny Bubbles" did to one of the few original art forms in the U.S. began melding the old styles with a new consciousness and came up with incredibly pure and and startlingly rich musical forms.

JONATHAN MOSER
Honolulu, Hawaii

Mr. Simels replies: Good Lord, Moser, that was supposed to be funny!

Salsa

● Joel Vance's December review of the Fania All Stars album "Delicate and Jumpy" was great. It's about time somebody told Fania what salsa music is all about. I hope Fania get their act together and stop trying to be like everybody else.

C. VALENTIN
Fajardo, P.R.

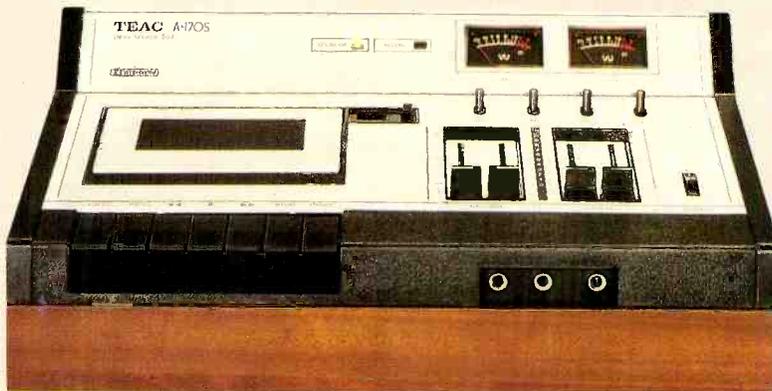
Simels

● Steve Simels gone? He was a rock critic who lent an air of rock respectability and balance to STEREO REVIEW. I feel some of the criticism directed at him was unwarranted. His reviews of the Springsteen, Smith, and Zevon albums were dead center. I will miss exploring "The Pop Beat" with him.

STANLEY B. DOW
Altus, Okla.

Well, not quite gone; see this month's popular review section.

THE TOP-RATED PERFORMER THAT JUST GOT A FACE LIFT.



Last year the Teac A-170, our star cassette deck, lived up to its top billing with flawless performance and exceptional value. Now it's back for a command performance as the A-170S with an all new look. It has all the great features that made the A-170 the star of the show.

The A-170S transport system utilizes design innovations and many precision parts from more expensive

Teac decks. Features include extremely hard, high-density heads for distortion-free playback and recording. Built in Dolby noise reduction system. Separate bias and equalization switches, auto-stop, variable slide controls, expanded range level meters and convenient front access jacks.

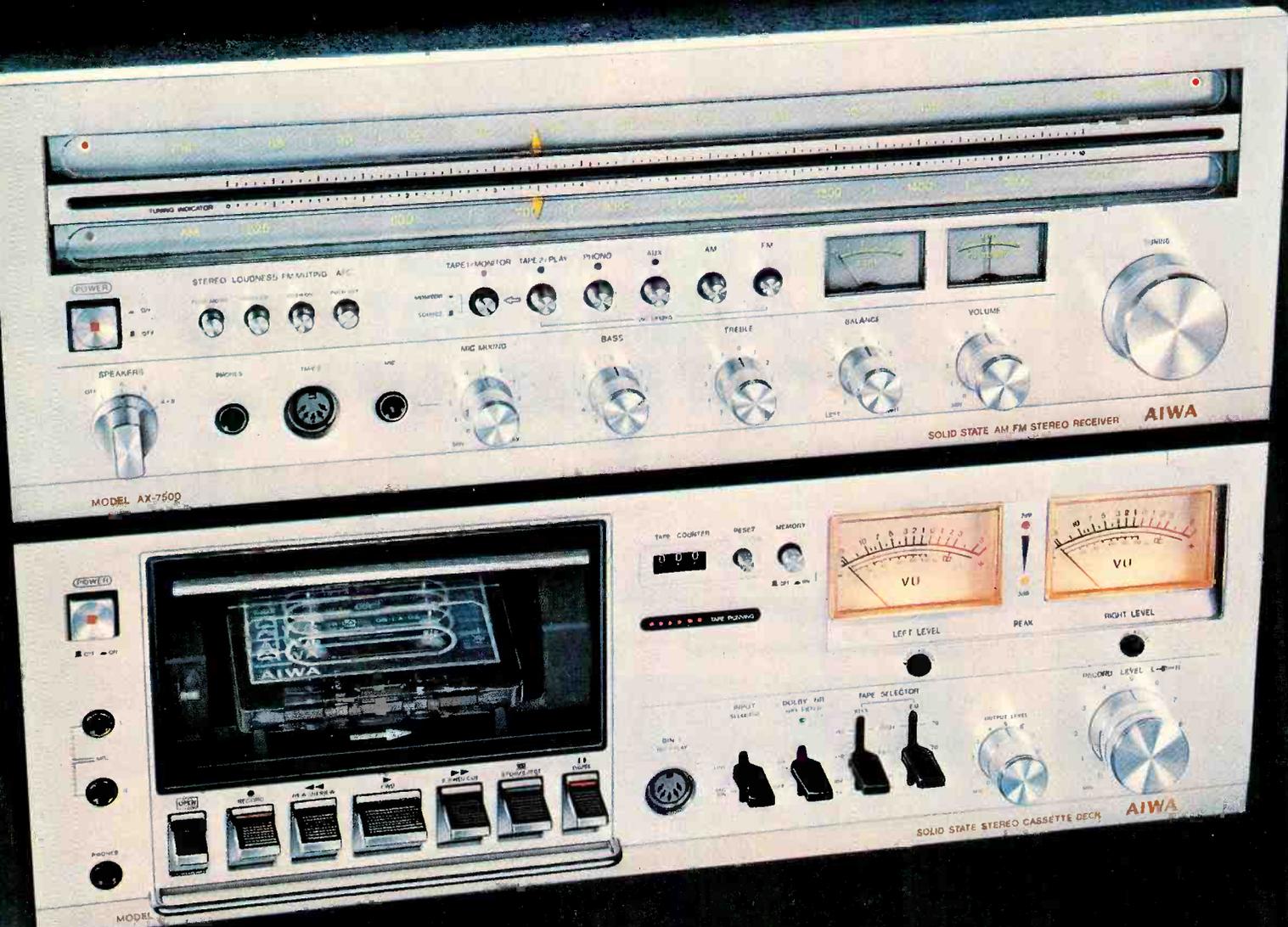
So here it is with a face lift. The A-170S cassette, an ageless performer.

TEAC®

The Leader. Always has been.

Teac Corporation of America
7533 Telegraph Road, Montebello, California 90640
©TEAC 1977

"Dolby" is a trademark of
Dolby Laboratories, Inc.



Meant for each other.

From the beginning it was a love match, each bringing out the best in the other. The AIWA AD-6500 cassette deck and the powerful AIWA AX-7500 receiver.

The AD-6500 cassette deck with its exclusive automatic front loading has been the belle of the ball since coming out. The separate transport system automatically loads the cassette into place. Added to this exclusive feature are those famous AIWA specs that impress even the most discriminating audiophile. The built-in Dolby* N.R. allows the S/N ratio of 62dB (Fe-Cr tape); the wow and flutter is kept to 0.07% (WRMS); the frequency response from 30 to 17,000Hz; the 2 step peak level indicator (+3dB, +7dB); the quick

cue and review; the Ferrite guard head and the 3 step bias and equalizer tape selector insures that the AD-6500 will always be out front.

The AX-7500 is a high powered, low distortion AM/FM stereo receiver that can hold its own with the best. Even the toughest engineers have nodded their approval. It boasts 30 watts per channel minimum RMS at 8 ohms from 20 to 20,000Hz with no more than 0.2% total harmonic distortion. The advanced 3-stage direct coupled OCL and differential amplifier circuitry equalizer assures stability and excellent transient response.

The AIWA AD-6500 and the AIWA AX-7500. The perfect sound relationship.

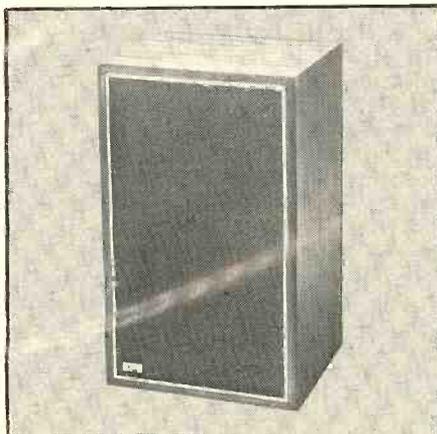
AIWA®

*Dolby is a Trademark of Dolby Laboratories, Inc.

Distributed in the U.S. by: MERITON ELECTRONICS, INC., 35 Oxford Drive, Moonachie, N.J. 07074
 Distributed in Canada by: SHRIRO (CANADA) LTD., Montreal 256, P.Q. Canada

CIRCLE NO. 3 ON READER SERVICE CARD

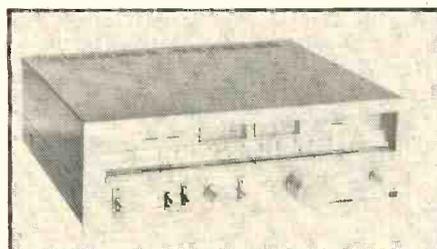
New Products latest audio equipment and accessories



Improved EPI Speaker System

□ The 1-inch inverted-dome tweeter and 8-inch woofer that have long been standard in EPI speaker systems have been improved in mass, mechanical tolerances, and power-handling capability for the new EPI Model 101. The two-way system has a frequency response of 46 to 20,000 Hz and a nominal impedance of 8 ohms. The recommended range of amplifier powers for driving the system is 12 to 75 watts per channel. High-frequency dispersion is said to maintain off-axis frequency response to within approximately 3 dB of on-axis response at 15,000 Hz. The system measures 20¼ x 12 x 8¾ inches. It is finished in wood-grain vinyl with bronze metal trim surrounding the black foam grille. Price: about \$120.

Circle 115 on reader service card



Pioneer's New Top-of-line Tuner

□ The TX-9500II has taken its place at the top of Pioneer's line of AM/FM stereo tuners. Among its features are switchable i.f. bandwidth (WIDE or NARROW) to provide a choice between maximum selectivity and maximum signal quality, a built-in test-tone oscillator to aid in setting tape-recording levels, and a choice of two degrees of FM interstation-noise muting. Internally, the TX-9500II has a newly developed filter in its i.f. section that combines high effectiveness with phase linearity, plus a new 19-kHz pilot-signal "canceler" said to have much less effect on audio-frequency response than a conventional multiplex filter.

Usable sensitivity of the TX-9500II is 1.5 microvolts, with 50-dB quieting achieved at 2.5 microvolts in mono and 35 microvolts in stereo. Capture ratio (in the WIDE i.f. mode) is 0.8 dB, while alternate-channel selectivity is 35 dB in the WIDE mode and 85 dB in the NARROW mode. Other specifications, all for the WIDE mode, include AM suppression of 65 dB, 110-dB spurious-response rejection, and stereo separation of 35 dB over the range of 50 to 15,000 Hz. Frequency response (stereo) is 20 to 15,000 Hz +0.2, -0.5 dB. Distortion at mid-frequencies is 0.05 per cent (mono) and 0.07 per cent (stereo). The tuner has two pairs of output jacks, one set at a fixed level and the other variable by means of a front-panel control. A switchable circuit feeds multipath-signal products to the outputs, enabling the user to minimize them by means of antenna orientation. Approximate dimensions of the TX-9500II are 16½ x 6 x 15½ inches. Approximate price: \$400, with an optional walnut cabinet costing \$35. The next model in the Pioneer line, the TX-8500II, retains most of the features and much of the performance of the TX-9500, but at a price of about \$275.

Circle 116 on reader service card



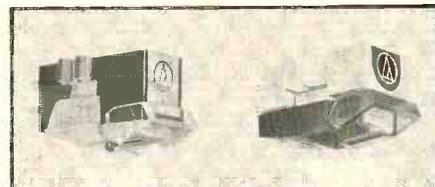
Superex Headphones: Low Price, Light Weight

□ The Superex TRL-77 is a non-acoustically isolating stereo headset weighing only 11½ ounces (less cable). With its augmented low end, the TRL-77 has an overall frequency response of 25 to 20,000 Hz. The phones employ Mylar diaphragms within compact molded earpieces with user-replaceable foam cushions. The padded headband is a single piece of stainless steel.

With an impedance appropriate for the headphone jacks of virtually any receiver or integrated amplifier, the headset produces a sound-pressure level of 100 dB with an input of 5 milliwatts. For a mid-range signal at that level, distortion is 0.65 per cent. The

TRL-77's 7-foot cable terminates in a standard three-conductor phone plug. Suggested price: \$30.

Circle 117 on reader service card



Elliptical Styli on Audio Technica's Latest Cartridges

□ To make its finest products available to consumers not requiring CD-4 playback, Audio-Technica is offering stereo equivalents of its highly ranked AT15Sa and AT12S phono cartridges with elliptical rather than Shibata styli. The new AT15XE (\$100) has a 0.2 x 0.7-mil elliptical stylus, a frequency response of 5 to 30,000 Hz, and stereo separation of 28 dB at 1,000 Hz (23 dB at 10,000 Hz). The recommended range of tracking forces is ¾ to 1¾ grams. Other specifications are identical to those of the AT15Sa, including the output of 2.7 millivolts for a recorded velocity of 5 centimeters per second.

The AT12XE (\$60), an adaptation of the AT12S, has a 0.3 x 0.7-mil elliptical stylus and a tracking-force range of 1 to 1¾ grams. Frequency response is 15 to 28,000 Hz, and stereo separation is 24 dB at 1,000 Hz, 18 dB at 10,000 Hz.

Circle 118 on reader service card



Digital-readout Heathkit Receiver

□ The top of Heath Company's receiver line is now the AM/FM stereo AR-1515, equipped with a half-inch LED/digital display to indicate the tuned frequency. Power output is 70 watts per channel into 8 ohms on a continuous basis, with less than 0.08 per cent harmonic or intermodulation distortion. The high-level inputs have a signal-to-noise ratio of 80 dB. The phono inputs, referred to a 2-millivolt input signal, have a 65-dB signal-to-noise ratio.

(Continued overleaf)

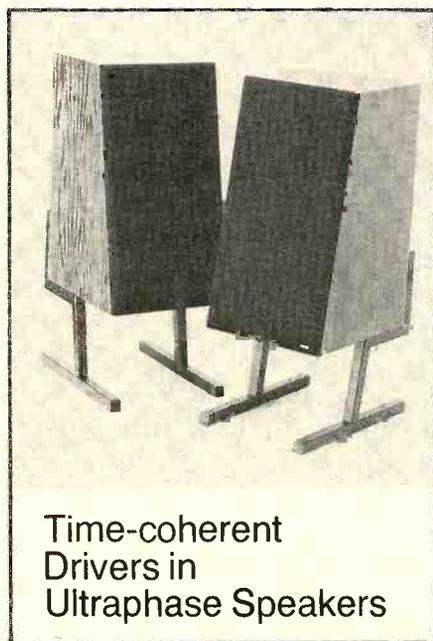
New Products latest audio equipment and accessories

On FM the AR-1515 has a usable sensitivity of 1.8 microvolts, a capture ratio of 1.3 dB, and alternate-channel selectivity of 100 dB. Image rejection is 90 dB, and AM suppression is 65 dB. The FM frequency response is 20 to 15,000 Hz \pm 1 dB.

Only the main controls—tuning, mode, input selector, and volume—appear on the front panel. The rest are concealed behind a hinged trim section that flips down. These include main and remote speaker switching, balance, bass, and treble controls, FM interstation-noise muting, high-frequency blend (for FM), tone-control defeat, high-frequency and subsonic filters, and tape-monitor switching. There is also a stereo headphone jack and tape-dubbing inputs and outputs augmenting those on the rear panel, plus a pushbutton for a Dolby decoder for Dolbyized FM broadcasts that can be purchased optionally (in kit form) and installed by the user. The AR-1515 also has channel-center and signal-strength tuning meters as well as illuminated callouts for input selection and mode.

The Heathkit AR-1515 is available only in kit form. Approximate overall dimensions are 21½ x 6¼ x 15 inches, including the decorative wood end pieces supplied. Price: \$549.95. The optional Dolby FM module costs \$39.95.

Circle 119 on reader service card



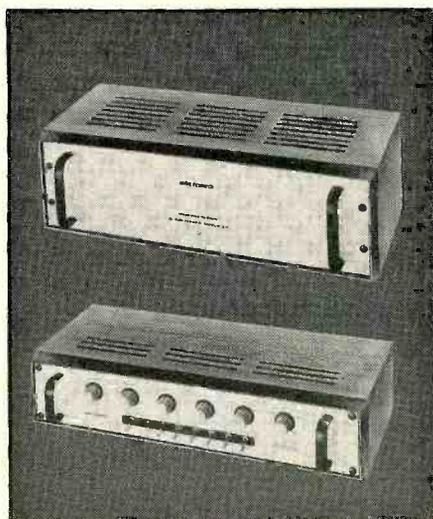
Time-coherent Drivers in Ultraphase Speakers

□ The Ultraphase speaker systems, comprising a line of three models, all have their drivers mounted with voice coils in a straight perpendicular line to eliminate differences in arrival times (at the ear) of sounds emanating from the drivers.

The Ultraphase 5001 has a 12-inch woofer and an enclosure measuring 28¼ x 15¼ x 18 inches. The Model 3001 has a 10-inch woofer, the Model 2001 an 8-inch woofer. Their cabinet dimensions are 25 x 13¾ x 17 inches and 23 x 12½ x 15½ inches. Otherwise, the sys-

tems are all three-way designs with identical driver complements and specifications. Mid-ranges are 2-inch domes and tweeters are 1-inch domes, with crossover frequencies of 550 and 4,500 Hz. Rear-panel controls adjust the outputs of the mid-range and high-frequency units. Minimum recommended amplifier power for all three systems is 20 watts per channel into their nominal 8-ohm impedances. Included in the prices of the speaker systems are black metal stands that support the enclosures at the bottom and rear, maintaining proper temporal alignment of the drivers for a seated listener. Prices: 5001, \$390; 3001, \$295; 2001, \$190.

Circle 120 on reader service card



Audio Research's First Solid-state Components

□ After a long history of building only vacuum-tube amplifiers and preamplifiers, Audio Research Corporation has announced its first solid-state components, the SP-4 stereo preamplifier and D-100 stereo power amplifier. Much of the circuitry in both is based on the manufacturer's new "Analog Module," a sealed "gain block" that—in keeping with Audio Research philosophy—exhibits a minimum of distortion even without negative feedback. In addition, the D-100 employs a total of thirty-two output transistors in two self-adjusting output stages.

The D-100 is rated at a continuous output (into 8 ohms) of 100 watts per channel from 1 to 20,000 Hz. Harmonic and intermodulation distortion are less than 0.1 and 0.05 per cent, respectively, at any power level up to rated power. Signal-to-noise ratio exceeds 100 dB; nominal input impedance is 30,000 ohms. For an output of 2 volts rms into 100,000 ohms, the SP-4 has less than 0.005 per cent harmonic or intermodulation distortion. Maximum output is 10 volts into the same impedance. Sig-

nal-to-noise ratios are typically 95 dB for the high-level inputs and 84 dB for phono.

The SP-4 has knob controls for volume, balance, bass, and treble, and for mode and input selection. Switch-operated facilities include high-frequency filter, tone-control defeat, and tape-monitoring and dubbing facilities for two tape decks. The SP-4 has dimensions of 19 x 3½ x 8½ inches; the D-100 measures 19 x 5¼ x 10¼ inches and weighs 40 pounds. Suggested prices: SP-4, \$695; D-100, \$895. Wood cabinets for both are optional, as is a "head amp" module for the SP-4 that will take the output of a moving-coil phono cartridge directly.

Circle 121 on reader service card



Conveyor Belt For Disc Dust

□ The ElectroDuster from the Audiotex division of GC Electronics takes a novel approach to record cleaning. A soft velour pad traverses the disc, removing dirt and dust particles. As debris accumulates, an endless, statically charged transparent belt, turned by the turntable platter itself, carries the dust off and deposits it onto a separate felt pad. The ElectroDuster has an adhesive base for easy installation on the motorboard. The main body of the device pivots upward to permit removal and replacement of records. The device also snaps off its base for complete removal. Price: \$19.95, which includes replacement velour and felt pads.

Circle 122 on reader service card

New Guide to Imported Records

□ *Euro-Disc Gazette* is a bimonthly publication listing disc records from Europe that represent a high level of technical and musical interest. Reviews from the major English-language European magazines accompany the listings.

(Continued on page 16)

AR loud and clean



the new sound you'll want to live with

Loud without clean is just noise. If it's music you want, and you want it loud, it has to be clean. And that's just what the new AR speakers give you.

AR's long-throw acoustic suspension woofers not only reach down to the lowest notes in recorded music, they do it at loud levels without boominess or audible distortion.

Energy-absorbent materials in AR dome midranges and tweeters give you the musical transparency of well-dispersed, crystal-clear highs. And AR tweeters use a unique magnetic coupling fluid to drain away heat and increase power-handling ability.

The new AR speakers easily accommodate the loud levels required by today's modern music. Even AR's smallest and least expensive speaker system, the AR-17, will handle the power of 100 watt per channel receivers or amplifiers to fill almost any listening room with loud, clean sound. The moderately priced AR-14 will handle amplifiers up to 150 watts per channel, and our widely acclaimed AR-11 will handle the output of today's most powerful superamps.

Before you choose a loud-speaker, take your favorite record to your AR dealer. Ask him to play it through any of our new loud and clean speaker

systems, using any amplifier or receiver you choose from his sound room. We think you'll find the *new* loud and clean AR sound the one you want to live with.

For complete product information and a list of loud and clean AR dealers, use the reader service card or write to



 **TELEDYNE
ACOUSTIC RESEARCH**

10 American Drive
Norwood, MA 02062

In Canada: AC Simmonds & Sons Ltd.

CIRCLE NO. 1 ON READER SERVICE CARD

New Products latest audio equipment and accessories

The *Gazette* also operates a mail-order service for subscribers. Any of the discs listed can be ordered (before a specified bi-monthly deadline) and received via fourth-class mail within the four weeks following the deadline. Prices include all charges within the U.S. The *Euro-Disc Gazette* is available only to those with mailing addresses in the U.S. or Canada. Write the *Gazette* c/o Jim Callihan, Dept. SR, P.O. Box 337, Peterborough, N.H. 03458.



**Miniature Speaker,
Hi-fi Performance**

□ Braun's new Output C speaker system is described as a high-performance device small enough to fit the palm of one's hand. The diminutive, heavily damped aluminum enclosure contains a 4-inch air-suspension woofer and a 1-inch soft-dome tweeter along with a crossover network that divides the frequency range at 1,500 Hz. Frequency response is given as 50 to 25,000 Hz. The use of high-temperature materials results in a power-handling capability of 35 watts continuous into the system's nominal impedance of 4 ohms. Minimum recommended amplifier power is 10 watts per channel. The enclosure is finished in black with a black perforated-metal grille. Dimensions are 6¾ x 4¼ x 4¾ inches. Price \$100 each. The Output C is sold only in pairs.

Circle 123 on reader service card



**Two Inexpensive
Receivers from Sony**

□ The Sony Models STR-3800 (shown) and STR-2800 AM/FM stereo receivers have respective power outputs of 25 and 20 watts per

channel into 8 ohms, available on a continuous basis throughout the audio-frequency range with 0.5 per cent harmonic distortion. In operating features and appearance the two are very similar, providing controls for volume, balance, bass, and treble, switching between two pairs of speakers, signal-strength and channel-center tuning meters, and switchable loudness compensation and interstation-noise muting on FM. Prices are also similar: \$280 and \$240, respectively.

FM specifications for the two receivers include a usable sensitivity of 2 microvolts, 50-dB quieting (in stereo) of 50 microvolts, a 1.5-dB capture ratio, 50-dB alternate-channel selectivity, and stereo separation of 35 dB at 1,000 Hz. Ultimate signal-to-noise ratio is 68 dB. The STR-3800 has tape-monitoring and dubbing facilities for two tape decks; the STR-2800 accepts a single deck. Dimensions for both receivers are approximately 19 x 5¾ x 13 inches, including wood end panels. A less expensive receiver, the STR-1800 (\$180), provides 12 watts per channel into 8 ohms over a frequency range of 40 to 20,000 Hz, with less than 0.8 per cent harmonic distortion.

Circle 124 on reader service card



**Dynaco Equalizer,
Kit or Wired**

□ The Dynaco SE-10, a stereo octave-band equalizer available as a kit or factory wired, has several features that enhance its versatility. Two sets of inputs and outputs are provided, switchable at the front panel, so that the unit can be set up to process either of two stereo signal paths—such as the front or the rear channels of a four-channel system, or the recording inputs or playback outputs of a tape machine—with no plugging or unplugging of cables. In addition, the SE-10 has the more usual tape-monitor jacks and switching plus an equalizer-defeat switch. The ten bands of each channel are governed by slider controls, as are the gains of each channel.

The Dynaco equalizer uses circuitry specifically designed for freedom from overload to achieve low distortion at large signal levels and extreme settings of the controls. The range of each control is ±12 dB at its center frequency. Frequency response with controls centered is 10 to 35,000 Hz ±1 dB. Hum and noise are 85 dB below a reference output of 2 volts. The input impedance is 50,000 ohms. Harmonic and intermodulation distortion are

a maximum of 0.04 and 0.02 per cent, respectively. Dimensions: 13½ x 4¼ x 11¾ inches. Price: kit, \$249; factory wired, \$349. The optional wood cabinet shown is \$24.95.

Circle 125 on reader service card



**LTC's Column
Speaker System**

□ The LTC speaker systems, which include the columnar LTC-100 (left), employ an unusual 10-inch woofer with a neoprene membrane covering 40 per cent of the cone's effective radiating surface. The membrane is said to serve as an energy-control device that equalizes the upper end of the woofer's frequency range to match its lower end.

Besides the woofer, the LTC-100 employs four dome tweeters—two on the front behind a separate grille panel and one on either side of the enclosure. The output level from the side-mounted tweeters can be continuously varied independent of that from the front tweeters, which are also variable. The woofer-tweeter crossover frequency is 2,600 Hz. In a normal listening environment the LTC-100's frequency response is rated at 36 to 24,000 Hz ±3 dB. The system has a nominal impedance of 8 ohms (6 ohms minimum), a power-handling capability of 100 watts continuous, and a minimum recommended amplifier-power rating of 20 watts continuous per channel. A resettable circuit breaker protects the drivers. Dimensions: 36 x 13¼ x 11½ inches. Suggested price: \$339.95. A similar system, but lacking the side-mounted tweeters, is the LTC-50 at \$229.95.

Circle 126 on reader service card

NOTICE: All product descriptions and specifications quoted in these columns are based on materials supplied by the manufacturer.

Recent fluctuations in the value of the dollar will have an effect on the price of merchandise imported into this country. Please be aware that the prices quoted in this issue may be subject to change.

THE ADC CARTRIDGE CAUSES NO PERCEIVABLE WEAR OVER THE LIFE OF YOUR RECORDS.

MKII is different, because our engineers found a way to detach the magnet and reposition it above the stylus, so the stylus applies less pressure against the groove.

Less pressure means less wear.

The fact is, of all the leading brands, ADC cartridges have the lowest mass moving system you can buy. That means better sound and superior performance.

The XLM frequency response is exceptionally flat, from 15Hz to 24KHz ± 1.5 dB. And for the ultimate in stereo reproduction, it has a minimum of 28dB of channel separation.

Think about it. In the long run you'll probably spend more on your record collection than you will on your whole stereo system. So it makes sense to buy a cartridge with proof that it makes your records sound better and live longer.

THE ADC LOW MASS CARTRIDGE.

IT HELPS YOUR RECORDS LIVE LONGER.

The ADC low mass cartridge.
Unbelievable.

Unbelievable?
Believe it.
A series of tests
conducted by a leading
independent audio-testing laboratory prove it.

The tests show that the ADC XLM-MKII cartridge causes no perceivable wear until after 60 plays. Industry sources estimate the "life of a record" (the average number of times a record is played) to be 40 to 50 plays.

Other cartridge manufacturers may talk about less record wear, but ADC has proven *no wear*

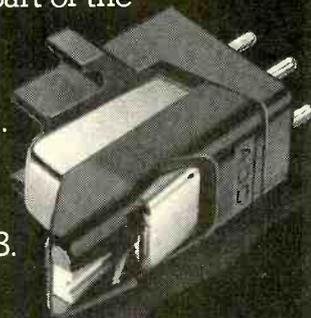
over the life of your record.

The reason for this is our unique patented design. It's patent #3294405.

We call it the "induced magnet" cartridge.

Most cartridges are designed so that a heavy magnet is part of the moving system.

The ADC XLM-



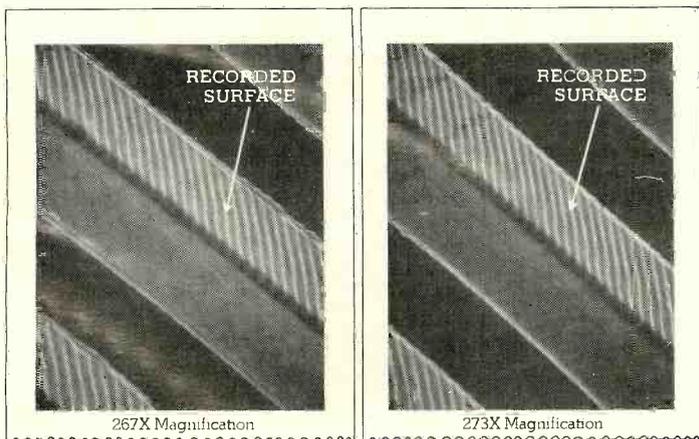
A BSR COMPANY

ADC Phono Cartridges

A Division of

BSR Consumer Products Group
Rte. 303, Blauvelt, N.Y. 10913

THE PROOF:



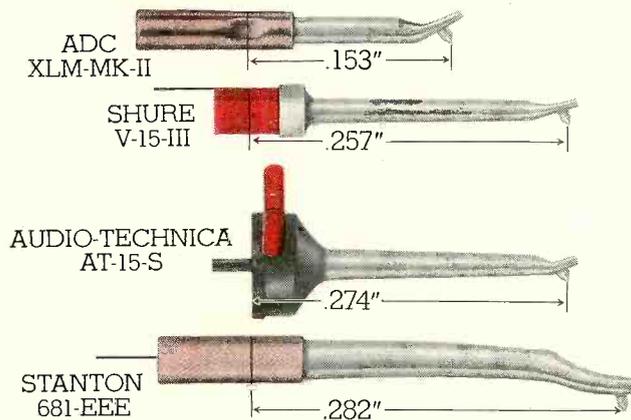
This is a photomicrograph of a 20kHz record groove that has never been played before.

This is a photomicrograph of a similar 20kHz record groove played 75 times with an ADC XLM-MKII cartridge. As you can see there is no difference.

If you'd like your own personal copy of the test result, write to ADC at address shown above.

CIRCLE NO. 2 ON READER SERVICE CARD

THE DIFFERENCE:



The way to get the most accurate reproduction of sound is to lower the total effective mass of the moving parts of the stylus. And that's exactly what

our engineers did. In fact, of all the leading brands, ADC cartridges have the lowest mass moving system you can buy.

INDUCED MAGNET

MAGNET

THE GAP BETWEEN OTHER TAPES HAS

INTRODUCING UD-XL I AND UD-XL II.

Maxell tapes have always been considered by many people to be the highest quality tapes in the world.

But instead of sitting back and resting on our laurels, we've spent the last few years looking for ways to move even further ahead.

The results of our efforts are Maxell UD-XL I and UD-XL II. Two tapes which are not only better than anything we've ever made, they're better than anything anyone's ever made.

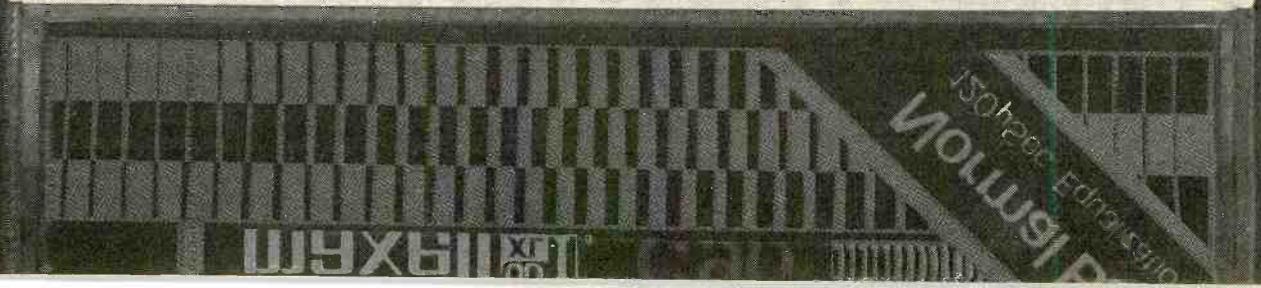
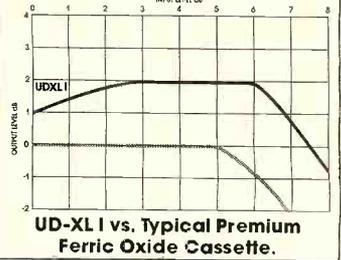
To begin with, UD-XL I is an improved version of our own UD-XL.

More specifically, it's a ferric oxide tape designed for use with the tape selector switch in the normal position (120 microsecond equalization and standard bias).

Its performance characteristics include the lowest harmonic distortion level of any premium cassette on the market today.

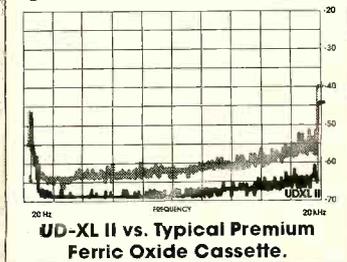
An extremely flat frequency

Saturation Comparison at 8 kHz



MAXELL AND ALL JUST WIDENED.

Signal-to-Noise Ratio Comparison



response from the lowest to the highest frequencies.

And an exceptionally high resistance to saturation even

at the highest recording levels.

UD-XL II, on the other hand, is a ferric oxide tape specially formulated for use with the tape selector switch in the chrome position (70 microsecond equalization and high-level bias). It offers the low noise advantage of "chrome"

without the disadvantages. Its performance characteristics include extremely low modulation noise and a 5 dB signal-to-noise ratio improvement over ordinary premium tapes.

If you'd like to know more about UD-XL I and UD-XL II, stop into your local dealer and ask some questions. Not just about our tapes, but about our competitors' as well.

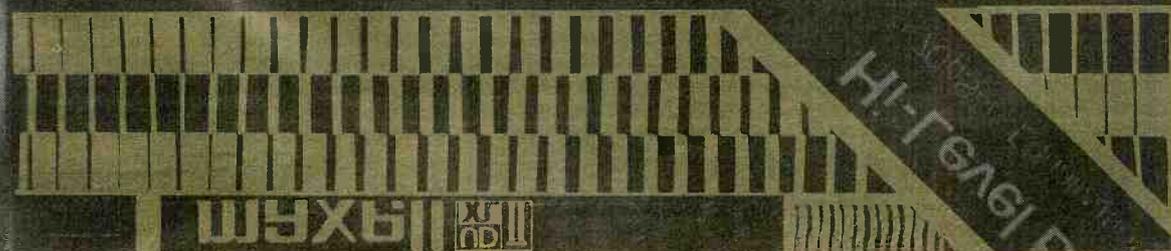
We think you'll soon discover something that we've always known.

The best just keeps getting better.

MAXELL. THE TAPE THAT'S TOO GOOD FOR MOST EQUIPMENT.

Maxell Corporation of America, 130 West Commercial Ave., McMahan, N.J. 07074.

CIRCLE NO. 30 ON READER SERVICE CARD



Audio Q. and A.

By Larry Klein



Audio Careers

Q. *I'm interested in getting a job in audio after I get out of school. Are there special courses I should take or other things I should know?*

A. MOORE
Philadelphia, Pa.

A. You'll probably find all the information you need in the twenty-one-page *Guide to Careers in Audio Engineering* published by the Audio Engineering Society. According to its introduction, the guide was prepared "to aid men and women who would like to know the nature of the audio profession, how they can become audio professionals, and what a career in audio would mean to them. The Guide suggests why such careers can be deeply satisfying to individuals of wide-ranging talents and interests. It describes the astonishing variety of fields open to the audio professional." For a copy, send \$1 to Careers, Audio Engineering Society, Room 449SR, 60 East 42nd Street, New York, N.Y. 10017.

Dead Belts

Q. *The service shop handling repairs on my ten-year-old tape deck sent me a note which read: "Rubber belts and tires dead from standing idle. To prolong belt life, recorder should be operated three or four hours per week." I thought this a strange comment. If true, what happens to new recorders kept in storage before sale?*

AL KOIS
Sacramento, Calif.

A. "Dead" was perhaps the wrong word to use; I think the correct expression would be that they had "taken a set." If a rubber belt under tension is stretched over its pulleys in one position for a long period of time, it could end up permanently deformed, which would probably increase wow and flutter. For a belt this is the equivalent of a flat spot on a rubber idler drive wheel (the "tire" referred to by your service shop).

I suspect that the materials used in the new drive belts are relatively immune to this sort of problem, but older machines that have seen long periods of disuse may indeed suffer from "dead" belts and rubber drive wheels.

Incidentally, anyone seeking a replacement belt, idler, or drive wheel for an old or new tape recorder (or record player) will probably find it listed in the very comprehensive thirty-two-page reference catalog published by Projector-Recorder Belt Corp. (Dept. SR, 147 Whitewater Street, Box 176, Whitewater, Wisc. 53190). The catalog costs \$1, which is refunded with the first order. And even if your cherished audio heirloom doesn't show up (along with Pentron and Magnecord) in the fine-print listings, all is not lost. The PRB Corporation offers to examine your old belt—if sent along with brand, model, and function information—and either supply a replacement from stock or make one up. Prices range from a low of \$3 to a high of about \$11.

Phono-input Gains

Q. *When I switch from phono 1 to phono 2 and vice versa on my amplifier, a noticeable difference in music loudness results. Both turntables use the same model cartridge; however, the turntables themselves are different brands. I'd greatly appreciate a possible explanation for this difference in loudness.*

JOE A. HURSON
Medford, Ore.

A. I'm not trying to do myself out of a job, but I suspect that you would have gotten a faster answer to your question if you had consulted the instruction manual of your amplifier! You would have found that when an amplifier (or receiver) has two magnetic phono inputs, their characteristics will frequently differ in some respect. The designer may choose to make one input "more sensitive." This means that a given signal level from a phono cartridge will be amplified more through one input than through the other. Since the more sensitive input usually has the smaller overload margin, by providing a choice of two sensitivities the manufacturer makes it possible to use a high-output phono cartridge with the low-sensitivity, low-gain input and/or a low-output cartridge with the high-sensitivity, high-gain input. A low-output cartridge plugged into a low-sensitivity input will probably not play loud enough, and there may be excessive noise at the high volume-control setting that must be used. A high-output cartridge plugged into a high-sensitivity input will

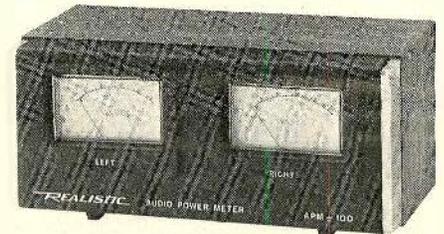
probably cause distortion of high-amplitude record signals. Of course, different gain characteristics do cause difficulty if you want to make rapid A-B comparisons between cartridges, but I suppose that most manufacturers didn't consider the making of such comparisons as the principal reason for having two phono inputs.

Adding Output Metering

Q. *I've been wanting to add power-output or VU meters to my amplifier so as to get some idea what my equipment is putting out. Do you have any idea how I would go about connecting the meters?*

ALAN PREIST
Denver, Colo.

A. Connection is easy; calibration is difficult. Any a.c.-responding voltmeter can serve as a power-output meter, but to cover the range of, say, 0.1 to 100 watts with an 8-ohm speaker load requires a meter that will indicate legibly over a scale of about 0.9 to 28 volts. Unfortunately, the below-5-watt area where most of the musical action occurs would be crowded into less than a quarter of the scale on such a meter. So, even if you could work out a point-by-point calibration correlation between watts and volts, you would still have the problem of severe scale cramping. In other words, if you simply want a meter needle to wiggle when your music plays, that's easy; if you want a meaningful numerical indication, that's another story.



The Radio Shack APM-100 audio power meter sells for about \$20 and connects directly across the speaker terminals. A switch sets calibration for 4- or 8-ohm speaker impedances.

I'm pleased to note, however, that Radio Shack has recently come up with a small, not-too-expensive product that solves such problems. As shown in the photo, it consists of two meters in a small plastic cabinet. Installation is simple: just connect the unit directly across the speaker terminals of each amplifier channel. No a.c. power source is needed. The meter impedances are high enough that neither the amplifier nor the speaker will know they are in the circuit. The meter scales are calibrated from 0.01 to 100 watts, and when I connected the unit across my rear-channel amplifier's speaker terminals they gave a reasonably accurate indication of the power delivered. The meters are heavily damped and tend to hold the peaks for easier reading.

Reel Static

Q. *Recently, while rewinding my reel-to-reel machine, I turned the lights off and noticed static-electricity sparks around the reel.*
(Continued on page 22)

Introducing an evolutionary idea. The New Empire 698 Turntable

Great ideas never change radically.

Instead, they are constantly being refined to become more relevant with time.

So it has been with Empire turntables. Our latest model, 698, is no exception. Basically, it's still the uncomplicated, belt-driven turntable we've been making for 15 years. A classic.

What we're introducing is improved performance.

The lower mass tone arm, electronic cueing, quieting circuitry and automatic arm lift are all very new.

The rest is history.

The Tonearm

The new 698 arm moves effortlessly on 32 jeweled, sapphire bearings. Vertical and horizontal bearing friction is a mere 0.001 gram, 4 times less than it would be on conventional steel bearings. It is impervious to drag. Only the calibrated anti-skating and tracking force you select control its movement.

The new aluminum tubular arm, dramatically reduced in mass, responds instantly to the slightest variation of a record's movement. Even the abrupt changes of a warped disc are quickly absorbed.

The Motor

A self-cooling, hysteresis synchronous motor drives the platter with

enough torque to reach full speed in one third of a revolution. It contributes to the almost immeasurable 0.04% average wow and flutter value in our specifications. More important, it's built to last.

The Drive Belt

Every turntable is approved only when zero error is achieved in its speed accuracy. To prevent any variations of speed we grind each belt to within one ten thousandth of an inch thickness.

The Platter

Every two piece, 7 lb., 3 inch thick, die cast aluminum platter is dynamically balanced. Once in motion, it acts as a massive flywheel to assure specified wow and flutter value even with the voltage varied from 105 to 127 volts AC.

The Main Bearing

The stainless steel shaft extending from the platter is aged, by alternate exposures to extreme high and low temperatures preventing it from ever warping. The tip is

then precision ground and polished before lapping it into two oilite, self-lubricating bearings, reducing friction and reducing rumble to one of the lowest figures ever measured in a professional turntable; -68 dB CBS ARLL.

The Controls

Electronic cueing has been added to the 698 to raise and lower the tone arm at your slightest touch. Simple plug-in integrated circuitry raises the tone arm automatically when power is turned off.

A see-through anti skating adjustment provides the necessary force for the horizontal plane. It is micrometer calibrated to eliminate channel imbalance and unnecessary record wear.

Stylus force is dialed using a see-through calibrated clock mainspring more accurate than any commercially available stylus pressure gauge.

A new silicon photocell sensor has been added to automatically lift the arm at the end of a record.

New quieting circuitry has also been added. Now, even with the amplifier volume turned up, you can switch the 698 on or off without a "pop" sound to blow out your woofers.

At Empire we make only one model turntable, the 698. With proper maintenance and care the chances are very good it will be the only one you'll ever need.

EMPIRE



The Empire 698 Turntable

Suggested retail price \$400.00

For more information write:
EMPIRE SCIENTIFIC CORP.
Garden City, New York, 11530.

**SYNCHRONIC TIME ARRAY:
now, time/phase aligning
at a popular price
...why should big spenders
get all the breaks?**

Call it phase linearity or linking. Time coherence or aligning. But what good is a new audio breakthrough, by any name, if only a privileged few can afford it?

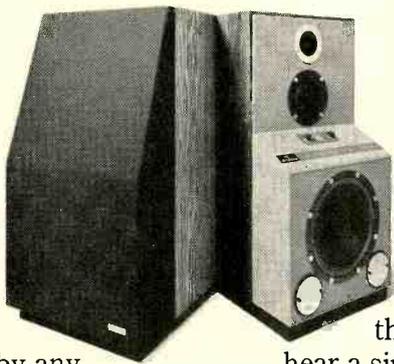
You wonder, for the umpteenth time, why high technology always starts out so expensive.

Frankly, we don't know why other famous brands run so high for speakers built to compensate time/phase differentials between drivers. But we do know it can be done for less. Because Ultralinear, the up-front, coast-to-coast loudspeaker company, is doing it.

Our new *Synchronic Time Array™* ST550 system can match—or exceed—their sophisticated performance, for the same bucks a conventional system costs.

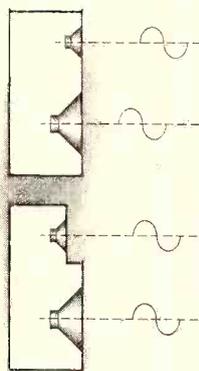
Now it's plain you too can have it, why should you want it? Basically, time-sync techniques correct the split-second delay in getting sounds out of your speaker—in the same order they went in.

It's particularly critical when the same note's being reproduced



by more than one driver at the same time. In conventional systems, one driver is always fractionally closer to your ear than the others, so you don't hear a simultaneous attack.

Sure, it's a tiny distortion you wouldn't think matters. Until you hear the definition the Ultra-



linear ST550 system achieves through cross-over network refinements and driver repositioning.

An ad can't do it justice. And since ads don't carry sound tracks,

there's only one way to comprehend ST550's unique characteristics: direct comparison against any conventional speaker system you're familiar with (at any price).

To run your own one-on-one test, send for a list of Ultralinear dealers in your area, plus our brochure on the *Synchronic Time Array ST550* system. Write to the up-front, coast-to-coast loudspeaker company:

Ultralinear, 3228 East 50th Street, Los Angeles, California 90058.



Ultralinear™

Could this disrupt the magnetic pattern on the tape? If it can, what should I do about it?

JEFF BURGESS
Louisia, Ky.

A. Visible static-electricity discharges occur when there is a large difference or imbalance in ionization between two adjacent substances. When the charges on the materials suddenly equalize each other, sparks are seen. An ion is an atom (or molecularly bound group of atoms) that has gained or lost electrons, thus producing a negative or positive charge. The ion transfer that puts a charge on a material takes place any time two insulating substances are rubbed together. The intensity of the charge depends mostly on the position of the two substances in the "triboelectric series" that lists various materials in order of their affinities for ions of one polarity or another. For example, if you are unwise enough to wear a rabbit-fur coat (very +) over a woven Teflon suit (very -) in a dry environment, the static-electricity charge created could reach tens of thousands of volts.

Obviously, recording tape, unless conductively back-coated, is an insulating material, and in its progress from the supply to the take-up reel it certainly does "rub" over various parts of the recorder. Visible discharges occur when the charge, instead of leaking off slowly, builds up to the point where it is strong enough to arc across an insulating gap of air. I don't think the arc is likely to damage your tapes or the signal on them, but, in any case, why not write to your recorder's manufacturer for his thoughts on the problem—if it is one? (The sparking might be susceptible to an easy fix such as grounding or a change of lubricant.) In the meantime, if you were to raise the humidity in your listening room, I'm sure that your recorder's static-electricity problem would quickly disappear.

Phono-cartridge Life

Q. What is the life expectancy (in terms of usage or simply time) of a typical magnetic phono cartridge?

M. T. WALSH
Willoughby Hills, Ohio

A. I referred Mr. Walsh's letter to Frank Karlov, manager of electromechanical development at Shure Brothers, and here, in part, is his reply:

"The stylus-assembly parts that can be affected by use, misuse, and aging are the diamond tip, the stylus shank, and the elastomer bearing. The diamond tip is worn by playing records; the stylus shank can be bent or broken by handling accidents; and certain elastomer bearings can be affected by time, temperature, and various noxious components in the atmosphere. The elastomer material used by Shure, however, is not affected by long-term storage or use."

It seems clear that, with most cartridges, when you replace a stylus that has a worn diamond tip, then you are simultaneously replacing everything else that is likely to go bad with time. As far as the life of the diamond is concerned, it is very difficult to come up with a definitive number. Wear is determined by a complex of forces too numerous to go into here. Experts agree, however, that, considering all the variables involved, the stylus tip should be checked after every 100 hours or so of use by a reputable dealer.

Take home pigs, dogs and sheep.



Pink Floyd's "Animals," on Columbia Records and Tapes.

CIRCLE NO. 11 ON READER SERVICE CARD

© "COLUMBIA" ™ MARCAS REG. © 1977 CBS INC. 

"...in the same class with a number of more expensive products, including many of the direct-drive record players we have seen."

This quote, from the Hirsch-Houck Labs' report in *Stereo Review*, refers to the Dual 510, a semi-automatic belt-drive turntable. Considering that direct-drive models (especially our own) are widely accepted as the standard of performance, Hirsch-Houck's comparison is not to be taken lightly.

The 510 also benefits from comparison with other semi-automatic turntables.

We'll let someone else tell you how good our belt-drive turntables really are. Dual's unique sensor locates the 12-inch and 7-inch lead-in grooves for you. You don't have to guess where they are. And there's no way to drop the tonearm accidentally; the cue-control lifts it automatically at the end of play and supports it until you release it. Every Dual tonearm

benefits from comparison with curved tonearms. Even though the shortest distance between two points is a straight line, some designers are more concerned with appearance. Hence, the curved tonearm—whose departure from a straight line between pivot and stylus simply adds mass, reduces rigidity, and increases the likelihood of resonance. And fails to take advantage of the high compliance of the finest cartridges.

You might keep all this in mind when considering your next turntable. Chances are you'll want it to be a Dual.



United Audio Products, 120 So. Columbus Ave., Mt. Vernon, N.Y. 10553
Exclusive U.S. Distribution Agency for Dual

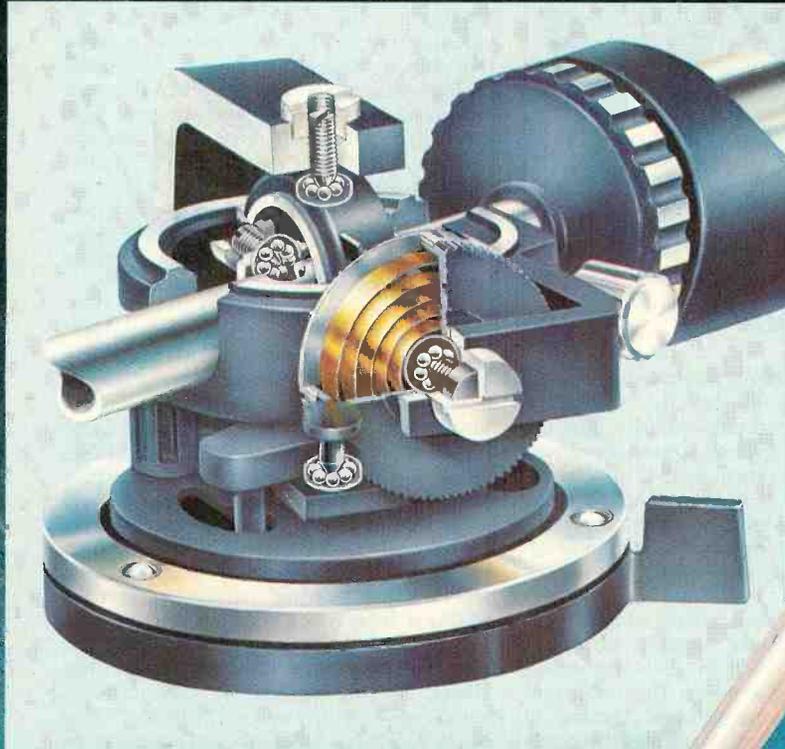
Dual 510. Semi-automatic, single-play. True four-point gimbal tonearm suspension. Synchronous motor, precision-ground belt, unique Vario-pulley, dynamically-balanced platter. 6% pitch-control, illuminated strobe. Lead-in groove sensor. Cue-control viscously-damped in both directions. Less than \$200.

Dual 502. Similar except less sensor and strobe. Less than \$160.

Dual 1249, fully automatic single-play/multi-play. Less than \$280.



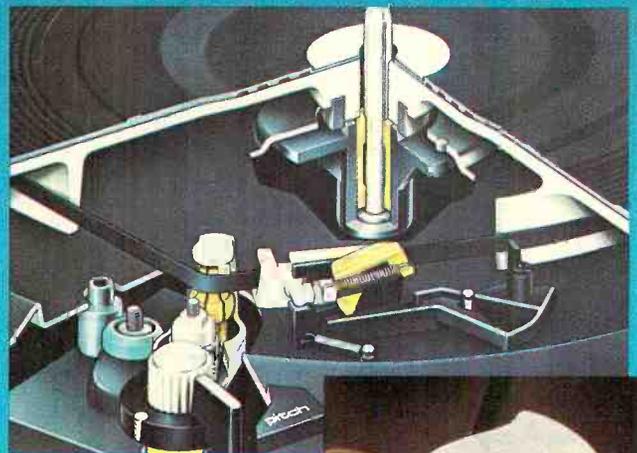
Specifications (DIN B): Rumble; >66 dB; Wow and flutter, $\pm 0.05\%$.



True four-point gimbal centers and pivots the tonearm mass at intersection of horizontal and vertical axes. Tonearm is dynamically balanced in all planes. The four needle-point pivots are first hardened, then honed: a process which produces microscopically smooth surfaces. The precision ball-bearing races are only 0.157-inch diameter. Bearing friction: vertical, <0.007 gram; horizontal, <0.015 gram.

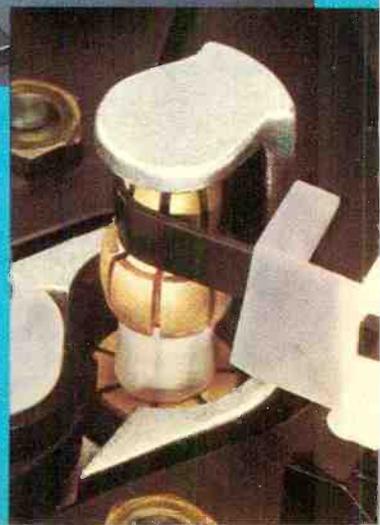


The curved tonearm may appear longer than the Dual tonearm, but both actually have the identical effective length and horizontal tracking angle.



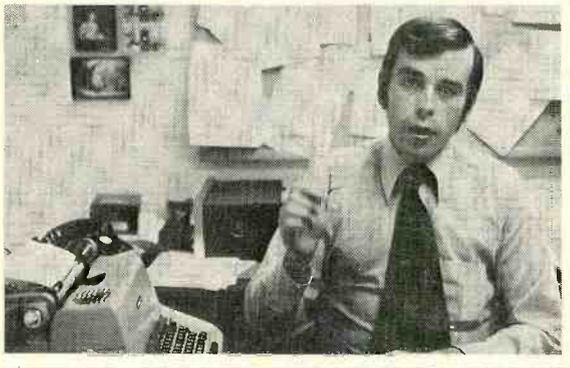
Speed changes can be made while platter is rotating; belt is never twisted or distorted. Precision-grinding of belt maintains speed constancy and eliminates weak spots that shorten life.

Vario-pulley is individually machined for perfect concentricity and balance. Speeds are adjusted by expansion and contraction of pulley.



Audio Basics

By Ralph
Hodges



THE CUSTOMIZED TUNER

WITH its single main control and easily interpreted meters, the tuner has traditionally been one of the simplest audio components to operate. But of late there has been a realization among tuner manufacturers that complexity in pursuit of better performance is sometimes no vice, and their current products reflect this attitude more and more. In today's tuners (and in the tuner sections of receivers) we're seeing a proliferation of knobs and switches that do things that could not be done with older products. Furthermore, in many cases these facilities can tailor and even augment the audible FM performance (as opposed to providing convenience and ease of operation), and frequently they require a decision by the user as to what compromises he will or will not accept in his reproduced sound. Hence these new controls are—or can be—useful adjuncts to listening pleasure. But before they can be used effectively they must be understood.

Since few of us really know how an FM tuner works (and those of us who do are prone to forget at any given moment), pitching this discussion on the theoretical plane would probably be unwise. Therefore, what follows will be a largely pragmatic treatment of what these sound-altering controls do, and why.

● The **mode selector** (frequently incorporated into the input selectors of receivers) is hardly a new control facility; it is virtually as old as stereo FM. However, its function places it squarely within this category of control. The usual position for the selector is FM AUTO, and in this mode it switches the tuner's circuits automatically between stereo and mono according to what the program is. Sometimes there is a STEREO ONLY position, in case you hate mono so much you can't stand to hear it even for the brief moment it takes to tune past a mono station (STEREO ONLY causes the tuner to pass up all mono stations).

Invariably an FM MONO position is also provided. This is not in case you hate stereo with equal fervor. Instead, the position is there to enable you to switch a weak and noisy stereo broadcast into mono for the purpose of reducing its noise. Combining the two channels of any stereo program source to create a mono signal will electrically cancel some of the noise components and result in a quieter pre-

sentation. And in the FM AUTO mode the tuner will in fact switch a *hopelessly* noisy stereo broadcast into mono automatically. The FM MONO mode gives the user a manual override of this automatic function. It is also useful when the strength of signal at the tuner input varies, causing the tuner to switch annoyingly back and forth between stereo and mono unless FM MONO is activated.

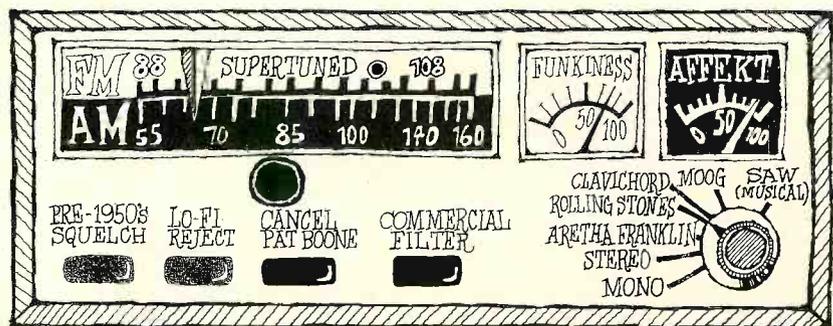
● If switching a stereo signal to mono will eliminate a significant amount of noise, switching it only partially to mono should eliminate at least *some* noise. That is the principle of the **high-frequency blend** function. At a (presumably) modest sacrifice of the stereo effect, this switch is able to convert the program to mono only over the range of the higher audible frequencies—frequencies at which the stereo noise content is generally fairly audible. A few multi-position blend switches are beginning to appear that will extend noise reduction (and stereo loss) somewhat down into the mid-range.

● **Muting** (of the blast of noise that will otherwise be heard when you tune between stations) is a feature of virtually all high-fidelity tuners and receivers. On most units the muting can be switched off, enabling you to tune in very weak stations that would otherwise be silenced. The muting system's **threshold** is what determines how weak a station has to be before the tuner ignores it, and hence a variable threshold (such as is available on some tuners) is a potentially useful feature. In general, the lower the threshold is set, the less effective the muting system will be, but the more stations the tuner will pick up with the muting switched in.

● High **selectivity** is what a tuner has when it is able to reject interference occurring very close to the frequency to which it is tuned. Low **distortion** is what it tends to have when it will accept a wide band of frequencies above and below the nominal center frequency of the broadcast signal. Both characteristics are desirable, but beyond a certain point of design sophistication either one is achieved only at the expense of the other in current tuners. Usually it is the product's designer who decides the trade-off between these two parameters. But if the tuner has an **i.f. bandwidth** switch—as some de luxe units do—the user can take a hand in the compromise too. With the switch in the WIDE position the tuner favors low distortion at some moderate sacrifice of selectivity; the opposite is true for the NARROW position. Except under the most difficult reception conditions, WIDE would be the logical position of choice; but NARROW is there when audible interference requires it.

● One of the components of a stereo FM (but not a mono FM) broadcast signal is a 19,000-Hz tone that will appear at the outputs of the tuner unless it is somehow removed. Since 19,000 Hz is within the audible range for some people (and within the reproduction range of some loudspeakers), and especially since a tone of this type will play havoc with many tape machines when they try to record from the tuner, eliminating this tone effectively has been a high-priority concern in stereo tuner design. The usual removing agent is the **multiplex filter**, which attempts to introduce a very steep cut-off slope above 15,000 Hz. But, of course, some filters are better than others, and the majority of them probably have some (slightly) audible "dulling" effect below 15,000 Hz. It appears that not everyone is happy about this situation, because there has recently come into existence a **multiplex filter switch** that will banish the filter at the punch of a button. Naturally this restores the 19-kHz whistle but, ears and loudspeakers being what they are, there is a good to excellent possibility that you won't be able to hear it. Presumably you will be able to hear a slight increase in the program's high-frequency content. (It is very likely that tape recording will be impossible with most machines when the multiplex filter is switched out, however, and Dolby circuits, when used, will not work properly.)

No single tuner I know of has all the above features (in fact, I've encountered the multiplex filter switch only once, but who knows what will happen next month?). Probably some of the newer features will prove superfluous to most consumers and succumb to disuse in the marketplace. But it would be a shame if they disappeared merely because no one knew how or why to use them.



**"...the Sansui tradition:
solid, well thought out...
right up there with the best...
a fine value..."**

High Fidelity Magazine, Dec. 1976

"SANSUI Model 7070, a stereo FM/AM receiver... under \$520."

"Here is yet another receiver in what we have come to think of as the Sansui tradition: solid, well thought-out, neither barebones nor feature-encumbered, delivering performance that is right up there with the best..."

"Some 'extras' are immediately apparent when you lay an inquiring finger on the controls. The tone knobs are stepped... and include a MIDRANGE as well as the usual BASS and TREBLE... two phono inputs... mono mike input with its own mixing level control... There also is output-power metering..."

"One special feature of the 7070 is its provision for onboard decoding of Dolby FM broadcasts..."

"The tuner section is excellent — at least good in every respect and near-superlative in many..."

"The amplifier section is rated at 18dBW (60 watts) per channel and actually will pump out 1/2 dB (10 watts) more before exceeding the distortion rating at any audio frequency. More impressive, harmonic distortion is far below Sansui's 0.3% rating at all testec power levels, exceeding 0.5% in few

measurements... Intermodulation too is low..."

"...if your expectations are high, there's very little about the 7070 that we think might disappoint you. Feel and finish of the parts is excellent, as we have come to expect of Sansui. The capable amplifier section has enough power for use with two pairs of speakers... the tuner section is among the best of the ancillary functions... are comprehensive and efficient. All in all, a fine value for the money."

In every power and price range, Sansui offers you a receiver in their tradition of excellence. Visit your nearest franchised Sansui dealer today and select the model that is right for you — from the new luxury Model 9090DB with full Dolby™ capability, at less than \$750* to the no-frills Mode 221, at less than \$180*.

*Approximate nationally advertised value. The actual retail price will be set by the individual dealer at his option.

**Trademark of Dolby Laboratories, Inc.

A whole new world of beautiful music.



Simulated
woodgrain
cabinet.

SANSUI ELECTRONICS CORP.
Woodside, New York 11377 • Gardena, California 90247
SANSUI ELECTRIC CO., LTD., Tokyo, Japan
SANSUI AUDIO EUROPE S.A., Antwerp, Belgium • In Canada: Electronic Distributors

Sansui

CIRCLE NO. 46 ON READER SERVICE CARD

By Craig Stark



THE question-and-answer format of Larry Klein's "Audio Q. and A." column has proved to be so popular that he is beginning to need a little help, so this monthly tape column will be devoted, while the need lasts, to readers' theoretical and practical problems with recording tape and machines that use it.

Noise-Reduction Ratio

Q. *Most cassette decks claim that their Dolby system improves the signal-to-noise ratio up to 10 dB, but one specification I saw recently said the machine had a 50-dB S/N without Dolby and 60 dB with Dolby "above 5,000 Hz." What does that mean?*

STEVE GOLDBERG
New York, N.Y.

A. The full noise-reduction potential of the Dolby B system is available only at frequencies of approximately 5,000 Hz and up. Lesser amounts of quieting are available at lower frequencies, down to about 1 or 2 dB at 500 Hz, this latter being a typical frequency where non-Dolby S/N measurements are made. A cassette deck with a 50-dB non-Dolby specification at 500 Hz will not have anywhere near that good a rating at 5,000 Hz, however, since the maximum undistorted signal that can be obtained from the cassette declines very rapidly in the high-frequency area. So, while the Dolby B system does give an additional 10 dB or so of usable high-frequency dynamic range by lowering the hiss level, you can't just add that amount to a specification based on a low- or middle-frequency signal.

Head Demagnetization

Q. *My dealer told me not to try to demagnetize the heads on my machine, since if I did it wrong I'd do more harm than good. What do you say?*

JANICE SMETHURST
San Francisco, Calif.

A. Unwanted magnetism *does* build up on tape heads (and guides and capstans), and if it isn't removed by proper demagnetizing it will tend to erase the highest frequencies

from every tape you play on the machine. In the time it took to scare you, your dealer could have shown you how to degauss the heads safely.

1. Obtain a standard inexpensive "head" demagnetizer such as is sold in most audio stores. If the demagnetizer tip is hard and sharp, cover it with electrical tape so it can't scratch anything.

2. Remove all tapes from the immediate vicinity and turn off the recorder. Hold the demagnetizer several feet away from the heads and turn it on. Then slowly bring it up to the heads, guides, and capstan(s) and slowly move it up, down, and around the exposed surfaces. Then slowly withdraw the demagnetizer, being sure to wait until you are several feet (arm's length) away before turning the demagnetizer off. This is important, since the turn-on and turn-off surges in the degausser could magnetize the head if it is near them. That may be what worried your dealer.

Conspiracy of Silence

Q. *I notice that you and the other hi-fi magazines talk about cassettes and open-reel tapes; but all of you seem to ignore the eight-track format. What's wrong with cartridges?*

SIDNEY GOLUB
Anaheim, Calif.

A. Several years ago, 3M made a last, valiant attempt to revive interest in high-quality eight-track cartridges by showing a technically advanced deck at the Consumer Electronics Show. But it never achieved the hoped-for popularity. My files are full of reader letters asking me how to salvage jammed cartridges, and in my replies I've cited the words of an industry spokesman who once described the eight-track cartridge as "a self-destruct mechanism." Sooner or later the delicate balance between the front-side and the back-side friction of endless-loop tape is bound to be upset, and every playing then tightens up the tape pack in the center until the cartridge jams.

Further, because of the higher tape speed, while cartridges *should* have a wider frequency response and dynamic range than cassettes, in practice they don't. For whatever reasons, the recorded quality seems to come out more suitable for the automotive and "never before offered on television" markets

than for critical hi-fi listening. So, most of us tape pundits do ignore the cartridge. For myself, when I make or buy a recorder I want to keep it—not put it into a mechanical time bomb.

CrO₂ Tape and Head Wear

Q. *I have a large number of chromium-dioxide cassettes, but I've hesitated to use them on my new recorder because I've been told they'll wear out the tape heads faster. Is this true?*

AL GROSS
Pontiac, Mich.

A. The relative abrasiveness of CrO₂ and ferric-oxide cassettes has been debated back and forth for years, and when a group of dealers recently asked me for the latest research findings on the subject I countered with a question of my own: "When was the last time your service technician had to replace a worn-out cassette tape head, regardless of which type of cassette was used?" The silence was eloquent.

All tape is abrasive, of course, and at open-reel and duplicating speeds head wear can be and is a problem. No doubt someone, somewhere, has managed to wear out a cassette head in more or less normal use, but, in my experience, the motor bearings are likely to go first, making any possible difference in the oxide formulations academic. And the latest findings I've seen (no doubt to be contradicted, then re-confirmed, then contradicted again) place the wear factor between good chrome and ferric cassettes about even.

On the Dull Side

Q. *A number of my prerecorded cassettes sound okay on one side, but dull (no highs) on the other side. Since the cassettes I record myself sound fine on both sides, I don't think there's anything wrong with my deck. Is it just another case of sloppy duplicating?*

MAURICE POWELL
New Orleans, La.

A. The problem you describe is quite common. I once measured a 15-dB difference in the 10,000-Hz playback level between the two sides of a full-track test cassette intended for consumer use, and a 4- to 5-dB difference at that frequency is not unusual even with professional test cassettes.

The explanation is that sometimes minute imperfections within the plastic cassette shell can cause the tape to skew, so that it contacts the playback head at slightly varying angles, depending on which side is playing. The resulting azimuth error, even if only a fraction of a degree away from the proper 90 degrees, will cause significant treble losses.

Since your prerecorded tapes play well in at least one direction, it is probably safe to say that your tape head is properly aligned; you'll just have to live with the occasional second-side vagaries. The reason your own tapes don't show the problem is that even if there is a slight skewing in one of your cassettes, you're using the same head on the same machine for both the record and playback, so there is no relative azimuth error. And, of course, the shells of good quality consumer cassettes are generally better than those used for mass duplication.

Who said you can't see the quality of a speaker? Look closely at the Sansui SP series.

5 speakers, 4-way L/C crossover
130 watt peak handling capacity
98 dB/W efficiency
16" woofer



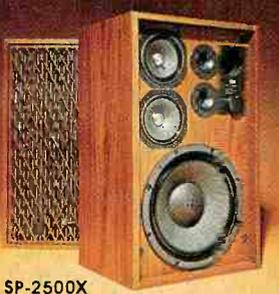
SP-7500X

5 speakers, 4-way L/C crossover
120 watt peak handling capacity
98 dB/W efficiency
15" woofer



SP-5500X

5 speakers, 3-way L/C crossover
100 watt peak handling capacity
98 dB/W efficiency
12" woofer



SP-2500X

3 speakers, 3-way L/C crossover
70 watt peak handling capacity
93 dB/W efficiency
10" woofer



SP-1500X

The SP-7500X

In a great speaker, quality can be seen as well as heard. When you look at the Sansui SP series — you'll see what we mean.

Go to your Sansui franchised dealer and ask for the SP-7500X.

Let your salesman remove the handsome, hand-carved Kumiko grille. The size of the woofer is impressive — a massive 16" — for a rich and full bass. And for clean, transparent super-highs the SP-7500X speaker system features three tweeters — two 2" "super-tweeters" and an additional horn tweeter. Notice the unusually large 8" cone mid-range driver which adds a sense of presence and creates a smooth transition between the highs and lows. The four-way crossover network is built around a ferrite-core inductor with high-voltage capacitors to keep distortion way down over the entire audio range.

Now listen to the SP-7500X. Turn up the power. This speaker can handle lots of it. (130 watts peak). And always with unusually high efficiency.

The Sansui SP series is available in four models. One will certainly be ideal for your own budget and listening preferences.

All speakers simulated walnut grain enclosure.

A whole new world of beautiful sound

SANSUI ELECTRONICS CORP.

Woodside, New York 11377 • Gardena, California 90247 • SANSUI ELECTRIC CO., LTD., Tokyo, Japan
SANSUI AUDIO EUROPE S.A., Antwerp, Belgium • In Canada: Electronic Distributors

CIRCLE NO. 47 ON READER SERVICE CARD

Sansui

Before you do something extravagant, audition the Realistic[®] LAB-300 at the nationwide supermarket of sound.

Common sense never sounded so good! Turntables are sporting lots of "revolutionary" features these days — electronic eyes . . . mini-computers . . . hydraulic suspension systems. . . . About the only things they have in common are knob appeal and a high price. The Realistic LAB-300 is different. It offers one very down-to-earth attraction: flawless performance at a price that's way below other top-of-the-line models. So you do the seeing and thinking, and we'll save you a bundle. Here's how:

Single-play design for better sound per dollar. By avoiding the noise and cost of a changer mechanism, Realistic can concentrate on getting maximum music and life from your 33 $\frac{1}{3}$ and 45 RPM records. The S-shape tone arm, 8 $\frac{1}{2}$ " long from point to stylus, tracks accurately even at $\frac{3}{4}$ gram. Belt-driven by a powerful synchronous motor. Wow and flutter: less than 0.1%. Rumble: better than -60 dB (DIN B).

With semi-automatic convenience. You touch the tone arm only to start the record. At disc's end, an independent mechanism returns the arm and shuts off the motor, saving cartridge and turntable from needless wear. Damped cueing, direct-reading tracking force adjustment, variable anti-skate.

A look of luxury. Solid and uncluttered. Simplified function controls. Precision aluminum, chrome and stainless tone arm assembly. Walnut-grain vinyl veneer base.

All "extras" included. The cartridge is the heart of your turntable, and Radio Shack doesn't think it should be treated as an accessory. So the LAB-300 comes with a Realistic-by-Shure model performance-matched to the tone arm. It's our finest magnetic elliptical, a \$44.95 value in itself! The sturdy, friction-hinged dust cover is included, too.

We're near you. No searching around for a small-brand dealer who might not be there when you need him. With over 4800 Radio Shacks in the USA and Canada alone, you won't have any trouble finding the LAB-300 or getting service and original factory parts at any time. Come by for a demonstration. First class sounds even better — when you can afford it! Just 159.95*.

SOLD ONLY WHERE YOU SEE THIS SIGN:

Radio Shack[®]

A TANDY COMPANY • FORT WORTH, TEXAS 76107
OVER 4000 LOCATIONS IN NINE COUNTRIES

*Price may vary at individual stores and dealers.



Realistic LAB-100
Semi-automatic, belt-driven. With magnetic cartridge, dust cover, simulated walnut grain base. 99.95*



Realistic/Miracord-46
Fully automatic with umbrella-spindle, magnetic cartridge, genuine walnut veneer base. 199.95*



Realistic/Miracord-42
Fully automatic with umbrella-spindle, magnetic cartridge, simulated walnut grain finish base. 149.95*



Realistic LAB-50
Fully automatic, belt-driven. With magnetic cartridge, walnut grained vinyl veneer base. 99.95*



CIRCLE NO. 40 ON READER SERVICE CARD

Realistic, Radio Shack, and
Nationwide Supermarket of Sound
are registered trademarks.

You've heard about Infinity's landmark Quantum Line Source, of course. Musically accurate—the critics agree—beyond any speakers ever made before.

They cost \$1200* Each. Ouch.

The Quantum 3 pictured here costs less than \$500* It uses all the same advanced Infinity technology:

Same Infinity-Watkins Dual-Drive Woofer** with a combination of cleanliness and power throughout its astonishingly-wide bass range.

Quantum 3 also uses the same Electromagnetic Induction Tweeter (EMIT) stacked in multiples. They deliver smooth and utterly natural

highs with excellent dispersion. Same high-definition ventilated dome midrange drivers, too.

Slightly fewer of them, that's all. And the same meticulously-phased midbass coupler.

What is the difference, then? Come see. For one thing, the Quantum Line Source stands a towering 5½ feet high; Quantum 3, a more companionable 3½ feet.

More important, *hear* the difference. If you can.

Infinity's QLS delivers every musical nuance from 18 through 32,000 Hz \pm 2 dB.

Compare the Quantum 3 range:

28 to 32,000 Hz \pm 3 dB.

And price.

Quantum Line Source is certainly the finest; Quantum 3, very probably the finest *value*. Choose.

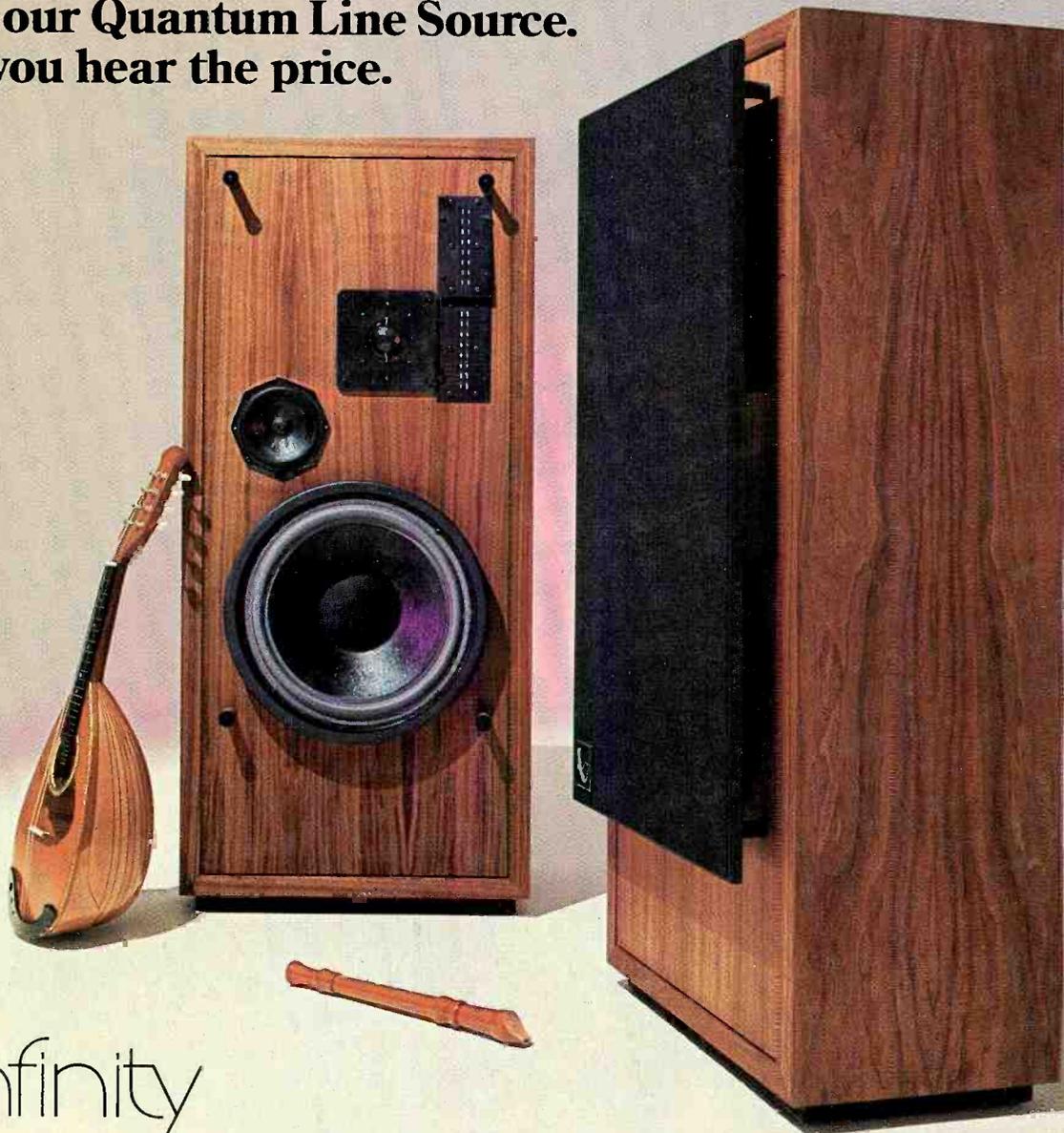
In fact, bring a stash of favorite records in to your Infinity dealer. Introduce them and yourself to the whole Quantum Series of speakers by Infinity.

Whether your taste runs to chamber-style delicacy or sledgehammer impact, they will reveal more of it—and more depth and spatial imagery—than you ever knew were in those familiar grooves.

We promise you quite a turn-on.

This is Quantum 3

Your ears may not know the difference between it and our Quantum Line Source. Until you hear the price.



 Infinity

We get you back to what it's all about. Music.

©1977 by Infinity Systems, Inc., 7930 Deering Avenue, Canoga Park, CA 91304. (213) 883-4800. TWX (910) 494-4919.

*Manufacturer's suggested retail price, optional with dealer. **Manufactured by Infinity Systems, Inc., under license from Watkins Engineering.

CIRCLE NO. 26 ON READER SERVICE CARD

WILL QUADRAPHONICS RISE AGAIN?

THE winter Consumer Electronics Show is a smaller, quieter, and chillier (remember last January?) counterpart of its gigantic summer relative. Instead of McCormick Place, the venue becomes the Conrad Hilton in downtown Chicago, with plenty of unofficial spillover into neighboring hotels. As the secondary show, the winter CES does not present the overwhelming numbers of new products that are to be seen in the summer. Instead, manufacturers emphasize the marketing possibilities of existing products in their lines, and dealers have another chance to take on a product they passed up or failed to see seven months before.

● **New Products.** There were, of course, a few new products here and there. For example, Marantz presented eight, all of them stereo receivers, and one of them (Model 2385) raising the high-power mark for receivers to 185 watts per channel. Adding to the 2385's hearty appeal is a uniquely compact Dolby module (optional) that plugs into the rear panel for Dolbyized FM broadcasts. The somewhat smaller Model 2330 (130 watts) has this facility already built in.

Pioneer forsook Chicago and introduced its new products—thirteen of them—in New York instead. The highlights of the Pioneer showing were probably the new top-of-the-line tuner (see this month's New Products) and a pair of direct-drive turntables speed-regulated by means of quartz-crystal oscillators and phase-locked loops.

● **The Four-channel Phoenix.** Quadraphonics, obviously, will rise again. At the show, four-channel was borne aloft by Peter Scheiber, the man who pointed the way toward matrix systems almost ten years ago. The latest Scheiber decoder carries the designation Deltek Model One after the company producing it. It is primarily an SQ instrument, although in two of its operating modes it will synthesize a four-channel effect from stereo sources for ambiance-type or semi-surround presentations. Separation is specified as exceeding 35 dB between any two channels. The price, unfortunately, is \$2,150.

Mr. Scheiber is on record as saying that current SQ recordings *do* contain all the spatial information necessary for a satisfactory four-channel effect; all that is needed are "refinements in decoding technology" to bring it forth. The Deltek demonstration certainly did nothing to contradict his words, providing a rendition of the Boulez *Firebird* that was the best I've heard from the aspect of spaciousness and non-ambiguity of sound localization. There was some indication that the long-awaited SQ decoder from Tate, a representative of which English company was present at the Deltek demonstration, will in future supply the needs of manufacturers requiring less expensive electronics to build into four-channel receivers and amplifiers. The

Deltek device will—for the moment—remain the ultimate.

As for quadraphonic receivers, still they come. Sansui's QRX-9001, introduced along with the slightly smaller QRX-8001, raises the company's power-output capability to 60 watts for each of four channels. As expected, the matrix-decoding facilities are most elaborate for QS, with Variomatrix included. However, the receiver will accept any four-channel source material, and in addition it has built-in Dolby circuits for processing tape recordings and Dolbyized FM.

● **Other Developments.** In amplifiers, Sony displayed a prototype of the first Class-D power amplifier to utilize vertical field-effect transistors. Power output is presently 150 watts per channel, projected price is approximately \$1,000, and availability is scheduled for a year hence. Hitachi's first Class-G power amplifier, the HMA 8300, was introduced; it has a continuous-power rating of 200 watts per channel (400 watts "transient music power") and a price of \$750. It was accompanied by a new preamplifier, the HCA 8300.

Larry Klein's write-up of the Tokyo Audio Fair (February) noted the Japanese use of meter-like tuning dials on some radio products. The first exponent of this possible trend to arrive on these shores is the Rotel TX-7707 receiver. In its case, an actual meter is used. This is a logical step, since the receiver has five FM-station presets activated by pushbuttons. The voltages that tune the station-selecting circuits also drive the meter, which is calibrated in megahertz. A conventional tuning dial would have to be motorized to work with the preset system.

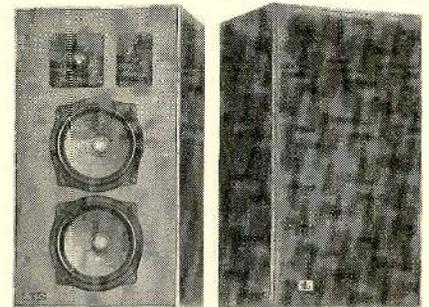
It is rare that a tone arm makes headlines, but the Dynavector arm is unusual enough to rate a mention. Involving a design intended to minimize vertical effective mass (for good performance on record warps) and maximize lateral mass (for stability), the arm employs magnetic damping and a number of other novel features. It and the moving-coil Dynavector phono cartridges, all made by Onlife Research in Japan, are currently distributed here by Audioanalyst.

The Burwen people, reorganized under the name Burwen Research, have a new dynamic noise filter, the Model 1201A, with improved time constants. The show also coaxed forth a few new turntables, but I saw nothing in the way of new tape equipment. As always, however, new loudspeakers were everywhere. Dynaco has an entire new line of five models, the LMS ("Laboratory Monitor") series. And the Sharp/Optonica people have created the first new speaker system with a ribbon tweeter (the CP-5000) in quite some time. I could go on almost forever about speakers, but I see the bottom of the page coming up fast. We will pass this way again in September for the summer show report, at which time we'll get in as many speakers as we can.

INVISIBLE
SOUND
INVISIBLE
SOUND
INVISIBLE

"... buy a speaker with a need for reflecting walls, corners, complex horns, magic filaments, a brain, and V8 configuration, and you'll have something to talk about at your next party.

Acquire an ADS 810 system, and you'll get honest, superior technology, refined to a point where unbelievable accuracy and clarity deny this speaker's physical existence."



THE INVISIBLE ADS 810.

ADS manufactures a complete line of high fidelity miniature amplifiers, power converters, two-way and three-way speakers for mobile, home and studio applications, priced between \$100 and \$700 (approximately). For a catalog and dealer list send this coupon to: ADS, ANALOG & DIGITAL SYSTEMS, 64 INDUSTRIAL WAY, WILMINGTON, MASSACHUSETTS 01887.

810 C-7774	SR4
NAME _____	
STREET _____	
CITY & STATE _____	ZIP _____

Technical Talk

By Julian D. Hirsch



● **FTC POWER RULING REVISITED:** I have received the following interesting letter from Robert Orban, chief engineer of Orban Associates, a concern well known for its commercial sound recording and broadcast equipment, and would like to share part of it with my readers for its viewpoint on matters that are still a long way from being resolved.

● *Dear Mr. Hirsch:* This letter comments on your praise of the FTC power ruling for audiophile power amplifiers; I feel that your arguments (or apologies, as it were) are specious.

In a free market, the manufacturer devotes himself to giving the customer what he wants. He must do so to survive competition. While he has the opportunity to try to affect the customer's desires by advertising, his competitors have the same privilege. If one manufacturer tries to deceive potential customers, another manufacturer can take out an ad decrying this deception, and in fact capitalizing on his own "honesty." The list of scenarios is endless, but as long as free competition prevails, things settle down. Only when manufacturers collude to fix prices and/or systematically deceive customers does the system break down.

Now, once again, the Federal Government is engaged in the task of protecting the people from themselves. If the free market were left to its own devices, it would offer the customer the best sound for the least money consistent with reliability acceptable to the majority. Those who wanted more reliability could pay for it; different manufacturers in this business have well-defined reputations for various ratios of quality, reliability, and value.

However, the FTC is now applying a hidden tax on the consumer. The consumer no longer has the option of choosing an amplifier or receiver which cannot pass the one-hour preconditioning, despite the fact that this receiver would have a significantly lower price than one which could pass the preconditioning, and further would almost certainly perform as well when playing music in the consumer's home. Your arguments that prices in terms of dollars per watt have not risen are specious; there is an added cost in terms of additional heat sinking and more rugged output devices. This is as inevitable as the laws of thermodynamics or TANSTAAFL (that is,

There Ain't No Such Thing As A Free Lunch). Sure, this may result in higher reliability. But would you argue that therefore the consumer should be forced to buy a heavy-duty restaurant-type stove or an industrial vacuum cleaner? Reliability should be his choice.

The power-output specification is even more absurd, in that it has only the vaguest and most casual correlation with how the amplifier *sounds* and with how loudly it can play music into real loudspeakers. The consumer is being sold a bill of goods by the Federal Government. Average power is now Best by Government Test, despite the fact that it tells us only how good an amplifier might be as a power source for an incandescent lamp or a toaster. The IHF's Music Power, for all its faults and abuses, was at least an honest attempt to specify an amplifier's performance reproducing high peak-to-average program material like music. And the further problem of how an amplifier deals with frequency-dependent reactive loads (Mr. Consumer's loudspeakers, that is) was just beginning to be attacked by certain innovative manufacturers when the FTC effectively shut the whole thing down.

In addition, I am sure you are aware that once THD goes below about 0.5 per cent it stops having any effect in predicting the sound quality of an amplifier. THD is such a crude measurement psychoacoustically that about the best it can do is differentiate between an unlistenable amplifier and one that is mediocre or better. The fact is that despite the exercises you go through each month to verify or disprove manufacturers' specifications, neither you nor I nor anyone else has the foggiest notion of how to make measurements

which will correlate psychoacoustically with the subtle differences in the sound of today's component-grade amplifiers. However, Total Harmonic Distortion is now Best by Government Test, and the lid is effectively clamped on developing new and improved ways to measure consumer amplifiers. Fact is, the government should have specified the clipping point as the reference level for power measurements if it wanted to use anything at all.

Let us sum up: The FTC, in the guise of protecting the consumer, has applied an unlegislated tax on all amplifiers, has restricted the consumer from choosing the degree of quality and reliability he wants to pay for, and has cast in stone two measurements which have only slight correlation to how good an amplifier sounds when playing music through loudspeakers.

Until the American people give up the idea that the Federal Government can redress all grievances, solve all problems, and generally take responsibility for their lives, we will have more and more excesses like the FTC ruling. This disturbs me greatly, because I see a strong correlation between this attitude and the general decline in the quality of American goods, in the output of American innovation, and in the ability of the United States to compete successfully in world markets on the basis of technological leadership. This leadership can come only from strong, individual entrepreneurs who can innovate without being crushed by the weight of government regulation and who can reap the financial benefits of their ideas without being robbed by excessive taxation. As for the consumer, a bit more *caveat emptor* and a lot less hand-holding seem to me to be the healthiest roads to take.

—Robert Orban

● *Mr. Hirsch replies:* Philosophically, I am in essential agreement with Mr. Orban—I also emphatically do *not* approve of government interference with private actions that are not related to the public welfare, and this includes the bulk of legislation intended to protect the consumer from himself as well as unscrupulous businessmen.

There is another side to this coin, however: the average consumer is in no position to judge the validity of advertised performance claims. A case in point is

Tested This Month

●
Audio Pulse Time-delay System
Shure M24H Stereo/Quad Cartridge
Realistic SA-2000 Amplifier
Avid 101 Speaker System

the gross abuse of the old music-power rating, which resulted in almost no correlation between an amplifier's advertised power and its actual performance.

Reliability, or the lack of it, is one of the major problems facing the consumer whether we are dealing with light bulbs or automobiles. There may be room for argument as to whether this or that amplifier sounds better than some other. There is no doubt that an amplifier that tends to blow up or break down is worthless, regardless of the impressive claims made for it *while it works*. I don't feel that reliability, where not related to safety, should be mandated by the government, but it is a good thing to have if the cost is not excessive.

As for total harmonic distortion, I must agree that measurements of this do not tell us much about how an amplifier sounds. Although this is not the time to go into the matter, I do not believe that any amplifier that is reasonably good and operating as intended has *any* sound quality of its own, at least not in the sense that phono cartridges, speakers, and listening rooms have their distinctive sounds.

My original comments were inspired by the realization that, whereas it used to be commonplace for amplifiers to fail to survive even a moderate amount of full-power testing, these catastrophic failures have become very rare since the FTC regulations took effect. (I am speaking only of my personal experience, of course.)

I am convinced that the reliability of hi-fi amplifiers as a class has, at power levels up to their rated maximums, been dramatically improved since the power-rating rules were promulgated. Perhaps this is mere coincidence, and perhaps it

is not. Since I do not see any corresponding increase in the general price structure, I think I am entitled at least to *suspect* that this particular bit of government interference with our personal prerogatives has been a benefit to the high-fidelity consumer. Perhaps it was an ill wind that blew *some* good.

I would also like to remind Mr. Orban that anyone who doesn't care to have that reliability forced down his throat can still buy a mass-produced, cabinet-encased "hi-fi," one not affected by the FTC rules because its power is not advertised, and get the same old shoddy junk that used to be available to a wider segment of the populace. It is, thank God, *still* a free country

● *Technical Editor Larry Klein comments:* In the fifteen years I've been working with Julian Hirsch, I've found that about every five years or so he and I will disagree about something. That time is once again upon us—at least in respect to the question of reliability. If a manufacturer's repair data indicate that, from the point at which their amplifying equipment began to conform to the FCC preconditioning requirements, there was an improvement in overall reliability for home use, then Julian would be correct. However, my impression is that the failure rate of amplifiers used in the home, taking into account the normal evolution of improved technology, is at about the same level as it was before the FCC got into the act. In any case, the FCC did *not* intend to set up, with its rule, a life/ruggedness/reliability test for amplifiers; the intention was simply to "precondition" (meaning "warm up") the amplifier *to prepare it for testing*. The fact that many amplifiers could not handle the ac-

identally severe stress of the preconditioning period was the end result of a series of flukes and misunderstandings that took over a year to straighten out.

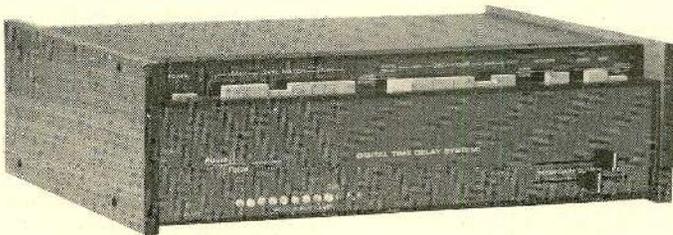
I have no question about Julian's personal experience with the amplifiers he has tested; my reservations concern the validity of generalizing from an amplifier's ability to survive a peculiar high-stress, test-bench condition to its reliability in ordinary home use. I believe the two are not necessarily related, particularly in a case such as this one, where the stressing test was *not* designed to produce reliability data. Of course, in self defense, the manufacturers had to redesign their units to withstand the FTC's test procedure. But whether this ability has anything to do with reliability in normal home use remains moot.

In respect to the "free enterprise" question, I must disagree with both Julian and Mr. Orban. To paraphrase Thomas Jefferson: "Educate and inform the entire mass of the people, for they are our only sure guarantee of freedom." Perhaps fortunately for him, Mr. Jefferson could not foresee a time when such education and information for "the entire mass of the people" would be simply impossible; these days even an engineering degree won't guarantee that you will be able to make an informed decision between, say, two competing toasters, no less amplifiers. Technology has overwhelmed us all, and we need protection from those who would foist shoddy goods (and, yes, shoddy ideas) on us through deliberate *miseducation* and *misinformation*. It is best that the consumer get *some* protection against his unavoidable ignorance rather than none at all, even though that protection may occasionally be inept.

Equipment Test Reports

By Hirsch-Houck Laboratories

Audio Pulse Model One Time-delay System



DESPITE the advances in the state of the high-fidelity art, the fact remains that recorded music reproduced in the home still simply does not sound like the real thing. It

can sound very *good*—perhaps in some respects "better" than live—but, in general, it does not sound enough like an actual performance to fool anyone for a moment. One of the

major reasons for this is the limitations that prevent the reproduced program from conveying the ambiance of the original concert hall or other recording acoustic. It is this sense of spaciousness, related to the reverberation and absorption characteristics of the original environment, that is so difficult to capture in a recording and to re-create subsequently at home.

At one time, quadrphony seemed to be an answer to the problem. It seemed plausible that a second pair of microphones, located at some distance from the performers, would pick up a greater proportion of the reflected

(Continued overleaf)

sound in the hall. Recorded on two additional channels and reproduced through suitably placed speakers, this should be able to impose some of the acoustic qualities of the concert hall on the sound of the listening room. Some recordings made in this manner accomplish this very well, creating a more convincing illusion of an actual performance than was possible with two-channel stereo. However, the major manufacturers of four-channel records, presumably following the dictates of the marketplace, have gone heavily into "surround sound" effects. These are certainly impressive and even fun to listen to, but they are "sound effects," farther from reality than mono records were, to say nothing of ordinary stereo discs.

There are other ways besides quadruphony to restore a convincing ambiance to recorded sound. One method is to establish a separate delayed signal path, combine a number of differently delayed components into a single reverberant signal, and then play this signal through auxiliary speakers located toward the rear of the room. If the delay times, the manner in which they are blended between channels and re-circulated within each channel, the placement of the auxiliary speakers, and the balance between the direct and reverberant sound sources are all properly adjusted, the result can be astonishingly natural sound. Perhaps best of all, this process can be applied to any program source, stereo or mono, without the need for any special recording techniques.

Artificial time-delay devices have been used (and sometimes abused) by the recording industry for some years. Until recently, they have been bulky and very expensive—altogether unsuitable for home use. Originally they were mechanical devices, using springs or long air columns to achieve the necessary time delays, but it is now feasible to do much the same thing using electronics alone.

The Audio Pulse Model One Time Delay System is an example of a unit that takes such an approach. (Audio Pulse is a division of Hybrid Systems, a well established manufacturer of analog and digital circuitry for commercial and military applications.) The Model One, its manufacturer's first consumer product, con-

tains some ninety IC's in its active circuitry. We have used an Audio Pulse Model One for several months in several different listening rooms. Our experience has given us a pretty clear idea of what it can and cannot do (needless to say, it is not a panacea for all the ills of the recording and hi-fi worlds). It also confirmed our suspicion that any type of objective testing would be fruitless because of the difficulty of interpreting the results and the lack of any frame of reference for comparison purposes. Therefore, our evaluation of the Audio Pulse Model One will be entirely subjective.

● **Description.** The Audio Pulse Model One accepts stereo or mono inputs from the tape outputs of an amplifier or receiver (or the main preamplifier output if that is more convenient) and passes them on unmodified to the normal front-channel amplifier and speakers. It also converts these input signals from their analog form into a series of digital pulses at a sampling rate of 250,000 Hz. Before the analog-to-digital conversion, the bandwidth of the input signal is reduced to about 8,000 Hz. This is done partly because of the requirements of the digital conversion process, but also because in a typical concert hall the reverberant sound that reaches the audience has lost most of its high-frequency energy through absorption.

In digital form the signals (held separate for the two channels) are passed through a series of *shift registers*. The shift registers form a memory system capable of storing signals for extended periods. An internal clock signal transfers the contents of each register to the next one as new pulse signals enter the delay system. The output of the last register is converted back to analog form, filtered to remove the "rough edges" from the reconstructed waveform, and made available at the output terminals of the Model One. The number of shift registers through which the signal passes (and the rate at which it is transferred between them) sets the total delay time.

In the Audio Pulse Model One, there are four initial delays, varying from 8 to 94 milliseconds (ms). These delayed signals are fed back to the input of the device and recirculat-

ed to simulate the multiple reflections that take place in a real room. The recirculation takes place within each channel, and between channels through a cross-feed circuit.

Physically, the Audio Pulse Model One is a black box 1½ inches wide, 10 inches deep, and 4½ inches high with walnut side panels. Its principal controls are a row of pushbuttons mounted vertically on an inset portion of the front panel. There are also two slider controls on the front that adjust the levels of the delayed outputs.

At the left of the row of pushbuttons is the red on/off switch, followed by six gray buttons marked LEVEL MATCH. The delay circuits of the Model One have a limited dynamic range, so the incoming program levels must be set properly to avoid noise or distortion. The peak level is shown by a row of twelve LED lights located on the front panel below the LEVEL MATCH buttons. Eight of them are green, with 0 dB (maximum operating level) shown by an amber light and three red overload lights showing levels above that. The LEVEL MATCH buttons are pressed in sequence until the peak program levels do not go beyond 0 dB for any large fraction of the time. The Model One is meant to function as a unity gain device in that the output is at the same level as the input.

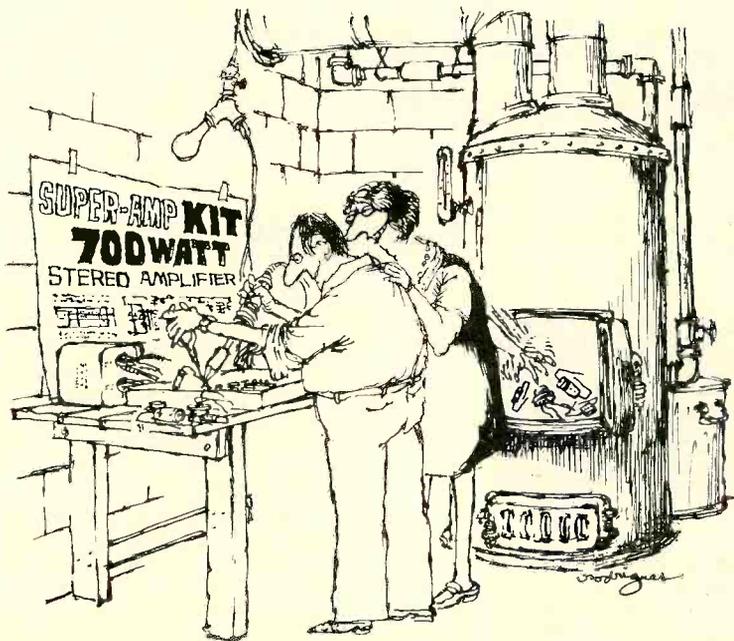
Next is a white button marked INITIAL DELAY. When it is up, the initial time delay is 8 ms, which is followed and mixed with later delays of 22, 35, and 58 ms. This combination of delays is used to create the sense of a small-to-moderate-size room. Pressing the button to the LONG setting changes the delays to 12, 36, 56, and 94 ms to produce the effect of larger rooms—from a concert hall to a cathedral.

The next five gray buttons are marked DECAY TIME. They control the relative levels of the longer delayed signals that are mixed with the initial delay component and thus vary the reverberation time of the total delayed signal. More than one of the DECAY TIME buttons can be engaged at the same time, giving a considerable degree of control over the reverberant characteristics of the sound. A table in the instruction manual lists the actual decay times (for a signal to drop 60 dB in amplitude following a transient) together with the control settings needed to produce them. The times range from 0.2 to 1.3 seconds.

The final two control buttons are marked PRIM and SEC, each having DIRECT and DELAY positions. Normally the primary (input) signal passes through the device unaltered, so the PRIM button is left in its DIRECT position. The secondary signal is normally delayed, so the SEC button is pressed to its DELAY setting. If it is up (DIRECT), the secondary outputs merely feed the normal signal to all four speakers, and this is useful for initial speaker phasing. If the PRIM button is set to DELAY, some of the delayed signals (reduced in amplitude by 10 dB) are mixed with the primary signals fed to the front speakers. This can be used to add reverberation to stereo or mono programs heard through the front speakers only, or to a recording being dubbed onto tape.

In the rear of the Model One are MAIN IN, PRIM OUT, SEC OUT, and TAPE IN and TAPE OUT jacks. There are also two pairs of jacks marked SHORT and LONG. These carry signals (removed from the shift registers at intermediate delay points) which can be used with additional speakers and amplifiers to form six- or eight-channel delay systems. There is a

(Continued on page 38)



You only hear what's on top of the platter. Not what's beneath it.



You can always distinguish the excellence of a turntable by its capability to rotate a platter precisely, at a given speed, without adding rumble, wow and flutter to the performance.

Because JVC's new JL-F45 turntable platter is directly driven by a specially designed DC servo motor, any rumble-producing effect is virtually nonexistent. The result is outstanding measurements that defy audibility. Rumble is better than 70dB (DIN B) and wow and flutter is less than 0.03% (WRMS). Even some of the most expensive turntables don't measure up to the excellence of these specifications.

In addition to the precision of direct-drive, the JL-F45 offers dual options for operation. Manual. And completely automatic. Auto Lead in. Auto Return. Auto Stop. You can even repeat play a record automatically up to six times — or infinitely.

The JL-F45's exclusively designed Tracing-Hold tonearm assures the highest degree of groove tracking with unusually low tracking error.

This is absolutely essential for today's ultra low tracking cartridges, including CD-4. The new unipoint gimbal suspension system reduces unwanted friction and overcomes unexpected jolts to the arm.

Every feature you're likely to want in a quality turntable contributes to this 2-speed unit's high level of performance. 2-way viscous-damped cueing. A 12-inch aluminum die cast platter with illuminated strobe. Anti-skating control. Direct-reading tracking force dial. And lots more.

While the JL-F45 is JVC's top of the line at \$250*, there are two other more modestly priced models. The fully automatic belt-driven JL-F35 at \$160.* And the semi-automatic JL-A15 at \$130.*

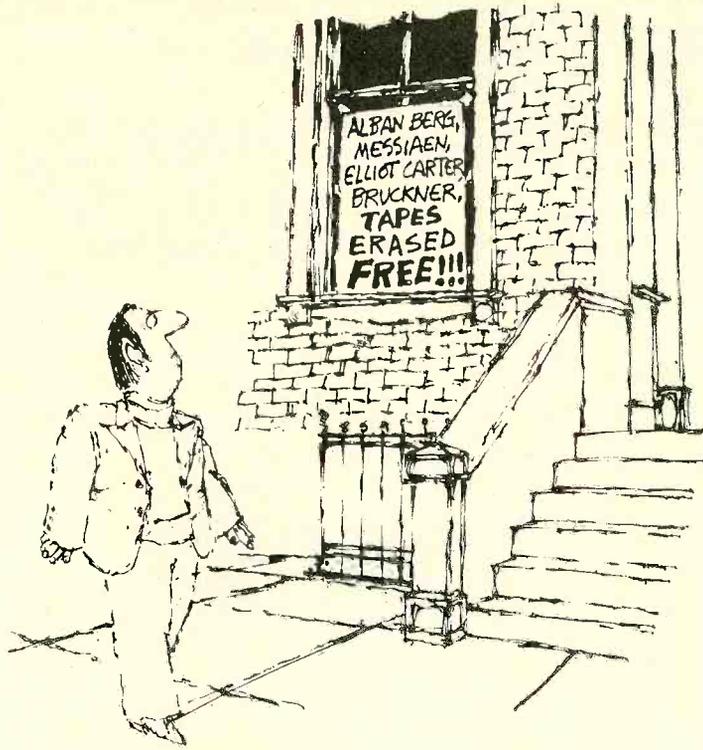
Whichever you choose, you can be sure you're getting the most turntable precision, reliability and value JVC has ever offered.

JVC America, Inc., 58-75 Queens Midtown Expressway, Maspeth, N.Y. 11378 (212) 476-8300. Canada: JVC Electronics of Canada, Ltd., Scarborough, Ont. Outside N.Y. call toll-free 800-221-7502 for nearest dealer.

*Approximate retail value, including base and dust cover.

JVC





slide switch that boosts the response below 100 Hz at a 6-dB-per-octave rate in its **CONTOUR** position (on the **SEC** outputs only) to more closely approximate the reverberant frequency response measured in several well-known concert halls. There are also two unswitched a.c. outlets. Price: \$650.

• **Installation.** The Audio Pulse Model One is installed in a sound system exactly as if it were a four-channel decoder. There are two modes of connection possible. If the tape-monitor loop is used, the level-matching buttons can be left at the same setting since the input signal will always be at approximately the same level. However, the main volume control will then have no effect on the delay channels. Alternatively, connecting the Model One at the preamplifier outputs gives control over all four channels to the main volume knob, but it necessitates resetting the **LEVEL MATCH** buttons for any substantial change in listening level. (Of course, using the Model One with a four-channel amplifier or receiver enables you to utilize the tape-monitor loop and still maintain single-knob control over volume for all four channels.)

There is a great deal of latitude in the choice of secondary speakers, which need not be identical to the primary pair. However, the mid-range characteristics of all four speakers should be reasonably similar. In the several listening rooms in which we set up the Model One, we used both conventional and multi-directional speaker systems, with highly satisfactory results in every case. The Audio Pulse instruction manual recommends that the secondary speakers be placed at the sides of the room, slightly forward of the listener and preferably near the ceiling. These locations may at first appear incompatible with conventional four-channel listening. Nevertheless, in our listening evaluations, which compared the effect of the Model One with that of quadrasonic recordings decoded or demodulated in the appropriate way, we found that the side-located speakers were often quite effective

for quadrasonic material, particularly of the ambience type.

• **Listening Tests.** The instruction manual for the Model One ranks among the most useful and complete we have seen for a sophisticated consumer product such as this. It is, in effect, a basic textbook on listening acoustics as they affect our perception of a musical performance. In addition, it explains in great detail (for those who are interested) exactly what is happening in every part of the Model One and the effects of the controls. A study of the manual makes it plain that there is no predictable combination of operating control settings that will give the best results in every circumstance and that each user must experiment for himself. For our part, we found that the complex interrelationships between initial delays, decay times, and secondary speaker levels is further complicated by the nature of the music being listened to.

The most important thing, and one which requires some self-discipline, is to play the secondary speakers at such a level that they cannot be heard as separate sound sources. If one is aware that they are operating, the convincing "naturalness" of the total sound is lost. If you (or a guest) should doubt that the secondaries are contributing a worthwhile ambience enhancement, simply switch them off while listening to a program. The effect is nothing less than astounding, with the sound collapsing toward the front of the room. It is hard to believe that you once thought that the flat, two-dimensional sound of stereo sounded more or less "real." Once you have heard a properly functioning time-delay system, you are not likely to be satisfied with ordinary two-channel stereo again.

I am well aware that I (and others) have said very similar things about quadrasonic sound. The reason is simple: a good ambient quadrasonic recording, properly reproduced, is very similar in effect to the sound of a time-delay system. However, with the Audio Pulse Model One, you are not limited to

the small number of quadrasonic recordings made with the intention of recreating the hall ambience. Almost any stereo program will sound more "real" through the time-delay system than will the majority of four-channel records, even when reproduced properly.

You are not limited to stereo either. The cross-coupling of reverberant signals between channels of the Model One, and the fact that they are non-coherent, makes it possible to create a very believable reverberant sound field with a mono program source. We played some old mono discs and found that the ambience of the time-delay system effectively wiped out the "single-source" spatial effect. It was especially interesting to shut off the delayed signals and hear the sound collapse, not to a plane, but nearly to a point!

As a general rule, the less reverberation and liveness there is in a recording, the more it can benefit from time-delay enhancement. A very "live" recording can be improved only marginally, if at all, by the secondary delayed signals. However, we found very few cases where the improvement was not worthwhile. If you walk into a room where a properly adjusted time-delay system is operating, you probably will not even be aware of its presence. Everything simply sounds natural, the way it is supposed to. You may be aware that most music systems do not sound that good, but you will hardly guess that a pair of small speakers (perhaps concealed) are responsible for the difference.

Most people using the Model One will probably try long delays at first, with the secondary speakers driven at plainly audible levels, just to convince themselves that the unit really can produce cathedral-like sounds in an ordinary room (it can). That done, it is necessary to experiment at length with control settings to get the desired effect on many types of program material. Once the operation of the Model One is mastered, it becomes simple to press a couple of buttons as required to match the music being played. To us, the most disconcerting aspect of using the Model One with FM broadcasts was the gross disparity between optimum decay times for music and speech. We were repeatedly reminded of this when the announcer's voice emerged sounding as though he were speaking in a cavernous, empty auditorium.

• **Comment.** There should, at this point, be no doubt in anyone's mind that we were very favorably impressed with the performance of the Audio Pulse Model One. But it is, of course, a very expensive addition to any music system. Even if you already have a full quadrasonic set-up, there must be an investment of more than \$600 in the Model One. If you are modifying a stereo system, you must add to that figure the cost of another stereo amplifier and a pair of speakers. It is certain that Audio Pulse's competitors (there are several already, and more are in the wings) will do all they can to bring the price down, but these are inherently expensive devices.

Clearly, the total conversion cost will run to at least \$1,000. Is the improvement worth the price? That is as much up to your ears as it is to your pocketbook. It is only fair to point out, however, that at the moment there is nothing else you could buy for \$1,000 that would make as great an improvement in the sound of a really high-quality stereo system.

Circle 105 on reader service card

(Continued on page 42)

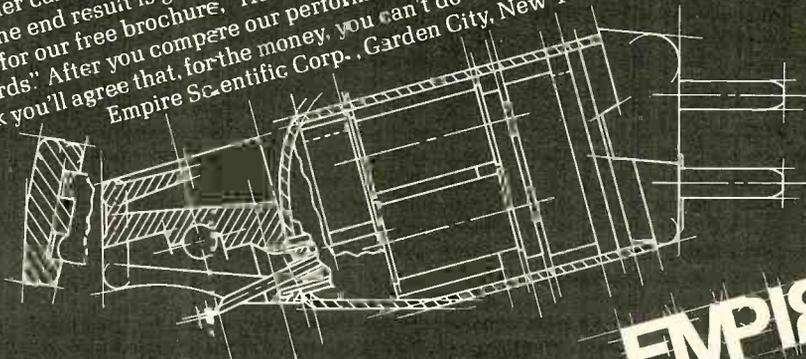
Empire's Blueprint for Better Listening...

No matter what system you own, a new Empire phono cartridge is certain to improve its performance. The advantages of Empire are threefold. One, your records will last longer. Unlike other magnetic cartridges, Empire's moving iron design allows our diamond stylus to float free of its magnets and coils. This imposes much less weight on the record surface and insures longer record life.

Two, you get better separation. The small, hollow iron armature we use allows for a tighter fit in its positioning among the poles. So, even the most minute movement is accurately reproduced to give you the space and depth of the original recording.

Three, Empire uses 4 poles, 4 coils, and 2 magnets (more than any other cartridge) for better balance and hum rejection. The end result is great listening. Audition one for yourself or write for our free brochure, "How To Get The Most Out Of Your Records." After you compare our performance specifications we think you'll agree that, for the money, you can't do better than Empire.

Empire Scientific Corp., Garden City, New York 11530



EMPIRE

Already your system sounds better.

MODEL	4000 D/III	4000 C/II	4000 C/I	2000Z	2000 E/III	2000 E/II	2000 E/I	2000 E	2000
FREQUENCY-RESPONSE	10Hz-50KHz ± 3 db	15Hz-50KHz ± 3 db	15Hz-45KHz ± 3 db	20Hz-20KHz ± 1 db	20Hz-20KHz ± 2 db	20Hz-20KHz ± 2 db	20Hz-20KHz ± 3 db	20Hz-20KHz ± 3 db	20Hz-20KHz ± 3 db
TRACKING FORCE RANGE	¾-¼ gm	¾-½ gm	1-¾ gm	¾-¼ gm	¾-½ gm	¾-½ gm	1-2 gm	1½-2½ gm	1½-3 gm
SEPARATION: 15Hz to 1KHz 1KHz to 20KHz 20KHz to 50KHz 20 Hz to 500Hz 500Hz to 15KHz 15KHz to 20KHz	28 db 23 db 15 db	25 db 21 db 15 db	24 db 20 db 15 db	20 db 30 db 25 db	20 db 28 db 20 db	20 db 25 db 18 db	18 db 23 db 15 db	18 db 23 db 15 db	16 db 21 db 13 db
I. M. DISTORTION @ 3.54 cm/sec	.2% 2KHz-20KHz	.2% 2KHz-20KHz	.2% 2KHz-20KHz	.08% 2KHz-20KHz	.1% 2KHz-20KHz	.15% 2KHz-20KHz	.2% 2KHz-20KHz	.2% 2KHz-20KHz	.2% 2KHz-20KHz
STYLUS	.2 mil bi-radial	.2 mil bi-radial	.2 mil bi-radial	.2 x .7 mil elliptical	.7 mil radius spherical				
EFFECTIVE TIP MASS	.4 milligram	.4 milligram	.4 milligram	.2 milligram	.6 milligram	.6 milligram	.6 milligram	.9 milligram	1 milligram
COMPLIANCE	30x10 ⁻⁴ cm/dyne	30x10 ⁻⁴ cm/dyne	30x10 ⁻⁴ cm/dyne	30x10 ⁻⁴ cm/dyne	20x10 ⁻⁴ cm/dyne	18x10 ⁻⁴ cm/dyne	17x10 ⁻⁴ cm/dyne	16x10 ⁻⁴ cm/dyne	14x10 ⁻⁴ cm/dyne
TRACKING ABILITY	32 cm/sec @ 1KHz @ 1 gm	32 cm/sec @ 1KHz @ 1½ gm	30 cm/sec @ 1KHz @ 1½ gm	38 cm/sec @ 1KHz @ .9 gm	32 cm/sec @ 1KHz @ 1 gm	28 cm/sec @ 1KHz @ 1½ gm	28 cm/sec @ 1KHz @ 1½ gm	28 cm/sec @ 1KHz @ 1½ gm	32 cm/sec @ 1KHz @ 2 gm
CHANNEL BALANCE	within 1 db @ 1KHz	within 1 db @ 1KHz	within 1½ db @ 1KHz	within ¾ db @ 1KHz	within 1 db @ 1KHz	within 1½ db @ 1KHz	within 1½ db @ 1KHz	within 1½ db @ 1KHz	within 1½ db @ 1KHz
INPUT LOAD	100K ohms/ channel	100K ohms/ channel	100K ohms/ channel	47K ohms/ channel	47K ohms/ channel	47K ohms/ channel	47K ohms/ channel	47K ohms/ channel	47K ohms/ channel
TOTAL CAPACITANCE	under 100 pf/channel	under 100 pf/channel	under 100 pf/channel	300 pf/channel	400-500 pf/channel	400-500 pf/channel	400-500 pf/channel	400-500 pf/channel	400-500 pf/channel
OUTPUT @ 3.54 cm/sec	3 mv/channel	3 mv/channel	3 mv/channel	3 mv/channel	4.5 mv/channel	4.5 mv/channel	7 mv/channel	7 mv/channel	7 mv/channel

Onkyo - A step ahead

State-of-the-Art is for everyone else. Onkyo design and construction is for tomorrow. Today.

We don't just claim innovation, quality and value. We prove it when independent test laboratories publish their unbiased reports in your favorite audio magazines.

Of our TX-4500, one test report said, "...one of the finest receivers available today at any price."

Of our TX-2500, another said, "...sounds a good deal better than the data suggest—and better than one has a right to expect at \$300."

If the data don't suggest the total quality, it may be we're too cautious in our claims. But, we have other equipment too new to have been reported on as yet. All are built to the same exacting standards, featuring exclusive Onkyo advances. We'll try to be a bit less modest as we tell about:

Quartz-Locked Tuning—This is the tuning system of which the most famous testing lab said, "...a new system that completely eliminates tuning errors in FM reception." This is done by using a quartz crystal oscillator which takes advantage of the unique capability of precisely ground quartz to maintain a fixed frequency.

The Quartz-Locked circuitry compares the tuner's IF frequency with the frequency generated in the Quartz-Locked oscillator, continually compensating for frequency differences that would cause distortion or poor reception, and additionally compensating the FM tuning meter at the same time.

Servo-Locked Tuning—An economy version of the Quartz-Locked system with similar characteristics in a different configuration. While essentially an automatic frequency control circuit, Servo-Lock is more sophisticated in design and performance and in actual lab tests has held stations for at least 24 hours without perceptible drift.

Quartz-Locked AM/FM Stereo Receiver

TX-8500—Power output 110 watts per channel, minimum RMS at 8 ohms, both channels driven from 20 Hz to 20 kHz with no more than 0.1% Total Harmonic Distortion.

Direct coupled differential pure complementary main amplifier with ultra wide frequency response, 2 Hz to 60 kHz \pm 1 dB at main amp. Total Harmonic Distortion less than 0.1% at rated output; 0.08% at 1 watt output. Rated FM sensitivity 1.7 μ V (mono), 4 μ V (stereo). 50 dB quieting sensitivity 3 μ V (mono), 35 μ V (stereo). Image rejection ratio 83 dB; alternate channel selectivity 70 dB; IF rejection ratio 100 dB. S/N ratio 70 dB (mono), 65 dB (stereo).

TX-4500—Power output 55 watts per channel, minimum RMS at 8 ohms, both channels driven from 20 Hz to 20 kHz with no more than 0.1% Total Harmonic Distortion.

Direct coupled differential complementary main amplifier with ultra wide frequency response, 2 Hz to 80 kHz \pm 1 dB at main amp. Rated FM sensitivity 1.8 μ V (stereo). Image rejection and alternate channel selectivity 70 dB. IM distortion 0.3% at rated power; 0.1% at 1 watt output.

Servo-Locked AM/FM Stereo Receivers

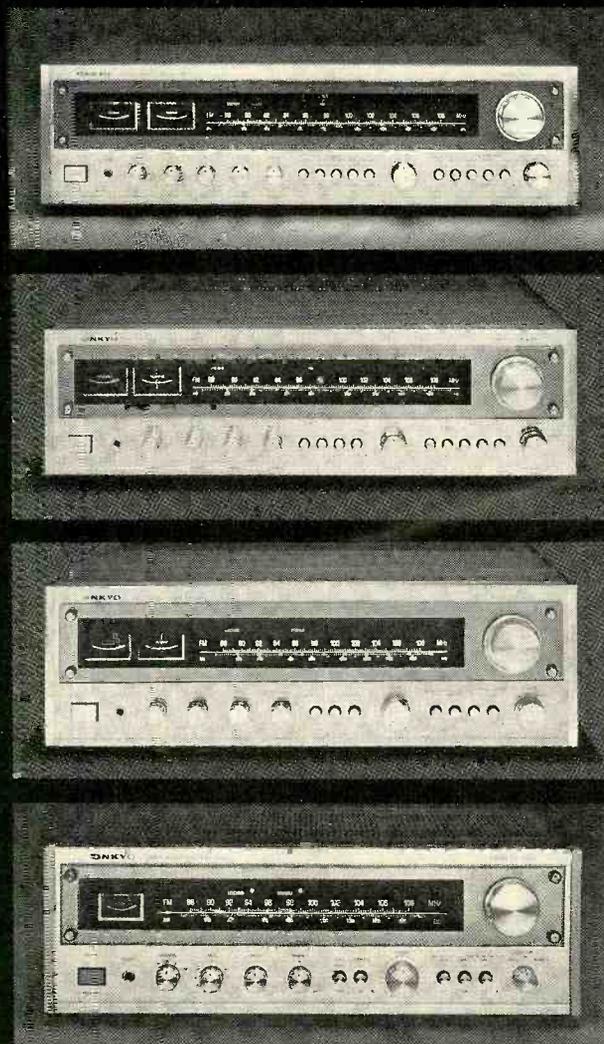
TX-2500—Power output 27 watts per channel, minimum RMS at 8 ohms, both channels driven from 40 Hz to 20 kHz with no more than 0.5% Total Harmonic Distortion.

Direct coupled differential main amplifier with frequency response of 2 Hz to 60 kHz \pm 1 dB. Total Harmonic Distortion no more than 0.5% at rated output; 0.2% at 1 watt output. IM distortion 0.5% at rated power; 0.3% at 1 watt output. Usable sensitivity in FM, 2 μ V (mono), 5 μ V (stereo). Image rejection 45 dB; alternate channel attenuation 60 dB; S/N 65 dB (mono), 60 dB (stereo). IF rejection 80 dB.

TX-1500—Power output 15 watts per channel, minimum RMS at 8 ohms, both channels driven from 20 Hz to 20 kHz with no more than 0.5% Total Harmonic Distortion.

Direct coupled differential amplifier with overall frequency response 20 Hz to 20 kHz \pm 1 dB. Total Harmonic Distortion no more than 0.5% at rated power; no more than 0.3% at 1 watt output. Usable FM sensitivity 2.3 μ V (mono), 5 μ V (stereo). 50 dB quieting sensitivity 4.5 μ V (mono), 50 μ V (stereo). S/N ratio 65 dB (mono), 60 dB (stereo). IF rejection 80 dB. Alternate channel attenuation 60 dB.

All of Onkyo's receivers feature multiple speaker outputs as well as multiple tape inputs and outputs including tape to tape dubbing. All are built to specification which often exceed their price ranges with special features, including Phase Locked Loop Multiplex.



of State-of-the-Art.

Quartz-Locked AM/FM Stereo Tuner

For those who are satisfied with their present amplifier but want the distinct benefits of Quartz-Locked tuning, Onkyo offers the T-9, the only component tuner in the world that has Quartz-Lock.

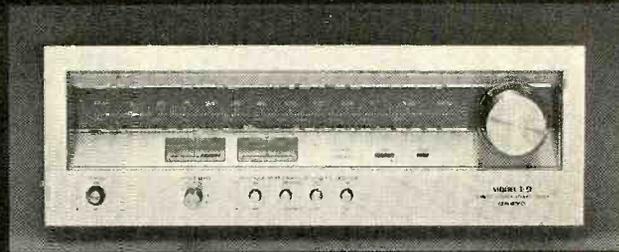
In addition to the precision tuning capabilities of the T-9, it features a dual gate MOSFET/4 gang-variable capacitor front end with usable sensitivity 1.7 μ V, 50 dB quieting sensitivity of 3 μ V, 83 dB Image rejection and 73 dB S/N in stereo.

The T-9 uses Phase Locked Loop Multiplex for low distortion, high separation stereo reception. At 1 kHz, stereo separation is 40 dB; at 100-10,000 Hz, separation is 35 dB.

Assuring continuous, drift-free tuning, the FM oscillator circuitry is hermetically sealed to prevent environmental influence on the components.

Other specifications include an IF rejection ratio of 100 dB and AM suppression ratio of 50 dB. In addition to Quartz-Locked tuning and exceptional performance characteristics, the Onkyo T-9 provides a special feature for tape recording directly from the tuner.

Known as the Tape Recording Level Check Switch, activation injects a 440 Hz tone to set recording level through the tape deck. Modulation of the incoming FM signal is reduced to 50%, preventing overloading and distortion. Onkyo's T-9 provides some of the cleanest tape recording possible.



Solid State Integrated Amplifiers

Having the only Quartz-Locked Tuner in captivity, Onkyo felt the need to provide amplifiers capable of delivering the same quality. There are, at present, two amplifiers in this series...A-5 and A-7. Both have been designed for their power handling quality, featuring reserve power for optimum sound reproduction with absolutely minimum distortion.

Because of this basic, very low distortion design, these amplifiers require exceptionally muscular and stable power supplies with more power than needed for normal operation, and a lot available when needed for peak demands. These needs are met through massive transformers and oversized electrolytic capacitors. Thus, an extremely stable power supply is assured for hours of continuous operation. Further, specially selected power transistors are mounted in oversized heat sinks and the entire unit is enclosed in a more than ample cabinet which allows for the flow of cooling air.

A final Onkyo touch for clear, clean highs and deep-down lows is design approach and construction that approaches the theoretical zero point in equivalent series resistance (ESR). Through circuitry which uses copper plates instead of wires called the bus feeder ground system, and unusually heavy gauge wiring to the power transformer the overall frequency response is greatly enhanced. Because of these and other considerations the following ratings are established conservatively:

A-5—Power output of 45 watts per channel, minimum RMS into 8 ohms, both channels driven, from 20 Hz to 20 kHz with no more than 0.1% Total Harmonic Distortion.

Onkyo avoids the primary distortion found in solid state amplifiers with Class A, push-pull driver stage differential direct coupled, pure complementary circuitry. The A-5 delivers exceptional frequency response of 2 Hz to 70 kHz \pm 1 dB, with system square wave response showing less than 5% tilt at 50 Hz. S/N ratio is extraordinary at 110 dB (IHF A Network).

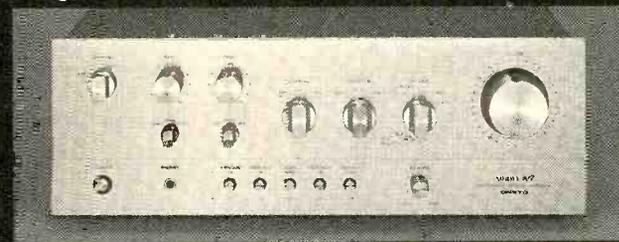
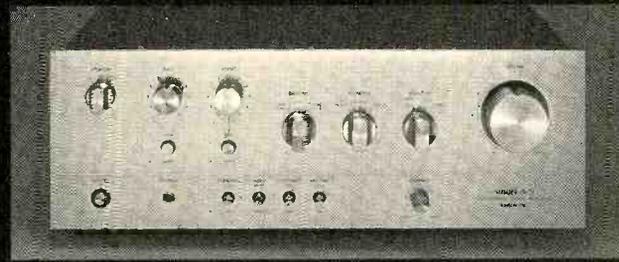
Features include two Phono inputs and two tape monitors and dubbing, as well as tone controls and defeat, muting and a subsonic filter plus transient killer circuitry.

A-7—Power output 65 watts per channel, minimum RMS at 8 ohms, both channels driven, from 20 Hz to 20 kHz, with no more than 0.1% Total Harmonic Distortion.

Onkyo's A-7 integrated amplifier also uses a Class A driver stage differential direct-coupled pure complementary circuitry. The A-7 frequency response is 2 Hz to 80 kHz \pm 1 dB with square wave response showing less than 5% tilt at 50 Hz. At no point does the A-7 exceed 0.1% Total Harmonic Distortion at rated power, and at 1 watt output, Total Harmonic Distortion is as low as 0.08%.

In the amplifier section the phono equalizers are based on Class A, differential push-pull circuitry with exceptionally low noise characteristics, e.g., the A-7 shows an impressive S/N ratio of 110 dB.

A number of special features are included, such as a subsonic filter and a high frequency filter as well as transient killer circuitry. Stepped tone controls are provided with two turnover frequency switches and tone control defeat. Phono overload is exceptional at 230 mV RMS at 1 kHz, 0.1% Total Harmonic Distortion, and the RIAA Curve Deviation of \pm 2 dB, 30 Hz to 15 kHz produces superb reproduction of your records.



What does it all mean?

You've read a lot of our claims—understood though they may be—and some of the claims made for us. But the best test is still your own ears. And the only way to use them is at your local Onkyo dealer. If you want more information, including reprints of independent test reports, or the name of your nearest Onkyo dealer, drop us a line. After all, a thirteen cents stamp is a lot better than guesswork.

Artistry in Sound **ONKYO**

Eastern Office: 42-C7 20th Ave., Long Island City, N.Y. 11105, 212 728-4639 Midwest Office: 955 Silver Drive, Wood Dale, Ill. 60191, 312 595-2970
Canada: Sole Distributor, Tri-Tel Associates Ltd. Willowdale, Ontario M2H 2S5

Avid 101 Speaker System



AVID's Model 101 is a floor-standing speaker system that is roughly columnar in shape. The cabinet's top and bottom are made of walnut-finish wood and three sides are covered by removable brown grille cloths. The black rear surface of the cabinet is its only unfinished side. The speaker terminals are located under the base, so that connecting wires enter at floor level.

The Avid 101 is a somewhat unconventional three-way system. The 8-inch woofer operates in a ported enclosure, crossing over at 2,500 Hz to a 1¾-inch tweeter located just above the woofer. On each side panel, at the same height as the front tweeter, is a 2-inch-diameter cone tweeter operating above 3,500 Hz. There are no "balance" controls, the levels from the four drivers being factory set.

The Avid 101 has a nominal system impedance of 8 ohms. According to the manufacturer, its moderately low efficiency makes it advisable to use amplifiers rated at between 15 and 70 watts output. The rated frequency response is 30 to 18,000 Hz \pm 3 dB. The Avid 101 is about 13 inches square and stands 29 inches high. It weighs approximately 40 pounds. Price: \$149.

⊗ **Laboratory Measurements.** It is a practical necessity when measuring the "frequency response" of a speaker such as the Avid 101, which radiates (at least over part of its frequency range) into a full 180-degree horizontal angle, to measure its total energy output rather than make an anechoic measurement along any arbitrary axis.

Since this is our usual speaker test procedure, the Avid 101's were set up against one wall of the listening room and the microphone was placed about 15 feet in front of them. The frequency response at middle and high frequencies was recorded separately for the left and right speakers, using a swept "warble tone" signal and averaging the two response curves. The resulting curve was corrected for the known room- and microphone-response characteristics. The low-frequency response was measured with the microphone close to the woofer and then separately at the port; the two measurements were then combined with the appropriate corrections for the relative diameters. Splicing this curve to our room measurement gave a total frequency response which, in our view, is truly representative of what the Avid 101 can deliver in a normal home environment.

It was a very good response curve by any

standards, varying within only \pm 2.5 dB from 38 Hz to beyond 15,000 Hz. The only visible response variations were a slight rise above 5,000 Hz (where the side-mounted tweeters become effective) amounting to about 3 dB and a similar rise at the woofer's maximum output frequency of 65 Hz. The contribution of the port to the total bass output was limited to frequencies below 40 Hz.

The sensitivity of the speaker was a bit lower than that of most ported systems, a drive level of 1 watt of random noise in the octave centered at 1,000 Hz producing a sound-pressure level (SPL) of 89.5 dB measured at a distance of 1 meter from the speaker. The bass distortion at a 1-watt drive level was very low—under 1 per cent down to 42 Hz and still an excellent 5 per cent at 30 Hz. When we increased the drive level to 10 watts, the distortion ran about twice as great, but the speaker still provided a strong fundamental output at 30 Hz. Only when we adjusted the drive level to maintain a constant 90-dB SPL at a 1-meter spacing did we come up against the bass limitations of the single 8-inch cone; the distortion was under 3 per cent down to 60 Hz but climbed rapidly to 8.5 per cent at 45 Hz.

The tone bursts from the Avid 101 were uniformly excellent, about as good as we have seen from a conventional multidriver system using a crossover network. The system impedance reached its minimum of 8 ohms between 100 and 400 Hz with a maximum of 30 ohms at 55 Hz and smaller peaks at 22 Hz and 3,200 Hz.

⊗ **Comment.** The simulated live-vs.-recorded test essentially confirmed our fine measurements, especially in the uppermost octave where many speakers are deficient. In fact, the only significant departure from accurate reproduction of the original sound was an occasional thinness in the lower mid-range; this was noticeable on some musical selections but not on others.

Our measurements and listening tests agreed in their indications that the Avid 101 is a very fine speaker system. Our next goal was to attempt to identify its inherent colorations and to compare it to other good speakers using a wider variety of program material than was available on our special "live-music" tape. As it happened, it was very difficult to identify any particular speaker coloration in this way. Whenever we thought we had heard something not to our liking, a switch to another speaker system usually showed that it was

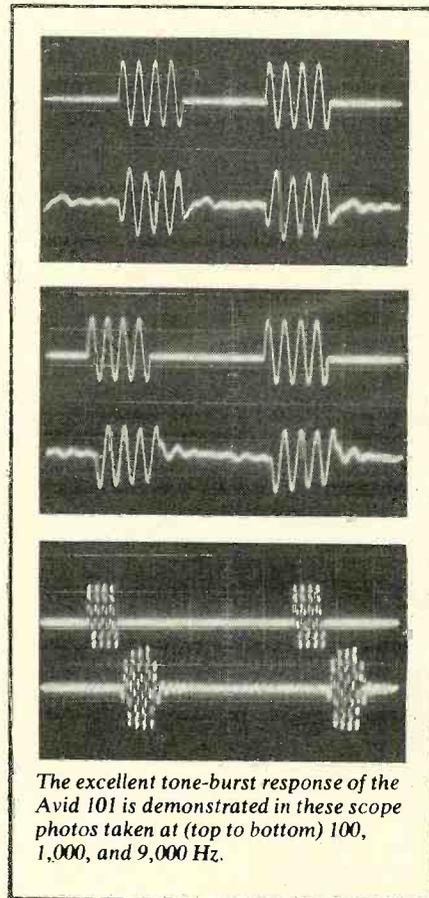
in the program material. Compared with some speakers we had on hand, the Avid 101 sometimes seemed lacking in deep bass. Further listening led us to conclude that the other speakers probably had too *much* bass! The 101 is notably free of boominess or tubbiness, but it has a very solid bottom end.

Most of the speakers with which we compared the Avid system over a period of several months sold for two or three times its price. In the few cases where one of them had a definite superiority over the Avid, it was by a small margin. And there were a surprising number of cases where a direct A-B comparison showed the 101 to be clearly superior. When test comparisons lead to this kind of result, it is safe to say that all the products being compared are of roughly similar quality.

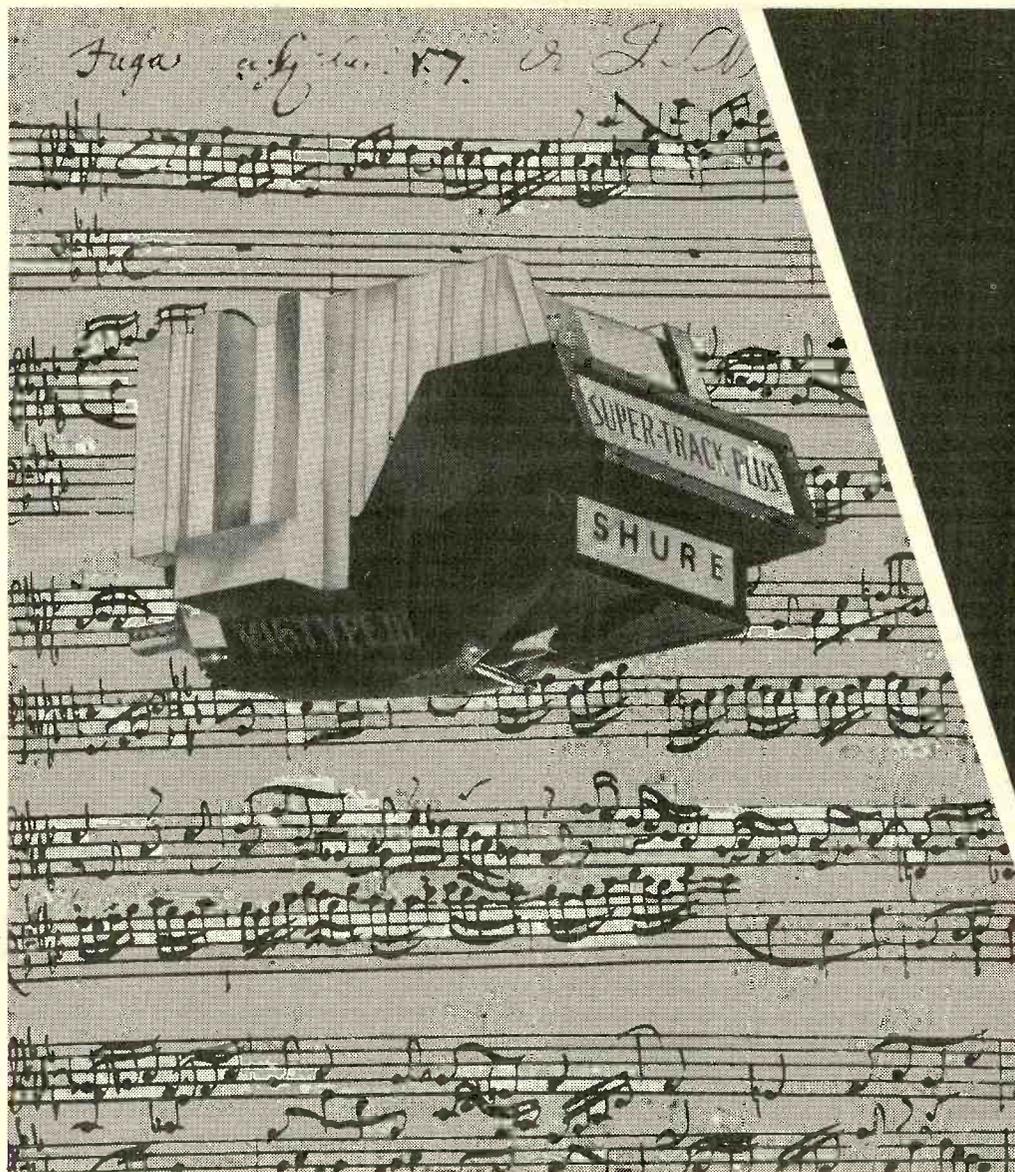
We found that the placement of the 101 was relatively noncritical, good results being obtained whether the speaker was against a wall or as much as three feet from it. Obviously, it should not be placed in a corner. If there is one adjective that applies to the sound of the Avid system, it is *openness*. In contrast to speakers that *might* have tested better but nevertheless managed to sound as if everything was coming out of a box at a specific point in the room, the Avid's widely dispersed sound repeatedly gave it the edge in creating a feeling of natural presence. Without question, the Avid 101 is a remarkably good speaker judged by any standard.

Circle 106 on reader service card

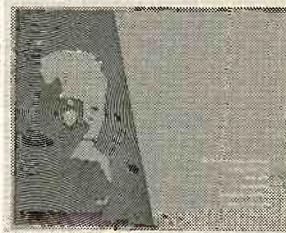
(Continued on page 44)



The excellent tone-burst response of the Avid 101 is demonstrated in these scope photos taken at (top to bottom) 100, 1,000, and 9,000 Hz.



THE PREMIER FAMILY
OF STEREO SOUND REPRODUCERS
MEMBER



The Test of Time.

Critics were most generous in their praise when the Shure V-15 Type III phono cartridge was first introduced. The ultimate test, however, has been time. The engineering innovations, the uniform quality and superb performance of the V-15 Type III have made it the audiophile's choice as the source of sound for the finest music systems both here and abroad.

Consider making the relatively modest investment of a new cartridge to upgrade the

performance of your entire hi-fi system. It will make a difference you can hear!

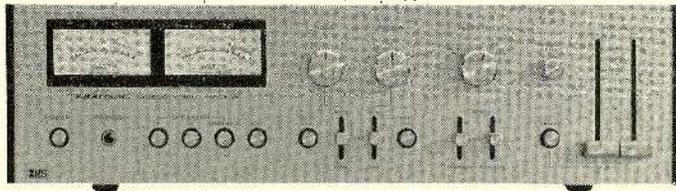
The original manuscript by J. S. Bach shown is reproduced by kind permission of the British Library.

Shure Brothers Inc.
222 Hartrey Ave.
Evanston, IL 60204
In Canada:
A. C. Simmonds & Sons Limited

TECHNICORNER
MODEL V-15 TYPE III
Tracking Force Range: $\frac{3}{4}$ to $1\frac{1}{4}$ grams
Frequency Response: 10 to 25,000 Hz
Typical Tracking (in cm/sec peak recorded velocity at 1 gram):
400 Hz .26 cm/sec 1,000 Hz .38 cm/sec
5,000 Hz .35 cm/sec 10,000 Hz .26 cm/sec
Channel Separation (Minimum): 25 dB at 1 KHz; 15 dB at 10 KHz
Stylus: Model VN35E Biradial Elliptical, 5 x 18 microns (.0002 x .0007 inches)
Also available: Model V-15 III G with the VN3-G Spherical stylus, 15 microns (.0006 inches)
Model VN78E Biradial Elliptical stylus, 13 x 63 microns (.0005 x .0025 inches) for mono 78 rpm.



Realistic SA-2000 Integrated Stereo Amplifier



THE Realistic SA-2000 (distributed through Radio Shack stores) is the company's finest integrated stereo amplifier. The Realistic brand name has long been associated with components appealing to a broad segment of the population and providing good performance at a moderate price. The SA-2000 follows that tradition, but its specifications and control features place it in competition with medium-price amplifiers from many of the better-known hi-fi manufacturers.

The SA-2000 is rated to deliver 55 watts per channel to 8-ohm loads, from 20 to 20,000 Hz, with less than 0.3 per cent total harmonic distortion (THD). It is a compact unit, approximately 16 inches wide, 12 inches deep, and 4½ inches high in its walnut-veneer wooden cabinet; it weighs about 21 pounds. The volume- and balance-control functions are combined into two vertical slider controls at the right side of the panel. They adjust the channel levels individually and are normally moved as a pair for changing volume. Channel-balance changes can be made by a slight shift of one control relative to the other.

To the left of the volume sliders is a small knob marked PERFECT LEVEL, below which is a pushbutton marked DEFEAT. These controls provide the SA-2000's loudness-compensation system, which will be described later.

Across the top center of the panel are knobs for the input SELECTOR (with positions for PHONO 1, PHONO 2, TUNER, and AUX) and the detented eleven-position BASS and TREBLE tone controls which affect both channels simultaneously. Below each tone control is a three-position lever switch that gives a choice of two turnover frequencies and bypasses the tone-control circuits in its center OFF position. The available turnover frequencies are 125 and 400 Hz in the bass, 3,000 or 7,000 Hz in the treble. Flanking the turnover selectors are LOW and HIGH filter pushbutton switches.

Another pair of three-position lever

switches below the input selector control affects the tape functions. The MONITOR switch connects the playback output from either of two tape decks—or the normal program source—to the amplifier circuits. The adjacent DUBBING switch interconnects the two decks for copying a tape from either machine to the other.

At the upper left of the panel are two blue-lit power-output meters whose logarithmic scales are calibrated from 0.01 to 70 watts (based on 8-ohm loads). Below them are individual pushbuttons to switch in the two pairs of speaker outputs. When the speakers connected to the "B" outputs are placed at the rear of the room, pressing the QUATRAVOX button drives them with an out-of-phase derived ambiance signal for a simulated quadraphonic effect. Another button converts the amplifier to the mono mode. There is a pushbutton POWER switch and a headphone jack.

In the rear of the SA-2000 are binding posts for the speaker outputs and phono jacks for the signal inputs and outputs. The "A" speaker outputs are duplicated by phono jacks. One of the two a.c. outlets is switched. Price: \$259.95.

● **Laboratory Measurements.** Although the output transistors and their heat sinks are located entirely within the cabinet of the Realistic SA-2000, they are well ventilated and the amplifier did not become unusually warm during a one-hour preconditioning period at one-third rated power and five minutes at full power that preceded our tests. At 1,000 Hz, the outputs clipped at 69 watts per channel into 8 ohms, 91 watts into 4 ohms, and 41 watts into 16 ohms.

The total harmonic distortion (THD) at 1,000 Hz was 0.07 per cent at 0.1 watt, decreasing to less than 0.01 per cent between 10 and 40 watts output. It was 0.4 per cent at the clipping point of approximately 70 watts. The

intermodulation distortion (IM) was relatively constant—between 0.12 and 0.16 per cent for all power outputs from 0.1 to 65 watts.

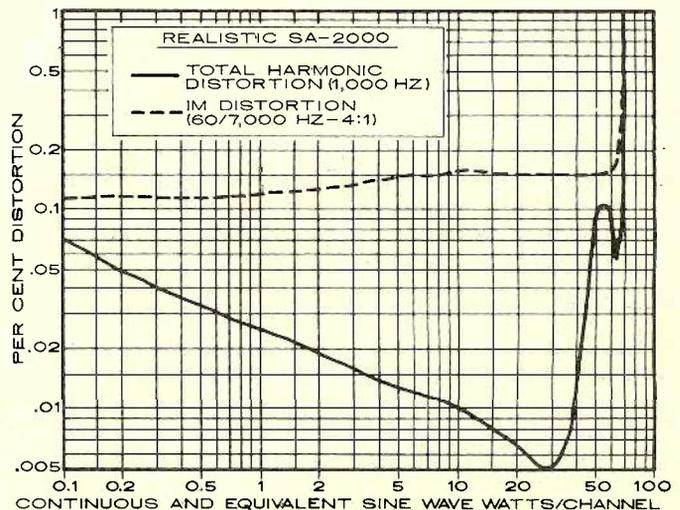
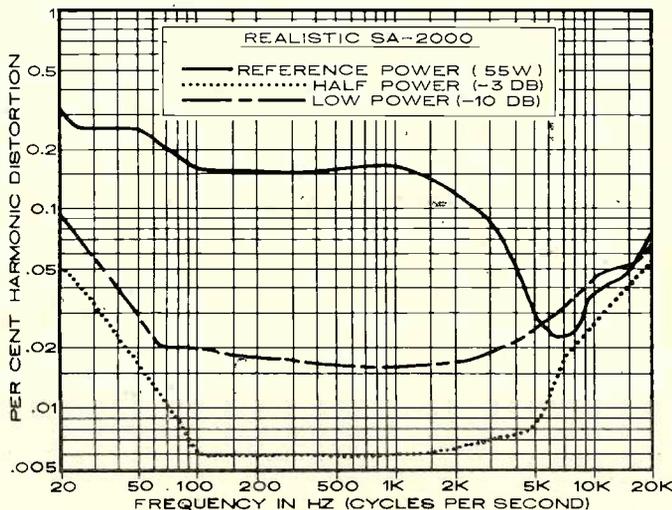
Our distortion measurements across the full frequency range showed that the "distortion," especially at full power and low frequencies, contained appreciable amounts of hum (at non-audible levels) together with the harmonics of the input frequency. To separate the two effects, we used the Hewlett-Packard spectrum analyzer and measured every harmonic component strong enough to contribute to the total reading while excluding harmonics of the power-line frequency. The SA-2000 just met its specification at 20 Hz, with the rated 55 watts output, with an actual distortion of 0.3 per cent. The THD decreased with increasing frequency to 0.15 per cent over most of the mid-range and 0.02 to 0.07 per cent between 3,000 and 20,000 Hz. At half power the mid-range THD was about 0.006 per cent, increasing to 0.05 per cent at 20 and 20,000 Hz. At one-tenth power it was 0.02 per cent or less at middle frequencies and less than 0.1 per cent at the extremes.

The amplifier delivered a reference output of 10 watts with 60 millivolts at the AUX inputs, or just under 1 millivolt at the phono inputs (both of which are identical). The signal-to-noise ratios, respectively 79 and 75 dB referred to 10 watts, were excellent. The phono inputs overloaded at 145 millivolts—more than sufficient headroom to handle the output of any modern cartridge.

The tone controls of the SA-2000 are among the better ones we have seen in their ability to modify the response at the frequency extremes without affecting the mid-range. The combination of a turnover frequency varying with control setting and the choice of either a 125-Hz or a 400-Hz maximum turnover frequency makes it possible to boost or cut the response by several decibels at frequencies below 100 Hz with no effect on the overall tonal balance of the program.

The filters had 6-dB-per-octave slopes, with -3-dB frequencies of approximately 60 and 9,000 Hz. Being so close to the edges of the audible spectrum, they did not seriously affect program content, but neither did they provide much noise reduction (although the LOW filter is effective against subsonic rumble). The loudness compensation boosted

(Continued on page 46)



Remember the plug-in-shell?

Thorens Isotrack Series Turntables proudly introduce the Plug-In Arm.

Thorens introduces an exciting new tonearm design to complement its highly sophisticated, new manual turntable series. Thorens has eliminated the headshell and its collar connection by incorporating the headshell and tonearm rod in a straight tubular design only 7.5 grams in effective tonearm mass. This reduction in mass (up to 50% that of other tonearms) reduces the inertial forces that affect stylus pressure. Tracking is improved, distortion lowered and stylus and record life are extended. Thorens Isotrack tonearm assures optimum performance with the newest, light weight, high-compliance pick-up cartridges.

The accent is on quality

—The high-speed stability and silent opera-

tion of the belt-driven 16-pole synchronous motor is a tribute to Thorens traditionally advanced engineering. The natural elasticity of the belt filters motor vibrations from reaching the platter, and therefore, the pick-up stylus. In more than twenty years of continuous development, and the manufacture of nearly one-million Thorens turntables, Thorens has brought its belt-drive design to a level of technical perfection not approached by *any other drive system known today.*

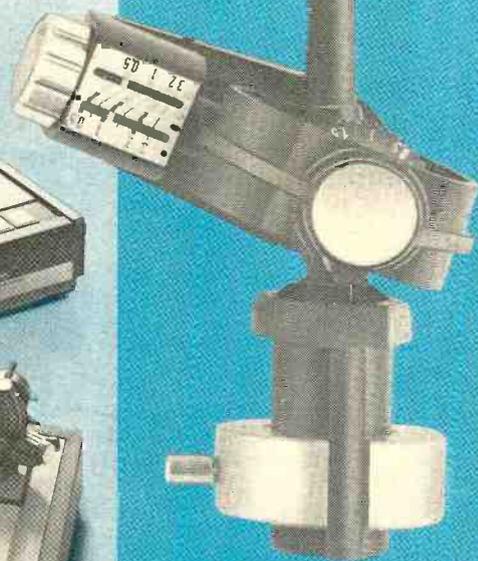
Thorens Isotrack turntables featuring the "mini-mass" tonearm—now at your Authorized Thorens Dealer, or for further details write:

THORENS

ISOTRACK™

ELPA MARKETING
INDUSTRIES, INC.

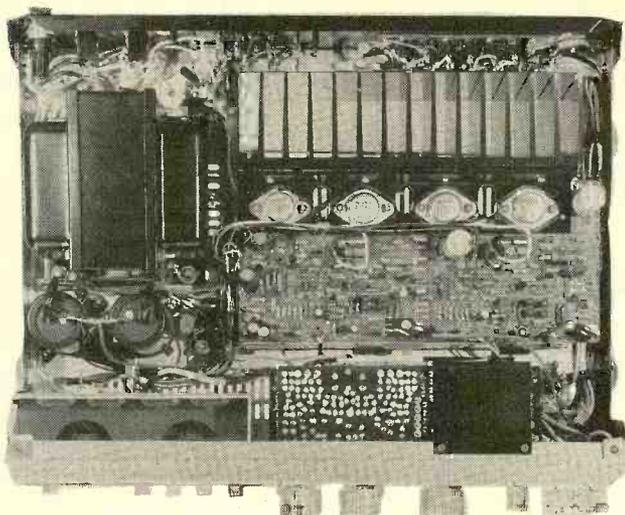
East: Thorens Bldg.,
New Hyde Park, N.Y. 11040
West: 7301 East Evans Road,
Scottsdale, Ariz. 85250



Pictured Above: Top Right—TD-126C • Lower Right—TD-145C
Lower Left—TD-166C • Top Left—TD-160C

CIRCLE NO. 18 ON READER SERVICE CARD

Heat sinks for the SA-2000 are entirely contained within the chassis (upper right).



only the lower frequencies (under 500 Hz), with a considerable effect when the volume sliders were near the bottom of their range.

The "perfect loudness" feature of the SA-2000 makes use of a secondary volume control (PERFECT LEVEL) to which we referred earlier. In use, the sliders are set to a "PL SET" mark about three-quarters of the way up. Then the PERFECT LEVEL knob is used to set the listening volume to the loudest one expects to use. After that, when the volume sliders are moved downward, the loudness compensation is introduced properly, so that unnatural heaviness is not created at normal listening levels.

Over the years we have seen only a handful of amplifiers which combined a loudness-compensation circuit with a means of matching the volume-control setting to an actual listening volume. This is the *only* way in which a

loudness control can function as it was meant to, and the result is that the Realistic SA-2000 provides really useful, listenable loudness compensation.

The RIAA phono equalization was accurate within ± 0.5 dB from under 100 Hz to 20,000 Hz and rose about 1 dB in the 30- to 60-Hz range. Interaction with cartridge inductance was minimal, taking the form of a slight boost (instead of the usual loss) of output at high frequencies to a maximum of +1.2 dB between 10,000 and 15,000 Hz.

The power meters read within about 20 per cent of the actual 8-ohm output from 1 to 70 watts. They were considerably more accurate between 10 and 70 watts. Only at very low levels (where it is of minor importance) did the error become appreciable. The meters had a fast rise time, a slower decay, and little overshoot, so that they gave a useful indica-

tion of the program power level. Both meters read identically.

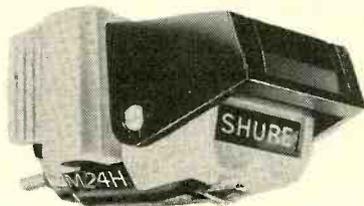
● **Comment.** If one were to judge the Realistic SA-2000 by measurements alone, its only "weakness" would probably be its distortion figures (0.3 per cent) at full power and low frequencies. However, when one considers how unlikely it would be to encounter program content in the lowest audible octaves that had a small fraction of 1 per cent distortion and yet required the amplifier to deliver its full output, the whole matter comes into its proper perspective. And this is assuming you could find loudspeakers with distortion low enough to compare with the SA-2000's, which you cannot.

The SA-2000 can deliver as much power, with as little distortion, as will ever be required by the vast majority of its users. Against any of its low-frequency limitations, real or imagined, one must balance its tone-control system (definitely one of the better ones available), one of the very few loudness compensation systems that really works, a signal-to-noise ratio that compares with that of some of the most highly regarded (and expensive) amplifiers, power meters that are sufficiently fast-acting, accurate, and legible to give the user a good idea of how many watts he is actually delivering to his speakers, and last—but not least—an affordable price. In addition, the SA-2000 has just about all the control and operating flexibility most people could desire (separate preamplifier outputs/power-amplifier inputs are probably the chief omission in this respect).

To us, it seems that Radio Shack has done itself proud in its new "top-of-the-line" amplifier. Anyone who has a stereotypical image of Realistic as a "low-end" brand name owes it to himself to take a good look at (and listen to) the SA-2000.

Circle 107 on reader service card

Shure M24H Stereo/Quadraphonic Phono Cartridge



THE long-awaited CD-4 phono cartridge from Shure Brothers has finally made its appearance. To emphasize its compatibility with all types of discs, Shure calls the Model M24H a "2 + 4" stereo and four-channel cartridge. Unlike many CD-4 cartridges whose stereo performance (and, particularly, high-level tracking ability in the audio band) leaves something to be desired, Shure's M24H is offered as a cartridge whose audio tracking abilities rival those of their Model M95ED, which is just behind the top-of-the-line V-15 Type III in performance.

The M24H has a high-efficiency magnetic structure like that of the M95ED, although its winding inductance is considerably lower because of the necessity for a 50,000-Hz frequency response. Also, its hyperbolically shaped diamond stylus has, according to Shure, the lowest tip mass (0.39 milligram) of any CD-4 cartridge. The hyperbolic tip shape is Shure's equivalent of the Shibata and similar special styli that are designed to trace ultrasonic frequencies without causing excessive record wear.

The M24H is designed to track at forces be-

tween 1 and 1.5 grams, with 1.25 grams being the recommended value. Its frequency response is essentially flat up to about 10,000 Hz, rising at higher frequencies to a maximum at about 30,000 Hz (the CD-4 carrier frequency). Because of its low coil inductance of 160 millihenries, the cartridge-loading requirements are somewhat different than for other Shure cartridges (which usually give their flat-test response when loaded with 400 to 500 picofarads of capacitance). In stereo operation, the M24H can be loaded by a 20,000- to 100,000-ohm resistance in parallel with a capacitance of 100 to 250 picofarads. For CD-4 service, the recommended load is the standard 100,000-ohm input of a CD-4 demodulator paralleled with not more than 100 picofarads.

Externally, the M24H resembles the M95ED, with a swing-away stylus guard on its replaceable stylus assembly. Its output of 3 millivolts at 5 centimeters per second peak velocity is compatible in stereo and four-channel. Price: \$74.95. (Continued on page 48)

The Sensuous Speaker.

Yamaha's new two-way beryllium dome NS-500.

A very responsive speaker with a rich, luscious sound. Highly defined, finely detailed. A deeply involving sound.

In a word, sensuous.

With the NS-500, you get all of beryllium's advantages (transparency, detail, and lack of distortion that go beyond the best electrostatic speakers), but at a price roughly half that of the NS-1000. Only \$500 the pair, suggested retail price.

The joy of beryllium.

The ideal dome material for a high frequency driver must respond instantly to changes in amplitude and frequency of the input signal. So the ideal dome material must be virtually weightless as well as extremely rigid.

Beryllium is the lightest and most rigid metal known. Its density is less than two-thirds that of commonly used aluminum, and its rigidity is almost four times as great — thus preventing dome deformation and consequent distortion. What's more, beryllium's sound propagation velocity is twice that of aluminum.

The beryllium dome found on the NS-500's high frequency driver is the world's lightest — about half the weight of one petal of a small sweetheart rose. Which is one of the reasons for this speaker's exceptional sensitivity and response. And for its sensuous sound.

A closer look.

To be able to offer the sophistication of beryllium at a more affordable price, without sacrificing quality of performance, Yamaha designed the NS-500 as a two-way bass reflex system.

This gives the NS-500 a trace more emotion at the low end than the resolutely objective NS-1000. But it also gives the NS-500 more efficiency (91dB SPL at one meter with one

watt RMS input). Which means you don't have to invest in the highest powered amplifiers or receivers in order to drive the NS-500 to its full rated output.

For an optimum match with the beryllium tweeter, Yamaha developed a very light, very rigid "shell" woofer. And a special hermetically-sealed air core LC crossover with a carefully selected 1.8kHz crossover point.

As a result of these design parameters, the NS-500 boasts an insignificant 0.03% THD below 50dB SPL, from 40Hz to 20kHz, making it the perfect complement to Yamaha's state-of-the-art low distortion electronics.

Underneath the sleek monolithic styling of its solidly crafted enclosures, the NS-500 is full of many exclusive Yamaha features and distinctive Yamaha touches of craftsmanship.

But to fully appreciate the beauty of the NS-500, you really should visit your Yamaha Audio Specialty Dealer.

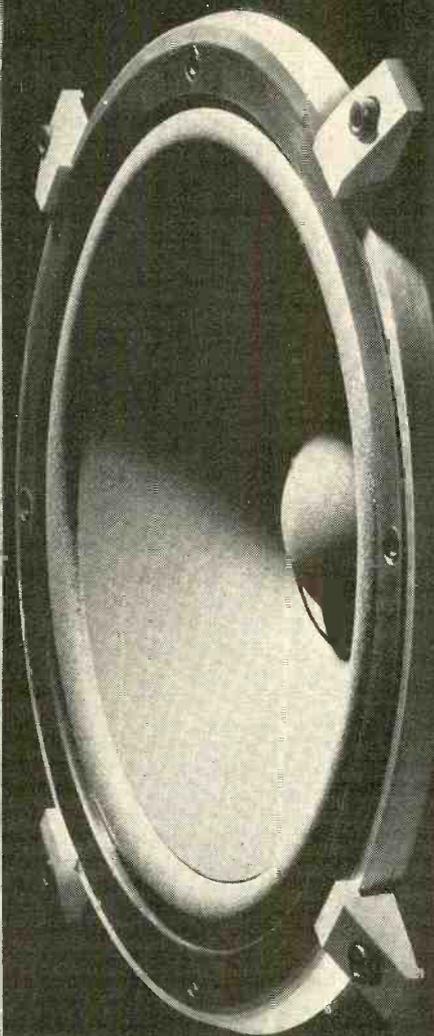
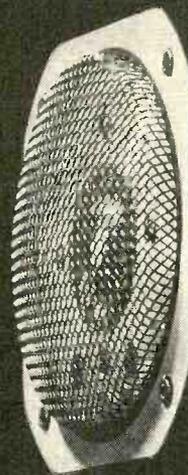
And if you're not familiar with the name of your local Yamaha Audio Specialty Dealer, drop us a line. In turn, we'll also send you a free preprint of the Audio Engineering Society paper on Yamaha beryllium technology mentioned above.

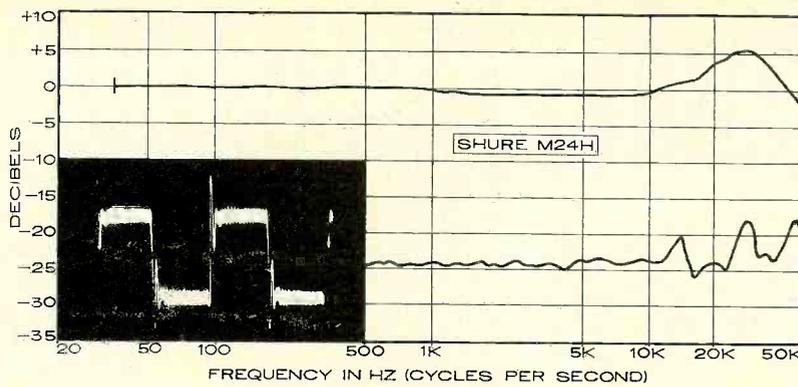


 **YAMAHA**

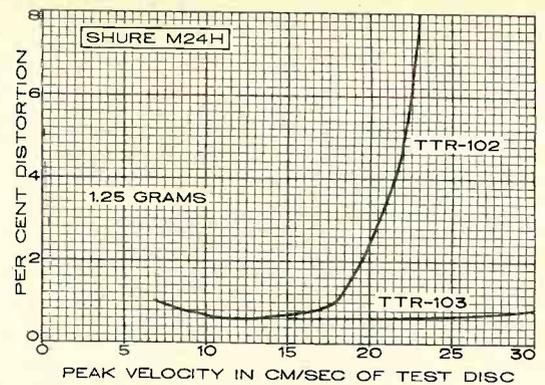
P.O. Box 6600, Buena Park, CA 90622

CIRCLE NO. 62 ON READER SERVICE CARD





In the graph at left, the upper curve represents the smoothed, averaged frequency response of the cartridge's right and left channels; the distance (calibrated in decibels) between it and the lower curve represents the separation between the two channels. The inset oscilloscope photo shows the cartridge's response to a recorded 1,000-Hz square wave, which gives an indication of resonances and overall frequency response. At right is the cartridge's response to the intermodulation-distortion (IM) and 10.8-kHz tone-burst test bands of the TTR-102 and



TTR-103 test records. These high velocities provide a severe test of a phono cartridge's performance. The intermodulation-distortion (IM) readings for any given cartridge can vary widely, depending on the particular IM test record used. The actual distortion figure measured is not as important as the maximum velocity the cartridge is able to track before a sudden and radical increase in distortion takes place. There are very few commercial phonograph discs that embody musical audio signals with recorded velocities much higher than about 15 cm/sec.

● **Laboratory Measurements.** The Shure M24H was tested in the tone arm of a high-quality record player using the recommended loads for each type of operation. Although it tracked our low-frequency test records nicely at less than 1 gram as Shure suggests, we found that 1.25 grams was the best force for overall operation. The lower-mid-range tracking ability was adequate but not outstanding; the cartridge was able to play only the 60-micron level of the German Hi-Fi Institute test record.

The output of the cartridge was 2.7 millivolts at 3.54 centimeters per second. The measured vertical angle of the stylus was 24 degrees. At usual recorded velocities (up to about 18 centimeters per second) the intermodulation distortion was unusually low, measuring 0.6 to 1 per cent with the Shure TTR-102 test record. However, at 22 centimeters per second and higher velocities the cartridge mistracked unmistakably. Playing the 10.8-kHz shaped tone bursts of the Shure TTR-103 test record, the M24H matched the performance of the M95ED and surpassed every other cartridge we have tested in this manner. Its repetition-rate distortion was 0.6 per cent at most levels and only 0.8 per cent at 30 centimeters per second. The low-frequency resonance in the tone arm we used was at 9 Hz, a near-ideal frequency.

The frequency response of the Shure M24H was measured with the CBS STR 100 record in the audio band and with the JVC TRS-1003 test records in the CD-4 carrier band from 20,000 to 50,000 Hz. Although the load resistance (47,000 or 100,000 ohms) had little effect on the audio response, the capacitance did affect the output above 15,000 Hz or so. A low capacitance (75 picofarads) gave the flattest overall response, with a 2.5- to 3-dB rise at 20,000 Hz and an overall variation of ± 2 dB from 40 to 20,000 Hz. A typical "stereo" load of 320 picofarads resulted in a more pronounced rise, to a maximum of +6 dB at 20,000 Hz.

The channel separation was typically 25 to 30 dB at frequencies up to 10,000 Hz and higher, and it was 7 to 12 dB at 20,000 Hz with the CBS record. Measurements in the CD-4 carrier band are even more subject to test-record differences than audio measurements. Best results were obtained with the JVC TRS-1003 record, which gave an overall re-

sponse variation of ± 3.5 dB from 1 to 50 kHz, including a broad maximum approximating +7 dB at 30 kHz. With the unmeasured channel of the cartridge disconnected from the tone-arm wiring, the channel separation was 20 to 25 dB all the way up to 40 kHz and still a very good 13 dB at 50 kHz.

The subjective tracking-ability test with the Shure TTR-110 record confirmed that the M24H was a first-rate stereo cartridge. Only a trace of "sandpaper" quality at the highest level of the sibilance section marred the otherwise perfect performance of the cartridge, which was operating at 1.25 grams. To evaluate the CD-4 performance of the cartridge, we played it through a Technics SH-400 demodulator. Having a record assortment that is probably representative of those available on the consumer market, we soon determined that the sound quality and freedom from "shattering" (a common problem in CD-4 record reproduction) were on a par with the performance of the finest CD-4 cartridges we have used, all of which are considerably more expensive than the M24H. Distortion was still heard occasionally, but only at points where it had been noted with every other cartridge as well.

● **Comment.** So far as we are concerned, Shure's claim that the M24H is a "no compromise" stereo/quadrasonic cartridge is fully

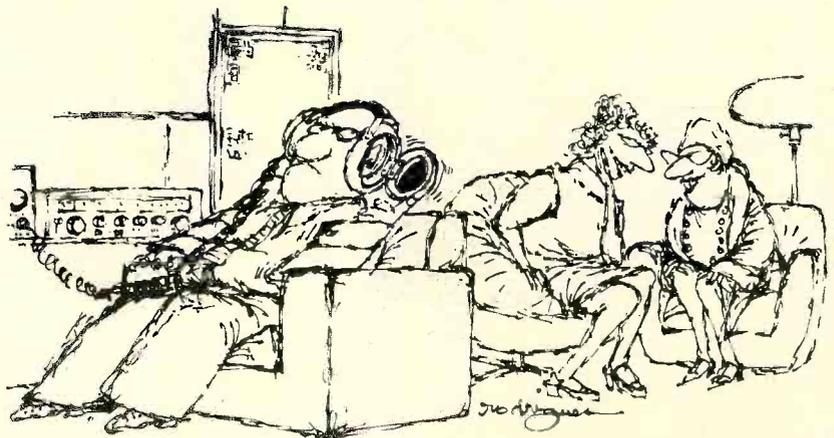
justified. How else could one describe a cartridge whose stereo performance virtually matches that of the Shure M95ED (and which in most cases could not be distinguished from that of the V-15 Type III) and yet sounds, in conjunction with a modern CD-4 demodulator, at least as good as any other CD-4 cartridge on the market?

While some people might consider a 1.25-gram tracking force to be at least a slight compromise, it is a fact that very few cartridges—including the aforementioned Shure models—cannot benefit from being operated at that force, even if they can cope with most situations at 1 gram or even slightly less.

As for the rising high-frequency response, which might also seem to be less than ideal for stereo applications (CD-4 demodulators cut off the signal above 15,000 Hz anyway), we simply could not hear it as a "brightness" or other undesirable quality. To balance this, the strong output of the cartridge in the 30,000-Hz carrier range undoubtedly contributes to its excellent, distortion-free CD-4 performance.

Priced between the M95ED and the V-15 Type III, the M24H is substantially less expensive than any other CD-4 cartridge of comparable quality. On the basis of performance alone, the M24H ranks very high; when value for the dollar is considered, it probably has no equal.

Circle 108 on reader service card



One of a Kind.

He challenges the last uncharted world.

A frontier where discovery is the greatest reward of all.

He smokes for pleasure.

He gets it from the blend of Turkish and Domestic tobaccos in Camel Filters.

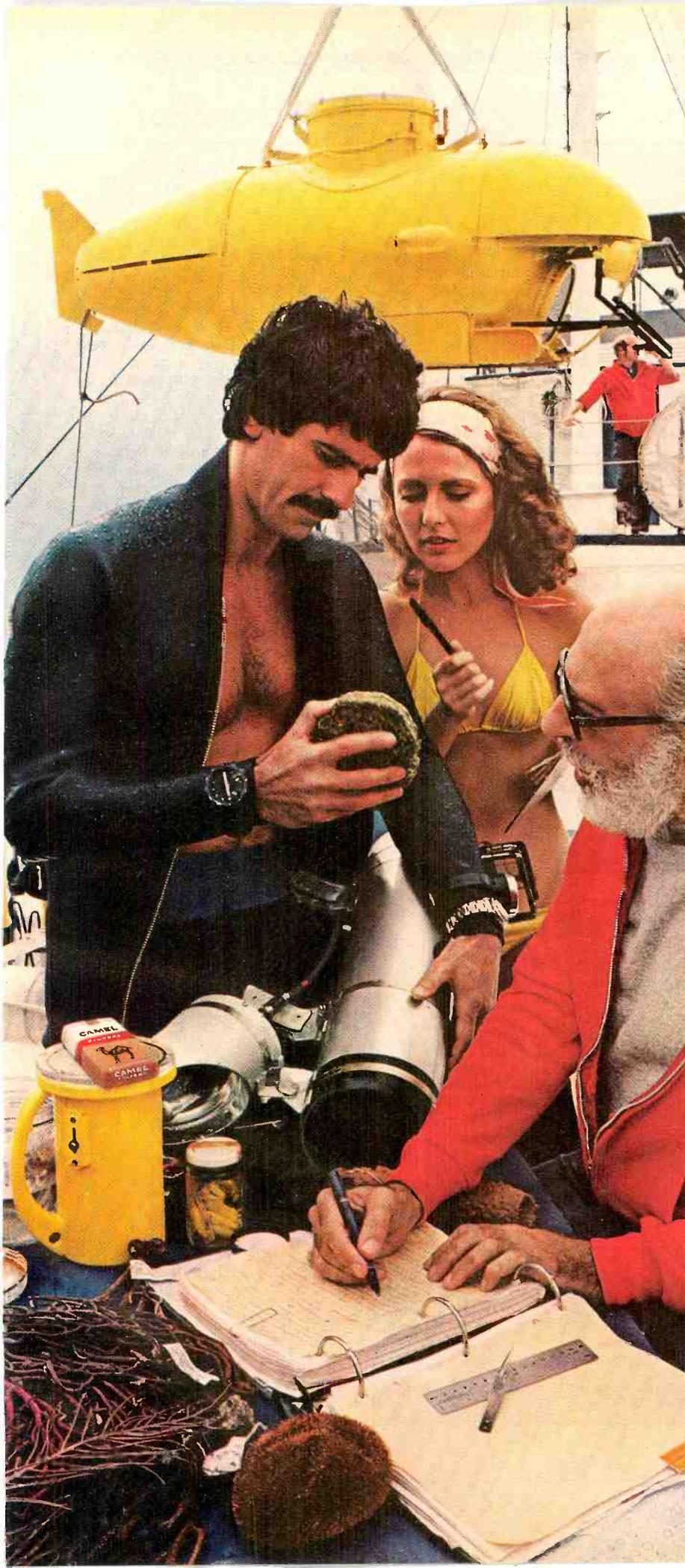
Do you?



**Turkish and
Domestic Blend**

19 mg. "tar", 1.2 mg. nicotine av. per cigarette, FTC Report DEC. '76.

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



Installation of the Month

By Richard Sarbin

An abundance of skill, energy, and time more than compensated for the budget and space limitations faced by Roger B. Miller in the design and construction of this simple but sturdy audio installation for his home in Downey, California. Measuring fifty inches in both height and length, the beautifully crafted walnut complex is quite transportable and can be operated with ease from either a sitting or a standing position.

An assortment of medium-price equipment purchased over a number of years is secured within six neatly inset component panels. Perched on the left-hand side of the cabinet and sharing the bulk of the recording activity are Craig 2408 and Sony TC-353-D tape decks. A Concord Dolby-B unit occupies the upper right corner of the structure, and cra-

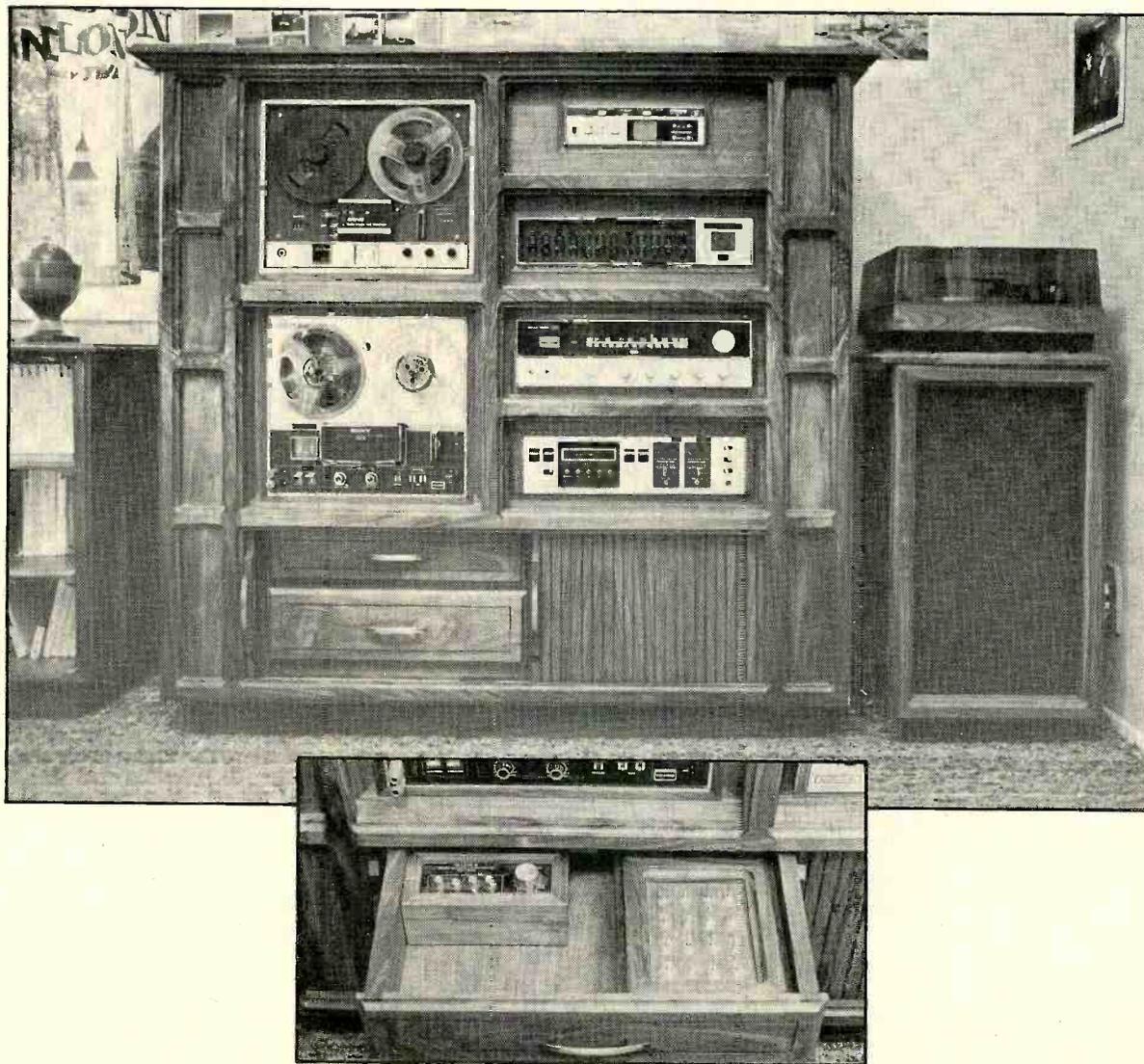
dled directly underneath is a BSR FEW-3 octave graphic equalizer. Within the remaining compartments below are a Harman-Kardon 630 AM/FM receiver and a Wollensak 8050 eight-track deck.

The base of this handsome installation features two convenient slide-out drawers, the lower functioning as a storage area for headphones, microphones, and other useful accessories and the upper (see inset) housing a switch panel as well as a Sony sound-on-sound adapter used in conjunction with the Sony tape deck. When not in use, both drawers are hidden behind the tambour door to further enhance the console's clean, uncluttered appearance.

The turntable shown is a BSR 610, which is temporarily resting on one of a pair of Sound

Research Lab Model 20's, a set of local house-brand speakers. Two JBL L-100's placed in the other two corners of the 10 x 12 foot room complete the lineup of components. The well-stocked library of reel-to-reel and eight-track tapes consists mainly of popular music from FM programming; the cartridges are used for playback both at home and on the road.

Mr. Miller is currently working toward a B.A. degree in industrial arts at California State University at Long Beach. He has done a variety of custom-woodwork projects in his own workshop not only for other hi-fi enthusiasts but also for buyers of quality furniture. With such experience under his belt it comes as no surprise that he spent under \$150 in the building of this fine cabinet. □



Performance. Scott Stacks Up.

Every serious listener knows that separate tuners and amplifiers offer greater system versatility and flexibility than the all-in-one receiver. But Scott separates stack up where it really counts—performance.

Every one of Scott's complete line of tuners and amplifiers is engineered and designed to give you all the performance features you expect, at a price no higher than many receivers currently on the market.

Scott's T 526 AM/FM Stereo Tuner and A 436 Integrated Power Amplifier provide such important performance features as front panel Dolby de-emphasis switching, a phase locked loop multiplex section and linear motion calibrated controls.

And that's only part of the story. Compare these important performance features with any other medium-priced tuner and amplifier on the market today.

The Scott T 526 Tuner

IHF sensitivity rated at $1.9 \mu\text{V}$, S/N ratio 68 dB and a capture ratio of 1.5 dB.

Signal strength and center channel tuning meters.

Four gang tuning capacitor for better image rejection.

AM section designed around a tuned RF amplifier using J-FET for improved signal-to-noise ratio.

AM noise suppression circuitry.

The Scott A 436 Amplifier

42 watts RMS per channel, driven into 8 ohms from 20 Hz to 20 kHz with no more than 0.3% THD.

True logarithmic meter amplifier obviates the need for range switching.

Individual channel power level meters calibrated in % of full power output capability eliminates confusing dB and VU readings.

Two completely independent tape monitors allow two tape recorders to be used simultaneously for direct tape-to-tape copying.

Instantaneous electronic protection circuit in the output stage.

IM distortion lower than 0.15% for a cleaner sound without listening fatigue.

High and Low filters, two auxiliary outlets and mic inputs.

And the Scott T 526 and A 436 come complete with professional rack-mount handles, and are backed by a three-year, parts and labor limited warranty.

For specifications on Scott's complete line of audio components, write or call H.H. Scott, Inc., 20 Commerce Way, Woburn, Mass. 01801. (617) 933-8800. In Canada: Paco Electronics, Ltd., Quebec, Canada. In Europe: Syma International S.A., 419 Avenue Louise, Brussels, Belgium.



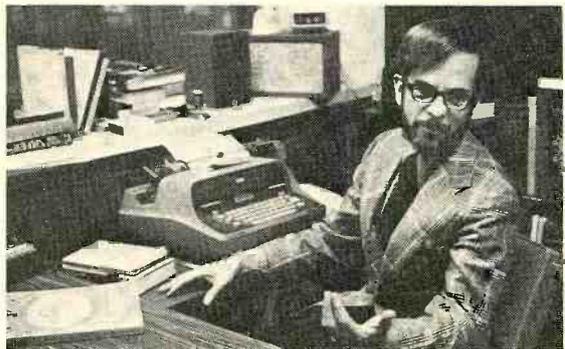
 **SCOTT**
The Name to listen to.

Receivers/Tuners/Amplifiers/Turntables/Speakers

CIRCLE NO. 100 ON READER SERVICE CARD

Going on Record

By James Goodfriend



GOING THE OTHER WAY

MUCH has been written to introduce those with popular tastes to classical music, but very little to aid those who might want to travel the road in the opposite direction. It is as if popular music were thought to be something one fell into quite naturally and without preparation, understanding instinctively exactly what to expect from a given artist, group, or style. And so it is, you say, and so it has always been. Not any more, I say. Popular music today comprises a group of tonal languages for the most part as foreign to those with classical tastes as the spoken languages of Polynesia are to a conventionally educated European. The root difference may not be so specifically geographic, but it is social, economic, perhaps intellectual, and most definitely generational. It is also willful.

The old conception of popular music as primitive entertainment for the masses is dead in all but a numerical sense, even as we realize that primitive art is sometimes exceedingly sophisticated—by criteria with which we have little familiarity. The concept of popular music as “light” is equally moribund, for some of it is heavy indeed with meaning for its devotees, and the very term “light” implies (as in Scotch whiskey) a dilution of flavor, whereas what we are dealing with here is a difference in the very substance. Little wonder that those who spend their time with Mozart and Beethoven, or feel at home with Schoenberg and Boulez, are so nonplussed when confronted with Jefferson Starship or

Toots and the Maytals. Little wonder also at the overreaction that had classical critics at one time rearranging the pantheon to make room for the Beatles and Procol Harum somewhere between Bach and Schubert.

The problems faced, then, by those who would make a first acquaintance with popular music are (1) that it is not necessarily clear, simple, and easy to understand; (2) that its standards of excellence do not necessarily bear any relation to standards of classical music; and (3) that it is not one music but a multiplicity of musics that often have little to do with one another. Such complexities are rarely taken into account by those whose ears are elsewhere.

Anyone with some experience in classical music will have a fair idea of where to look for a new piece of classical music that will please him. If he has an antipathy to polyphonic choral music he will not readily buy a recording of Lassus or Palestrina, and if he likes Bach cantatas he can turn to Buxtehude with reasonable expectations. The average classical listener has the field fairly well compartmentalized, both as to style and as to his personal likes and dislikes.

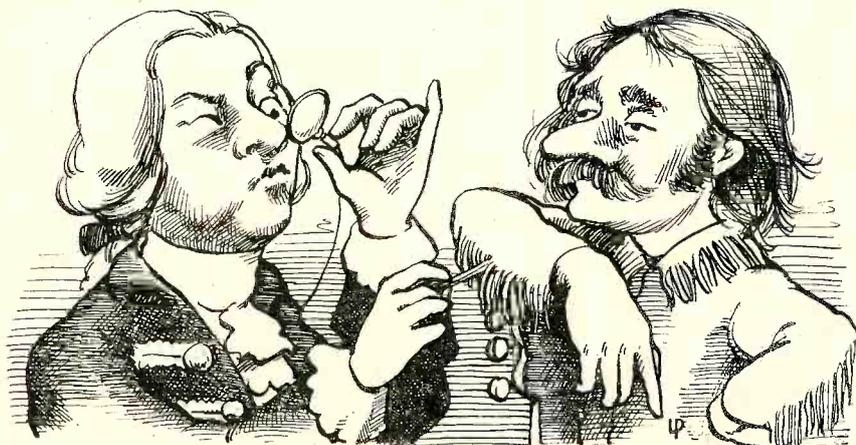
But suppose that same listener decides to sample the popular music of today. He reads a bunch of reviews and, armed with the assurance that informed and knowledgeable criticism has declared all the items in question to be first-rate, he purchases the following group of records: “Doc and the Boys” by Doc Wat-

son, “First Night” by Jane Olivor, “Shake Some Action” by the Flamin’ Groovies, “Spirit” by John Denver, “Viva” by Roxy Music, “Creative Orchestra Music 1976” by Anthony Braxton, “Bogalusa Boogie” by Clifton Chenier, “Here and There” by Elton John, and “Dr. Buzzard’s Original Savannah Band.” All right, you pop sophisticates, stop laughing. Someday someone may attempt to turn you on to classical music by suggesting that you rationalize the similarities of Walter von der Vogelweide, Liszt’s Hungarian Rhapsody No. 2, a Palestrina motet, the Bartók piano sonata, and John Cage’s *Four Minutes and Thirty Seconds*. That’s about what it comes down to if you approach “popular” music unwarily.

The innocent explorer needs warning. He should know, for example, that while most pop music involves songs, and songs have lyrics, in some pop music those lyrics are everything while in other music those lyrics are literally (not to mention literarily) nothing. It may be difficult for him to determine which is which, but the difference is crucial. He should be aware that even in the same area of pop music, even dealing with the same song, some singers are valued for their ability to sing the words while glossing over the notes, yet others are equally valued for being able to sing the notes while paying no attention to the words. He should be aware that among the records collectively lumped under the title “jazz” he will find coexistent musical styles that sound, by classical standards, as though they were several centuries removed from each other in origin. Jazz has many parallels with classical music, and among them is its position of offering virtually its entire historical development simultaneously. True, jazz is a performer-oriented music, but the original progenitors of every succeeding style are very much alive on records, often in stereo, and sometimes in person.

The explorer must be aware that there are people performing today for whom the Forties have never ended and others for whom the Forties never existed—not even as history. He should know that loudness is measured by some pop people in odd ways (“Turn the volume up, I hear it but I don’t feel it yet”). He should also know that some pop music is genuine throwaway art, its ephemeral quality a real criterion of its popularity and its substance recyclable for another song on another day. And further, that some pop music is valued not for its quality but for its lack of quality—the exquisite listening pleasure of a badly missed note, a bollixed chord change, or an utter and complete lack of any socially redeeming value.

HE must be aware that when classical music is adapted by popular groups (rock or other) its purpose is not to introduce anyone to classical music but rather to add to the available repertoire of pop. He must know of which country he speaks when he speaks of country music, and that someone who can’t sing a note can receive awards as a “vocalist.” He must know that the beat is everything in establishing a proper style, but that the proper rhythmic beat is totally different from one style to another and practically never bears any relation to what is actually written in the music. And, most important of all, he must understand that most young people like popular music because they know their elders don’t, or won’t, or can at least be intimidated into staying away from it.



Raise the roof tonight in a Dodge Charger.

If you can't wait to see that evening sun go down, the '77 Charger is your special car. Made for people who come out to play after dark. And now you can make a night of it in a Charger that welcomes the night inside.

Just remove the transparent panels of the optional T-bar roof, and you're cruising in a Charger that's almost a convertible. Come alive in the invigorating breeze as you settle into the high-back bucket seats. For certain, you



and your Charger were born for the night.

A standard 318 V8 teams up with TorqueFlite automatic transmission to give Charger a response that's anything but everyday.

When the day starts to fade and you're ready to shift into high gear, you need the car that can light up the night—Charger.

Why let another sun go down without driving one? You can buy or lease an exciting new '77 Charger from your nearby Dodge Dealer today.



A PRODUCT OF
CHRYSLER CORPORATION

THE NIGHT BELONGS TO CHARGER.

CIRCLE NO. 10 ON READER SERVICE CARD

The Pop Beat

By Paulette
Weiss



COME TO THE CABARET

As a member of perhaps the newest generation of cabaret devotees, I count myself lucky to be able to witness the art's recent resurgence. New clubs and rooms have been sprouting mushroom-like in the dark, fertile atmosphere of New York nights, while some of the old ones have been rejuvenated. Born too late, war baby that I am, to catch many of the legendary artists in their prime, I am greatly comforted by the continuing trickle of record reissues on such labels as Stanyan and Monmouth-Evergreen as well as by the stamina of those venerable artists who still carry on the tradition live.

One of these is the "incomparable" Hildegard, who last year celebrated fifty years as a performer with a concert at New York's Town Hall. She still retains the visual trappings of sophisticated romanticism she has cultivated for so long—the red roses, the long black gloves, the clinging gown, and the white lace handkerchief. More important, she has lost none of her vocal artistry. Indeed, the studio recording inspired by the anniversary concert (now out for review) displays a voice richer and mellower than ever before; the phrasing is more precise, and there is greater emphasis on the dramatic presentation. There is also, to be sure, a tendency to *talk* a line from time to time to compensate for a somewhat diminished breath support, but, far from being a drawback, this sails her right into Mabel Mercer waters, where the sometimes bitter wisdom of maturity more than compensates for the lost sweetness of youth.

It is hard to find a vocabulary to communicate an enthusiasm for a performer who is at once so special (in her art) and so universal (in her humanity) as Mabel Mercer. Exerting all my willpower so as not to "doyenne" and "disease" you to death, I refer you instead to other critical explorations of the talents and history of this earth-mother of popular song: read Whitney Balliett's penetrating chapter on her in his book *Alec Wilder and His Friends* (Houghton Mifflin, 1974), Henry Pleasants' discussion in his *The Great American Popular Singers* (Simon & Schuster, 1974), and William Livingstone's article in February 1975 STEREO REVIEW on the occasion of her seventy-fifth birthday.

The parties, awards, and other festivities in honor of Miss Mercer's attainment of the three-quarter-century mark gave me my

chance to experience her art firsthand—and under rather unusual circumstances. "AM New York," an early-morning TV program, was featuring her in a special two-hour broadcast with a cabaret format. And so, in a makeshift studio re-creation of a night club, a host of early-rising friends and fans of Mabel Mercer were deployed among tables and champagne glasses to play "audience." Miss Mercer sang regally seated in her own special chair, transported from the St. Regis Hotel's Mabel Mercer Room for the occasion. I found myself seated beside The Chair, mercilessly exposed to the TV cameras on the outer edge of the singer's spotlight and, of course, perspiring madly. As Miss Mercer's voice, a bit shaky yet firmly in control of each lyrical nuance, caressed *It Isn't Easy Being Green* and

PETER ALLEN
Often delightfully extravagant



turned *Wait 'Til You're Sixty-four* into a witty, knowing promise of the future, the lights, the cameras, and my discomfort were forgotten in the aura emanating from this wise, quiet woman who practically compels belief and mandates comfort in her listeners. When she sings, there is simply nothing more important, for she *knows* what is important and you feel privileged to share that knowledge.

THERE is a wonderful sense of discovery for neophytes like me who begin exploring this music, for there is a golden network of influences that leads us inexorably from performer to performer and back again. It is impossible, for instance, to mention Mabel Mercer without having Bobby Short, that suave of cabaret babies, spring to mind. Bobby Short leads one to think of Blossom Dearie, and Blossom Dearie brings all the others along in a rush—Chris Connor, Portia Nelson, Mel Tormé, Sylvia Syms, Elly Stone. The flow is free-associative, for the similarities are often tenuous and the styles diverse. The common denominator in all these performers is their dedication to style, to a particularly subtle, polished form of musical expression that has nothing to do with the maddening pow-bam of the typical Las Vegas singer. Often they share material or arrangers, so when I search through the record bargain bins where these artists usually (and unfairly) end up I'll occasionally take a chance on an unknown for that reason alone. In this way I've come up with some marvelous music by Carol Sloane and Claire Hogan, both of whose thus-far limited careers deserve expansion, and Teddi King and Sylvia Syms, whose popularity is on a welcome upswing.

THIS fine web of musical influence is far from finished, for a new generation of performers is being woven into it right now. Jane Olivor and Peter Allen are but two newcomers with the requisite devotion to style, though I confess it is not always easy to cram the exuberant Allen into the cabaret bag. His performances are often delightfully extravagant—he may leap up from his piano to sing sitting on top of it or dance about brandishing a pair of maracas overhead. But then he will slip smoothly from the rambunctious gaiety of *I Go to Rio* to a touchingly tender bow to Judy Garland called *Quiet Please. There's a Lady On Stage*. Despite the obvious rock elements, Allen's show is scaled to club size; the audience rapport it requires cannot be established anywhere else.

Jane Olivor is twenty-four-carat supper club. Her voice is an exquisite, resonant instrument intelligently used and controlled so that it thoroughly penetrates every cranny of a song. Her current showpiece is a version of Rodgers and Hammerstein's *Some Enchanted Evening*, which she takes apart and puts back together again so that Ezio Pinza's own mother wouldn't recognize it. Much as Barbra Streisand (with whom she's been compared) startled and entranced her early audiences at the Bon Soir and Blue Angel with a melancholy *Happy Days Are Here Again*, Olivor has personalized a song we know well, playing against our expectations of it and skillfully creating an entirely new musical experience. She also has an extraordinarily effective way of reaching *under* a high note, pouring energy into it until it simply bursts into bloom on key, a technique far from that of your average graduate of the Talk Show School of Singing for whom sheer volume seems to be all.

HOW NOT TO RUIN YOUR RECORDS

PART I

Don't "play" over micro-dust

THE PROBLEM:

The greatest cause of record degeneration is micro-dust. All records possess a static charge which attracts a very fine, virtually invisible micro-dust from room air. A record may "look clean" but contain a fine coating of micro-dust. When you play over this coating, even at one gram of stylus pressure, you grind the micro-dust into the record walls, often forever. Your record then gets "noisy."

COMMON ERRORS:

Most record cleaners are "pushers", and simply line up dirt without removing it from the disc. Skating a pusher off the record only spreads micro-dust into a tangent line of danger. Extra arm devices and all cloths are too coarse to do anything but pass over micro-dust—or gently spread it out.

AN ANSWER FROM RESEARCH:

The exclusive Discwasher System removes micro-dust better than any other method.

1. The slanted pile lifts up rather than lines up debris. The pile fibers are fixed in the fabric better than any other record cleaner, and "track" record grooves rather than scrape them (see figure 1).
2. Alternating "open rows" of highly absorbent backing hold micro-dust taken off the record, and demonstrate Discwasher's effectiveness over long term use (see figure 2).
3. The inherently safe D3 fluid delivery system and capillary fluid removal allows the most researched record cleaner to be the world's best.



Fig. 1 Line of micro-dust removed from a "clean" record.

UNRETOUCHED PHOTOS
OF DISCWASHER BRUSH

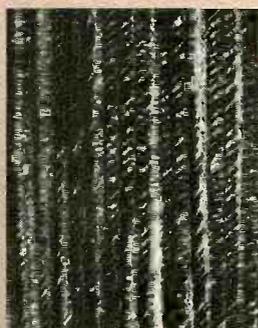


Fig. 2 Accumulated micro-dust from long, effective use of the Discwasher System.



 **Discwasher Group**

1407 N. PROVIDENCE RD.
COLUMBIA, MISSOURI 65201



**BUYING
GUIDELINES
FOR**

CAR STEREO

**IT'S GETTING
CLOSER
TO HOME**

by Ivan Berger

SOUND EQUIPMENT for automobiles has changed over the past few years, and very much for the better. Once it consisted of no more than an AM radio installed at the factory, the only options being pushbutton tuning and an extra speaker in the back. Today, when only about 15 per cent of car audio systems are factory-installed, you can have your choice of AM, FM, stereo FM, stereo cassette or eight-track tape, and even quadraphonic eight-track. You can also get up to 125 watts of power per channel and two-way, three-way, and even bi-amplified speaker systems (that is, separate amplifiers for each driver in the speaker system).

Options that lead to higher-price systems aren't the only reason Americans are expected to spend over a billion dollars this year on sound systems for

their cars. Long drives often provide a better opportunity for uninterrupted listening than the same time spent amid the chores, distractions, and responsibilities of home. Traffic congestion and lower speed limits make those drives longer too, and they add to the desirability of having a pleasant sonic stimulus available.

• A Car Is Not a Home •

Listening in the car is not the same as listening in your living room: it's both better and worse. The list of problems car stereo must overcome is long: high ambient noise (as much as 40 dB or so above home noise levels); equipment failure due to heat, cold, dampness, or vibration; and sound distribution compromised both by the difficulties of mounting speakers where they sound best and the impossibility of rearranging the seats to suit the speakers.

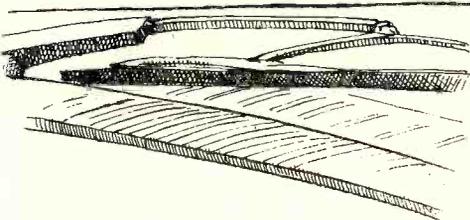
What's good about car listening is that, if you get it right, the sound can combine most of the virtues of both speaker and headphone listening and that the bass you hear is better than even the most optimistic speaker specs would lead you to believe.

Experts differ on just why this should be so. Speaker authority Abraham Cohen of Polydax summed up the most popular view in a recent Audio Engineering Society paper: listeners in the small space of a car's interior are not so much in a listening room as within the speaker cabinet. But Tim Holl, Acoustic Research's director of engineering, disagrees: "It's not that the car forms an acoustic-suspension enclosure; you can open doors and windows and still get more bass from a speaker than one would think from anechoic measurements. We suspect it's that you're held in the near field of the speaker."

Acoustic Research is just one company noted for home speakers that's also looking into speakers for the car; JBL and Advent are reputedly interested also, and car speakers are already available from Altec (distributed by car-sound specialist Clarion), ADS, AFS, Braun, Cerwin-Vega, Craig, Jensen, Panasonic, Pioneer, Polk, RSL, Tru-Sonic, and Utah. Car speakers are beginning to adopt a lot of home-speaker techniques, too.

• Trends in Speakers •

The biggest trend is to two-way systems, with separate woofers and tweeters. These are available in coaxial form (with the tweeter mounted within the woofer cone's concavity for easier installation) from Audiovox, Boman/Astrosonix, Cerwin-Vega, Clarion,



Jensen, Lear Jet, Magnadyne, Medalion, Panasonic, Pioneer, RSL, Sparkomatic, and Utah and in non-coaxial versions by ADS, AudioMobile, Polk, and Pyramid (the Pyramid is a 6 x 9-inch oval plate containing a round woofer and tweeter). Jensen's Triaxial, the first three-way loudspeaker for the car, has been joined by three-way coaxes from Audiovox and Kraco. Ceramic tweeters are being widely used in two- and three-way car systems, both to save space and because of their resistance to the moisture, jolts, and temperature variations they suffer in the car environment.

Speaker magnets are getting heavier too. While some inexpensive speakers have magnets weighing 3 ounces or less, others are available with magnet weights of 20 ounces or more, comparable to those in home speakers of equal size. Larger magnets are generally used in the interest of increasing efficiency—a definite advantage when you're trying to overcome road noise with only the typical car stereo's output of about 3 watts per channel to power the speaker. But they also make the speaker bigger and heavier, harder to install, and more likely to vibrate off its mountings. And AR's Holl points out another problem: "The bigger the magnet, the more the speaker is damped at its resonant point. That means less output at and below resonance and less bass. But that's not necessarily a bad thing. In fact, it may sound subjectively better. We suspect that's because more damping also means tighter control of woofer motion when bass notes end." In other words, better transient response.

There's also a big emphasis on speakers with greater power-handling ability. That's not surprising, since in some installations today's car speakers have a lot of power to handle. Car stereo units boasting up to 15 watts per channel are already on the market, and booster amplifiers of anywhere from 8 to 125 continuous watts per channel

have been announced. Some manufacturers sell their speakers and amplifiers as matched sets. I've not been overly impressed by the 6 x 9-inch speakers that carry booster amplifiers piggyback, but the deluxe systems by ADS and AudioMobile offer car sound for the "carriage trade," and they are priced accordingly.

The first of the auto-audio super systems was the ADS 2001, a \$475 ensemble incorporating two two-way speaker systems in metal enclosures each about the size of two bricks and a bi-amplified electronics package delivering up to 60 watts to each woofer and up to 20 to each tweeter—a potential of 160 watts total. The amplifier has some unusual properties: to overcome road noise it provides a mild level boost at low to medium volumes; then, to protect ears and speakers, it cuts back slightly at the highest sound levels—in other words, level compression. The amplifier's bass is pre-equalized to compensate for bass rolloff in the 4-inch woofer, and since this bass boost plus the amplifier's high power could blow unprotected woofers, a circuit limits high bass amplitudes.

ADS's newer 2002 system is similar, but with smaller amplifiers (25 watts per woofer, 5 watts per tweeter) built into the speaker cabinets, and a correspondingly lower price (\$395). Unlike the 2001, which is designed for use with any tape deck or sound system, the 2002 is designed primarily to work with the new Nakamichi 250 cassette player or 350 player/recorder.

AudioMobile's approach is considerably different. Its amplifier delivers a straight 20 to 35 watts per channel, depending on the speaker impedance it sees, and the crossovers are passive ones following the amp. And AudioMobile's speakers don't come with enclosures: instead, each channel has a 4-inch dome tweeter and your choice of a 6½- or 10-inch woofer designed to be flush-mounted in the car's interior panels. The company recommends that you install the tweeters near the front of the car and the woofers in the parcel shelf above the trunk.

• Speaker Installation •

The *type* of speaker for you is a function of the sound you want and what you are willing to pay for it. The *size* of speaker is a function of the spot where

you'll install it. Several places are in common use: the rear deck above the trunk, the doors, the "kick panels" under the dash, and the dashboard itself. Rear parcel shelves in U.S. cars usually have cutouts and pre-drilled bolt holes for 6 x 9-inch oval speakers; most other spots require smaller, round models.

The ideal speaker spot is one where the speaker won't be in the way, where it will have a good-sized cavity behind it to serve as an enclosure, and where it can direct its sound at the car's occupants from sufficient distance to ensure good distribution. In most cars, though, there is no such spot.

Surface-mount speakers, with their own enclosures, eliminate the problem of finding a suitable cavity that's in a good location, but the cavities built into them are small, which (except on the ADS models, with their equalized amplifiers) limits bass response. Many such enclosures are labeled "acoustic suspension," but it is not unusual to find vents or other openings in them. In any case, sealed enclosure or not, since many of these speakers give perfectly good sound, you should just ignore the claimed operating principle and pay attention only to what you hear. Be alert to one inevitable disadvantage of surface-mount speakers, however: they stick out. That means a door- or dash-mounted surface mount is likely to intercept your knees or elbows, while a badly located rear-deck speaker may obscure your view of cars behind you.

Many surface-mount speakers have open backs, so you can enlarge their volume by cutting a hole in the panel they attach to and using one of the car's cavities as an enclosure. But as long as you're going to do that, perhaps you might as well flush-mount the speakers. And many surface-mounts let you do just that.

FLUSH-MOUNTING on the rear deck is easy in most U.S. cars. You just lie in the trunk and use the cutouts in the metal surface as templates with which to cut the fiber trim panel—if it's not already perforated to act as a grille. The trunk provides a big, beautiful cavity for the speaker.

The upward-facing rear-deck speaker's treble is nicely dispersed by the bounce it takes off the car's slanted rear window. But often a rear speaker's sound can't be heard clearly in the front seat even when it's turned up loud enough to blast rear-seat passengers halfway to deafness. Furthermore, sunlight beats down on the cone, drying and bleaching it. There are rumors (groundless, I suspect) that speaker cones can be damaged by the sudden rise in air pressure when the

• The Program Source •

trunk lid is slammed. And AR's Holl reports that in *all* cars tested, shelf-mounted speakers had a dip of about 6 dB in the 600- to 700-Hz range, perhaps because of boundary effects from the nearby slanted window.

Mounting a speaker facing upward in the dash does give good mid-range and treble coverage to the front-seat occupants. But the dashboard, unless its bottom is sealed (few are), is a poor baffle for bass wavelengths, and so the sound may be a bit thin. Sunlight is still a problem. And any speaker-mounting cutouts in the car dash are likely to be in the center—a good place for a mono speaker, but awkward for stereo—and may be of an odd size and shape (say, 2 x 9 inches) that restricts your choice of speakers.

Door mounts are favored by most commercial installers. Doors provide a nice rear cavity, so good bass is assured. They're easy to work on, and sometimes you can even fit the speaker in somewhere up fairly high and well forward—the best possible place. More often, though, removing the door's fabric covering reveals a solid steel panel or a moving piece of window-winder linkage right where acoustics say the speaker should go. Then the speaker may have to be installed at the rear of the door (good sound for the rear seat, but not for any but the most long-legged drivers, who push the seat all the way back), or down near the floor, where its higher-frequency output is in danger of being absorbed by the car's carpet or blocked by the legs of the driver and passengers.

Kick panels provide easier installation—you don't have to take the door apart, and often you don't have to cut into metal. But the cavities behind them are usually too small for good bass (in some cars, there's no cavity at all, just the wheel well), and the potential problems of installation near the floor remain.

The grille you choose for your speaker (assuming that it doesn't come with one) should depend on where the speaker will be. Low-mounted grilles should be of shiny chrome that withstands scuffing. Rear-deck or dashboard-top mounts require matte-black grilles to avoid reflections that confuse the driver's rear or forward vision or glare that may distract him at a crucial moment. If you can, make sure such grilles aren't made of plastic that deteriorates with heat or sunlight.

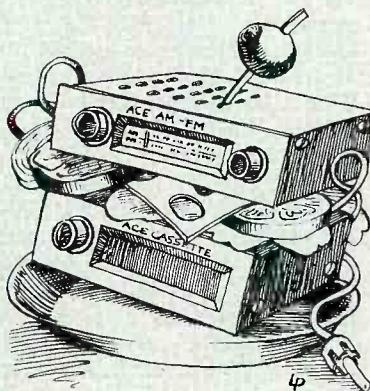
Speakers, of course, are only half the story. The other half is what you feed them. Amplifier power, in my experience, can be quite low by home-component standards and still be adequate for a car. Even though car speakers have more noise to outshout, the normal 3 or 4 watts per channel can do a fine job, letting you hear clearly in all but the noisiest situations. More power is always nice, of course, if you're willing to pay for it. Unless you're buying a unit such as the Nakamichi machines, the Uher 210, or the new AM/FM/cassette deck coming from AudioMobile, your tape player will have at least a few watts of amplifier power available. See if that's enough before you invest in a booster amplifier; you can always add the booster later if you need it. But try to get a demonstration of a more powerful system too, for comparison.

The trend in tape players is increasingly toward AM/FM/cassette combinations that fit into your dashboard's existing radio cutout. Installed there, they're less visible to a potential thief (especially the models whose tape slots are covered by swing-away tuning dials) and somewhat harder to remove. They're also easier to feed tapes to—if your car's designer gave some thought to where he put the radio-installation slot, that is.

Concerning the trend toward cassette units, the arguments in favor of it are nearly overwhelming—but not quite. The main advantage of cassette over eight-track cartridge is its versatility. If you have (or plan to get) a cassette deck at home, you can swap tapes between your home and car at will. And though you could record your own programs on an eight-track cartridge deck, it's far easier with cassettes where you don't have to worry about taping into segments that will fit between track-change breaks. With cassettes, you can also tape classes and business notes on a pocket-size recorder, then review them as you drive with your car's tape deck. There are some units that let you pick up a microphone and tape your thoughts as you drive, including models from Sanyo, Blaupunkt, and Becker that let you tape stereo FM programs from their built-in tuners. Also, you can buy a bracket that holds Uher's CR-124, 134, and 210 portable stereo recorders. It connects them to your car's battery and—via a control unit on the bracket—to a matching power amplifier that is included in the package.

For a cassette unit that matches eight-track's convenience of music that goes on until all tracks are played without requiring any action from you, you have to pay \$40 or \$50 extra for automatic reverse. On the other hand, cas-

THE COMPONENT APPROACH—IS IT BEST?



CAR stereo components, like those for the home, come in separate units or in integrated combinations. Which is the better bet?

Some of the arguments are the same as those for components versus compact combinations in a home system: combinations cost less, take up less space (especially important in a car), and simplify operation by eliminating redundant controls. Separates let you update part of the system whenever

new technology or wear and tear dictate without forcing you to throw out the whole system and start over (and technology seems to be moving faster in car than in home stereo). And separates also let you send one unit in for repair while you keep on listening to the others.

But there are a few arguments that pertain mostly to the car. Combinations can be installed in your dashboard where they're less likely to be stolen (though a determined thief can inflict some expensive damage if he tries to get them anyway). Separates let you move an under-dash tape player from your old car to your new without having either to lower your old one's resale value by stripping its radio or lose the value of your tape player by trading it in with the car. Under-dash tape or radio units can often be removed readily for use or safekeeping elsewhere. And the service problem alluded to above can be quite serious in an integrated unit that combines AM, FM, tape, and perhaps CB in a unit the size of an overstuffed sandwich which then alternately bakes, freezes, and gets shaken like a cocktail.

ettes give you *real* fast-forward (eight-track "fast forward" is only about double normal speed) and rewind. Thus you have instant access to any desired spot on the tape: pop listeners can go straight to the song they want (though it would help if all car-cassette units had digital counters), and classical listeners can easily re-start a symphony from the beginning instead of from the point where the tape last stopped.

Classical tape material seems to be in better supply on cassette than on eight-track (although in pop it's still the other way around). And since the cassette market seems to be strongly hi-fi oriented, sonic improvements are likely to show up in cassette tapes and equipment first. Cassettes are smaller, too, for easier storage, and they are less likely than cartridges to jam. But, on the other hand, at least some cassette-deck mechanisms seem to be less reliable than eight-track units.

One final thought: discrete four-channel tapes continue to remain available in the eight-track format, and machines to play them on are sold under a number of brand names. Nonetheless, eight-track—once dominant—is expected to cede half the market to cassette this year.

• Radio •

Tape lets you listen to the music of your choice when you want it, it comes without commercials, and it doesn't fade as you get further from the station. But it can't do everything.

Radio can bring you current news, traffic reports, ads for local shopping when you're in an unfamiliar area, and music that you didn't bring along and therefore haven't tired of yet. And there's little question that you should get both AM and FM. With its longer wavelengths and its many clear-channel stations, AM can carry much greater distances than FM. And there's more news, sports, and talk on AM. But for high-fidelity music, FM is unsurpassed, with far less static and distortion and with a wider frequency range than AM. Also, FM has stereo and fades less when you go under bridges or through underpasses. Besides, there's a lot of music and even a bit of talk you'll hear only on *that* band.

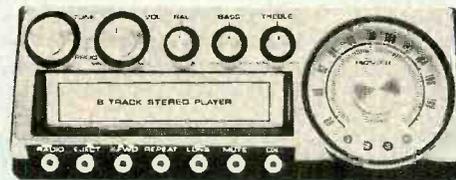
For either band, easy tuning is doubly necessary in a car radio. Since you're moving out of range of some stations, you'll need to tune more often, and since you're usually driving at the same time, you have less attention to spare. So the first requirement of a good car radio is a dial that is reasonably readable at a glance. (Heath's FM-only tuner kit has one of the better

A SAMPLER OF EXTREME TEMPTATIONS



Preamplifier of the Uher CR 200 (power amplifier not shown) and CR 134 recorder.

Motorola's TC876AX AM/FM plus cassette unit designed for in-dash installation.



The Pioneer TP-900 "Supertuner" contains an eight-track or cassette tape player.

Superscope's CA-20 has AM, FM, and a cassette player with both fast forward and rewind.



The unique "cobra-head" control module for Blaupunkt's "Berlin" model multi-band radio.

The ADS/Nakamichi 2002 system provides exceptional cassette playback performance.



ones.) The second is some sort of tuning aid to make that dial unnecessary most of the time. The commonest such aid is a row of pushbuttons that can be preset to bring in your favorite stations. In the more expensive radios, you'll usually find five buttons that can be tuned so that each will summon up one AM and one FM station, or ten stations total. Next most useful are buttons that can be set to any combination of five AM or FM stations. Then come the sets which dedicate some buttons just to AM stations, others just to FM.

Pushbuttons are most useful when your trips all lie within the same area, even if it is a large one (I knew a salesman once whose FM buttons followed the Concert Network throughout his New England route). For travel into unfamiliar areas, though, signal-seeking automatic tuning is an even greater help. All you do is push a button and a signal-seeking radio will look for the next strong station on the dial, then

lock it in until you either tell it to hold that station or to move along and try the next. Signal-seekers are available from Delco (factory-installed on GM cars only), and from Becker, Blaupunkt, and J.I.L. But with the exception of the \$1,200 Blaupunkt "Berlin," which has six station presets on its goose-neck-mounted remote-control module, car radios have either signal-seeking or pushbuttons—not both.

If your car has stereo, get stereo FM. But look for a set with a manual stereo/mono switch. Any radio will automatically switch to stereo when the signal is strong and clear, or mono when it isn't (for reduced noise and distortion). But when you're skirting the fringes of a station's stereo signal area, hearing the radio switch back and forth between clean mono and degraded stereo can be very annoying; a mono switch will prevent that.

Tone controls in most car-stereo units usually consist only of a treble-cut control: turning the control to the left may seem to give you more bass, but what it really does is give you less treble. Turning it all the way to the right restores nominally flat response. Separate bass and treble controls are better, even if they only turn down

their respective ranges; controls with both cut and boost are better still. More elaborate controls, including separate bass, treble, and mid-range controls, are available in some car amplifiers, and Clarion has a 15-watt-per-channel amp with a built-in five-band equalizer.

WHAT with equalizers, multi-way speaker systems, bi-amplification, high-power amplifiers, electronic tape-speed controls, and vastly improved FM tuners, the list of home-stereo techniques used in the car gets longer every day. But perhaps the most significant incursion of component ideas has been in the realm of specifications. Slowly, first with car amplifiers, and now with Pioneer's Supertuner FM series (which lives up to its name), units are appearing whose specifications can be compared with those of home units. And as that happens, more and more such units will bear up well under the comparison. All in all, it sounds good for the road. □

Ivan Berger, who has written widely on audio subject matter, was recently named senior editor of STEREO REVIEW's more technical sister publication, Popular Electronics.

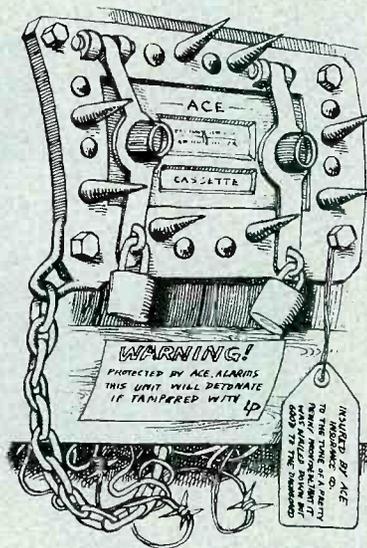
THEFT: HOW SAFE IS YOUR STEREO?

WHILE I was writing this piece, my CB and an Audiovox converter that added TV sound to my car radio were stolen from my car. My tape deck and my radio weren't. I accept the blame for the loss, but I also take full credit for what was saved.

In the first place, my car was on the street, not locked in the garage, and I'd forgotten to lock the door on the passenger side, so getting at the stuff was easy. I'd left my CB antenna up, a fairly sure tip-off that there was a CB radio inside to be stolen, and though I had removed the CB from its slide-in mount, I hadn't locked it in the trunk, just hidden it from view beneath the seat. The TV sound converter, normally bolted beneath the radio where it looked like a permanent fixture, had broken free of the plastic under-dash panel it was fastened to and was lying loose on the floor, so it looked like easy pickings.

How did I manage to keep my radio and tape deck? The first was firmly mounted in the dash—too much trouble to steal. And the second was in the trunk, where no one would even know I had it.

There are some obvious conclusions to be drawn: whatever isn't mounted in the dash should be removed from the passenger compartment entirely and stowed where a thief isn't likely to find



it (in the trunk or inside the house). Signs that you possess electronic goodies should be concealed as much as possible: CB antennas, microphones, and tapes should be stored in the trunk. You should also keep your car locked, and in the safest place you can find.

Don't trust in lock mounts to keep your stereo safe if it is in plain sight. Some mounts are easy to break into;

most are easy to break loose, and a thief who does that is likely to damage your car as well.

What about insurance? Most companies who used to cover sets under the "comprehensive" sections of their automobile policies have recently excluded them and now offer separate coverage for about 10 per cent of the unit's worth each year. These policies apply only to units "permanently installed" in cars, which, according to agents I've talked to, means either in-dash units or those bolted under the dash. Units on slide-in mounts are not covered, even if you've hidden them in the trunk or taken them into the house (where they're not covered by homeowners' or tenants' policies either).

So insurability is another plus for in-dash units—if you want to pay the extra cost of the insurance. But I think I'd prefer a removable stereo, which I can probably prevent from getting stolen, to an under-dash one whose theft is more likely, though it is more insurable. Whether you will make this choice depends on how likely you are to remember to hide the set each time you park the car and whether you prefer the sure but minor nuisance of removing the set to the possible major nuisance of having it stolen and waiting for your insurance company's check.

NOW ONE TAPE GIVES YOU THE PEACE AND QUIET OF THE CHROME POSITION. WITHOUT THE HEADACHES.



Use TDK SA in the chrome position and you'll hear a lot less noise and a lot more sound.

Ordinarily, using the chrome position results in a decrease of anywhere from 4 to 5 dBs of background and tape noise. Of course, that's not a problem. It's a blessing.

The problems, or rather the headaches, begin with your choice of tape.

If you used any normal range bias ferric-oxide tape in the chrome position, you'd sacrifice a significant amount of high-end signal.

If you used chrome tape in the chrome position, you'd sacrifice something else. What you'd wind up hearing was weaker low- and mid-range dynamic response and more distortion.

But with TDK SA you don't have to sacrifice a thing.

You see, TDK SA is the first

non-chrome tape compatible with chrome bias/equalization. Unlike any ferric-oxide-based tape, it gives you superior high-end performance.

Unlike chrome, it gives you greater dynamic range at low- and mid-range frequencies with far less distortion.

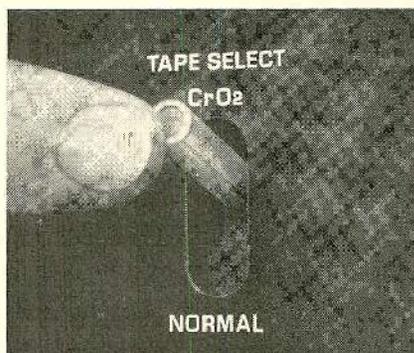
In fact, SA used in the chrome position will put you in a better position to hear your system with brilliance and clarity that you've been missing with other tapes.

You won't get headaches from TDK's Super Precision Cassette shells either.

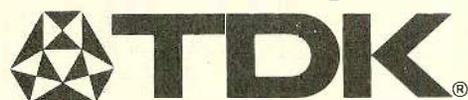
In addition to making what is probably the world's finest cassette tape,

TDK makes one of the world's most advanced cassette shells. It's precision-designed to prevent uneven winding, jamming, and tangling, to assure perfect head touch, to eliminate oxide shedding and dropouts as well as wow and flutter. That's why you hear your tape loud and clear.

Try TDK SA in the chrome position. You'll like the peace and quiet.



The chrome position on the tape selector is designated differently on different machines: CrO₂, Chrome, Special, SX, Position 1, High or 70 μ s.



Wait till you hear what you've been missing.

TDK Electronics Corp., 755 Eastgate Boulevard, Garden City, N.Y. 11530. Also available in Canada.

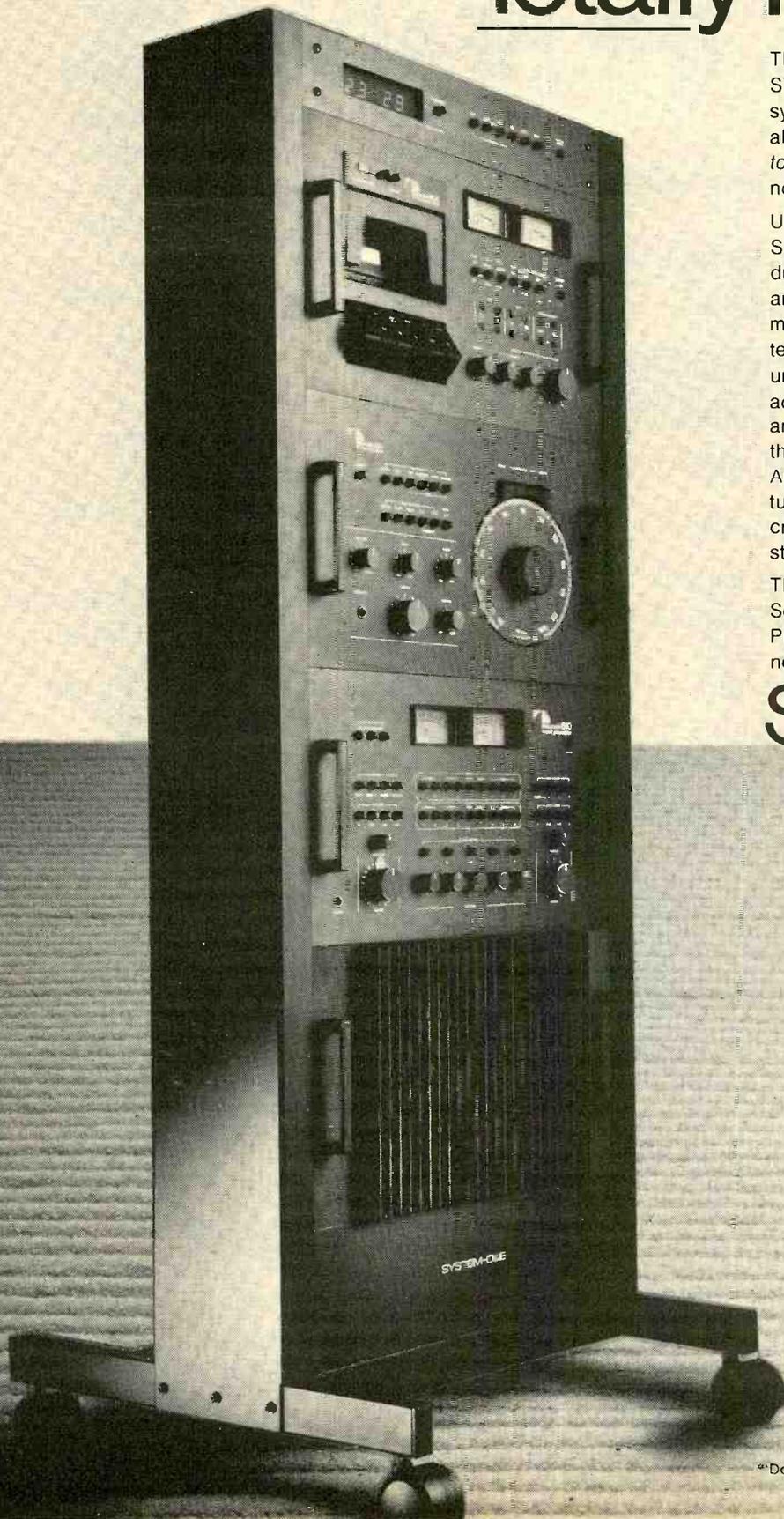
Totally Nakamichi

The Nakamichi 600 Series components and the SYSTEM ONE rack bring a new approach to system high fidelity—a bold concept distinctly ahead of its time. Performance and quality are *totally* Nakamichi with standards of excellence not likely to be matched for years to come.

Unlike professional rack-mounted equipment, SYSTEM ONE is compact, slim, decidedly non-industrial in appearance, and fits comfortably into any decor. The specially designed rack features a multipurpose digital timer that augments the system's inherent versatility by providing several unattended automatic functions. Immediate rear access greatly simplifies intercomponent wiring, and thanks to four heavy-duty precision casters, the rack easily glides anywhere. Plug it into any AC outlet, hook up a pair of loudspeakers (and a turntable, if desired)—almost instantly, you've created a complete and incredibly impressive stereo system.

There are four superb components in the 600 Series: the 600 Cassette Console, the 610 Control Preamplifier, the 620 Power Amplifier and the newly introduced 630 FM Tuner Preamplifier.

SYSTEM ONE



...any way you look at it.

The 630 is the unusual and versatile combination of a state-of-the-art preamplifier and a highly advanced FM tuner. The preamp section features outstanding phono circuitry, tone and variable contour controls, tape deck monitor and copy facilities and a high-output headphone amplifier. The FM section utilizes an elaborate hand-wired MOSFET front end, low phase shift IF filters, and an extremely stable phase-locked-loop multiplex demodulator. There are also switches for FM Dolby[®] and narrow/wide filter selection. Precise tuning indicator lamps and the large-scale, balanced vernier dial make station selection a breeze. The amazing thing is that the 630 is available at a price that you would normally expect to pay for such a fine tuner or preamp alone. It can be connected directly to the 620 Power Amplifier, or, if your needs so dictate, used in conjunction with the 610 Control Preamplifier.

Of course, you can get your Nakamichi act together without the SYSTEM ONE rack. Each of the 600 Series components is a study in human engineering; their gracefully sloped panels make them ideal for table or shelf placement.

CIRCLE NO. 34 ON READER SERVICE CARD

Your particular system can be precisely the combination that best suits your needs. Start with the 600, 620, and 630—a formidable trio of no-compromise performers. A 610 can be added for increased programming flexibility, or a second 620 (with the optional Bridging Adapter) for greater power requirements.

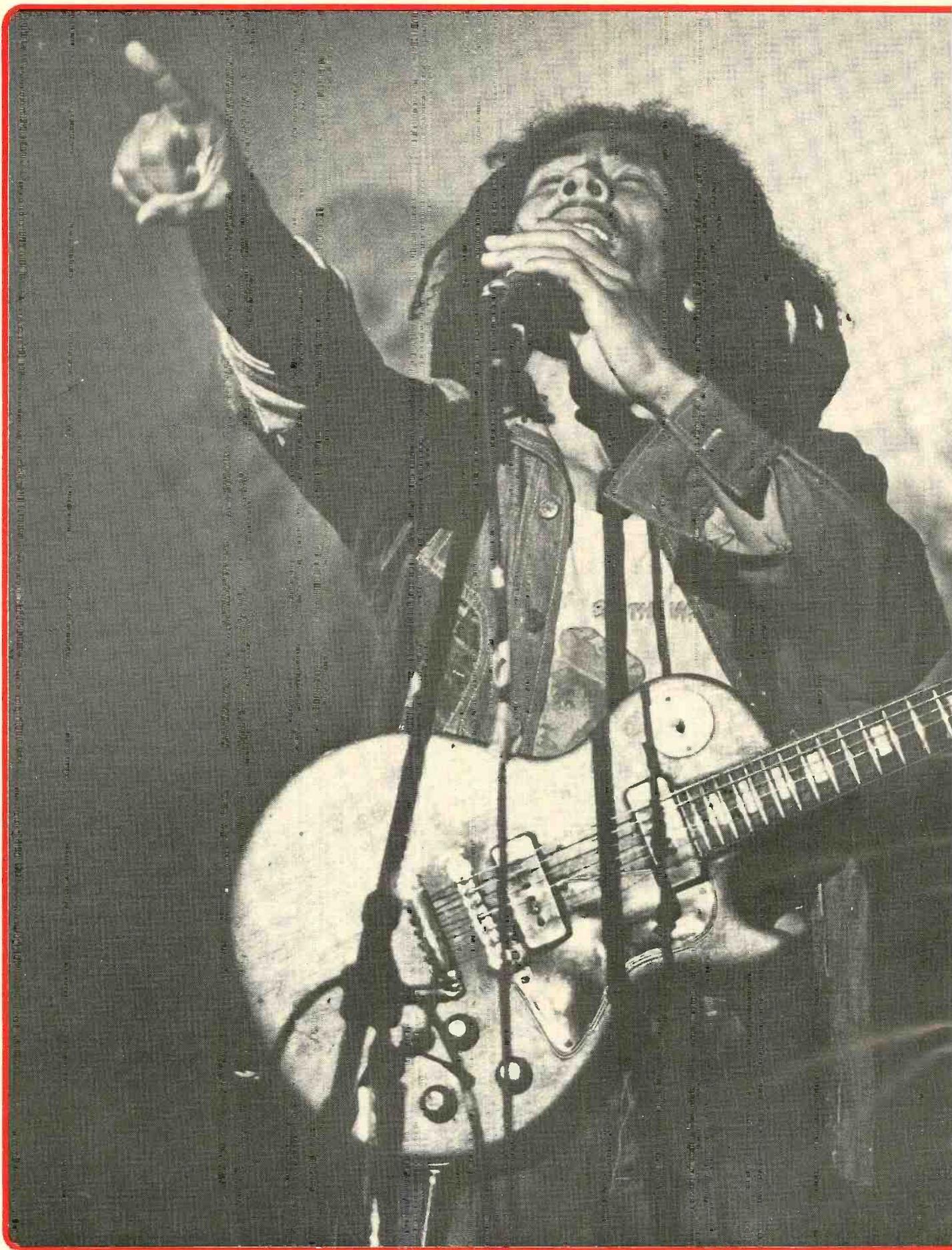
So take your Nakamichis standing up or lying down. Either way, you have components that make a lot of sense by themselves, and even more together. Your Nakamichi dealer will be proud to give you a demonstration.

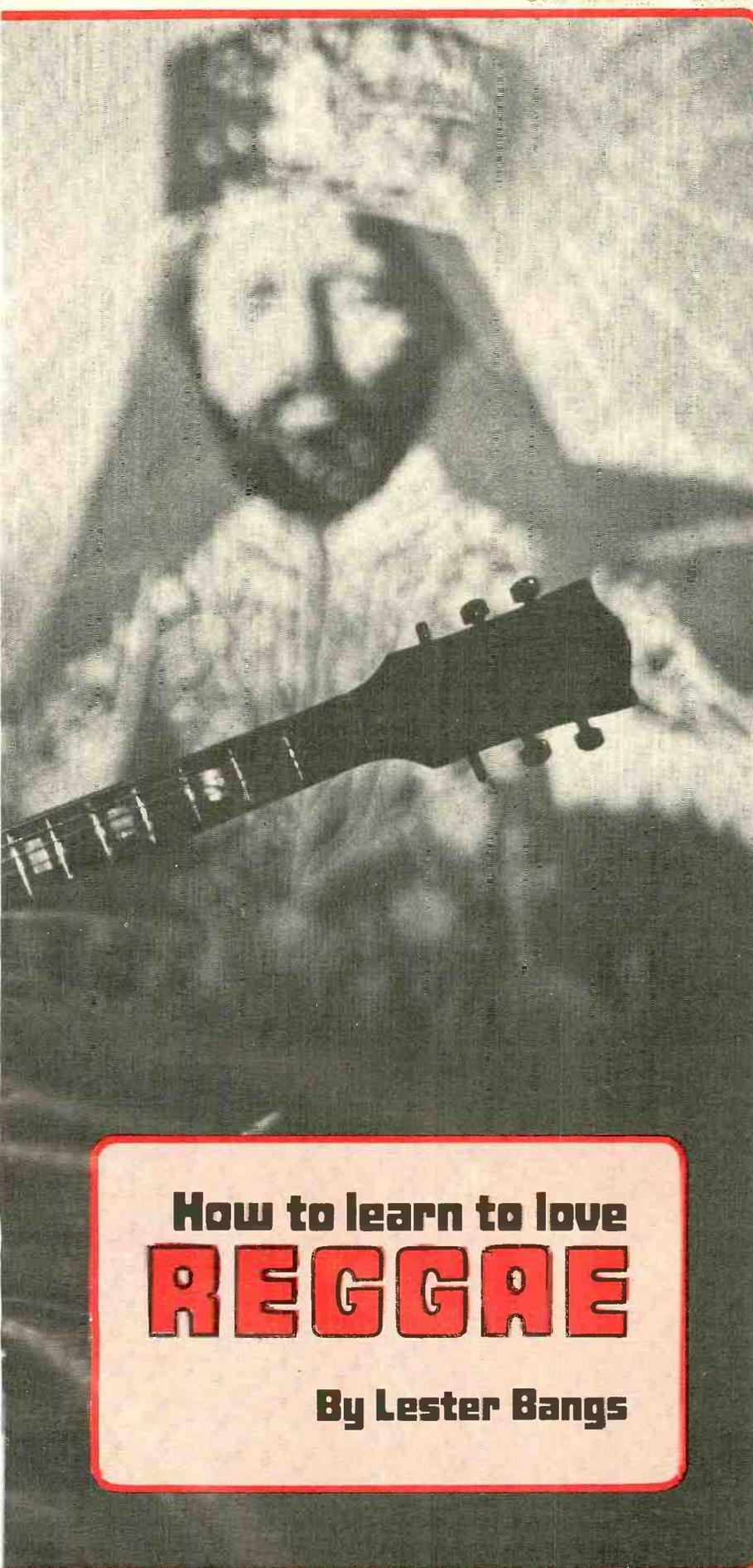
For complete information, write Nakamichi Research (USA) Inc. 220 Westbury Ave. Carle Place, N.Y. 11514.



Nakamichi







How to learn to love **REGGAE**

By Lester Bangs

*Marcus Garvey words come to pass
Can't get no food to eat
Can't get no money to spend. . . .*

THESE lines from the title song of the album "Marcus Garvey" by Winston Rodney, also known as the Burning Spear, have nothing to do with you. They have nothing to do with me either. They have to do with a bunch of pot smokers down in Jamaica who have invented the quasi-political religion called Rastafarianism, which posits the dogma that the late Haile Selassie, Emperor of Ethiopia, is (was) God, that Marcus Garvey was his prophet, and that pretty soon God is gonna do a Second Coming and take all black Jamaicans back to Africa on Black Star liners.

But you already know about all that, for by now you have already read, skimmed, or passed up most of those ten thousand articles celebrating Bob Marley as some kind of Mick Jagger with spiritual overtones and outlining in unscrupulous detail the religion that put him in the Top Forty. It is therefore only fair to warn you that this article is not going to be about Bob Marley, Haile Selassie, or Marcus Garvey, but if it succeeds in its purpose it *will* take you to armchair Ethiopia. This article is being written first of all on the assumption that, whether you are white or black, you have lots of money to spend (which is only one of the reasons the Burning Spear lyrics quoted above have nothing to do with you), and on the further assumption that you bought "Rastaman Vibration" or at least have a certain amount of curiosity about all this reggae jive and are wondering where to go to satisfy it. Since, as with practically any other musical idiom, a great many reggae albums are terrible, I will tell you which ones are not and help you to navigate through the floodgates of vinyl product that the commercial success of "Rastaman Vibration" has opened up.

I have already declared that Rastafarianism, Marcus Garvey, and all the rest are irrelevant, since if you are white you are automatically excluded, and if you are black I doubt that you are dying to hotfoot it to Africa, where

Left, Bob Marley, the man who made reggae and (it might be argued) Haile Selassie (represented in right background) famous.

REGGAE

you might, for your innocence, end up as a crocodile's lunch. But reggae, the musical form that came out of all this, is fascinating, hypnotic, multifaceted (contrary to the claims of its critics), and startlingly beautiful *once you get it*. It is not the laid-back, coconut-clonk, ricky-tick redundancy it might at first seem; it brims over with passion, love, rage, pain, anguish, and joy, just like the best of all music. And though most American listeners don't "get" it at first exposure, perceiving it and even becoming addicted to it are not at all the artificial, hip-liberal-motivated processes you might think. Hell, when I finally began to dig reggae myself I discovered that it had taken me so long only because I didn't particularly dig Bob Marley, whose music was all I had been exposed to.

That is one reason I'm not going to talk about any of Marley's work here. Another is that there is simply too much fine reggae coming out of other artists who have received considerably less hype, and space is limited. Assuming that the average listener finds reggae moderately to totally inaccessible, I will try to take you through seven stages of acculturation, beginning with music very close to American soul and ending up in the primeval African mud and a haze of cannabis fumes. Wherever you choose to stop down the line depends simply on your level of tolerance for the (to normal American ears, anyway) musically *outré*.

One problem with presenting reggae

to an LP-oriented American audience is that this music is almost totally singles-oriented in its homeland. On albums, reggae artists, like so many Bo Diddleys, tend to repeat a hit formula until it keels over and dies, resulting in whole disc sides that are deadly dull. But my job is to steer you clear of such quagmires; this is a directory of the *good* stuff. The jadedness of music critics is legendary, so if it turns *me* on it ought to have you hopping for joy.

1. Anthologies

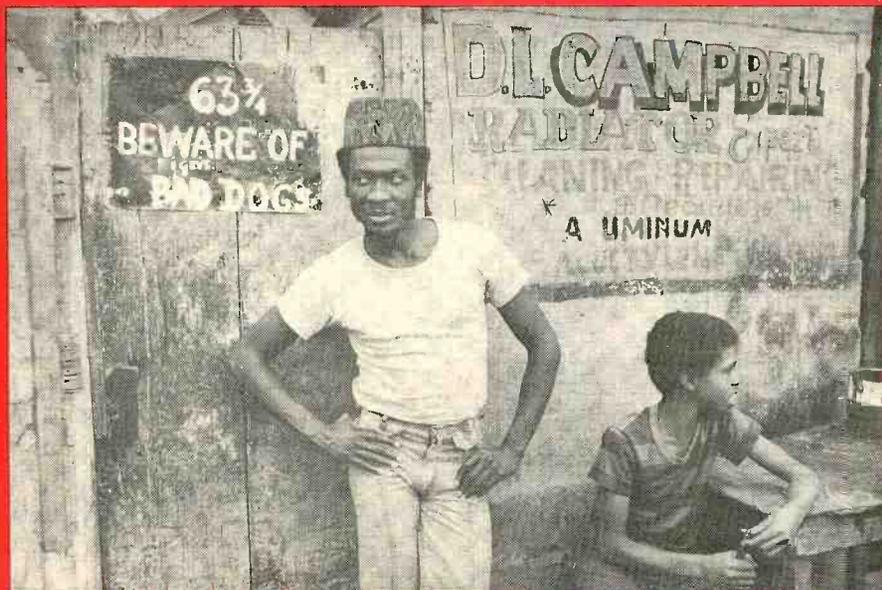
"... recommended for listeners whose musical curiosity has a tendency to outstrip their cash supply."

One answer to the problem of reconciling an LP market with a singles culture is, of course, the anthology, which ideally not only separates out the dross but also exposes you to artists who may have had only one or two great songs in them. Jamaica has the largest per capita weekly release of singles of any country in the world, so theoretically there should be an unlimited supply of satisfying reggae oldies and greatest-hits collections. There *are* probably more than anybody but a fanatic has time to listen to, but unfortunately a great many of them are unavailable in the United States, and the albums that are obtainable here are not always of equal quality. More than many other forms of music, reggae frustrates objective qualification—a record that most listeners would find impossibly murky or so deep into monotony-as-mesmerism as to be terminally boring will strike other, perhaps more hardcore, fans as the "real" Roots Music—maybe just because it *is* so murky and monotonous. This results in anthologies, both English and American, that are often as erratic as albums by individual artists.

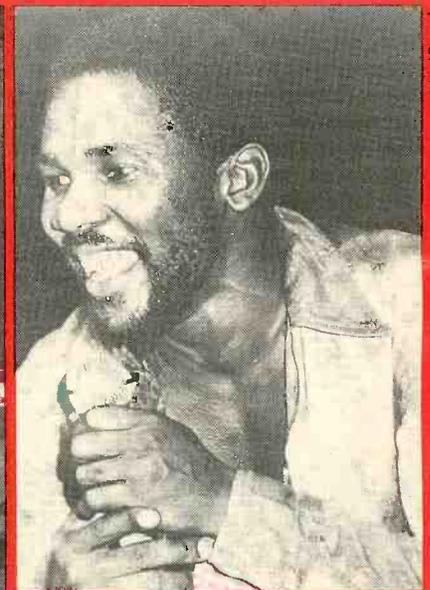
The reason for this, I suspect, is that

many record companies just buy up the rights to whatever they can lay their hands on and put it out on the off-chance it will sell—they have no real idea of how good (or how bad) any of it actually is. Even Island, which prides itself on being the white record company most sensitive to the nuances of black Jamaican consciousness and generally delivers the goods to prove it, still manages to give the feeling that they are not *quite* sure of the sales potential of much of what they are releasing. If they were, they'd probably promote it better. They don't seem to be able to decide whether to push the more commercial aspects of reggae or just settle for its being one of the strongest musical cults around. Their two samplers, Volumes One and Two of "This Is Reggae Music" (ILPS 9251 and 9327), mostly take the commercial approach, and while one could hardly call Third World's American-soul-infused *Freedom Song* or Arthur Louis' cover of Bob Dylan's *Knockin' on Heaven's Door* (with Eric Clapton accompaniment) the last word in Trenchtown roots music, both these albums are totally accessible, providing enjoyable listening for all but the most diehard aural reactionaries.

A better set, if you don't already own it, is the soundtrack from *The Harder They Come* (Mango 9202), the underground-classic reggae movie starring Jimmy Cliff, who leads off a collection of some of the very greatest examples of earlier reggae by several acknowledged masters. Some of the songs in this album—the Slickers' *Johnny Too Bad*, Cliff's own *You Can Get It If You Really Want* and *Many Rivers to Cross*, and the title tune—have already become standards. Certainly Cliff has never been as strong since this tour de force display of deceptively lilting Otis Redding vocal turns and street-tough lyrics, and every one of the other artists is equally compelling. "The Harder They Come" achieves total commercial accessibility without compromising its hard-won political principles or their religious base, nor does it teeter on the edge of the abyss of self-parody as so much subsequent topical reggae does. Convincing evidence in



JIMMY CLIFF; HONORABLY MENTIONED



TOOTS HIBBERT; INSTANTLY RELEVANT

support of the argument that reggae is the soul music of the Seventies (American soul having been all but decimated by disco), this album will stand as a masterpiece for years and should be the cornerstone of any reggae collection, serious or otherwise. Incidentally, it received an Honorable Mention in STEREO REVIEW's Record of the Year awards for 1973, and Cliff himself received another for his "Unlimited" album (Warner Bros. MS 2147) in 1974.

One of the best reggae anthologies I have ever heard is a three-record set called "Feelin' High" assembled by Don Williams of Shelter Records and originally released on the Columbia Special Products label only to the press, disc jockeys, and record-club members. Part of it, also selected by Williams, will shortly be available as a single LP disc under the title "Roots" on the Shelter label, but neither its exact contents nor its number-to-be are known at this time. What makes the three-disc set truly important (as well as a sheer delight) is that, although Marley and Toots are both present, the larger part of the material is by performers even more obscure than most of those on any of the albums already mentioned. There is simply no way to convey the somehow beatific sadness of Freddie McKay's *Sweet You*, *Sour You* in mere prose, or the way this one song impresses itself indelibly on the listener's sensibilities by transforming the condition of heartbreak into something very like a state of grace.

"Feelin' High" is also noteworthy for its inclusion of obscure early recordings by artists familiar to confirmed reggae fans. There is Marley's *Duppy Conqueror* in its original (superior) version, the first-day-of-summer motorcycle peelout of Prince Jazzbo's *School*, the ribald hilarity of I-Roy's *Flashing My Whip*, the Motown-influenced dynamism of *I Come from Jamaica* by the Black Eagles, and Desmond Dekker's 1969 U.S. hit *Israelites*, just to put it all in a little perspective. These three records make up the most diversified reggae anthology I've heard; they are long on musicality and short on the ecclesiastical didacticism that is per-

haps attractive to some listeners but probably puts many more off as boringly preachy. "Feelin' High" is the record that turned me into a reggae fan, so I probably have a soft spot for it; once you've heard it I think you will too.

An excellent anthology of more current reggae is "The Front Line," a Virgin Records sampler (VC-503) available on import at a price so reasonable you may suspect the quality of the product. Besides two beautiful cuts by the Mighty Diamonds, it has the very best songs from recent albums by U-Roy, I-Roy (no relation), Johnny Clarke, the Gladiators, Delroy Washington, and Keith Hudson. Most of those albums weren't very well sustained, but listening to "The Front Line" again just now I was struck by how vital and complementary to each other these individual songs sounded removed from the oppressive redundancy of their original contexts. These discs are especially recommended for listeners whose musical curiosity has a tendency to outstrip their cash supply.

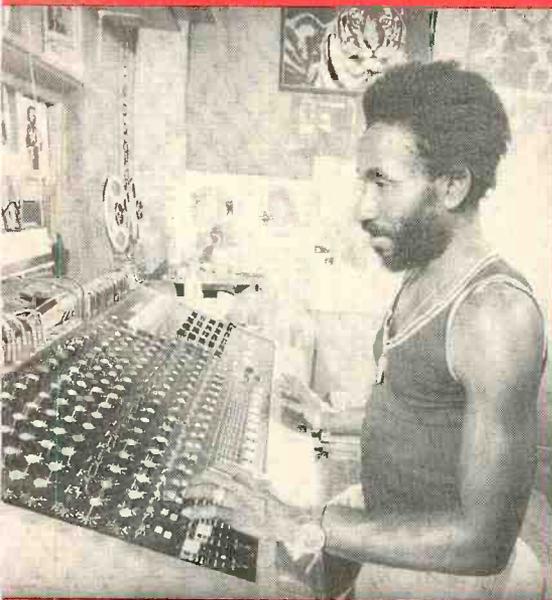
2. Toots and the Maytals

"... strikes the perfect balance between barnyard squawk and uptown strut ..."

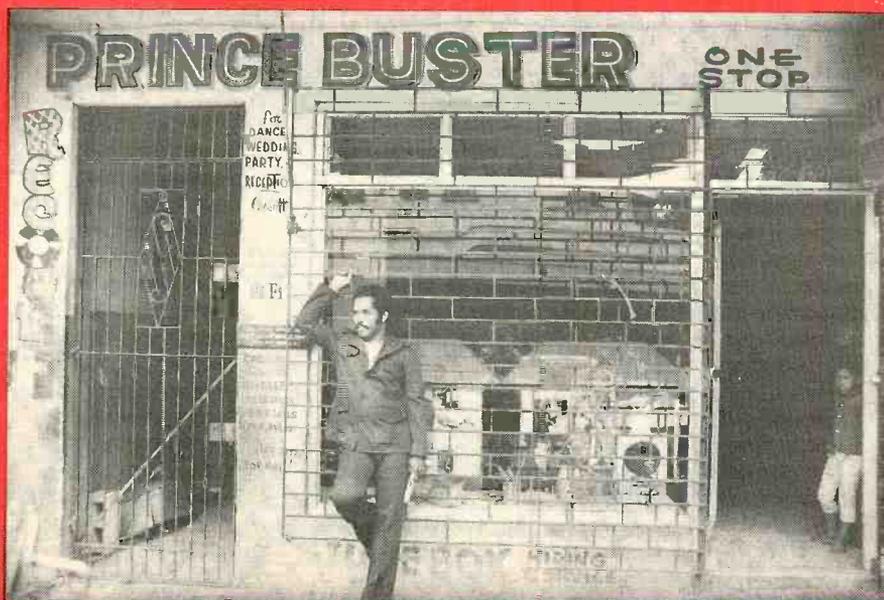
With his deep, groaning, bluesy voice and the relentlessly churning arrangements that support it, Toots Hibbert and the Maytals should be instantly relevant to anybody who grew up on American soul music of the Sixties. Like Jimmy Cliff, Toots has absorbed Otis Redding well, but his understanding of the message is grittier, more down-home, and, with an occasional James Brown edge to the rhythms, his music *rocks* more solidly than just about anyone else's in reggae. Some critics have labeled Toots negatively as an "old-fashioned" performer, but I can see that only as a compliment. Toots' music, far from the velvet insinuations of Cliff or

the supercool apocalypses of Marley, *cooks* in the flat-out, no-apologies-to-MOR manner of the great Stax-Volt sides of a decade ago. Add to this the fact that Toots has a real feel for pop music (he even recorded an audaciously brilliant cover version of John Denver's hit *Take Me Home, Country Roads*) and you can see there is ample reason why this man, perhaps the most dynamic reggae artist alive (on records, anyway) should be able to break through to the mass American audience.

Toots has lots of albums out in Jamaica, of course, though only two have been released so far here, both on Island. I find the second, "Reggae Got Soul" (ILPS 9374), a bit strained, although the title track is a classic. But "Funky Kingston" (ILPS 9330), his first American set (and a STEREO REVIEW 1976 Record of the Year award winner) is absolutely essential to any collection of *contemporary* music, let alone reggae. It contains the juiciest cuts from *two* albums released in Jamaica and Britain on the Dragon label—"Funky Kingston" and "In the Dark," which you can get from your friendly local import service if you don't like abridged editions; both are well worth the money. But the American "Funky Kingston" is perfection, the most exciting and diversified set of reggae tunes by a single artist yet released. Besides the revelatory reworkings of *Country Roads* and *Louie Louie*, it contains Toots' most unforgettable evocations of Jamaica—*Time Tough*, *Pressure Drop*, and the title song—all rolling along in the great, blustery, scalding-funk style that has become Toots' trademark. Toots' songs have a universality that many of his peers' odes to Jah Rastafari fall far short of, and the vocal backings of the Maytals as well as the instrumental work by the rest of the band are never less than vital. If you want more after that, there is some very early Maytals work available on import. Most listeners will probably find "Never Grow Old" a little too primitively raucous, but "From the Roots" (both discs on Trojan) strikes the perfect balance between barnyard squawk and uptown strut, and



LEE PERRY: GIFTED PRODUCER



PRINCE BUSTER: FORERUNNER

REGGAE

even includes a humorously gutsy version of *Give Peace a Chance*.

3. Prince Buster

“ . . . a wry, sly perception of the violence and oppression besetting Jamaican society . . . ”

I am probably going to get in trouble with white true believers in the primacy of the Rastafarian doctrine for this inclusion, but I figure if we're going to be in any way comprehensive in this thing, we should have at least one example of the music that immediately preceded the advent of reggae in Jamaica—the outgrowth of calypso known variously as Ska, Rock Steady, and Blue Beat. There is a lot of out-and-out calypso still available, but I imagine you got enough of that with Harry Belafonte. Anyway, from the Mighty Sparrow to Byron Lee (an old commercializer masquerading as a reggae artist) it's not very listenable stuff. The real Blue Beat, though, was as woolly a permutation of black American music as reggae, blessed not only with the r-&-b charge but with a plenitude of wit. Enter Prince Buster.

You have probably heard Prince Buster before. *Ten Commandments*, a hit in the United States and much of the rest of the world in 1967, was a prototype for most of his other work. It is characterized by a drivingly repetitive Latin riff over which Buster firmly (and with no little irony) declaims “The Ten Commandments of *man*, given to *wo-man*.” A diatribe of sexism so fanatical it becomes a form of burlesque, it abounds in such gems as Commandment Seven—“Thou shalt not shout my name in the

streets if I am walking with another woman, but wait intelligently until I come home, then we both can have it out decently”—and Commandment Ten—“Thou shalt not call my attention to anything that may be for sale in any stores, for I will not give thee anything but what you actually need for your purpose.”

At his best, as in *Earthquake* and *Judge Dread*, Buster combines his talent for aural cartoons with a wry, sly perception of the violence and oppression besetting Jamaican society, themes that would come to fruition with the flowering of reggae. All the songs mentioned here can be found on a wonderful Melodisc import called “Prince Buster: Fabulous Greatest Hits” (FAB MS 1).

4. The Mighty Diamonds

“ . . . they look like they just got out of prison only to be conscripted by the SLA. ”

In the work of the Mighty Diamonds we encounter not only solid, mainstream reggae but the fulfillment in blood and tears of Buster's caricatures of bullet-riddled turmoil. The songs titles alone testify: *Why Me Black Brother*, *Why?*, *Gnashing of Teeth*, *I Need a Roof*, *Go Seek Your Rights*. Like the blues, this is music issuing directly from conditions of squalor and oppression so extreme that white listeners may not be able to resist disbelief in some of the lyrics, while black Americans may find them a bit embarrassing in their candor.

There is obvious danger of self-parody in this stuff, as there is in much Rastafarian reggae, but even if you couldn't care less about the subject matter, the musical setting is so rhythmically provocative and downright beautiful that you'll find yourself forgetting all about the socio-political baggage and just flowing with the mesmerizing sound. The Diamonds are built on a classic vocal-group sound: the alternately supple

and urgent lead tenor of Donald Sharpe meshes perfectly with the almost whispered exhortations and lovely, fluid Smokey Robinson-like falsetto harmonies of Fitzroy Simpson and Lloyd Ferguson to create some of the most heartbreakingly lyrical sides in all of reggae. The gentle lyricism works in precise counterpoint both to the militancy of the lyrics and the tense, choppy percussive piano and guitar. In their green army-surplus fatigues and red berets, their faces stoned, cold masks of hostile appraisal, the Diamonds look like they just got out of prison only to be immediately conscripted by the SLA. If the central subject of all the best Rasta reggae is the paradox of the velvet knife, as many of Bob Marley's followers assert, then the Diamonds may be deemed master assassins. Anybody who has ever swooned to Smokey Robinson will welcome the blade. Album: “Right Time” (Virgin PZ 34235).

5. Burning Spear

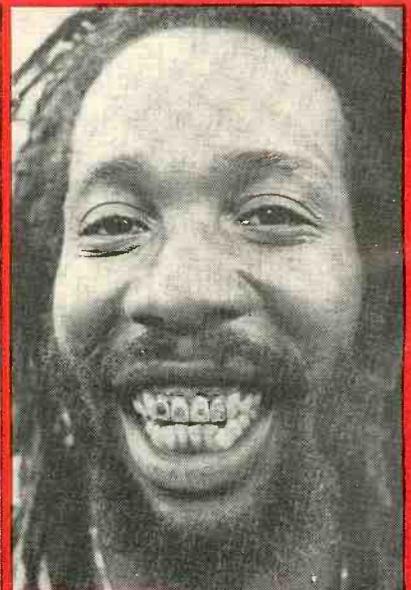
“ . . . a group that even many professed reggae fans find boring, or too laid back, or too something. ”

Now, true to this piece's already stated spirit of gradually increasing obscurity, we enter the realm marked “Not for Everybody.” You're on your own from here on out—there'll be no more handholding and one-toe dipping in those currents of reggae more amenable to infidels, so if you don't like any of the records discussed henceforth, don't come crying to me.

Burning Spear is a group that even many professed reggae fans find boring, or too laid back, or too something. I find them utterly hypnotic, a slow vortex of spiraling rhythms, tidal horns, and sedimentary piano over which Rupert Willington and Delroy Hines wave sad, brooding harmonies that sway like looming kelp behind Winston Rodney's sinuous, plaintive, hauntingly



THE MIGHTY DIAMONDS: HEARTBREAKING LYRICISM



BIG YOUTH: DUB'S BEST

primitive chants which alternately telegraph or painfully cry out tribal philippics, painting stark images of slave ships and shackles around the legs.

See?

Burning Spear's music is so personal to me it's almost embarrassing, partly because I suppose they really *aren't* the most quietly powerful sound in years or more people would be into them, partly because I'm white, after all. I've never been one for indulging in liberal guilt, so it seems just a wee bit anomalous that I should become so lost in and entranced by these little slices of black history originally addressed to such a specific and ultimately foreign audience. It is partly Jack Ruby's production and partly the magnificent band employed that make "Marcus Garvey" (Island 9377), Spear's first Island album, so intensely evocative that you can drift away from yourself and general external awareness in the magnetic currents of the music. But there's more than technical genius and picturesque fligree at work here. Winston Rodney is a kind of folk-historian/sociologist/poet, and it is his vision and his overriding sense of mission that finally make this music so powerful, so troubled and troubling for listeners of any cultural or ethnic persuasion. When he sings about Marcus Garvey, he's not just brandishing a name that by now has become a reggae cliché, but telling the story of a man.

Like all great artists, Rodney is continually interested in moving on, transcending the statements he's already made. The result is that, although the basically tribal melodies are almost identical, the subject matter in the "Marcus Garvey" follow-up, "Man in the Hills" (Island 9412), has changed. Where the earlier album dealt with black history and figures like Garvey and Jamaican Prime Ministers Bustamante and Norman Washington Manley, "Man" concentrates on present-day Jamaican family life in rural villages and Trenchtown shacks. I find the earlier disc more moving by far, though whether that's because of subject matter or the limited nature of Rodney's melodic materials is open to question. Don't miss

"Marcus Garvey" if these descriptions spark you at all, and if you find in the record the same wealth of feeling and musical artistry that I did, then pick up "Man" as well as "Garvey's Ghost" (Mango 9382), a mostly instrumental dub version of the first album that makes tremendous background music.

6. Dub

"... the bass notes in some dub records are enough to blow out your speakers ..."

Dub is one of the most fascinating and, to many non-Jamaican Caucasian ears, most comprehension-frustrating forms of reggae. An audacious innovation comparable to putting the beat on *two* instead of on *one* (the basis of all reggae), dub may also be this music's one truly revolutionary contribution to the technology of recorded sound.

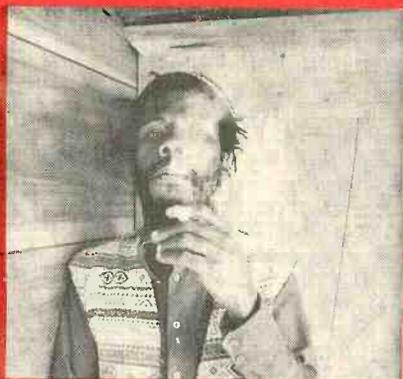
Certainly one cannot remember a previous instance in the history of the phonograph when artists routinely took records by other people, overdubbed their own interpretations of the basic track, and then released the product under their own names. Dub originated when Jamaican record companies began filling the flip sides of singles with "versions" of the A sides that usually consisted of the vocals almost entirely mixed out and the rhythm tracks mixed up through a lava-haze of reverb. The result, as might be imagined, is fairly strange—a snatch of a barely comprehensible vocal hissing in and out like a quick draft from a door opened for five seconds and then slammed shut, then a seemingly endless stretch of guitars and piano vamping submissively to a metronomically unvarying beat which itself becomes something very like the star of the proceedings. Nobody solos—the track just clacks along in this molten rigidity until it runs out, and, as with the A sides, the endings are often abrupt.

The innovation came when producers,

technicians, and artists in Jamaican studios devised a sort of jive-spieler's vocal counterpoint to the remixed versions, overdubbed the result, and released it. It was perhaps natural that such recordings should become hits in Jamaica—after all, they sounded like recent hits because, at least instrumentally, they *were*—but they have remained something between an unlistenable curiosity and a druggies' cult in America.

One of the earliest and still-surviving dub artists was I-Roy, whose *Flashing My Whip* is a highlight of the "Feelin' High" anthology. The record he was dubbing opened with a Mills Brothers-type vocal group crooning with almost ludicrous sweetness "Yoooo, and your smiling face," over which I-Roy suddenly barged, booming his insinuations: "Flashin' my whip, flashin' my whip! We gotta move, we gotta move!" It was a great comic moment. Since then, I-Roy has released five stunningly dull albums in Jamaica and Britain on which almost every cut sounds the same. I have them all, never ever play any of them, and have no idea why I keep them, except that an artist who holds on being this boring for this long must be respected for an eccentric persistence that borders on the avant-garde.

But I wouldn't be going on at this length if I didn't feel dub was worth your while. For one thing, rest assured that there is absolutely nothing like it anywhere else; also, dub records are just beginning to be released in America, so you might as well know what you're up against—one of these days a new purchase may make you think there is something wrong with your record player. Certainly it is the most violent-sounding form of reggae—the bass notes in some dub records are enough to blow out speakers, the mix can be hot enough to melt your stylus, and the whole sound is a kind of cacophonous clattering smog. This invests dub with more psychedelic properties than most other reggae, and in Jamaica there are large numbers of people so flipped out that they made best sellers of certain dub records that didn't even have the grace to bother with the vocal overlays. *(Continued overleaf)*



RAS MICHAEL: GARAGE REGGAE

All photos, with the exception of that of Toots Hibbert, are by Peter Simon. Reggae Bloodlines, a book by Mr. Simon (along with Stephen Davis) will be published by Doubleday in June.



THE GOOD HUMOR MAN, JAMAICAN DIVISION

REGGAE

Assuming that you haven't reached that point yet, I can steer you in the direction of some "artists" so accomplished at their curious and arcane art that their spaceouts may make better listening than the original records they've mutilated. Big Youth (a.k.a. Manley Buchanan) is a wildly dreadlocked hipster grinning insanely through jeweled front teeth. He usually wears a pair of reflector shades to go with these—and he is the best dub artist on the island. His records are truly entertaining because he brings not only broad wit and enormous verbal invention to everything he does, but a strong sense of pop music too. His best material can be found on "Dread Locks Dread" (Klik KLP 9001), where, as usual, he half sings, half talks the words in a voice midway between a choked cry and a hooting laugh, delivering as much a running commentary on the Kingston street scene as Rastafarian rant.

I recommend this album in the face of the fact that five of the eleven songs are the purest filler, dull instrumentals with a harmonica riffing over an indifferent rhythm section. The rest is magnificent, especially his apocalyptic dub of Burning Spear's title track from "Marcus Garvey" and *Train to Rhodesia*, a brilliant performance that opens with Big Youth singing "Is there always gonna be/One more bridge to cross?" and then cuts abruptly back with an overdubbed holler of "Black people, do we really really have to fight?" The whole leaps and swoops to the middle section, where the vocal from the original record sifts in and out, dancing in counterpoint to Big Youth's own loping verbal improvisations. The effect is nothing short of breathtaking, a dizzying play of rhythms not quite like anything else you've ever heard.

"Natty Cultural Dread" (Trojan TRLS 123) is a more consistent album, and although nothing on it is as instantaneously gripping as *Train to Rhodesia*, it's probably a better buy, especially for such smoldering slag-slugs as *Wolf in Sheep's Clothing* and *Hell Is for Heroes*. He sings more here, and the results range from the joyously catchy *Every Nigger Is a Star*, to so help me God, *Touch Me in the Morning*, which he does straight (I think). Big Youth's pop bent is even more pronounced on the recent and only intermittently successful "Hit the Road Jack," on which, besides reworking the title track, he makes demolition sites out of Jackie DeShannon's version of *What the World Needs Now* and Marvin Gaye's *What's Goin' On*.

All of Big Youth's records are imports; it doesn't look like any American company will risk him, although they have begun to pick up other dub albums with far less commercial appeal. The best is U-Roy's "Dread in a Babylon" (Virgin PZ 34234), a dense, dazing record that is nevertheless thoroughly enjoyable and as good a place to begin steeping yourself in dub as any. Beware, though, of the follow-up, "Natty Rebel" (also Virgin), which is uninspired.

Similarly, Island-Mango has just put out

two dub albums by Lee Perry, the most gifted producer in Jamaica. "Colombia Coily" (Mango 9386, listed as being by a mythical artist called Jah Lion) blazes for most of the first side and is fascinating for Perry's studio mastery, which includes particularly effective use of sound effects. Side two, in the grand reggae tradition, is all filler. The accompanying album, "Super Ape" (Island 9414, listed under the Upsetters), is almost totally unlistenable.

7. Ras Michael

"... if you think reggae is just a big thud-plod in the first place, you're not going to believe this stuff."

There is an element of drag (as in real slow plod) indigenous to all reggae. It's predictable when the rhythm is staggered this way. The best reggae uses drag propensities to suck the listener into the total drone and keep him hypnotized, but in less fortuitous circumstances it makes for astoundingly dull listening. One way or another, it's got to be dealt with, and one way of dealing with any challenge is to fling yourself headlong into it and *wallow*, which is probably why I love Ras Michael and the Sons of Negus so.

Ras Michael is one of the most interesting reggae artists in Jamaica by dint of the fact that in his music the element of drag has permeated so far as to be absolutely central. Though hand-drums aplenty go bip-bap all around a Ras Michael song, the music itself seems to have almost no momentum whatsoever but to be at a near standstill in a primeval African bog. Meanwhile, Ras Michael himself groans about Jah and Zion in a voice so flat and leaden it makes a mere Nico seem fleet and airy by comparison. I mean, if you think reggae is just a big thud-plod in the first place, you're not going to believe this stuff.

The most peculiar aspect of Ras Michael's music is its tromping, chantlike structure. Yet, glaringly modern sounds keep cropping up on his albums. Each of his three discs embodies this contradiction, and each is quite different. "Freedom Sounds" (Dynamic DYLP 3004) is the most primitive—the songs are long, groaning chants

and seem to have no motion at all. But out of this sonic morass, which you might call garage reggae, rise two electric guitars riffing in a manner unmistakably reminiscent of white American rock solo styles of the Sixties. The effect is like a prehistoric Grateful Dead, and though the lead guitarist, Earl "Chinna" Smith, is one of the most ubiquitous session guitarists in Jamaica, he plays like this only with Ras Michael—which must indicate something exceedingly odd about the musical personality of Michael himself.

"Tribute to the Emperor" (Trojan TRLS 132), by Ras Michael & the Sons of Negus with Jazzboe Abubaka (whoever the latter may be), embodies similar yet distinct contradictions. Again, the songs are ceremonially pedestrian hymns of praise to Jah, their non-Western character underlined by the fact that in this case many of the lyrics seem to be in some African tongue (Amharic?). Yet the musicians are allowed to take relatively extended solos, something that happens on all three Ras Michael sets but not many other reggae albums, lending a jazz quality to such instrumentals as *Jazzboe Abubaka at Large* and *Tribute to Rastafari* (sic), showcases for guitar and trombone which sound like something out of a *Peter Gunn* soundtrack. Also, in line with the "tribute" theme of the album, there is a stately, even ornamental quality to much of the music that is in direct contrast to the almost grim dogma of "Freedom Sounds."

The third Ras Michael album, "Rastafari" (Vircon VULP 005), is more commercial than the other two. Though still chantlike and relatively sluggish, the songs are upbeat by comparison. Some songs, like *None a Jah Jah Children No Cry* (a direct steal from Marley's *No Woman No Cry*) even have enough melody to be called catchy, and effective use is made of female back-up vocalists. I hear what sounds like a xylophone soloing in *Birds in the Treetop*, and *In Zion* is a fairly straight copy of the Drifters' *On Broadway*.

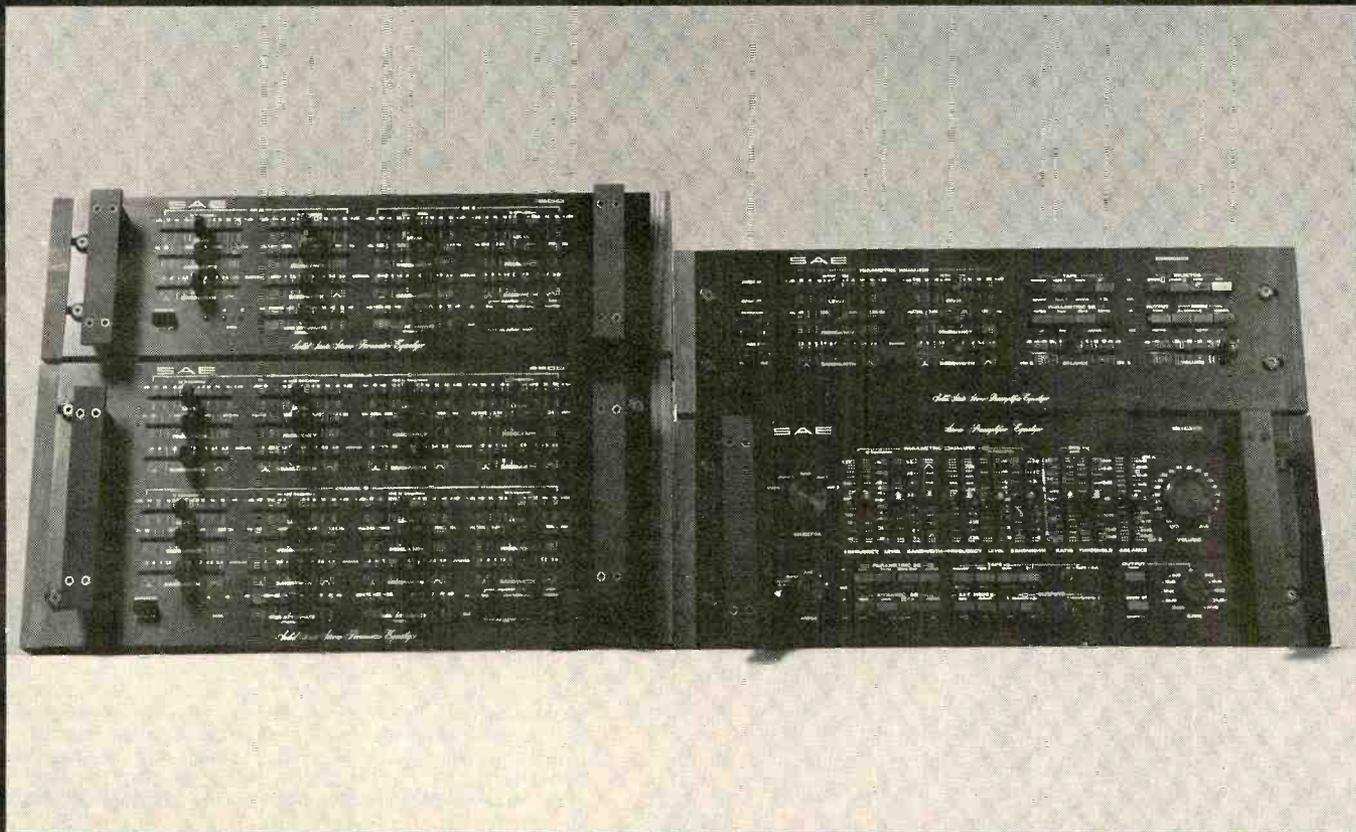
RAS MICHAEL's records, all imports, are some of the most unusual, even bewildering items I have heard in some time. I am not at all sure most people will find them particularly listenable, although in their reconciliation of musical polarities I find an experimentalism that makes them not only valuable documents but also highly appealing. This very quality, in fact—of having one foot in villages antedating recorded history and the other in jazz and electric rock—makes these discs ultimate statements of what reggae, behind the religious cultism and sociological interest, is all about. Today you can hear the entire history of black music coming out of that little island below Cuba, different genres and even eras thriving side by side. Given the political climate of the place and the fickle temperament of the larger pop audience outside its borders, there's no telling how long this boom will last or how big it will get (I suspect it will never catch on here in a big way). What is certain is that there has never been anything quite like this before, that it's far more diversified than it seems on first hearing, and that if you care at all about a living, healthy contemporary music you owe it to yourself to check it out. □

DEALERS

If your local record dealer is not into reggae yet, you might try the following import houses:

- Peters International, 619 West 54 St., New York, N.Y. 10019 (\$7.98 per disc including postage)
- The Discophile, 26 West 8 St., New York, N.Y. 10011 (\$6.98 per disc plus \$1.25 handling for orders under four items)
- Jem Records, Import Record Service, Box 343, South Plainfield, N.J. 07080 (\$6.49 plus 35¢ postage per item)

the SAE Revolution



Suggested Price: 1800 — \$300.00 (Top Left), 2800 — \$550.00 (Bottom Left), 2900 — \$450.00 (Top Right), 2100 — \$900.00 (Bottom Right). Cabinets shown optional at additional cost.

SAE has long been involved in the field of tone equalization. From our pioneering efforts in variable turnover tone controls to our more recent advancements in graphic equalizers, we have continually searched for and developed more flexible and responsive tone networks. From these efforts comes a revolution in tone equalization — the Parametric Equalizer.

Parametric Equalization, long a mainstay in the recording industry, is now available in SAE pre-amplifiers (2100, 2900) and as separate components (2800, 1800).

With the parametric, you can control not only cut and boost, as in the graphic, but also bandwidth and center-frequency. With this extra control flexibility, you can control *precisely* any problem or create any sonic effect you wish. Whether you need a .3 octave

notch filter because of room resonance, or a tailored bandwidth boost to bring out a hidden vocalist, the control flexibility of the parametric can fit these needs and many more. All of the products shown here offer the sonic performance and quality of construction that is typically SAE.

SAE

SR-4/77

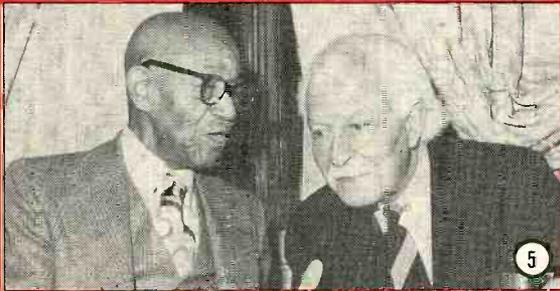
SCIENTIFIC AUDIO ELECTRONICS, INC.
P.O. Box 60271, Terminal Annex
Los Angeles, Cal. 90060

Please send more information on the SAE Revolution

Name _____

Address _____

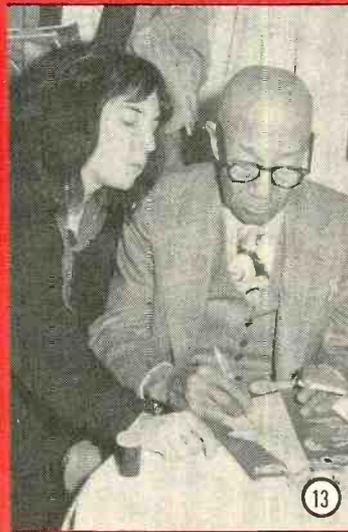
City _____ State _____ Zip _____



Stereo Review Throws a Party...

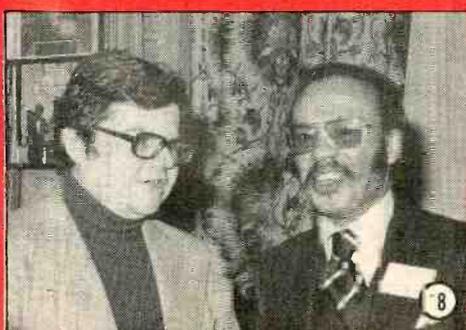
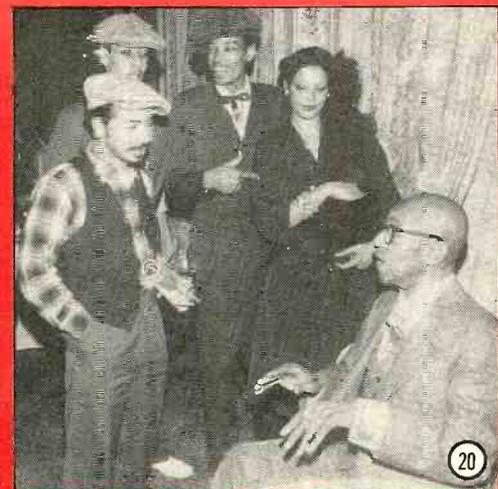
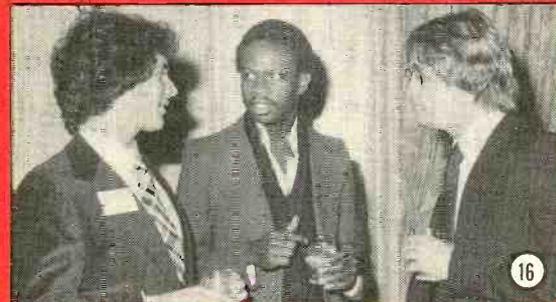
... to celebrate its Record of the Year Awards for 1976. There were twelve awards, twenty-six honorable mentions, and hundreds of guests. The First Lady of the American Musical Theater, Ethel Merman, presented the magazine's Certificate of Merit (for outstanding contributions to the quality of American musical life) to Arthur Fiedler, conductor of the Boston Pops Orchestra. Maestro Fiedler is shown being congratulated by (1) STEREO REVIEW's Publisher, Edgar Hopper, and (2) his daughter Johanna Fiedler, associate press representative of the Metropolitan Opera. (3) Miss Merman makes an emphatic point to the maestro. A builder of bridges between the worlds of popular and classical music, Fiedler chats with (4) harpsichordist Igor Kipnis and (5) no-raggenarian ragtime pianist Eubie Blake. (6) Award winner Southside





Johnny (right) and a hirsute member of his band, the Asbury Jukes, are ogled by adoring fans. (7) Publicist Michael Mace boasts Francois Clemmons, Sporting Life in London Records' award-winning Porgy and Bess. (8) Tenor Robert White displays his award for "When You and I Were Young, Maggie" to STEREO REVIEW's Managing Editor William Livingstone. (9) Award winner Jane ("First Nights") Olivor, flanked by RCA's pop press manager Stu Sinsberg and Gae Magazine columnist Chip Orton. (10) STEREO REVIEW's Editor William Anderson chats with Katherine Handy Lewis, daughter of blues composer W. C. Handy.

On the second page rock goddess Patti Smith enlivens the party by laughing it up with (11) Miss Merman and (12) Editor Anderson. (13) Patti collects an autograph from the venerable Eubie Blake and (14) grants one to disco critic Clifford Terry's T-shirt. (15) *Monster Times* publisher Larry Zell (left) with Ben Bagley of Painted Smiles Records and STEREO REVIEW's Technical Editor Larry Klein. (16) Jazz artist David Sancious (center) chats with STEREO REVIEW Editorial Assistant Richard Sarbin (left) and Chris Kalisch, Sancious' manager. (17) Smiles are flashed by Miss Merman, STEREO REVIEW's Pop Music Editor Paulette Weiss, and Miss Olivor. (18) Emanuel Ax, whose RCA album of Chopin piano music was singled out for honorable mention, with Publisher Hoger. (19) Ivan Davis (left), also honorably mentioned (for his London album of piano works by L. M. Galtchuk), with pianist Ilana Vered and John Harper, national sales manager for London Classical Records. (20) Old hand Embie Blake gives a few pointers to the award-winning young members of Dr. Buzzard's Original Savanah Band. (All photos by Erik Davidson, except numbers 11, 14, 17, and 20, by Chuck Pulin.)



After people learn what we've done, no one will heckle our speakers.

We're as close to the impossible as possible.

Our new speakers color sound. Anybody's speakers do.

Should someone tell you otherwise, they speak with forked frequency response.

We at Sony approached the development of our new speaker line with this grim reality in mind.

Thus our goal was to create speakers with a minimum of coloration. With a frequency response flat and wide. With low distortion. And with repeatability. Which is critical. Which means that each speaker we turn out will sound like the one before and the one after.

Searching and researching.

Our basic dilemma was that speaker specs don't specify much.

You can build two speakers with identical specs, and find they'll sound non-identical.

That's because your sophisticated ear can pick up differences our clumsy measurements can't.

Some examples:

You can hear how pure water is. The purity of the water in which the pulp for the speaker cone is pressed will influence the sound. (Spring water is the best.)

But water purity would hardly change the frequency response—or any other measureable characteristic.

Nor would the dye used to color the cone—or the glue used in gluing the cabinet.

But you'd hear the dye and the glue.

And there are dozens and dozens of elements that interact this way.

So our job was mammoth. To correlate these factors in order to reach the goal we outlined earlier. Changing one

changes the other and almost changed our minds about going into the speaker business.

But we stuck it out. And found the answer to the juggling of these variables thanks to a major technological innovation.

Trial and error.

That's why we labored for three years to bring you our speakers. While other manufacturers rushed frantically to market with theirs.

We keep the whole world in our hands.

Once we understood how to control the sound of our speakers, we realized we had to control what went into our speakers.

So we did the only logical thing.

We built a plant.

And pursuing that logic, we built it at a place called Kofu. Which is at the base of Mt. Fuji. Where we can get all the spring water we want.

This factory does nothing but produce—under outrageously close control—the components for our speakers.

Whatever we do buy, we specify so carefully that our vendors have nightmares about us. (It's unfortunate that we can't make *everything* ourselves, but only God can make a tree, and only wood can make a fine cabinet.)

Few companies make this effort.

So it's safe to say that when it comes to exercising this kind of control, our speakers are a voice in the dark.

Don't judge a bookshelf speaker by its cover.

As you can see, there's a lot that goes into producing a speaker that's not easily seen. (One beautiful exception—the handsome finish on our cabinets.)

That includes the carbon fiber that we mix into the speaker cone paper.

Carbon fiber is light and strong. (Why they don't use it in girdles we'll never know.)

Light, so our speaker is more efficient. Meaning you need less power to operate it. Meaning you are closer to the ideal of converting electrical energy to mechanical energy without a loss of power.

Light, so our speaker cone reacts quickly to stops and starts in the signal. The result: improved transient response.

Strong, to prevent the cone from bending out of shape in the high frequency range.

Moreover, carbon fiber doesn't resonate much. It has what's called a low Q, and it took someone with a high IQ to realize it would absorb the unwanted vibration rather than transmit it down the cone.

We also cut down on unwanted vibration (as opposed to the wanted vibration, which is music), by using a cast aluminum basket rather than a stamped, shoddy cheap metal one.

We could go on, but at this point the best thing would be for you to move on to your nearest Sony dealer. And listen.

Because the results of our three years of labor will be clear after three minutes of listening.

At which point, far from heckling our speakers, you'll be tempted to give them a standing ovation.

SONY®

© 1977 Sony Corp. of America, Sony, 9 W. 57 St., N.Y., N.Y. 10019
SONY is a trademark of Sony Corp.

Suggested retail prices: SSU-3000, \$300 each; SSU-4000, \$400 each.

CIRCLE NO. 51 ON READER SERVICE CARD



The SSU-3000 and SSU-4000.
Great speakers like these deserve an audience.



LAND OF HOPE & GLORY. POMP AND CIRCUMSTANCE.

Molto maestoso

Land of Hope and Glo - ry. Mo - her of the Free.

The musical score consists of three staves. The top staff is the vocal line, starting with a treble clef and a key signature of one flat. The lyrics are written below the notes. The middle and bottom staves are for piano accompaniment, with the middle staff using a treble clef and the bottom staff using a bass clef. The music is in a grand staff format.

Making the Case for ELGAR

HAILED though he was by Richard Strauss in 1902 as "the first English progressive" and by the conductor Hans Richter at a London rehearsal six years later as "the greatest modern composer—and not only in this country," Edward Elgar could never claim that his reputation was quick to ripen outside his native land. The astonishing instant vogue represented by a hundred performances, around the world, of his First Symphony within just over a year of its première couldn't, and didn't, last.

Certainly there was an audience for Elgar in the United States when I worked as a critic in New York and Chicago between 1964 and 1973: in those days, my reviews of Elgar records seemed to provoke a larger and more enthusiastic response from readers than anything else I wrote. But it was probably the very paucity of available material that led a devoted and knowledgeable little band of Elgar listeners to seize so eagerly on every new release. The big exception—the *Enigma* Variations—may not, in a wider sense, have helped. Recognized from the time of its first hearing in 1899 as an orchestral composition worthy to stand with Brahms' *St. Anthony* Variations, and featured with fair frequency in the programs of even the less adventurous American orchestras, the piece brought with it the risk of turning Elgar into that most misunderstood of figures, a "one-work composer." And misunderstanding was compounded by the only other Elgar pieces that were at all well known, the *Pomp and Circumstance* marches, for these served only to reinforce—misleadingly, as I shall argue—the popular image of the composer as a typical Edwardian Colonel Blimp. But in the second half of the 1970's, happily, making "the case for Elgar" as an artist of the highest and most unimpeachable mastery is a much easier

task than it would have been as little as five years ago. The territory, in this as in other cases, has been opened up, and with a will, by the phonograph.

One substantial "new" area of the discography is not really new at all. Elgar was the first composer to take the phonograph seriously, and between 1914 and 1933, anticipating Stra-

It is perhaps no more than appropriate that the music of the first composer to take the phonograph seriously should find itself, in this hundredth anniversary year of the invention of the tin-foil phonograph, moving toward a kind of renaissance in the recordings catalog.

vinsky's documentary use of the medium by several decades, he committed large segments of his output to disc in a landmark series of recording sessions. (The results of this activity have, in the past few years, been transferred in their entirety to LP's, and these are discussed later in this article.) The other main development, equally welcome, has been the interest lately taken in Elgar's music by conductors from outside the English tradition. The *Enigma*, not

surprisingly, has been the spearhead, the justly celebrated readings by Monteux and Toscanini being joined in the catalogs since 1972 by versions under the leadership of Ormandy, Mehta, Haitink, Jochum, Solti, and, still to come, Barenboim. But Barenboim and Solti—both now resident in London and most accurately described from the British standpoint as semi-foreigners—have also ranged more widely through Elgariana. Solti has concentrated on the two symphonies, and Barenboim, with characteristic thoroughness, has already recorded half a dozen major works and a selection of minor ones.

• Pomp and Circumstance •

With this expanded and diversified corpus ready to hand—or to ear—it might be thought that Elgar was at last in a position to make his own case. One or two misconceptions, however, still stand in the way of his just appreciation. The most glaring of them concerns, indeed, that deceptive question of "foreign-ness" and "Englishness." Writers of liner notes (though not Elgar's two most indefatigable annotators, Michael Kennedy and Jerrold Northrop Moore) are still prone to label Elgar as a nationalist. It is in this regard that the pompous and circumstantial image, and especially the subsequent fitting of "Land of hope and glory" words to the trio tune of the first *P. and C.* march, have been most misleading. Even if we ignore "the note of recession, the heroic melancholy, which, rather than self-confident assertiveness," Kennedy identifies as the tune's "true character," we ought still to recognize the crucial distinction between a nationalist *composer* and a composer of nationalist *music*. Yes, Elgar loved his country, and yes, he encouraged

By Bernard Jacobson

ELGAR

younger English composers to look for sources of inspiration in England's own culture. Yet in musical style he was himself a conscious, systematic follower of continental European methods and an aspirer to European standards, unlike his fifteen-years-younger contemporary Vaughan Williams. It may well be argued that it was Elgar's legitimization of the very idea of an "English composer," through his emulation of those standards, that cleared the path for his successor to write self-proclaimed "national music."

Even to say that Elgar "loved his country" is, if it suggests an image of outmoded chauvinism, to wrong him by oversimplification. Both in artistic matters and in the wider politico-social sphere, his views were rarely hide-bound; they never fell into the "my country, right or wrong" category. He was, it's true, repelled by the idea of socialism, and Kennedy and others are probably right in tracing his creative decline after 1918 to his oppressive sense that the First World War had destroyed all he valued in the Europe of his day. (As Elgar himself put it in a letter written during the war: "Everything good & nice & clean & fresh & sweet is far away—never to return.") But we must surely write with a rather small "c" the conservatism of a man who, in the 1870's, was conducting, and writing much of his early music for, the band of an insane asylum in his native Worcestershire, and a man who, in 1910, observed during a speech in Aberdeen: "Düsseldorf is not a very beautiful town, but many people go to reside there on account of the music; the town looks upon that orchestra as a valuable asset, and the municipality takes the responsibility of any loss that may arise. . . . The time is coming when all towns must be able to give the people the good music they want." Elgar made it clear on many occasions, too, that when he said "the people" he meant exactly that, and not some social elite with a conventionally inculcated taste for "the arts."

• Gerontius •

This supposed pillar of the English establishment was, indeed, thoroughly sickened by its artistic aspects. Returning home in 1902 after the triumphant

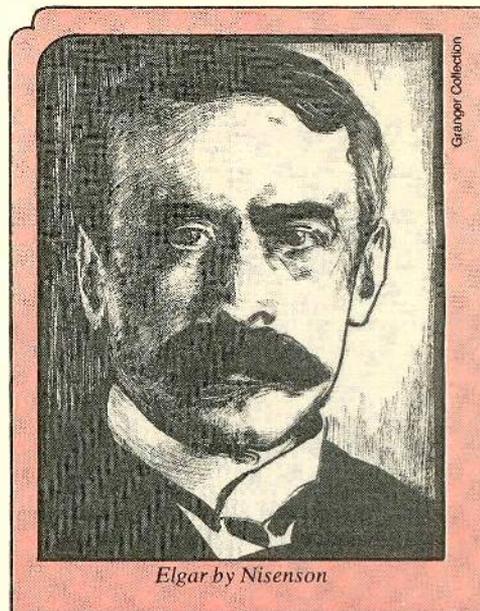
German première of *The Dream of Gerontius*, he told his friend Jaeger, "The horrible musical atmosphere I plunged into at once in this benighted country nearly suffocated me." In particular, the blinkered concentration of critics on what went on in London exasperated him. "Some day," he declared in a letter published in the *Musical Times* in May 1903, "the Press will awake to the fact, already known abroad and to some few of us in England, that the living centre of music in Great Britain is not London, but somewhere further North."

With views so disaffected it's hardly surprising—and indeed it was partly the cause of them—that the unofficial composer laureate of the nation had some of his greatest successes on the European continent and received some of his best performances from foreign musicians. Richter, already quoted, was a devoted champion of Elgar's work. And that German *Gerontius* performance came less than fifteen months after a disastrous world première at the 1900 Birmingham Festival, an occasion when inadequate preparation under a makeshift chorusmaster defeated even Richter's attempt at last-minute inspiration. The Düsseldorf performance under Julius Büths disapproved, Elgar wrote, "the idea fostered at Birmingham that my work is *too difficult*. The personnel of the chorus here is largely amateur, and in no way, except in intelligence and the fact that they have a capable conductor, can they (or it) be considered superior to any good English choral society."

The role of *Gerontius* was sung in Düsseldorf by Ludwig Wüllner—"We never had a singer in England with so much brain," said Elgar. Yet insularity dies hard, and when Sir Adrian Boult's long-awaited recording of *Gerontius* came out in England early in 1976 with Nicolai Gedda in the name part, there were mutterings about the choice of a foreign tenor "who couldn't be expected etc. etc." Well, *Gerontius*—both as work and as role—has been lucky in its recordings. But though Richard Lewis and John Barbirolli in their Angel version, Heddle Nash in the 1945 mono set under Malcolm Sargent, and especially Peter Pears and Benjamin Britten on London achieved many memorable touches, and though there are new releases imminent conducted by Alexander Gibson and Barenboim (with Robert Tear and Plácido Domingo as their *Gerontii*), my own preference is unhesitatingly for both Gedda and Boult. Their two-record album will probably either be issued in the United States by Angel or possibly imported directly by Capitol. Virtually everything about the set, including the re-

corded sound, the orchestral playing, the choral singing, and the superb young bass soloist Robert Lloyd, conspires to make it a near-ideal representation of a great Elgar work.

How great exactly? "This is the best of me," Elgar himself judged, and certainly *Gerontius* is an epoch-making, and often profoundly moving, revivification of the English oratorio tradition by the infusion of German symphonic methods and European chroma-



ticism. For me, much as I love the work, its very success in capturing the somewhat overheated religious fervor of Cardinal Newman's text militates against complete acceptance. Whatever you may think about that purely personal reaction, *Gerontius* undoubtedly points to another deep contradiction between the image of Elgar and his reality.

• The Apostles •

Intense in his identification with the *Gerontius* story, he is often thought of as an explicitly Christian and Roman Catholic composer. Yet doubt lurked just below the surface of his faith, and in the end his belief turned to ashes. As a man, he refused the rites of the church on his deathbed. As a composer, he left unfinished the imposing trilogy of oratorios designed, in the years after *Gerontius*, to chronicle the progress of Christianity. The two parts that were completed, *The Apostles* (1903) and *The Kingdom* (1906), seem to betray this diminishing certainty of aim, for they never quite decide whether to concentrate on human drama or on

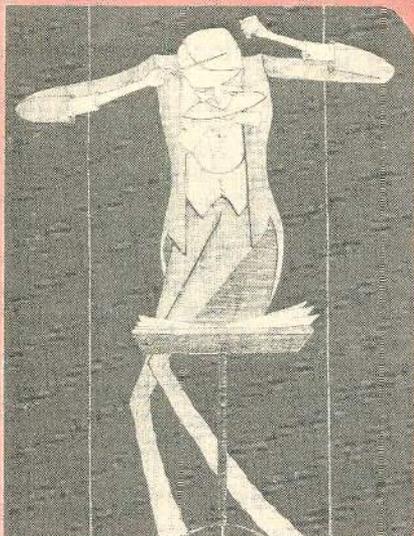
doctrinal exposition. Still, their rewards are ample to justify attention from anyone more than glancingly interested in Elgar. Boult has recorded both works, and his performances, available in the U.S. on Connoisseur Society 2094 (three discs) and 2089 (two discs), respectively, are exemplary. The most impressive solo work comes from the baritones—John Carol Case's gravely mellifluous Beatitudes in *The Apostles* and John Shirley-

of these five central works concludes in unshadowed triumph. The Second Symphony and the violin concerto have their moments of delight and grandiloquence, but they end on a Homeric note of poignant regret for past beauty. *Falstaff*, musical logic reinforced this time by fidelity to the Shakespearean program, fades bleakly away. The cello concerto, written in the aftermath of the war, is sorrowful, or at least nostalgic, almost through-

are several superb performances on record to help us. The best of all, in my own order of preference, are those of Monteux (London STS 15188), Haitink (Philips 6500481), and Colin Davis (Philips 835317). But Barenboim's new recording (to appear on Columbia) prompts me to wonder whether he shares my doubts about the ending, for his conducting minimizes the grandiosity—indeed, it brings to the entire work a fresh directness that is most attractive, if not as comprehensive of the music's facets as are the Monteux, Haitink, and Davis readings. Barenboim's *Enigma* is coupled in England with a live recording, taken from concerts given with the Philadelphia Orchestra in 1970, of the cello concerto. The soloist is Jacqueline du Pré, here in even more electrifying form than in her earlier studio recording with Barbirolli.



Elgar by Rothenstein



Elgar by Kapp

Quirk's impassioned St. Peter in *The Kingdom*.

• Falstaff •

If there is a discrepancy more fundamental even than the contradictions we have explored in Elgar's attitudes toward nation and toward religion, it is the gulf between the popular picture of him as a sumptuous embodiment of Edwardian confidence and the reality, which was constant, gnawing self-doubt. Recent writings about Elgar have laid increasing stress on the conflicts and questionings that underlie his music's glittering facade. That we today should value him, the product of a massively self-assured age, for his doubts while we admire a composer like Michael Tippett for certainties wrung from an environment of negativism and confusion, teaches us less, perhaps, about Elgar than about our own aesthetic hang-ups. But for me, at any rate, the point serves to illuminate just what it is that is great in Elgar's greatest music, which I take to be the two symphonies, the two concertos, and the symphonic study *Falstaff*. Not one

out. Even the final apotheosis of what Elgar called the "great beautiful tune" in the First Symphony, outwardly so proud and splendid, has to contend with monstrous off-beat thrusts that seek to destroy its balance, and victory is gained by a hair's breadth.

• Enigma Variations •

Thus it would seem to be not just the passionate aspiration to glorious certainty, but the tension between that longing and its ultimate denial that marks the quintessential Elgar. That is why *Enigma*, as we now know it, is not on my list of the best of Elgar. A great and lovable work it is, but there is a slightly facile quality about the grandiose coda that separates it from the peak of Elgarian perfection. And that is where my phrase "as we know it" comes in, for originally the piece ended quietly, and Elgar tacked on the more "effective" conclusion at the urging of friends.

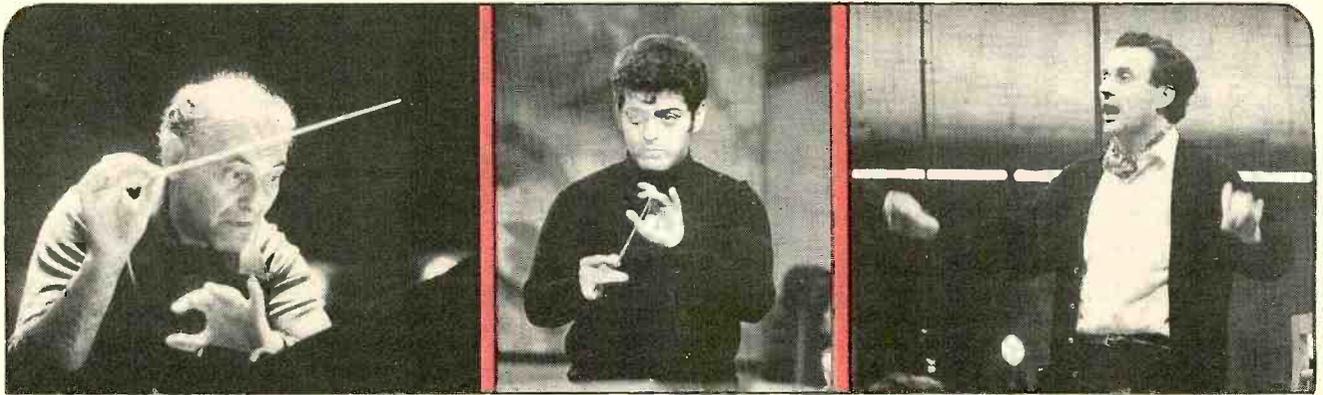
I would dearly love to hear *Enigma* in its first form. But since there is apparently no chance of that, we must be content with what we have, and there

• Symphonies •

Barenboim is also conductor in a new recording of the violin concerto (Columbia M34517) by Pinchas Zukerman, who matches the young Menuhin (with Elgar conducting, in a five-disc "Images of Elgar" set, EMI RLS 708, sadly now deleted as an import) in beauty of tone and the older Menuhin (with Boult on Angel S-36330) in completeness of understanding. The "Images" set included, among other things, *Enigma*, the two symphonies, *Falstaff*, and the cello concerto with Beatrice Harrison, and Elgar conducted fine performances even though harried occasionally by the time limits of the original 78-rpm sides. Modern recording technique, however, is particularly important in music like this, and the *Falstaff* to have if you must have only one is Barenboim's (Columbia M 32599), one of his greatest performances. For the symphonies, Barenboim is magnificent in No. 1 (Columbia M 32807) and a shade less so in No. 2 (M 31997). Boult's earlier recordings, available in the U.S. from the Musical Heritage Society, are orchestrally less polished. Solti's performances, though superb in their way, I find a shade generalized in their romanticism, and Barbirolli's, apart from a wonderfully poised slow movement in No. 1, don't quite match Barenboim or Boult. But a superb new No. 2 by Boult is now on Angel (S-37218), and it will almost certainly be worth waiting for the No. 1 that is likely to follow.

Modern sound counts in Elgar precisely because his orchestration is unsurpassed in its brilliance. He was a self-taught composer—whence perhaps that persistent self-doubt—but unlike too many of his compatriots he

Elgar's Modern Champions



SIR GEORG SOLTI

DANIEL BARENBOIM

COLIN DAVIS

sought and attained complete technical mastery. As Bernard Shore, principal violist of the BBC Symphony Orchestra for many years, put it in his book *Sixteen Symphonies*: "In one respect no composer has ever matched Elgar. None other has fully exploited all the orchestral instruments and at the same time written nothing impossible. In this latter respect Strauss frequently sins, and so did Wagner . . . [but] Elgar was unerring."

• Other Forms •

This gift, and the sense that the music was conceived fully dressed, rather than being composed in the abstract first and orchestrated later, is no less apparent in Elgar's minor orchestral works. Here, yet again, Barenboim has made a valuable contribution, with the best available versions of the *Pomp and Circumstance* marches (Columbia M 32936) and of a variety of smaller pieces (M 33584). His *Serenade for Strings* on the latter disc, however, is outshone by Boult's performance, coupled with an equally successful *Introduction and Allegro* on Angel S 37029. As for the three attractive concert overtures, I would pick Colin Davis' studio recording of *Cockaigne* (coupled with his *Enigma*), and, antique sound notwithstanding, Elgar himself for *Froissart* and *In the South*—these two being among more than two dozen smallish works contained in another absorbing EMI set, "Elgar on Record" (RLS 713, six discs, still available as an import). There is more treasure in "The Elgar Edition" (EWE 1), a seven-disc set enterprisingly assembled by the small English label Pearl (which is distributed in the United States by Qualiton) and containing all of the composer's acoustic recordings.

In the chamber, instrumental, and vocal spheres, Elgar's music is, by and large, neither better nor worse than

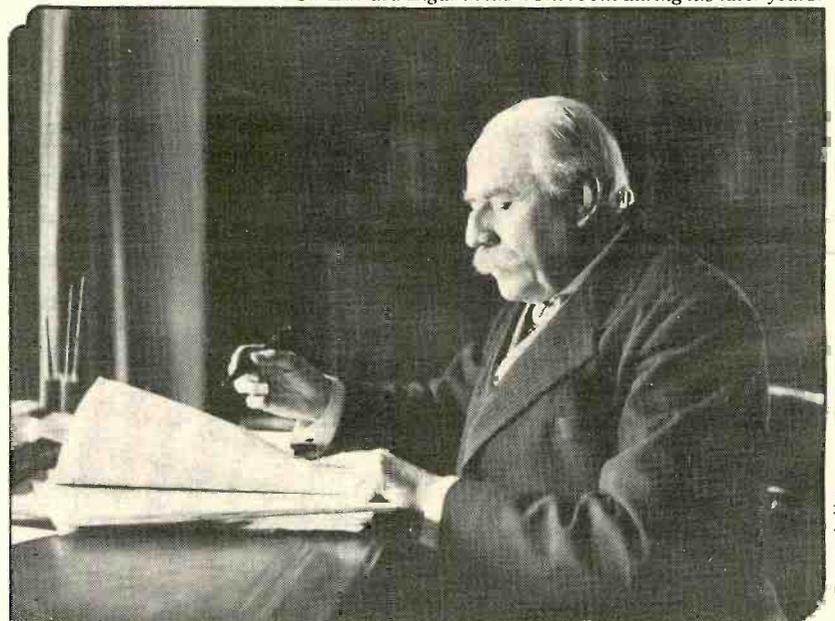
other early twentieth-century efforts. The best recorded representations of it are John McCabe's disc of all the piano works on the new English Prelude label (PRS 2503, which might possibly become available in the U.S.), a song recital by John Carol Case and Mary Thomas with Daphne Ibbott (Saga 5304, distributed by CMS Records, Inc., 14 Warren Street, New York, N.Y.), a collection of short violin and piano pieces played by John Georgiadis and John Parry on Pearl (SHE 523), and a glorious new performance of the violin sonata by the Weiss Duo on Unicorn (RHS 341, distributed in the U.S. by HNH).

EVEN in these areas, though, Elgar sometimes plumbed greater depths. The excellent John Ogdon/*Allegri* Quartet performance of the piano quintet on Angel S 36686 is unfortunately no longer available. But Louis Halsey

conducts some rivetingly imaginative part-songs on Argo (ZRG 607), the short choral pieces conducted by Christopher Robinson on EMI (CSD 3660) are every bit as impressive as Bruckner's works in the genre, and—to give the busiest young Elgar conductor of the day an appropriate last word, Daniel Barenboim has recorded the touching, truly picturesque *Sea Pictures* with Yvonne Minton on Columbia. It will shortly be joining the lovely performance by Janet Baker (Barbirolli conducting) on Angel S 36796 in a catalog of available Elgar recordings that has not heretofore been matched for richness, excellence, and variety. □

Bernard Jacobson, former *Chicago Daily News* critic and *STEREO REVIEW* contributor, is author of *The Music of Johannes Brahms* (Assoc. University Presses, 1977).

Sir Edward Elgar in his work room during his later years.



Reinmann Archive

Some \$5 blank cassettes have the nerve to tinker with Beethoven. We think it's outrageous.

Beethoven, even when he was deaf, knew exactly how a piccolo sounded in relation to the rest of the orchestra. Some cassette manufacturers would just as soon forget. Their cassettes give the piccolo and other high frequency sounds a distorted prominence. They appear to do this deliberately, regarding absolutely natural sound as raw material to be improved upon.

At BASF, we think this is an abomination. We're purists; we stake everything on total accuracy of sound reproduction. You will never encounter artificially enhanced high frequencies in our cassettes. We believe that if you care enough to buy an expensive audio system, the last thing you need is a cassette that imposes its own dubious tastes upon your sensitive ears.

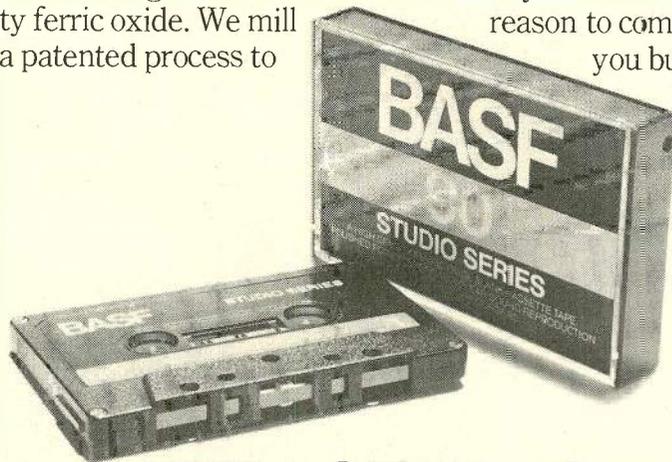
Faithful reproduction entails more than miracle ingredients and fanciful initials on a cassette label. At BASF, we begin with the best quality ferric oxide. We mill it by a patented process to

achieve maximum packing density and uniformity of coating. We use an exclusive chemically cross-linked polymer binding which will never deteriorate and cause head-related frictional noise or wow and flutter.

We use a unique multi-stage polishing process, and our slitting technique results in an edge that's clean even when viewed under a microscope. Even our cassette case is different, incorporating our patented Special Mechanism, designed to assure smooth tape feed for years of dependable performance.

Is completely natural sound worth that kind of effort? To people who know the difference, it is.

At BASF, we're purists. We've been obsessed with total accuracy since we invented magnetic tape back in 1932. There are no shortcuts to perfection. But you knew that when you planned your own audio system. We'll give you no reason to compromise when you buy our cassettes.



BASF The Purist

Our Promise: the purest, most accurate sound that tape can reproduce.

The discovery of the lost chords.

They're missing. The bombardment of brass. Pulsating percussion. Surging crescendos. And strings that caress your innermost senses. The live experience. Lost once the concert ends.

Now, for the first time, you can recapture that live experience with the exciting, new 3BX Expander. Now you can breathe new life into your audio system. Life that adds up to 50% more dynamic range to your records, tapes and FM broadcasts, while dramatically reducing noise.

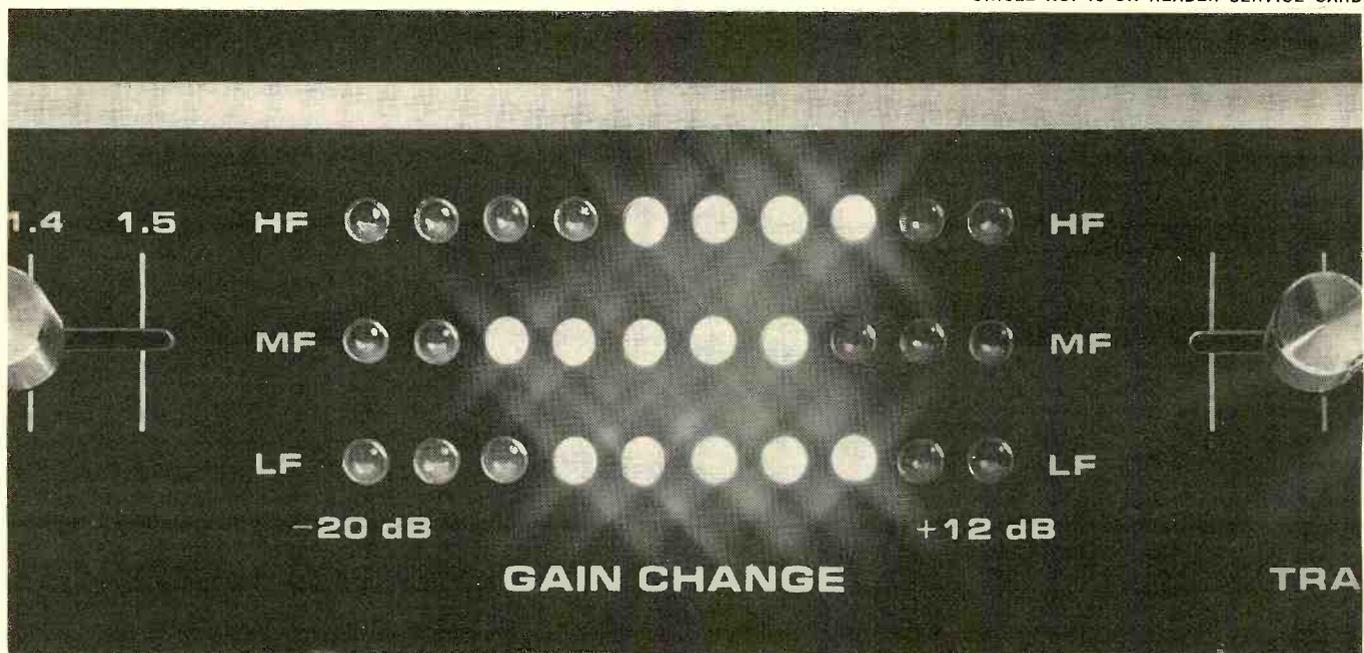
But your discovery is not just the sounds you'll hear, but the music you'll see. Visual music that you can control. Divided into 3 separate frequency bands, the unique 30 LED display feature allows you to visualize expansion within each frequency range.

Come hear, and see, the exciting new 3BX perform. Discover the lost chords in your music.

Visit the dbxpert at your dealer or write: dbx, Inc., 296 Newton St., Waltham, MA 02154; (617) 899-8090.

dbx

CIRCLE NO. 13 ON READER SERVICE CARD



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



Loretta Lynn: a Hill-country Dietrich with a Steadily Widening Sphere of Musical Influence



So what else is new? Well, how about Loretta Lynn's umpteenth album "Somebody Somewhere," as finely honed down (or up) to the taste of her market as ever before and not different in any appreciable way from the slew that preceded it, except perhaps that here she doesn't do any of her own songs.

But for those of you who haven't been paying much attention, there is a difference, and it has to do with the fact that Loretta Lynn long ago moved beyond the narrow confines of being just a hugely popular c-&-w singer and has become an exceptional personality in almost every performing medium. You see, along with her undoubted good-ole-gal earnestness, sincerity, and honesty, to say nothing of her skill in communicating these qualities (nobody goes nowhere in the c-&-w field without them), there is also a wry sexiness, a sly wit, and a gutsy realism

about her performances that makes her a kind of hill-country Dietrich.

And can she ever put you on in such cameo confessionals as *Somebody Somewhere* (*Don't Know What He's Missin' Tonight*): "Lord I need someone, but ev'ry one I know is away being/Needed at home. . . ." Another example is *While He's Making Love* (*I'm Making Believe*): "When he tells me he needs me, I try hard to please. . . ." Both are sung with the head-on, blank-stare coolness that is twice as effective as any amount of stuck-valve rant, and both are therefore funny and touching and real.

On the more serious side is *Me and*

Ole Crazy Bill, about a man who marries a woman already pregnant with someone else's baby. They try the rodeo circuit for a while, and she begins to realize how much she loves him when she sees him "passing out cigars to the cowboys/Like my baby was his own. . . ." I realize that that reads more like *True Confessions* than *True Life*, but suspend judgment until you hear Loretta sing it; she performs it with a sober, earthy dignity that will give you pause for the little while it takes to glance into a world perhaps a little less wide than your own.

Such songs (*I'll Leave the Leavin' Up to You* is another), made up one part each of woman-of-the-world stoicism and understanding compassion, suggest that Loretta Lynn is a lot more than the c-&-w money machine, the empress of the truck-stop juke box, that much of her publicity has suggested. whatever else she is—stars of this



Pianist Daniel Barenboim, baritone Dietrich Fischer-Dieskau

magnitude are, after all, a category unto themselves—she is a superb entertainer, and this new album is another splendid demonstration of how she got to be one. Okay, city slickers, let's see you give up some of *your* narrowness and give the lady a listen. You're probably in for a surprise. —Peter Reilly

LORETTA LYNN: *Somebody Somewhere*. Loretta Lynn (vocals); orchestra. *Somebody Somewhere*; *Sundown Tavern*; *The Game That Daddies Play*; *While He's Making Love*; *Crawling Man*; *Me and Ole Crazy Bill*; *I'll Leave the Leavin' Up to You*; *Your Woman*, *Your Friend*; *Playing with Fire*; *Blue Eyed Kentucky Girl*. MCA MCA-2228 \$6.98, © T-2228 \$7.98, © C-2228 \$7.98.

Hugo Wolf Lieder by Fischer-Dieskau and Barenboim: Performance In the Great Tradition

WHEN he was in the mood, Hugo Wolf wrote songs almost as fast as Dietrich Fischer-Dieskau can record them. He would immerse himself in the

works of a poet and fling off whole books of settings at an extraordinary rate—sometimes two finished songs a day. What is really extraordinary, of course, is not the quantity but the quality of the output. The level of musical inspiration as well as of compositional craft is, if possible, even higher than it is in Schubert.

Wolf is sometimes thought of as a Wagnerian, but he really belongs in the Schubert-Schumann-Brahms-Bruckner line, of which he is a late and quite original representative. Wolf's particular genius was in finding an intrinsic musical idea and form for each work which, even while they closely followed the poetic ideas of the literary subject, always kept to the highest standards of invention, continuity, and coherence.

These characteristics make his songs outstanding subject matter for a highly expressive performance style in the great tradition, which is exactly what they get from Fischer-Dieskau and Daniel Barenboim in a new three-disc set from Deutsche Grammophon. The depth of poetic insight and the intensity of expression provided by these two artists pivot precisely on the texts without losing one thread of musical line or one gram of artistic integrity.

This is the second volume of a massive Wolf project being mounted by DG, and it includes forty-two of the fifty-one songs in Wolf's Goethe album. Written between 1888 and 1889,

these songs include some of Wolf's greatest and best-known works—*Prometheus*, *Ganymed*, *Epiphanias*, *Anakreons Grab*—and some of the lesser-known songs from the "West-östlicher Divan." But they are almost all good, one gem after another superbly sung and played. The Heine and Lenau songs, mostly early and Schumannesque, are on the whole less extraordinary—but who's quibbling? Full texts and translations are provided, and this is one case where it is best to use them—not only to follow the literary ideas, but to savor the subtlety of Wolf's settings and the poetry of their interpretation. —Eric Salzman

WOLF: *Lieder on Poems by Goethe, Heine, and Lenau*. **Goethe:** *Anakreons Grab*; *Beherzigung, I and II*; *Blumengruss*; *Cophitisches Lied, I and II*; *Dank des Paria*; *Der Harfenspieler, I, II, and III*; *Der Neue Amadis*; *Der Rattenfänger*; *Der Sänger*; *Der Schäfer*; *Dies zu Deuten Bin erbötig*; *Epiphanias*; *Erschaffen und Beleben*; *Frech und Froh, I and II*; *Frühling übers Jahr*; *Ganymed*; *Genialisch Treiben*; *Gleich und Gleich*; *Grenzen der Menschheit*; *Gutmann und Gutweib*; *Hätt' ich Irgend Wohl Bedenken*; *Komm, Liebchen, Komm*; *Königlich Gebet*; *Locken, Haltet Mich Gefangen*; *Nicht Gelegenheit Macht Diebe*; *Ob der Koran von Ewigkeit Sei*; *Phänomen*; *Prometheus*; *Ritter Kurts Brautfahrt*; *Solang Man Nüchtern Ist*; *Spottlied*; *St. Nepomuks Vorabend*; *Trunken Müssen Wir Alle Sein*; *Wanderers Nachtlied*; *Was in der Schenke Waren Heute*; *Wenn Ich Dein Gedenke*; *Wie Sollt Ich Heiter Bleiben*. **Heine:** *Du Bist wie Eine Blume*; *Mädchen mit dem Roten Mündchen*; *Mit Schwarzen Segeln*; *Spätherbstnebel*; *Wenn Ich in Deine Augen Seh'*; *Wie des Mondes Abbild Zittert*; *Wo Wird Einst*. **Lenau:** *Abendbilder*; *Frage Nicht*; *Herbstentschluss*; *Herbst*. Dietrich Fischer-Dieskau (baritone); Daniel Barenboim (piano). DEUTSCHE GRAMMOPHON 2740 156 three discs \$23.94.

RCA's New *Forza del Destino* Holds Its Own Amid Some Formidable Catalog Competition

VERDI's *La Forza del Destino*, a complex and demanding opera, has fared remarkably well on records. Indeed, in the long list that runs all the way back to the marvelous first complete version accomplished in wartime Italy (by Caniglia, Masini, Pasero, and others), there isn't one that fails to do

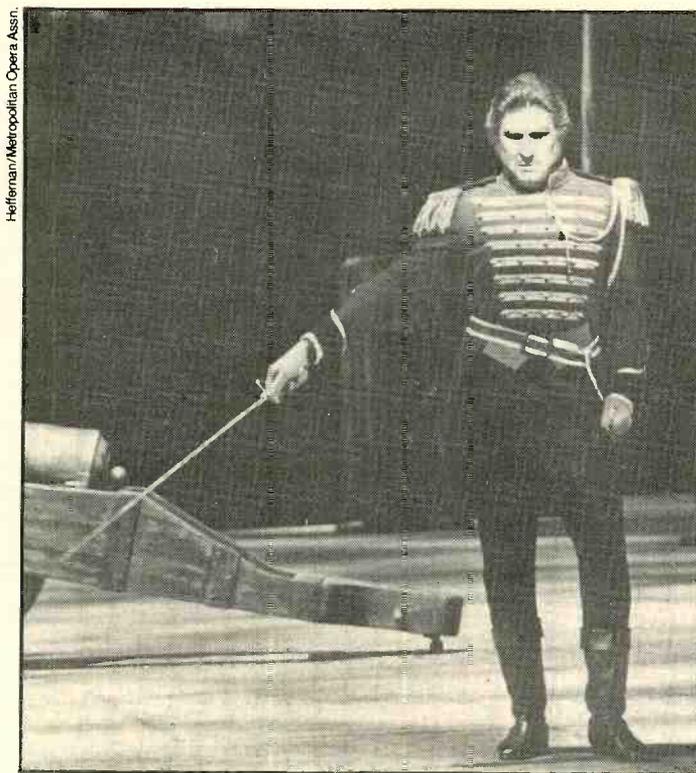
the music justice or that does not contain at least one cherishable contribution. A new set by RCA (the third by that company in some sixteen years) now takes on the formidable competition—and holds its own admirably.

Presiding over a cast of outstanding singers, conductor James Levine gives renewed evidence of his natural gifts as a Verdi interpreter. In the early scenes there is more efficiency than true inspiration in his work, but as the performance takes shape the listener is won over by the clarity, vitality, and discipline of his leadership. There are crisp attacks and a steady momentum. He no longer drives the singers as he once did; occasional excesses in this area (the rushed finale of the Inn Scene, for one) are far outnumbered by brisk but eminently right-sounding tempos. The little *Preghiera* in the second act is handled with a fastidious care befitting Verdi's Requiem, and the singers are equally fastidious as a consequence. In short, this kind of Verdi conducting need not defer to the much admired work of such Italian veterans as Tullio Serafin and Lamberto Gardelli in other *Forza* sets.

As the vengeful Don Carlo, Sherrill Milnes has rarely sounded better. His gallery-pleasing inclinations are held in check, and he uses his sizable baritone intelligently within an impressive range of dynamic and timbral variety. The recitative preceding his aria "*Urna fatale*" is meaningfully projected; the aria itself is somberly introspective, and that makes the explosive cabaletta all the more exciting. The crucial scenes between Don Carlo and Don Alvaro display a remarkable rapport between two artists at their peak. In the latter role, Plácido Domingo excels with his appropriately melancholy sound and his exemplary legato; his intonation, however, has been more careful on previous occasions.

This is Leontyne Price's second Leonora on discs, and though it is not quite as impressive as her first (RCA LSC-6413), her musicianship is as strong as ever, her attacks are clean, and the tone above the staff has the radiance of old. Unfortunately, much of the part lies in the lower mid-range (never the happiest area for her voice), and there she sounds unappealingly raw, lacking in Italianate warmth. And too, there is a rather passionless quality to her singing in the first act. But she sounds like her early self in the Convent Scene, where she is eloquently partnered by Bonaldo Giaiotti, a majestic-sounding Guardiano.

Fiorenza Cossotto's light-toned, accurately sung, and cleanly ornamented *Preziosilla* is a delight (despite two B-naturals that are a shade under pitch),



Sherrill Milnes as the vengeful Don Carlo: rarely better

and Gabriel Bacquier's colorful Melitone makes almost visible his unforgettable interpretation of the role at the Met a few seasons ago. Kurt Moll is outstanding as the short-lived Marquis de Calatrava, and Michel Sénéchal is an amusing Trabucco. The choral singing is first-rate and so is the orchestra, paced by splendid violin and clarinet solos.

I will not place this new set *above* the others currently available (London 1405, in particular—with Tebaldi, Del Monaco, Bastianini, and Siepi, all in peak form—has not lost its magic for me throughout the twenty years of its existence), but I doubt that I will ever part with it. I recommend it very highly despite the fact that RCA's well-annotated album is encased in an unattractive and ill-fitting box that is sure to offend some buyers—especially given the price. —George Jellinek

VERDI: *La Forza del Destino*. Leontyne Price (soprano), Leonora; Plácido Domingo (tenor), Don Alvaro; Sherrill Milnes (baritone), Don Carlo; Fiorenza Cossotto (mezzo-soprano), *Preziosilla*; Bonaldo Giaiotti (bass), Padre Guardiano; Gabriel Bacquier (baritone), Fra Melitone; Michel Sénéchal (tenor), Trabucco; Kurt Moll (bass), Marquis de Calatrava; Gillian Knight (mezzo-soprano), Curra; Malcolm King (baritone), Mayor of Hornachuelos; others. John Alldis Choir; London Symphony Orchestra, James Levine cond. RCA ARL4-1864 four discs \$31.92.

Jeremiah Ingalls and Hezekiah Moors: Vital, Beautiful Music From Old New England

IF William Billings (1746-1800) was the giant among the New England psalmodists whose heyday (1770-1810) marked the first creative outpouring of a wholly original American music, at least a dozen of his singing-schoolmaster confrères and part-time composers (they were tavern keepers, farmers, and comb makers also) produced pieces of comparable rhythmic vitality, stark loveliness, and raw power.

Justin Morgan (of horse-breeding renown), Daniel Read, Supply Belcher, and Jeremiah Ingalls are but a few of those who come to mind, and their hymns and anthems, as well as Billings', are still to be heard these two hundred years later at the Sacred Harp singing conventions beloved of the rural South. For when the more "cultivated" musical styles imported from Europe drove the community singing schools and their highly individual music from the New England scene, the home-grown products quietly decamped and were reborn in the American South. Only over the past twenty



James Chapman conducts the Vermont Choral Union: masterly performances of early American music

years has there been any active interest in the North toward reviving the work of the so-called New England tunesmiths in authentic performance.

An excellent example of such performance is contained in a compendium of Federal-period New England psalmody done for the Vermont-based Philo label (see *STEREO REVIEW*, January 1977, page 78) by the University of Vermont Choral Union. It is equaled in vitality and beauty only by the remarkable 1960 University of Maryland Chapel Choir disc issued by Washington Records and now long out of print. Besides offering a fine collection of the work of the relatively well-known Jeremiah Ingalls (1764-1838), the Vermonters have unearthed the music of Hezekiah Moors (1775-1814), whose name is to be found in no standard reference work but whose music is certainly richly deserving of a renown it never attained during the brief lifetime of its author. Moors died at thirty-nine, five years after publication of his single tunebook, *The Province Harmony*. Space does not permit going into biographical detail here concerning Ingalls and Moors, but fortunately the Philo package offers copious annotation, full texts, and information on how scores may be obtained from the Vermont University Choral Union (this is music that deserves the widest circulation and performance).

Among the compositions I would single out from the Ingalls group are such items as the folk-like *Christian Song* with its effective word painting, the elaborate *Falmouth* with its vigorous "fuguing" episodes and unprepared key shifts, the starkly beautiful *Farewell Hymn*, and the poignant *Lamentation*. The rendition of Ingalls' most fa-

mous tune, *Northfield*, is highlighted here by being given in both its church version and its highly amusing secular one.

In the works of Hezekiah Moors we encounter a far more sophisticated harmonist, one who bridges the gap between the stark primitivism of the "tunesmiths" and the cultivated style that was to gain dominance within the decades to come. In *Dorset* and *Pittsford* we find the "fuguing" devices of the older composers, while in *Orwell* and *Mount-Holly* we have stunning examples of Moors' singular gift for gorgeous, densely packed harmonic textures. Remarkably effective, too, is the anthem *By the Offence of One*, which is through-composed in a kind of ariosorecitative.

Unlike the Vermont Choral Union's first album (Philo 1000), which, though it offered a marvelous collection of mu-

sic by composers native to or associated with Vermont (including all the extant work of Justin Morgan), was inadequately recorded and rather ineffectively sung, this "Vermont Harmony 2" disc is an altogether masterly production from every standpoint. One can only wish that the contents of the earlier disc might now be rerecorded under comparable conditions. Meanwhile, I rate this as one of the half-dozen finest discs of American music to come out of the Bicentennial year.

—David Hall

VERMONT HARMONY 2. Ingalls: *Love Divine; Christian Song; Falmouth; Farewell Hymn; New Jerusalem; Crostic; Lamentation; Delay; Tranquility; Northfield; Election Hymn.* Moors: *Cavendish; Charlotte; Dorset; Plainfield; I Will Praise Thee—Anthem; Pittsford; Fairfax; By the Offence of One—Anthem; Moretown; Shirley; Orwell; Mount-Holly.* University of Vermont Cho-

Eagles Don Henley, Joe Walsh, Randy Meisner, Glenn Frey, and Don Felder



ral Union, James Chapman cond. PHILO 1038 \$5.98 (available from Philo Records, The Barn, N. Ferrisburg, Vt. 05473, or from some local dealers).

The Eagles' New "Hotel California": High Standards and a Tight and Tidy Vision

TRY not to get too hung up on how middle-class their backgrounds may be, or whether there's any real sagebrush sticking to their spurs; the Eagles are pros and they try to represent themselves honestly. In their new "Hotel California" their professional standards are pretty high, and the result is a satisfying, well-turned album.

The most commercial song, *New Kid in Town*, has more depth than we have any right to expect of the most commercial track in the latest album by a group with a large and faithful following already primed to salivate at the sound of the opening chords. I mean the Eagles *could* get by with a lot more coasting than they do in this instance. They could take more chances, too, of course, but this one seems to suggest that that may be a matter of constitution: their vision is tight and tidy; they don't have individual genius or a hot-dog soloist in their midst, but versatile part players and cooperators thinking Arrangement and Detail.

There is good contrast here between the acoustic and the electric aspects of

their style, a smattering of dandy if derivative melodies (check *Wasted Time* and *The Last Resort*), some lyrics that reflect actual thought, and first-rate, unfancy vocals. I never thought I'd be praising a "group mentality" all over the place, but I guess it depends on what the group mentality does. Or maybe it's just rare to find a group that *has* a mentality. Whatever, the Eagles have harnessed something here and made it do some fine work.

—Noel Coppage

THE EAGLES: *Hotel California*. The Eagles (vocals and instrumentals). *Hotel California*; *New Kid in Town*; *Life in the Fast Lane*; *Wasted Time*; *Victim of Love*; *Pretty Maids All in a Row*; *Try and Love Again*; *The Last Resort*. ASYLUM 7E-1084 \$6.98, © ET8-1084 \$7.98, © TC5-1084 \$7.98.

Opus 77: the Last And the Greatest of The Great Haydn String Quartets

IN 1799 Joseph Haydn wrote to his publisher Breitkopf: "Oh God, how much remains to be done in this splendid art, even by such a man as I have become!" Haydn was never immodest, but he had a very good idea of what he had accomplished: he had brought both the symphony and the string quartet to their highest level of development and capped his own production in both forms with valedictory works that surpassed all their predecessors. His last

and greatest symphonies were then four years behind him; the last and greatest of his completed string quartets—the pair published as Op. 77—were written that very year.

Both of these quartets are miraculous works—so rich, so varied, so well-balanced, so altogether perfect that one hardly thinks of their having been thought up, laid out, and written down, any more than one thinks of a sunset or any other natural phenomenon as being "composed." Haydn himself was acquainted with this sort of reaction to his works, and, while it is of course complimentary, he complained that "no one will believe the strain and effort it costs to produce them." Such works, in other words, do not write themselves, and they don't play themselves either, but "strain and effort" are the last things likely to come to mind in listening to the Tátrai Quartet's superb performances of these two masterworks on a new Hungaroton disc.

The Tátrai set of the six Op. 76 quartets issued a dozen years ago (Qualiton SLPX-1205/1207) is one of the glories of the Haydn discography. Whether it is because these musicians reside in a center of Haydn scholarship or because they were simply born to play Haydn quartets, their identification with this music makes itself felt as exceptional and complete. Twelve years was a long time to wait for a second installment in what I hope may yet be a survey of the complete cycle, but I'm glad it was Op. 77 that was chosen this time, for there has not been a fully successful realization of this towering pair on records since the Haydn Society issued the great Schneider Quartet versions a quarter-century ago.

In both outline and detail, the Tátrai approach is similar to the Schneider. Yet the playing here has still more sweetness, rhythms are somewhat firmer (without any suggestion of rigidity), and the first-rate modern recording brings out the bloom on the individual and collective string tone as the players themselves bring out the amiable, witty, poignant, audacious, brilliantly inventive character of the respective movements. The Tátrai performances happily parallel Haydn's own achievement in Op. 77 in being the finest thing this group has given us, yielding new and deeper pleasures with repeated hearings. Although 1977 has hardly begun (this review was written on New Year's Day), I expect this to be my chamber-music record of the year when the tally is made next winter.

—Richard Freed

HAYDN: *String Quartet in G Major, Op. 77, No. 1 (Hob. III: 81)*; *String Quartet in G Major, Op. 77, No. 2 (Hob. III: 82)*. Tátrai Quartet. HUNGAROTON SLPX 11776 \$6.98.

Tátrai Quartet: István Várkonyi, György Konrád, Ede Banda, Vilmos Tátrai





POPULAR DISCS AND TAPES

Reviewed by CHRIS ALBERTSON • NOEL COPPAGE • PAUL KRESH • PETER REILLY
STEVE SIMELS • JOEL VANCE

THE ALLMAN BROTHERS BAND: *Wipe the Windows, Check the Oil, Dollar Gas.* Allman Brothers Band (vocals and instrumentals). *Wasted Words; Southbound; Ramblin' Man; In Memory of Elizabeth Reed; Ain't Wastin' Time No More; Come and Go Blues;* and four others. CAPRICORN 2CX0177 two discs \$9.97, © M8 0177 \$10.97, © M5 0177 \$10.97.

Performance: **So-so**
Recording: **Mostly good**

This was recorded at various concerts between 1972 and 1975. It has touches of live-album indulgences in it and hints of road-weariness, dogged professionalism here and there, but it is not "previously unreleased" as in "dregs." Relative to some other Allman Brothers albums it is no great shakes, but relative to some other bands' live albums it has its moments, as they say. It sounds more cohesive than it should, considering that part of it was recorded when bassist Lamar Williams and pianist Chuck Leavell had been with the band less than a month. The thing I seem to notice about all of it is the erosion of passion by grind and circumstance and the emergence of what sounds more like show-biz moxie. Here Gregg Allman's vocals are played down and mixed down, and a lot of time is taken up with instrumental passages that seem to be dominated by Richard Betts' guitar. That's not *too* bad, but it would be better if Betts were more of an idea man; his

forte is sound, flavor rather than line. Leavell is a favorite of mine, though, and this is an interesting cross-section of the group's material, especially if you have little and could use a sampler, and it's not too padded as live albums go. To a degree, I guess it all boils down to a demonstration that this has been a different band ever since the death of Duane Allman . . . but then what band wouldn't be?

N.C.

THE ALPHA BAND. Steven Soles (vocals, guitar); David Mansfield (violin, mandolin, guitar); T-Bone Burnett (vocals, guitar, piano); David Jackson (bass); Matt Betton (drums). *Interviews; Cheap Perfume; Ten Figures; Wouldn't You Know; Madman;* and five others. ARISTA AL 4102 \$6.98, © 8301-4102H \$7.95, © 5301-4102H \$7.95.

Performance: **Fragmented**
Recording: **Good**

There's some talent here but you might miss it while wincing about some of the other stuff. Steven Soles, chief singer and songwriter, is more interested in words than in tunes, and, while he uses words intelligently, he does seem a little preoccupied with the hard-boiled metaphor. The vocals, though, are the main distraction; they give more weight to inflection than to melody and are more like chanting than singing. The instrumentals don't sound like the same band from one cut to another, although they're never weak. The makings of something are here, all right, but they're rather scrambled.

N.C.

RAY BARRETTO: *Tomorrow: Barretto Live.* Ray Barretto (congas); instrumental and vocal accompaniment. *Vaya; Ahora Si que Vamo a Gozar; Ban Ban Quere; Night Flowers/Slo Flo;* and three others. ATLANTIC SD 2-509 two discs \$7.98, © TP2-509 \$7.97, © CS2-509 \$7.97.

Performance: **Good**
Recording: **Good**

Ray Barretto, the conga king, is one of the great stars of modern Latin music, and he usually assembles first-rate talent for his

bands. That is the case here with what is grandly referred to as the Concert Orchestra Band, but this double-disc live set never quite comes off, mostly because the concert was handled as a Cultural Event rather than a fancy gig. It would have been better if Barretto and his group had been recorded playing a dance; the interaction between the band and the dancers would have been steamier than the ritual cheers of the concert audience.

The liner notes stress that Barretto has been looking for a new sound that would reflect Latin culture, etc. etc., because he's really paid his dues, blah blah. I think the boosters of Latin music are getting rather carried away with this "preserving the culture" business; the only dilutions Latin music has suffered culturally have come when these same boosters mixed salsa with gringo disco, jazz, and soul. I am very much in favor of keeping Latin music pure, but I wish the gentleman boosters would either practice what they preach or kindly close their *bocas grandes*.

J.V.

THE BEACH BOYS: *Live in London '69.* The Beach Boys (vocals); instrumental accompaniment. *Darlin'; Wouldn't It Be Nice; Sloop John B; California Girls; Do It Again; Good Vibrations; God Only Knows; Barbara Ann;* and four others. CAPITOL ST-11584 \$6.98, © 8XT-11584 \$7.98, © 4XT-11584 \$7.98.

Performance: **Feeble**
Recording: **Fair**

Capitol Records, for whom the Beach Boys used to record back in the good old days, has had a lot of success in repackaging catalog material by the group and pushing it with high-gear merchandising campaigns. But the label seems to have hit, if not the bottom of the barrel, the damp floor of their tape vaults with the issue, eight years after the event, of a live 1969 recording of a London concert. Why the long delay? After hearing the album, I would guess that Brian Wilson, leader of the group, initially found it lacking and didn't want it released. It was under Wilson's guidance that the Beach Boys became a prime ex-

Explanation of symbols:

- Ⓜ = reel-to-reel stereo tape
- Ⓢ = eight-track stereo cartridge
- ⓐ = stereo cassette
- Ⓛ = quadraphonic disc
- Ⓡ = reel-to-reel quadraphonic tape
- ⓑ = eight-track quadraphonic tape

Monophonic recordings are indicated by the symbol Ⓜ

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

ample of what could be done with a quintet of marginally talented singers performing interesting material (Wilson's) while relying heavily on the cosmetics of studio sound techniques at the hands of a producer (Wilson again) whose use of the machinery was gifted.

Good Vibrations is a little masterpiece in the studio version, but it is less a song than a testament to Wilson's brilliant understanding and use of studio techniques. The same can be said of nearly all the material here, which includes most of the best tunes from Wilson's inventory. The Beach Boys were never much of a stage band; outside the comfort and protection of the studio, they sounded frail, wobbly, and mediocre. This album is for dedicated fans only. J.V.

JEAN CARN. Jean Carn (vocals); orchestra. *You Are All I Need; You Got a Problem; Time Waits for No One; No Laughing Matter*; and five others. PHILADELPHIA INTERNATIONAL PZ 34394 \$6.98, © PZA 34394 \$7.98.

Performance: **Better than the material**
Recording: **Routine**

Here's some expertly mellow, very sweet singing by Jean Carn in one of those Gamble-Huff cookie-cutter productions, this one labeled Classy Lady Singer. That she is. But, trapped as she is in a repertoire that includes three Gamble-Huff songs and a bunch by Dexter Wansel, she's a little like an Olympic swimmer in a pool filled with Redi-Whip. She tries mightily but can't overcome such goo as *No Laughing Matter* or *If You Wanna Go Back*, and the result is, sadly, a waste of her time and yours. P.R.

TOM CHAPIN: *Life Is Like That.* Tom Chapin (vocals, guitar, banjo); orchestra. *You and Me; Number One; Jenny Jenny; Magic Man; Sorrow Takes a Bow*; and four others. FANTASY F-9520 \$6.98.

Performance: **Fair**
Recording: **Good**

Tom (Harry's brother) Chapin plays and performs bubblegum ideas in early-Sixties coffeehouse style. His foggy themes are ripe adolescent. Here is *Jenny Jenny*, for instance, the saga of someone who "Woke up this morning in the middle of the afternoon" and, while waiting for the heroine to arrive, ponders the fact that "Your parents don't like me much but I know you do/ And your brother doesn't think I'm good enough for you." Chapin takes the edge off all of this drama by performing it in a turtle-neck, denim voice with a pseudo-folk banjo accompaniment. Then there is *You and Me*, performed in pretty much the same profound style: "Wait and see how happy we're gonna be, you and me/ Bop baba doo dah, bop baba doo dah, bop baba doo dah." Mr. Chapin, from his picture, appears to be somewhere in his thirties. P.R.

BLOSSOM DEARIE: *My New Celebrity Is You.* Blossom Dearie (vocals and piano); orchestra. *Smiling Feet; Killing Me Softly with His Song; Unless It's You; Peel Me a Grape; Pretty People; The Christmas Card*; and ten others. DAFFODIL BMD 103 two discs \$12.98 (from Daffodil Records, P.O. Box 312, Winchester, Va. 22601).

Performance: **Unique**
Recording: **Good**

Blossom Dearie holds court again in this new two-disc release on her own label. For the

faithful, and there are many, it's a resplendent occasion. For the uninitiated, it's another chance to discover one of the truly unique performers now recording. And for the still dubious . . . well, they can take care of themselves. My personal opinion of Blossom Dearie (and she's the kind of special artist that one can't avoid having a personal opinion about) is that she can be absolutely wonderful in the right material. Unfortunately, in the wrong material she can be a harrowing, affected bore. Here, it breaks down about evenly. Her eerily childlike voice, so at odds with the sophistication and style of her lyric approach and her fastidious musicianship, turns such chestnuts as *Killing Me Softly with His Song* and *There Ought to Be a Moonlight Saving Time* into gorgeous little pastel portraits of mood and feeling. But when she applies these same talents to something such as the title song, a clumsy attempt at chic by Johnny Mercer, or her own *Long Daddy Green (the Almighty Dollar)*, a sourish finger-flick masquerading as witty comment, she seems arch, smug, and infuriatingly mannered. Even unique artists are, apparently, only as good as their material. But revel in the good stuff if you can—there is a lot more of it here, including a lovely *À Paris*, a gallant and wise *Unless It's You*, and a shimmering Leon Russell tune, *A Song for You*. The production is respectful and courtly, with particularly fine work by Ron Carter on bass. P.R.

THE EAGLES: *Hotel California* (see Best of the Month, page 87)

THE ENID: *In the Region of the Summer Stars.* The Enid (instrumentals). *The Sun; The Last Judgement; The Lovers; The Devil*; and three others. BUK 52001 \$6.98, © 8-52001 \$7.98.

Performance: **Pretentious**
Recording: **A boomer**

The strongest traceable influence on the compositions and music of the Enid, a.k.a. Robert John Godfrey, Francis Lickerish, Stephen Stewart, Glenn Tollett, and Robbie Dobson, would seem to be the Phantom of the Opera—that is, after the Phantom had been to a concert consisting exclusively of the most juicy transcendental sections of Strauss, Mahler, and Bruckner. In such boomers as *The Sun*, *The Last Judgement*, and *The Devil*, the Enid whack, thrum, and blare (technically very well) through what sounds like a series of stupendous chords. All the while, cast over everything, is an electronic, organ-like hum that lets one know that Something Is Amiss. Indeed there is. Even the dear old Phantom wasn't that deafeningly pretentious. Meanwhile, back on the farm, between Vangelis and the Enid poor Chicken Little is probably having one anxiety attack after another. P.R.

(Continued overleaf)

Lani Hall: "Sweet Bird"



A&M Records

seem to sidle up (grandly, of course) and say, ". . . Er, ah, Lani really doesn't mean to seem this emotional, folks." *Send In the Clowns*, the strongest song here—which is no slur on most of the others—is just about ruined by an overreaching bump-thump back-up that's "different" for the sake of being different. It just isn't that kind of song. Yet Lani, in there and in the others, is getting at it, feeling what the song is about and putting the feeling into her technically superb singing—and she repeatedly guides you through the decorations and into the actual music. I am, of course, somewhat radical, but I'd have gone the opposite of ice-blue—where this is off from it about 45 degrees—and backed her with a spartan combo that plays by ear. Dismantle the slickness and give the voice its head, I say, follow it instead of setting up categories for it. But 45 degrees is something, and so is the temporary 120-degree use of a big bunch of strings for Joni Mitchell's *Sweet Bird* (which few other singers not named Joni Mitchell will ever dare to sing in public, I dare say), and the songs have something to say. This woman can sing the shag out of the rug.

—Noel Coppage

LANI HALL, a singer's singer if I ever heard one, used to be with Sergio Mendes and Brazil '66, which used her as just another instrument in a sort of ice-blue approach to music. You might say the fact that she was a great vocalist was an ice-blue secret. Here she's presented in a pop-singer-with-orchestra get-up, circa 1953. *Maybe* that's the way to do it, but she and Michel Colombier and Herb Alpert (also the producer) let their arrangements get a little too ripe for my taste. They

LANI HALL: *Sweet Bird.* Lani Hall (vocals); orchestra. *Send In the Clowns; That's When Miracles Occur; Early Mornin' Strangers; Mr. Blue (Misty Blue); Too Many Mornings; At the Ballet; The Moon Is All Alone (Like Me); Dolphin's Lullaby; Sweet Bird.* A&M SP-4617 \$6.98.



JOHN HAMMOND:
an impeccable performance
from a man who loves
the blues

FOGHAT: *Night Shift*. Foghat (vocals and instrumentals). *Night Shift; Drivin' Wheel; I'll Be Standing By; Burning the Midnight Oil;* and three others. BEARSVILLE BR 6962 \$6.98, © M8 6962 \$7.97, © M5 6962 \$7.97.

Performance: **Hot air**
Recording: **Good**

Foghat is a hard-rock band that occasionally tries to be bluesy, but its members have little or no imagination, no basic ideas of their own, and play nothing they haven't heard somewhere else. Most hard-rock bands suffer the same deficiencies; the style depends for its success on volume and youthful energy, which are not talents or skills in themselves. To shriek and keen and dazzle the paying customers, as Foghat does, is all very fine as long as the band or singer has some humor, grace, or stomach; lung power and megakill amplifiers are poor substitutes. J.V.

AL GREEN: *Have a Good Time*. Al Green (vocals); vocal and instrumental accompaniment. *Keep Me Cryin'; Smile a Little Bit More; I Tried to Tell Myself; The Truth Marches On;* and five others. HI SHL 32103 \$6.98, © SHL8-32103 \$7.98, © SHL5-32103 \$7.98.

Performance: **Standardized**
Recording: **Good**

If Al Green's albums usually sound the same, that is because they are meant to. Having arrived at a successful pop formula, he seldom deviates from it. His phrasing, modeled on Otis Redding's, is executed in a high tenor alternately delivered from the back of his throat and through his nostrils; he sings at half-volume as though saving his strength for an emergency which never comes, and he punctuates his readings with mild yips, wails, and moans inserted with mathematical precision. Green is a crooner operating in the soul format, and his performances, though well-crafted, are bloodless and all too predictable. If

you liked his other albums, you'll like this one too. J.V.

RECORDING OF SPECIAL MERIT

MERLE HAGGARD: *The Roots of My Raising*. Merle Haggard (vocals, fiddle); the Strangers (instrumentals). *The Roots of My Raising; What Have You Got Planned Tonight Diana; The Waltz You Saved for Me; Walk on the Outside; Gambler's Polka Dot Blues; Cherokee Maiden;* and four others. CAPITOL ST-11586 \$6.98, © 8XT-11586 \$7.98, © 4XT-11586 \$7.98.

Performance: **Class all the way**
Recording: **Very good**

Now here's something that, in its tape version, will make the truckers stop jabbering on their CB's and listen for a long stretch. What we need now is a scientific study on the diminished CB interference with television and music systems along the interstates, correlated with the popularity of this album. A good thing, in any case. Merle Haggard, when he's really able to focus his energy on the making of an album, is something special. The latest gimmick that either Nashville or Bakersfield thinks it has to have in country music just passes by him, beautifully-ignored; Haggard holds onto the basic folk values that made country music country. He goes his own way and trusts his audience to follow what he's doing and not laugh in the wrong places. He's seemed distracted at times in the making of other albums, and he still hasn't written the songs he seems to promise he will someday—in fact he seems less and less prolific as a writer—but here he was attending to every selection in a clean, clear way. Given his natural talent, his fine band, and his unique experience and seasoning, that's all you need. An eighteen-wheeler with a full tank and a stretch of dry road wouldn't hurt, but the album works well in rooms, too. Trust me. N.C.

RECORDING OF SPECIAL MERIT

JOHN HAMMOND: *Solo*. John Hammond (vocals, guitar, harmonica). *I Can't Be Satisfied; Drifting Blues; Trucking Little Baby; Sky Is Crying; Look on Yonder Wall; Honest I Do; Hellbound Blues;* and four others. VANGUARD VSD 79380 \$6.98.

Performance: **Compleat bluesmanship**
Recording: **Excellent**

John Hammond loves the blues, has worked hard at making himself a good musician, and had a good voice to start with. I don't know what more one could ask . . . I do know what people always say, that he wasn't born black—but then if he were, he probably wouldn't be doing the blues at his age. Here he accompanies himself on guitar and, with one of those racks popularized by Dylan, on the harmonica before a small, live studio audience. He does a fairly varied program of Muddy Waters, Elmore James, Jimmy Reed, et al. I've heard better guitar playing and better harmonica (by Hammond himself when his hands were free), but I've seldom heard anyone play both at once this well. His singing style was, of course, mannered at first, but it is beyond that now; the rest of him has come around to jibe with it. The attitude behind this performance is almost impeccable. I wish I'd been there, and this is recorded so well I almost feel I was. N.C.

STEVE HILLAGE: *L*. Steve Hillage (vocals, shenai, guitar, synthesizers); Don Cherry (trumpets, bells, tambura, voice); other musicians. *Hurdy Gurdy Man; It's All Too Much; Electric Gypsies;* and three others. ATLANTIC SD 18205 \$6.98.

Performance: **Electricrickery**
Recording: **Very good**

Now, I ask you, who would name an album "L"? Somebody who would assure you that a track entitled *Lunar Musick Suite* has been "recorded exclusively at full moon, May and June," that's who. Who cares? Not too many people, I hope. I bet you already think I hate this album, but it is only the cuteness on the cover that I object to. What's inside—produced and engineered by Todd Rundgren—is souped-up to the hilt, but it's well done and mostly quite listenable. Despite the presence of Don Cherry—Ornette Coleman's former sidekick, who is heard only on *Lunar Musick Suite*—this is decidedly a rock album, synthesized to kingdom come and respectably performed. If you like the sort of thing Rundgren dishes out under his own name, you'll probably like this serving as well. C.A.

LEO KOTTKE: *Leo Kottke* (guitar); instrumental accompaniment. *Buckaroo; The White Ape; Hayseed Suede; Rio Leo; Range; Airproofing; Maroon; Waltz;* and three others. CHRYSALIS CHR 1106 \$6.98.

Performance: **Very good**
Recording: **Very good**

This is another instrumental album from Leo Kottke, and this time the emphasis seems to be on his compositions. He may be refining his open-tuning and slide techniques on the twelve-string guitar, but what's more apparent is how he's fashioned melodies around those. It's a developmental process taking off from Kottke's almost abstract—at times it seems almost "pure," whatever that is—fas-
(Continued on page 94)

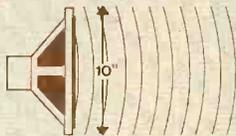
Introducing the Avid 101.

A rational solution to the problems of 2-way speaker design.

Designing a reasonably priced 2-way speaker system has always had its problems. One of the most perplexing of which has been engineering a speaker system with both well-dispersed midrange *and* really extended bass.

The bass vs. midrange dilemma.

In one respect, a 6 or 8 inch woofer is preferable for a 2-way speaker system because its small diameter



Conventional 10" woofer is directional in midrange.

affords better dispersion in the critical midrange area up to the crossover point where the high frequency driver takes over.



8" woofer affords superior midrange dispersion.

But, a small diameter woofer just isn't capable of handling the power

required for really extended bass (say to 30 Hz) in traditional designs without the use of costly electronic equalizers.

A real dilemma. The best solution to which we feel lies in a unique new 2-way speaker system—the Avid Model 101.

A rational solution.

The Avid 101 overcomes the traditional bass versus midrange

dilemma through an unusual combination of a large vented enclosure and a specially engineered 8 inch woofer.

Unlike conventional vented designs, the Avid 101's vented enclosure is used to *extend the bass response* of the system, rather than to increase the efficiency. This unique design (essentially a 4th order Chebychev filter alignment) achieves really extended bass—*down 3 dB at 30 Hz*—while the use of an 8 inch woofer insures a smooth, well dispersed midrange up to its 2500 Hz crossover point.

Of course, no ordinary 8" woofer could do the job. It took us over a year to perfect the woofer design and it's quite unique. For example, it utilizes an unusually large magnetic structure and a specially developed rubber-edged

cone of almost twice the weight and stiffness typically used.

But you have to actually listen to the Model 101 to really appreciate just how well it solves the traditional problems of the 2-way speaker.

A high end to match.

Things just wouldn't be complete if we didn't give the 101 a high-end performance that was every bit as good.

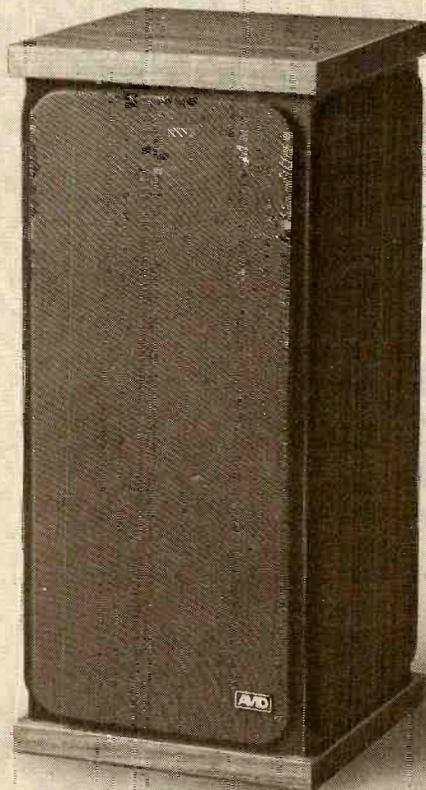
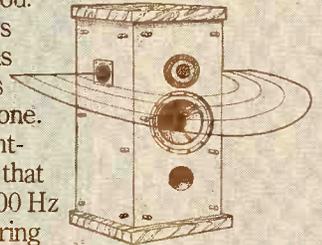
Which is why the 101 has three tweeters instead of just one. A primary, front-facing tweeter that comes in at 2500 Hz and two side-firing units that kick in around 3500 Hz.

The result is full 180° dispersion in the high end all the way up to 15 kHz for a sense of imagery and openness which, until now, was unavailable in all but the highest priced speakers.

The right choice for most listeners.

We believe that the Avid Model 101 truly represents an advancement in two-way loudspeaker design and is the completely right choice for the vast majority of serious listeners.

Find out for yourself at your nearest Avid dealer. Be an Avid listener.



AVID
CORPORATION

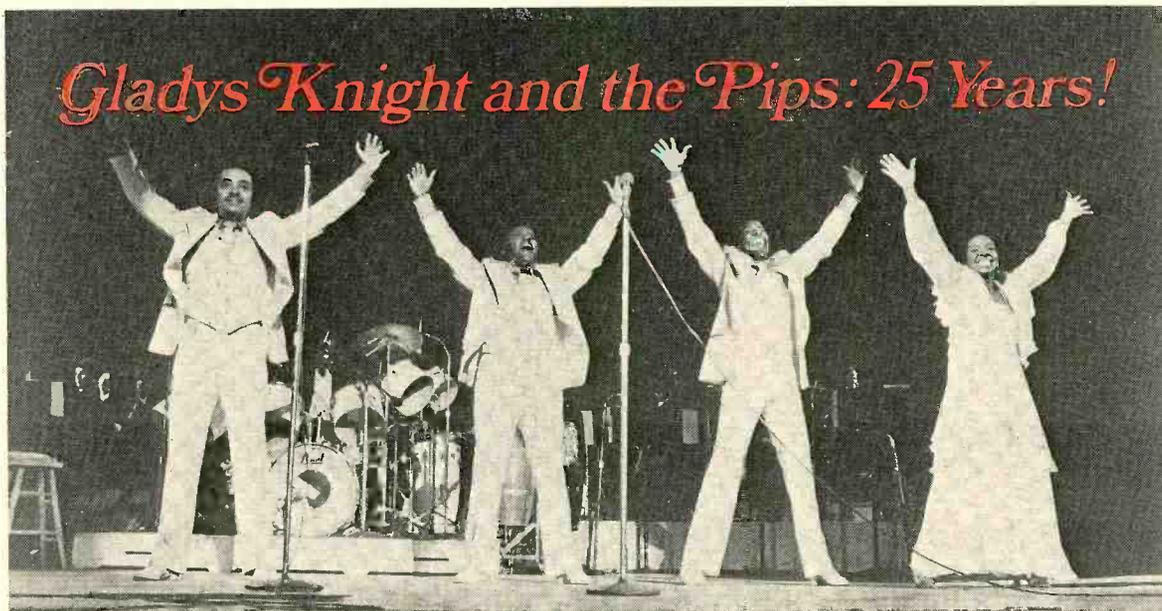
10 Tripps Lane, East Prov., R.I. 02914

FIRST heard Gladys Knight and the Pips in person at London's New Victoria Theater in April of last year. More precisely and pertinently, I went to hear them. They were there all right, and for a while I much enjoyed and admired Gladys' cheerful, exuberant presence and the Pips' marvelously coordinated and rhythmically impeccable choreography. But something was wrong. Indeed, a lot was wrong. I was ideally placed in a forward row of the balcony. I could see everything, including a twenty-five-piece orchestra with strings banked on one side of the stage, a jazz band on the other, and a lot of percussion in the

course, that a word to the wise must have struck home. Why, otherwise, would they have reproduced that notice verbatim? The intermission passed. The audience was reassembled, the curtain still down, when suddenly there was an ear-shattering blast. I thought a speaker had blown. But no. The curtain rose, and there sat musical director Albert Thompson frenetically producing some more of those blasts from his drum kit, surrounded by that same twenty-five-piece orchestra playing those same overblown arrangements. Nobody had learned anything, and nothing was changed. But this time I stuck it out, and

only little by little that I began to note a difference. Enlightenment came not on the road to Damascus, but on the highways of the eastern seaboard on my semi-annual visits to the States, my rent-a-car radio tuned to the nearest black station. Time after time my ear would catch a magically turned phrase from an eloquently rich and richly eloquent female voice, and time after time I would be told by the DJ that I had been listening to Gladys Knight.

She has been, and still is, a group singer, and this poses a problem not only for her as a potential soloist, but also for a reviewer of the



Buddah Records

middle. And that was what was wrong. I could hear the orchestra (too much of it), but I couldn't hear Gladys below the decibel level of a holler, and I could hardly hear the Pips at all. And so, after maybe half an hour, I walked out, wondering, as I have often wondered before with other singers on other occasions, why big artists, or their record companies, or whoever foots the bill, spend all that money on lush arrangements, highly skilled personnel, and ultrasophisticated sound systems only and simply to render themselves inaudible.

They were back at the New Victoria a few weeks ago to give five concerts in three nights. I decided to have another go and bought a ticket for the last concert, figuring that by then, at least, the sound system would be in order. While sweating out a pretty ghastly warm-up group, I leafed through the massive program book. It included blow-ups of some reviews of last April's concert, and there, to my utter astonishment, I read the following, by Vivien Goldman in a publication called *Sounds*, dated May 8, 1976: "No, my argument is with the orchestra, a vast affair squatting ominously (to me) at the back of the stage. . . . That darn orchestra kept drowning out the voices, certainly overbalancing Gladys in her more tender moments."

Well, I thought, maybe somebody has at last not only learned something but done something about it. I was assuming, of

was rewarded at the end when Gladys settled down to some ballads, with only piano and discreet rhythm accompaniment, singing *The Way We Were* and *Georgia on My Mind* as beautifully as I have ever heard or hope to hear them sung.

Things must, I thought, be better on records. What, after all, are the producer, the arranger, the engineer, the mixer, the conductor, the editor, etc. paid for? And on the albums released since Gladys Knight and the Pips abandoned Motown for Buddah in 1973 you can even read: "All selections co-produced by Gladys Knight, Bubba Knight, William Guest and Edward Patten."

Well, things are better, but not much, although I hasten to add that the most recent of these releases—"2nd Anniversary" and "Bless This House"—suggest that someone is beginning to see the light. Or has it finally occurred to someone, possibly Gladys Knight herself, that for nearly twenty-five years a great singer has been hidden away in a group sound and sacrificed to the brash clangor of Motown r-&-b and soul?

I suspect and, indeed, have long suspected the latter. Not that I have been more than casually familiar with Gladys Knight's work. Groups are not my thing, and for many years I was aware of Gladys Knight and the Pips in about the way I was aware of Diana Ross and the Supremes, Martha and the Vandellas, and Smokey Robinson and the Miracles. It was

group's records. Group singing, especially of the kind so successfully refined by Motown, is a phenomenon having more to do with sound than with song. And thus it is manifestly unfair to take producers and arrangers working with Gladys Knight and the Pips to task for not shaping the product exclusively to the talent and accomplishment of the lead singer. I, in listening to these records, want to hear Gladys Knight. I couldn't care less about the Pips, obviously admirable as they are, nor do I much care about the instrumental backing beyond hoping that it will not get in her way. I have to remind myself that these are group recordings—as such very good—and that they were not produced for the solo and song-oriented likes of me.

Which brings us to "2nd Anniversary," celebrating the second anniversary of the group's association with Buddah. This could have been produced for me—most of it, anyway. Here, on track after track, is the Gladys Knight I want to hear, her voice well forward, the Pips in a discreetly supportive role, the arrangements solicitously fashioned to her phrasing, dynamics, and melodic deviations. Some of the songs, notably Hoagy Carmichael's *Georgia on My Mind*, Paul Williams' *You and Me Against the World*, and Jim Weatherly's *Where Do I Put His Memory*, reveal a Gladys Knight obviously "crossing over" from soul to MOR, or, as she put it to an interviewer recently, "getting into lyrics." Let me

quickly add that in making the transition she brings with her much of the exhortatory urgency and melismatic predilection and invention derived from her childhood apprenticeship in gospel choirs in her native Georgia. Indeed, in a song like *Georgia on My Mind* she can sound like a female Ray Charles—and be similarly compelling.

“Crossing over” has its vocal as well as probably—its commercial advantages for Gladys Knight. The exalted character of gospel singing, often perverted in soul into instant ecstasy, tempts singers to favor the upper third of their natural range and to shift into falsetto as they extend exaltation upward into frenzy. This applies to Gladys Knight, too, although she almost never uses falsetto. When she hollers—and she can holler with the best of them—it is usually in the third between C and E. But the glory, the eloquence, and especially the tenderness of a contralto range covering just over two octaves from the low D lies in the middle and below, and that’s just where her new MOR material and her arrangers put her.

You can hear that, too, on the sleeper in this lot, “Bless This House,” a collection of more or less gospel-flavored Christmas songs, especially on the title track. There are two *Ave Marias* on this album, both of them admirably arranged by Dominic Frontiere and persuasively sung by Gladys. One of them is Schubert’s. The other is Gounod’s, incredibly attributed not to Gounod but to Bach. Well, Bach *did* lay down the changes. Producers, by the way, are Kenny Kerner and Richie Wise, also responsible for *You and Me Against the World* and *Where Do I Put His Memory* on the “2nd Anniversary” album. They know their Gladys, and they treat her right. “Bless This House” is consistently delightful. Keep it in mind for next Christmas.

... a great singer
has been hidden away
in a group sound ...

“The Best of Gladys Knight and the Pips” will appeal to those more addicted to sound than to song. There is better material here than you get on the earlier Motown tracks I have heard. Especially engaging are three Jim Weatherly songs, *The Going Ups* and *The Coming Downs*, *Best Thing That Ever Happened to Me*, and *Midnight Train to Georgia*, but the idiom is lavish r-&-b, and Gladys’ voice is not brought forward as it is on the albums I have touched on above—not, at least, until the last track, a recited *Try to Remember* leading into *The Way We Were*, taken from a live performance and sung without the Pips. This is vintage Knight, a bit overscored in the build-up, but just about worth the price of the album.

All three of the Jim Weatherly tracks are taken from the earlier “Imagination” album

(platinum) and are the best that album has to offer. “Claudine” and *Pipe Dreams*” are taken from moving-picture soundtracks. Gladys starred in “*Pipe Dreams*,” set in Alaska, and pretty well survives the overscoring on *So Sad a Song* and *Nobody but You*, both of which have done well as singles. I heard nothing on the “*Claudine*” album, scored by Curtis Mayfield, that struck me as being in a class with the best of the others, but the album itself struck gold in 1974, as did *On and On* as a single. Again, it’s probably a matter of what you are looking for when you listen to Gladys Knight and the Pips.

I look for Gladys Knight, and welcome the Pips in a supporting role. Gladys Knight with the Pips would be the solution if billing and production were up to me. The most recent releases suggest that Buddah wants the best of both worlds. They can probably have it—until, as I foresee, Gladys moves, or is propelled by her own talent and accomplishment, into a great singer’s world of her own. She is just too much!

—Henry Pleasants

GLADYS KNIGHT AND THE PIPS: 2nd Anniversary. *Money; Street Brother; Part Time Love; At Every End There’s a Beginning; Georgia on My Mind; You and Me Against the World; Where Do I Put His Memory; Summer Sun; Feel Like Makin’ Love.* BUDDAH BDS 5639 \$6.98, Ⓜ 8320-5639H \$7.95, © 5320-5639H \$7.95.

GLADYS KNIGHT AND THE PIPS: Bless This House. *The Night Before Christmas; Do You Hear What I Hear; The Christmas Song; Away in a Manger; Ave Maria (Bach/Gounod); Silent Night; Bless This House; Gospel Medley; Ave Maria (Schubert).* BUDDAH BDS 5651 \$6.98, Ⓜ 5320-5651H \$7.95, © 5320-5651H \$7.95.

THE BEST OF GLADYS KNIGHT AND THE PIPS. *Make Yours a Happy Home; Best Thing That Ever Happened to Me; I Feel a Song in My Heart; The Going Ups and the Coming Downs; Midnight Train to Georgia; On and On; Where Peaceful Waters Flow; I’ve Got to Use My Imagination; I Can See Clearly Now; Try to Remember/The Way We Were.* BUDDAH BDS 5653 \$6.98, Ⓜ 8320-5653H \$7.95, © 5320-5653H \$7.95.

GLADYS KNIGHT AND THE PIPS: Claudine. *Mr. Welfare Man; To Be Invisible; On and On; The Makings of You; Claudine Theme (instrumental); Hold On; Make Yours a Happy Home.* BUDDAH BDS 5602 \$6.98, Ⓜ 8320-5602H \$7.95, © 5320-5602H \$7.95.

GLADYS KNIGHT AND THE PIPS: Pipe Dreams. *So Sad the Song; Alaskan Pipeline; Pot of Jazz; I’ll Miss You; Nobody but You; Pipe Dream; Find a Way; Follow My Dreams; So Sad the Song (instrumental).* BUDDAH BDS 5676 \$6.98, Ⓜ 8320-5676H \$7.95, © 5320-5676H \$7.95.

GLADYS KNIGHT AND THE PIPS: Imagination. *Midnight Train to Georgia; I’ve Got to Use My Imagination; Storms of Troubled Times; Best Thing That Ever Happened to Me; Once in a Lifetime Thing; Where Peaceful Waters Flow; I Can See Clearly Now; Perfect Love; Window Raisin’ Granny.* BUDDAH BDS 5141 \$6.98, Ⓜ 8320-5141H \$7.95, © 5320-5141H \$7.95.

SUPER



\$1100

SUGGESTED RETAIL PRICE

RACK STACK

Perhaps the finest professional put-together of sound equipment ever assembled. Spectro Acoustics has engineered a system priced to be economical without being cheap. The Model 217R Straightline Preamplifier, Model 210R Graphic Equalizer and Model 202C Power Amplifier with 100 watts per channel. The Super Rack Stack is assembled in a rugged all-metal professional rack mount cabinet.

MODEL 217R has front panel accessible phono stage cartridge loading, gain selector and subsonic filter. Completely flexible source selector with two phonos, tuner, auxiliary and two tape circuits with by-directional bypass copying possible.

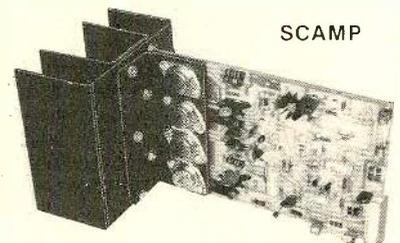
Distortion less than 0.05% THD.
Phono S/N Ratio better than 85 db.
Frequency Response 10 Hz-100kHz ± 0.25 db.

MODEL 210R has ten bands of octave equalization per channel with ± 15 db boost or cut per octave. “Gyrator” synthesized inductors eliminate distortion and noise. Line or tape equalization with tape monitor and equalizer defeat are provided for complete flexibility. IC construction provides increased S/N ratio of 90 db with no phase shift.

Distortion less than 0.1% any level of equalization.
S/N Ratio better than 90 db any level of equalization.
Dynamic Range better than 100 db at full output.

MODEL 202C provides Scamp modular construction for rugged reliability and ease of repair in the event of breakdown. Class AB design with ± 70v Power supply for 200 watt per channel peaks at clipping on program material.

FTC No less than 100w RMS continuous per channel both channels driven into 8 ohm any frequency 20 Hz to 20kHz and no more than 0.25 THD.



**SPECTRO
ACOUSTICS, INC.**

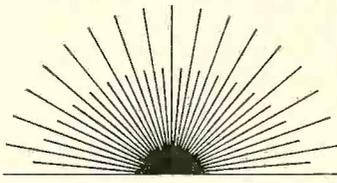
3200 Geo. Wash. Way

(509) 946-9608

RICHLAND, WASHINGTON 99352

CIRCLE NO. 54 ON READER SERVICE CARD

RTR unveils aesthetic sound



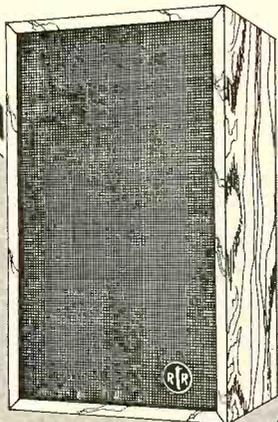
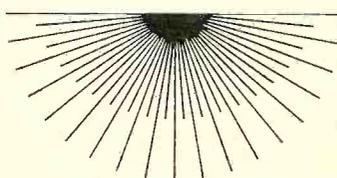
with the EXP bookshelf system

In a typical listening environment, the bookshelf speaker is a perfect design entity. It fits logically, aesthetically within a room. If only the sonic coloration could be eliminated, it would be an ideal loudspeaker.

Now RTR unveils audiophile bookshelf speakers for those who take their music seriously.

The EXP series delivers pure musical reproduction. Free of coloration, full of transparency, they reflect the most critical RTR standards. Wide-band tweeter exhibits the best transient performance from 1,000 to 15,000 Hz of any dynamic tweeter. Woofers deliver hair-line delineation coupled with natural boom-free bass.

All in a bookshelf package and price. Hear a pair of EXP's at your franchised RTR dealer.



For dealer list and specifications, write RTR, Dept. SR, 8116 Deering Ave., Canoga Park, CA 91304.

CIRCLE NO. 42 ON READER SERVICE CARD

cination with sound itself. His approach is complicated and gimmicky in the sense that it would seem to take four or five hands to do it, and simple in the sense that it's pegged to melody. With one instrument, he "orchestrates" it. A few other instruments help him along here in restrained ways. I would have liked a couple of vocals—Kottke's voice is a boomer that rides a diaphragm stronger than a trampoline—but I suppose the idea here was *not* to break up the program. Listen for theme and nuance and thou shalt be rewarded. N.C.

DAVID LAFLAMME: *White Bird*. David LaFlamme (vocals, violin); vocal and instrumental accompaniment. *White Bird; Hot Summer Day; Swept Away; Easy Woman*; and three others. AMHERST AMH-1007 \$6.98.

Performance: **Scatter-shot**
Recording: **Good**

David LaFlamme, as a sticker on the cover of this album informs us, was "former writer, vocalist, violinist, and leader of It's a Beautiful Day." The music on his solo album is abstracted, tending to wander—or stumble—in and out of various styles. He is only an average vocalist, and the lyrics to his songs are puerile and gushy when they aren't banal—something an over-serious boy might write after an unexpected sensual experience at a church picnic.

But LaFlamme is a pretty good jazz violinist, and the jazzier moments are the only ones in which "White Bird" comes close to sounding like something interesting. LaFlamme would probably be better off if he stopped trying to play all styles known to man in the course of a single Jello-like tune and concentrated on his violin playing, where most of his talent lies. J.V.

LORETTA LYNN: *Somebody Somewhere* (see Best of the Month, page 83)

MARILYN MCCOO & BILLY DAVIS, JR.: *I Hope We Get to Love in Time*. Marilyn McCoo and Billy Davis, Jr. (vocals); orchestra. *You Love; Nothing Can Stop Me; Easy Way Out; You Can't Change My Heart; Never Gonna Let You Go*; and five others. ABC ABCD-952

\$6.98, © 8022-952H \$7.95, © 5022-952H \$7.95.

Performance: **Very good**
Recording: **Good**

Almost all the entertainment here is on one band: Marilyn McCoo and Billy Davis Jr.'s chart hit, *You Don't Have to Be a Star (to Be in My Show)*. It's one of those numbers not unlike Sonny and Cher's oldie *I Got You Babe*, that may not drop you with its originality or its profundity but that seems like a remembered trademark from the first moment you hear it. McCoo and Davis give it a smashing performance with a lot of genuine tenderness in the lyric reading and a robust musicianship that saves it from soap opera. As for the rest . . . well, it's all very professional, as you'd expect from two former members of the Fifth Dimension, and it'll probably knock 'em dead in Vegas, but the lightning firmly refuses to strike twice. P.R.

MICHAEL MELFORD: *Mandolin Fantasy*. Michael Melford (mandolin, guitar, vocal); Clyde Brooks (drums); Doug Dillard (banjo, vocals); other musicians. *Devil's Dream; Black Eyed Susie; Georgia Camp Meeting; Train, Train; Omie Wise; Sweet Georgia Brown*; and five others. FLYING FISH 023 \$6.98.

Performance: **Elegant and relaxing**
Recording: **Very good**

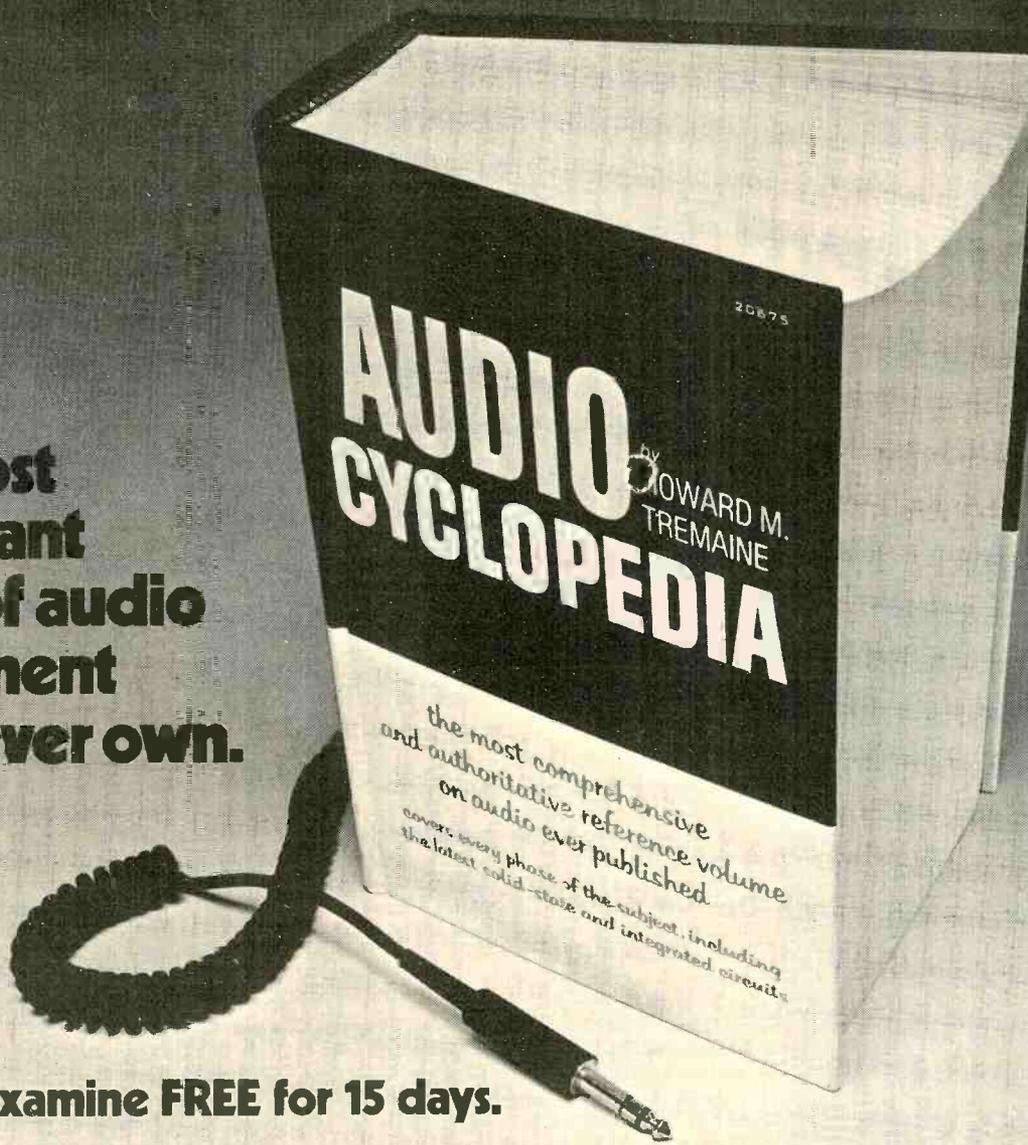
I must confess I can't really tell "good" mandolin playing from mediocre mandolin playing beyond being able to detect something special about Bill Monroe's. I mean to correct that, though, as I've decided to learn how to play the thing myself. It is difficult to play well. Years ago it was sold as a civilized if not sedate instrument for making a sort of chamber music in the home. Bluegrass musicians have all but redefined the mandolin, and recordings like this make you glad they did. Not that this is heavy with lickety-split bluegrass tunes; what it does is show what a variety of approaches the mandolin can take. But then it isn't even heavy with mandolin solos or mandolin domination of the ensemble—it's a
(Continued on page 96)



MARILYN MCCOO AND BILLY DAVIS, JR.:
genuine tenderness
and robust
musicianship

ABC Records

The most important piece of audio equipment you'll ever own.



Yours to examine FREE for 15 days.

**25 FACT-FILLED CHAPTERS
ARRANGED IN "EASY-TO-FIND"
QUESTION AND ANSWER FORM**

- Basic Principles of Sound
- Acoustics, Studio techniques, and Equipment
- Constant-Speed Devices, Motors, and Generators
- Microphones
- Attenuators
- Equalizers
- Wave Filters
- Transformers and Coils
- Sound Mixers
- VU and Volume Indicator Meters
- Vacuum Tubes, Transistors, and Diodes
- Audio Amplifiers
- Disc Recording
- Cutting Heads
- Recording and Reproducing Stylis
- Pickups
- Magnetic Recording
- Optical Film Recording
- Motion Picture Projection Equipment
- Loudspeakers, Enclosures, Headphones, and Hearing Aids
- Power Supplies
- Test Equipment
- Audio-Frequency Measurements
- Installation Techniques
- General Information, Charts and Tables

Be our guest. Examine the AUDIO CYCLOPEDIA free for 15 days. You'll find out why it is considered the most comprehensive and authoritative book ever written on the subject. And you'll get a FREE \$3.50 bonus book to keep no matter what!

The AUDIO CYCLOPEDIA is literally a one-book audio library. It has long been considered "the bible" by amateur stereo buffs as well as professional technicians. That's why you'll find it in constant use not only in home workshops and at stereo centers, but also in recording studios, broadcast booths and concert halls.

This giant reference book is over 3" thick,

and packed with 1,757 illustrated pages. It features 3,645 questions and answers and a 50 page "instant-find" index for subject identification. It is truly the big one in audio electronics and it puts all the information you'll ever need right at your fingertips, chapter by chapter.

Send for the AUDIO CYCLOPEDIA today. If you don't agree that it's the most important piece of audio equipment you own, just return it within 15 days. You won't owe a cent. And no matter what you decide, you'll get a free \$3.50 copy of *The ABC's of Tape Recording* to keep just for mailing the coupon.

**FREE-BOOK
FREE-TRIAL COUPON**



Save postage & handling costs. Full payment enclosed (plus tax where applicable). 15-day return privilege still applies.

Yes, please rush me the AUDIO CYCLOPEDIA (#21455) for my free trial. I understand if not completely satisfied, I may return it within 15 days, and owe nothing. Otherwise, it's mine to keep for only \$34.00 plus postage and handling and local taxes (where applicable).

And, whatever I decide, a copy of "The ABC's of Tape Recording" (valued at \$3.50) is mine free!

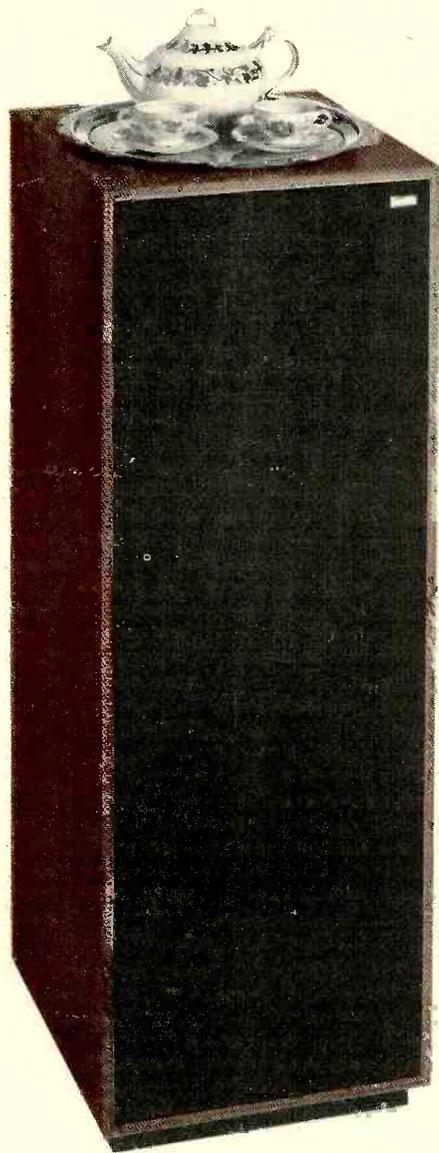
Name _____
 Address _____
 City _____
 State _____ Zip _____



Mail to Audel
 4300 W. 62nd Street
 Indianapolis, Indiana 46206
 A Division of Howard W. Sams & Co., Inc. BD28

Lentek

From England With Love.



The Lentek Speaker System—elegant in appearance, impeccable in sound. The Lentek Monitor is a four-way system with a nine-foot transmission-line for extremely tight and flat bass response.

Lentek—so well reviewed by the cryptic journal *Gramophone* that we were accused of bribery!—from England, with love.



At American Audiopoint Dealers.
1407 N. PROVIDENCE RD.
COLUMBIA, MO 65201



Elektra Records

QUEEN:
*a technically
dazzling balance
of hard rock and
melodic winsomeness*

sprightly, bright, playful album with good picking coming at you from several instruments on a few old tunes you'll tolerate hearing again, under these particular circumstances, and some truly elegant and haunting ones, such as *Omie Wise*, that we shouldn't have been away from for so long. I guess Melford plays pretty well—give me about another year and I'll say more about it—and I know he has produced a good album. N.C.

ESTHER PHILLIPS: *Capricorn Princess*. Esther Phillips (vocals); instrumental accompaniment. *Higher and Higher; Candy; All the Way Down; Dream*; and four others. KUDU KU-31 \$6.98, © KU8-31 \$7.98, © KUC-31 \$7.98.

Performance: **Rat-a-tat-tat**
Recording: **Very good**

Esther Phillips can shred a song faster than a hail of machine-gun fire. After she incinerates the lyric she proceeds to mow down whatever remains of the tune with a prolonged barrage of gasps, exclamations, and shouts that effectively block out anything written in the charts themselves. Most of the time she's great fun, as in *Higher and Higher* or *Magic's in the Air*, where her expansiveness reaches the point of semi-delirium. But at other times she can be a genuine pain in the neck, as she is in her careless dismantling of Janis Ian's witty, sardonic *Boy, I Really Tied One On*, a song that deserves to be heard on its own terms and scarcely needs Phillips' frantic mouth-to-mouth resuscitation. Otherwise everything's fine here—that is, if you enjoy hanging out with the Life of Every Party. P.R.

QUEEN: *A Day at the Races*. Queen (vocals and instrumentals). *Tie Your Mother Down; You Take My Breath Away; Long Away; The Millionaire Waltz; You and I*; and five others. ELEKTRA 6E-1091 \$7.98, © ET8-1091 \$7.97, © TC5-1091 \$7.97.

Performance: **Cold**
Recording: **Excellent**

The English critic Roy Carr observed recently that the vast majority of bands to have

emerged in the Seventies "are taking the mid-Sixties as their jumping off point, and in particular [italics mine] one of four albums: 'Blonde on Blonde,' 'Beggars Banquet,' 'Abbey Road,' and 'Led Zeppelin I.'" One could probably compile a long list of the groups that have chased the first two and failed, but Queen, an English troupe initially dismissed as just another tiresome entry in the glitter sweepstakes, has of late enjoyed enormous commercial success through a clever synthesis of the latter two.

In person Queen remains merely an undistinguished metal band in the Zeppelin mold (though, as one wag observed, they have the best smoke bombs in the business), but on records they have achieved a technically dazzling balance between Jimmy Page-ish hard rock and Paul McCartney/George Martin studio trickery and melodic winsomeness. Considering the low level of the recent competition, I suppose you have to award them some sort of high marks, and, to give them their due, they have come up with one truly original innovation in Brian May's remarkable overdubbing of multiple guitars to produce orchestral textures. Still, for all their mastery of craft, they are one of the coldest bands extant. Zeppelin and the Beatles are/were studio virtuosos too, but their best work had fire, passion, and an illusion of spontaneity.

Nothing of the sort can be said for Queen. The supposed masterpiece from their previous album, *Bohemian Rhapsody*, for example, was all decked out with structural tricks and clever vocalisms, but it meant absolutely nothing lyrically, musically, or emotionally. Of course, on a purely academic level, neither did Little Richard's "Awopbopaloomopawop-bamboom!" but that misses the point—which is, in case you haven't gotten it by now, that Queen, on this record as well as in all its previous outings, has not displayed one iota of human feeling beyond the prevailing Seventies attitude of Get the Product Out. That the group has been so successful in disguising this hollow center to so many people is, simply, incomprehensible. S.S.

(Continued on page 99)

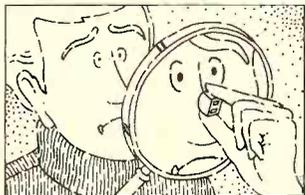
STEREO REVIEW

ARE YOU BLAMING YOUR TAPE RECORDER FOR PROBLEMS CAUSED BY YOUR TAPES?

Every day people all over the country go into hi fi dealers with complaints about their tape recorders.

When in reality what they should be complaining about is their tapes.

Because the fact is, a lot of the problems that plague tape recorders can be attributed to bad tape.



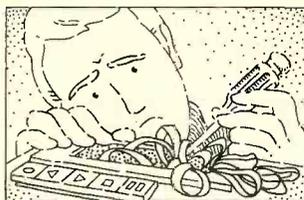
HEAD WEAR IS CAUSED BY YOUR RECORDER. OR IS IT?

If you have to clean your tape heads more than usual, for example, it could be your tape doesn't have a special nonabrasive head cleaner.

Maxell is the only tape that has one.

If your recorder jams, it can be any number of things. Maxell does something to prevent all of them.

We make our cassette shells of high impact polystyrene. And then so they won't crack



JAMMING IS CAUSED BY YOUR RECORDER. OR IS IT?

even after years of use, we finish them to tolerances as much as 60% higher than industry standards.

Inside, we use free rolling Delrin rollers so the tape doesn't stick.

And finally, we screw instead of weld everything together because screws make

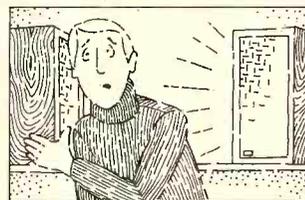
for stronger cassettes.

If your recorder frequently suffers lapses in sound, it could be the tape is of inferior quality. And nobody's bothered testing the tape for dropouts before it leaves the factory.



DROPOUTS ARE CAUSED BY YOUR RECORDER. OR ARE THEY?

Maxell tape is made of only the finest polyesters. And every inch of



POOR TRACKING IS CAUSED BY YOUR RECORDER. OR IS IT?

it is checked for even the slightest inconsistencies.

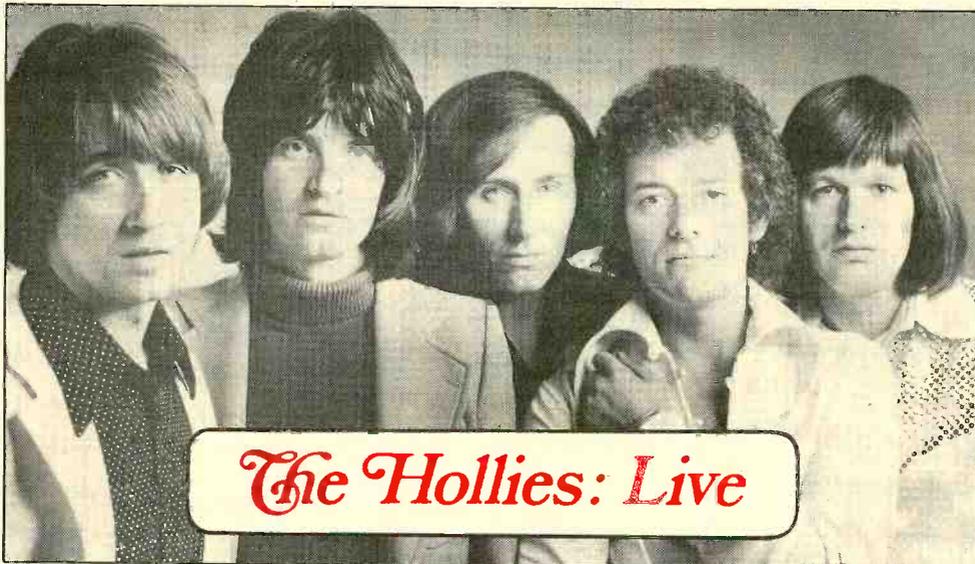
So if you're having problems with your recorder, try a Maxell cassette, 8-track or reel-to-reel tape.

You might find there's really nothing wrong with your tape recorder, just with your tape.



MAXELL. THE TAPE THAT'S TOO GOOD FOR MOST EQUIPMENT.

Maxell Corporation of America, 130 West Commercial Ave., Moonachie, N.J. 07074



Epic Records

Hicks

Sylvester

Calvert

Clarke

Elliott

The Hollies: Live

THE Hollies, despite a ridiculously lengthy history of chart successes in this country, have never really gotten the kind of respect that those successes ought to have assured them. There are a couple of reasons for this. For starters, the Hollies hardly ever tour, and, with very few exceptions, bands that don't tour seem destined to remain cult enthusiasms. For another thing, they have never bothered to generate any, shall we say, *extramusical* associations—that is, they ain't got much of an "image." It's generally known that they are about as regular a bunch of guys as any fond mother could dream up (a publicist who worked with them once told me incredulously that their bassist, Bernie Calvert, actually went to church every Sunday), and when Graham Nash left the band to hang out with the Los Angeles pop-star crowd and join CSN&Y, he badmouthed them pretty strongly along those lines, which probably didn't help.

But, of course, none of that should matter. Strictly on the recorded evidence of the last fourteen (!) years, the Hollies are one of the finest pop/rock outfits ever—I'd venture that only the current reconstituted Fleetwood Mac is even remotely in their league. Even if it turned out that they were all actually Rumanian albino transsexual midgets, what would that have to do with their music?

ALL right then, we have two new Hollies albums in front of us, both—for contractual reasons so complex absolutely *nobody* understands them—available at present only as imports, and what are we to make of them? Well, the first, "Russian Roulette," is a distinct disappointment. As I have said before, the Hollies are extremely erratic composers (their best recent albums have been fleshed out with the work of other songwriters), and it seems their well ran dry when they were doing this one. The general flavor of the album verges perilously on disco, and the Hollies sound pretty silly when they get funky. Although their singing and playing are as good as ever (maybe better), the material is bad enough to defeat them. There is, thank the Lord, one exception, a positively addictive number called *My Love*, that shows them at

their strongest. It's a mid-Sixties pop rocker (the sort of thing people like Dwight Twilley are currently chasing with notable lack of success) with Beatlish chord changes and a rhythmic dynamism that has the kind of power the Who are famous for. But that's about it; pray it's released as a single.

"Hollies Live," however, is another cornucopia of fish-and-chips altogether. Some have already ranked it with "Get Yer Ya-Ya's Out" and "Live at Leeds," which is to say that it is one of the handful of live rock albums deserving the appellation "classic." I'll simply say that it makes the recent Wings live set sound like amateur night. If I hadn't seen the band do essentially the same program presented here at two shows during their 1975 American mini-tour, I would find it too difficult to believe it had not been totally doctored in the studio—it's that slick.

But the slickness does not, I hasten to add, translate into lack of feeling. Many of the songs here—and they span literally the whole of the band's career—are far more moving than they were on their first go-rounds. The lovely version of Bruce Springsteen's *Sandy* is a case in point. Without the orchestral trap-

Look (their first American hit, 1964) or newer melodramas such as *I'm Down*, it is simply spine-tingling. And the Hollies' instrumental sound is much tougher than they are generally given credit for—the rhythm section, propelled by the explosively kinetic drumming of Bobby Elliott, is superb, and (with the help of guest keyboard star Pete Wingfield) the level of the group's playing is comparable in gutsiness to that of just about any other rock band you could mention.

IN case you haven't guessed by now, I'm just nuts about this record, and I suspect that anyone else with even a passing interest in rock-and-roll will feel the same way about it. Since the import sales have already been substantial, Columbia will probably *have* to release it stateside eventually, but if I were you I wouldn't wait—you'll have too much fun playing it for your friends, watching their jaws drop and their gooseflesh rise. It's the kind of album that makes you remember just why you fell in love with rock in the first place.

—Steve Simels

... it makes the recent
Wings live set sound
like amateur night ...

pings that dressed it up originally, it comes across as much more atmospheric and authentic. Even that most celebrated of schlock weepers, the unfortunately ubiquitous *He Ain't Heavy*, is a genuinely affecting ballad here. As for the Hollies' overall singing—well, it's just incredible; not even the Beach Boys can pull off this kind of breathtaking harmony work in person. Whether they're applying it to such up-tempo rockers as *Just One*

THE HOLLIES: *Russian Roulette*. The Hollies (vocals and instrumentals); other musicians. *Wiggle That Wotsit*; *48 Hour Parole*; *Thanks for the Memories*; *My Love*; *Lady of the Night*; *Russian Roulette*; *Draggin' My Heels*; *Louise*; *Be with You*; *Daddy Don't Mind*. POLYDOR 2383 421 \$6.49 (available from Jem Records, Import Record Service, Box 343, 3001 Hadley Road, South Plainfield, N.J. 07080; include 35¢ per disc handling charge).

THE HOLLIES: *Hollies Live*. The Hollies (vocals and instrumentals); Pete Wingfield (keyboards). *I Can't Let Go*; *Just One Look*; *I Can't Tell the Bottom from the Top*; *Bus Stop*; *Another Night*; *Sandy*; *Star*; *My Island*; *I'm Down*; *Stop, Stop, Stop*; *Long Cool Woman (in a Black Dress)*; *Carrie Anne*; *The Air That I Breathe*; *Too Young to Be Married*; *He Ain't Heavy*. COLUMBIA PES 90401 \$6.49 (available from Jem Records, Import Record Service, Box 343, 3001 Hadley Road, South Plainfield, N.J. 07080; include 35¢ per disc handling charge).

MARTHA REEVES: *The Rest of My Life.* Martha Reeves (vocals); orchestra. *This Time I'll Be Sweeter; Love Blind; Second Chance; Love Strong Enough to Move Mountains; Higher and Higher;* and four others. ARISTA AL 4105 \$6.98, © 8301-4105H \$7.95, © 5301-4105H \$7.95.

Performance: **Perverted**
Recording: **Good**

From all accounts, the Motown Record empire of the Sixties was run in a manner akin to that of the big movie studios of Hollywood's Golden Age—the star grooming, the political infighting, and the blacklisting were apparently very close to the kind of thing that went on at MGM or Paramount. Sadly, at Motown as in Hollywood, the losers were female more often than not. Kim Weston is now a Detroit disc jockey; Tammi Terrell died on stage; Florence Ballard of the Supremes died broke and on welfare; Brenda Holloway, the Marvelettes, and Mary Wells have all but faded into obscurity. Only Diana Ross and Gladys Knight still prosper, though they are singing the direst kind of Vegas MOR and Knight had to leave the label to get her due anyway.

Which leads us to Martha Reeves' new album and label. The operative word here is wasteful. At Motown, as leader of the Vandellas, she cut a succession of classic singles in which she soared easily over gargantuan wall-of-sound production jobs (most rock aficionados consider *Dancing in the Streets* one of the greatest 45's of all time), but then, for reasons known only to God and Berry Gordy, we heard no more from her for a few years until she came back on that dreadful MCA album.

Reeves' new effort, on Arista this time, sports three different producers, which should give you some idea of the care with which the project was approached. She is presented as—surprise!—a disco singer. So, in between the gooey hey-baby-let's-get-it-on ballads, we get disco remakes of Sixties soul classics that are obviously meant to appeal to the same folks who are buying Gloria Gaynor's updatings of Motown classics from the same period. To say that it doesn't work, to say that a great singer is being criminally misused, to say that this is a thoroughly disheartening album, would be the height of understatement. Unfortunately, I can't see what else Martha can do. . . . unless, of course, there's somebody out there like Miami Steve Van Zandt who can give her the artistic shot in the arm he and Southside Johnny provided Ronnie Spector. Are you listening, guys? S.S.

SEALS & CROFTS: *Sudan Village.* Jim Seals (vocals, guitar, fiddle); Dash Crofts (vocals, mandolin); Bill Cuomo (keyboards); Ralph Humphrey (drums); Bobby Lichtig (bass); other musicians. *Sudan Village; Advance Guards; 'Cause You Love; Baby I'll Give It to You; Thunderfoot;* and four others. WARNER BROS. BS 2976 \$6.98, © M8 2976 \$7.97, © M5 2976 \$7.97.

Performance: **Variable**
Recording: **Good remote**

This makes a good start, with Seals and Crofts peering out of a Rousseau-style jungle on the cover and gently but firmly caring for the first couple of songs, but then it resolutely fizzles out. If I felt a great need to hear *Arkansas Traveller* and *Eighth of January* fiddled and picked, I certainly wouldn't turn to Seals and Crofts (or anyone else who grew up with

WHY SPEND MORE MONEY? CALL US FOR FREE! DIAL 800-638-6666

Call 800-638-6666 for price quotes on over 40 brands

If you want the lowest possible price plus the fastest delivery you can't afford to pass us by!



We discount the full line of Pioneer receivers, tape decks, turntables, amps, tuners, and speakers.

CALL 800-638-6666 FOR PRICES!

Sansui CALL 800-638-6666 FOR PRICES!

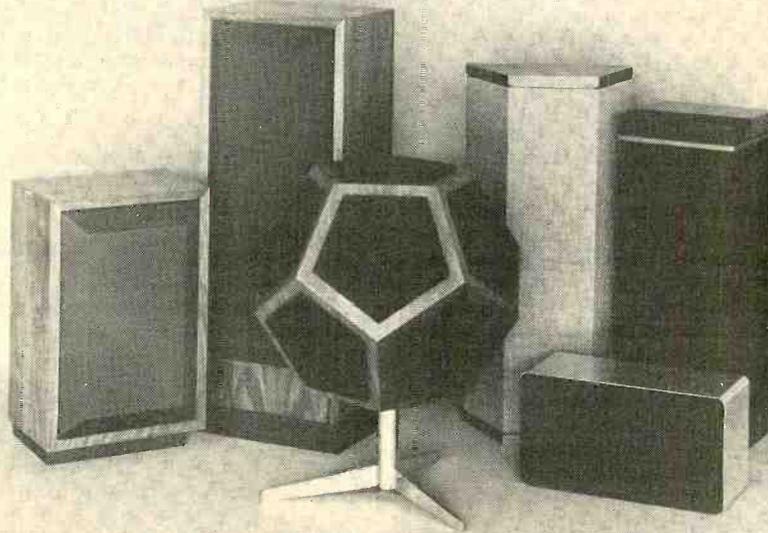


301-881-8890
800-638-6666

5618 RANDOLPH RD., ROCKVILLE, MD. 20852 All orders shipped immediately • Phone orders accepted • Use your BankAmericard or Master Charge • Call or write for price quotes on all the top audio brands • Write for free catalog • All merchandise in factory sealed cartons with full manufacturer's warranty.

CIRCLE NO. 15 ON READER SERVICE CARD

MUCH ADO ABOUT SOMETHING



We're continually amazed at the number of speaker advertisements devoted to claims and so-called breakthroughs adding up to less than meets the ear. At Design Acoustics we concentrate on technological advances you can hear. Wide dispersion and flat power response, so the music you get from records and tapes is the music that was put there in the first place.

The fact is, too many aspects of loudspeaker design being bandied about these days add absolutely nothing to a speaker's actual performance. They may make for enticing advertising copy, but isn't that just so much ado

about nothing? We'd rather bring you better music.

Please send brochure and test reports to: SR-1

Design Acoustics, Inc.
2909 Oregon Court, SR2
Torrance, CA 90503
(213) 320-4981



Name _____
Address _____
City, State, Zip _____



SLY STONE:
back again
with a joyous
greeting card

indoor plumbing) to hear them, at least not until I had to, but here they are wasting vinyl on performances that are pretty lame technically and very lame spiritually. And if I felt a great need to hear *any* rock instrumental, except possibly by the Who, I'd hie myself to a shrink—but here we go, on and on, with a thoroughly dead thing called *Thunderfoot*. Well, it's a live album; if you had been there with something to do besides listen, it would have been different. About a third of this is superior to most live albums, with Seals and Crofts applying what is unique about their style to some new and revisited material. Maybe it's trying to recapture "the spirit of the tour" that causes the other two-thirds to be here. If that's it, I wish musicians would start keeping diaries or making tapes for their own nostalgic uses. What they owe us listeners is *music*. N.C.

RECORDING OF SPECIAL MERIT

SLY & THE FAMILY STONE: *Heard Ya Missed Me, Well I'm Back*. Sly Stone (vocals, keyboards); vocal and instrumental accompaniment. *Heard Ya Missed Me, Well I'm Back; What Was I Thinkin' in My Head; Nothing Less Than Happiness; Sexy Situation; Blessing in Disguise*; and five others. EPIC □ PE 34348 \$6.98, ⊠ PEA-34348 \$7.98, © PET-34348 \$7.98.

Performance: **Excellent**
Recording: **Excellent**

Sylvester Stewart, a.k.a. Sly Stone, seems to have regained all the inventive joy that made his music so exciting during the first burst of his career in 1968-1970. There was a protracted and unhappy period after that when he became musically furtive, morose, and ponderous, but a few years ago whatever it was that had been freezing his talent started to thaw.

The title of this album and an emotional testimonial by Philadelphia producer Kenneth Gamble ("May almighty God give you the strength to control your emotions . . . may

you profit from your mistakes . . .") indicate that Sly feels free and happy again and that he is no longer wrestling with himself. But the credits read "Produced by Sly Stone and Sylvester Stewart," and the title tune could as easily be a dialogue between two aspects of his personality as it could be a greeting card to the audience.

At any rate, the music here is refreshing, positive, and enticing. Sly's greatest talent is as an arranger—he is one of the best in the business—and his way of expressing an emotional concept with instrumental and vocal colorations is like no one else's. He has indeed been missed, and it's very good to have him back again. J. V.

THIN LIZZY: *Johnny the Fox*. Thin Lizzy (vocals and instrumentals). *Johnny; Rocky; Borderline; Don't Believe a Word; Fool's Gold*; and five others. MERCURY SRM 1-1119 \$6.98, ⊕ MC81-1119 \$7.95, © MCR41-1119 \$7.95.

Performance: **Better than the material**
Recording: **Good**

Until last year, Thin Lizzy was a marginally successful journeyman English metal band that survived frequent personnel changes and knocked around its homeland largely on the strength of lead singer Phil Lynott. One of the crucial failings of most metal bands is that vocally they all sound the same, featuring either freak-high, only-dogs-can-hear-'em tenors or vibrato-laden Italianate yowlers, but Lynott's vaguely soulful stylings gave the band some semblance of an individual identity.

Then they got lucky; Lynott came up with a group of reasonably imaginative songs, including a bona fide classic, *The Boys Are Back in Town*, one of the few rock tunes that kept AM radio from drowning in a sea of disco last summer. It had about everything—an irresistible hook, sizzling dual guitar work, and a lyric just enigmatic enough to hold one's interest through repeated listenings. The problem was the timing. Lynott sound-

ed—superficially—like Bruce Springsteen, and, although their approaches are worlds apart, the media seized on the resemblance. Lynott freaked, made defensive statements to the British pop press, and threatened a new album that would end the comparisons.

The result, "Johnny the Fox," is an over-reaction. The lyricism, the sensitivity, that had begun to come through in *The Boys* has been abandoned for—you guessed it—the same kind of heavy blandness, though a wee bit more sophisticated, that everybody from Aerosmith to Kiss has been dishing out of late. There is, however, one stunning exception: *Old Flame*, a really lovely little ballad that leaves one with the hope that Lynott will recover and Thin Lizzy will someday make an album that picks up from the promising point we left them at in the summer of '76. S.S.

SYLVIA TYSON: *Cool Wind from the North*. Sylvia Tyson (vocals); orchestra. *Good Old Song; Tumble-Down Woman; River Road; Honey Hair; Poor Fool*; and five others. CAPITOL ST 6441 \$6.98.

Performance: **Monotonous**
Recording: **Good**

Sylvia Fricker, which is the way she's billed in her songwriting credits, is the Sylvia Tyson of Ian and Sylvia, and she's now on her own, singing mostly her own material. Ian produced this album and has devised a smooth, waxen showcase for Sylvia's throaty contralto to monotone. It's sophisticated c-&-w, if that isn't a contradiction in terms, and Sylvia moons about in such things as *I Can't Learn to Love You* and *Poor Old Rose* appropriately and assuredly and almost endlessly. It's intensely boring. P.R.

DIANA WILLIAMS. Diana Williams (vocals); Bobby Dyson (bass); other musicians. *Teddy Bear's Last Ride; The Loving of Your Life; Be Careful of Stones That You Throw; Old Fashioned Love Song; Little One*; and five others. CAPITOL ST-11587 \$6.98, ⊕ 8XT-11587 \$7.98, © 4XT-11587 \$7.98.

Performance: **Right lame**
Recording: **Good**

I'd like to thank Diana Williams and her writers for killing off Teddy Bear. He was the little crippled boy Red Sovine sang—rather, talked—about in working yet another angle to exploit the CB craze. Only pleasure the little fellow got out of life, you see, was talking to the truckers on the CB. Here Diana Williams, "Mama Teddy Bear's best friend," comes on and tells truckers and nontruckers that the kid has expired. I hope that means we'll hear no more about him, although I wouldn't be surprised if St. Peter comes on the CB with still more news about him. I'd hoped that country music was finally beyond stooping to "recitations" and crippled-to-dead-kid themes, and you see what I got for that. Anyway, the rest of this album suggests that Diana Williams would rather recite than sing, and it sounds like she's reciting when she *does* sing anyway—or like she's busy chewing gum or doing something that takes her mind off the words. Not that you can blame her, considering the lyrics; when Loretta Haggars does this sort of thing, she's *kidding*, which is something the people handling Diana ought to learn right quick. Unless they want you to buy her albums to make fun of them. N.C.

(Continued on page 102)

The Sherwood Model HP 2000: It adds a new high to performance.

If power and versatility are the essential elements of high performance, the HP 2000 is unquestionably the high performance amplifier you've been waiting for.

This new top-of-the-line Sherwood amplifier puts you

—10dB] and LED power limiting indicators precisely monitor power output at all times. And rear-panel switching permits the independent operation of the pre-amp and power amplifier sections.

switching, and feature a front panel level control]; two tape decks [tape-to-tape duplication is accomplished with the Tape-1, Tape-2 Monitor circuits]; and a pair of professional caliber micro-

has been selected to meet or exceed posted specifications. The P.C. boards and inter-board ribbon cable connectors plug into a "mother-board," for reliable operation.

HP 2000 is the first in a highly sophisticated line of pre-amplifiers and amplifiers from Sherwood Electronics.

units in this new High Performance Series will be available soon.

See the HP 2000 soon. And put yourself to performance tests as high as your capabilities have always

SR 4X08 Send me 1 year of Popular Photography for \$4.99.

Send me
one year of

Stereo Review

at HALF PRICE!

The regular subscription rate is \$7.98 for 12 issues of STEREO REVIEW —but you pay only \$3.99!

- I prefer two years (24 issues) for \$7.98.
 I prefer three years (36 issues) for \$11.97.

Mr. _____ 4S32
Ms. _____ (please print full name)
Address _____ Apt. _____
City _____
State _____ Zip _____

CHECK ONE: Payment enclosed (please mail in an envelope).
 Bill me later.

Additional postage per year: add \$3 for Canada, \$5 for all other countries outside the U.S. Cash orders only, payable in U.S. currency. Prompt delivery: your first issue will be shipped 30 to 60 days from receipt of your order. Satisfaction guaranteed or a prompt refund on the remaining issues.

SR 4X08 Send me 1 year of Popular Photography for \$4.99.

Send me
one year of

Stereo Review

at HALF PRICE!

The regular subscription rate is \$7.98 for 12 issues of STEREO REVIEW —but you pay only \$3.99!

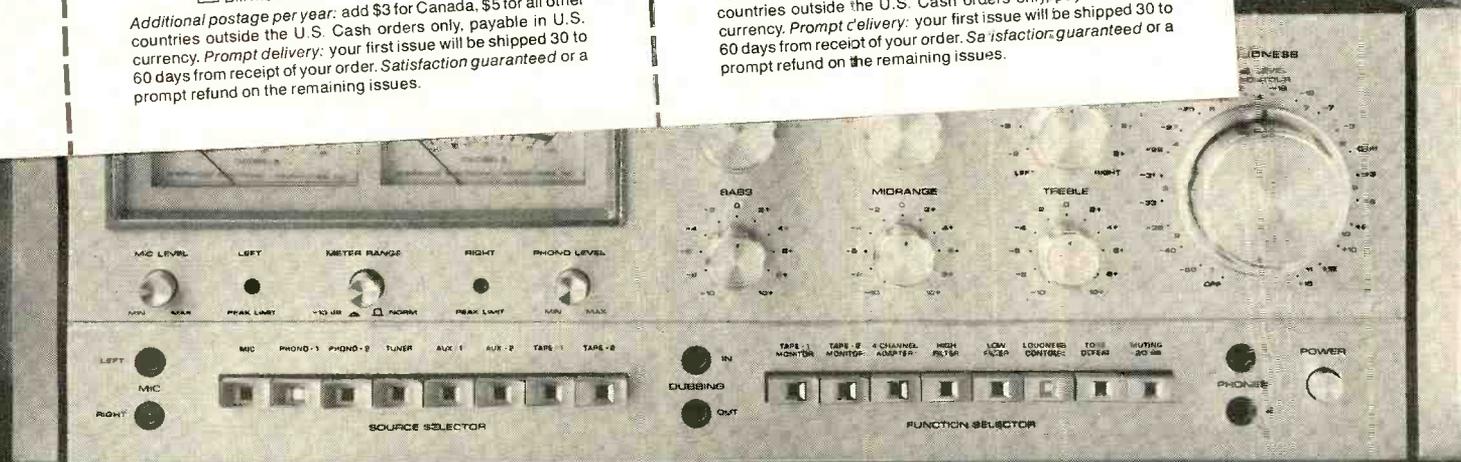
- I prefer two years (24 issues) for \$7.98.
 I prefer three years (36 issues) for \$11.97.

Mr. _____ 4S32
Ms. _____ (please print full name)
Address _____ Apt. _____
City _____
State _____ Zip _____

CHECK ONE: Payment enclosed (please mail in an envelope).
 Bill me later.

Additional postage per year: add \$3 for Canada, \$5 for all other countries outside the U.S. Cash orders only, payable in U.S. currency. Prompt delivery: your first issue will be shipped 30 to 60 days from receipt of your order. Satisfaction guaranteed or a prompt refund on the remaining issues.

SHERWOOD
what you hear is true.
Sherwood Electronic
Corporation, Inc.
California Ave.
Chillicothe, IL 60618



Engineered and manufactured in the USA

CIRCLE NO. 48 ON READER SERVICE CARD

"I've got a 60-minute recording studio in my pocket."

It's called the MICROCASSETTE® PearlCorder-S®.



A MICROCASSETTE recorder that's so unique, it's like having your own mini-studio in your pocket with remarkably good fidelity for music as well as voice. It's smaller than a checkbook (5¼" from top to bottom, slightly thicker than a pack of cards), and lightweight (12 ounces with batteries), but it's packed with studio precision and professional features:

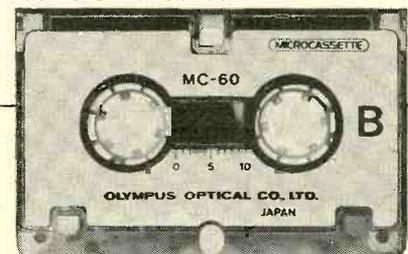
- 60 minutes recording time.
- Capstan drive for constant tape speed, built-in electret condenser microphone, AC bias, record-warning light.
- All metal construction for years of dependable service.
- One-hand operation; instant loading.
- Fast forward and rapid rewind.
- Automatic level control.
- Connects to your stereo or full-size recorder with a Compacord, for both recording and playback.

The PearlCorder-S performs beautifully in an office, in your car, even on airplanes; and it's backed by the reputation of the Olympus Optical Co., Ltd., a company famous for fine cameras, medical and other precision scientific instruments.

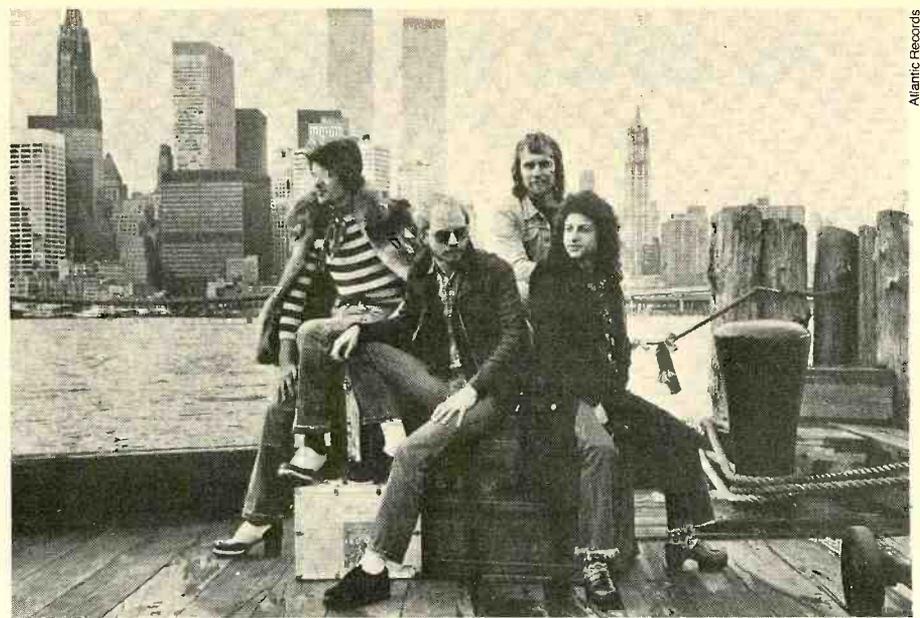
The PearlCorder-S. Carry one. And have a studio with you.

Available at fine photographic, audio, and A-V dealers everywhere. Or write for our brochure, "Pocket Full of Miracles."

OLYMPUS CORPORATION OF AMERICA
TWO NEVADA DRIVE / NEW HYDE PARK, NEW YORK 11040
In Canada: W. Carson Co., Ltd., Ontario
60 minutes of sound in this actual-size MICROCASSETTE.®



CIRCLE NO. 37 ON READER SERVICE CARD



WISHBONE ASH: rock without "relevance"

RECORDING OF SPECIAL MERIT

WISHBONE ASH: *New England*. Wishbone Ash (vocals and instrumentals). *Mother of Pearl; Runaway; Lorelei; Prelude; Lonely Island;* and four others. ATLANTIC SD 18200 \$6.98, Ⓟ TP 18200 \$7.97, © CS 18200 \$7.97.

Performance: **Excellent**
Recording: **Excellent**

The title is "New England" but it could just as easily be "Mozambique" or "Montana" for whatever influence geographical location shows on this album. Wishbone Ash remains an island of rock only briefly touched by waves from any other outside-world shores. And very good, solid rock it is: slightly on the sedate side, a bit too well-mannered, but so effectively played and sung by its composer/performers that one can listen to it repeatedly without feeling foolish. The best things here are *Mother of Pearl* and a rather gauzy but potent *Lorelei*. It's an album you'll continue to enjoy for a long time with nary a pang about its "relevance." P.R.

FRANK ZAPPA: *Zoot Allures*. Frank Zappa (vocals and guitar); instrumental accompaniment. *Black Napkins; The Torture Never Stops; Disco Boy; Friendly Little Finger; Wonderful Wino;* and four others. WARNER BROS. BS 2970 \$6.98, Ⓟ M8 2970 \$7.97, © M5 2970 \$7.97.

Performance: **Hectically boring**
Recording: **Old fashioned**

Frank Zappa's ability to astonish the middle-class listening public has dwindled so much that these days he comes across as the musical male equivalent of one of those eccentric shopping-bag ladies muttering darkly to herself in a doorway. Stale breezes from the Sixties waft all through this album as Zappa tries his old-time shock tactics in such things as *The Torture Never Stops* and *Black Napkins*. The result is so hectically boring that it makes you want to buy a pencil from him just to shut him up. Needless to say, the crust of pretension is that thick and the production work is an elaborate hodgepodge of everything that was "happening" ten years ago.

If you want to know about that album title:

years ago there was a French cartoon that showed a ve-r-r-y long dachshund wrapped all the way around a tree so that he was sniffing his own little behind. The caption read: "Zut, alors—c'est moi!" Just so. P.R.

COLLECTIONS

VERMONT HARMONY 2 (see *Best of the Month*, page 85)

THE WALNUT VALLEY SPRING THING. John Hartford: *Joseph's Dream; I Thought You Were Holding.* Don Humphreys and Tut Taylor: *Flat-Pickin' Dobro Man.* New Grass Revival: *Sally Goodin; Fly Through the Country.* Merle Travis: *Smoke That Cigarette; Dark as a Dungeon; I'll See You in My Dreams; White Heat.* Cathy Barton: *Soldier's Joy.* The Hutchison Brothers: *Girl from the North Country; Orange Blossom Special.* TAKOMA D-1054 \$6.98.

Performance: **Good fun**
Recording: **Fair to excellent remote**

Bear with this one. John Hartford is a bit off form—at least in deciding what songs to include—at the start, but things pick up. Don Humphreys' singing and Tut Taylor's flat-picking on the dobro are more like it, and the New Grass Revival, a group it really is fair to call a progressive bluegrass band, has a fine time with a haunting Jim Webb song called *Fly Through the Country*. Then there's Merle Travis, quite a lot of him. His singing voice has seen better days, but he has a lot of soul (he is from Kentucky) and his two-finger guitar-picking style is as distinctive and, as *White Heat* tends to indicate, as fast as ever. Cathy Barton's fiddle/hammered-dulcimer bash at *Soldier's Joy* is nice, too, and the Hutchison Brothers' imitation of both Bob Dylan and Johnny Cash on *Girl from the North Country*, including three (count 'em, three) of Dylan's singing styles (and all one of Cash's) is a real knee-slapper. All this was recorded at the Walnut Valley festival in Kansas on what sounds like pretty good equipment. The mikes caught a little too much of the rowdies in the audience, but still it's a live album worth having, something almost as rare as a dope dealer who pays taxes. N.C.



RECORDING OF SPECIAL MERIT

HOMESPUN AMERICA. Marches, Waltzes, Polkas and Serenades of the Manchester Cornet Band. Eaton's Grand March; *Giorno d'Orrore*, from Rossini's *Semiramide*; *Free and Easy*; *Les Rendezvous Waltzes*; *Galop*; *Serenade—Departed Days*; *Quickstep—Blues*; *Waltz*; *Congo's Quickstep*; *Hope Told a Flattering Tale*; *Peter's Quickstep*; *The Fourth of July Overture*; *May Heaven's Graces*; *Hail to the Chief. Songs of 19th Century Patriotism, Temperance & Abolition, & Popular, Sentimental Tunes of the Hutchinson Family Singers.* *Crossing the Grand Sierras*; *Uncle Sam's Farm*; *King Alcohol*; *Don't Stay Away*; *The Vulture of the Alps*; *The Old Granite State*; *The Pauper's Funeral*; *Calomel*; *Get Off the Track*; *Excelsior*; *The Fireman's Polka* (with the "Manchester Brass Band"). *Music for the Social Orchestra of the Manchester Quadrille Orchestra.* *The Famous Quadrilles*; *The Peri Waltzes*; *Felina Redowa de Sa-*

lon; *The Guards Waltzes*; *The Quaker Medley Set Quadrilles*; *The Hand Organ Polka*; *The Old Folks Quadrille.* Eastman Wind Ensemble and Eastman Chorale, Donald Hunsberger and Robert de Cormier cond. Vox SVBX 5309 three discs \$10.98.

Performance: **Fascinating**
Recording: **Excellent**

Out of the musical cornucopia created by the Bicentennial still pours a plentiful supply of treasure from the American past. The latest box from Vox in the Americana department is this three-record concert, a major part of which is taken up by songs of the Hutchinson Family Singers. The Hutchinsons flourished in the region of the manufacturing town of Manchester, New Hampshire, in the 1850's and 1860's. They were a family of teetotalers and reformers always eager to take up the latest social cause and set it to music, to the delight of, among others, Abraham Lincoln. The family was so large that they split up into "tribes" who went around the country performing their songs of protest for increasingly large and enthusiastic audiences. At the same time, the region abounded in brass bands and "social orchestras" that regaled the public with quadrilles, quick steps, and waltzes as well as instrumental medleys of his own tunes set by Stephen Foster.

To re-create all this musical history the Eastman Wind Ensemble and Eastman Chorale have divided themselves into replicas of the original groups of singers and players to supply a cross-section of the repertoire. The proceedings open with the "Manchester Cornet Band" in a rousing reproduction of the

better part of a program originally presented in a town square in Manchester on July 1, 1851. There are marches, gallops, quicksteps, and waltzes to get the album off to a rousing start. Things continue with mini-concerts of quadrilles and polkas of the period, all high-spirited and diverting, done to a turn by the "Manchester Brass Band," the "Manchester Cornet Band," and the "Manchester Quadrille Orchestra." These performances are interspersed with vocal stretches by the "New Hutchinson Family Singers," who waken from the past such forgotten ballads of temperance as *King Alcohol*, a hair-raising attack on slavery in *Get Off the Track*, and a horror of a sentimental sermon, called *The Vulture of the Alps*, about a creature who carries off little children. There is even a song warning against the use of calomel by doctors whose prescriptions of that deadly mercury-based medicine caused widespread suffering at the time. The series winds up with a brisk *Fourth of July Overture*, a pious hymn for band, and *Hail to the Chief* as it was performed by the real Manchester Cornet Band at the inauguration of President Franklin Pierce. Although there are a few arid stretches and one march begins to sound like another after a while, on the whole *Homespun America* is surprisingly fascinating and reveals much about the musical as well as the political sentiments of the zealous reformers of its time and place. These forerunners of the protest singers of our own period frequently found more entertaining ways to project their messages than their modern counterparts do.

P.K.

(Continued on page 106)

If we can design a vented, equalized system for audiophiles, we can design one for everyone.



It took E-V engineers over 2 years to design and construct the original Interface: A speaker system, one of the most measurably accurate systems ever introduced.

We weren't about to compromise the integrity of that effort when we brought you Interface: B.

In its price category, Interface: B outperforms all the other bookshelf speakers.

You get extended low-distortion bass response (3 dB down at 36 Hz), a trademark of Interface technology.



We use an 8" woofer and front tweeter just as on our Interface: A to deliver uniform response and dispersion over all frequencies—at all listening levels.

And because Interface: B is an exceptionally efficient loudspeaker for its low cost and small size, it's an ideal complement to lower power amplifiers and receivers.

A pair of Interface: B with equalizer costs \$325 suggested retail. For that, everyone ought to hear it.

Interface: B™

Electro-Voice, Inc.  a Gulton company
616 Cecil St., Dept. 474F, Buchanan, Michigan
49107

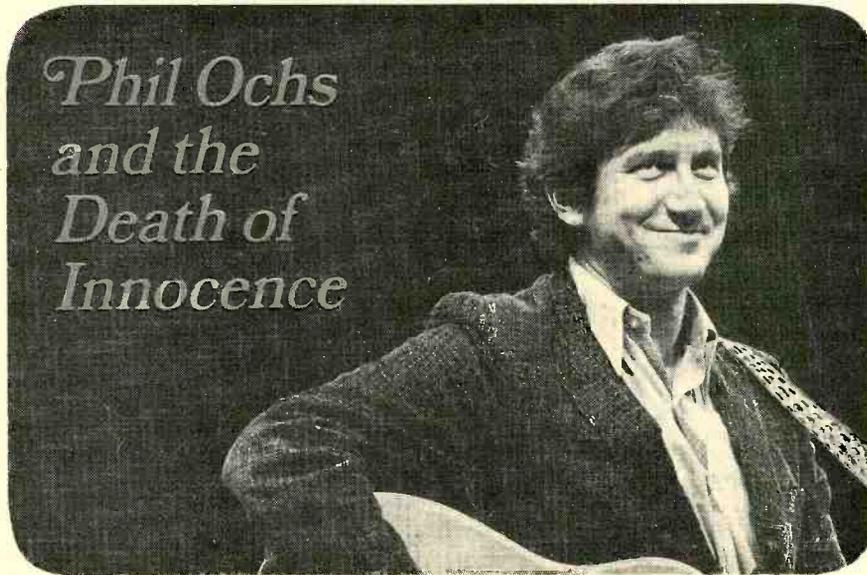
IT was over. Phil Ochs knew it was over—"The movement dwindled out about 1971," he said—but he couldn't get it finished in his head, couldn't get off it. He was dedicated to social change and that was the way it was. He kept going off to places to study new kinds of politics on into the Seventies. Not only could he not get off it, he had a plan for *reviving* it—that was the Elvis phase he went through in gold lamé suits—but the people yes

over, lots of us could have told him he couldn't sell the Elvis-as-Ché idea to the people, however sensible it was. As quoted by Sanders, Ochs' explanation was that to cause real change in America one had to reach the working class, "and to me Elvis Presley, in retrospect, is like a giant commercialization of the working class singer. . . ." He was right, of course, but selling the idea where it will do some good is a complicated task these

pleasant things) folk singer, you got less than the song deserved. What Ochs' recordings needed to be good recordings to *listen* to—as opposed to either agree with or be horrified by—was a little production. Nothing serious, just a little body in the instrumental sound and a producer who knew enough to say hold that note a little longer, Phil. The second disc in "Chords" has something approaching that, including a couple of tracks produced by Van Dyke Parks, and it gives you some idea of how much more music there was in Ochs' songs than he, left to his own devices, was ever going to get out of them.

The question, though, is will it last? Will Ochs be remembered? I think so. We have an unofficial historical category for characters like Ochs. Woody Guthrie and Jimmy Rodgers are in it. Remembered as artists? Or politicians? Nobody can quite say for sure, and maybe it doesn't matter. The protest song is a great and cherished *cultural* thing of ours, and Ochs did quite a lot with the protest song. He did a little, mostly by accident, with the form and a lot with content. In such songs as *I Ain't Marchin' Anymore* and *Outside of a Small Circle of Friends* he transcended current events by concentrating on them. He told us about the Sixties. He did it by sticking his head into the fray and keeping it there, being what they called at the time hip to it, at God knows what cost to himself.

The substance of some of his reports may be lost in time—much of it is already dated—but his natural affinity for melodies and his ability to tell the larger truth now and then should bring some of these songs back again and again. Ochs himself would be any biogra-



the people missed his point. He could see the political awareness of the late Sixties being shut off like a faucet, and that, apparently, was his world.

We can surmise from information available about him that Ochs was, among other things, stubborn, idealistic, dedicated, and naïve. We can surmise something similar from the recordings he left behind and from a big, new early-late sampler from A&M called "Chords of Fame." Ochs had the qualities that seem to be essential for a person of his calling. Woody Guthrie had them too, as did Jimmy Rodgers, as do Joan Baez, Pete Seeger, Tom Paxton. If we knew which traits were exaggerated or sometimes out of control in Ochs, we would know something. You can't tell from Ed Sanders' huge batch of liner notes, although they make the dedication clear enough and hint at other things. Something proved deadly, or some combination did, for, as the Seventies dragged on, imitating a second-rate Eisenhower era, Phil Ochs did commit suicide.

Naïveté? Was that it? It's a quality that attended his construction of melodies, and in that realm it served him well; Ochs didn't know a damned thing about music and he wrote some of the finest melodies the topical song ever had. Naïveté is sometimes in his lyrics, too, and always behind them in the presumption that "the movement" was ever that big to begin with. My guess is that it sustained him, this ability to believe, whether it gave out on him later—which would leave him defenseless—or not. He wasn't alone in hoping unreasonably for social change in the Sixties; I was doing it too, and could name a few others who were. But, after we all knew it was

days. To do it, you'd have to use the fat cats' ways and means, the most formidable among them being television. Ochs sensed this, too, and *wanted* to get on television, but with his political profile he couldn't.

He bucked up against a closed system. I don't know that he underestimated it by much more than I did, but it does appear that he didn't veer off into other subjects as, say, Paxton did, nor did he develop the kind of patience we've seen in Seeger or in such veterans as Norman Thomas. It appears that Ochs chose to go on being a public man after it was demonstrated that the best way for certain kinds of thinkers to defend themselves against the Seventies was by becoming private men. People seemed to be considerably more self-centered than Ochs wanted them to be.

YET he was incisive. He had an instinct for seeing all the way through a piece of folly and could—at least during his productive period—make you see it too, with only a few short words. The songs in "Chords" represent only an inkling of the subjects he tackled, but they do include his last one, *Here's to the State of Richard Nixon*. His voice was clear and pleasant, but he seemed to give little consideration to how to use it. He sang as he wrote, in an impromptu manner, and the approach worked better for the songs than for the singing. Several unkind things have been said about his guitar playing, and they were all true. So when you combined his heedless amateur vocals and his inept picking in the time-honored solo recording and performing style of the radical (radical: one who wants to discuss un-

... an instinct for seeing
all the way through
a piece of folly . . .

pher's dream subject, a romantic and tragic figure who seems to have left a string of anecdotes behind him everywhere he went. A man who wanted to do something about the world, he was—a topical man. Some of course do get remembered. If Lenny Bruce, why not Phil Ochs?
—Noel Coppage

PHIL OCHS: *Chords of Fame*. Phil Ochs (vocals, guitar); instrumental accompaniment. *I Ain't Marchin' Anymore*; *One More Parade*; *Draft Dodger Rag*; *Here's to the State of Richard Nixon*; *The Bells*; *Bound for Glory*; *Too Many Martyrs*; *There But for Fortune*; *I'm Going to Say It Now*; *Santo Domingo*; *Changes*; *Is There Anybody Here?*; *Love Me*; *I'm a Liberal*; *Tape from California*; *When I'm Gone*; *Outside of a Small Circle of Friends*; *Pleasures of the Harbor*; *Chords of Fame*; *Crucifixion*; *The War Is Over*; *Jim Dean of Indiana*; *Power and the Glory*; *Flower Lady*; *No More Songs*. A&M SP-4599 two discs \$6.98, © 8T-4599 \$7.98, © CS-4599 \$7.98.

You're going to spend \$300 for a receiver? And you never heard of PPR?

Stereo Receivers	Sugg. Ret.† Price	Min. RMS Power Per Channel into 8 Ohms	Total Harmonic Distortion at Rated Power (Max.)	FM Sensitivity IHF '58 Stereo -50dB*
SA-5760	\$799.95	165 watts from 20Hz-20kHz	0.08%	1.8μV 35.7dBf
SA-5560	499.95	85 watts from 20Hz-20kHz	0.1	1.8μV 36.2dBf
SA-5460	399.95	65 watts from 20Hz-20kHz	0.1	1.8μV 36.2dBf
SA-5360	299.95	38 watts from 20Hz-20kHz	0.3	1.9μV 37.2dBf
SA-5160	229.95	25 watts from 30Hz-20kHz	0.5	1.9μV 37.2dBf
SA-5060	169.95	12 watts from 40Hz-20kHz	0.9	2.0μV 38.2dBf

†Technics recommended price, but actual retail price will be set by dealers.

*New IHF '55 standard

PPR is price performance relationship. And we feel it's a meaningful way of judging a receiver because it can tell you how much power, technology and performance you're getting for your money.

And when you look at our price performance relationship it's easy to see why your next receiver should be a Technics.

Of course, we want you to listen to our receivers. Especially since all six have the reserve power to float through complex musical passages with a minimum of distortion and clipping. And they all have rugged transformers. Bridged rectifiers. As well as high-capacitance filtering.

Play a record. You'll hear it the way it was recorded. Quietly and with greater dynamic range. Because we use an overload-resistant 3-stage IC in the phono equalizer sections.

Tune in an FM station. Even a weak one. In addition to hearing all the music, you'll also get increased stereo separation. Negligible distortion. And a minimum of noise. Thanks to flat group delay filters and Phase Locked Loop IC's in the tuner sections.

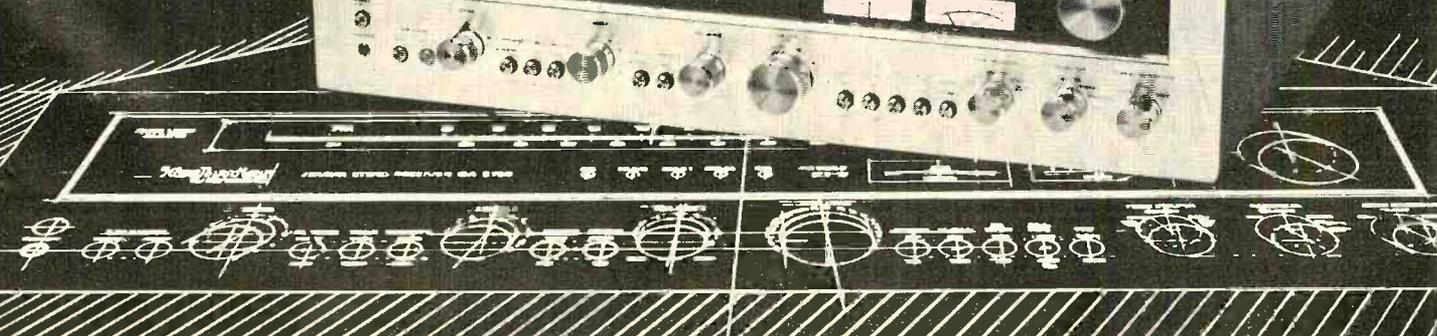
So if you'd like to know a simple way to discover just some of the reasons why a Technics receiver is so good... it's as easy as PPR.

All cabinetry simulated wood.

Technics

by Panasonic

CIRCLE NO. 59 ON READER SERVICE CARD



BIG DISCOUNTS

STEREO COMPONENTS

Largest selection of top name brands... try us and see...

It's worth a call
(301) 488-9600



6330 Frankford Ave.
Baltimore, Md. 21206

All mail answered within 24 hours

Phone Daily 9 AM to 9 PM
Saturday 9 AM to 4 PM
Phone (301) 488-9600

CIRCLE NO. 27 ON READER SERVICE CARD

Hi-Fi Buys

ON PIONEER
AT WAREHOUSE TO YOU PRICES

RECEIVERS

SX-1250	\$575
SX-1050	\$475
SX-950	\$409
SX-850	\$349
SX-750	\$279
SX-650	\$210
SX-550	\$175
SX-450	\$149

AMPS & TUNERS

SA-9900	\$495
SA-9500	\$330
SA-8500	\$264
SA-7500	\$198
SA-6500	\$123
TX-9500	\$264
TX-7500	\$165
TX-6500	\$123

TURNTABLES

PL71	\$198
PL530	\$170
PL510	\$136
PL117D	\$119
PL115D	\$91
PL112D	\$74

DOLBY CASSETTE DECKS

CT-F9191	\$308
CT-F8282	\$272
CT-F7272	\$218
CT5151	\$184
CT4141A	\$164
CT-F2121	\$149

SPEAKERS

HPM200	\$330	CS63DX	\$185
HPM100	\$165	CS99A	\$139
HPM60	\$124	CS700G	\$132
HPM40	\$83	CS500G	\$99

Serve on other famous brands. Quotations answered same day. Write or call for free catalog. All units factory sealed. Full manufacturer's warranty. CB's also available at tremendous savings.

PHONE TO ORDER BY COD,
BANKAMERICARD, MASTER CHARGE

For shipment within 48 hours send money order or certified check. Two week delay on personal checks. 20% deposit requested on C.O.D. shipments. \$1.25 handling fee on all orders. Shipping cost are collected C.O.D. unless paid in advance.

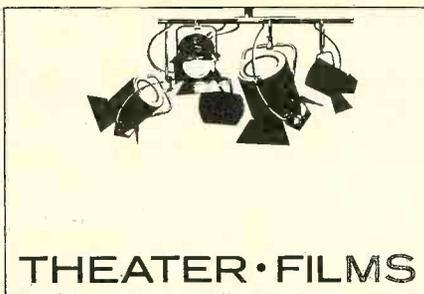


Hi-Fi Buys



1362 HOLTEN LANE
LANGLEY PARK, MD. 20783
(301) 434-5330

CIRCLE NO. 23 ON READER SERVICE CARD



THEATER • FILMS

CUT! OUT TAKES FROM HOLLYWOOD MUSICALS. Volume 1. *Ziegfeld Girl: We Must Have Music* (Judy Garland, Tony Martin). *Sally, Irene and Mary: Think Twice* (Alice Faye). *Hello, Frisco, Hello: I Gotta Have You* (June Havoc). *Words and Music: Way Out West* (Betty Garrett). *The Band Wagon: Gotta Bran' New Suit* (Nanette Fabray, Fred Astaire); *You Have Everything* (orchestra). *Easter Parade: Mr. Monotony* (Judy Garland). *The Harvey Girls: Hayride* (Judy Garland, Ray Bolger); *My Intuition* (Judy Garland, John Hodiak); *March of the Doagies* (Judy Garland). *Valley of the Dolls: I'll Plant My Own Tree* (Judy Garland). *Bells Are Ringing: Is It a Crime?* (Judy Holliday). And eight others. **Volume 2.** *The Band Wagon: Sweet Music to Worry the Wolf Away* (Nanette Fabray, Oscar Levant). *Take Me Out to the Ball Game: Boys and Girls Like You and Me* (Frank Sinatra). *An American in Paris: I Gotta Crush on You* (Gene Kelly). *Words and Music: It Never Entered My Mind* (Betty Garrett). *Till the Clouds Roll By: I've Told Every Little Star* (Kathryn Grayson); *The Song Is You* (Johnny Johnson, Kathryn Grayson). *Annie Get Your Gun: Let's Go West Again* (Betty Hutton). *Summer Holiday: Wish I Had a Braver Heart* (Gloria DeHaven). *Presenting Lily Mars: Finale* (Judy Garland). And five others. **OUT TAKE OTF-1/OTF-2** two discs \$6.98 each (plus 50¢ per disc handling charge from Out Take Records, Inc., P. O. Box 1066, Ansonia Station, New York, N. Y. 10023).

Performance: **Buried booty**
Recording: **Sandpaper sound**

A new company called Out Take Records seems to be devoting its resources to rescuing the unused parts of the soundtracks of old film musicals from the cutting-room floor and supplying the lost numbers in generous quantities on discs, the first two of which are now available by mail. Unfortunately, the out-takes themselves sound as if most of them had been trampled on by some hostile editor while still on the floor; never before have I heard so many clicks and crackles accompanying the musical numbers on brand-new discs. But what musical numbers they are! Here's Judy Garland singing *Easy to Love* to an overwhelmed Andy Hardy, an exuberant *Hayride* and two other items scissored out of *The Harvey Girls*, Cole Porter's *Voodoo* from that happiest of movies, *The Pirate*, Jerome Kern's *D'Ye Love Me* from *Till the Clouds Roll By*, and four songs dropped from the finale of *Presenting Lily Mars*.

In the course of the many tracks of "Cut!" you can also hear Ann Southern singing of the wicked *Salome* (sliced out of *Panama Hattie*), June Allyson and Pat Marshall in *An Easier Way* (removed from *Good News*), Lena Horne in her own special version of *Bill* (*Till the Clouds Roll By*), Debbie Reynolds doing

You Are My Lucky Star (dropped from *Singin' in the Rain*), Bing Crosby and Frances Farmer in *The House Jack Built for Jill* (left out of *Rhythm on the Range*), Walter Huston in a kind of sequel to the *September Song* called *Spring Isn't Everything* (*Summer Holiday*), and a rousing trio by Judy Garland, Mickey Rooney, and Nancy Walker called *Bronco Busters*, a Gershwin goodie that should have been kept in *Girl Crazy*. There's even a Gene Kelly track of *Baby Face* as a bonus they forgot to list in the table of contents.

Clinkers, to be sure, also abound—Jack Nicholson making the worst of a clumsy ballad called *Who Is There Among Us Who Knows?* (*On a Clear Day You Can See Forever*), Betty Grable hooting vainly into the wind in *I'll Be Marching to a Love Song* (*Footlight Serenade*), and Jeanette MacDonald and Nelson Eddy making Romberg mush out of Noël Coward's *The Call of Life* from a version of *Bitter Sweet* that forgets the bitters in the recipe. In all, though, this is an instructive and amusing outing in the archives. P.K.

SPOKEN WORD



NBC'S SATURDAY NIGHT LIVE. The Not Ready for Prime Time Players; other actors. *Gerald Ford; Monologue; Speed; Bedtime Story*; and twenty others. ARISTA AL 4107 \$6.98.

Performance: **Who can tell?**
Recording: **Good for television**

The various folks associated at one time or another with the *National Lampoon* have been successful, it seems to me, because their work has always been carefully tailored to whichever medium they were dealing with. The magazine itself, for example, may have the best art direction in the world; their stage shows, particularly *Lemmings*, were marvelously funny multimedia cabaret assaults; their records, "Radio Dinner" and "Goodbye Pop," are among the most imaginative uses of the aural medium since the heyday of Fred Allen (well, the Firesign Theatre at least); and no one has to be told what a general delight their forays on the tube have been.

That said, it is surprising that the talented people involved with their TV show, NBC's *Saturday Night Live*, could have been even remotely satisfied with this new album, purportedly a "Best of" package compiled from the broadcasts of the last year and a half. Despite splendid acting from stalwarts Belushi, Ackroyd, Radner, et al., the material is all so heavily visual that, with one hilarious exception—a word-association duel between Chevy Chase and guest Richard Pryor—what we get is a document with all the impact of a "Marcel Marceau Recorded Live in Concert." Watch the show instead. S.S.

(Continued on page 110)

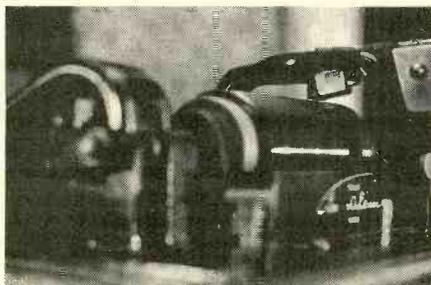
No matter how young or old the recording, the Institute of the American Musical, Inc. relies on Stanton for playback.



Miles Kreuger, shows a portion of the extensive collection to a scholar.



Mr. Kreuger and Mr. Albert Husted, Vice President, show visitors how a Stanton 681 is installed on an original Edison Standard phonograph.



Close-up of the Stanton 681 with special stylus in position on the original Edison Standard phonograph.



Music scholar following the score of *Show Boat* while listening to original cast performances.

Speaking of problems, how would you like to be faced with the need to accurately reproduce the sound from Edison Diamond Discs, Pathés and Aeolian-Vocalions? That's just what the Institute is faced with — and that's precisely why they turned to Stanton cartridges.

The Institute collection consists of approximately 35,000 recordings, from just about every American theatre or film musical since the Berliners of the 1890's through to the latest stereo and quadraphonic recordings. The collection (not counting hundreds of cylinders) is roughly evenly divided between 78's and 33 rpm's. They have original, historic machines to play these accurately, but the arms are heavy and the old styli insensitive and somewhat worn. Furthermore, the acoustic playback does not permit them to filter the surface noise or tape these rare records.

Miles Kreuger, President of the Institute, discussed his problem with other famed and experienced archivists. They all agreed that the Stanton calibrated 681 Series was the answer. Naturally, it is the 681 Triple-E for critical listening and taping with more recent discs; the special 681 stylus for LP's; and, for the old ones, a 681

cartridge, especially wired for vertical response (with a 1 mil stylus).

Today, thanks to Stanton, the scholars, authors and researchers, who are dependent on the Institute's materials to pursue their projects, can get perfect to adequate reproduction of any of the material in the collection. The Institute, which is crowded into small quarters, is open by appointment only to qualified people. For the future, it looks forward to the day when it will have the space in its own building to make its collection more readily available.

The work of the Institute is important work . . . Stanton is proud to be an integral part of it.

Whether your usage involves archives, recording, broadcasting or home entertainment, your choice should be the choice of the professionals . . . the Stanton 681 Triple-E.

Write today for further information to:
Stanton Magnetics, Terminal Drive,
Plainview, N. Y. 11803.





Eva Peron in her prime

Another Little Eva Altogether

COMPOSER Andrew Lloyd Webber and lyricist Tim Rice of, first, the pop-rock musical *Jesus Christ, Superstar* and, now, *Evita* are a couple of pop-art geniuses; what they lack is talent.

Eva Peron, superstar, was the first wife of the late Argentine dictator Juan Peron. Like the Byzantine Empress Theodora, she started out as a dancing girl and worked her way up from the beds of the mighty to the seats of power. She never made it to empress, or even vice-president, but her death at thirty-three was practically an elevation to sainthood. (Ironically, Peron's third wife, Isabel, succeeded him as president of Argentina—an extraordinary sequel to Eva's story that Webber and Rice do not include in their new musical treatment of the life of St. Evita.)

Now, this is certainly the stuff of opera, and opera is just what our heroes have proposed: great sumptuous orchestrations played by the London Philharmonic, funny off-key recitatives, Menotti-modern-opera scenes, choral madrigals, frenzied chants, and Latin lamentations, as well as heavy-beat rock music, much of it with a greasy sort of Latin overlay.

But is all this panoply mere show without substance? So it seems; one looks in vain for content. In the case of *Superstar*, Webber and Rice had some familiar dramatic material to work with. Here they need to sort it out themselves, and they don't. Politics gets short shrift, and so they miss out on the great background story of how a populist, working-people's movement becomes a fascist dictatorship with a sex symbol to sugar-coat the pill.

There's no more than the minimum social background: a mincing chorus of aristocrats sings "Tarts have become the set to know," and Eva keeps telling us that the working people like her because she used to be a hard-working person herself.

The attitude toward the characters is ambiguous. Peron is a stooge and has virtually nothing to sing. The real male lead is someone ominously named "Ché" who seems to be more interested in pushing the new insecticide he's developed than in helping tell Eva's story. Whatever the *intent*, this character bears

... a series of strokes
of high banality
and low camp ...

no resemblance to Ché Guevara (for the record, Argentines are often nicknamed "Ché"—an argot word equivalent to "hey" that appears in virtually every spoken Argentinian sentence—but only *outside* Argentina), and he has no relevance to the plot. He is not even an effective commentator but really just a device to get on with the story. Eva herself is hardly dramatized at all; she is a puppet and, strangely, not at all likable. Even her big

emotional addresses to the people of Argentina, set over and over again to the same music, are like a prostitute's bag of faked emotional tricks. Dramatization requires characters, conflict, discoveries, mysteries, comedies, tragedies, surprises, knowns, unknowns, ironies, loves, hates, sympathies, deceptions—all of which our authors forgot or didn't know how to supply. And an opera (or music theater or lyric theater or whatever) must develop these motifs musically, not only expressing ideas and emotions but also carrying events on its musical back.

Perhaps one should forget about all this—after all, *Evita* is just a recording at this point, not a dramatic presentation—and concentrate on words and music. Both are great lumpy concoctions of clichés, awkwardnesses, and ripped-off ideas (would you believe *Swan Lake* and *Both Sides Now*?) leavened with flashes of brilliance. Now and again parts congeal into bouncy, cynical, outrageous, campy Latin-rock or folk-rock numbers. The focus of the whole is Eva's speech to the crowd at Peron's inauguration. This song or aria, beautifully sung by Julie Covington and actually moving in a counterfeit sort of way, is based entirely on a couple of dumb emotional tunes that are repeated over and over again (before, during, and after) so that they burn their way into your brain.

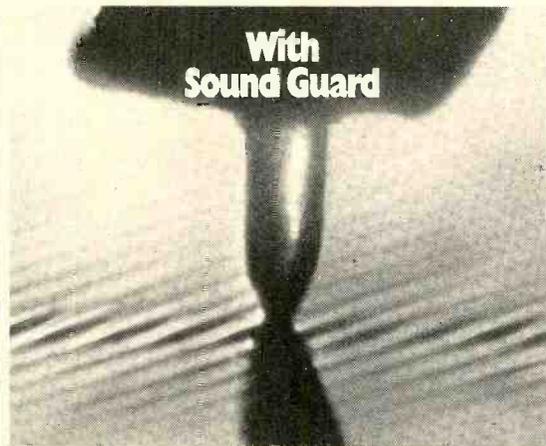
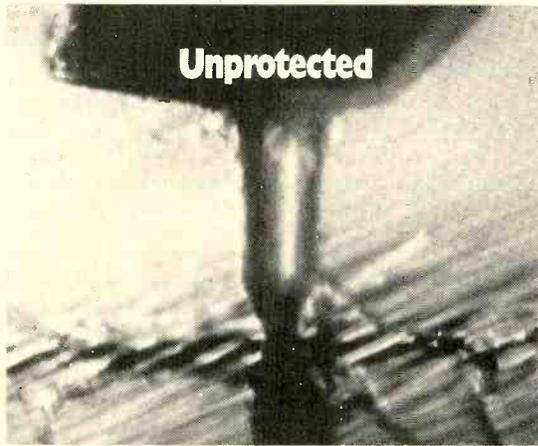
Up to the end of Part I we are carried along on the impetus of Eva's rise to power, set as a series of strokes of high banality and low camp. But once she has arrived, there is nowhere to go, musically or dramatically. Everything grinds to a halt. Part II is full of draggy, bad modern-opera-isms and fake Caribbean tunes along with endless repetitions of music from Part I, some of it pasted up in mawkish, awkward collage. In the end, we cannot untangle the dramatic, verbal, and musical skeins, and, indeed, the authors' ambitions do not permit us to do so. When the dramatic form crumbles, the musical ebullience and the flashes of brilliance flicker out too.

As with *Superstar*, this work has been elaborately recorded before ever having been performed. The quality of the performance is exceptional. Julie Covington, C. T. Wilkinson, and Paul Jones are all fine singing actors (or, more correctly, acting singers), a combination hard to match in the operatic world. All the singers here are pop and very good too. The rock and symphony playing (good arrangements by Webber himself) is excellent, and the production, again by our authors, is brilliant. Only the substance fails.

Maybe what we need is a law that says nothing may be recorded—certainly not a theater work—until it has actually been rehearsed and performed in front of a living, breathing audience. *Doing* operas (not recording them) is the right way to learn how to do operas.
—Eric Salzman

EVITA (Andrew Lloyd Webber—Tim Rice). Julie Covington, Eva Peron; Paul Jones, Juan Peron; C. T. Wilkinson, Ché; other vocalists; Superstar Choir; London Boy Singers; various rock and solo instrumentalists; London Philharmonic Orchestra, Anthony Bowles cond. MCA MCA2-11003 two discs \$12.98, Ⓜ MCAT2-11003 \$13.98, © MCAC2-11003 \$13.98.

If you can see a difference, imagine what you'll hear.



Magnified, you can see record vinyl wearing away.

With same magnification, record vinyl shows no wear.

You're looking at the solution to one of the oldest problems in audio—how to protect records from wear, while at the same time preserving full fidelity.

It's called Sound Guard*, and it's remarkable.

Independent tests show that discs treated with Sound

distortion as "mint condition" discs played once.

A by-product of dry lubricants developed for aerospace applications, Sound Guard preservative is so smooth it reduces friction, yet so thin (less than 0.000003") it leaves even the most fragile groove modulations unaffected.

Len Feldman in Radio Electronics reports "At last!

The long awaited record-care product has arrived.

It preserves frequency response

in a kit complete with a non-aerosol pump sprayer and

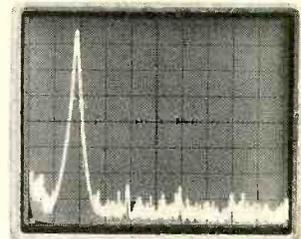


Guard preservative played 100 times display the same full amplitude at all frequencies and the same absence of surface noise and harmonic

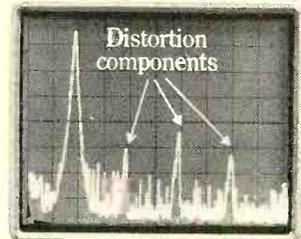
while reducing distortion and surface noise." It's effective and safe for all discs, from precious old 78's to the newest LP's.

Sound Guard preservative,

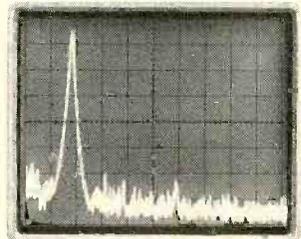
velvet buffing pad, is available in audio and record outlets.



Test record played first time.



After 100 plays without Sound Guard.



Identical test record after 100 plays with Sound Guard.

Sound Guard® keeps your good sounds sounding good.



*Sound Guard is Ball Corporation's registered trademark for its record preservative. Copyright ©Ball Corporation, 1976.

CIRCLE NO. 7 ON READER SERVICE CARD

JAZZ



RECORDING OF SPECIAL MERIT

GEORGE BENSON: *Benson Burner*. George Benson (guitar); Lonnie Smith (organ); Ronnie Cuber (baritone saxophone); Jimmy Love-lace (drums); King Curtis, Harold Ousley (tenor saxophones); Blue Mitchell (trumpet). *Bayou; Hammond's Bossa Nova; Willow Weep for Me; Clabber Biscuits; Mama Wailer; Goodnight; The Man from Toledo; My Babe; The Cooker; Return of the Prodigal Son; Benson's Rider; Ain't That Peculiar*; and fifteen others. COLUMBIA CG 33569 two discs \$9.98.

Performance: **Good**
Recording: **Good**

George Benson is now a hot name in pop-jazz circles, more as a vocalist than a guitarist, so it follows that the recordings he made in his pre-star life will be reissued to take advantage of his current notoriety. This double-disc set, compiled from 1966-1967 recordings produced by John Hammond, features Benson as an eager and facile jazz guitarist in a loose, small-band, rough-and-ready format.

What is most apparent in this set is Benson's *jolie de vivre*. He cheerfully hurls himself into his solos, and sometimes his energy gets in the way of his thinking, resulting in scatter-shot bursts of notes that are more fustian than funky, but most often his sense of good-time jazz comes through. It is interesting to note that most of the selections presented here are brief, running well under the four-minute line and sometimes even further curtailed—unusual in jazz recordings, where ordinarily too much room is given to musicians who either don't have any ideas or can't resolve the ones they do have. But it's obvious that Benson, scrappy and peppy at this point in his life, was having great fun playing. It's likely that you will have great fun listening. J.V.

ANTHONY BRAXTON: *Duets 1976*. Anthony Braxton (saxophones, clarinets); Muhal Richard Abrams (piano). *Maple Leaf Rag; Miss Ann; Nickie*; and three others. ARISTA AL 4101 \$6.98.

Performance: **From the sublime to . . .**
Recording: **Good**

As Anthony Braxton points out in his notes to this album, duet recordings are not uncommon these days. This, however, is an uncommon duet album, a perplexing mixture of magnificence and mediocrity made all the more perplexing by the fact that the mediocrity appears to be intentional. Braxton's partner here is pianist (sometime cellist and reed player) Muhal Richard Abrams, whom Braxton first met over ten years ago when both were members of the Chicago-based AACM (Association for the Advancement of Creative Musicians); they are good together on

Eric Dolphy's *Miss Ann* and a joint composition entitled *Nickie*, they have some interesting moments on three rather abstract compositions that are identified by silly schematic diagrams but bear no titles I can type, and they are simply embarrassing as together they stumble through Scott Joplin's *Maple Leaf Rag*. Because I consider Braxton an important artist, and because he gives at least two excellent performances here, I don't think this album can be ignored, but it is a step down from his previous Arista output. C.A.

RECORDING OF SPECIAL MERIT

CLIFFORD BROWN: *The Quintet Vol. 1*. Clifford Brown (trumpet); Harold Land (tenor saxophone); Richie Powell (piano); George Morrow (bass); Max Roach (drums). *Delilah; Jordu; Daahoud; Joy Spring; Mildama*; and nine others. EMARCY (M) EMS-2-403 two discs \$7.98, (E) EMT-8-2-403 \$9.95, (C) EMT-4-2-403 \$9.95.

Performance: **Quintessential**
Recording: **Excellent mono**

Some four years ago, when the Mainstream label released some complete and partial al-

unless you find yourself having bought identical recordings in different dress. The EmArcy releases are, however, different from the Trip releases in that Trip presents each album exactly (except for covers and notes) as it originally appeared while EmArcy has reprogrammed chronologically, leaving out such tracks as *Darn That Dream* (from the very first session) because Brown himself does not play on it; another difference is, of course, the price: one disc for \$5.98 (Trip) as against \$7.98 for two (EmArcy).

The music? Well, by any other label, in any other cover, the Clifford Brown/Max Roach Quintet would be just as swinging and just as vital to a serious collection of modern jazz. All but seven of the selections made by the original full quintet appear in this first EmArcy volume; the seven remaining—and another seven, with Sonny Rollins replacing Harold Land—will presumably be forthcoming in future volumes. And let us hope that the alternate takes, smuggled in clandestine fashion onto the Mainstream and Time labels by the man who originally produced these sessions, also finally find their way to their rightful label in an additional volume.

I am not one of those dyed-in-the-wool col-



GEORGE BENSON: *scrappy, peppy, good-time jazz*

ternate takes of the Clifford Brown/Max Roach Quintet's earliest EmArcy sessions and tried to pass them off as demo tapes made the year before they actually were, I pointed out the hoax and expressed the hope that Mercury—the rightful owner of these phenomenal recordings—would bring out its riches. Mercury later made a deal with the Trip label which *did* reissue virtually all the Clifford Brown material (and many other good things) in worthy form and without any kind of ludicrous stereo "enhancement." Now the EmArcy label—Mercury's jazz subsidiary under which name these sides originally appeared—has been reactivated, and the first series of well-packaged, low-price double albums includes yet another release of this material with more Clifford Brown to come. Obviously, Mercury is thus directly competing with its own material as leased to Trip; that is perplexing, but it is not *your* problem

lectors who believe that every scrap of every session must be made available, but there are exceptions, and this is an important one. Clifford Brown was an extraordinarily imaginative and influential player who died (in an automobile crash at the age of twenty-five) before his full potential had been reached; we must cherish with wonder and gratitude every scrap of his art left to us. This quintet, too, is an important part of modern jazz history; like the Louis Armstrong Hot Five that preceded it and the Miles Davis Quintet (with John Coltrane) that came on its heels, the Clifford Brown/Max Roach Quintet was the quintessence of jazz in its day, and time has not erased its value or beauty. C.A.

AL GAFA: *Leblon Beach*. Al Gafa (guitar); Kenny Barron (piano); Ben Brown (bass); Al Foster (drums); Azzedin Weston (percus-
(Continued on page 112)



Nikko's dedication and your patience are now rewarded.

The people at Nikko have a very unique philosophy about the way they produce and market audio products.

It starts with producing only state-of-the-art components, the testing of every unit before you buy it, a three-year parts and labor warranty* and conservatively rating every specification. Only in this way do you reap the benefits of true performance. Nikko now presents its finest discrete matched components: the Alpha-1 dual channel power amplifier has a three-stage Darlington direct-coupled OCL pure comple-

mentary circuit, large electrolytic capacitors (33,000 mF), and a rack mount design with optional side panels.

A matching Beta-1 "FET" preamplifier features high-voltage FET circuitry, three-stage direct coupled with two-stage differential amplifier, and a number of useful features, including a phono impedance selector and tape monitor (play 1, play 2, dubbing 1 to 2, dubbing 2 to 1). Beta-1 is also provided in a rack mount design (shown stacked atop Alpha-1).

Alpha-1 specifications

Continuous power output of 220 watts per channel, both channels driven from 20 to 20kHz into 8 ohms with no more than 0.08% total harmonic distortion.

Intermodulation distortion:	no more than 0.08% (at rated output)
Frequency response:	10 Hz-100kHz +0dB -1dB
Input sensitivity/impedance:	1V/50Kohms
Signal-to-noise ratio (I.H.F.):	100 dB
Dimensions:	7" high, 11½" deep, 19" wide
Price:	\$599.95

Specifications subject to change without notice

Beta-1 specifications

Input Sensitivity:	Phono 1 & 2 Tuner Aux	2mV 100mV 100mV
Input Impedance:	Phono 1 & 2 Aux Tuner	22K/47K/100Kohm 50Kohm
Total Harmonic Distortion:	no more than	0.015% (at rated output)
Signal-to-noise ratio (I.H.F.):	Phono 1 & 2 Aux	72dB 100dB
Frequency Response:	Phono 1 & 2 (RIAA equalization) Aux Tuner	30-15kHz ±0.2dB 20-20kHz ±0.1dB
Phono Overload Level:	400mV RMS @ 1kHz	
Output:	1V rated, 10V max.	
Power Consumption:	120V 25VA 50/60 Hz	
Dimensions:	2½" high, 11½" deep, 19" wide	
Price:		\$299.95



Nikko Electric Corp. of America
16270 Raymer St., Van Nuys, Calif. 91406
In Canada:
Superior Electronics, Inc., Montreal

**See the warranty card
with the product for full details*

CIRCLE NO. 36 ON READER SERVICE CARD

The above prices are shown for informational purposes only. Actual retail price will be set by the individual Nikko dealer at his option.

sion). *Barcelona*; *Abre Alas*; *Con Alma*; *Affirmation*; and two others. PABLO 2310-782 \$7.98, © S10782 \$8.98, © K10782 \$8.98.

Performance: **Is it an album yet?**
Recording: **Very good**

I never paid much attention to Al Gafa's guitar work during his five years with Dizzy Gillespie, and unless he comes up with a more exciting album than this one—his first as a leader—I guess I'll continue not paying much attention to his work. He plays well, as a studio musician should, but that's about it. Kenny Barron, a fine pianist, gets some good work in here, but he is poorly framed. C.A.

CHUCK MANGIONE: *Main Squeeze*. Chuck Mangione (flugelhorn, electric piano): orches-

tra. *Love the Feelin'*: *Doin' Everything with You*; and four others. A&M SP-4612 \$6.98.

Performance: **Dull**
Recording: **Very good**

Some of New York's top studio men wade through these dreary arrangements of dreary tunes with more than the usual apathy. Chuck Mangione's playing has never really been a source of inspiration, and his relative popularity has always puzzled me. This album is so uninspired that it would be unfair to waste more space on it. C.A.

SHELLY MANNE: *Perk Up*. Shelly Manne (drums); Conte Candoli (trumpet); Frank Strozier (flute, alto saxophone); Mike Wofford (piano); Monty Budwig (bass). Yes-

terdays; *Drinkin' and Drivin'*; *Bleep*; and five others. CONCORD JAZZ CJ-21 \$6.98 (from Concord Jazz, Inc., P.O. Box 845, Concord, Calif. 94522).

Performance: **Polished**
Recording: **Very good**

The Concord Jazz label, headed by West Coast concert producer Carl Jefferson, has just recently come to my attention; I have not heard all its twenty-odd releases, but what I have heard has all been above average when measured against today's jazz output. This album—though recorded ten years ago, before Concord's inception—maintains that high quality and makes available for the first time a well-coordinated session by a 1967 Shelly Manne quintet, most of whose members have long since gone their separate ways.

There are two standards and two compositions each by Jimmie Rowles, Frank Strozier, and Mike Wofford, all performed with cohesive polish and a generous amount of worthwhile solos, particularly by the two horn players. Frank Strozier, who first made a reputation for himself as a member of the MJT + 3 group twenty years ago, has never gotten the full recognition his talent deserves; a ten-year-old recording unearthed is better than none, but let's hope someone gets Strozier into a studio again, and soon. C.A.

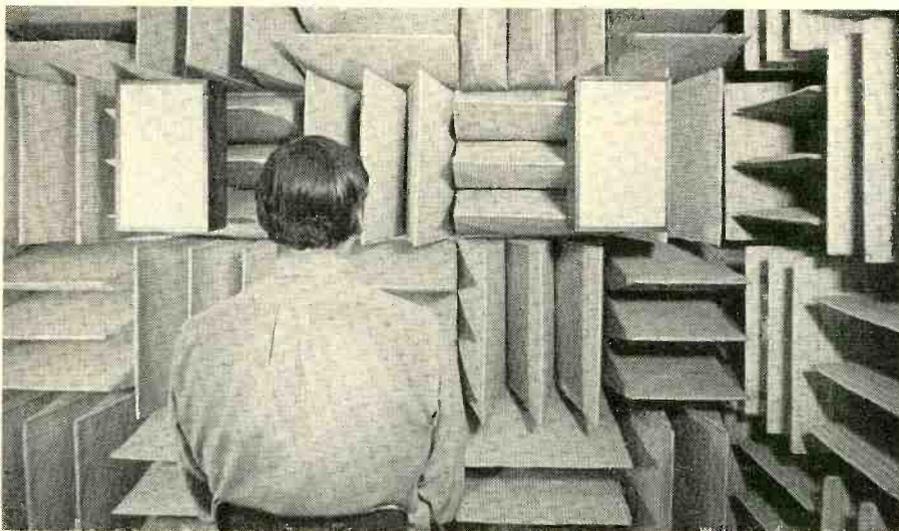
JIMMIE ROWLES: *Grandpaws*. Jimmie Rowles (vocals, piano); Buster Williams (bass); Billy Hart (drums). *Jam Face*; *Where or When*; *While We're Young*; and four others. CHOICE CRS 1014 \$6.98 (from Choice Records, Inc., 245 Tilley Place, Sea Cliff, N.Y. 11579).

Performance: **Caring**
Recording: **Good**

Pianist Jimmie Rowles' name isn't exactly a household word, but the fifty-nine-year-old West Coast player has long been admired and respected by colleagues whose names are. Since the beginning of the Forties Rowles has worked with such titans as Ben Webster (who introduced him to the scene), Lester Young, Charlie Parker, and Stan Getz; he has played in the bands of Benny Goodman, Les Brown, Woody Herman, and Tommy Dorsey, done studio work for 20th Century Fox, and accompanied singers from Betty Hutton to Billie Holiday. Contrary to what composer Alec Wilder says in the notes for this release, this is not Rowles' third album as a leader; he led trio, sextet, and septet dates on the Liberty, Tampa, and Andrex labels in the Fifties, and he has had his own albums on the Blue Angel Jazz Club ("Some Other Spring"—BAJC 512) and Halcyon ("Jimmy Rowles"—HAL 110) labels during the first half of the Seventies.

This album, recorded in March of last year, contains only seven tracks, but—what with medleys and segues—Mr. Rowles is heard playing fourteen songs, most of which you will find quite familiar. Two that don't fall into that category are *Jam Face* and *My Mother's Love*; both were written by Rowles and feature his singing, which in no way measures up to his playing. *Jam Face*, a humorous ditty about an anti-homosexual Anita O'Day fan who wins and loses at Wimbledon, is easier to take than *My Mother's Love*, but it's no match for Rowles' *The Ballad of Thelonious Monk*, which appears on his Blue Angel album. The vocals aside, this is another fine example of Jimmie Rowles' tender fondling of

You don't need Allison speakers if you listen to music this way.



All conventional loudspeaker systems are designed to produce more-or-less flat frequency response in anechoic chambers. These chambers are lined with sound-absorptive materials to eliminate reflections from the walls, floor, and ceiling, which simplifies loudspeaker test programs.

But most speakers are actually used in home listening rooms, not anechoic chambers. A real listening room changes the power output of any speaker enormously. Speaker systems of conventional design (whose anechoic output may be quite flat) will, when placed typically in a living room, have power output variations of 6 to 12 dB in the frequency range below 400 Hz. That frequency expanse is 40% of the audible spectrum.

Frequency response aberrations of such magnitude would not be tolerated in an amplifier or a pickup cartridge. They are just as audible when they originate in the loudspeaker/room system, and they need not be tolerated there either. Allison loudspeaker systems, with Stabilized Radiation Loading* and Convex Diaphragm* drivers, are designed specifically to produce flat power output in real-room environments. They are unique in this respect.

Descriptive literature on all Allison speaker systems, which contains technical specifications and a statement of Full Warranty, is available on request.

*Patents pending.

ALLISON ACOUSTICS INC.

7 Tech Circle, Natick, Massachusetts 01760

CIRCLE NO. 4 ON READER SERVICE CARD

tunes that obviously inspire him. The rhythmic support by bassist Buster Williams and drummer Billy Hart is, of course, excellent. The East Coast seems recently to have discovered Jimmie Rowles, and, if you haven't already, I suggest that you do too. C.A.

RECORDING OF SPECIAL MERIT

THE SONS OF BIX'S: A Legend Revisited. Tom Pletcher (cornet); John Harker (clarinet); Russ Whitman (bass saxophone); Don Ingle (valve trombone, vocals); Charlie A. Marshall, Jr. (guitar); Don Gibson (piano); Wayne Jones (drums). *Rhythm King; Ol' Man River; Royal Garden Blues; Singin' the Blues; Riverboat Shuffle; Thou Swell*; and four others. FAIRMONT F-110 \$6.98 (from Fairmont Records, P.O. Box 3392, Santa Monica, Calif. 90403).

Performance: **Outstanding**
Recording: **Good**

Some time ago Don Gibson, the pianist in this fine group, sent me tapes of some of the selections in "A Legend Revisited," and I was quite impressed with the way the band had captured the sound of the Bix & His Gang 1927-1928 dates—not, I hasten to add, the acoustic sound but the musical one. The bass sax and the cymbals played in off-accents were a treat to hear, and Tom Pletcher's Beiderbeckian cornet playing was very close to the glorious original.

Now that the full album has been released, however, I find that what delights me about the performances is not the instrumentation or the re-creation of atmosphere, but that the whole band, and Pletcher especially, are not trying to *sound* like Bix and his compatriots but are playing their *ideas*. The bass sax, for instance, had a short but brilliant career as a jazz instrument, chiefly in the hands of Adrian Rollini, who abandoned it in the early 1930's for the xylophone. Russ Whitman brings to the instrument all the fine things Rollini did: personality, agility, and a solo voice that grows naturally out of ensemble rhythm use (it often substituted for string bass on 1920's recordings). Wayne Jones' use of cymbals, after the manner of Chauncey Morehouse, is a refreshing change from the average "Dixieland" drumming, in which the ride cymbal and the (shiver) cowbell play prominent roles.

While the whole band is fine, it is Tom Pletcher who is in central position, and he brings his part off beautifully. He is as close to Bix as any horn I ever heard, and in the right way. He went to the trouble of discovering what Bix's musical basics were: a rapturous fascination with harmony and a strong sense of loyalty to the melody. A Bix improvisation is thrilling not for the way it departs from a tune but for how close it stays to it, inserting harmonic concepts *within the structure of the tune* that the composer was sometimes unaware of or had overlooked. Pletcher understands Bix's basics; he approaches a tune as Bix would, so his solos and fills are about as close as any mortal is going to come to Bix's immortal ones.

The album is not only a fine tribute to Bix, but also an impressive display of the talents of all the musicians in the band. The original recordings from which the band takes their inspiration were made fifty years ago; the Sons of Bix's have not returned to that time—they have brought it forward to the present and offer their music as living jazz of a type that

has been largely forgotten but still has much to offer in both comfort and adventure. J.V.

JOE TURNER: In the Evening. Joe Turner (vocals); instrumental accompaniment. *Summertime; Corrinne. Corrina; Too Late, Too Late; Pennies from Heaven*; and six others. PABLO 2310-776 \$7.98, © S10776 \$8.98, © K10776 \$8.98.

Performance: **Simplistic**
Recording: **Very good**

Joe Turner has made some nice records over the years, but there have also been disasters such as his last Pablo offering ("Nobody in Mind"). This album isn't quite as bad as that one; on such numbers as *Sweet Lorraine* and *Chains of Love* Turner actually seems to be

paying attention to the lyrics, but his style is still terribly monotonous and predictable. Again, Benny Green's notes are almost apologetic, though he does refer to Turner as "literally the voice of Jazz," which is going further than any annotator should have to. C.A.

CORRECTION

The review of Sheffield Labs' direct-to-disc recording of Harry James and His Band, "The King James Version," on page 121 of the March issue contained an error in the price information. The correct price is \$12 (from Sheffield Lab, P.O. Box 5332, Santa Barbara, Calif. 93108).

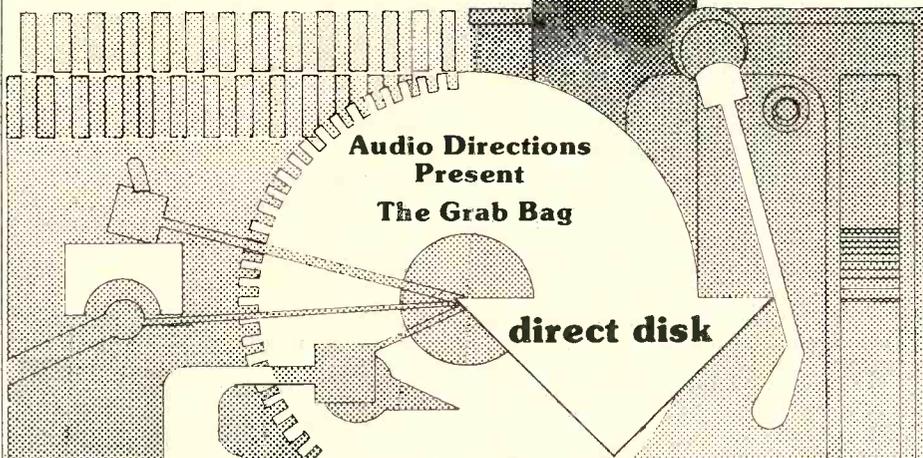
The Most Critical Component In Your System Is Ours

Only One Step Away From Being There

Why is this recording different? Because there was no tape used throughout the entire recording process. The musicians' performances went straight from the recording studio to the cutting electronics for the disk. The advantage to this is there is no loss of quality or degradation of the stereo signal in noise or added distortion. The result is that the pressed record affords a much cleaner sound with great increase in clarity and presence.

A Collector's Item

Nashville's First Direct Disk Album, Original Jazz produced, written and arranged by: Barry McDonald, George Tidwell & Buddy Skipper



Audio Directions
28 Music Square East
Nashville, TN 37203

Ours is Direct Disk, and if that sounds good—it is!

Please send me _____ albums of the Grab Bag (at \$12.00 (price includes shipping and handling). Tennessee residents please add 3 1/2% state sales tax.

- Payment enclosed.
 Please charge to my bankcard.

NAME _____
ADDRESS _____
CITY _____ STATE _____
ZIP _____

EXP. DATE _____ ACCOUNT NO. _____
MASTER CHARGE _____
BANK AMERICARD _____
YOUR SIGNATURE _____

Available at select dealers



CLASSICAL DISCS AND TAPES

Reviewed by RICHARD FREED • DAVID HALL • GEORGE JELLINEK • PAUL KRESH
STODDARD LINCOLN • ERIC SALZMAN

RECORDING OF SPECIAL MERIT

ALFVÉN: Swedish Rhapsody No. 1, Op. 19 ("Midsommarvaka"). Swedish Royal Orchestra, Hugo Alfvén cond. **Swedish Rhapsody No. 3, Op. 48 ("Dalarapsodi"); Festspel, Op. 25.** Stockholm Philharmonic Orchestra, Stig Westerberg cond. SWEDISH SOCIETY DISCOFIL SLT 33145 \$7.98 (from HNH Distributors, P.O. Box 222, Evanston, Ill. 60204).

Performance: **Excellent**
Recording: **Good 1950's vintage**

Hugo Alfvén recorded his deservedly popular *Midsommarvaka* (*Midsummer Vigil*) in 1954, at the age of eighty-two, and it is that performance that is the high point of this disc in both musical-poetic content and documentary value. It was, by the way, the first Swedish stereo recording of symphonic music and was issued over here by Westminster in 1957. However, this new Swedish Society Discofil release offers a decidedly superior remastering job and shows to best possible advantage the felicitous underlining of contrapuntal detail and lovely expressive touches that the composer brings to his minor masterpiece of Swedish romantic nationalism. The *Dalarapsodi* (*Dalecarlian Rhapsody*), composed in 1937, more than thirty years after *Midsommarvaka*, is a more dark-hued and sprawling affair, with folk tunes displayed sequentially rather than cleverly combined as in the earlier score. The most arresting touch is the opening

soprano saxophone solo, evocative of the Swedish birch horn. The *Festspel* (*Festival Piece*) with which the disc opens is a handsome ceremonial piece in polonaise style composed for the 1908 inauguration of Sweden's Royal Dramatic Theater in its then new quarters. These 1957 recorded performances by Stig Westerberg were also released here by Westminster some two years later, but again, Westerberg's spirited readings benefit from the expert remastering of this new import disc. *D.H.*

J. S. BACH: Six Sonatas for Violin and Harpsichord (BWV 1014-1019). Alice Harnoncourt (violin); Herbert Tachezi (harpsichord); Nikolaus Harnoncourt (viola da gamba). TELEFUNKEN 6.35310 two discs \$13.96.

Performance: **Authentic**
Recording: **Excellent**

J. S. BACH: Six Sonatas for Violin and Harpsichord (BWV 1014-1019); Sonata in G Major (BWV 1021); Sonata in E Minor (BWV 1023); Alternate Movements for the Sonatas. Andre Granat (violin); Edith Kilbuck (harpsichord). ORION ORS 79213/5 three discs \$13.96.

Performance: **Good**
Recording: **Hard**

J. S. BACH: Six Sonatas for Violin and Harpsichord (BWV 1014-1019). Jaime Laredo (violin); Glenn Gould (piano). COLUMBIA M2 34226 two discs \$13.98.

Performance: **Frustrating**
Recording: **Fine**

One of the problems posed by the Bach Violin and Harpsichord Sonatas is balance: the rich, modulated tone of the modern violin simply steals the show from the rigidly static sound of the harpsichord. A violinist's chief means of expression is dynamic; the harpsichordist's is temporal. It is well-nigh impossible to use both without upsetting ensemble and balance, and yet the use of one or the other proves frustrating to both performer and listener. These three albums offer three varying solutions, all of which work to a degree but still leave unanswered questions.

Granat and Kilbuck on Orion Records pre-

sent us with the modern violin played in the current high-pressure style. Mr. Granat's execution is violinistically admirable, but it is filled with spurious crescendos and slurs, and there is an overall legato that is detrimental to Bach's highly articulated writing. Ms. Kilbuck, on the other hand, plays a historic instrument by William Dowd in an austere authentic manner. Not only are the performers' styles incompatible, but the harpsichord sound is so soft that it offers a mere tinkle in the background, which is particularly frustrating in that Ms. Kilbuck is an excellent harpsichordist who understands temporal expression well and is not afraid to use it. This is attested in her fine performance of the solo movement of the G Major Sonata. Perhaps different microphone placement would have helped us to hear her.

The use of modern violin and piano by the Laredo-Gould team solves the balance problem. Here the equal lines are heard in proper balance, and Mr. Gould's talent for polyphonic clarity comes to the fore as he underlines important thematic entries. But otherwise his treatment of the music is utterly perverse. His articulation is so choppy and arbitrary that the long Bach lines become a farce of trivia. He also chooses to fill in the writing with staccato chords and spacings that properly belong in a night club. Perhaps the most galling feature is the way he breaks chords; his added figurations in the adagio of the E Major Sonata, for instance, completely destroy this magnificent music.

Laredo's reading, however, is superb. His tone is perfect for the style, and he brings that rare combination of articulation and line to the music that reveals Bach in his fullest glory. One wonders how he manages such musical integrity and beauty over such a grotesque accompaniment.

It is typical of any performance associated with the name Harnoncourt that authentic instruments are played in the most uncompromising, authentic style that can be mustered. This approach, of course, requires arduous research and technical skill. For the modern listener, however, it has both its pros and cons, as demonstrated in the Telefunken recording of the Bach sonatas. Most admirable

Explanation of symbols:

- Ⓜ = reel-to-reel stereo tape
- Ⓢ = eight-track stereo cartridge
- Ⓒ = stereo cassette
- Ⓚ = quadraphonic disc
- Ⓜ = reel-to-reel quadraphonic tape
- Ⓢ = eight-track quadraphonic tape

Monophonic recordings are indicated by the symbol Ⓜ

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

is its clarity: the flat, vibrato-less sound of the violin *matches* that of the harpsichord, and that, together with detailed articulations and much *détaché* playing on the part of both performers, results in a balance that allows us to hear the entire musical complex. It is also enhanced by the use of the viola da gamba on the bass line. Thus we hear three different timbres: solo violin, a single harpsichord line, and a third line of harpsichord and gamba, which helps to clarify the complex weave of the parts.

But Alice Harnoncourt applies Baroque performance practice so rigidly that one feels a basic lack of instinctive musicianship. Each note is firmly attacked (sometimes with a rather ugly result) and immediately subjected to a severe *diminuendo*, something that becomes a mannerism. The articulation is so separated that there is a lack of line, and the rhythm is so rigid that one gasps at times for a bit of *rubato* to stretch a line to its climax. Even final *retards* are denied us, which is musically frustrating in such broadly conceived rhapsodic movements as the openings of the E Major and B Minor Sonatas. In the fast movements, however, the manner works well, for the clarity of the lines and briskness of the tempos make the music sparkle. The final movement of the E Major, for example, is a delight.

Although none of these recordings does complete justice to the works nor allays the frustrations inherent in the music, the Harnoncourt-Tachezi is the most positive approach. The basic problem lies in the music. Magnificent, yes, but perhaps only performers of it will ever feel complete fulfillment. S.L.

BERLIOZ: *Symphonie Fantastique, Op. 14a.* Budapest Symphony Orchestra, Charles Munch cond. HUNGAROTON SLPX 11842 \$6.98.

Performance: **Expansive**
Recording: **Good**

This recording, released for the first time only last year, is the penultimate of the five Munch made of the *Fantastique*; according to information printed on the jacket, it was assembled from rehearsal tapes made in 1966 as part of the Hungarian Radio's experiments in stereo recording techniques. Perhaps it is because of the rehearsal circumstances that the performance is weighted more toward expansiveness than fervor. It is not a dull one by any means, and there is a good deal of fine playing, especially from the strings. It is a *Fantastique* I would find easier to live with than Munch's valedictory one with the Orchestre de Paris on Angel but less satisfying than either of his two Boston versions. It's surely not a candidate for first choice, in any event, in the face of Martinon's stunning account, the elegant versions of Beecham and Monteux, and at least a half-dozen other really distinguished current offerings. R.F.

RECORDING OF SPECIAL MERIT

COUPERIN: *Four Royal Concerts; Les Goûts-Réunis ou Nouveaux Concerts.* Thomas Brandis (violin); Heinz Holliger (oboe); Aurèle Nicolet (flute); Josef Ulsamer (viola da gamba); Manfred Sax (bassoon); Christiane Jaccottet (harpsichord); others. DEUTSCHE GRAMMOPHON ARCHIV 2723 046 four discs \$31.92.

Performance: **Exquisite**
Recording: **Clear**

Written during 1714-1715 for Louis XIV's

Sunday afternoon *petits concerts*, François Couperin's fourteen *Royal Concerts* are perhaps the most elegant salon music ever conceived. As the title of the second set implies, Couperin, a passionate lover of Italian music, creates a blend of suave French melody propelled by Italianate sequences, of smooth French harmonies spiced with Italianate modulations and dissonance. Never do the two styles clash, but rather become a subtly balanced mixture that only such a genius as Couperin could achieve.

Scored for utility, the *Concerts* call for continuo and a single melody instrument with an occasional added counter-melody "if one wishes." Taking full advantage of this freedom of instrumentation, this recording supports the harpsichord with gamba or bassoon and distributes the various melodic parts among violin, oboe, and flute depending on the character of the music. Thus, what looks dull on paper takes on great variety as the instruments in solo and combination offer a constantly changing timbre.

The style of playing is extremely legato here, and I would prefer a slightly more marked articulation. But this is more than offset by overall beauty of phrasing. The lines are long and sinuous, and this group of musicians deserves high praise for molding them in completely natural contours.

Typical of the French *galant* style, the melodies are overlaid with a plethora of ornaments, but Couperin intended them all—plus what the performer could add—to be played. They are all here, too, clear as a bell, and never once does an ornament mar the shape of a phrase. The only questionable practice is the consistent use of the *appoggiatura* before the beat as an unaccented passing note. I long for that characteristically French mannerism of long, *on-beat appoggiaturas*. Although all the performers are at home in the style, oboist Heinz Holliger's ornamentation and tasteful divisions are really outstanding.

One of the *bêtes noires* of French music is the question of *notes inégales*. Here the char-

(Continued on page 119)

The French Bidú



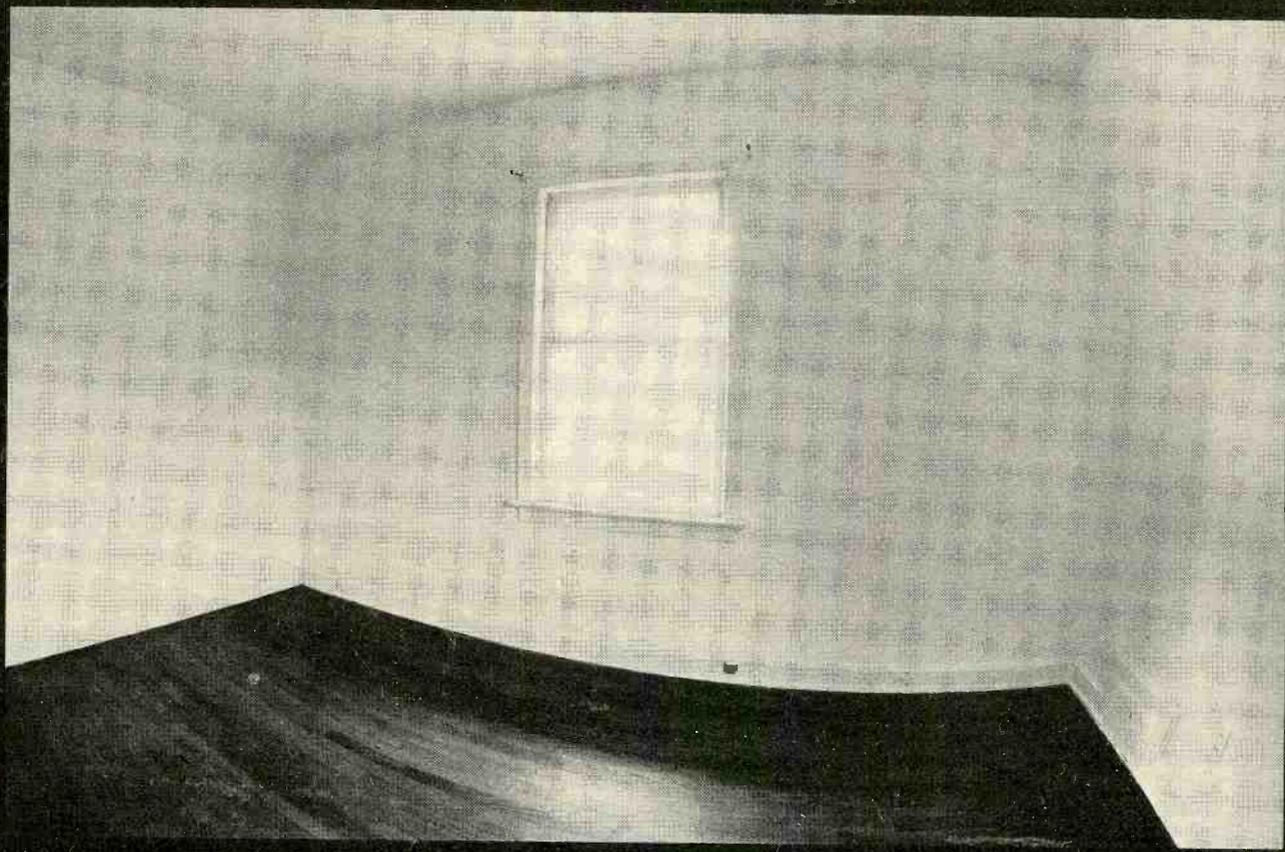
Bidú Sayão as Manon

Opera News

The longest selection, "Je voudrais," comes from the long out-of-print recording (Columbia ML 4075) of Debussy's *La Damoselle Éluë*, made in 1947. Miss Sayão made her American debut under Toscanini in this same work in 1936. French was a language she acquired in childhood. Later studies with Jean de Reszke and extensive appearances in France established her as a mistress of the French singing style. But she exhibits a mastery of the vocal art as well in this sequence of simple songs that are by no means simple to do *this* well. Her tones are sweet and true, effortlessly produced, with exquisite pianissimos that are to be cherished.

I would have preferred piano accompaniment for the Hahn song and an orchestra behind the Auber and Ravel arias, of course. But these were recorded in a less exacting era, and we are fortunate that they were recorded at all in quite acceptable sound for the period (1938-1950). There are useful and informative notes by producer William Seward, who was enterprising enough to obtain releases from RCA on three selections. Compliments to all concerned. —George Jellinek

BIDÚ SAYÃO: *French Arias and Songs.* Hahn: *Si mes vers avaient des ailes.* Duparc: *Chanson Triste.* Debussy: *L'Enfant Prodigue: Lia's Recitative and Aria.* Bidú Sayão (soprano); Columbia Concert Orchestra, Paul Breisach cond. Debussy: *La Damoselle Éluë: Je voudrais qu'il fut déjà près de moi.* Bidú Sayão (soprano); Women's Chorus of the University of Pennsylvania; Philadelphia Orchestra, Eugene Ormandy cond. Koehlin: *Si tu le veux.* Campra: *Chanson du Papillon.* Auber: *Manon Lescaut: L'éclat de rire.* Chopin: *Tristesse.* Moret: *Le Nelumbo.* Debussy: *De Fleurs.* Ravel: *L'Enfant et les Sortilèges: Toi, le coeur de la rose.* Trad. (arr. Crist): *C'est mon ami.* Bidú Sayão (soprano); Milne Charnley (piano). ODYSSEY ® Y33130 \$3.98.

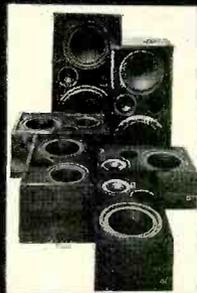


**At Technical Sound Industries
we know how long
a day without music can be.**

© 1977

The Technical Sound Industries, Inc. Speaker Warranty

Technical Sound Industries, Inc. warrants its products to be free of defects in materials and workmanship unconditionally for a period of five years from the date of purchase. The only exception to this warranty is that the product be used under normal operating conditions and that the warranty is void if the product is abused. The cabinet finish is under warranty for defects in materials and workmanship. The owner may also bring back his speakers to any Technical Sound Industries, Inc. Dealer Speaker Clinic. It will be repaired to specifications at no charge to the

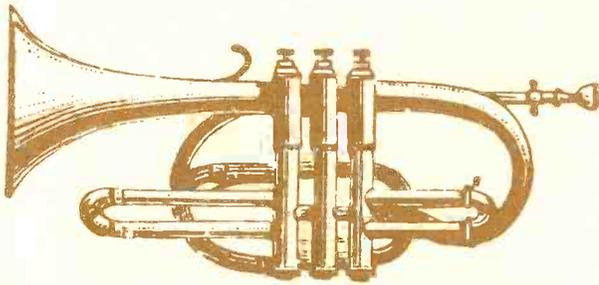


customer, for the life of the speaker. This warranty also applies to any owner of record and is fully transferrable within the five year period.

Warranty service is available at any authorized Technical Sound Industries, Inc. Warranty Station. Call Factory Service Information toll free (800/241-0914) for directions to the nearest Technical Sound Industries, Inc. Warranty Station.

Send this ad and \$2.00 (check or money order) to: Technical Sound Industries, Inc., 1435 Jacqueline Drive, Columbus, Georgia, 31906, for a 23 x 35 lithographic print of the above photograph.

Technical Sound Industries, Incorporated
1435 Jacqueline Drive, Columbus, Georgia 31906



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.

- 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.



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

Please send me 12 issues of Stereo Review for \$3.99 and bill me.
PLEASE PRINT—Use only one card per person.

SR4773

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP CODE _____

(Zip Code must be included to insure delivery) (Void after June 30, 1977)

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

Please send me 12 issues of Stereo Review for \$3.99 and bill me.
PLEASE PRINT—Use only one card per person.

SR4772

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP CODE _____

(Zip Code must be included to insure delivery) (Void after June 30, 1977)

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

Please send me 12 issues of Stereo Review for \$3.99 and bill me.
PLEASE PRINT—Use only one card per person.

SR4771

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP CODE _____

(Zip Code must be included to insure delivery) (Void after June 30, 1977)

FREE INFORMATION SERVICE

(SEE REVERSE SIDE)

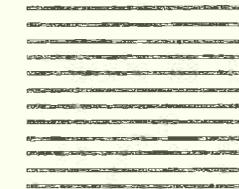
FIRST CLASS
PERMIT NO. 217
CLINTON, IOWA

BUSINESS REPLY MAIL

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

POSTAGE WILL BE PAID BY--

Stereo Review
P.O. BOX 2908
CLINTON, IOWA 52732



FIRST CLASS
PERMIT NO. 217
CLINTON, IOWA

BUSINESS REPLY MAIL

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

POSTAGE WILL BE PAID BY--

Stereo Review
P.O. BOX 2908
CLINTON, IOWA 52732



FIRST CLASS
PERMIT NO. 217
CLINTON, IOWA

BUSINESS REPLY MAIL

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

POSTAGE WILL BE PAID BY--

Stereo Review
P.O. BOX 2908
CLINTON, IOWA 52732



SPECTACULAR SOUND... ON THE MOST IMPORTANT DISCS IN YOUR ENTIRE COLLECTION!

*A Remarkable Listening Experience
For Stereo Headphone Owners.*



Binaural Demonstration Record

Binaural recording re-creates the directions, distances, and even the elevations of sounds better than any other recording method. The super-realism of binaural recording is accomplished by recording the acoustical input for each ear separately, and then playing it back through stereo headphones. Thus the sound intended for the left ear cannot mix with the sound for the right ear, and vice versa.

Binaural recording offers the listener the identical acoustical perspective and instrument spread of the original. The sound reaching each

ear is exactly the same as would have been heard at the live scene. **STARTLING REALITY.** The Binaural Demonstration Record offers 45 minutes of sound and music of startling reality. You'll marvel at the eerie accuracy with which direction and elevation are re-created as you embark on a street tour in binaural sound—Sounds Of The City . . . Trains, Planes & Ships . . . a Basketball Game, a Street Parade, a Steel Fabrication Plant, The Bird House at the Zoo—all demonstrating the incredible realism of binaural sound reproduction.

MUSIC IN BINAURAL. The musical performances presented on the Binaural Demonstration Record transport you to the concert hall for a demonstration of a wide variety of music. Selections total 23 minutes, and include examples of jazz, organ, and chamber music.

The Stereo Review Binaural Demonstration Record is the ultimate in sound reproduction. It has been made without compromise. **\$6.95**

*The Most Spectacular Sound Exhibition
Of Stereo Fidelity Ever Available
on One Disc And Cassette.*



Stereo Demonstration Record And Cassette

The result of two years of intensive research in the sound libraries of Deutsche Grammophon Gesellschaft, Connoisseur Society, Westminster and Cambridge. The editors of Stereo Review have selected those excerpts that best demonstrate the many aspects of the stereo reproduction of music. It's the greatest variety of sound ever included on a single disc or cassette.

Electrifying Experience in Listening. A series of independent demonstrations designed to show many aspects of musical sound and its reproduction. Self-sufficient capsule presentations are arranged in a contrasting and pleasing order, isolated and pointed up to give you a basis for future critical listening.

Wide Range of Demonstrations. Techniques of separation and multiple sound sources. Acoustic depth. The ambiance of a concert hall. Sharp contrasts of dynamics, Crescendo and diminuendo. Very high and very low pitched musical sounds. Polyphony (two or more melodies going on at once) with both similar and contrasting instruments. Tonal qualities of wind, string and percussion instruments. Sounds of ancient instruments. Sounds of oriental instruments. The singing voice, both classically trained and untrained. Plus a large sampling of finger snapping, hand clapping, foot stamping and other musical and percussive sounds.

13 Superb Selections. Strauss: Festive Prelude, Op. 61 (excerpt) DGG. Debussy: Feux d'artifice (excerpt) Connoisseur Society. Beethoven: Wellington's Victory (Battle Symphony) (excerpt from the first movement) Westminster. Massaino: Canzona XXV à 16 (complete) DGG Archive. Corrette: Concerto Comique Op. 8 No. 6, "Le Plaisir des Dames" (third movement) Connoisseur Society. Khan: Raga Chadranandan (excerpt) Connoisseur Society. Rodrigo: Concert-Serenade for Harp and Orchestra (excerpt from the first movement) DGG. Manitas de Plata: Gypsy Rhumba (complete) Connoisseur Society. Marcello: (arr. King): Psalm XVIII "The Heavens are Telling" (complete) Connoisseur Society. Praetorius: Terpsichore: La Bourrée XXXII (complete) DGG Archive. Berg: Wozzeck (excerpt from Act III) DGG. Bartók: Sonata for Two Pianos and Percussion (excerpt from the first movement) Cambridge. Beethoven: Wellington's Victory (Battle Symphony) (excerpt from the last movement) Westminster. Booklet discusses and describes each selection.

RECORD—\$6.95 CASSETTE—\$7.95

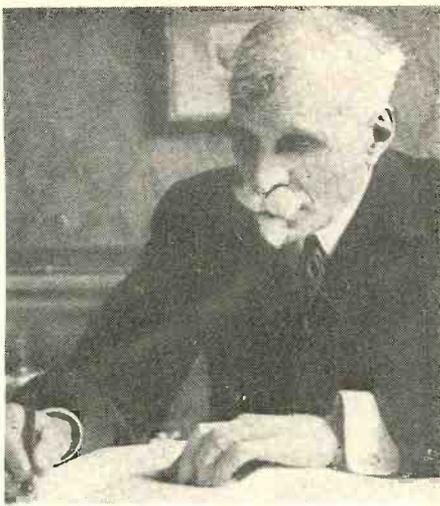
HERE'S HOW TO ORDER

CASH: Mail your order along with your name, address and remittance in the amount indicated above. Residents of Calif., Colo., Fla., Ill., Mich., Mo., N.Y. State, D.C. and Texas add applicable sales tax.

CHARGE: To your American Express, BankAmericard, Master Charge or Diners Club account! Mail your order, name, address, credit card number and expiration date (Master Charge customers include 4-digit interbank number above your name). Be sure your signature is on your order. You will be billed in the amounts indicated above plus sales tax, if applicable.

OUTSIDE U.S.A. RECORDS AND CASSETTES ARE \$8.95 EACH

MAIL ORDERS TO: RECORDS, CONSUMER SERVICE DIVISION,
595 BROADWAY, NEW YORK, N.Y. 10012.



MAURICE EMMANUEL (1862-1938)
Very much worth getting to know

acteristic rhythmic alteration is turned off and on in a somewhat vexing and inconsistent manner. A passage will be played as written and the repetition will be rhythmically modified. Frequently when Couperin clarifies the situation by specifically calling for *iné-gales*, they are ignored. From what I can gather about this contradictorily documented practice, they should be applied, when appropriate, to an *entire* movement, not haphazardly to small sections or repeats. When they are used in this album, however, they are subtly handled and the flow of the music is not impeded by the galling lumpishness so frequently heard in many so-called "authentic" performances where they are applied with a vengeance.

Despite my quibbles, this is a fine album of a very special repertoire. The overall effect is exquisite, and if these *Concerts* found favor with Louis, which they did, they are a tribute to that monarch's remarkably high degree of refinement. S.L.

EMMANUEL: *Symphony No. 2, in A Major* ("Bretonne"). Orchestre Philharmonique de l'ORTF, Jean Doussard cond. **POULENC: *Concerto in D Minor for Two Pianos and Orchestra***. Marie-José Billard, Julien Azais (pianos); Orchestre National de l'ORTF, Maurice Suzan cond. INÉDITS ORTF 995 035 \$7.98 (from HNH Distributors, P.O. Box 222, Evanston, Ill. 60204).

Performance: **Good**
Recording: **Good**

Maurice Emmanuel (1862-1938) was born a few months before Debussy and died a year after Ravel; he is remembered primarily as a scholar, his compositions hardly ever performed or even discussed. He had some of the same teachers as Debussy, and evidently some of the same musical tendencies, but he lacked the forceful originality that might have earned him similar stature. It is certainly time we were able to hear some of his work, and the later of his two symphonies is regarded as one of his best pieces. It was composed in his seventieth year, originally titled *La Légende du Roi Grallon*, and, since the city of Ys, the legend's setting, is in Brittany, Emmanuel used Breton folk themes in the two outer movements. Through the four movements, the work is charged with a spiky sort of vigor; its coloring is bright but hardly shimmering—

voluptuousness is not part of its make-up. The language has more in common with Lalo and Roussel than with any of Emmanuel's other early or late contemporaries—but that is only a hasty attempt at describing something that actually seems unique. The symphony, in any event, is stimulating, original, and rather aggressively refreshing. It is given a very spirited performance here, one that invites repeated exposures.

The Poulenc concerto, by now so familiar a work one hardly expects to see it on a label devoted to underexposed material, is given a good, even brilliant performance, but one in which the crisp, dry, ironic qualities of the work seem gratuitously underscored at the expense of its ingratiating qualities. These elements seem to me more equably balanced in most of the other current recordings of the concerto, among which my own preference remains the one in which the soloists are Poulenc himself and his longtime associate Jacques Février (Angel S-35993). The new version is more handsomely recorded, though, and the Emmanuel symphony is very much worth getting to know. R.F.

FRANCK: *Symphony in D Minor; Rédemption—Morceau Symphonique*. Orchestre de Paris, Daniel Barenboim cond. DEUTSCHE GRAMMOPHON 2530 707 \$7.98, © 3300 707 \$7.98.

Performance: **Craftsmanlike**
Recording: **Spacious**

For the most part Barenboim has his orchestra at the top of its form here: even the horns betray none of the sax quality one is almost resigned to accepting from French orchestras. The English horn player does not make enough of his moments in the slow movement to justify the solo billing he receives, the trumpet tone shows an occasional harshness, and the spacious recording itself is sometimes a little fiery, but none of these little shortcomings would matter much if there were more momentum in Barenboim's reading. The very opening is most promising—eloquent, brooding, suitably mysterious—but in the first movement proper the music fails to take wing, and the finale too seems earthbound in its lack of tension. It is as if Barenboim were somehow too fastidious or too embarrassed to acknowledge the music's *ecstatic* character and settled for an approach more craftsmanlike than inspired.

But you may listen with a more sympathetic ear if you happen to be fond of the *Morceau Symphonique* from Franck's 1872 oratorio *Rédemption* (on which not a word of information is offered in DG's trilingual annotation). The shorter work, which has not been around for a while, is given a gorgeous, all-out performance, just the sort one wishes Barenboim had given the symphony. R.F.

RECORDING OF SPECIAL MERIT

HANDEL: *Messiah*. Elly Ameling (soprano); Anna Reynolds (contralto); Philip Langridge (tenor); Gwynne Howell (bass); Chorus and Academy of St. Martin-in-the-Fields, Neville Marriner cond. ARGO D18D3 three discs \$20.94.

Performance: **Splendid**
Recording: **Splendid**

In Baroque opera and oratorio, there never was such a thing as a definitive version of a
(Continued on page 121)

THE WORLD'S MOST IMITATED HEAD-PHONES.

When we introduced our Open-Aire® headphones, we created something of an audio revolution. Because our patented* transducers surprised engineers and audiophiles alike... setting new standards for wide, smooth response. Superior transient capabilities. Sheer comfort. And freedom from listening fatigue.

Recording studios, broadcast stations and film crews—no strangers to our professional microphones—quickly adopted Sennheiser headphones for monitoring. Research laboratories purchased them for psychoacoustic testing. NASA used them for critical applications aboard Skylab. And audio critics were unusually generous with praise.

After trying to duplicate our performance with alternative systems, a number of major manufacturers are using Sennheiser technology under license. But two things keep us ahead: Experience. And the electroacoustic research that's earned us a leadership position in microphones, headphones and other professional equipment.

But don't take our word for it. Visit your dealer and try the originals for yourself.

*U.S. Pat. No. 3,586,794



SENNHEISER

ELECTRONIC CORPORATION
10 West 37th Street, New York 10018 (212) 239-0190
Manufacturing Plant, Bissendorf/Hannover, West Germany
© 1977, Sennheiser Electronic Corporation (N.Y.)



Karrner/Angel Records

The late Rudolf Kempe

Head to Head on Beethoven's Nine

Bernard Haitink



Philips Records

THE age of recording has its own set of qualifications to be met by those aspiring to international musical fame, and interpreting Beethoven convincingly is at the top of the conductors' list. Soon or late, every maestro with an eye on the history books must submit himself to posterity's judgment, in competition with the others, by putting performances of the nine symphonies onto discs.

The two most recent entrants in this continuing contest approach the music from different backgrounds, different circumstances, and at different points in their careers. Unhappily, Seraphim's American release of Rudolf Kempe's version of the complete symphonies has had to serve as a memorial to the conductor, who died last May at the age of sixty-five. Bernard Haitink's set for Philips, on the other hand, comes in the middle of the forty-seven-year-old conductor's career, and the most surprising thing about it is that he didn't get around to it sooner.

Deciding between these two issues is rather like deciding between a pair of well-made, good-looking shoes and a pair of slightly eccentric but captivating ones that aren't going to last through the winter. First-time purchasers of the Beethoven symphonies have no choice here but to go with Haitink; they may not always be excited, but neither will they be incensed, and in the long run they'll be served very, very well. But adventurous collectors will covet the Kempe set, for the performances are always interesting—at worst annoying, at best fascinating.

The most pervasive problem in the Seraphim set is the orchestra, the Munich Philharmonic, which is simply not up to the competition in today's symphonic arena. Their sound can be harsh and badly blended, their technique unreliable. For every time on these sixteen sides that the listener is enchanted by the sound of active playing—that is, by the feel that the instrumentalists are actually bowing, blowing, hitting—there is another when the musical "mechanics" seem to be just that.

Haitink's London Philharmonic is not without its drawbacks, but it is an able ensemble, ready to meet the conductor's cues with a modern blending of strings and winds and—most of the time—with technical *élan*. Furthermore, the sound on the seven Haitink discs is brighter and clearer. The Kempe set proudly claims the distinction of being the first budget issue of the complete symphonies in compatible SQ/stereo quadrasonic sound, but the four-channel sound is occasionally confusing to the ear (what are the cellos doing sprinting to the back of the hall?), and the benefits even in the effectively engineered passages are minimal.

The only other practical consideration is the sequencing of the music: Kempe uses the *Prometheus*, *Leonore* No. 3, and *Egmont* Overtures as fillers for the *Eroica*, the Fourth, and the Fifth, respectively, to keep to a policy of one symphony, one record (the First and the Second take one side each). Haitink's set includes only the symphonies; the Second shares a side with the First, and the disc of the Third also accommodates the first movement of the Fourth.

But these considerations should be negligible compared to the issue of interpretation. Throughout, Haitink is almost defiantly true to Beethoven's written wishes, while Kempe

perhaps does what he thinks the composer would have wanted him to. Haitink's sense of lyricism is the more natural, but Kempe discovers the drama more easily and with more flair. Kempe feels free to add his own ritards and accelerandos, and occasionally he has trouble holding a tempo (most notably in the finale of the Seventh). Haitink holds religiously to the pace, avoiding any change that isn't indicated in the score, and sometimes taking those only reluctantly. Both treat repeats arbitrarily, presumably so that the music will fit neatly onto the discs, though in the long run Haitink is both more consistent and more sensible in his decisions.

Haitink's approach is generally less personal, and the one symphony in which this makes the most striking difference is the Third. Kempe's opening statement is irresistible, with a feeling of anticipation that doesn't settle into sureness and boldness until the thirty-seventh bar. Haitink, on the other hand, set in his ways, is solid from the outset. The two conductors negotiate the second movement in exactly the same amount of time, but Kempe's work is more somber and thoughtful, with an attractive growl in the lower strings and a tendency to make the most of the unusual. Haitink's scherzo is lighter than Kempe's; the older conductor likes to plow forward strongly. Kempe's tendency to fool

Soon or late, every
maestro must submit
to judgment . . .

around with tempos gets just a bit tiresome in the finale, but both versions are basically traditional.

ERNEST NEWMAN's intelligent notes, originally companions to the Cluytens version, accompany the Seraphim set. The Haitink brochure includes shorter descriptions of the music with a shallow essay having the rather unfortunate title "Beethoven—Man, artist, personality."
—Karen Monson*

BEETHOVEN: *The Nine Symphonies. Overtures: The Creatures of Prometheus; Leonore No. 3; Egmont.* Urszula Koszut (soprano); Brigitte Fassbaender (contralto); Nicolai Gedda (tenor); Donald McIntyre (bass); Munich Philharmonic Choir and Munich Motet Choir (in Ninth Symphony). Munich Philharmonic Orchestra, Rudolf Kempe cond. SERAPHIM □ SIH 6093 eight discs \$31.84.

BEETHOVEN: *The Nine Symphonies.* Hannelore Bode (soprano); Helen Watts (contralto); Horst Laubenthal (tenor); Benjamin Luxon (bass); London Philharmonic Choir (in Ninth Symphony). London Philharmonic Orchestra, Bernard Haitink cond. PHILIPS 6747308 seven discs \$58.86.

**Music critic, Chicago Daily News*

work. Each performance was unique. As singers were changed, so were their requirements. Each audience had its own tastes, and composers in this capricious era simply altered their works to fit the exigencies of the occasion. Thus every time Handel presented his *Messiah* he made whatever changes were needed to fit the requirements of the situation and also (and this is most important) made changes that fit his own musical fancies at that time. Therefore, some changes are purely practical and others show signs of creative growth. The problem, then, is to sort out those changes that were the result of necessity and those that were prompted by a musical rethinking of the work at hand. Christopher Hogwood, who has edited the version presented in this recording, has chosen to present what he considers the closest to Handel's original concept of the work; through a careful study of various documents, manuscripts, and librettos, he has painstakingly reconstructed the version first presented in London on March 23, 1743.

Now many of us have grown up on this work in a sort of amalgamated version developed through the years from Mozart to Ebenezer Prout, and Hogwood's version will, therefore, necessarily startle us every now and then. Some of the changes here seem to be for the better; others lead one to think that Handel's second thoughts on the music were better than his first. The charming recitative sequence for soprano, for example, which follows the *Pastoral Symphony* substitutes a short arioso for "And lo, the angel of the Lord." I miss the rustle of the angels' wings, and, in a way, the substitution kills the impact of "Rejoice greatly, O daughter of Zion." But I must admit that the unfamiliar arioso is itself a beautiful piece of music. Whether or not we like the changes, though, we are forced to rethink a masterpiece, and that forced rethinking is not at the behest of a capricious editor but of the composer himself.

Mr. Hogwood has also come to terms with the problem of ornamentation. As Handel himself well knew, ornamentation can be overdone and detrimental to the work. In this performance it is both discreet and tasteful. Appoggiaturas abound and cadenzas are added, as are certain divisions. Never are they there for vocal display, but always for enhancement of the music itself. Handel would have been fortunate indeed to have had his singers show such restraint and musicianship.

The use of rhythmic alterations, however, is a different matter. Using French mannerisms in Italianate vocal music in England is, at best, questionable. Handel was perfectly capable of indicating when he wanted dotted rhythms, and they are out of place in "And the glory of the Lord." They also kill the contrasting feeling of "peace" required in the second section of "Rejoice greatly."

Performances of *Messiah* have often been marred by excessively slow tempos, but Neville Marriner's briskness and drive work wonderfully in such choruses as "For unto us a Child is born" and the startlingly angry "He trusted in God." On the other hand, the overture lacks dignity because of its too-ardent drive, and the almost scherzo quality of "And with his stripes" does violence to the text.

Despite certain lapses in tempo, this reading is unique in its continuity. The usual pause and banding between each number have been dispensed with, and one piece flows dramatically into the next in a way that creates a vast unity of mood change and drama. The soloists

If your cartridge is more than three years old, don't replace your stylus!

Don't get us wrong. There is nothing worse than playing your records with a worn stylus. And no better way to restore your old unit to its original glory than a new diamond.

But frankly, there have been significant strides made recently in the phono cartridge field. And the new cartridges of today stand head and shoulders above even the finest of a few short years ago.

Here's the choice: Get fresh—but outdated—performance with a replacement stylus, or enjoy all the benefits of modern cartridge research and development for just a few dollars more. You'll find that you can update your system for far less than you might imagine. It's probably the most dramatic single improvement you can make.

For instance, Audio-Technica offers Universal[™] cartridges equipped with a genuine Shibata stylus and our uniquely effective Dual Magnete[™] system beginning at just \$75.00 list. Or you can replace your present cartridge with a fresh new Audio-Technica cartridge with highly-polished elliptical tip for as little as \$45.00 list.



AT11E
\$45.00

AT12Sa
\$75.00

AT13Ea
\$65.00

AT15Sa
\$125.00

Are these new models worth the difference? Absolutely. You'll be amazed at what you hear from today's generation of phono cartridges. Improved frequency response. Lower distortion. Better separation. Less record wear. Truly better sound.

A new Audio-Technica cartridge.
Your best value in hi-fi.



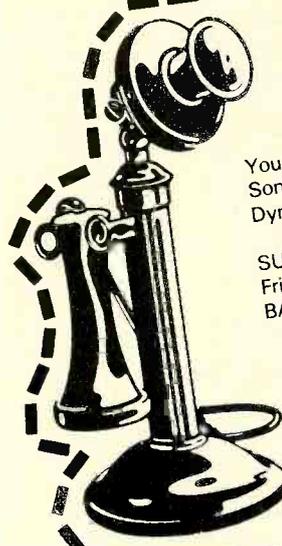
audio-technica[®]
INNOVATION □ PRECISION □ INTEGRITY

AUDIO-TECHNICA U.S., INC., Dept. 47F, 33 Shiawassee Avenue, Fairlawn, Ohio 44313

HI-FI HOT LINE?

We've got it

Being the largest Hi-Fi Mail Order Business in the Country isn't easy. One of the problems is keeping our Customers informed of Up-to-the-Minute Price Information and Stock Conditions. We've solved the problem with our New "Super-Service" Line. Just give us a call. Check our Prices, Brand Selection and Inventory... and Place Your Order. It's that Simple.



301-252-6880
JUST ASK FOR "SUPER-SERVICE"

You'll find our number in homes with Pioneer, Marantz, Sony, Technics, Kenwood, Dual, B.I.C., Teac, Akai, Dynaco, AR, KLH and many more!

SUPER SERVICE HOURS: Mon. thru Thur. 9:00 to 9:00,
Fri. 9:00 to 5:30 and Sat. 9:00 to 3:00.
BANKAMERICARD AND MASTER CHARGE HONORED.

STEREO DISCOUNTERS
7A AYLESBURY RD., TIMONIUM MD. 21093

What you don't know
about effective tip mass
won't hurt you,
just your records.



You can find out
what you don't know
by contacting us for our
comprehensive
cartridge brochure.

Bang & Olufsen

Bang & Olufsen of America, Inc., Dept. 12F
515 Busse Road, Elk Grove Village 60007

CIRCLE NO. 8 ON READER SERVICE CARD

are excellent, and Handel would no doubt be pleased with their expressive projection. The real hero of the performance, however, is Philip Langridge. His sensitive musicianship is supported by a rich, clear voice which is capable of stunning coloratura and subtle coloration of the text.

Quibble as one may about details of this version and performance, Christopher Hogwood deserves credit for his musicianly scholarship, and Neville Marriner for his thrilling concept of this masterpiece. They have both brought something new and fresh to a work which is itself the essence of the new and the fresh. S.L.

HAYDN: String Quartets, Op. 77, Nos. 1 and 2
(see Best of the Month, page 87)

LISZT: Piano Concerto No. 1, in E-flat Major
(see TCHAIKOVSKY)

MAHLER: Symphony No. 1, in D Major. Israel Philharmonic Orchestra, Zubin Mehta cond. LONDON CS 7004 \$6.98.

Performance: **Mostly splendid**
Recording: **Excellent**

Zubin Mehta's realization of Mahler's First Symphony, like his often impressive reading of the *Resurrection* Symphony, just misses being top-drawer because of erratic first-movement tempos. In this instance the conductor rushes the climax, dissipating its inherent impact and making the remaining pages of the movement rather pointless. Things improve with the succeeding *Ländler* movement, though one could ask for a little less *schmaltz* in the trio section. It is in the final two movements, though, that Mehta and the Israelis really hit their stride, delivering wonderfully vital and colorful performances of the parodistic funeral march and turbulent finale. There are delicious bits of detailed underlining in terms of both timbre and flexibility of phrasing, yet the overall line is never lost. The sonics throughout are first-rate. D.H.

RECORDING OF SPECIAL MERIT

MONTEVERDI: Arias, Canzonettas, and Recitatives. *Lettera Amorosa; Con che soavità; Lamento d'Arianna. L'Orfeo: Mira, deh mira, Orfeo . . . In un fiorito prato. L'Incoronazione di Poppea: Disprezzata Regina; Tu che dagli avi miei . . . Maestade, che prega; Addio Roma.* Cathy Berberian (soprano); Concentus Musicus Wien, Nikolaus Harnoncourt cond. TELEFUNKEN 6.41956 AW \$7.98.

Performance: **Musico-dramatic**
Recording: **Vivid**

Cathy Berberian is so firmly associated with contemporary music of the far-out variety (and, secondarily, with the revival of turn-of-the-century parlor camp) that a collection of Monteverdi comes as a surprise. But the musical intensity and affective qualities of this music are a perfect match for Berberian's musico-dramatic talents. Her style is not what one would traditionally regard as "real" Baroque, and her voice, never overwhelmingly beautiful, sometimes comes uncomfortably close to the edge of stridency. But frankly, if it were up to me, I would make every singer of dramatic music—of the ancient variety and of the not-so-ancient as well—study these performances to learn something about how

(Continued on page 124)

Some of the rather special adjectives the test labs have been using to describe LUX.

Unless this is the first high fidelity publication you have read, you know that equipment reviews are almost always favorable. We don't suggest that the reviews are inaccurate or that they don't reflect the editors' sincere judgments. Rather, we understand that the publications prefer to use their limited space for equipment that they can recommend to their readers.

Thus, the problem for the discerning reader is to distinguish between the adequate, the good and the truly superb. As of this date, four LUX products have been the subject of test reports in high fidelity magazines. Aside from confirming excellent specifications and exceptional sonic performance, the reviewers left little doubt as to which descriptive category they meant to apply.

For an apt example, the Hirsch-Houck report (in *Stereo Review*) on the Luxman L-100 integrated amplifier concluded: "Obviously the performance and operating characteristics of the Luxman L-100 require the use of superlatives for an adequate description...Externally, internally and in respect to performance, (it) must be considered a simply beautiful product. The harmonic distortion (THD) at 1,000 Hz and 10 watts output was 0.0087 per cent and it remained at that figure up to the rated 110 watts..." (Our claimed THD at rated power, 20 to 20,000 Hz, is 0.08 per cent).

Radio-Electronics "heard a clarity and effortless power capability that is hard to describe in words but definitely is audible."

Audio's test of our Dolbyized* T-310 tuner led

to this observation: "...most of our results were far superior to those claimed...distortion in mono and stereo was the lowest we have ever read for any tuner at any price." Also, "LUX's conservatism extends to some of the 'lesser' FM specs as well. We measured a capture ratio of 1.2 dB (1.5 dB claimed) and alternate channel selectivity turned out to be 76 dB (70 dB claimed)...The (variable) AM muting feature has to be heard to be believed."

High Fidelity magazine's report was on the C-1000 preamplifier. They found "the performance...virtually impeccable. Clipping occurs at 13 volts. The data from the CBS Technology Center shows that, at a more reasonable 2 volts, THD is less than 0.0064% for all conditions, and intermodulation distortion is 0.002% or less." *High Fidelity's* conclusion: "It is more a Rolls-Royce than a Ferrari. But if you are a sybaritic audiophile with a budget to match, the C-1000 will pamper you as few preamps can."

FM Guide reported on the Luxman T-110 tuner, also with unequivocal conclusions: "...the FM purist's tuner...emphasis is totally on absolutely top FM performance...in most of our listening tests we were being limited by the quality of broadcast signals...without a doubt, the best performing tuner we have ever seen at this price."

If you would like to see and hear the equipment that prompted these superlatives from the reviewers, visit one of the select LUX dealers for a demonstration. Chances are the next superlatives you hear will be your own.



The Luxman
C-1000.



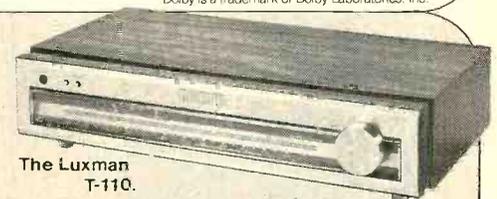
The Luxman
L-100.

The Luxman C-1000. "If you are a sybaritic audiophile with a budget to match, the C-1000 will pamper you as few preamps can."*High Fidelity*

The Luxman T-110. "It was obvious in most of our listening tests that we were being limited by the quality of broadcast signals and not by the capabilities of this superb tuner."*FM Guide*

The Luxman L-100. "Lux seems to have found some of the answers...about what makes one amplifier sound better than another."*Radio Electronics*

The Luxman T-310. "...a stunningly executed product that should appeal to the FM buff who seeks the finest FM reception."*Audio*



The Luxman
T-110.



The Luxman
T-310.

*Dolby is a trademark of Dolby Laboratories, Inc.

LUX Audio of America, Ltd.

200 Aerial Way, Syosset, New York 11791
In Canada: White Electronics Development Corp., Ontario

Entertainment Assurance

A Hallmark of Angel Records



SB-3837 (2 LPs)
The culmination of Early Baroque music! A performance as authentic as it is beautiful.
S-37256
Rostropovich is 50—and Bernstein joins him to make the celebration one of the unforgettable occasions on record.



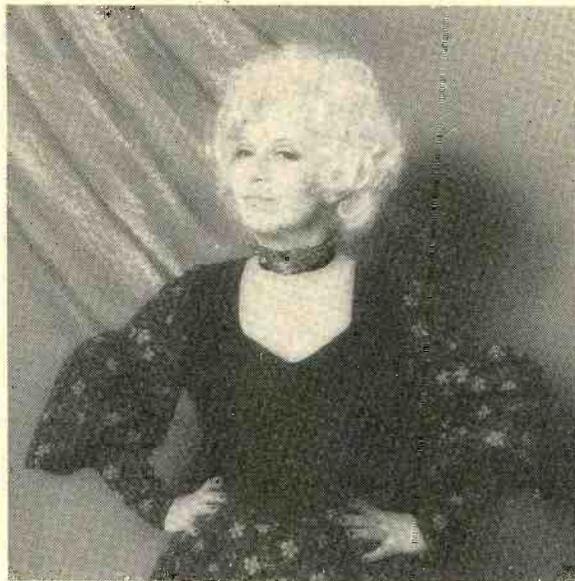
S-37246
The joyful *Gloria*; the lyrical *Concerto*. A disc of superlatives; an entertainment of award-winning caliber.
SFO-37200 (LP, Cartridge & XDR Cassette)
Four new ragas for Menuhin, Rampal and Shankar. A new high for the *West Meets East* concept.



S-37280/S-37279
Two performance and sonic spectacles—the caliber of which all Berglund/Bournemouth recordings have come to be identified.



CIRCLE NO. 5 ON READER SERVICE CARD



Teldec/Motison

CATHY BERBERIAN:
tremendous musical and dramatic intensity

to play in the great and wonderful musical theater of the human emotions which Claudio Monteverdi was the first in modern times to explore.

The outstanding—but also the most disputable—performance here is *Lamento d'Arianna*, one of the most famous pieces of an age and, paradoxically, one of the most obscure. The *Lamento* was the hit tune, and is the only surviving music, from an opera on the subject of Ariadne. It has come down to us in two forms: a dry “lead-sheet” version for voice and basso continuo and a later, juicier madrigal arrangement for five voices which gives us a much better idea of what this music is really about. The version here seems to be a concoction made up from the two, arranged for solo voice with instrumental parts—accompaniments, interludes, or ritornellos—derived from the madrigal. Whatever the musicological verities, the musical results magnificently complement the pathos and power of the vocal interpretation. For the first time, I know what Monteverdi’s contemporaries meant when they described the devastating impact of this music!

My principal quarrel with this record has to do with the production. The album provides no texts, no translations, and almost no useful information. The *Lamento*, which ought to be the lead-off piece, is buried as the third band on a side that opens with the rather dull *Lettera Amatoria*. This free recitative, published in 1619 as part of the composer’s Seventh Book of Madrigals, is a throwback to the monotonous recitative style of the first operas of Peri and Caccini. Even Cathy Berberian cannot raise it up to any reasonable level of musical interest. Another work from the same set, “*Con che soavità*” for voice and instruments, is by contrast a thoroughly engaging musico-dramatic work set to a poem by Giambattista Guarini, and it is affecting in performance. But even here it is a shame not to be able to follow the subtleties of Monteverdi’s and Berberian’s interpretation of one of the finest lyrics of the period.

Side two consists of operatic excerpts: the messenger scene from *Orfeo* and three of Ottavio’s stirring scenes from *L’Incoronazione*, beautifully realized moments of tremendous musical and dramatic intensity. Miss Berberian is aided by good supporting singers in two of the dramatic excerpts, by the suave playing

of the *Concentus Musicus*, and by excellent recordings. E.S.

MOZART: Piano Concerto No. 14, in E-flat Major (K. 449); Piano Concerto No. 24, in C Minor (K. 491). Murray Perahia (piano); English Chamber Orchestra, Murray Perahia cond. COLUMBIA M 34219 \$6.98, © MT 34219 \$6.98.

Performance: **Very good**
Recording: **Spacious**

In his Schumann, Chopin, and Mendelssohn recordings, Murray Perahia has shown himself a cultivated, thoughtful, and frequently poetic performer. His first Mozart record is definitely not a disappointment. He does not use the two concertos as mere “vehicles” but presents them as pleasures too deep to keep to himself. The release also marks Perahia’s conducting debut on disc, and in this department, too, there is little room for complaint. The dual role is especially successful in the earlier work, with its chamber-music proportions, but a division of labors might have been advisable in the bigger and more dramatic C Minor. Technically there is never less than a complete mesh of solo and orchestral elements, and the slow movement of K. 491 is sheer perfection, but the darker character of its outer movements seems less fully realized than it might have been with a little more flexibility in pacing. Still, there is nothing second-rate here (including Perahia’s tasteful cadenzas for K. 449), and those attracted to this particular coupling should find this spaciouly recorded disc more rewarding than the one on Deutsche Grammophon by the late Géza Anda. R.F.

PERSICHELLI: String Quartets Nos. 1-4. New Art String Quartet. ARIZONA STATE UNIVERSITY ASU-1976-ARA two discs \$10.00 (from Persichetti Quartets, Department of Music, Arizona State University, Tempe, Ariz. 85281).

Performances: **Very good**
Recording: **Close, clear**

Vincent Persichetti is a major name in American music—not only as a composer but, through his long association with Juilliard, as one of the half-dozen major composition teachers in this country. Yet his music is not

really all that well known. In fact, if one thinks of Persichetti at all, one tends to think of a genial sort of American-school music, conservative but with bite. This image actually applies only to a certain period of his work, exemplified here by the modal and polytonal Second Quartet of 1944. The Third Quartet of 1959 verges on atonality and twelve-tonery, and the Fourth Quartet, quite far-out in its way, is a curiously effective mixture of traditional and ultra-modern elements in a style that is highly fragmented and yet cohesive. Persichetti's skill and fluency is already evident in the Hindemithian First Quartet and is always there through all the changes of later years. I am not willing to venture any predictions about the possible longevity of these works, but they do represent an important non-academic serious side of contemporary American music.

It is of note that this music comes to us from the Sun Belt. The New Art String Quartet, an eminently able ensemble, is in residence at Arizona State University, which has published these recordings. The idea of university nonprofit records of this type has often been discussed, but the state of university finances these days rarely permits such extravagances. I'm glad to know someone will spend money on musical culture. E.S.

POULENC: Concerto in D Minor for Two Pianos and Orchestra (see EMMANUEL)

SAINT-SAËNS: Violin Concerto No. 3, in B Minor, Op. 61. VIEUXTEMPS: Violin Concerto No. 5, in A Minor, Op. 37. Kyung-Wha Chung (violin); London Symphony Orchestra, Lawrence Foster cond. LONDON CS 6992 \$6.98.

Performance: **Stylish**
Recording: **Good**

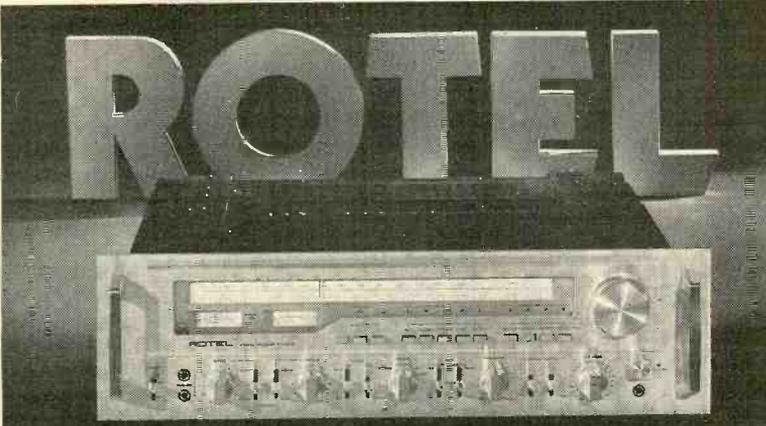
Both concertos here are virtuoso vehicles, and Kyung-Wha Chung is not only equal to their purely violinistic demands but makes every effort—by searching out a balance between display and lyrical elements—to make the music sound better than it actually is. Her playing is elegant and chic, but it never becomes cold or merely tinselly. She excels in the slow movements of both works. Conductor Lawrence Foster abets Miss Chung handsomely, and London's recording staff has done a fine balancing job throughout, especially in the Vieuxtemps. The Saint-Saëns, recorded two years after the Vieuxtemps, in the spring of 1976, sounds just a shade more closely miked in the soloist department, but not uncomfortably so. D.H.

SCARLATTI: Stabat Mater. Mirella Freni (soprano); Teresa Berganza (mezzo-soprano); Paul Kuentz Chamber Orchestra, Charles Mackerras cond. DEUTSCHE GRAMMOPHON ARCHIV 2533 324 \$7.98.

Performance: **Straightforward**
Recording: **Excellent**

Commissioned for the same forces as Pergolesi's later but more celebrated setting of the text, and by the same Neapolitan society that commissioned the Pergolesi work, Alessandro Scarlatti's *Stabat Mater* inevitably became the model for the younger composer. But the similarities stop there. While Pergolesi looks forward to the simpler harmonies and textures of the Classical era, Scarlatti indulged himself in the rich chromatic harmonic (Continued on page 128)

APRIL 1977



180 W/Channel

RX-1603 is all the receiver you'll ever need

180 watts per channel, min. RMS, both channels driven into 8 ohms, from 20-20KHz with no more than 0.1% total harmonic distortion; FM sensitivity 9.3dBf (1.6uV); Phono Impedance/Sensitivity Switch; Multipair Meter; Hi, Lo Filters; HI Blend; 2 Step Roll-offs Base and Treble; Stepped Vol. Attenuator; Full Tape Cubbing; Mic Mixing; Speakers A, B, C; Dolby.*

*Dolby is a trademark of Dolby Laboratories, Inc.

For literature, write
ROTEL®
QUIETLY MAKING A NAME FOR ITSELF

Rotel of America, Inc. 1055 Saw Mill River Road, Ardsley, New York 10502

CIRCLE NO. 41 ON READER SERVICE CARD

STEREO ONE

Auto FM Signal Booster

to eliminate signal fading

Compliments Any Dash Board.



Retail Price \$16.95

Write for catalog #20-803/Dept. SR-4-77

THE FINNEY COMPANY
34 West Interstate Street, Bedford, Ohio 44146

CIRCLE NO. 19 ON READER SERVICE CARD

SAVE

TOP QUALITY GEAR
LOWEST PRICES
PROMPT DELIVERY
SAVE ON FREIGHT
SELECTION

ROYCE CB PANASONIC
KENWOOD DYNACO
PIONEER SANSUI
DUAL BIC
and more than 50 others

PLEASE REQUEST PRICE QUOTATIONS ON YOUR CHOICE OF QUALITY STEREO GEAR

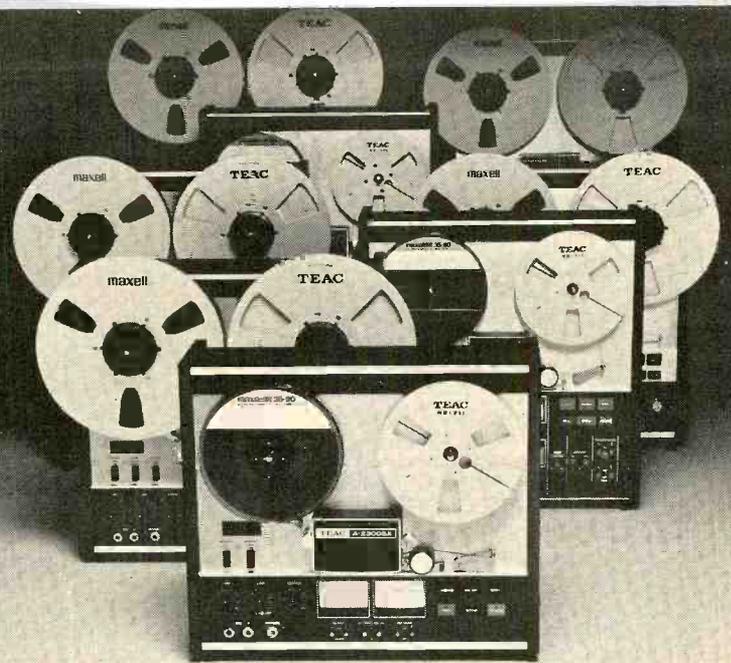
Component Discounters

DEPT. 417SR
17565 Meadowood
Lathrup Village, Mich. 48076
313-559-1270



“If I just wanted to listen to music, I’d go to a concert.”

“I want to lead the band. I want to build my own albums.”



TEAC®

Nineteen tape systems—six cassette and thirteen open reel—from \$200 to \$1450.*

“I want to get my hands on the music.”

You're talking TEAC open reel.

From the time you decide to edit, resequence and build your own albums until you finish your home studio, you're talking TEAC open reel.

Why TEAC?

Better specs. Not more bells and whistles and gingerbread. Performance you can hear. Specs we can prove:

We can print a signal at plus six and still meet spec. (A cheapy will lose definition and distort.)

We hold and define a piano and violin with a sustained Middle C. (On Brand X, Y and Z, the tone will wander away.)

When the tape transport moves or shifts or reverses, TEAC has a nice, clean, solid “thunk” that tells you the tape transport is there to stay. (Some TEAC look-alikes give off a hollow, plastic complaint when they're asked to do anything.)

And we'll perform to specs a year or two from now.

Not just pull tape. Perform to specs.

Do you know who buys one out of every three new TEAC systems? People who own old TEAC systems. We've been making tape systems for twenty five years, and we really know how.

It's just a matter of time. The more you know about tape, the more you'll know about TEAC.



The Extra Mile.

Buy any TEAC open reel recorder between now and June 1, 1977, and you'll be able to get 30% off on twelve 7" reels of Maxell U.D. 35-90 tape or twelve 10" reels of Maxell U.D. 35-180 tape.

The way we figure it, you get at least five miles of tape for the price of four. Any way you figure it, it's a nice way to start a tape library.

*Actual resale prices are determined individually and at the sole discretion of authorized TEAC dealers.

nies and the intricate counterpoints of the high Baroque.

The performance is a straightforward one. My first impression was that a great deal more vocal ornamentation should have been applied; the wonderful trills of Mirella Freni and Teresa Berganza leave no doubt that they could easily fill in the lines with all manner of divisions. Further hearings, however, convinced me that they are probably quite right in not doing so, leaving the lines unadorned so that the starkness of the writing matches the austerity of the poem.

Both soloists are excellent. Freni's is a hard, clean sound, well focused and instrumentally conceived. Berganza, on the other hand, offers a richer sound with a warm vibrato. But the duets do not come off as well as the solos because of the balance. Freni's voice simply cuts through the texture, relegating Berganza's role to that of a shadow, albeit a lovely one. S.L.

SCHOENBERG: *Verklärte Nacht, Op. 4; Chamber Symphony No. 1, Op. 9; Pierrot Lunaire, Op. 21; Ein Ständchen; Herzgewächse, Op. 20; Three Pieces for Chamber Orchestra; Nachtwandler; Lied der Waldtaube; Die eiserne Brigade; Weihnachtsmusik; Serenade, Op. 24; Wind Quintet, Op. 26; Der Wunsch des Liebhabers, Op. 27, No. 4; Der neue Klassizismus, Op. 28, No. 3; Suite, Op. 29; Ode to Napoleon, Op. 41; Phantasy for Violin with Piano Accompaniment, Op. 47.* June Barton (soprano); Anna Reynolds (mezzo-soprano); John Shirley-Quirk (bass-baritone); Gerald English (reciter); chorus; London Sinfonietta, David Atherton cond. BRITISH DECCA SXL

6660-4 five discs \$34.90 (available through London Records).

Performances: **Superbly musical**
Recording: **Excellent**

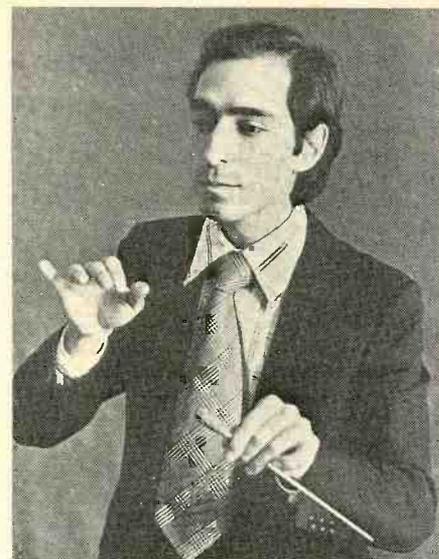
SCHOENBERG: *Serenade for Seven Instruments and Bass Voice, Op. 24.* Kenneth Bell (bass); Light Fantastic Players, Daniel Shulman cond. NONESUCH H-71331 \$3.96.

Performance: **Light and lively**
Recording: **Very good**

SCHOENBERG: *Chamber Symphonies No. 1, Op. 9B, and No. 2, Op. 38.* Frankfurt Radio Symphony Orchestra, Eliahu Inbal cond. PHILIPS 6500 923 \$7.98.

Performance: **Heavy**
Recording: **Fairly good**

It was Arnold Schoenberg more than anyone else who put chamber music in the forefront of the development of modern music. Schoenberg's chamber-music tradition was really an extension of the great line from the Viennese classics through Schumann and Brahms. In the earliest works there is a strong Wagnerian influence, and this carries over into the expressionist period of *Pierrot Lunaire*. Schoenberg's early twelve-tone music is very closely allied to the neo-Classical movements—the sort of thing he satirized in his little cantata "The New Classicism" (what he meant, of course, was that *his* classicism was the real one). There are even turgid twelve-tone bits of Twenties jazz buried in these serenades and sonatas. Then there is a freer, final twelve-tone style represented by works written during and after World War

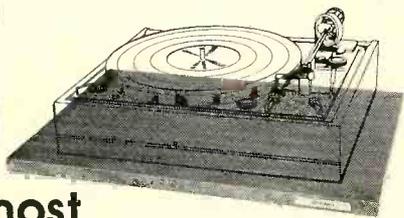
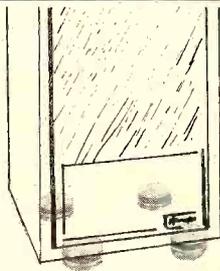


DANIEL SCHULMAN
A skillful, lively Schoenberg serenade

II—the *Ode to Napoleon* (for reciter, piano, and strings) and the *Phantasy for Violin with Piano Accompaniment*.

The Schoenbergian paradox is that these works all belong in the context of the traditional Classical/Romantic concert. They were conceived that way and they must be interpreted squarely in that tradition. But the traditional concert, quite filled to brimming with masterpieces, imitations, and revivals, simply
(Continued on page 132)

THE SOLUTIONS



to hi-fi's most unrecognized problems

The Problems: acoustic feedback and structure-born vibration.
The Solutions: Netronics Acousti-Mounts and Speaker-Pods

Feedback may be the mysterious reason why your sound is muddy, your turntable rumbles, and in severe cases, you can't turn up the bass or volume controls without speaker howl. Designed specifically to accommodate today's fine turntables, the Netronics Acousti-Mount sub-base platform suppresses acoustic feedback by effectively decoupling the entire turntable assembly from structure-born vibration — up to 30dB of isolation.

The vibrating speaker cabinet, which causes much of the turntable feedback, also causes walls and other objects to vibrate producing spurious audible distortions as well as annoying the neighbors. These vibrations can now be isolated using "Speaker Pods" designed to isolate the speaker cabinet from the room. Simply inserted between the floor or shelf and the speaker they isolate vibration up to 40 dB.

Julian Hirsch's test report: "We doubt that any other \$15 investment could make such an improvement in a record-playing system."

MONEY BACK IF NOT DELIGHTED

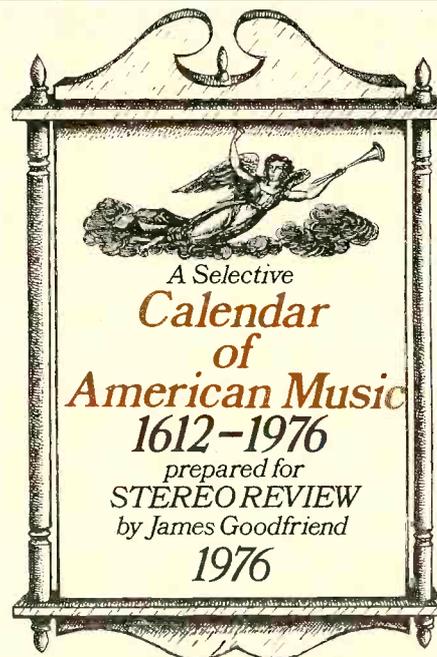
Please Send: Patents Pending Canadian residents ADD \$1.00 per item Conn. res. add 7%
 16x13 1/2 turntable Acousti-Mount @ \$15.00 ea.
 19x13 1/2 turntable Acousti-Mount @ \$17.50 ea.
 Set of 4 "Speaker Pods" (spkrs. to 45 lbs.) @ \$11.95/speaker

For heavier speakers use 2 extra pods for every 15 lbs. over 45 lbs.

NAME _____
 ADDRESS _____
 CITY _____ ZIP _____

Send information on direct drive turntable kits

NETRONICS R & D LTD., 333 Litchfield Road, New Milford, Ct. 06776
 CIRCLE NO. 35 ON READER SERVICE CARD

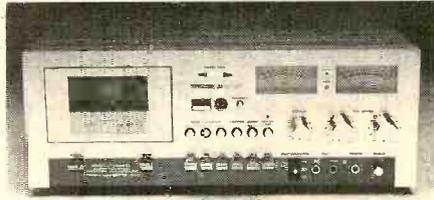


REPRINTS NOW AVAILABLE

This useful, information-packed, and attractive (suitable for framing) feature from our July 1976 Bicentennial Issue is printed in four colors on 11" x 16" stock and includes Music Editor Goodfriend's introduction. For your copy send 25c to: American Music Calendar, Stereo Review, 1 Park Avenue, New York, N.Y. 10016.

With the new AKAI GXC-730D, great moments in music aren't shattered by those not-so-great moments in cassette rewinding and flipping.

Instead, a bi-directional GX record/playback head allows you to play both sides continuously. Automatically. And you can play or record both sides without ever having to stop and



physically turn the cassette over.

The fact that the 730D is the most versatile front-loading cassette deck on the market is just the beginning. It's also loaded with some pretty fantastic features.

Like Dolby* and AKAI's exclusive Automatic Distortion Reduction System (ADRS). Memory rewind. Pause control. Separate right and left

channel record level controls. Soft touch, direct function operating controls. Peak level indicator. Illuminated VU meters. A great-looking walnut cover. And all the specs you'd expect an AKAI top performer to deliver.

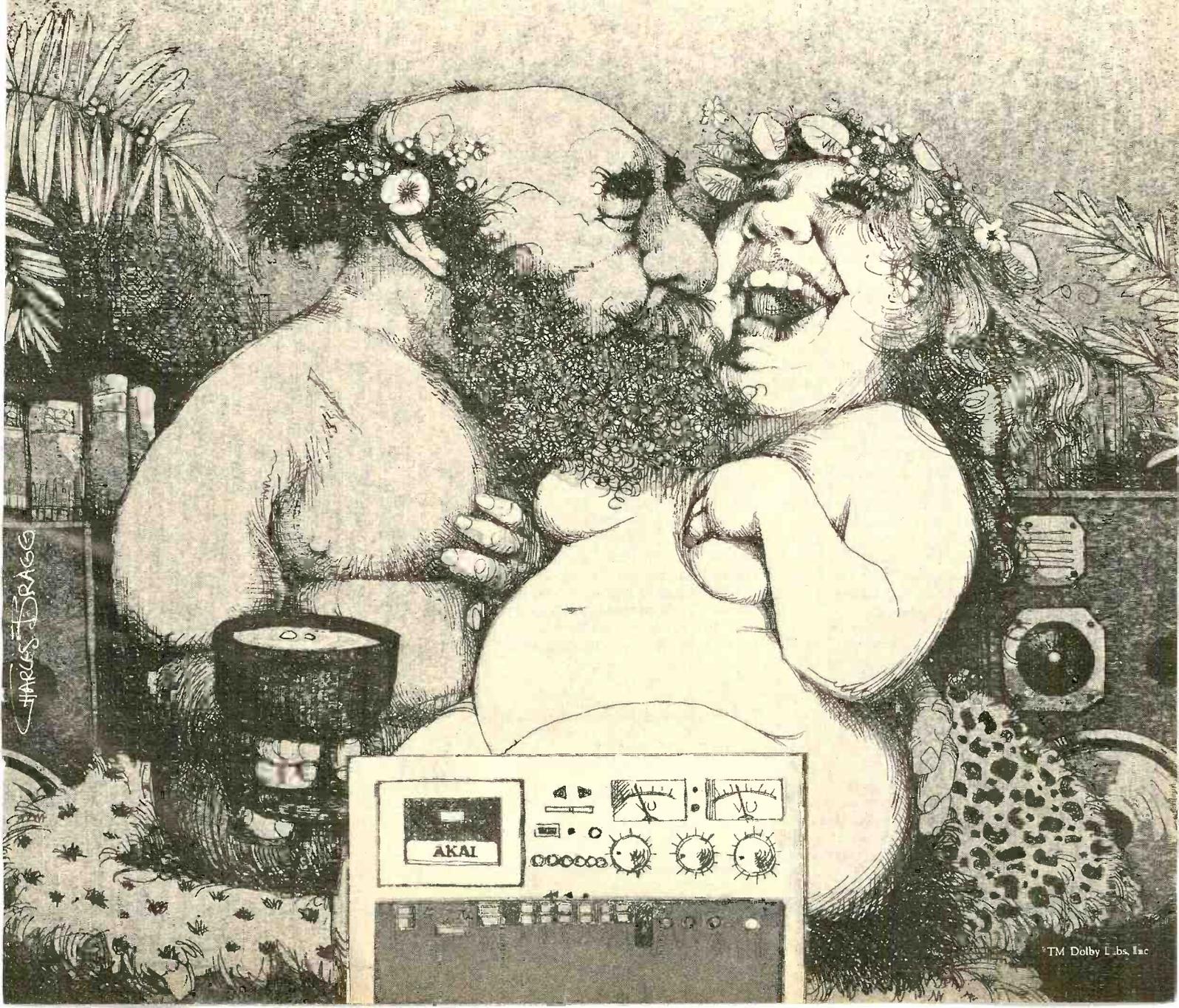
Hear it at your dealer's.

The AKAI GXC-730D. Dedicated to the proposition that some of your performances are just too good to interrupt.

AKAI

For an 18" x 24" poster of this Charles Bragg etching, send \$2 to AKAI, Dept. SR-4, P.O. Box 6010, Compton, CA 90224, ATTN: Lovers.

DON'T INTERRUPT LIFE'S GREAT PERFORMANCES.



In Munich early last year, avowedly to honor the sesquicentennial of Carl Maria von Weber's death, RCA sponsored a first-ever but otherwise unremarkable recording of *Die Drei Pintos*. Of what? Well may you ask.

During May of 1820 and the first weeks of 1821, Weber sketched some 1,700 measures of musical ideas (in a private shorthand, not to mention in pencil) for seven numbers in a libretto of seventeen such. Altogether, he orchestrated less than twenty bars. Following his death in 1826, the widow Weber dispatched these fragments to Meyerbeer, her husband's former fellow-student and admiring friend, in the hope that he could decipher them. Twenty-six years later, in response to an ultimatum, he returned them untouched.

Others afterwards disparaged these encoded snippets of Weber as indecipherable, impossible to reconstruct—in a word, hopeless. Yet the Weber family never gave up hope. Thus, in time, *Die Drei Pintos* came into the possession of the composer's grandson Carl, a Saxon army captain who lived with his family in Leipzig. There, in 1886, young Gustav Mahler arrived as second conductor (under Nikisch) at the Stadttheater, with *Das Klagen Lied* and the *Fahrenden Gesellen* songs already in his creative portfolio.

Say for grandson Carl that he could at least sniff out musical talent. He befriended Mahler and plied him with entertainment to insure a new study of the *Pintos* fragments. (That Mahler fell headlong in love with the captain's wife was an unanticipated and ultimately scandalous by-product of Carl's inherited Webermania.) Although at the time working a double shift at the Opera (owing to Nikisch's illness) and simultaneously composing his First Symphony (inspired by love for Marion von Weber), Mahler cracked Carl Maria's code one spring day in 1887.

With all speed and reverence, the young composer-conductor instrumented the little that Weber had sketched for *Die Drei Pintos* and proposed its publication in this incomplete form. Carl counterproposed, backed up by Mahler's boss at the Leipzig Opera, that an entire work be created, using other of grandfather Weber's music in the untouched numbers. Mahler finally succumbed to pressure, but only with the proviso that Carl revise the original libretto of 1820 (né *Der Brautkampf*). This involved a juxtaposition of the first and second acts, and the addition of three further musical numbers. Ironically, as viewed in retrospect, the end product that had its world premiere in Leipzig on January 20, 1888, brought Mahler both his first real fame throughout the Germanies and the first wealth of his life.

By the end of 1889, eight cities had produced *Die Drei Pintos*, including Vienna (where, however, it was coolly greeted). After a performance (by Mahler at the piano) of the first act in 1888, Richard Strauss praised it out of all proportion in a letter to his *Meister*, Hans von Bülow, only to be rebuked six months later and have to eat crow when Bülow damned the work. Critic Eduard Hanslick was obliged to agree ("weak Weber") in his review of the Leipzig premiere for his Viennese readers: The performance was also attended by Tchaikovsky ("very nice" music but a "stupid" text, he wrote to his brother Modeste).

Weber/Mahler Die Drei Pintos



C.M. von Weber/Sketch by Hensel, 1822

On the evidence of RCA's just-released recording of the work, Tchaikovsky overpraised the music. Almost as suddenly as *Die Drei Pintos* appeared as a comet in the musical firmament, it disappeared. No amount of hyphenated attribution to Mahler, now as then, can be sufficient to rescue *Pintos* from desuetude. It is simply and irremediably a postdated *Singspiel* set in Spain (a locale fashionable at the time of Weber's interest, whetted by Rossini's recent success with *Il Barbiere di Siviglia*), a "numbers" opera with spoken dialogue. The libretto—never a strength even in Weber's *echt* operas—at best prolongs an anecdote, prosaic as prosodized, doggerel as rhymed. That Mahler's working over of Weber's fragments failed to capitalize on a beery humor in the text further exaggerates the lack of significant characterization. *Die Drei Pintos* does not evolve musically (being chiefly strophic or A-B-A in form) any more than it develops dramatically. It is aggregately trivial, albeit now and then pretty.

One must stretch a point to find wisps of Weberian individuality, much less of inspiration, in other than No. 10, a mellifluous recitative and aria for the heroine (one Clarissa of Madrid, whose father Don Pantaleone would wed her to Don Pinto, the bumpkin son of a kindly stranger who once saved his life). With the advantage of hindsight, one can discover Mahler's fingerprints on this concoction about how, in Salamanca, fortune-hunting Don Gaston and his servant Ambrosio purloin a letter

of introduction to Pantaleone from the "first" Pinto about Gaston's impersonation in Madrid of the groom-to-be (making him the "second" Pinto), and his quitclaim in response to the pleadings of Don Gomez, Clarissa's true love (who becomes the "third" Pinto), before the real rube rushes in, creates a vulgar ruckus, and is sent packing by a bewildered but wiser Pantaleone.

Even during the first hearing, one doubts that a more flexible and fun-seeking conductor than Gary Bertini would be able to disguise the commonplace nature of Weber's sketches, or the hesitancy of Mahler to foliate them fully. A chorus from the Netherlands in this recording sounds perfunctory although not effortful; virtually the same may be said about members of the Munich Philharmonic. Bertini's cast of eight sings efficiently from unchanging stations in a brewing-cellar with acoustics both hollow and muffled. The participants in solo roles ascend in vocal charm from the gusty, rhythmically square mezzo-soprano of Kari Lövaas (as Clarissa's obligatory maid, seen, wooed, and won instanter by Ambrosio) to the prime-time effulgence of Kurt Moll's basso cantante (as the rightful Pinto).

What remains provocative after a few hearings of *Die Drei Pintos* is the influence upon Strauss' music for Baron Ochs, in *Der Rosenkavalier*, of Weber-Mahler's bumpkin Don and Mahler's own interlude between the first and second acts depicting a drunken Don Pinto's dream—this near to, in quality, although less developed than, the *Blumine* later excised from the First Symphony.

RCA has lavished six disc sides on just one hour and forty-two minutes of music, plus fourteen minutes more of spoken dialogue. This averages out to a short twenty minutes per side, in spite of which, at decibel levels louder than a modest *mezzo-forte*, three different elliptical styli—top-of-the line Supex, Shure, and B&O—persistently buzzed on two stereo playback systems. Only Grado's F-1+ (intended for CD-4 discs) took these Hamburg pressings in stride, except for the brouhaha that begins Act III. The discs are otherwise (considering their European source) untypically thin, with a low-bass rumble, ticks and pops, and static properties that need several zappings with a Zerostat, per side, to tame each time through.

Notes by Franz Willnauer on the background, completion, and plot of *Die Drei Pintos*, in a black-and-white presentation booklet, have been translated trilingually (which is not to say always accurately); however, the text itself is printed only in German—not that you'll miss any pearls of nuance if that language shouldn't be in your repertoire.

—Roger C. Dettmer

It is aggregately
trivial, albeit now
and then pretty . . .

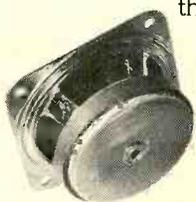
WEBER/MAHLER: *Die Drei Pintos*. Lucia Popp (soprano), Clarissa; Jeanette Scovotti (soprano), Inez; Kari Lövaas (mezzo-soprano), Laura; Werner Hollweg (tenor), Don Gaston; Heinz Kruse (tenor), Don Gomez; Majordomo; Hermann Prey (baritone), Ambrosio; Kurt Moll (bass), Don Pinto; Franz Grundheber (bass), Don Pantaleone. Innkeeper. Netherlands Vocal Ensemble and Munich Philharmonic, Gary Bertini cond. RCA PRL3-9063 three discs \$23.94.

They make the waiting bearable.

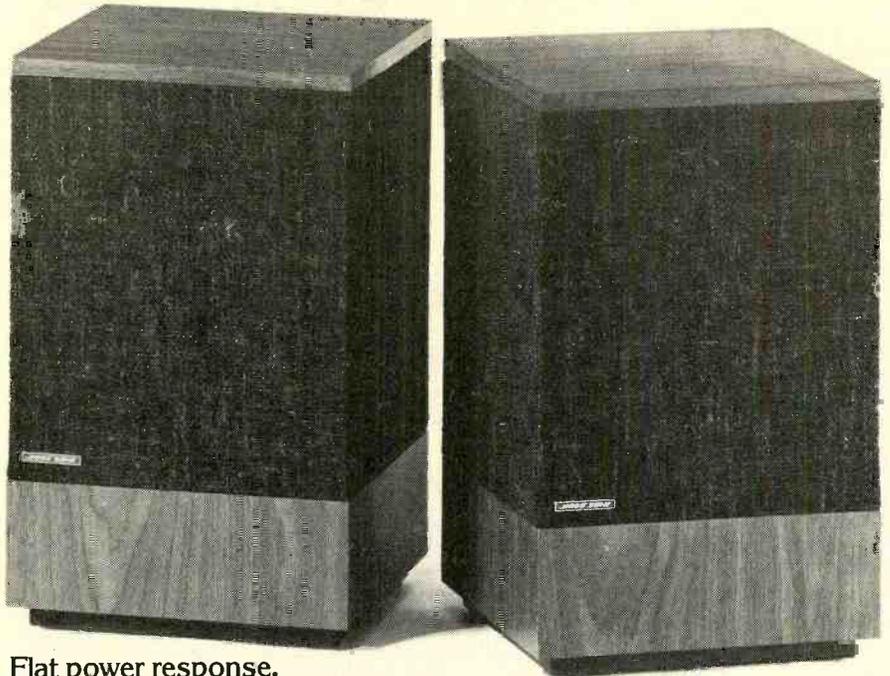
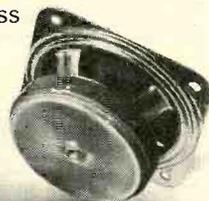
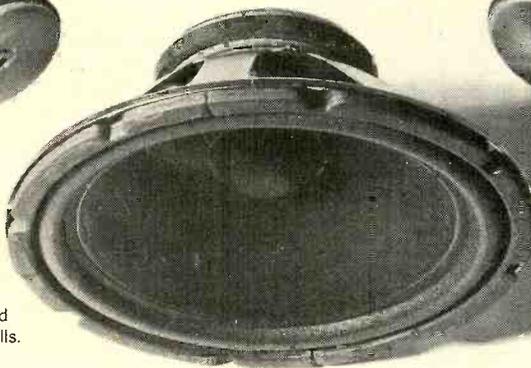
A lot of people buy Bose 501 speakers because they're the next best thing to the speakers they dream about having some day—the Bose 901® Series III. So it's easy to overlook just how well the 501's succeed in providing, at significantly less cost, many of the advances made in the 901's toward creating, in your living room, the experience of a live performance.

Reflected and direct sound.

The 501, like the 901 Series III, is a Direct/Reflecting® speaker. Its woofer aims low frequencies directly into the room, while the tweeters reflect high frequencies off back and side walls. The listener is surrounded by a balance of reflected and direct sound, as he is in a live performance. The sound is spacious and realistic, with none of the shrillness of even the best direct radiating speakers.



The big 10-inch woofer points straight ahead, while the tweeters are angled back to reflect sound off room walls.



Flat power response.

And, like the 901 Series III, the 501 is designed to achieve flat total power radiation, rather than flat frequency response on-axis. The 501 radiates the same total energy, encompassing all directions, at every frequency. This means accurate frequency balance almost everywhere in the listening room.

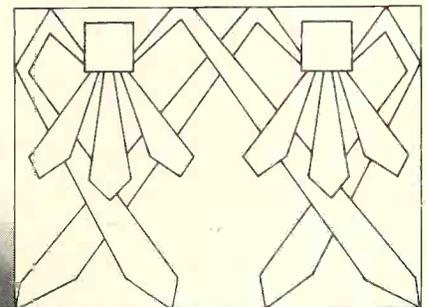
Highs, lows and middles.

We also gave the 501 features all its own. Its specially designed and very potent 10-inch woofer has a long-excursion, 1-inch voice coil for exceptionally clear bass at high volume. The two

3-inch tweeters were also specially designed so their response increases with frequency, to maintain flat total power radiation. And an unusually complex crossover network adjusts response and phase of woofer and tweeters through the crossover region for smooth midrange response.

So enjoy your 501's while you wait for the day you have 901's. After a while, you may forget what it was you were waiting for.

The 501 creates, in a living room, the same kind of balance of reflected and direct sound experienced in a live performance.



BOSE®

The Mountain, Framingham, Mass. 01701

Cabinets are walnut-grain vinyl.

has no place for a music so disturbed and disturbing, so monumentally important, personal, and ugly. The London Sinfonietta, an outstanding chamber music organization founded by David Atherton in 1967, is the perfect solution. It is an organization specializing in the great modern tradition—and, most important, in recordings as well as concert performance. Although the organization is new, its players are top English musicians trained in the great tradition—a perfect combination for Schoenberg. In short, they play this music with the same care, big line, and attention to detail that they would give Beethoven or Brahms. The results may not often sound beautiful but they sound like music. Schoenberg (who used to say, "I am not avant-garde, only badly performed") would have been pleased.

The contents of the album are a bit curious: all the chamber works of Schoenberg minus the string quartets and the string trio—but the unbearable wind quintet is included. Also included is a lush performance of the original sextet version of *Verklärte Nacht*, a very musical and dramatic *Pierrot* by Mary Thomas, and the surprisingly grateful serenade works from the 1920's. More unusual are the unfinished chamber-orchestra pieces of 1910 in a Webernesque idiom, a dreadful cabaret song from 1901, and two surprising tonal works from the period around World War I: a march and a Christmas carol fantasia (including *Silent Night!*). The whole huge set of five records is extremely well produced.

The surprising appeal of Schoenberg's serenade style is even more successfully brought

out in a charming performance of Op. 24 by Daniel Shulman and the Light Fantastic Players on Nonesuch. These players are skillful and lively (except for the bass voice solo, always a problem), and they convey the quality of fantasy in Schoenberg's music—a quality often either overlooked or driven into the ground. In fact, that is exactly what is wrong with the Chamber Symphony performances on Philips; these heavy recordings lack color and imagination. A pity too, since the romantic Second Chamber Symphony deserves to be better known (it is really written for a large orchestra and is omitted from the Decca set), and the composer's own large orchestral version of the First Chamber Symphony is not exactly a repertoire item either. E.S.

SIBELIUS: Four Legends from the Kalevala, Op. 22; In Memoriam, Op. 59. Hungarian State Symphony Orchestra, Jussi Jalas cond. LONDON CS-6955 \$6.98.

SIBELIUS: Finlandia, Op. 26, No. 7; Music for Kuolema, Opp. 44 and 62; Scènes Historiques, Opp. 25 and 66. Hungarian State Symphony Orchestra, Jussi Jalas cond. LONDON CS-6956 \$6.98.

SIBELIUS: King Christian II Suite, Op. 27; Swanwhite Suite, Op. 54; Andante Festivo. Hungarian State Symphony Orchestra, Jussi Jalas cond. LONDON CS-7005 \$6.98.

Performances: **Prosaic**
Recordings: **Not the best**

RECORDING OF SPECIAL MERIT

SIBELIUS: Four Legends from the Kalevala, Op. 22; Karelia Suite, Op. 11. Helsinki Radio Symphony Orchestra, Okko Kamu cond. DEUTSCHE GRAMMOPHON 2530 656 \$7.98.

Performance: **On the button**
Recording: **Excellent**

Being Finnish, as both of these conductors are, may or may not be an advantage in interpreting the music of Sibelius; Beecham, Koussevitzky, Bernstein, Ormandy, and Karajan, among others, have given ample proof that the "You don't have to be . . ." theory can apply in music too. Being the composer's son-in-law as well does not seem to be much of an advantage to Jussi Jalas, whose recordings with the Hungarian State Symphony Orchestra are of interest mainly because they fill a number of gaps in the current discography.

The *King Christian II Suite*, missing from the catalog for several years, turns up with a sixth movement—a "Fool's Song" which has been recorded independently (usually with a tenor) but never as part of the suite and never issued in this country. The *Andante Festivo*, apparently another premiere recording, is not to be confused with the familiar *Festivo (Tempo di Bolero)* which concludes the first set of *Scènes Historiques*. Four of the seven *Swanwhite* numbers are on the final side of Paavo Berglund's Angel set of the *Kullervo* Symphony (SB-3778), as is the "Scene with Cranes" from *Kuolema*, and Leif Segerstam conducts the *Canzonetta* (one of the two Op. 62 pieces from *Kuolema*) on Bis LP-19. The *Valse Romantique* (the other Op. 62 piece) and both sets of *Scènes Historiques* are otherwise unavailable, and the only alternative version of *In Memoriam* is the 1938 Beecham recording, recently reissued on Turnabout ® THS-65059. Unfortunately, Jalas' performances are very much of a stopgap quality, consistently prosa-

Sankyo "auto-reverse" lets you hear the flip side without flipping the cassette.

You're bumper-to-bumper doing 55 when your cassette ends. You want to flip it over and keep your eyes on the road, too. With Sankyo's "Auto-Reverse," simply press the Volume control and the SCS-333 plays the other side of your cassette—without giving you a lesson in manual dexterity.

Sankyo designed its AM/FM/MPX car stereo to give you almost as much flexibility as you enjoy with your home stereo—volume, tone and balance controls, a rotary function switch that offers FM Mono as well as FM/MPX, and there's even a stereo indicator light. It takes up no more space than an ordinary AM car radio and in addition, you get the Sankyo full one-year warranty on parts and labor.

Take a look at the high-fidelity specs that Sankyo builds in: In the tape section, the S/N ratio is more than 45 dB and channel separation is more than 55 dB; distortion is less than 1% with wow & flutter less than 35% WRMS.

Write Dept. S-4 for name of nearest Sankyo dealer



Sankyo

Sankyo Seiki (America) Inc.

149 Fifth Avenue, New York, N.Y. 10010



Sankyo... a sound source

ic rather than satisfying. *Valse Triste* and *Maiden with the Roses* (in the *Swanwhite* sequence) are reduced to banality, and there is little hint of majesty in this *Finlandia*. The orchestral playing is competent but hardly distinguished, and the sound—hard, wiry, shallow—is not an asset. (London did not send its own recording crew to Budapest.)

The best of these three discs, both musically and technically, is the one with the *Four Legends*, superior to Sir Charles Groves' reading on Angel S-37106, but not to Lukas Foss' on Nonesuch H-71203. All of these, however, are clearly outclassed by the new Deutsche Grammophon version under Okko Kamu, who has already demonstrated both his feeling for the Sibelius idiom and the quality of his Helsinki Radio Orchestra. With the first notes of *Lemminkäinen* and the *Maidens of Saari* we are given notice that this version of the cycle is to be an Event, and that promise is grandly fulfilled in the forty-five minutes of music that follows.

Kamu restores *The Swan of Tuonela* to its original position as No. 3 in the sequence, a decision which in itself is not very important; what does matter is that the most familiar part of the cycle emerges with a freshness and eloquence one hardly expects of it, let alone takes for granted. But there isn't a superficial or perfunctory bar in these performances. In the *Karelia Suite*, too, both interpretation and execution are on the button, and DG's engineers have captured everything with a sumptuous realism that is a pleasure in itself. This record is indispensable to Sibelians, whose number it may well increase, and who must hope now for coverage of the less familiar works from the same source. R.F.

TCHAIKOVSKY: Piano Concerto No. 1, in B-flat Minor, Op. 23. LISZT: Piano Concerto No. 1, in E-flat Major. Horacio Gutiérrez (piano); London Symphony Orchestra, André Previn cond. ANGEL S-37177 \$6.98.

Performance: **A romp**
Recording: **Very good**

Of the recording of Tchaikovsky concertos there is no end. The formula is to take the latest keyboard bronco buster and let him ride the old nag—kick some life into her, as it were.

Horacio Gutiérrez, born in Cuba and educated in this country, took the now required Tchaikovsky Competition medal in Moscow. He is impressive in a flashy, good-natured, hard-edge sort of way. He and Previn literally romp through these scarred battlegrounds with scarcely a thought for the dead and the wounded left behind from past engagements. I never thought Tchaikovskian and Lisztian heroics, musings, and breast-beatings could actually sound cool, lightheartedly brilliant, even elegant, but they do here. E.S.

RECORDING OF SPECIAL MERIT

TCHAIKOVSKY: Violin Concerto in D Major, Op. 35; Sérénade Mélancolique, Op. 26. Arthur Grumiaux (violin); New Philharmonia Orchestra, Jan Krenz cond. PHILIPS 9500 086 \$7.98.

Performance: **Warm, lyrical**
Recording: **Good**

Arthur Grumiaux espouses a broadly lyrical view of the violin concerto and presents the score complete, with none of the cuts in the end movements favored by many performers

FREE McIntosh CATALOG and FM DIRECTORY

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



MX 113

FM/FM STEREO - AM TUNER AND PREAMPLIFIER

SEND TODAY!

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

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

If you are in a hurry for your catalog please send the coupon to McIntosh.

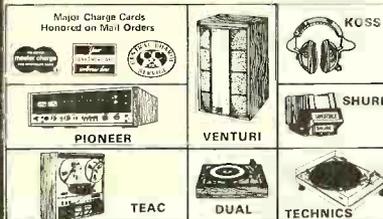
For non rush service send the *Reader Service Card* to the magazine.

CIRCLE NO. 32 ON READER SERVICE CARD

DIXIE HI-FI SAVE ON Brand Name Audio Components BY MAIL

Write Today for Our FREE Audio Catalog

DIXIE is one of the oldest and largest stereo mail order houses in the country. Our lower prices on brand name components can save you real money. Call us today for a price quote, toll free (800)446-7925, in Virginia call (804) 257-4241. Everything shipped in factory sealed cartons with manufacturer's warranty.



DIXIE HI-FI

P.O. Box 6496
Richmond, Va. 23220

SR-4

Please rush me your FREE Audio Catalog and complete information. I understand there is no obligation.

Name _____

Address _____

City _____ State _____ Zip _____

Phone () _____

the Static Eliminator

To PROTECT YOUR RECORDS

Non-penetrating alpha particles ionize air near the record, completely eliminating static, while a soft brush of natural hair whisks away dust and lint.



3" Model 3C500
\$14.95

Available at your audio dealer or write to:

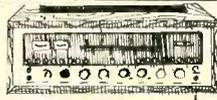
staticmaster

P.O. Box 5178/EI Monte, California 91734

CIRCLE NO. 55 ON READER SERVICE CARD

**There are many reasons why
DISTRICT SOUND IS THE LEADER
IN MAIL ORDER
marantz is one of them!**

**MARANTZ
MODEL 2325
AM/FM STEREO
DOLBY RECEIVER**



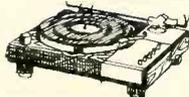
125 Watts per channel, Minimum RMS at 8 OHMS, from 20Hz to 20kHz, with no more than 0.1% Total Harmonic Distortion.
List 799.95..... \$448.00

**MARANTZ
MODEL 5420
STEREO
CASSETTE DECK**

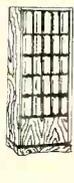


Features: built in mixing panel that handles up to 4 channels of input in any mic or line combination, master level control.

**MARANTZ
MODEL 6300
DIRECT DRIVE
TURNTABLE**

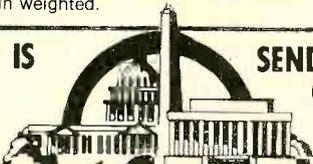


Drive System: direct drive DC servo controlled motor. Speeds: 33 1/3 and 45 rpm. Speed Control Range: + -3%. Rumble: -55dB RRL weighted. -60dB Din weighted.



**MARANTZ MODEL HD-88
HIGH DEFINITION
SPEAKER SYSTEM** 4-Way system incorporating a 12 inch Woofer, 4 1/2 inch Midrange, 1 1/2 inch Wide Dispersion LPF Dome Tweeter and two 1 inch LPF Dome Super Tweeters.

**THERE IS
ONLY
ONE**



**SEND FOR FREE
CATALOG
TODAY!**

District Sound inc.

2316 RHODE ISLAND AVENUE N.E.,
WASHINGTON* D.C. 20018

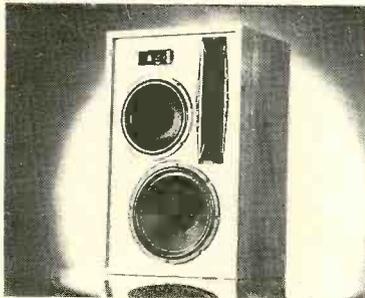


**BIG
DISCOUNTS
ON MARANTZ**

and forty other brands
featuring a complete line of
Audio components to suit every
budget.

CIRCLE NO. 16 ON READER SERVICE CARD

**HEAR IT YOURSELF
KIT**



This is a Speakerlab 7, a 4-element acoustic suspension speaker kit you can assemble yourself in an hour with simple tools.

It saves you up to 50% over comparable ready made systems. Read about the S7 and other systems and raw speakers we sell in a new 40 page catalog. It's a fact-packed manual with chapters on acoustic theory, enclosures, choosing drivers and design principles.

And it's free. Just write us and ask for the most complete catalog/manual ever written on speaker building.



Dept. SR-4/5500 35th N.E., Seattle, WA 98105

**The Best Need Not
Be the Most Expensive**



Julian Hirsch, writing in "Popular Electronics", said of the Netronics turntable kit: "...it gives every audiophile the opportunity to own a truly state-of-the-art direct-drive disc player for a fraction of the usual cost..." There are now two models available with many unique design features.

Model 350D: A basic direct-drive two-speed (33,45 rpm) turntable kit that includes a special two-stage decoupled base for total freedom from acoustic feedback. The base is completely assembled and is available blank or predrilled for any of three highly esteemed tone arms (Grace 707, Audio-Technica AT-1005II, or Shure/SME). The turntable itself has a wow and flutter of 0.02 & 0.04% (weighted) and a rumble level of -60dB (RIAA/RRL). A pitch control provides a \pm 5% variation on the basic speeds. Assembly time is under 1 hour and the price is a surprising low \$100.

Model 350F: A deluxe unit that includes the above plus a 78 rpm speed, a digital servo-pitch lock circuit that precisely locks in the selected operating speed irrespective of loading or line-voltage shifts, and a percentage pitch meter which provides a direct readout of turntable speed. Total assembly time, including the sophisticated electronic digital servo, pitch lock system, is an easy 2 1/2 hours; the price-only \$130.

For ordering information and complete technical data (including a copy of the Hirsch-Houck Labs test report) write to: NETRONICS R&D LTD., Dept. SR-4, 333 Litchfield Road, New Milford, Conn. 06776 or call 203 354-9375.



CIRCLE NO. 63 ON READER SERVICE CARD

over the years. I myself am not wildly fond of the concerto and confess a predilection for the sort of razzle-dazzle performance style of violinists of the Auer school. In his aristocratic Franco-Belgian way, though, Grumiaux makes a very strong case for a more leisurely and expansive approach in which the lyrical aspects of the piece receive their just due and perhaps something more. Grumiaux's playing of the poignant *Sérénade Mélancolique*, which fills out side two, is a perfect gem of its kind. Polish conductor Jan Krenz leads the New Philharmonia in highly sympathetic accompaniments throughout. The Philips recording is just fine, the playing surfaces noiseless.

D.H.

VERDI: La Forza del Destino (see Best of the Month, page 84)

VIEXTEMPS: Violin Concerto No. 5, in A Minor, Op. 37 (see SAINT-SAËNS)

VILLA-LOBOS: Concerto for Guitar and Small Orchestra. Turibio Santos (guitar); Jean-François Paillard Chamber Orchestra, Jean-François Paillard cond. *Mystic Sextet.* Maxence Larrieu (flute); Lucien Debray (oboe); Henri-René Pollin (saxophone); François-Joel Thiollier (celesta); Lily Laskine (harp); Turibio Santos (guitar). *Five Preludes.* Turibio Santos (guitar). MUSICAL HERITAGE SOCIETY MHS 3397 \$3.50 (plus 95¢ handling charge, from Musical Heritage Society, Inc., Oakhurst, N.J. 07755).

Performance: **Deft**
Recording: **Very good**

There are already two fine recordings of the Villa-Lobos guitar concerto: Julian Bream (RCA LSC-2606) offers the concerto and the preludes but substitutes the *Chôros* No. 1 and some other solo pieces for the *Mystic Sextet*; and John Williams (Columbia M 33208) couples the concerto with the extraordinarily popular *Concierto de Aranjuez* of Rodrigo. Santos' playing is never less than fully competitive with that of his better-known rivals, and the choice of couplings inclines me toward the MHS disc, since I find the seven-minute *Mystic Sextet* of 1917 one of the most intriguing works of its kind—as Gallic in spirit, curiously, as much of Milhaud's music of this period is Brazilian. In the more or less continuo role assigned to the guitar in the sextet, Santos blends ideally with his deft associates. Paillard is his dependable self in the concerto, and the recorded sound is very good indeed.

R.F.

RECORDING OF SPECIAL MERIT

VIVALDI: Il Pastor Fido, Op. 13. Jean-Pierre Rampal (flute); Robert Veyron-Lacroix (harp-sichord). RCA FRL1-5467 \$7.98, © FRS1-5467 \$7.98, © FRK1-5467 \$7.98.

Performance: **Charming**
Recording: **Fine**

Advertised as suitable for musette, vielle, flute, oboe, or violin, the six sonatas that make up *Il Pastor Fido* reveal an intimate and graceful side of Vivaldi rarely heard in most of his music we are apt to encounter today. Eschewing the more exotic instruments listed on the title page, Rampal performs the entire opus on the flute. As usual, his playing is technically perfect and brilliant. Supported by the imaginative continuo playing of Veyron-

(Continued on page 138)

LIMIT:
FIVE
SUBSCRIPTIONS

MAIL TODAY!

Get up to
50%
off

ON THE
PUBLICATIONS
AT RIGHT!

STEREO REVIEW

MAGAZINES AT DISCOUNT

Please enter my subscription(s) to the publication(s) checked below:

- | | |
|--|---|
| <input type="checkbox"/> APARTMENT LIFE (21)
Reg. Rate: 24 Issues for \$14.97
You pay only \$7.97 | <input type="checkbox"/> POPULAR PHOTOGRAPHY (07)
Reg. Rate: 12 Issues for \$9.98
You pay only \$4.99 |
| <input type="checkbox"/> CAR & DRIVER (02)
Reg. Rate: 12 Issues for \$7.98
You pay only \$3.99 | <input type="checkbox"/> POPULAR SCIENCE (35)
Newsstand Rate: 12 Issues for \$9.00
You pay only \$4.50 |
| <input type="checkbox"/> CYCLE (03)
Reg. Rate: 12 Issues for \$7.98
You pay only \$3.99 | <input type="checkbox"/> PSYCHOLOGY TODAY (08)
Reg. Rate: 12 Issues for \$12.00
You pay only \$7.00 |
| <input type="checkbox"/> GOLF (63)
Reg. Rate: 12 Issues for \$7.94
You pay only \$3.97 | <input type="checkbox"/> ROLLING STONE (56)
Reg. Rate: 26 Issues for \$14.00
You pay only \$7.00 |
| <input type="checkbox"/> MOTHER JONES (69)
Reg. Rate: 10 Issues for \$12.00
You pay only \$8.88 | <input type="checkbox"/> SPORTS ILLUSTRATED (38)
Newsstand Rate: 25 Issues for \$25.00
Basic annual rate: 52 Issues for \$20.00
You pay only \$9.75 for 25 Issues |
| <input type="checkbox"/> NEW TIMES (31)
Reg. Rate: 20 Issues for \$11.54
You pay only \$5.77 | <input type="checkbox"/> STEREO REVIEW (11)
Reg. Rate: 12 Issues for \$7.98
You pay only \$3.99 |
| <input type="checkbox"/> PLAYBOY (34)
Newsstand Rate: 12 Issues for \$19.00
You pay only \$12.00 | <input type="checkbox"/> TIME (40)
Newsstand Rate 25 Issues for \$25 00
You pay only \$12 50 |
| <input type="checkbox"/> POPULAR ELECTRONICS (06)
Reg. Rate: 12 Issues for \$9.98
You pay only \$6.99 | <input type="checkbox"/> TV GUIDE (41)
Lowest Available Sub. Rate for 32 Issues
You pay only \$8.35 |

Name _____

Address _____ Apt _____

City _____ State _____ Zip _____

Signature _____

LIMIT: 5 SUBSCRIPTIONS

8 ML9

CHECK ONE Payment Enclosed Bill me later

Offer good in U.S. only. Prompt delivery—your first issue will be shipped 6 to 10 weeks from receipt of your order.

FIRST CLASS
Permit No. 1157
Boulder, Colorado

BUSINESS REPLY MAIL

No Postage Necessary if Mailed in the United States

Postage will be paid by:

MAGAZINES
— **AT**
DISCOUNT

P.O. Box 2703
Boulder, Colorado 80321

A Division of Ziff-Davis Publishing Company

MAIL TODAY!

Get up to
50%
off

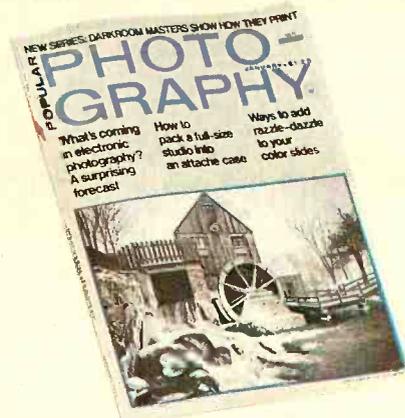
**ON PUBLICATIONS
OFFERED ON
REVERSE SIDE**

MAGAZINES AT DISCOUNT!

You SAVE up to 50%

featuring POPULAR PHOTOGRAPHY at HALF PRICE!

Here's your chance for some fantastic readers' bargains—and one of the best is POPULAR PHOTOGRAPHY, America's foremost camera magazine. Choose as many as five periodicals at these low, low rates: up to 50% off! Use attached card to order or write to MAGAZINES AT DISCOUNT, A Division of Ziff-Davis Publishing Co., P.O. Box 2703, Boulder, Colorado 80322.



Here's what you pay:

- APARTMENT LIFE (21)** You pay only \$7.97
Reg. Rate: 24 Issues for \$14.97
- CAR & DRIVER (02)** You pay only \$3.99
Reg. Rate: 12 Issues for \$7.98
- CYCLE (03)** You pay only \$3.99
Reg. Rate: 12 Issues for \$7.98
- GOLF (33)** You pay only \$3.97
Reg. Rate: 12 Issues for \$7.94
- MOTHER JONES (69)** You pay only \$8.88
Reg. Rate: 10 Issues for \$12.00
- NEW TIMES (31)** You pay only \$5.77
Reg. Rate: 20 Issues for \$11.54
- PLAYBOY (34)** You pay only \$12.00
Newsstand Rate: 12 Issues for \$19.00
- POPULAR ELECTRONICS (06)** You pay only \$6.99
Reg. Rate: 12 Issues for \$9.98
- POPULAR PHOTOGRAPHY (07)** You pay only \$4.99
Reg. Rate: 12 Issues for \$9.98
- POPULAR SCIENCE (35)** You pay only \$4.50
Newsstand Rate: 12 Issues for \$9.00
- PSYCHOLOGY TODAY (08)** You pay only \$7.00
Reg. Rate: 12 Issues for \$12.00
- ROLLING STONE (56)** You pay only \$7.00
Reg. Rate: 26 Issues for \$14.00
- SPORTS ILLUSTRATED (38)**
You pay only \$9.75 for 25 Issues
Newsstand Rate: 25 Issues for \$25.00
Basic annual rate: 52 Issues for \$20.00
- STEREO REVIEW (11)** You pay only \$3.99
Reg. Rate: 12 Issues for \$7.98
- TIME (43)** You pay only \$12.50
Newsstand Rate: 25 Issues for \$25.00
- TV GUIDE (41)** You pay only \$8.35
Lowest Available Sub. Rate for 32 Issues



Lacroix, he brings out the light elegance of these works through clear articulation, brisk tempos, and facile ornamentation. The results are delightful. S.L.

RECORDINGS OF SPECIAL MERIT

WAGNER: *Götterdämmerung* (Orchestral Excerpts). *Dawn and Siegfried's Rhine Journey; Siegfried's Funeral March; Brünnhilde's Immolation and Finale.* London Symphony Orchestra, Leopold Stokowski cond. RCA AR1-1317 \$7.98, © ARS1-1317 \$7.98, © ARK1-1317 \$7.98.

Performance: **Gorgeous**
Recording: **Gorgeous**

WAGNER: *The Ring of the Nibelungs* (Orches-

tral Highlights). *Das Rheingold: Entrance of the Gods into Valhalla. Die Walküre: Ride of the Valkyries; Wotan's Farewell and Magic Fire Music. Siegfried: Forest Murmurs. Götterdämmerung: Siegfried's Rhine Journey; Siegfried's Funeral March; Finale.* National Symphony Orchestra, Antal Dorati cond. LONDON CS-6970 \$6.98, © CS5-6970 \$7.95.

Performance: **Brilliant**
Recording: **Sumptuous**

In his latest (fourth? sixth?—one tends to lose count after so many of them) recording of *Götterdämmerung* excerpts, as arranged by himself, Stokowski has eliminated the segment "Siegfried's Death," which he included in his London/Decca version with the same orchestra a dozen years ago (SPC-21016). I

miss that noble passage, which enhances the Funeral March just as the "Dawn" fragment does the "Rhine Journey"; Toscanini seems to have been the only conductor who consistently included it in his concert performances and recordings. The new recording, though, is more refined, more genuinely exalted than the London Phase-4 version, and RCA's production team can take a good share of the credit: the sound is as gorgeous as the performance—rich, vibrant, beautifully balanced. The long Immolation Scene is somewhat less convincing as an orchestral piece than its two companion pieces, but it would take a harder heart than mine to find it unattractive as presented here. Stokowski, who will be ninety-five this month (April 18), is still the sorcerer supreme.

Dorati, as it happens, also has a birthday this month (seventy-one on April 9), and his Wagner collection is a stunning testimonial to his own powers of sorcery. Perhaps more than any other recording the National Symphony has made since Dorati became its music director in 1970, these performances (taped in 1975) demonstrate the magic he has wrought. He steps down at the end of this season with his mission in Washington largely accomplished: he has given the nation's capital a more than respectable orchestra, capable of taking on anything. Here there is not only brilliance to burn, but real breadth in the *Rheingold* excerpt, solemn grandeur in the Funeral March, downright enchantment in "Forest Murmurs." The "Rhine Journey" alone might have been a little more animated, but it is as beautifully played as the rest. London's sumptuous sonics give us strings richer than rich, brass burnished to a lambent glow.

R.F.

RECORDING OF SPECIAL MERIT

WAGNER: *Rienzi*. René Kollo (tenor), Cola Rienzi; Siv Wennberg (soprano), Irene; Nikolaus Hillebrand (bass), Stefano Colonna; Janis Martin (soprano), Adriano Colonna; Ingeborg Springer (soprano), Peace Herald; Theo Adam (bass), Paolo Orsini; Siegfried Vogel (bass), Raimondo; Peter Schreier (tenor), Baroncelli; Günther Leib (baritone), Cecco del Vecchio. Leipzig Radio Chorus and Dresden State Opera Chorus; Dresden State Orchestra, Heinrich Hollreiser cond. ANGEL SELX 3818 five records \$34.90.

Performance: **Solid**
Recording: **Good**

Richard Wagner was a struggling *Kapellmeister* in Riga when he began writing *Rienzi* in 1839; he completed it in Paris as a frustrated and penniless exile the following year. Nevertheless, it was this opera, conceived in misery and written under the most distressing circumstances, that started Wagner on the road to future glory. Performed by a cast that included soprano Wilhelmine Schröder-Devrient and tenor Aloys Tichatchek, two of the era's most brilliant singers, *Rienzi* was enthusiastically received in Dresden on October 20, 1842.

The opera's first complete recording, produced in that same city, contributes significantly to a well-rounded view of Wagner's artistic development. Even *The Flying Dutchman*, generally regarded as a "transitional" work, seems to be mature Wagner compared with this early effort. *Rienzi*, plain and simple

(Continued on page 140)

... Soundcraftsmen we've got equalization all together —

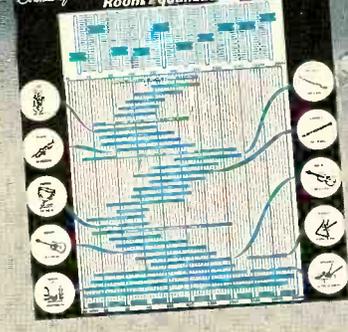
and all of us are dedicated to helping you improve the sound of your fine stereo system.

Equalizers are used everywhere in the music-making chain: by live performers, recording studios, mixing consoles, AM and FM stations, and so on. In every step, each of the engineers use equalizers to make the music sound the way they think it should sound. So after everyone else makes the music sound the way they like it, it's up to you to use that same instrument—the equalizer—to make the final adjustment, and make the music sound the way you like it to sound in your own home.

We also include all the accessories and features that are a must to make equalizing easy, as well as an amazingly rewarding new experience: . . . An environmental do-it-yourself test record edited and announced by Soundcraftsmen especially for use with the Soundcraftsmen Equalizer . . . Computone-Charts for making a record of, and resetting in seconds, any desired EQ curve . . . a Full-Channel Frequency-Spectrum-Level Control on each channel, for instant "no distortion" in/out balancing . . . Light-Emitting-Diodes for precise visual signal level balancing . . . A Graphic Display of each EQ curve . . . And a minimum 24dB range of adjustment for each octave . . . Specifications: S/N: better than 96dB @ 2V RMS . . . THD: less than .1% @ 2V . . . Filter type: toroidal and Ferrite Core.

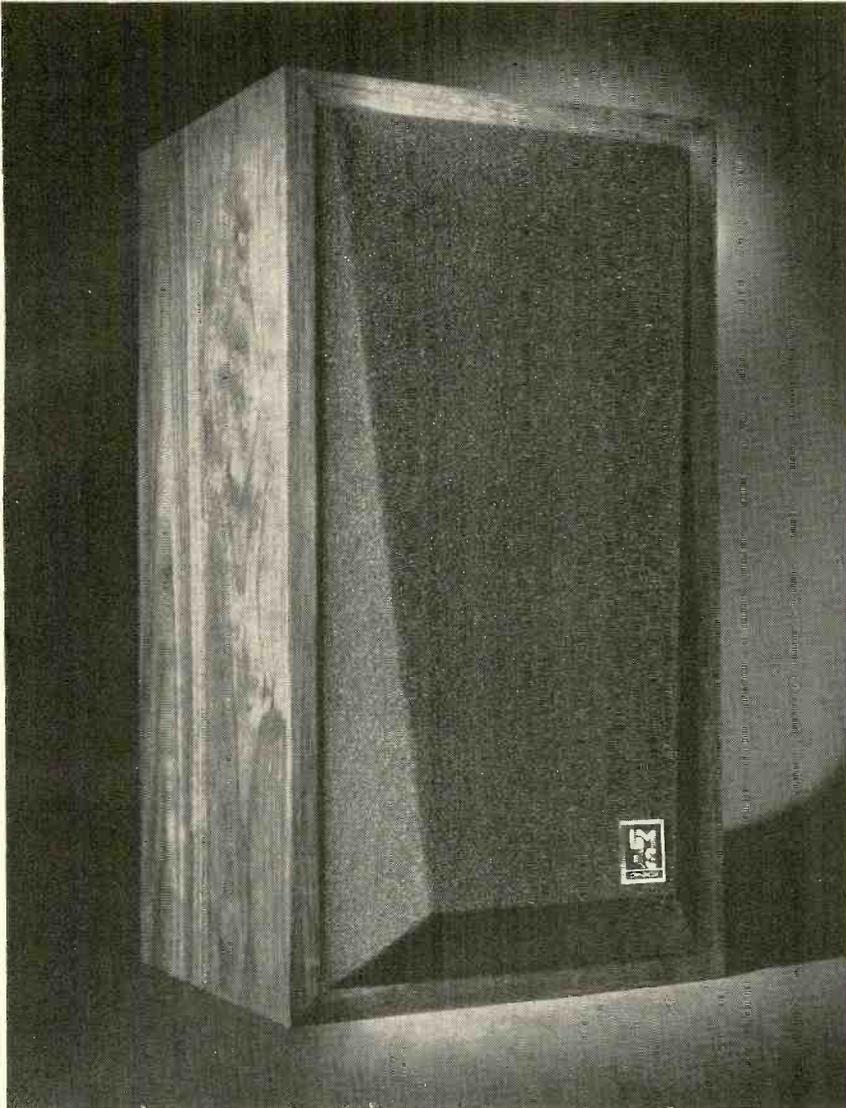
FREE 6 PAGE BROCHURE

• The WHY's and HOW's of EQUALIZATION
• CHECKLIST for your EQUALIZATION-EVALUATION
• 10-point "TOTAL-SYSTEM" EQUALIZATION program
Soundcraftsmen Instructional Test Record Room Equalization Instructions



Only Soundcraftsmen offers you a choice of six models—select the equalizer that best matches your system, and your pocketbook.

Manufactured in California, U.S.A. by Soundcraftsmen, 1721 Newport Circle, Santa Ana, CA 92705 . . . For name of your nearest dealer, phone us at (714) 556-6191 . . . Suggested Prices (top to bottom): PE2217 - \$529.50, SG2205 - \$370.00, RP2212 - \$369.50, RP2204 - \$329.50, 20-12A - \$299.50 (Includes cabinets shown), TG2209 - \$550.00 (Case extra),



The sound the
audio world
now demands.
Dynaco's

LMS SPEAKERS

LMS: The new Dynaco hallmark of its **Laboratory Monitor Series**—speakers with lasting musical satisfaction. The rock-solid beauty of one inch thick genuine walnut veneer cabinets (33% thicker than the others) enhance the sound as well as the decor. They complement the output of high compliance linear suspension woofers with massive magnet structures and oversize 4 layer voice coils for highly efficient transfer of maximum energy levels. Rigidly isolated 5 inch midrange drivers add maximum definition in the three larger models. The same aluminum voice coil ultra-dispersion dome tweeter used throughout is paired in the top two models for maximum energy capability.

*Only at selected dealers—write for one nearest you.
Priced from \$169—approximate retail value.*



*For descriptive literature write Dept. R3
LABORATORY MONITOR SERIES by DYNACO, INC.
Coles Road—Box 88, Blackwood, N.J. 08012 • 609/228-3200*

CIRCLE NO. 64 ON READER SERVICE CARD



(although it is neither) is grand opera built on the French models of Spontini and Meyerbeer. Epic in scale (five acts) and rich in pageantry, it offers an elaborate ballet, battle sequences, and a final conflagration. Of "music drama" there is not a trace: *scenas à la Weber*, arias with cabalettas, and vocal ensembles follow one another in a manner not far removed from the procedures of Bellini, to whom the finale of *Rienzi's* first scene is startlingly indebted.

The opera's plot, though based on Bulwer-Lytton's famous novel, also borrowed many devices from Auber's enormously successful opera *Masaniello* (1828). Just the same, the typical Wagnerian elements are already there: a hero confronted with and eventually destroyed by hostile forces despite the heroic devotion of a woman. The latter in this instance is Irene, *Rienzi's* sister. Their near-incestuous relationship is further complicated by the fact that Adriano, Irene's mixed-up suitor, is interpreted by a female singer.

Musically, on the other hand, there is much to enjoy in *Rienzi*. It does suffer from excess; the lengthy recitatives delay the action and some brilliantly conceived passages are diluted by repetition. Still, there is no denying the effectiveness of the ceremonial music, the choral pieces, though harmonically uneventful, are stirring, and the familiar vocal highlights (*Rienzi's* Prayer, Adriano's big dramatic scene) sound even more impressive in context. With their anticipations of *Tannhäuser* and *Lohengrin*, the last three acts are clearly superior to the first two.

The singing here, while not ideal, is good enough to give us a respectable account of

this historically important opera. The title role is cut from a vocal fabric Wagner later remodeled to fit *Tannhäuser*: its high-placed clarion sound calls for a Melchior or, at the very least, a Vickers. Kollo's light voice is severely taxed by the requirements; he sounds uncomfortable and at times unpleasant in the high tessitura, but he delivers the Prayer movingly and in a good vocal estate.

Casting Adriano for a woman in trousers was a severe miscalculation on Wagner's part—it may be the single most powerful reason for keeping *Rienzi* off the stage in modern times. In any case, the role calls for a voice of the Ortrud-Venus type, whereas Janis Martin is more of an Elsa-Elisabeth. This consideration aside, she serves the music well, at times rising to impressive heights. The young Swedish soprano Siv Wennberg also scores impressively in the part of Irene. Her powerful metallic timbre and easy command of the high register show promise of a great future Brünnhilde. In the present context, however, it is Miss Wennberg who supplies the steely and resolute tones and Miss Martin (as Adriano) who delivers the softer, more feminine ones—and the absurdities are thereby compounded.

There are two fine basses in the cast: Nikolaus Hillebrand as Colonna, *Rienzi's* arch-enemy, and Siegfried Vogel as the papal emissary who announces *Rienzi's* excommunication. Peter Schreier makes a notable contribution in the small role of Barocelli, but Günther Leib is weak as Cecco, the fellow-turncoat. Nor does Theo Adam lift the role of Orsini to a significant level. Heinrich Hollreiser may not be the most exciting interpreter of

this music (it would be fascinating to let Sir Georg Solti loose on it), but he gets solid results from both orchestra and chorus and keeps the action moving without making the opera seem longer than it is. G.J.

WAGNER: *The Valkyrie*. Alberto Remedios (tenor), Siegmund; Margaret Curphey (soprano), Sieglinde; Clifford Grant (bass), Hunding; Norman Bailey (baritone), Wotan; Ann Howard (soprano), Fricka; Rita Hunter (soprano), Brünnhilde; others. English National Opera Orchestra, Reginald Goodall cond. ANGEL □ SELX-3826 five discs \$35.95.

Performance: **Dignified and stately**
Recording: **Good live**

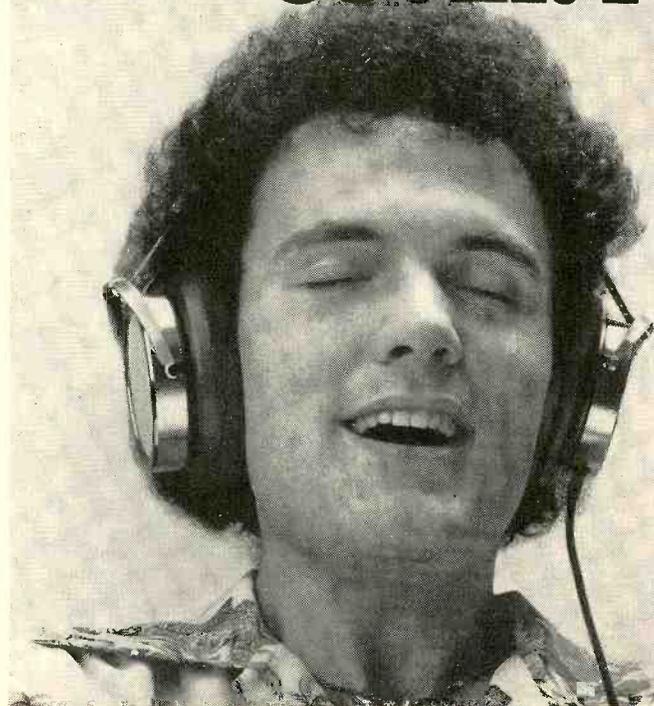
I am a strong proponent of opera in English, but I do think you ought at least to be able to demonstrate redeeming social value in a translation. Just as the Germans long ago naturalized Shakespeare, the English have long tried to adopt the *Ring* as a national epic—with decidedly mixed results.

This recording is taken from a complete English *Ring* translated by Andrew Porter and produced with an all-British cast at the English National Opera (formerly Sadlers Wells) under the direction of Reginald Goodall. The performances roused great rapture among our overseas confrères, which demonstrates only that the English can work up a great deal of enthusiasm over luke-warm beer.

The performance, like the translation, is High Church—dignified and stately. What is lacking is passion and anything like elevated poetry. Gone forever are the old translator

(Continued on page 142)

IF YOU DON'T LIKE THE WAY YOUR SPEAKERS SOUND COVER YOUR EARS.



Nothing can improve the sound of a set of speakers better than a set of Sony ECR-500 electrostatic stereo headphones.

Because unlike most headphones, ECR-500's have an asymmetrical pentagon shaped diaphragm for wider and smoother frequency response, as well as greater bass response.

They have a push-pull driver system for higher sensitivity and less distortion.

They have a simple open-back design that lets you turn on music without shutting off the rest of the world.

But best of all, they have a price tag of only \$150.

Which might be a little more than you'd want to spend for a set of headphones. But it's a lot less than you'd have to spend for a good set of speakers.

SONY

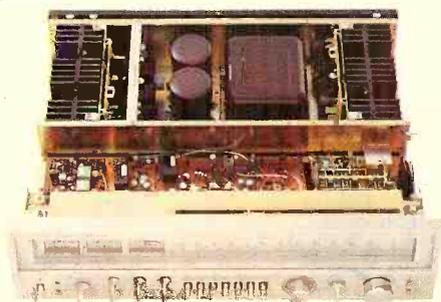
Manufacturer's suggested list price. © 1976 Sony Corp. of America. Sony, 9 W. 57th St., N.Y., N.Y. 10019. SONY is a trademark of Sony Corp.



FISHER INTRODUCES THE WORLD'S FINEST RECEIVER.

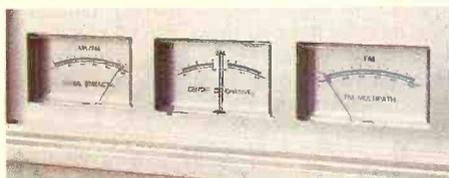
This headline from any other manufacturer might sound like just so many words. But, it's by Fisher, the company that started the high fidelity industry back in 1937. And the company who introduced the very first AM/FM stereo receiver 18 years ago.

In a sense, we've been building the RS1080 for 40 years . . . researching, engineering, inventing, and refining our technology to finally develop what is surely the world's finest receiver at any price.



Our RS1080 is rated at an enormous 170 watts per channel, minimum RMS into 8 ohms, from 20 to 20,000Hz with no more than 0.1% total harmonic distortion. There is lots of pure, clean power to give you lots of pure, clean sound at any listening level. But power is only part of why the RS1080 is the world's finest.

Tuning. Precise, accurate tuning is a *must* for FM listening. And the RS1080 includes 3 separate tuning meters: signal strength, center-of-channel, and most



important, a multipath meter with phase-locked-loop circuitry.

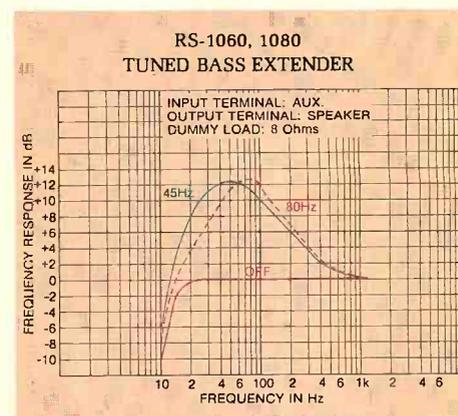
FM Dolby. For the ultimate FM listening experience, the RS1080 has built-in, factory calibrated FM Dolby decoder circuitry. This feature lets you hear the full dynamic range of Dolby broadcasted music. Another *must* if a receiver is designed to be the world's finest.

Other state-of-the-art features and specifications include 8-gang tuning, 1.7 μ V FM sensitivity, plus all the front panel controls and rear panel input/output jacks you'll ever need.



Bass Extender. A major exclusive feature of the RS1080 not found in any other receiver is our bass extender and bass range level control. At a flip of a control you can boost bass response up to 12dB at either 45 or 80Hz. Electrically tuned circuits assure sharp roll-off characteristics, and a tremendously

noticeable improvement in bass response without muddying-up the mid range or increasing hum or rumble. The result is a truly sensational improvement in sound quality in your listening room with any speaker system.



Sure, maybe some late-comer audio manufacturers have good receivers on the market, but at Fisher, we are convinced that our RS1080, priced at \$900*, is the world's finest. Look at and listen to the Fisher 1080. Available at fine audio stores or department store audio departments.

©1977 Fisher Corporation, 21314 Lassen Street
Chatsworth, California 91311

 **FISHER**
The first name in high fidelity.

SAVE!

MONEY • TIME • FREIGHT

QUALITY STEREO EQUIPMENT AT LOWEST PRICES.

YOUR REQUEST FOR QUOTATION RETURNED SAME DAY.

FACTORY SEALED CARTONS—GUARANTEED AND INSURED.

SAVE ON NAME BRANDS LIKE:

A.D.C.	KLH
A.R.	SHURE
DYNACO	KOSS
SONY	FISHER

PIONEER
AND MORE THAN 50 OTHERS
BUY THE MODERN WAY
BY MAIL—FROM

illinois audio

Department 217S
12 East Delaware
Chicago, Illinois 60611
312-664-0020

CIRCLE NO. 24 ON READER SERVICE CARD

Top Discount AUDIO

Your **NATIONAL HEADQUARTERS**

For Famous Brand Electronics By Mail

1150 N. Powis Rd., West Chicago, Ill. 60185 • (312) 293-1825

All Orders Shipped In Factory-Sealed Cartons

Write Or Call For The Lowest Prices Anywhere!

MILLION \$\$\$ INVENTORY

LOWEST PRICES ON

RECEIVERS	TURNTABLES	TUNERS
SPEAKERS	CHANGERS	CARTRIDGES
TAPE DECKS	AMPLIFIERS	HEADPHONES
CALCULATORS	COMPACTS	CAR AUDIO

Top Discount Audio 1150 N. Powis Rd. West Chicago, Ill. 60185 (312) 293-1825

SR-4 We honor Master Charge and Bank Americard. Date _____

Please send me a quote on: _____

MR. MS. (First) (Initial) (Last)

(Number And Street)
(City) (State) (Zip Code)

CIRCLE NO. 60 ON READER SERVICE CARD

stand-bys—the “thou”s and the “doth”s and the “methinks”s. But we are still in the never-never land of translatores with lines (selected almost at random) such as “Slight are they/unworthy your care” (meaning Siegmund’s wounds are not worth Sieglinde’s trouble) and “Who are you, say, who so stern and beauteous appear?” and “Fearful is the fate I’ll pronounce.” Like an over-restored picture, the patina of antique poesy and rhetoric has been removed, exposing the careful touch-up job underneath. This is the faithfulness that betrays.

The sad part is that, in this case, it really doesn’t matter: you don’t understand any of it anyway. A well-turned, singable phrase is just as incomprehensible as an awkward, misaccented one, for these performers, like those Anglican High Churchmen who mumble their ritual English to make it sound like Latin, sing everything to sound as much as possible like Old Norse—or possibly early Anglo-Saxon. Perhaps the slow tempos are intended to help comprehension, but the effect is exactly opposite: the singers have every opportunity to linger deliciously over endless, Brobdignagian dipthongs that never existed in any language at all. Another effect of slow tempos is that the singers, believe it or not, are often impatiently pushing ahead of the beat. These problems are most severe in the excruciatingly slow first act; the last two acts show more in the way of vital signs.

The singing is competent but, with one exception, rarely thrilling. The outstanding vocalist is easily Norman Bailey, whose solid and vibrant Wotan has real nobility and tragedy; he is the one performer who takes advantage of the fact that he is singing in his native language with “real” words full of emotional as well as literal meaning to intensify his interpretation. His appearance at the beginning of Act II creates an electricity entirely missing from the first act and even seems to galvanize Goodall.

On the whole, the men fare better than the women. I liked Alberto Remedios, who, in spite of his name (and apparent Latin ancestry) was born in Liverpool. A lyric Siegmund is a pleasant surprise. Now and again, though, one misses the impetuosity and the soaring, transfigured quality that the role demands (it

is precisely these qualities that are most lacking in the performance as a whole).

The recording was taken from live performances at the London Coliseum in December 1975—presumably a montage of the best sections from three evenings. It is an excellent job and (in case you wondered) achieves good balances between the voices and orchestra.

E.S.

WOLF: Lieder on Poems by Goethe, Heine, and Lenau (see Best of the Month, page 84)

COLLECTION

DON SMITHERS: The Trumpet Shall Sound. Purcell: *Trumpet Tune, Ayre, and Cibell.* Blow: *Vers—Fugue in F Major.* Morley: *Canzonet La Caccia; Canzonet La Sampogna.* Handel: *Concerto in B-Flat Major.* Stanley: *Trumpet Voluntary in D Major.* Fantini: *Sonata a Due Trombe detta la Guicciardini.* Campion: *Never weather-beaten sail.* Bull: *Variations on the Dutch Chorale “Laet ons met herten reijne.”* Biber: *Suite for Two Clarino Trumpets.* Dowland: *Lacrimae Pavin, “Flow my tears.”* Frescobaldi: *Capriccio sopra un soggetto.* Anon.: *Hejnal Krakowska.* Don Smithers (clarino trumpet, piccolo trumpet, cornetto); Clarion Consort. PHILIPS 6500 926 \$7.98.

Performance: **Excellent**
Recording: **Excellent**

In searching out a repertoire for the trumpet, Don Smithers has boldly availed himself of works originally written for harpsichord, organ, voice, and oboe. Considering that this was customary during the Renaissance and Baroque eras, purists should not indulge themselves in any twentieth-century qualms they might have about transcriptions. The proof of the pudding lies in the musical results, and here there is nothing to quibble about; Don Smithers is just fine both as a technician and as a musician. And the arrangements, relying heavily on organ accompaniment, are tasteful and effective. More important, Mr. Smithers brings them off so skillfully that they sound as though they were conceived for the remarkable variety of trumpets he tackles for this fine disc.

S.L.



DON SMITHERS: just fine both as a technician and as a musician

Photogram



**BEETHOVEN, SCHUBERT AND MOZART
WOULD BE PLEASED TO HEAR THE NEWS.
INTRODUCING THE FIRST INTEGRATED DC AMPLIFIER.**

The DC amplifier is a rather amazing instrument. It reproduces music without phase distortion or time delay distortion. Down to 0 Hz (direct current) the response is flat. French horns sound French. A string bass sounds like a string bass. And Mozart sounds like Mozart.

Needless to say, it's sensational.

And now it comes in an *integrated* amplifier. The Kenwood 600. The first integrated DC amplifier.

With dual power supplies. At 130 watts per channel, minimum RMS at 8 ohms from 20 to 20,000 Hz with no more than 0.08% total harmonic distortion.

The perfect companion to our new 600T, the finest tuner we've ever made (and we're famous for our tuners).

For full information and specs, write Kenwood Electronics, 15777 South Broadway, Gardena, Ca. 90248; or 72-02 Fifty-First Ave., Woodside, NY 11377.



KENWOOD

STEREO REVIEW MARKET PLACE

REGULAR CLASSIFIED: COMMERCIAL RATES: For firms or individuals offering commercial products or services. \$2.10 per word. Minimum order \$31.50.
EXPAND-AD CLASSIFIED RATE: \$3.15 per word. Minimum \$47.25. Frequency discount: 5% for 6 months; 10% for 12 months paid in advance. **READER RATE:** For individuals with a personal item to buy or sell. \$1.25 per word. No minimum! **DISPLAY CLASSIFIED:** One inch by one column, \$265.00. Two inches by one column, \$530.00. Column width 2-1/4". Advertiser to supply firm positives. Please write or phone for frequency rates.
GENERAL INFORMATION: Payment must accompany copy except when ads are placed by accredited advertising agencies. First word in all ads set in caps. All copy subject to publisher's approval. All advertisers using Post Office Boxes in their addresses MUST supply publisher with permanent address and telephone number before ad can be run. Ads are not acknowledged. They will appear in the first issue to go to press after closing date. Closing Date: 5th of the 2nd month preceding cover date (for example, March issue closes January 5th). Send order and remittance to: Classified Advertising, STEREO REVIEW, One Park Avenue, New York, New York 10016, Attn: Hal Cymes.

EQUIPMENT

WRITE for quotation on any Hi-Fi components: Sound Reproduction Inc., 460 Central Avenue, East Orange, N.J. 07018, 201-673-0600.

NO fair trade laws in D.C. Write for discount prices on your choice of components. District Sound, Inc., 2316 R.I. Ave. N.E., Wash., D.C. 20018. (202) 832-1900.

STEREO TV



The TE-200 TELEDAPTER EASILY CONNECTS TO ANY TV & STEREO SYSTEM. Using our coupling and matrix circuit, teledapter takes a low impedance output from the television and drives two HIGH IMPEDANCE CHANNELS OF SIMULATED STEREO, to drive any amplifier. Frequency response is maintained so you can hear the tinkle of bells or booming bass sounds as it happens on TV. With service warranty and hookup instructions \$19.95 ppd. Guaranteed to make your TV 100% more enjoyable.

OUR NEW TE-300 VHF/UHF TELEVISION High Fidelity AUDIO TUNER is now available. Completely solid-state Recording and amp output jacks. Anodized Aluminum front panel and simulated Walnut Cabinet. 110 volt operation. \$169.95 ppd.

SEND CHECK, M.O., MASTERCHARGE, or BANKAMERICARD NO and Expiration date TO RHOADES NATIONAL CORP. DEPT NO. 5F BOX 817, HENDERSONVILLE, TENNESSEE 37075.

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

#SEND COMPLETE CATALOG

DIAMOND NEEDLES and STEREO CARTRIDGES at DISCOUNT PRICES for SHURE, PICKERING, STANTON, EMPIRE, GRADO and ADC. Send for free catalog. LYLE CARTRIDGES, Dept. S, Box 69, Kensington Station, Brooklyn, New York 11218.

CANADIAN Discount Catalog. Name brand stereo and 4-channel gear. Elco-3, 521 5th Ave. NYC 10017.

CROSSOVERS—Custom designed; fully tested; guaranteed quality. Free Brochure. Write: Crossovers, Box 458, Placentia, CA 92670.

LOWEST PRICES on many brands of stereo components — 4 day delivery, write for same day quotes. University Stereo Cooperative, 57 E. Ridgewood Avenue, Ridgewood, N.J. 07450.

STEREO NEEDLES and CARTRIDGES—ADC, Audio Technica, B&O, Empire, Grado, Micro Acoustics, Pickering, Ortofon, Shure, Sonus, Stanton, Supex, BSR, G.E., RCA, Sony, Panasonic and others. For FREE CATALOG, write: NEEDLE IN A HAYSTACK, INC., P.O. Box 17436, Washington, D.C. 20041.

SAVE UP TO 69% on over 100 top brand audio components from Carston Studios, New England's Audio Supermarket, one of the oldest mail order firms (Est. 1952) and certainly one of the most reliable. All orders shipped from stocked warehouse. Send for price quote and price list. Carston Studios, Old Brookfield Rd., Danbury, Conn. 06810.

PROFESSIONAL HI-FI COURSE—Instructors include Len Feldman, Julian Hirsch, Larry Klein, and Larry Zide. Home study course also available. Send \$2.00 for full color AUDIO PRIMER and full information on joining Society Audio Consultants (SAC), 49 E 34th St., Dept. SR, New York, New York 10016.

PERFECTIONISTS PREFER DYNAKITS. Before Purchase You Owe Yourself Our Quote. Mainline IIr, 971 Fronheiser, Johnstown, PA 15902.

NO SACRED COWS. Top Discounts on BOSE, Infinity, Hegeman, ADS, Dual, Dyna, Sansui, Sony, Marantz, Yamaha, SAE, Klipsch, B&O, Teac, McIntosh, Citation, others. Seriously Audio Sales, POB 364, Golden, Colo. 80401. (303) 279-2014.

BUILD YOUR OWN SPEAKERS AND SAVE UP TO 50%.

Send for our free, fact-packed 40-page catalog/manual and learn how to assemble your own multi-element stereo speakers from scratch or from kits. Our catalog includes chapters on design, construction, drivers, enclosures, midranges, woofers, tweeters and horns. Write us today:

SPEAKERLAB
 Dept. SR-A, 5500 35th N.E.
 Seattle, Washington 98105



BUY HI-FI COMPONENTS THE MODERN WAY:

AR • HY-GAIN^{CB} DYNACO • DUAL KOSS • SHURE

MANY OTHERS

PHONE & MAIL

Call TOLL FREE or write for LOW PRICES

Nationwide **800/854-7769**
 California **800/472-1783**

  Approved by Phone

MCK SALES
 250 N THOMAS, PO BOX 2100
 POMONA CA 91766

DYNAKITS, SHURE, SME—lowest prices. FRIED LOUD-SPEAKERS (not discounted). Perfectionist modifications. Underground HiFi Sales, 324a Broadwater Road, Arnold, MD 21012. (301) 647-0919.

CONFIDENTIAL. Pioneer or Akai "Dealer Cost List", \$1.00 each (U.S. currency). Box 463, Roswell, GA 30077.

STEREO CO-OP — We're back, now purchase Pioneer, B.I.C. and E.P.I. directly from a manufacturers co-op and realize substantial savings. Guaranteed lowest prices and full service. Write for specific price quotes. 5631 Balto. Nat'l. Pike, Balto., MD 21208.

SUBSTANTIAL SAVINGS on most High-End lines. The Sound Affair, 364 Mission Court, St. Louis, MO 63130.

RACK LABS stereo active crossovers, U.L.F. Filters and Disco Mixers. Write: 136 Park St., New Haven, Conn. 06511.

STOP LOOKING for a good deal on hi-fi equipment — you've found it here — at your hi-fi headquarters in the heart of the Midwest. We are factory-authorized dealers for all major brands. Write or call today for our low quote and become one of our many happy and satisfied customers. HOOSIER ELECTRONICS, P.O. Box 2001, Terre Haute, Indiana 47802. (812) 238-1456.

AUDIO STEREO COMPONENTS and SONY TV's at rock bottom prices. Why pay up to 40% more? Arkay Audio, 68-A Watertown Street, (Route 16), Watertown, Mass. 02172.

WE PAY SHIPPING! Name brand Hi-Fi. Write for price list. Sohn & Associates, 616 W. 35th St., Davenport, Iowa 52806.

SAVE ON SACRED COWS — Bose, SAE, JBL, Thorens, Philips. Over 50 top brands. Write for quotes. SOUTHBOUND SOUND, P.O. Box 52508, Atlanta, Georgia 30355.

SANSUI and PICKERING! BELOW mail order prices! Send to: GSH Super Savings, P.O. Box 86, Eden, N.C. 27288.

MXR's TEN BAND Equalizer, Discwasher Systems, Maxell Tape. Discounted! N.A.B. Audio, Box 7, Ottawa, IL 61350.

WHY SPEND MORE!! Purchase any brand at dealer cost. Comprehensive report reveals distributors. \$5.00. Audio Contacts, 102 Charles Street, Suite 212, Boston, Mass. 02114.

QUALITY SOUND PRODUCTS: Always in stock Electro-Voice Sentry III, IV, B, V, ROTEL 1412, 1603, 1312. NATIONAL SOUND COMPANY, INC., Ft. Lauderdale, Florida. (305) 462-6862.

TAPE AND RECORDERS

THRIFTIEST "Live!"—Operatic, Symphonic—Open Reels! P.O. Box 1101, Woodhaven, New York 11421.

OPERA TAPES—Open Reel and Cassettes—Historical performances of past 40 years. Unbelievable treasures and rarities. Also LP records. Ed Rosen, 66-33 Saunders St., Rego Park, N.Y. 11374.

GOLDEN AGE RADIO—your best source for radio tapes. Box 25215-T, Portland, Oregon 97225.

TDK SUPER AVILYN C-90 CASSETTES: \$1.19 Ea. 10 or more \$3.06 each. Shipping & Handling — add 10% under \$20.00 7% over \$20.00. Free Catalog. SAXITONE TAPE SALES, 1776 COLUMBIA RD., N.W., DEPT. S, WASHINGTON, D.C. 20009.

YESTERDAY'S RADIO PROGRAMS on Tape. Catalog \$1.00 refundable first order. Reel-Cassette. ADVENTURES, Box 4822-S, Inglewood, California 90302.

OPERA CLASSICAL MUSIC Open Reels. Rare mostly live free catalogue. K. Lohan Tapes, P.O. 298, Mastic Beach, N.Y. 11951.

TDK, BASF, Memorex, Maxell, cassettes, reels, 8-tracks. Lowest prices, new guaranteed. S&S Audio, P. O. Box 56039, Harwood Heights, Ill. 60656.

SCOTCH RECORDING TAPE, exclusively, all new, lowest prices. TAPE CENTER, Box 4305, Washington, D.C. 20012. 3600' FRESH Low Noise, High Output Ampex tape. 10-1/2" metal reel, 6 for \$35.00 plus \$3.50 UPS. Other tapes also on special. Write for catalog. S.I.C., P.O. 86338, Atlanta, GA 30338.

RADIO'S GOLDEN DAYS on tape. Reel, Cassette, Cartridge catalog. Radio Memories, Box 2297, Newport News, VA 23602.

OLDTIME RADIO BROADCASTS. Free catalogue. (We don't sell catalogues—just superior quality tapes.) Carl R. Froelich, Route One, New Freedom, Pennsylvania 17349.

EVERYTHING ON OPEN REEL! Classical. Popular. Dolby. Quadraphonic. Latest releases. For "Reel News," send \$1.00. Barclay-Crocker, Room 857 S. 11 Broadway, New York 10004.

1930-1962 RADIO PROGRAMS. Tapes \$1.00 Hour! Established esteemed dealer. Informative 175 page catalog, \$1.25. AM Treasures, Box 192SR, Babylon, N.Y. 11702.

WE WILL BEAT any price sheet in America. Featuring TDK, Maxell, BASF, and Ampex. Tape World International, 220 Spring Street, Butler, PA 16001.

BASF TAPE: Fresh stock. All widths 40% — 55% off. GUARANTEED! INTERGALACTIC, 1043 Kirfs, Troy, Michigan 48084.

RECORDING TAPE SPECIALIST offers low prices, fast service, wide variety of brands, unusual catalog. Saxitone Tape Shop, 1776 Columbia Road, N.W., Washington, D.C. 20009.

OPERA TAPE CATALOGUE. FINEST AVAILABLE. Definitive, extensive, indexed. Write: Decker, 23 Bentley Road, Plainview, N.Y. 11803.

SONAR'S OPEN REEL TAPES. Duped one-to-one from master. All Formats. Highest quality anywhere! Send \$1.00 for catalog and mini stereo sample tape. Sonar Records, P.O. Box 4555, Kingsbridge Sta., Bronx, N.Y. 10463.

RADIO RERUNS best source for radio shows, remotes, chronologies, jazz, personalities. Box 724-SR, Redmond, WA 98052.

MAXELL, AMPLEX, CAPITOL — Low Prices — excellent service. Write for complete tape & supplies catalog. Omega, Box 39253, Redford, MI 48239.

THRILLING Live Opera Tapes. Personal attention. Guaranteed! Incredible Variety. Enormous Free Catalogue. Live Opera, Box 3141, Steinway Station, L.I.C., N.Y. 11103.

RECORDS

SHOW ALBUMS, Rare, Out-of-Print LP's. 52 pg. list. 50 cents. ROBBIE BRIDEGROOM 7" Stereo 33-1/3, 4 songs — Jerry Orbach; Virginia Vestoff \$3.95. Broadway/Hollywood Recordings, Georgetown, Conn. 06829.

PROTECT your LP'S—Poly sleeves for jackets 8 cents; Round Bottom Poly Inner sleeves 7 cents; Poly lined paper 15 cents; white jackets 35 cents. Postage \$1.50. Record House, Hillburn, N.Y. 10931.

COLLECTORS' Soundtracks. Mint. List 50 cents (refundable). Jemm's, P.O. Box 157, Glenview, Ill. 60025.

CASH for unwanted LP's and pre-recorded reel-to-reel tapes. TAPES, Hillburn PO, New York 10931.

HARD-TO-FIND Soundtracks, Shows, Nostalgia. Superb Imported, Domestic selections. Catalog \$1.00 (refundable). List Communications, P.O. Box 916-x, NYC 10023.

OLDIES oldies, 45rpm. Also current hits. Free Catalog. Corby's Record Shop, Box 166HB, Mason, Ohio 45040.

RARE RECORDS, 45's, 78's, 33's, Soundtracks, Original, Cast Personalities, all kinds, mostly mint, 5,000 record lists, \$2.00. Refundable. Dealers Welcomed. Gurley, Box A72, Princeton, N.C. 27569.

QUASI-RATIONAL PRODUCTS has everything in record protection; liners, Discwasher, Watts, etc. Also T.D.K., Maxell, Royce, Pioneer and Jensen auto. Swift and reliable — free catalogue. QUASI-RATIONAL PRODUCTS, P.O. Box 171, Prospect Heights, Ill. 60070.

LIQUIDATING ST*OC Collection, many rarities, list 25 cents (refundable), Box 1912, Hollywood, FL 33022.

HARD TO GET LP's — 17 categories. Free List. Davidson, 6114 Gist, Baltimore, MD 21215.

RECORD RATERS WANTED! Anyone qualifies. We ship you nationally released LP's to rate. We pay postage and handling. You pay nothing for LP's. All you pay is small membership fee. Applicants accepted "first come basis." Write: E.A.R.S., Inc., Dept. SR, Box 10245, 5221 W. Center Street, Milwaukee, WI 53210.

250,000 SOUNDTRACKS/OC, PERSONALITIES. Free Catalogue! Rare Soundtrack/OC Valuebook \$4. RTSR, 3700 Plaza, F211, Santa Ana, Calif. 92704.

ALBUMS \$3.89! TAPES \$4.99! All labels. Catalog \$1.00 Details FREE! DUCK RECORDS, Post Office Box 2085, Chapel Hill, NC 27514.

REPAIR SERVICES

MUSIC MACHINE TAPE REPAIR. Expert Tape Repair, send defective 8-Track or Cassette and \$1.40. Satisfaction Guaranteed. 605 Buffalo Street, Shelby, N.C. 28150 (704) 482-9816.

RUBBER STAMPS

RUBBER STAMPS, BUSINESS CARDS. Many new products. Catalog. Jackson s. Dept. K, Brownsville Rd., Mt. Vernon, Ill. 62864.

PLANS AND KITS

TAPE-SLIDE Synchronizer, lap-dissolve, multiprojector, audiovisual plans. \$8.50. Sampler, \$1.00. Millers, 1896 Maywood, S. Euclid, OH 44121.

INSTRUCTION

LEARN Electronics Organ Servicing at home. All makes, including transistors. Experimental kit—trouble-shooting. Accredited NHSC. Free Booklet. Niles Bryant School, 3631 Stockton, Dept. A, Sacramento, Calif. 95820.

BROADCAST STATION: Cable/FM. Operate your own from home, school, church, business. Complete details free. Broadcaster's Development, Box 5516-RD, Walnut Creek, CA 94596.

MUSICAL INSTRUMENTS

UP TO 60% DISCOUNT. Name brand instruments Catalog. Freeport Music, 114 Q. Mahan St., W. Babylon, N.Y. 11704.

WANTED

GOLD, silver, platinum, mercury wanted. Highest prices paid by refinery. Ores assayed. Free circular. Mercury Terminal, Norwood, MA 02062.

CASH FOR LP's. Anykind — Any Quantity. We pay Top Dollar & Shipping. Write or phone: Deja Vu Records, 1105 Mass Ave., Cambridge, Mass. 02138. (617) 661-7869.

HYPNOTISM

FREE Hypnotism, Self-Hypnosis, Sleep Learning Catalog! Drawer H400, Ruidoso, New Mexico 88345.

SLEEP LEARNING. Hypnotic Method. 92% effective. Details free. ASR Foundation, Box 23429 EG, Fort Lauderdale, Florida 33307.

AMAZING self-hypnosis record releases fantastic mental power. Instant results! Free trial. Write: Forum (AA4), 333 North Michigan, Chicago 60601.

FOR SALE

SELLING pre-recorded reel-to-reel collection. Mostly Classical. Catalog. Pisoni, 114 West 70th, New York, New York 10023.

CB RADIOS — Police Scanners, Wholesale only!! Send letterhead for lowest prices anywhere. Four Wheeler, 10SR New Scotland, Albany, N.Y. 12208.

TUBES

TV and Radio Tubes 36 cents. Free 48 page color catalog. Cornell, 4215-H University, San Diego, California 92105.

BUSINESS OPPORTUNITIES

I MADE \$40,000.00 Year by mailorder! Helped others make money! Free Proof. Torrey, Box 318-NN, Ypsilanti, Michigan 48197.

MAILORDER MILLIONAIRE helps beginners make \$500 weekly. Free report reveals secret plan! Executive (1K4), 333 North Michigan, Chicago 60601.

GET RICH with Secret Law that smashes debts and brings you \$500 to \$5 Million cash. Free report! Credit 4K4, 333 North Michigan, Chicago 60601.

FREE SECRET BOOK "2042 UNIQUE. Proven Enterprises." Fabulous "Little Knowns" "Work Home! Haylings-B, Carlsbad, Calif. 92008.

STEREO REPRESENTATIVES NEEDED!!! Sell 100 brands!! Lowest Possible Prices!! Krasco, 998 Orange Ave., West Haven, Conn. 06516.

CAMPUS REPRESENTATIVES wanted to sell name brand Hi-Fi components at discount prices in spare time. Write Sound Savings, 18506 N.E. 5th Ave., N. Miami Beach, Florida 33179. (305) 652-7610.

CAMPUS REPRESENTATIVES — Double your profits! Contact Tokyo Audio, Ltd., Box 3241, Los Angeles, Calif. 90028.

STUFF ENVELOPES. \$250 +/Thousand. Supplies. Enclose addressed, stamped envelope. Route 1, Box 263-E4, Pauls Valley, OK 73075.

NEW LUXURY Car without cost. Free Details! Codex-ZZ, Box 6073, Toledo, Ohio 43614.

MOVIE FILMS

16mm SOUND Features. Shorts. New. Used for Sale. Free Catalog. National Cinema, 333 W. 57th St., N.Y., N.Y. 10019.

EMPLOYMENT OPPORTUNITIES

SENIOR TECHNICIAN WANTED. Should be familiar with high quality stereo components. Salary commensurate with experience. For further information, write: Box 603, STEREO REVIEW, Classified, 1 Park Ave., New York, N.Y. 10016.

EDUCATIONAL OPPORTUNITIES

LEARN WHILE ASLEEP. Hypnotize! Astonishing details, strange catalog free! Autosuggestion. Box 24-ZD, Olympia, Washington 98597.

EMPLOYMENT INFORMATION

AUSTRALIA — NEW ZEALAND, WANT YOU!!! 50,000 Jobs! Transportation! Latest information, \$2.00. AUSTCO, Box 8489-SR, Long Beach, Calif. 90808.

PUBLICATIONS

THE AUDIO AMATEUR—A quarterly publication for the serious audio constructor. Free prospectus. The Audio Amateur, Box 176S, Peterborough, N.H. 03458.

PERSONALS

MAKE FRIENDS WORLDWIDE through international correspondence. Illustrated brochure free. Hermes-Verlag, Box 110660/Z, D-1000 Berlin 11, Germany.

MISCELLANEOUS

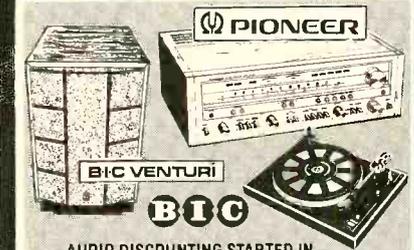
WINEMAKERS. Free illustrated catalog of yeasts, equipment. Semplex, Box 12276Q, Minneapolis, Minn. 55412.

CORVAIR PARTS — Over 2200 different items stocked. Catalog \$2.25. Clark's Corvaire Parts, Shelburne, Mass. 01370. (413) 625-9092.

FREE! Consumer Service Division Catalog. Includes a wide variety of products associated with the special interests of readers of Ziff-Davis magazines — PSYCHOLOGY TODAY, POPULAR PHOTOGRAPHY, STEREO REVIEW, POPULAR ELECTRONICS, BOATING, FLYING, CAR & DRIVER, CYCLE, SKIING. Send for YOUR free catalog today. Consumer Service Div., 595 Broadway, Dept. CL, N.Y., NY 10012.

PRICE WAR

AMERICA'S #1 VALUE LEADER
STEREO CORPORATION OF AMERICA



AUDIO DISCOUNTING STARTED IN NEW YORK & NOW WITH THE END OF FAIR-TRADE WE ARE SURE THAT NO ONE CAN BEAT OUR PRICES:

- WE DISCOUNT OVER 60 MAJOR BRANDS
 - OVER 10 YEARS OF RELIABLE SERVICE IN THE MAIL ORDER FIELD.
 - LARGEST INVENTORY/LOWEST PRICES!
- WE GET THE BEST DEALS FROM THE MANUFACTURERS; YOU GET THE BEST DEAL FROM US. DON'T DELAY!!!

WRITE US NOW FOR LOWEST PRICE QUOTE

WRITE OR CALL FREE STEREO PRICE CATALOG

SHOP BY PHONE!
(212) 253-8888
N.Y. TIME
9-5 MON. THRU SAT.
Mastercharge/BankAmericard

STEREO CORPORATION OF AMERICA

S-R 1629 Flatbush Ave.,
Brooklyn, New York 11210

CIRCLE NO. 56 ON READER SERVICE CARD

PLANNING TO MOVE?

Let us know 8 weeks in advance so that you won't miss a single issue of STEREO REVIEW.

Attach old label where indicated and print new address in space provided. Also include your mailing label whenever you write concerning your subscription. It helps us serve you promptly.

Write to: P.O. Box 2772, Boulder, CO 80323, giving the following information:

Change address only Extend my subscription

ENTER NEW SUBSCRIPTION

1 year \$7.98 Payment enclosed (1 extra BONUS issue)
Allow 30-60 days for delivery. Bill me later

NEW ADDRESS HERE

0403

Name _____ please print

Address _____

City _____

State _____ Zip _____

Additional postage per year: For Canada add \$3. For countries outside U.S. and Canada, add \$5—cash in U.S. currency only.

AFFIX OLD LABEL

If you have no label handy, print OLD address here.

Name _____ please print

Address _____

City _____

State _____ Zip _____

Introducing the Staff . . .

When a personal opinion, particularly a publicly expressed one, grates on our nerves, one of the commoner responses is to ask, either under or at the top of our voices, just who that so-and-so thinks he or she is. The question is asked of STEREO REVIEW with respect to our regular contributors and staff many times each month, and in this column we endeavor to supply the answers. —Ed.



Contributing Editor

Eric Salzman

It was on a damp, muggy evening in September 1955 that I first met Eric Salzman. While the more conventional graduate students at Princeton were putting on their black robes, stained with old food, preparing to hear grace said by the dean in the graduate commons, some of the rest of us who couldn't take all this neo-gothicity ate the same food in a small plain room nearby. From his air of urbanity and cultivation and his already remarkable feeling for the trends of cultural life, I could hardly have guessed that in those veins ran the blood of a grandfather who had been a song-and-dance man in the Yiddish theater. Of course, those were the middle Fifties, a time of Anglo- and Francophilia, self-improvement, and cultural yearning for all of us. It is true that Eric had an uncanny knowledge of obscure eighteenth-century operas even then, but I put this down to a scholarly interest instead of its true source: the deadly attraction of the theater.

He spent a great deal of time imagining ways to revitalize the musical scene. In spite of his creative concerns, he was always tremendously involved with the general health and vitality of the cultural eco-

sphere—as if to say an artist cannot expect to flourish in a choked environment. This concern led eventually to his tenure as a music critic on the *New York Times*, and afterwards on the *Herald Tribune*, whence a steady line of events leads to his contributions to this magazine. In the same way, his initiation of the New Image of Sound series at Hunter College, and, perhaps the most important of all, the founding of the Free Music Store at WBAI-FM while he was music director there, show a consistent effort to agitate the musical masses and to create energy where there was entropy.

To a sensible person, this certainly ought to be enough, leaving the actor creatively and intellectually exhausted, as indeed it has in many cases. But actually Salzman's main achievement is creative. A welter of works come from this time, of which these are only a sample: *Foxes and Hedgehogs*, *The Nude Paper Sermon*, *Ecolog Feedback*, *Can Man Survive?*, *The Peloponnesian War*, *Lazarus*, *Larynx Music*, *In Praise of the Owl and the Cuckoo*, *Queens Collage*, *Wiretap*, *Biografitti*. And then there are the music-theater works on which he and I have collaborated—*The Conjuror*, *Stauf*, and others yet unfinished—performed under such auspices as La Mama, New York Shakespeare Festival, the BBC, the New York Philharmonic's and Pierre Boulez's Perspective Encounters, the Brooklyn Philharmonia under Lukas Foss, Nonesuch Records, Atlantic/Finnadar Records, and lots more.

This collaboration has extended itself into other areas, most notably a translation into English of Mozart's *Abduction from the Seraglio* and a book on popular harmony called *Making Changes: A Guide to Vernacular Harmony*, which, even as you read these words, is being published by McGraw-Hill.

Opportunities for performances of chamber music are plentiful, if not lucrative, but music theater is another story. In 1970, in order to produce his own works as well as the works of others, Salzman founded Quog Music Theater, an emphatically nonprofit company intermittently funded by the New York State Council on the Arts. From this time on, the creation of new lyric theater—a synthesis of opera and theater—has been his major preoccupation. Running Quog Music Theater meant actually mounting theatrical works, and this has had an increasing effect on his music and his writings, as can be seen from his recent articles and reviews.

TOLSTOY says, in *Anna Karenina*, "Levin fell ill, and was treated by the doctors, but recovered." In a similar way, Salzman had a good education, but he survived it. Many snares lay in his way. For example, he wrote a history of contemporary music that became a widely used text, a terrible temptation to teach and to do even more responsible things we shudder to mention. Nevertheless he avoided these pitfalls and can be found today in Brooklyn Heights, a creator, director, and writer who is always learning and incorporating new things (and even old ones) and allowing himself to be transformed by them. —Michael Sahl

STEREO REVIEW ADVERTISERS' INDEX APRIL 1977

READER SERVICE NO.	ADVERTISER	PAGE NUMBER
1	Acoustic Research	15
2	ADC, BSR Division	17
	ADS	33
3	Aiwa	12
	Akai America Ltd.	129
4	Allison Acoustics	112
5	Angel Records	124
	Audio Directions	113
	Audio Technica U.S., Inc.	121
6	Avid Corporation	71
7	Ball Corporation	109
8	Bang & Olufsen of America	122
	BASF Systems, Inc.	81
	Bose Corporation	131
9	British Industries Co., BIC Venturi	2
10	Chrysler Corporation, Dodge Charger	53
11	CBS Records	23
	Component Discounters	125
12	Crown International	8
13	dbx, Inc.	82
	Design Acoustics	99
14	Discount Music Club	10
15	Discount Sound	99
	Discwasher	55, 96
16	District Sound, Inc.	134
	Dixie Hi Fi	133
50	Dual	24, 25
64	Dynaco, Inc.	139
17	Electro-Voice, Inc.	103
18	Elpa Marketing Industries, Inc.	45
21	Empire Scientific Corp.	39
99	Empire Scientific Corp.	21
19	Finney	125
20	Fisher Corporation	141
25	Heath Company	147
23	Hi-Fi Buys	106
24	Illinois Audio	142
26	Infinity Systems, Inc.	32
27	International Hi Fi Distributors	106
	Jensen Sound Laboratories	7
28	JVC America	37
29	Kenwood Electronics	143
22	Koss Electronics	Cover 4
	Lux Audio of America, Ltd.	123
30	Maxell Corporation of America	18, 19
31	Maxell Corporation of America	97
32	McIntosh Laboratory, Inc.	133
33	Memorex Corporation	9
34	Nakamichi Research (USA), Inc.	62, 63
35	Netronics Research & Development	128
63	Netronics Research & Development	134
36	Nikko Electronics of America	111
37	Olympus Corp. of America	102
38	Onkyo	40, 41
39	Phase Linear Corp.	5
40	Radio Shack	30, 31
	Reynolds, R.J./Camel Cigarettes	49
41	Rotel of America	125
42	RTR	94
43	S.A.E.	91
	Howard Sams	95
45	Sankyo Seiki	132
46	Sansui Electronics Corp.	27
47	Sansui Electronics Corp.	29
100	Scott, Inc., H.H.	51
	Sennheiser Electronic Corp.	119
48	Sherwood Electronics Labs, Inc.	101
49	Shure Brothers	43
51	Sony Corporation	74, 75
52	Sony Corporation of America	140
	Sony Superscope	148, Cover 3
53	Soundcraftsmen	138
	Speakerlab	134
54	Spectro Acoustics, Inc.	93
44	Stanton Magnetics	107
55	Staticmaster	133
56	Stereo Corporation of America	145
	Stereo Discounters	122
57	TDK Electronics	61
	Teac Corporation	11, 126, 127
58	Technical Sound Industries	116
59	Technics by Panasonic	105
60	Top Discount Audio	142
	Ultralinear	22
50	United Audio	24, 25
51	U.S. Pioneer	Cover 2, 1
62	Yamaha International Corp.	47
	Classified	144, 145

FREE

THE NEW HEATHKIT CATALOG!

World's largest selection of fun-to-build money-saving electronic kits

Read about all the exciting new electronic products you can build yourself! Our world-famous assembly manuals guide you every step of the way, with crystal-clear diagrams and illustrations that show you exactly what to do and how to do it. Our famous "We won't let you fail" pledge is your assurance of assistance should you need it. All you need is a soldering iron and a few ordinary tools you probably already have.

- Hi-Fi Components
- Audio Test Equipment
- Programmable Digital Color TV
- Learn-at-home Electronics Courses
- Amateur Radio Equipment
- Digital Clocks and Weather Instruments
- Radio Control Equipment
- Auto, Marine and Aircraft Accessories



Send for
your **FREE** copy
TODAY ➡

Heath Co., Dept. 40-28, Benton Harbor, MI 49022

HEATH

Schlumberger

Heath Company, Dept. 40-28
Benton Harbor, Michigan 49022

Please send me my FREE Heathkit Catalog. I am not
on your mailing list.

Name _____

Address _____

City _____ State _____

CL-631 Zip _____

The Revolutionary

Wow & flutter: .04%*. Signal/noise ratio: 62 dB.**

Introducing the incredible Elcaset system. Developed by Sony to bring you unsurpassed cassette sound.

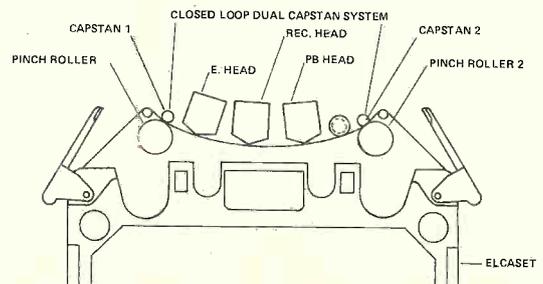
- 1.** The Elcaset tape is as wide as reel-to-reel tape: 1/4"
- 2.** Tape moves twice as fast: 3 3/4 ips. Result: the widest dynamic range, the widest frequency response, the cleanest sound ever offered in a cassette format. Unlike the standard cassette, the Sony Elcaset sound is not compressed, constrained. It's expansive and full. It "breathes." It's true high fidelity.
- 3.** The tape is lifted out from the cassette and guided across the heads by a stabilizing pin in the deck

itself — just as in reel-to-reel.

Result: lowest wow and flutter, superior tape/head alignment, even better frequency response. (See diagram).

- 4.** All-new tape formulation with thicker oxide coating and thicker polyester for highest quality sound.

- 5.** Automatic tape formulation adjustment. Small holes encoded on the cassette case "tell" the Elcaset deck what type of tape is being used (SLH, FeCr). The Elcaset then automatically adjusts both bias and EQ for optimum performance.



Tape (Actual Size)



Sony Elcaset System

Frequency response: 25 Hz-22 kHz, ± 3 dB***

An engineering triumph, the Sony EL-7 Stereo Elcaset Deck was designed exclusively for the new Elcaset tape.

1. Closed-loop dual capstan tape drive. One of the most advanced tape drive systems now available, it assures constant tape-to-head contact pressure, low wow and flutter and virtually nonexistent modulation noise.

2. The 3-motor system starts with a DC servo motor for utmost reliability. A sophisticated feedback circuit corrects for line voltage fluctuations, and other speed-altering factors. This is the finest tape recorder motor system money can buy. Proof? Wow and flutter of only .04%.

3. Sony's 3-head system offers the most precise tape/head alignment possible. All three heads are made of ferrite and ferrite—a super-strong formulation that lasts up to 200 times longer than standard perm-alloy. Head surfaces are mirror-smooth for friction-free tape travel and optimum tape/head contact. Incredibly close tolerances in the head gap assure widest frequency response.

4. Direct coupling of playback head with the FET first-stage reproduction amplifier significantly reduces distortion, improves signal/noise ratio and frequency response linearity.

Also available: The Sony EL-5 Stereo Elcaset Deck. Includes many of the same high performance features of the Sony EL-7, at a lower price.

Deck

Brought to you by

SUPERSCOPE®



Memory tape counter provides automatic sequential rewind and playback immediately after recording from a specific spot on the tape.

Timer activating capability, in conjunction with an external timer, turns on/off playback or record mode unattended.

Illuminated "feather-touch" solenoid operation. Logic-controlled system allows instantaneous mode change, bypassing stop.

Air-cushion eject slowly, softly opens tape compartment door, thus minimizing wear on eject system.

Dolby Noise Reduction System includes 25 μ S de-emphasis circuit for Dolby FM, as well as controls for standard Dolby applications.

*WRMS. **FeCr tape, Dolby****out. ***FeCr tape. ****TM Dolby Labs, Inc. (Source: Sony Corp.)

© 1977 Superscope, Inc., 20525 Nordhoff St., Chatsworth, CA 91311. Prices and models subject to change without notice. Consult the Yellow Pages for your nearest Superscope dealer.

Come and wrap the sounds around you.



The album was recorded live at an outdoor concert, and now it's all coming back to you. The heady, magical electricity of a hot, metallic blue night—the air crackling with energy as the musicians tune up—the stage has become an island of colored light, chrome and glitter. Suddenly you're part of the interplay between rhythm, bass, lead and harmony as every note flowers.

Each unfolding in your head. You're wrapped in the sound of KOSS PRO 4AA Stereophones, hearing all ten audible octaves. It's a power you can hear and feel as though you were in the spotlights with the musicians. And yet you're home, free to explore this private realm of listening pleasure. This uncluttered expanse of pure sound that makes KOSS PRO 4AA's the most popular

stereophones in the world.

Your audio specialist has a pair of KOSS PRO 4AA's you can try. Visit him, and gather the sounds of musical perfection around you. Or write for a free, full color catalog c/o Virginia Lamm. Either way, remember that, for the price you'll pay, KOSS PRO 4AA's are a rather inexpensive ticket to a performance that begins at your command and

goes on and on, encore after encore, for as long as you want. It's like buying a stairway to heaven.

© Koss Corporation

Koss PRO 4AA Stereophones



 **KOSS**® stereophones
from the people who invented Stereophones.

KOSS CORPORATION, 4129 N. Port Washington Ave., Milwaukee, Wisconsin 53212 • Koss International/London, Milan, Dublin, Paris, Frankfurt • Amsterdam • Koss Limited/Burlington, Ontario

CIRCLE NO. 22 ON READER SERVICE CARD