

MARVIN HAMLISCH:  
SUPERSTAR COMPOSER

OCTOBER 1978 • \$1.25

# Stereo Review®

**NEW AUDIO PRODUCTS:** a preview of some coming attractions

**PUNK ROCK:** Steve Simels blames it all on Marlon Brando

**EQUIPMENT TEST REPORTS:** Audio Technology Model 510 LED Peak Display • Denon DP-6000 Turntable and DA-307 Tone Arm • Epicure Model 3.0 Speaker System • JVC JR-S501 AM/FM Stereo Receiver Sonus Gold "Blue Label" Phono Cartridge • Uni-Sync PMS-1 Level Metering System

**TIME-DELAY SYSTEMS:** the last word in sound experience



Most companies would consider a receiver with any one of these innovations remarkable.

262940 SIT 80311E99 641J NOV79  
E GLENN SMITH  
RT 2  
PO BOX 311  
AL 36877



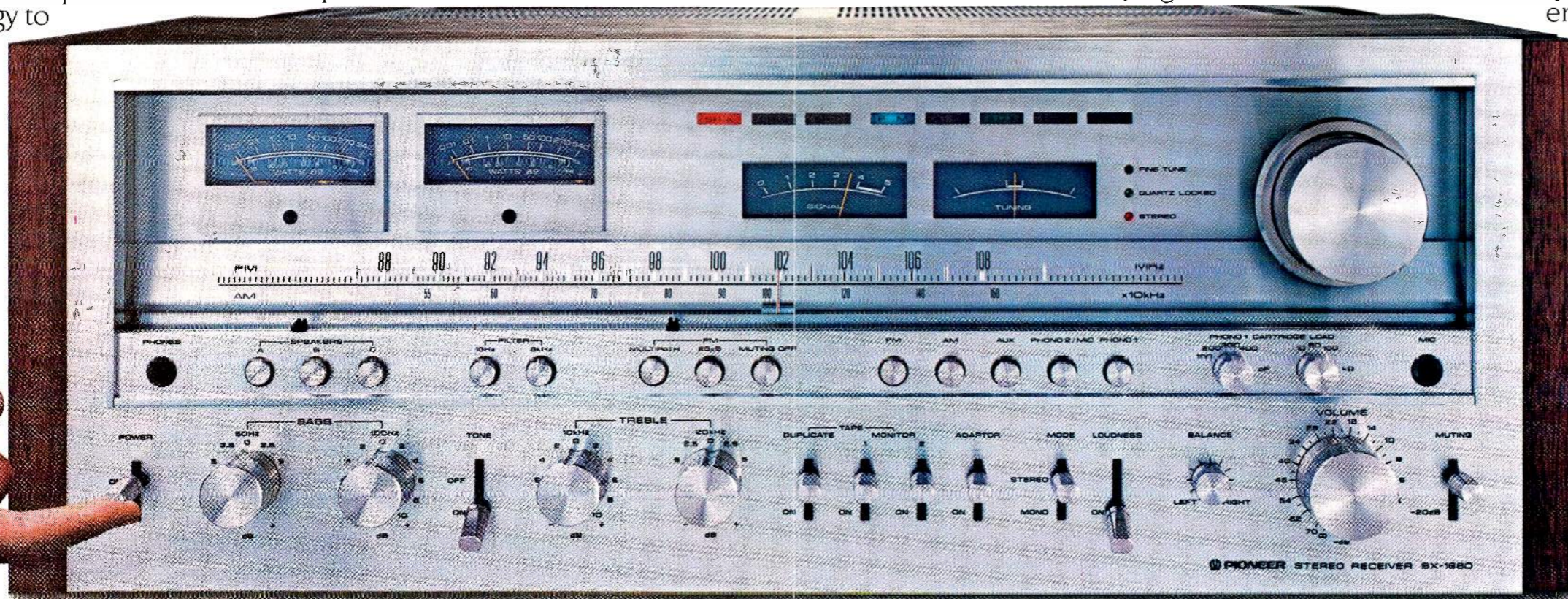
# But Pioneer isn't just any company. And our 270\* watt SX 1980 is somewhat better than remarkable.

Every month, somebody introduces something called "the world's most incredible hi fi receiver."

Yet when you compare their features and technology to Pioneer's SX1980, these "miracles of modern science" begin to look, and sound rather pedestrian.

**The greatest DC power story ever told.**

It's a simple fact of life that the more pure power



a receiver possesses, the easier it can reproduce music without straining.

And at 270 watts per channel, even the most demanding piece of music will hardly cause the SX1980 to flex its considerable muscle.

But when we built the SX1980, we did more than just create an incredibly powerful receiver. We created a whole new high powered technology.

Each channel, for example, has a separate DC power configuration that helps to provide richer and more accurate bass.

Where some high powered receivers try to get by with ordinary transformers, Pioneer has developed a 22 pound toroidal core transformer

that's far less susceptible to minor voltage variations. So you get cleaner, clearer sound.

And instead of pushing conventional power transistors to their limits (the way some manufacturers do), we've actually invented new transistors that last longer and eliminate the need for fans that can cause electrical interference.

All told, these innovations give the SX1980 a total harmonic distortion level of less than 0.03% from 20 to 20,000 hertz. A figure that not only taxes the imagination, but also the abilities of most scientific

measuring equipment.

## A totally unique tuning system.

Deep inside the SX1980 there's a quartz crystal generating the perfect frequencies of every FM station in the United States and Canada.

As you rotate the tuning dial, a special Pioneer integrated circuit compares the station you're trying to tune to its perfect frequency. When the station is tuned exactly right (all this

multipath button for adjusting your antenna to eliminate multipath distortion. So even tall buildings won't stand between you and better sound. (FM sensitivity is an incredible 1.5 microvolts; the signal to noise ratio is an equally superb 83 decibels. Both better than most separate tuners.)

## Still other innovations.

When we designed the SX1980, we knew it would represent a remarkable engineering achievement. But it also represents the kind of thinking and value you get in every high fidelity component we make.

That's why besides everything else, the SX1980 features a suggested price of less than \$1250.\*\*

Which only sounds expensive until you hear what our competition is asking for other high powered receivers that lack this kind of sophistication.

The SX1980 is currently inspiring awe at your local Pioneer dealer.

But before you go listen be forewarned: it'll spoil you for anything ordinary.

takes about half a second), a "fine tuned" light comes on; the receiver then senses when you've let go of the tuning dial and automatically "locks" onto that broadcast.

Luckily, the benefit of all this is far easier to explain than the technology: FM drift is eliminated. A fact that's easily appreciated by anybody who's ever tried to record a long concert off a less formidable receiver.

In addition, the SX1980 features a five gang variable capacitor that helps pull distant FM stations into weak areas. And there's also a

High Fidelity Components  
**PIONEER®**  
We bring it back alive.

CIRCLE NO. 1 ON READER SERVICE CARD



# 17 MARANTZ COMPONENTS. WHATEVER THE MIX IT'S ALWAYS

Now there's a Marantz component system for everyone! From our most affordable to our finest—with 223 systems priced in between—Marantz delivers the same top Marantz quality and the same stunning Marantz look. There's never a compromise! And with so many systems to choose from, you'll be able to find the exact match for your listening requirements and budget.

## A MARANTZ EXCLUSIVE: MIXED SYSTEMS THAT REALLY MATCH.

From the least expensive to the most expensive, all Marantz Pre-Amps, Power Amps, Console Amps, Tuners and Front-Load Cassette Decks feature the same front panel size, the same striking cosmetics, the same top quality design philosophy. So whatever component combination you choose, you'll have a perfect match. Only with Marantz.

## BRINGING IT ALL TOGETHER.

Once you have selected a system, only one question



*The RM-3700 STACK RACK contains three Marantz components on fixed-positioned shelves, an accessory shelf and divided record compartment behind its full-length smoked-glass door. The Marantz system shown includes the 6170Q Turntable, 2110 Tuner, 1180DC Integrated Amplifier, 5010B Cassette Deck and Design Series 930 Speakers.*

remains: Where do you put it? With a Marantz STACK RACK you can bring it all together—with style. The RM-3100 "Professional" STACK RACK (at right) will accommodate up to four Marantz components equipped with optional rack handle adaptors. Or you may prefer the RM-3700 "Decorator" STACK RACK (above) which encloses three Marantz components behind its full-length smoked glass door. A perfect fit in either rack, your entire system will be at your fingertips.

## BUILD NOW. ADD LATER.

Once you see and hear what Marantz components have to offer by way of more performance per dollar, striking appearance and unheard of flexibility, you'll be sold. You'll have a perfectly matched system tailored to your specific needs from as little as \$650\* to \$2100.\* And don't hesitate when you want to upgrade any part of your system. Any Marantz component you upgrade to will match what you already have.

## MIX AND MATCH BY MARANTZ—IT'S ALL FOR YOU.

17 separate components from Marantz. Designed to mix and match into 225 different systems to give you unprecedented flexibility. Whoever you are, Marantz has the perfect system for you.

*The three unit Marantz system shown at right includes the 2100 Tuner, 1090 Integrated Amplifier and the 5000 Cassette Deck with 6270Q Turntable. The four unit Marantz system shown at the far right includes the 2130 Tuner, 3650 Pre-amplifier, 5030B Cassette Deck and the 300DC Amplifier with a 6370Q Turntable.*

25<sup>th</sup> Anniversary **marantz**®



MAKE BIG MONEY in spare time selling: Tubes, Antennas, Speakers, Test Equipment, Lite Bulbs, Hi-Fi, etc. No investment. Free information: Allied Sales, Pimento, IN 47866. (812) 495-6555.

MILLIONS IN MAIL! Free Secrets. Transworld-17, Box 6226, Toledo, Ohio 43614.

AUDIOPHILES WANTED!! Put your knowledge to use, earn an excellent spare time income. We need campus Dealers to sell name brand stereo equipment at substantial discounts in your area. No investment necessary. For information and application please write: ABCO, Dept SR, 1201 East Main Street, Meriden, Conn. 06450. Call (203) 238-7979.

GET RICH!! Secret law erases debt. Free report exposes millionaire's secrets. Blueprints, No. DD10, 453 W 256, NYC 10471.

\$650 WEEKLY for beginners!! Free report: Mailorder Consultants MDD10, 453 W. 256, Bronx, NY 10471.

HOW TO MAKE \$100 weekly/kitchen table! Free brochure. American, Box 428-ZG, Pomona, Kansas 66076.

REPRESENTATIVES increase your profits! Make \$\$\$  
DEUTSCHE Radiowerke offers high quality IMPORTED  
Headphones, SPEAKERS, Microphones. 6311 Yucca Street,  
Hollywood, California 90028.

COLLEGE DEALERS — WRITE for details on college program. Fast shipments, low prices, excellent profit. Sound Reproduction, 460 Central Ave., East Orange, N.J. 07018.

GET RICH with Secret Law that smashes debts and brings you \$500 to \$5 Million cash. Free report! Credit 4K10, 333 North Michigan, Chicago 60601.

\$3000.00 MONTHLY. Start immediately. Stuff envelopes at home. Information, send self-addressed stamped envelope. Village, Box 508-HGI, West Covina, CA 91793.

\$400.00 FIRST WEEK with Ad Clocks or money back. Your own Advertising Business. Action Ad Clock, Room AC-374-HL, 1512 Jarvis, Chicago, IL 60626.

\$500.00 Weekly possible mailing circulars! Free information. Wayne, Box 644, Ottawa, Kansas 66067.

MAIL ORDER MILLIONAIRE helps beginners make \$500 weekly. Free report reveals secret plan! Executive (1K10), 333 North Michigan, Chicago 60601.

## MOVIE FILMS

16mm SOUND Features, Shorts, New, Used for Sale. Free Catalog. National Cinema, 333 W. 57th St., N.Y., N.Y. 10019.

## EDUCATIONAL OPPORTUNITIES

LEARN WHILE ASLEEP. Hypnotize! Astonishing details, strange catalog free! Autosuggestion, Box 24-ZD, Olympia, Washington, 98507.

## SERVICES

WRITING, RESEARCH, EDITING. All disciplines. Original! Professional Team. Confidential. Reasonable. Superior library facilities. Writers Unlimited, Box 4391, Washington, D.C. 20012. (202) 723-1715. Mastercharge — VISA accepted.

## PERSONALS

MAKE FRIENDS WORLDWIDE through international correspondence. Illustrated brochure free. Hermes-Verlag, Box 110660/Z, D-1000 Berlin 11, Germany.

FRITZ REINER SOCIETY—Founded 1973. Details: Gary Hornik, 17543 Willow, Country Club Hills, IL 60477.

## MISCELLANEOUS

FREE CATALOG of flags, pennants, banners. Send \$1.00 for postage. Products International, 509 Connie, Manchester, MO 63011.

## 1979 TAPE RECORDING & BUYING GUIDE



The one publication you need to provide the how-to and what-to-buy when it comes to choosing tape equipment. A unique and valuable reference source you'll refer to all year long for tips, advice, and specs on virtually everything available in the field. This packed-with-information Buying Guide is the tape recording publication you've been waiting for! Order from TAPE RECORDING & BUYING GUIDE, Dept. 01054, P.O. Box 278, Pratt Station, Brooklyn, N.Y. 11205. Enclose \$3\* (postage and handling included).

\*Residents of CA, CO, DC, FL, IL, MI, MO, NY STATE, and VT add applicable sales tax.

Records, Ltd., 65-37 Austin Street, Rego Park, N.Y. 11374).

Performance: **Very good**  
Recording: **Excellent**

This is a very auspicious song-recital debut for Håkan Hagegård, the likable Papageno of Ingmar Bergman's cinematic *Magic Flute*, who is scheduled to make his Metropolitan Opera debut this season. The favorable impression gained from his previous operatic recital (Caprice 1062) is confirmed: Hagegård is a vital singer distinguished by a youthful sound (he is only thirty-three at this writing) and a soft-grained, malleable timbre. Moreover, he phrases with distinction and enunciates his texts with admirable clarity. The voice rings out firmly in the upper mid-range; some top notes are delivered with a sense of effort, and music calling for a low tessitura (*An die Musik*) reveals a certain lack of support. The singer's musicianship is never in doubt, however, and Thomas Schuback is an absolutely first-class partner.

The program has been ingeniously planned: all the songs are poetic dedications of one sort or another, addressed to music, death, hope, the moon, flowers, etc. There are a few trifles among the masterly inspirations, but such unfamiliar gems as Schubert's *An den Mond*, Brahms' *An ein Veilchen*, and Foerster's charming, Mahlerish *An die Laute* all deserve to be heard, especially when interpreted in so sympathetic a fashion. The engineering and disc surfaces on this import are flawless. [The record is also scheduled to be released here on the HNH label, at a dollar less.] G.J.

**ELENA OBRAZTSOVA: Opera Arias. Cilèa: *Adriana Lecouvreur*; *Acerba voluttà*. Mascagni: *Cavalleria Rusticana*; *Voi lo sapete, o mamma*. Verdi: *Il Trovatore*; *Stride la vampa*; *Condotta ell'era in ceppi* (with Jaime Luys, tenor). Don Carlo: *O don fatale*. Saint-Saëns: *Samson et Dalila*; *Printemps qui commence*; *Mon coeur s'ouvre à ta voix*; *Amour! viens aider ma faiblesse!* Bizet: *Carmen*: *Habanera* (with Ambrosian Opera Chorus); *Séguidille* (with Geoffrey Pogson, tenor). Elena Obraztsova (mezzo-soprano); Philharmonia Orchestra, Giuseppe Patanè and Robin Stapleton cond. ANGEL □ S-37501 \$7.98, © 4XS-37501 \$7.98.**

Performance: **Vital but uneven**  
Recording: **Very good**

Herbert von Karajan describes her talent as "fabulous," and Elena Obraztsova is indeed a formidable artist whose singing communicates a fierce, voluptuous intensity. On records, though, without the counterbalancing strength of her magnetic theatrical personality, we cannot help noticing the technical flaws: sliding attacks, spread tone, impure intonation. The excitement generated by her portrayals sometimes manages to sweep everything before it: her Santuzza, Princess, and Eboli are stirringly projected here, and her Azucena is under better vocal control than she displays in the complete *Trovatore* under Karajan. Obraztsova's affinity for the French repertoire seems less impressive: her Dalila and Carmen are sizzingly but less idiomatically portrayed. ("*Mon coeur*" and the *Séguidille* particularly suffer from unfocused singing.) Both conductors offer strong support, but Giuseppe Patanè balances the orchestra more effectively than does Robin Stapleton, who is heavy on percussion. G.J.

## STEREO REVIEW ADVERTISERS' INDEX OCTOBER 1978

READER SERVICE NO.	ADVERTISER	PAGE NUMBER
3	A.A.L. Speakers	145
4	Acoustic Research	153
	ADS	155
	Advent Corporation	26, 27
83	Air National Guard	109, 110, 111
5	Aiwa	127
	Akal America, Ltd.	145
6	Allison Acoustics	126
7	Ampex Corp.	9
8	Angel/EMI Records	150
9	Arista Records	124
10	Audio Discount Warehouse Sales	154
11	Audio Dynamics-Cartridge	172
13	Audio Pulse	86
14	Audio-Technica U.S., Inc.	142
	Audio-Technica U.S., Inc.	44, 120
15	Audiovox	157
16	Ball Corporation	163
17	Bang & Olufsen of America	165
	BASF	25
	Bose Corporation	73
18	Bozak, Inc.	130
12	BSR (USA), Ltd.-Turntables	22, 23
19	BSR (USA), Ltd.-Quanta	116
20	Chrysler Corporation	123
22	dbx, Inc.	31
23	Discount Music Club	36
24	Discount Sound	171
	Discwasher	4, 49, 50
50	Dual	38, 39
25	Electro-Voice, Inc.	128
21	Empire Scientific Corp.	2
99	Empire Scientific Corp.	131
32	Epicure Products, Inc.	61
27	Fantastic Photo Electronics	166
	Fisher Corp.	113
28	Ford Motor Company	75
29	Garrard	21
30	Hammond Industries	143
31	Hi-Fi Buys	158
26	Hitachi	7
	Howard Sams	67, 68, 69
33	Illinois Audio	138
34	Infinity Systems, Inc.	13
35	International Hi-Fi Dist.	169
36	J & R Music World	169
	Jack Daniels	147
38	Jensen Sound Laboratories	46, 47
37	Jensen Sound Laboratories	117
39	JVC America	41
	Kenwood Electronics	121
40	Kirsch	130
41	KLH	15
	Kool Cigarettes	17
2	Koss Corporation	Cover 4
42	Lafayette Radio Electronics	119
43	3M Company	172
	Marantz, Inc.	176, Cover 3
45	Maxell Corp. of America	100
46	Maxell Corp. of America	118
47	MCA Records	112
48	McIntosh Laboratory, Inc.	40
49	Mitsubishi	32, 33
51	Motorola, Inc.	129
52	MXR Innovations, Inc.	136
	Nikko Electronics of America	124
53	Notronics	14
54	Oldsmobile	45
55	Oldsmobile	134
56	Onkyo	99
	Phase Linear	16
	OSD (Quality Sound Direct)	166
	Radio Shack	137
	R.J. Reynolds/Vantage	93
85	Rotel of America	151
59	S.A.E.	70, 71
60	Sansui Electronics Corp.	133
61	Sanyo	63
	Sharper Image	161
62	Sherwood Electronics Labs, Inc.	10, 11
63	Shure Brothers	140
64	Shure Brothers	141
	Sonic Research, Inc.	132
65	Sony Corporation of America	125
66	Sony Corporation of America	53
67	Sony Corporation of America	55
68	Soundcraftsman	59
69	Sound Machine	158
70	Sound Reproduction, Inc.	162
71	Sparkomatic	37
	Speakerlab	166
72	Spectro Acoustics, Inc.	30
44	Stanton Magnetics	65
73	Stereo Corporation of America	162
	Stereo Discounters	166
74	Tandberg of America, Inc.	34
75	Tandberg of America, Inc.	35
76	TDK Electronics	19
77	TDK Electronics	57
78	TDK Electronics	165
79	Teac Corporation	42, 43
80	Teac Corporation	115
81	Technics by Panasonic	29
82	Top Discount Audio	171
50	United Audio	38, 39
1	U.S. Pioneer	Cover 2, 1
84	Wisconsin Discount Stereo	143
	Yamaha International Corp.	139



TECHNICS, JBL, Craig, JVC at discount prices. Send for catalog. Sound Bargains, P.O. Box 3247, Martinsville, VA 24112.

INEXPENSIVE STEREO CONTROL UNITS allow you to have stereo throughout your home. Send \$1.00 for plans. M. Cox, 17639 George Washington, Southfield, Mich. 48075.

TUNE IN HIDDEN FM-SCA Programs of talk and music. Adapter modifies FM radio or tuner to double as an SCA receiver. Complete instructions, including article "SCA: Radio the FCC Doesn't Want You to Own." \$13 kit; \$18.00 wired unit from FM-SCA, Adolph, MN 55701.

### New Subsonic Filter



FREE CATALOG

is required for optimum bass response in your system.  
ACE AUDIO CO.,  
532 5th St., East  
N'thp't, NY 11731

**AUDIOPHILES' HIGH FIDELITY COMPONENTS.** Over 100 Domestic and Foreign Brands. Low prices! Efficient, personalized service. Buy with confidence! Audio America, Box 445 S, Lexington Park, MD 20653. (301) 862-3088. 5-9PM Weekdays, 9AM-9PM Saturday and Sundays.

The IMP by KA... rivals the English and European small speakers

With the new super value synthetic transducer KA IMP, you can put a truly "State of the art" stereo system together inexpensively.



For nearest dealer and color catalog, please write us at address below.

KA/KUSTOM ACOUSTICS, INC.  
6624 Irving Park Rd.  
Chicago, IL 60634  
(312) 685-6609

Refined Speaker Systems Since 1968

## TAPE AND RECORDERS

**GOLDEN AGE RADIO**—Your best source for radio tapes. Free catalog. Box 25215-TA, Portland, Oregon 97225.

**OPERA CLASSICAL MUSIC Open Reels.** Rare mostly live free catalog. 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.

**RADIO'S GOLDEN DAYS** on tape. Reel, Cassette, Cartridge catalog. Radio Memories, Box 2297, Newport News, VA 23602.

**EVERYTHING ON OPEN REEL!** Stereo. Quadraphonic. Catalogue \$1.00. Barclay-Crocker, Room 1470S, 11 Broadway, New York 10004.

1930-1962 **RADIO PROGRAMS.** Beats Television!! Tapes. \$1.00 Hour! Established esteemed dealer. Informative 200 page catalog, \$1.25. AM Treasures, Box 192SR, Babylon, N.Y. 11702.

**RADIO SHOWS,** remotes, chronologies, jazz, personalities. Large Catalog \$2.00 (Refundable). Box 82-SR, Redmond, WA 98052.

**HISTORICAL OPERA DISC & TAPE** — Magnificent quality, speedy service. Greatest live performances of past 50 years. Reel, cassette, disc. Free catalog. Historical Recording Enterprises, Box 12, Kew Gardens, N.Y. 11415.

**LIVE OPERA TAPES (REELS)** — CASSETTES. Unbelievable treasure since 1926. Over 4,000 selections. Free DELUXE Catalog: Mr. Tape, Box 138, Murray Hill Station, N.Y. 10016.

**BASF TAPE:** Largest Discounts, Fastest Service. All tapes guaranteed. INTERGALACTIC ENTERPRISES, 1043 Kirts, Troy, Michigan 48084.

8600' NEW L/N Scotch or Ampex tape, 10-1/2" metal reel 5 for \$38.00. 24 page booklet on tape editing 80 cents. Sound, POB 88338, Atlanta, GA 30338.

**YESTERDAY'S RADIO ON TAPE.** Reels-Cassettes. Quality Sound. Reliable Service. Catalog \$1.00 refundable with first order. ADVENTURES, Box 4822-S, Inglewood, California 90302.

**VIENNESE LIGHT MUSIC SOCIETY** — Waltzes, Polkas, Overtures on imported Dolby cassettes. Most non-Schwann. K.C. Company, Box 793, Augusta, Maine 04330.

**LIVE OPERA TAPES, CASSETTES.** Incredible selection. Magnificent free catalogue. LIVE OPERA, Box 3141, Steinway Station, L.I.C., N.Y. 11103.

40,000 **OLD RADIO SHOWS** on Tape, Jazz/Big Band remotes. Country/Western, discographies, anthologies, chronologies. Send \$2 for huge catalog (refundable). McCoy's Recording, Box 1069S, Richland, Washington 99352.

**PARANOID ABOUT SPECS?** Prove or disprove playback performance cassette or record player with surprising new technique developed by Emory Cook. Test cassette or record, instructions \$3.95 (Connecticut residents add tax). COOK LABORATORIES, INC. 375 Ely Avenue, Norwalk, CT 06854.

**SAVE up to 80% BY MAIL on:** SCOTCH, TDK, BASF, MAXELL, MEMOREX, CAPITOL MUSIC TAPE, CERTRON (over 180 different reel & cassette tapes to choose from); top brand recorders; America's largest collection of taping accessories, too. Same day service. **FREE catalog.**

America's Recording Tape Specialists

## SAXITONE TAPE SALES

1776b Columbia Rd., Washington, D.C. 20009  
(202) 462-0800

### BLANK TAPE SALE

MAXELL RECORDING PRODUCTS. We carry the complete line of Maxell products. Write or call for prices.

TDK SA-C90	1.97	Ampex Grandmaster-C60	\$2.29
TDK SA-C90	2.87	Ampex Grandmaster-C90	2.75
TDK AD-C90	2.39	BASF Studio or CROP-C90	2.49
Scotch Master I-C90	2.79	BASF Prof. I-C90	2.69
Scotch Master II or III-C90	3.24	BASF Prof. II or III-C90	2.79

Minimum order 12 pieces. All tapes can be assorted. PA add sales tax. Shipping \$2.50 per order. Or write for complete catalog. (412) 283-8621.  
Tape World, 220 Spring St., Butler, PA 16001

**CLASSICAL CASSETTES FREE Catalog.** Stereo-Dolby... Quality Guaranteed... Discounted... Credit Cards Accepted. EKR Classics, GPO Box 1977SI, New York, NY 10001.

**BARGAINS! TAPES:** blank, prerecorded. Records. Closeout prices! Catalog \$1.00 (refundable). Tower, Box 12, Lewes, Del. 19958.

**OPEN REEL TAPES.** Top quality. 100% money-back guarantee. Major labels. Classical, Pop, Rock, Quad-Direct Disk, Video. Bankcards accepted. Catalog/order information, \$1. No other fees, obligations. Reel Society, P.O. Box 9337R, N. Hollywood, CA 91609.

**CASSETTE SAVINGS BREAKTHROUGH!!!** Proven best or your-money-back. No minimum. Free same-day shipping. Sample \$1.00 — Facts free. Larkson, Box 468-C10, Point Arena, CA 95468.

## RECORDS

**SHOW ALBUMS,** Rare, Out-of-Print LP's. 64 pg. list. \$1.00. Bakers Wife cast LP \$9.95. Broadway/Hollywood Recordings, Georgetown, Conn. 06829.

**PROTECT your LP's**—Poly sleeves for jackets 9 cents; Round Bottom Inner Sleeves 8 cents; Square Bottom 6 cents; Poly lined paper 15 cents; white jackets 35 cents. Postage \$1.50. Record House, Hillburn, N.Y. 10931.

**COLLECTOR'S Soundtracks.** Mint. List 50 cents (refundable). Jemm's, P.O. Box 157, Glenview, Ill. 60025.

**OLDIES** oldies, 45-rpm. Also current hits. Free Catalog. Corney's Record Shop, Box 166HJ, Mason, Ohio 45040.

**CLASSICAL RECORDINGS** for collectors. Bi-monthly lists. Collections bought. ARS MUSICA, 13 Dante St., Larchmont, N.Y. 10538.

**PROTECT YOUR ALBUMS** White cardboard replacement jackets 35 cents. Plastic lined sleeves 15 cents. Postage \$1.25. Opera Boxes, 78 Sleeves. Free Catalog. CABCO 400-1, Box 8212, Columbus, Ohio 43201.

**THOUSANDS** of like new LPs and prerecorded tapes catalogue \$1.50. Records, Hillburn, New York 10931.

## NOTICE: Record Raters Wanted

(No experience required) Each month you will receive nationally released albums to rate. **There is no extra charge for the LP's you receive** — all you pay is a small membership fee which covers all costs of the LP's including postage and handling. In return for your opinion you will build a substantial album collection — "first come basis" For application write

**E.A.R.S. INC. SR**

Box 10245 Dept. SR  
5521 Center St., Milwaukee, WI 53210  
"Guaranteed" © 1975 E.A.R.S., Inc.

**FILM** — STAGE SOUNDTRACKS! Monthly Listings! Many rarities. Over 1,000 listings! AJSR, Box 557342, Miami, Fla. 33155.

**RARE ORIGINAL RECORDS,** all kinds, mostly mint. 5000 list \$2.00, refundable. Carl, Box 828, Princeton, NC 27569.

**JAPANESE STYLE LINERS** and everything else in record and tape protection. Free Catalog. Quasi-Rational Products, Box 171, Prospect Heights, IL 60070.

**DAYBREAK EXPRESS RECORDS** Jazz imports from Europe and Japan. CBS-Sony, Trio-Whynot-Eastwind. Free Catalogue. Write: P.O. Box 582, Cathedral St. Station, New York, N.Y. 10025.

**HAVING TROUBLE** finding direct-to-disc and SOTA recordings? We have them all. Send for free catalogue. Knot So Cheap Records, 7505 Big Bend, Dept. SR10, Webster Groves, Mo. 63119.

**HARD-TO-GET RECORDS.** All types all speeds. Mention "wants". Record Exchange, 842 Seventh Ave., New York, NY 10019. (212) C17-3818.

**DIRECT-TO-DISC** recordings all labels. Send \$2.00 for descriptive catalog — Free Newsletter. Disconnection, P.O. Box 10705, Tampa, FL 33679.

**WORLD'S LARGEST,** computerized catalog of rare records. 18,000 entries. Classical, showbiz, popular, jazz, comedy, spoken. \$2.00 refundable. RoundSound West, P.O. Box 2248, Leucadia, CA 92024.

**RARE OFFER!** Join Major Label's own record club WITHOUT any purchase obligation. New releases and reissues of legendary performances — great theatrical and movies personalities. Write for latest catalogue: DRG Records, 200 West 57th St., New York, NY 10019. (212) 582-3040.

**DIRECT-TO-DISC, SUPER-DISC** and **FILM MUSIC** recordings. Comprehensive, free catalog. COSMIC CHORDS, P.O. Box 4873, Boulder, Colo. 80302.

**IMPORTED CLASSICAL RECORDS.** Foremost selection of unusual symphonic repertoire on 100+ labels from Scandinavia, Western and Eastern Europe, Australasia, Latin America. Many exclusives. Free catalog. RECORDS INTERNATIONAL, Box 1904, Los Angeles, CA 90028.

**OUT-OF-PRINT LP'S** — Free List. Davidson, 6114 Gist, Baltimore, MD 21215.

## TUBES

TV and Radio Tubes 36 cents. Free 48 page color catalog. Cornell, 4215-H University, San Diego, California 92105.

## PLANS AND KITS

**TAPE-SLIDE Synchronizer, multiprojector, lap-dissolve plans,** \$5.50. Audiovisual group, \$8.50. Millers, 1896 Maywood, S. Euclid, OH 44121.

## INSTRUCTION

**BROADCAST STATION:** Start your own. Home, school, church, business operation. Get free equipment, records. Details free. "Broadcasting", Box 5516-R10, 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, tantalum** wanted. Highest prices paid by refinery. Ores assayed. Free circular. Mercury Terminal, Norwood, MA 02062.

**WANTED: NEIL DIAMOND ALBUMS "BANG"** (Except BLP 217, BLPS 219), London Labels. Tom Jones "Greatest Hits" Parrot. 11309 Allegheny St., Sun Valley, CA 91352.

## HYPNOTISM

**FREE Hypnotism, Self-Hypnosis, Sleep Learning Catalog!** Drawer H400, Ruidoso, New Mexico 88345.

**AMAZING self-hypnosis record** releases fantastic mental power. Instant results! Free trial. Write: Forum (AA10), 333 North Michigan, Chicago 60601.

## RUBBER STAMPS

**RUBBER ADDRESS STAMPS, BUSINESS CARDS.** Free Catalog — Fast Service. Jackson's, Brownsville Road-E-101, Mt. Vernon, Ill. 62864.

## BUSINESS OPPORTUNITIES

**I MADE \$40,000.00 Year** by mail order! Helped others make money! Free Proof. Torrey, Box 318-NN, Ypsilanti, Michigan 48197.

**STEREO REPRESENTATIVES NEEDED!!!** Lowest Possible Prices!! Over 100 Brands!!! Krasco-Rep, 998 Orange Ave., West Haven, Conn. 06516.

**NEW LUXURY Car** without cost. Free Details! Codex-ZZ, Box 6073, Toledo, Ohio 43614.



# STEREO REVIEW MARKET PLACE

**REGULAR CLASSIFIED: COMMERCIAL RATES:** For firms or individuals offering commercial products or services, \$2.50 per word. Minimum order \$37.50. **EXPAND-AD® CLASSIFIED RATE:** \$3.75 per word. Minimum \$56.25. Frequency discount: 5% for 6 months; 10% for 12 months paid in advance. **PERSONAL RATE:** For individuals with a personal item to buy or sell, \$1.50 per word. No minimum! **DISPLAY CLASSIFIED:** 1" by one col., \$310.00. 2" by one col., \$620.00. Col. width 2-1/4". Advertiser to supply film positives. Please write or phone for frequency rates. **COLOR:** Color avail. for all classified ad styles at earned rate plus additional 25%. Color choice Publisher's option & subject to availability. Publisher reserves right to run ad in black if color not available on classified pages. In such cases color charge will be refunded or credited. Send order and remittance to: Classified Advertising, **STEREO REVIEW**, One Park Avenue, New York, New York 10016. For inquiries contact: Gladys Mathieu at (212) 725-3926.

## EQUIPMENT

WRITE for quotation on any Hi-Fi components: Sound Reproduction Inc., 460 Central Avenue, East Orange, N.J. 07018. 201-673-0600.

WRITE FOR DISCOUNT PRICES on your choice of components. District Sound, Inc., 2316 R.I. Ave., Wash., D.C. 20018. (202) 832-1900.

### STEREO TV

The TE-200 TELEADAPTER EASILY CONNECTS TO ANY TV & STEREO SYSTEM. Using our coupling and matrix circuit, teleadapter takes a low impedance output from the television and delivers 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 \$21.95 p/d. Guaranteed to make your TV 100% more enjoyable.

TE-300 UHF-VHF TV Hi Fi Audio Tuner for the best TV sound - Solid state - mono and simulated stereo outputs - use with any amplifier. Andersonized front panel - simulated walnut case. Dare to be 100% entertained - \$199.95 p/d

SEND CHECK, M.O. MASTERCHARGE or BANKAMERICARD NO and Expiration date TO: RHOADES NATIONAL CORP. DEPT A BOX 817, HENDERSONVILLE, TENNESSEE 37075. (615) 824-1735

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. For Fast Service call Toll Free 800-221-0906.

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 Ilr, 971 Fronheiser, Johnston, PA 15902.

SANSUI and PICKERING! BELOW mail order prices! Send to: GSH Super Savings, P.O. Box 86, Eden, N.C. 27288.

NEEDLE IN A HAYSTACK specializes in stereo stylis and cartridges, accessories, special albums. All major brands and many hard-to-find replacements available. Free catalog. Dept. S, P.O. Box 17436, Washington, D.C. 20041.

**FUJI maxell**  
**Scotch TDK**

All tapes guaranteed

**FUJI maxell**  
**Scotch TDK**

minimum order 12

## BLANK TAPES AT WHOLESALE PRICES

Call TOLL FREE or write for LOW PRICES  
IN CALIFORNIA NATIONWIDE  
800/472-1783 800/854-7769

Approved by phone

### McK's TAPE TOWN

111 S. COLLEGE AVE. PO BOX 5000  
CLAREMONT CA 91711

BARCLAY STEREO COMPONENTS for those who appreciate fine music: Audio Research, Crown, RTR, IMF, EMT, Dennon, Luxman, KEF, Nakamichi, Magnaplanar. Request free catalog — 233 East Lancaster Avenue, Wynnewood, PA 19096. (215) 667-3048.

## SPEAKER INFORMATION KIT.

Get 70 pages of speaker facts, specs, construction tips plus info on our raw speakers, crossovers and a line of nine quality hi-fi speaker system kits. We'll send you our full-color catalog, plus **How To Hook Up Your System**, an exhaustive step-by-step treatise on hi-fi system installation; and our Speaker Owner's Manual, chock-full of facts on how to get the most from any speaker system, for only \$1.00. Send to: Speakerlab, Dept. SR-U, 735 N. Northlake Way, Seattle, WA 98103

**LOWEST PRICES on stereo-esoteric COMPONENTS & tapes!!! Over 150 brands. Audio Unlimited, 401 Reynolds Circle #12B, San Jose, CA 95127. (408) 289-8875.**

## A SINGER'S DREAM!

REMOVES VOCAL FROM MOST STEREO DISCS

The Thompson Vocal Eliminator can actually remove most or all of a solo vocalist from a standard stereo record and yet leave the background music virtually untouched! Not an equalizer! We can prove it works over the phone. Write for a brochure and demo record below. COST: \$195.00

## ECHO Ambiance

We do it BETTER for LESS

Whether your interest is in using ambiance for a concert hall effect or as an echo chamber for studio recording use, we manufacture a broad line of sophisticated analog delay Echo and Reverberation devices at prices which only direct sales make possible. Prices range from \$159 to \$495. Write for a brochure and demo record. Include \$1 to cover costs (refundable with order). Write to: **LT Sound, Dept SR, P.O. Box 1061, Decatur, GA 30031 (404) 284-5155**

## STEREO COMPONENT Video Tape Equipment

AKAI • B•I•C • Harman Kardon  
Phase Linear • ALTEC • Kenwood •  
TEAC • Marantz • Sony • Technics •  
Sanyo • JVC • JBL • Pioneer • Dual •  
RCA Photographic Equipment Too!

TO ORDER CALL TOLL FREE  
(800) 421-8537

## Henny's

CAMERA-HI-FI-VIDEO

516 W. 8th St. Downtown L.A., Ca. 90014 Tel. 488-0341

DISKO MIX-MASTER IV outstanding performance, professional specs. Two phono inputs: tape, MIC inputs plus cueing. Literature available. Berkshire Audio, P.O. Box 35, Great Neck, NY 11021.

WRITE, CALL, for price on components, video machines, car stereo over 300 video movies. H.S. Stereo, P.O. Box 273, Oakhurst, N.J. 07755. 201-493-3400.

TERRIFIC DISCOUNTS! Most brands — components, televisions, furniture! Quotations only: Allegheny COSR, Box 1029, Johnstown, PA 15907.

**AT LAST!** The ultimate cabinet design for housing stereo components—the Custom Sound Modular Equipment Cabinet. Nearly two years in development featuring: Flexible modular design expandable to suit any size installation; accommodates any size components including the largest; totally enclosed design with locks prevents dust buildup, tampering, or theft; bottom casters for mobility and rear door for easy rear access; high grade furniture design and construction; very attractively priced. Before you invest in a rack, call or write for our free illustrated information. CSS, 8460 Marsh, Algonac, Michigan 48001. (313) 794-5400.

QS/SQ? The Best in Quadrasonic Sound... fantastically priced add-on decoders! Free information. PHOTOLUMINE CORP., 118 East 28 Street, New York, NY 10016.

## BUILD YOUR OWN SPEAKERS

SAVE 50 TO 75%



Send for FREE 40 page Catalog/Manual Speaker Kits - Components - Crossovers  
**ACUSTA CRAFT**  
Dept. SR P.O. Box 12030  
Shawnee Mission, Ks. 66212

## Get QUALITY HI-FI with PROFESSIONAL ADVICE

call the Pros at Audio Concepts

Franchised Dealers For:  
JBL, AR, TECHNICS PRO, GREAT AMERICAN SOUND, MICRO-SEIKI, BOSE, DAHLQUIST, AVID, ADS/NAKAMICHI, KOSS, MAXELL, DISCWASHER, MXR, YAMAHA, ONKYO, OPTONICA, SATIN ADC, ACCUPHASE, PHASE LINEAR, TANDBERG, AKG, DBX, WIN LABS, SONUS, MICRO ACOUSTICS, HARMAN KARDON, DUAL, OTHERS.

Call or write us. IT'S WORTH IT!  
Free freight on most items. Master Charge approved by phone.

## AUDIO CONCEPTS

1127 W. Huntington Dr., Arcadia, CA 91006  
(213) 445-0710

FORMULA 4 ALIGNMENT Protractor measures tracking accuracy, enables correct alignment for any tonearm, original "Hi-Fi News" review \$1 bill. Protractor \$5 bill. Mayware Ltd., 15 Heather Walk, Edgware, Middx. England.

## Unexplained buzz, pops, hash?

Power line surges and hash could be the culprit! Line Cord Surge Suppressor/Hash Filter curbs damaging surges & disruptive hash. Protects valuable equipment. Strips away annoying hash from tools, appliances. Send SASE for free interference cures. At your dealer or order direct.

ELECTRONIC SPECIALISTS, INC., DEPT. SR  
171 SOUTH MAIN ST. • NATICK, MASS. 01760

S/F-KW-3  
\$22.50

KNOW THE COST OF STEREO components. Be an informed consumer. If you are in the market for stereo components, Consumers Mutual may be able to provide you with the dealer cost of most major brands, as per our latest available price lists. Send us the brand name and model number of each item you are interested in. Enclose a \$2.00 money order for each item to: Consumers Mutual, P.O. Box 14884, Orlando, FL 32807. If the information you request is not available your money will be promptly refunded. We do not sell merchandise. We sell information.

BARCLAY RECORDING & ELECTRONICS — Send \$2.00 for equipment catalog and component evaluation manual. 233 East Lancaster Avenue, Wynnewood, PA 19096. (215) 649-4915 or 649-2965.

## Lambda Series II by SpeakerKit, Ltd.

Woofers with butyl surrounds. Transmission lines. Open dome midrange and tweeters. Infra-woofers and ultra-tweeters. Accurate sound at a reasonable price. Send 25¢ for Series II catalog and manual.

SpeakerKit Box 12S, Menomonie, WI 54751

DYNAKITS — LOW PRICES, fast service. DEW Audio (formerly Underground HiFi), #4 Pinewood, Hampstead, N.H. 03841. (603) 329-5403.

ENJOY DOLBY broadcasts and recordings. Switchable or simultaneous encode/decode Outboard Dolby KITS. SRO INTEGREGX, Box 747, Havertown, PA 19083.



## A SCOTCH® CASSETTE FOR EVERY SWITCH POSITION.



SCOTCH® RECORDING TAPE.  
THE TRUTH COMES OUT.

3M  
COMPANY

CIRCLE NO. 43 ON READER SERVICE CARD

## SO WHERE'S THE GUITAR PLAYER?



He vanished right in the middle of a riff. Eliminated by a low definition cartridge. But ADC could have saved him. The XLM Mk III features the famous ADC tapered cantilever, which when combined with our tiny .004" x .008" rectangular nude diamond results in 50% less mass.

That's less than our previous lowest mass cartridge, the highly acclaimed XLM Mk II. And because of its ultra linear frequency response, 10Hz to 20kHz ± 1dB, every instrument sounds alive and natural, all at a record saving tracking force of 1/4 to 1/2 grams.

So be good to guitar players and other musicians. Invest in something that understands them, and protects them. An ADC cartridge.



Audio Dynamics Corp., Pickett District Rd., New Milford, CN 05776 • Distributed in Canada by BSR (Canada) Ltd., Rexdale, Ont.  
Please circle our reader service number and we'll send you a free record care gift.

CIRCLE NO. 11 ON READER SERVICE CARD

appearance of the one by Sidney and Jeanne Weiss on Unicorn RHS 341? The two more nearly contemporaneous items on the new Orion disc are probably more appropriate disc mates than the Elgar sonata on Unicorn, and, to my ear, they are a good deal more interesting in their own right. Lennox Berkeley's sonatina, in particular, is a gem—tight-knit, economical of gesture, yet richly expressive in Berkeley's characteristic style. Wilfred Josephs, whose Requiem received a good deal of attention a dozen years ago or more, has apparently not been represented on records at all until now, and it is surprising that it is not the Requiem that marks his discographic debut. But the *Chacony* is a brilliant workout in terms of both intensity and technical demands. It was composed, at about the same time as the Requiem (1962-1963), expressly for Michael Davis, whose proprietary zeal ensures that it makes the strongest impression in this recording. Since the two performances of the Walton sonata are about equally persuasive and both discs about equally well recorded, I would not hesitate to choose this very interesting program on Orion over the Elgar coupling on Unicorn. R.F.

WILLIAMS: *Star Wars* (see Popular Discs and Tapes, page 138)

### COLLECTIONS

AULOS ENSEMBLE: *Masterpieces of the High Baroque*. Boismortier: *Concerto in E Minor, Op. 37, No. 6*. Handel: *Sonata in G Major, Op. 5, No. 4*. Telemann: *Tafelmusik, Part 1: Quartet in G Major*. Leclair: *Trio Sonata in D Major, Op. 2, No. 8*. Aulos Ensemble. DES-MAR DSM 1017 G \$8.98.

Performance: **Promising**  
Recording: **Clear**

The Aulos Ensemble just may have the secret of how to play old instruments authentically and still make music. All the pitfalls of early-music performance are here: quick tempos that can trivialize the music and cause scruffy ensemble, mannerisms that can become routine and thereby dehumanize the music, cadences that do not bring a piece to a real conclusion, and balance problems caused by a strident violin. On the other hand, when the ensemble hits it off, the playing is superb. The Telemann quartet finds them at their best. The sicilian rhythms of the opening lit with just the right tempo. The balance is excellent and the texture delicate. The fugal movements drive their subjects to brilliant display, and the ornamentation is imaginative and tasteful. Pay careful attention to the saraband of the Leclair sonata; rarely will you hear such lavish embellishments played so well by an ensemble. Clearly the Aulos Ensemble is to be watched and encouraged. S.L.

### RECORDING OF SPECIAL MERIT

HÅKAN HAGEGÅRD: *Zueignung*. R. Strauss: *Zueignung*. Schubert: *An Mignon*; *An den Tod*; *An den Mond*; *An die Leyer*; *An die Musik*; *An Mein Herz*. Gounod: *À Toi, Mon Coeur*. Foerster: *An die Laute*. Brahms: *An die Nachtigall*; *An den Mond*; *An ein Veilchen*. Hahn: *À Chloris*. Mozart: *An Chloë*; *An die Hoffnung*. Wolf: *An eine Aeolsharfe*. Håkan Hagegård (baritone); Thomas Schuback (piano). Bis LP 49 \$8.98 (from Qualiton

(Continued on page 175)

STEREO REVIEW



lier) reveals Vick to be a well-schooled technician who has not yet mastered the art of shaping a line. The dynamics and effects are a bit unsubtle and the tone a little hard (although this could be the fault of a close-in, hard recording). The De la Vega piece is effectively performed, but the Britten could have been made more touching and affecting.

Toronto-based Liona Boyd's teachers include Bream, Yepes, Diaz, and Alexandre Lagoya. She has appeared often with Canadian popular singer Gordon Lightfoot, and, judging from the photographs on her new London album (her second recital disc), she is as comely as she is talented. The performances that come off best are those on the second side, all of lightweight contemporary fare except for *The Old Castle* from Mussorgsky's *Pictures*, which receives an extremely atmospheric rendition. The seventeenth- and eighteenth-century pieces on the first side, like the rest all quite brief, display Boyd's excellent technique but also a rather tensionless approach; the music is seldom made to move forward. Coloristic effects are well gauged, however, and the whole recital of twenty-one works has considerable charm, if no special profundity. Try the Venezuelan folk setting *Totumo de Guarenas* on side two for an appealing sampler. —Igor Kipnis

**Guatireña.** Alirio Diaz (guitar). VANGUARD/EVERYMAN SRV 357/8 SD two discs \$7.96.

**NARCISO YEPES:** *Guitarra Romantica. Giuliani: Sonata in C Major, Op. 15; Sonatina in D Major, Op. 71, No. 3. Sor: Variations on "Marlborough," Op. 28. Tárrega: Prelude in D Minor; Prelude in E Major; Marieta; Capricho Arabe.* Narciso Yepes (guitar). DEUTSCHE GRAMMOPHON 2530 871 \$8.98, © 3300 871 \$8.98.

**SANTIAGO NAVASCUÉS:** *Music for the Spanish Guitar. Sanz: Twelve Dances from "Instrucción de Música Sobre la Guitarra Española." Albéniz: Granada; Malagueña. Turina: Fandanguillo. Rodrigo: En los Trigales. Falla: The Three-Cornered Hat; Farruca.* Santiago Navascués (guitar). VANGUARD/CARDINAL VCS 10137 \$3.98.

**MANUEL BARRUECO.** Villa-Lobos: *Etudes for Guitar Nos. 1-3, 5, 7, 8, 11, 12; Suite Populaire Bresilienne.* Guarnieri: *Estudo No. 1.* Chávez: *Three Pieces for Guitar.* Manuel Barrueco (guitar). TURNABOUT TV 34676 \$3.98.

**GEORGE VICK:** *Virtuoso Guitar, Volume 1. Sanz: Canarias. Coste: Etudes, Op. 38, Nos. 1 and 6. Legnani: Caprices, Op. 20, Nos. 2 and 9. Sor: Grand Solo, Op. 14. De la Vega: Sound Clouds. Britten: Nocturnal, Op. 70.* George Vick (guitar). KLAIVIER KS-565 \$6.98.

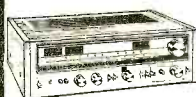
**LIONA BOYD:** *The Guitar Artistry of Liona Boyd. Pescetti: Presto. J. S. Bach: Arioso; Fugue; Invention; Andante. Cimarosa: Sonata in G Major; Sonata in B Minor. Besard: Courante; Ballet; Branle; Volte. Canonico: Totuma de Guarenas. Sagreras: Una Lagrima. Lauro: Tatiana; Andreina; Maria Luisa. Mussorgsky: The Old Castle. Feuerstein: Dance; Rests and Movements; Flight. Boyd: Cantarell.* Liona Boyd (guitar). LONDON CS 7068 \$7.98, © 5 7068 \$7.98.

# 800-638-6666

Over 40 brands of Home and Car Stereo

If you want the lowest possible price plus the fastest delivery you can't afford to pass us by!

**PIONEER**



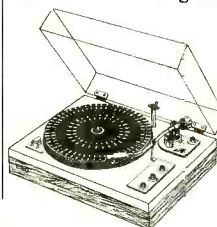
**SX-780**

45 watts RMS per channel

**Garrard**

**GT-35 \$124**

Full Featured, Belt drive changer



**AKAI**



**\$238**

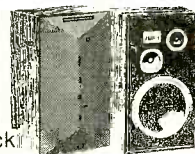
**GXC-709D**

Akai's durable and flexible cassette deck

**marantz**

**\$96 ea. 7MKII**

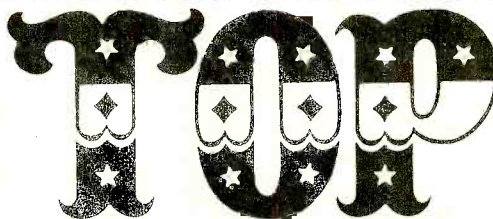
3 way speakers, 12" woofer



**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. 24 ON READER SERVICE CARD



**DISCOUNT AUDIO**

1150 N. Powis Rd.  
West Chicago, IL 60185

**YOUR NATIONAL HEADQUARTERS FOR NAME BRAND ELECTRONICS BY MAIL**

RECEIVERS • SPEAKERS • COMPACTS

**MULTI-MILLION \$\$\$ INVENTORY**

**FULL MANUFACTURER GUARANTEE APPLIES TO ALL SALES!**

**ALL ORDERS Shipped In Factory-Sealed Cartons—Most Within 24 Hours!**

TUNERS • AMPLIFIERS • AUTOMOTIVE

**TOP DISCOUNT AUDIO**

1150 N. Powis Rd.  
West Chicago, IL 60185  
(312) 293-1825

We Honor VISA and MASTERCHARGE By Phone or Mail

Send catalog \_\_\_\_\_

MR. \_\_\_\_\_  
MS. \_\_\_\_\_  
(First) (Initial) (Last) (Date)

\_\_\_\_\_  
(Number and Street)

\_\_\_\_\_  
(City) (State) (Zip code)

SR-10

Call or Write for the LOWEST PRICES Anywhere!

**TAPE DECKS • CHANGERS • CARTRIDGES • HEADPHONES**





JUDGING from a slew of recent releases, the classical guitar is, in both performance and popularity, in remarkably fine fettle these days. From the octogenarian master Andrés Segovia on down, there are worthy performers in virtually every age group, each bringing his or her own individuality to bear on the instrument and its repertoire, and sometimes helping to expand the latter.

"Reveries," Segovia's latest collection, was recorded by RCA a year ago last June, when he was "only" eighty-four. The range of repertoire is fairly typical of both the guitar's elder spokesman and the instrument generally—mostly rather short pieces and a good many transcriptions. The playing is Rubinstein-like in its autumnal glow, intimate and warm, projected without ostentation. Especially to be treasured are the eight little pieces Segovia transcribed from Schumann's *Album for the Young*; has *The Happy Farmer* ever sounded fresher or more innocent?

Celedonio Romero, who is far, far younger than Segovia and perhaps better known as a member of the four-guitar family ensemble known as Los Romeros, has not had a solo album for a number of years. The jacket of his new release on Delos features composer Joaquín Turina's description of him as "the poet of the guitar," and this appellation is also clearly reflected in the music on the record, which is atmospheric, unsplashy, and graced by a variety of subtle shadings and colors. Particularly delightful are the three Catalan pieces harmonized by Miguel Llobet and an unusually leisurely Albéniz *Leyenda* that is a most effective reversal of the typical virtuosic rendition. The album's sound is notable for its transparency and rich detail.

THE Romeros—Celedonio and his sons Pepe, Ángel, and Celín—may be heard together on a Philips disc of music for four guitars originally written for them by José Muñoz Molleda, Federico Morena-Torroba, and Francisco de Madina, plus a brief dance by Jerónimo Giménez that was transcribed by Pepe. The playing is lively, musical, extremely precise, and decidedly enjoyable even though there is

nothing of great significance in the album's contents.

A two-disc Vanguard/Everyman set titled "The Classic Spanish Guitar" presents the fifty-five-year-old, Madrid-born Segovia pupil Alirio Diaz in a virtual treasure trove of standard Spanish (or Latin) repertoire, most of it familiar from guitar recitals both live and recorded. The playing here is technically as impressive as any I know, and the album should be appealing to anyone just beginning a collection of guitar records. (Veteran collectors may already have these recordings, since the two discs were released separately in the early Sixties.) Perhaps on occasion, as in Falla's *Homenaje* to Debussy, Diaz does not quite reach the intense depth of expression of a Julian Bream, but overall the set is a highly successful compilation.

Narciso Yepes, four years younger than Diaz, performs an essentially nineteenth-century program on his latest recording, "Guitarra Romantica" from Deutsche Grammophon. Most of the selections are not especially familiar, and one in particular—the D Major Sonata, Op. 71, No. 3, of Mauro Giuliani—may be a first recording. All of them, including the delightful Fernando Sor variations on *Marlborough* (a tune usually known in English as *For He's a Jolly Good Fellow*), are expertly played. The reproduction is marvelously natural and not, as sometimes happens with guitar recordings, overblown, but my factory-sealed pressing produced an almost continual barrage of most unnatural (from DG, at least) ticks and pops.

Vanguard/Cardinal has released an Ariola-Eurodisc recording of an exceptional recital by forty-five-year-old Santiago Navascués, who was born in Madrid and now teaches in Munich. The entire first side is devoted to twelve dances and settings of popular tunes by Gaspar Sanz (1640-1710); devotees of Rodrigo's *Fantasia para un Gentilhombre* may recognize the original vivacious *Canarios* on which Rodrigo based his last movement. Navascués plays the Sanz pieces with far more understanding of the stylistic niceties (correct ornaments and a logical, registrational ap-

proach to color and contrast) than do the majority of his colleagues, and his interpretations of works by Albéniz, Turina, Rodrigo, and Falla on the second side are riveting in their musicality and projection. It's all very intense—and very Spanish.

The last three discs represent the youngest generation of guitar performers now before the public. Manuel Barrueco, born in Cuba in 1952 and at present teaching in New York, devotes most of his Turnabout recital to Villa-Lobos. He plays eight (out of twelve) of the composer's guitar etudes, and each receives a high-powered, virtuosically unbridled treatment that is fast, aggressive, and quite breathtaking, if not always dynamically subtle. The performance of Villa-Lobos' *Suite Populaire Bresilienne* on the other side proves, however, that there is a more gentle and restrained side to Barrueco as well. Keep his name in mind; I think he'll go far.

One year younger than Barrueco, George Alexander Vick was born in Detroit, studied with both Pujol and Segovia in Spain, and now teaches in California. Klavier Records' disc of him playing both older works (by Sanz, Napoleon Coste, Luigi Legnani, and Sor) and two contemporary ones (Aurelio de la Vega's 1975 *Sound Clouds* and the larger-scale Britten *Nocturnal* written ten years ear-

**ANDRÉS SEGOVIA:** *Reveries*. Gluck: *Orfeo: Dance of the Blessed Spirits*. Schumann: *Album for the Young*, Op. 68, Nos. 1, 2, 5, 6, 9, 10, 16, 26; *Träumerei*, Op. 15, No. 7; *Romanza*. Asencio: *Mystic Suite*. Castelnuovo-Tedesco: *Platero and I*; *Ronsard*. Moreno-Torroba: *Castellana*. Andrés Segovia (guitar). RCA ARL1-2602 \$7.98, © ARS1-2602 \$7.98, © ARK1-2602 \$7.98.

**CELEDONIO ROMERO:** *Romantic Masterpieces*. Moreno-Torroba: *Fandanguillo*; *Danza*. Pujol: *Romanza*. Turina: *Garrotin*; *Solaeares*. Malats: *Serenade Español*. Granados: *Danza No. 5*. Tárrega: *Adelita*; *Mazurca en Sol*; *Pavana*. Albéniz: *Leyenda*. Llobet: *Testament de Amelia*; *El Noi de la Mare*; *La Fila Dora*. Celedonio Romero (guitar). DELOS DEL-25441 \$7.98.

**LOS ROMEROS:** *Classical Music for Four Guitars*. Giménez: *El Baile de Luis Alonso*. Molleda: *Triptico*. Moreno-Torroba: *Estampas*. De Madina: *Danza Rapsódica*. Celedonio, Pepe, Ángel, and Celín Romero (guitars) PHILIPS 9500 296 \$8.98.

**ALIRIO DIAZ:** *The Classic Spanish Guitar*. De Mudarra: *Fantasia*. De Narvaez: *Variations on "Guardame las Vacas"*. Milan: *Fantasia No. 38*. Sanz: *Folías*. D. Scarlatti: *Sonatas in G Minor, G Major, and E Minor*. Sor: *Estudio No. 5*; *Estudio No. 12*. Tárrega: *Danza Mora*. Albéniz: *Asturias-Leyenda*; *Torre Bermeja*; *Granada*; *Sevilla*. Granados: *Danza No. 5*; *La Maja de Goya*. Villa-Lobos: *Etude No. 11*. Malats: *Serenata Española*. Turina: *Fandanguillo*. Falla: *Homenaje* ("Pour le Tombeau de Claude Debussy"). *The Three-Cornered Hat*: *Farruca* (Miller's Dance). Segovia: *Remembranza*. Moreno-Torroba: *Sonatina*. Rodrigo: *En los Trigales*. De la Maza: *Three Spanish Dances*. Anon.: *La Filla del Marzánti*; *Estrella del Mar*; *Cántico*; *Quirpa*





## The New 1978 Basic Repertoire

STEREO REVIEW again presents the annual revision of the Basic Repertoire. In pamphlet form, it includes 1978 disc and tape recommendations for 173 standard musical works. For your copy, send 50¢ in coin, plus a stamped, self-addressed No. 10 envelope (9½ x 4½ in.), to Esther Maldonado, STEREO REVIEW, 1 Park Avenue, New York, N.Y. 10016.

DEUTSCHE GRAMMOPHON ARCHIV 2533 376  
\$8.98.

Performance: **Exquisite**  
Recording: **Suave**

VIVALDI: *Concerto in F Major for Two Oboes, Bassoon, Two Horns, and Violin (RV 569)*; *Concerto in F Major for Oboe (RV 456)*; *Concerto in A Minor for Bassoon (RV 498)*; *Concerto in C Minor for Flute (RV 441)*. Iona Brown (violin); William Bennett (flute, piccolo); Neil Black, Celia Nicklin (oboes); Martin Gatt (bassoon); Timothy Brown, Robin Davis (horns); Christopher Hogwood, Colin Tilney (harpichord, organ); Academy of St. Martin-in-the-Fields, Neville Marriner cond. ARGO ZRG 839 \$7.98, © KZRC 839 \$7.98.

Performance: **Festive**  
Recording: **Brilliant**

Here is a brace of discs that should dispel the myth that Vivaldi wrote the same concerto five hundred times. The works consigned to the Archiv record by Eduard Melkus are profoundly intimate chamber music which, except for the D Major Lute Concerto, breathes a wistful nostalgia. Neville Marriner's collection, in contrast, is festive and openly brilliant. The blast created by the Concerto for Oboes, Horns, Bassoon, and Violin would throw any fox into a fit, and the A Minor Bassoon Concerto is one of the most sinister creations to come out of Baroque Italy.

Both records prove important points. Melkus demonstrates that original instruments can be played in such a manner that not even the most vehement critic of recordings using authentic performance practices could complain. And Marriner shows, as he usually does, that modern instruments and style can create an equally valid musical experience together with a great deal of vitality and excitement. Another point of difference in the two approaches is in the matter of ornamentation. All of the soloists on the Marriner disc are splendid, and all, for the most part, use no ornamentation. They are quite right; the music does not really need it and comes off beautifully without it. Melkus and his colleagues, on the other hand, make lavish use of ornamentation. They, too, are quite right, because the music they perform cries for it; without embellishment the results would be threadbare. The two trios are cases in point. They are really conceived as melodic works devoid of counterpoint. The single melodic line either alternates between the lute and the violin or is played at the octave. Both Ragosnig and Melkus, however, ornament the line simultaneously, but with different ornaments, creating a rich heterophonic texture which is authentic but rarely heard. Vera Schwarz, the harpsichordist, adds a lavish contrapuntal dimension with her bold realization of the figured bass. Melkus, in addition to his fine violinistics, gives an exquisite performance on the viola d'amore. S.L.

WALTON: *Sonata for Violin and Piano*.  
BERKELEY: *Sonatina for Violin and Piano*.  
JOSEPHS: *Chacony for Violin and Piano*, Op. 38. Michael Davis (violin); Rosemary Platt (piano). ORION ORS 78292 \$7.98.

Performance: **Very good**  
Recording: **Good**

Who would have expected another recording of the Walton sonata so short a time after the  
(Continued on page 172)

J&R BLANK TAPES & ACCESSORIES  
AT WHOLESALE PRICES!

### BLANK TAPES

#### CASSETTE TAPES

Ampex Grand Master I C-90	\$2.14	TDK D C-90	\$1.20
Ampex Grand Master I C-90	\$2.79	TDK D C-90	\$1.68
BASF Studio C-90	\$2.69	TDK D C-120	\$2.10
BASF Professional	\$2.99	TDK AD C-90	\$1.79
Maxell UD C-60	\$1.93	TDK AD C-90	\$2.52
Maxell UD C-90	\$2.84	TDK SA C-90	\$3.18
Maxell UDXL I or II C-60	\$2.47		
Maxell UDXL I or II C-90	\$3.47		
Scotch low noise C-90 / 3 pk.	\$4.99 for 3		
Scotch Master I C-90	\$2.84		
Scotch Master II or III C-90	\$3.29		
Sony Ferrichrome C-90	\$3.58		

Minimum Order 12 Tapes - 100% Guaranteed.

#### REEL-TO-REEL

Maxell UD 35-90 1800 ft.	\$5.49
Maxell UDXL 35-90 1800 ft.	\$6.62
Maxell UD 35-180 3600 ft.	\$12.60
(10% off)	\$14.70
Scotch 212 1800 ft.	\$4.35
Scotch 207 1800 ft.	\$5.19
TDK L 1800 1800 ft.	\$5.22

### CARTRIDGES

#### AUDIO-TECHNICA

AT-70 SA	\$119.00		
AT-15 SA	\$82.50		
AT-14 SA	\$48.50		
AT-12 SA	\$34.90		
AT-10	\$12.00		

**SHURE**

V15 TYPE IV	\$89.90
V15 TYPE III	\$63.50
M5E	\$26.50
M31E	\$21.00
M24H (QUAD)	\$36.50
M7E	\$9.90

**STANTON**

881S	72.50
681EE S	55.00
681EE	42.50
680EE	20.80
500EE	14.40

**PICKERING**

XUV45000 (QUAD)	\$66.00
XSV39000	\$45.95
XV15750E	\$30.00
XV15625E	\$20.98
XV15400E	\$17.95

### HEADPHONES

#### PIONEER

SE-205	\$19.95		
SE-506	\$46.70		
SE-4	\$33.50		
SE-500	\$39.95		
SE-700	\$59.95		

**KOSS**

PRO 4 AA	\$37.05
PRO 4 AAA	\$45.00
HV/1	\$26.97
HV/1LC	\$35.97
PHASE 2/2	\$93.00
TECHNICIAN/VFR	\$48.00
K/6A	\$14.97

**SENNHEISER**

HD-400	\$24.99
HD-414	\$35.97
HD-424	\$59.95

**PICKERING**

OA7	\$41.90
-----	---------

HOW TO ORDER: For shipment within 48 hours, send money order or certified check. Two weeks delay for personal checks. Add \$3.50 per order for shipping & handling. (\$5.50 for orders outside U.S.). N.Y.S. residents add tax. No C.O.D.'s. All merchandise 100% guaranteed, brand new & factory fresh.



WRITE FOR FREE CATALOG  
CIRCLE NO. 36 ON READER SERVICE CARD

8 IMPORTANT REASONS WHY  
MORE PEOPLE BUY TOP  
QUALITY EQUIPMENT FROM  
INTERNATIONAL HI-FI THAN ANY  
OTHER MAIL ORDER COMPANY

MORE THAN 80,000  
CUSTOMERS NATIONWIDE

1. Guaranteed lowest price... you pay same price many dealers pay.
2. No-risk, no-deposit... phone orders shipped C.O.D. or Credit Card.
3. Same day shipping when ordered by 1 p.m.
4. Seven audio advisors provide professional help for the inexperienced buyer.
5. Fully insured shipments plus full manufacturers' warranty.
6. Exclusive "no lemon" guarantee.
7. Fully staffed customer service department.
8. Over 70 top name brands... equipment most mail order and discount dealers can't supply.

CALL NOW  
(301) 488-9600  
Mon.-Fri. 9-9, Sat. 9-4

Write for: • Brochure with prices and lines  
• Tips on buying by mail

**International Hi-Fi Distributors**  
Moravia Center  
Industrial Park, Dept. S6  
Baltimore, Maryland 21206

CIRCLE NO. 35 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 2771, Boulder, CO 80322, giving the following information:

Change address only  Extend my subscription

### ENTER NEW SUBSCRIPTION

1 year \$9.98  Payment enclosed  
Allow 30-60 days for delivery. (1 extra BONUS issue)

Bill me later

NEW ADDRESS HERE 0421

Name \_\_\_\_\_ please print  
Address \_\_\_\_\_ Apt. \_\_\_\_\_  
City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_

Additional postage on foreign orders: add \$1 a year for Canada, \$5 a year for all other countries outside the U.S. and its possessions. Cash only on foreign orders, payable in U.S. currency.

AFFIX OLD LABEL

If you have no label handy, print OLD address here.

Name \_\_\_\_\_ please print  
Address \_\_\_\_\_  
City \_\_\_\_\_  
State \_\_\_\_\_ Zip \_\_\_\_\_



FANTASTIC ELECTRONICS  
**THE UNBEATABLES**

**(212)  
 435  
 0362**

Call or write for unbeatable quotes on more than 70 top brand names from New York's finest audio dealer. Try us now.

<b>PIONEER SX-780</b> 45 watts per ch THD 0.05% \$228.95	<b>TEAC</b> cassette deck A640 349.95 A640 299.95	<b>AKAI</b> Reel to Reel GX 2900 429.95 GX 7250 cassette deck 269.95
<b>Technics SA 300</b> 35 w per ch, 0.04% THD 199.95	<b>NEW CATALOG</b> Master Charge and Visa Accepted	30 day lowest price guarantee (excl. mtg price change)

FANTASTIC ELECTRONICS  
 4820 13th Ave.  
 BROOKLYN, N.Y. 11219

**SPEAKER INFORMATION KIT.**



Get 70 pages of speaker facts in three fact-packed publications.

Speakerlab's Speaker Operating Manual covers everything you need to know to get the best performance out of any loudspeaker, including placement, wire gauges and allowable lengths, amp overloads, room acoustics, L-pad adjustments and impedances.

Our 54-page color catalog covers enclosures, designing your own speakers and driver principles as well as our line of nine easy-to-build speaker kits ranging from a miniature two-way system only ten inches high to a massive all-horn corner system.

"How To Hook Up Your System" spends twelve pages of text and diagrams really explaining system hookup. From where to place your electronics for maximum cooling to the intricacies of installing a cartridge, from eliminating hum to proper record care.

Get all three for just a dollar from the folks who take speaker information seriously...



Here's a buck! I can really use 70 pages of speaker information from the world's largest manufacturer of speaker kits. Dept. SR-0

name \_\_\_\_\_

address \_\_\_\_\_

city \_\_\_\_\_ state \_\_\_\_\_ zip \_\_\_\_\_

**Three Easy Pieces; Five Easy Pieces; Etude for Pianola.** Paul Jacobs, Ursula Oppens (pianos). NONESUCH H-71347 \$3.96.

Performance: **Strong**  
 Recording: **Rich, close sound**

**STRAVINSKY: Concerto for Two Solo Pianos.**  
**MOZART: Sonata in D Major for Two Pianos (K. 448).** Hans Pålsson, Amalie Malling (pianos). Bis LP 58 \$8.98 (from Qualiton Records, Ltd., 65-37 Austin Street, Rego Park, N.Y. 11374).

Performance: **Delightful**  
 Recording: **Excellent**

Stravinsky was always very fond of the piano. He composed on it—or, at least, tested out all his music at the keyboard. But he was also very enamored of the *sound* of the piano, and its clarity and crispness perfectly encapsulate the Stravinsky esthetic. One piano is good enough, but how much better two—or, if not two pianos, then two pianists. The Concerto for Two Solo Pianos (that is, pianos without orchestra) is his major work for the medium. Banality and pomposity are never far away in this music, but camp and rhetoric must be resisted at all costs. The way out is a combination of precision, clarity, a sense of humor, and the ability to generate a bit of excitement. Paul Jacobs and Ursula Oppens, both excellent performers with a feeling for twentieth-century music, invest this work with size, importance, and what I would call a witty seriousness.

The Stravinsky two-piano sonata is a later and lighter work in a pure neo-Classical mode. The other pieces on the Nonesuch disc—music for piano, four hands, from the period of World War I—are all occasional works. There are two novelties here, the tiny, Satie-ish *Zvietotchnoy* Waltz, formerly thought to be lost, and the etude originally written for an Aeolian player piano (music later used in the Four Etudes for Orchestra). All of them are played affectionately, with spirit and without condescension.

Hans Pålsson is Swedish and studied in Denmark, Norway, and Germany; Amalie Malling is German and studied in Denmark and Northern Germany. Their Bis pairing of Stravinsky and Mozart is quite in order, and the performances are spirited and charming. The recording has an extremely fine texture of piano sound; the Nonesuch disc is darker and more intimate sounding. E.S.

**SULLIVAN: Marmion Overture** (see GILBERT AND SULLIVAN)

**VAUGHAN WILLIAMS: The Poisoned Kiss, Overture; Two Hymn-tune Preludes; The Running Set; Sea Songs** (see ELGAR)

**VIVALDI: Il Cimento dell' Armonia e dell' Inventione, Op. 8** (see Best of the Month, page 102)

RECORDINGS OF SPECIAL MERIT

**VIVALDI: Concerto in D Major for Lute and Strings (RV 93); Trio in G Minor for Violin, Lute, and Strings (RV 85); Concerto in D Minor for Viola d'Amore, Lute, and Strings (RV 540); Trio in C Major for Violin, Lute, and Strings (RV 82).** Konrad Ragossnig (lute); Eduard Melkus (violin, viola d'amore); Capella Academica of Vienna, Eduard Melkus cond.

(Continued on page 169)



**QUALITY SOUND DIRECT**

ALL the quality, mid and high end HI-FI, and VIDEO equipment you want at low direct prices you would not believe in an ad. . . . So send for our fall catalog with the coupon below, or call for immediate action!

SAVE NOW! . . .

(Please Print)

send me your Fall catalog NOW!

Name \_\_\_\_\_  
 Street \_\_\_\_\_  
 Town \_\_\_\_\_  
 State, Zip \_\_\_\_\_

QSD • Box 185, Villanova, Pa. 19085  
 (215) 544-2277

CIRCLE NO. 27 ON READER SERVICE CARD

**Buy direct by phone by catalog that's free**

We sell top name brands of Hi-Fi equipment, accessories, records, and tapes at incredibly discounted prices. Our catalog contains 48 pages of select quality products and its FREE.

Order one now, or call TOLL FREE.

1-800-638-3920

NAME \_\_\_\_\_  
 ADDRESS \_\_\_\_\_  
 CITY \_\_\_\_\_  
 STATE \_\_\_\_\_ ZIP \_\_\_\_\_

**STEREO DISCOUNTERS**  
 6730 Santa Barbara Court  
 Baltimore, Maryland 21227

SR 1078



nated by EMI) of the *Symphonie Concertante*, a work Szymanowski listed as the fourth (and last) of his symphonies but which has assumed a place in the concerto repertoire. It is one of his more successful works, recorded by Rubinstein and said to have attracted the interest of Vladimir Horowitz. Blumental's response to it, as one would expect of a performer so long identified with this composer's music, is complete and convincing both technically and interpretively, and she enjoys first-rate collaboration from Poland's finest orchestra, under Kazimierz Kord, as well as fine sound. The same level of musicianship illumines the solo works, among which the masterly Theme and Variations is especially welcome; the two preludes also appear to be otherwise unavailable. Collectors of Carol Rosenberger's Szymanowski series on Delos will surely not begrudge themselves the duplication of the other four short pieces.

ONE hopes, of course, that there will be new recordings of the Third Symphony and the Op. 12 Concert Overture, and that by the time Szymanowski's centenary rolls around in 1983 his works will be appearing more frequently in our concert halls. In the meantime, this unexpected little Szymanowski festival on discs offers both the excitement of discovery and a great deal of solid enjoyment that is not likely to wear thin.

—Richard Freed

**SZYMANOWSKI: King Roger.** Andrzej Hiolski (baritone), King Roger; Hanna Rumowska (soprano). Roxana; Zdislaw Nikodem (tenor), Edrisi; Kazimierz Pustelak (tenor), the Shepherd; Marek Dabrowski (bass), the Archbishop; Anna Malewicz-Madey (contralto), the Deaconess. Chorus and Orchestra of the Warsaw State Opera House, Mieczyslaw Mierzejewski cond. AURORA 5061/2 two discs \$15.96 (from Qualiton Records, 65-37 Austin Street, Rego Park, N.Y. 11374).

**SZYMANOWSKI: Violin Concerto No. 1, Op. 35.** Wanda Wilkomirska (violin); Warsaw National Philharmonic Symphony Orchestra, Witold Rowicki cond. **Violin Concerto No. 2, Op. 61.** Charles Treger (violin); Warsaw National Philharmonic Symphony Orchestra, Robert Satanowski cond. AURORA AUR 5063 \$7.98 (from Qualiton Records, Ltd., 65-37 Austin Street, Rego Park, N.Y. 11374).

**SZYMANOWSKI: Symphony No. 2, in B-flat Major, Op. 19. King Roger: Roxana's Song. Etude in B-flat Minor, Op. 4, No. 3.** Lodz Philharmonic Symphony Orchestra, Henryk Czyz cond. AURORA AUR 5060 \$7.98 (from Qualiton Records, Ltd., 65-37 Austin Street, Rego Park, N.Y. 11374).

**SZYMANOWSKI: Symphonie Concertante for Piano and Orchestra, Op. 60.** Felicja Blumental (piano); Polish Radio Symphony Orchestra, Katowice, Kazimierz Kord cond. **Etude in E-flat Minor, Op. 4, No. 1; Etude in B-flat Minor, Op. 4, No. 3; Prelude in B Minor, Op. 1, No. 1; Prelude in C Minor, Op. 1, No. 7; Mazurka in C Major, Op. 50, No. 1; Mazurka in A Major, Op. 50, No. 2.** Felicja Blumental (piano). UNICORN UNI-75023 \$7.98 (from HNH Distributors, Ltd., P.O. Box 222, Evanston, Ill. 60204).

## You could be missing a fourth of Beethoven's Fifth.

Most cassettes distort or can't reach the crescendos that have made Beethoven's Fifth famous. But our new AD cassette can. Utilizing a unique ultra-sensitive formulation, AD cassettes capture all the highs that even expensive premium cassettes can't handle. Yet AD's cost is a stunning departure from the usual high cost of premium cassette listening. And AD is ideally suited to any noise reduction system. Like all TDK quality cassettes, AD is backed by a full lifetime warranty.\* TDK Electronics Corporation, Garden City, N.Y. 11530



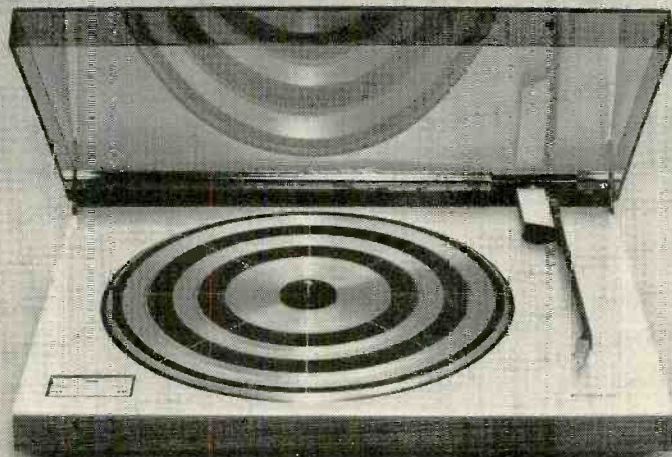
# TDK

Wait till you hear what you've been missing.

\*In the unlikely event that any TDK cassette ever fails to perform due to a defect in materials or workmanship, simply return it to your local dealer or to TDK for a free replacement.

CIRCLE NO. 78 ON READER SERVICE CARD

## ONE TOUCH



One light touch.  
No dials to turn.  
No weights to adjust.  
No lifting.  
No cueing.

Nothing but one touch and music. The Beogram 2400 turntable. It does everything for you, and does it exceedingly well.

Write for literature.

# BANG & OLUFSEN

BANG & OLUFSEN OF AMERICA, DEPT. 25, 515 BUSSE ROAD, ELK GROVE VILLAGE, ILL. 60007

CIRCLE NO. 17 ON READER SERVICE CARD



# A Little Szymanowski Festival



Granger Collection

KAROL SZYMANOWSKI'S development as a composer was somewhat similar to that of his Hungarian contemporary Béla Bartók. Both were influenced in their young years by Richard Strauss and later by Debussy. And as folk music eventually assumed dominance in Bartók's style, so Oriental music (absorbed to some extent through exposure to Stravinsky) influenced Szymanowski. *King Roger* (1924), Szymanowski's second and last opera, bears traces of all these influences, but it is the Oriental element, shining through the lush textures of its orchestration, that is its most striking feature. The opera's mysticism and its departure from the dramatic conventions bring Bartók's *Bluebeard's Castle* to mind, but, while the latter's prevailing mood is worldly resignation, *King Roger* glows with religious fervor. Essentially about the clash between Christianity and paganism, it superimposes a fictional incident on the historical figures of a twelfth-century king of Sicily and his Arabian adviser, Edrisi.

Musically, I find the opera's Oriental-tinged harmonies and rich orchestral textures thoroughly absorbing. Szymanowski's idiom is boldly unconventional, but its character is essentially lyrical, and the vocal lines are constructed with a knowing mastery. The cast of the Polish-made Aurora recording rises to its interpretive challenges admirably. Baritone Andrzej Hiolski portrays the Amfortas-like character of the suffering King Roger with conviction and strong tonal resources. Kazimierz Pustelak is simply remarkable as the Shepherd (the god Dionysus in human form), a role that calls for strong dramatic utterances as well as gentle lyricism—and much of that in a high tessitura. Soprano Hanna Rumowska cannot quite cope with all the requirements of the part of Roxana (who sings the sinuous aria better known in Paul Kochanski's violin arrangement), but she does a more than adequate job. The cameo parts of Edrisi and the Archbishop are impressively handled. The chorus and orchestra perform with authority, and the sound is very good, though I would prefer fewer echo effects in the voices.

*King Roger* had many champions among scholars of its generation, but it has had relatively few performances. It was revived in Poland in 1965, and Charles Mackerras pre-

sided over another successful revival in London ten years later. Other impresarios should follow their example; the opera deserves it.

—George Jellinek

TEN or twelve years ago it seemed we were in for a rediscovery—or, really, just a plain discovery—of the music of Karol Szymanowski. A few recordings appeared, the violin concertos turned up here and there in concerts, and we were further reminded of the composer in Arthur Rubinstein's delightful book *My Young Years*. There were even discussions of importing a Polish orchestra and a group of soloists to stage a little Szymanowski festival that might tour several U.S. cities. The festival never materialized, and many of the recordings disappeared, but more recently we have had some records of some of the violin music and piano pieces from domestic as well as Polish sources, and Szymanowski's works have started to figure in the import lists again. Not too long ago we had Rowicki's fine record of the music for the ballet *Harnasie* on Muza; the three discs I am about to discuss are more interesting still, and their simultaneous appearance—hard on the heels of a complete *King Roger*—is a most encouraging sign.

Especially welcome, in the sense that they are familiar enough to have been missed, are the two violin concertos on the Aurora label. Neither of them has been available on records in the last few years, and both are among the most appealing of Szymanowski's major works. Wanda Wilkomirska's marvelous account of the First has circulated here previously on both Heliodor and MHS; the recording sounds a little brighter, also more close-up in focus, in the new English transfer. Charles Treger's version of the Second may lack something of the special quality Henryk Szerzyng brought to the work in his richer-sounding but now deleted Philips recording (which certainly wasn't around very long), but it, too, is a fine, strong, committed performance, and Robert Satanowski, a conductor worth hearing from, backs him up splendidly. Neither Treger nor Szerzyng achieved in the Second Concerto quite what Wilkomirska did in her concert performances with Michael Gielen

and the Chicago Symphony Orchestra five years ago; I still hope she might get around to making new recordings of both concertos under optimum conditions, but there is a great deal of pleasure to be had from this Aurora disc and I am delighted to have it available.

THE Second Symphony, as Malcolm Rayment points out in his annotation for the Aurora release, is "Szymanowski's only available symphony in the accepted sense of the term," since No. 1 was never published, No. 3 (*Song of the Night*) is actually a choral work, and No. 4 is more or less a piano concerto. Symphony No. 2, a product of Szymanowski's middle twenties, is an intriguing piece, beautifully colored and imaginatively laid out. To be sure, the work does exhibit many of the influences so often spoken of in discussions of Szymanowski's music—almost literal echoes of Scriabin's *Poem of Ecstasy* in the first movement and of Strauss' *Heldenleben* in the second, while the final fugue, if not directly reminiscent of Reger, may remind some listeners of the fugal episode in *Thus Spake Zarathustra*. But none of this really gets in the way of one's enjoyment of the symphony or appreciation of Szymanowski's quite individual style; if this seems self-contradictory, I can only suggest the reader listen and form his own opinions—which I suspect will be highly favorable. The Lodz Philharmonic may not be one of the world's great orchestras, but it gives a good account of itself under Henryk Czyz's sympathetic direction, and the sound is quite good. The two short items that precede the first movement on side one, both better known than the symphony in various forms, are performed in the orchestral settings of Szymanowski's friend and early champion Grzegorz Fitelberg, who not only conducted both the première and the first recording of the Second Symphony but himself made the final revision of its second movement at the composer's request.

The original version of the etude conducted by Czyz happens to be one of the solo pieces Felicja Blumental plays on the other side of her attractive new Unicorn recording (origi-

Twelfth-century mosaic depicts coronation of King Roger II of Sicily (1095-1154).



Granger Collection



# Until the Sound Guard™ record care work pad, one side of your record could take a beating while you were caring for the other.



A paper towel that could scratch. A piece of velvet that slips. A cloth of any kind that leaves telltale lint.

Until now, that's all you've had to lay your record on when you wiped, sprayed or buffed it.

Now you've got some-

from dirty records. It's not a fabric, so it has no lint to spread around. And it's non-abrasive to avoid scratching and slipping when you're buffing.

Its ingenious channels give you another advantage. They collect any excess fluid so it won't run over to the other side of

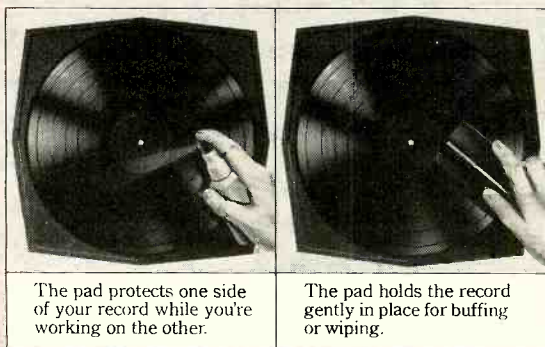
your record—or onto your furniture.

Wash off your record care

work pad, when you have to.

Use it as you're meant to, and your records will never take another beating.

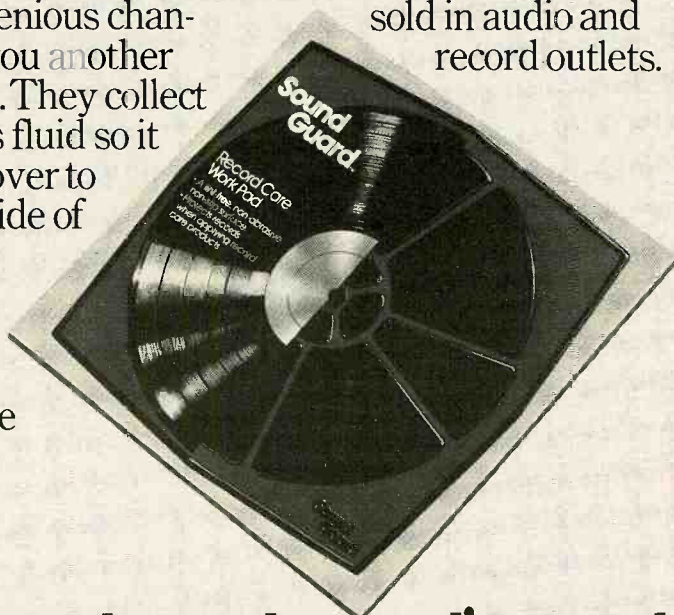
Like all Sound Guard products, the Sound Guard record care work pad is sold in audio and record outlets.



The pad protects one side of your record while you're working on the other.

The pad holds the record gently in place for buffing or wiping.

thing that takes care of one side of your record while you're working on the other side. It's non-conductive to resist picking up particles



## Sound Guard® keeps your good sounds sounding good.



Sound Guard® preservative—Sound Guard™ cleaner—Sound Guard™ Total Record Care System—Sound Guard record care work pad  
Sound Guard is Ball Corporation's registered trademark. Copyright © Ball Corporation, 1978. Muncie, IN 47302

CIRCLE NO. 16 ON READER SERVICE CARD

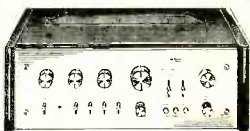


**SEND FOR FREE CATALOG ON TEAC**  
Technics AND OVER 40 OTHER BRANDS AUDIO COMPONENTS AT LOW DISCOUNT PRICES.



Technics  
by Panasonic

SU8600  
STEREO  
INTEGRATED  
AMPLIFIER



73 Watts Minimum RMS per channel at 8 ohms, from 20-20,000 Hz with no more than 0.08% total harmonic distortion.

TEAC

A-170S TOP RATED



HIGH PERFORMANCE  
TOP LOAD CASSETTE DECK

DC servo motor dolby noise reduction; 2 position Bias and EQ, independent record and playback controls; auto stop; high density ferrite heads. LIST 200.00 **129.00**

THE PIONEERS IN MAIL ORDER

**SOUND REPRODUCTION INC.**  
460 CENTRAL AVENUE  
East Orange, N.J. 07018  
(201) 673-0600

CIRCLE NO. 70 ON READER SERVICE CARD

The bass part lies a bit low for Dietrich Fischer-Dieskau, and, in his insistence on "interpreting" every phrase, he often fails to supply the smooth *cantante* line that is really needed here. Wolfgang Sawallisch officiates effectively, with well-judged tempos. The harmonium, when heard, is pleasant, and the chorus is very good. G.J

SAINT-SAËNS: *Cello Concerto No. 1, in A Minor, Op. 33* (see DVOŘÁK)

SCHUBERT: *String Quartet No. 15, in G Major, Op. 161* (see Best of the Month, page 104)

SCHUBERT: *Symphony No. 9, in C Major (D. 944)*. Chicago Symphony Orchestra, Carlo Maria Giulini cond. DEUTSCHE GRAMMOPHON 2530 882 \$8.98, © 3300 882 \$8.98.

Performance: **Idiosyncratic**  
Recording: **Good**

Personal taste is very much involved in any assessment of Carlo Maria Giulini's highly individual account of Schubert's lyric-epic masterpiece. One may not like his idiosyncratic reading, but one must assume that the interpretation of a musician of Giulini's culture and wisdom is not mere caprice. Still, I'll be interested to hear what he will do with Schubert's Ninth five years from now.

Let me cite some chapter-and-verse of what happens on this recording. There is almost no meaningful tempo contrast between the opening *andante* and the ensuing *allegro* of the first movement; the *ma non troppo* element is emphasized almost to a fault, and the dactylic figuration of the main theme is treated in near-legato fashion. The slow movement is paced in a way that accentuates its somber, *Winterreise* aspect, with heavy stress on the element of pathos following the shattering climax. The scherzo is moderately paced, very crisply articulated, and given an extra complement of repeats—making it run almost double its normal length. Only the finale is played within the norms of the music as I have known it through the years.

Of course, the Chicago Symphony players follow their leader in the most polished and highly professional manner, and the solo wind work, especially the oboe part in the slow movement, is altogether superb. Frankly, I'm not able to live with this reading any more than I can with some interpretations by pianist Glenn Gould, but there may be more enterprising spirits than I who can. The recorded sound, except for overbearing brass at the slow-movement climax, is very good. D.H.

SIBELIUS: *The Origin of Fire, Op. 32*. Sulo Saarits (baritone); Helsinki University Chorus; Cincinnati Symphony Orchestra, Thor Johnson cond. *Pohjola's Daughter*. Cincinnati Symphony Orchestra, Thor Johnson cond. *Song of My Heart, Op. 18; Finlandia Hymn, Op. 26a*. KILPINEN: *To Song*. SONNINEN: *Rippling Water*. PALMGREN: *Cradle Song*. HAPPALAINEN: *Pan*. TRAD. (arr. Turunen): *Finland, My Homeland; On the Hills of Karelia*. Rafael Sora, Veikko Tyrvainen (soloists); Helsinki University Chorus, Martti Turunen cond. VARÈSE SARABANDE VC 81041 \$7.98.

Performance: **A-1**  
Recording: **Good to remarkable**

SIBELIUS: *Scènes Historiques, Opp. 25, 66; Rakastava, Op. 14; Valse Lyrique, Op. 96, No.*

1. Scottish National Orchestra, Sir Alexander Gibson cond. RCA AGL1-2705 \$4.98.

Performance: **Mostly good**  
Recording: **Good**

The Varèse Sarabande disc offers the first—and so far only—recording of Sibelius' cantata *The Origin of Fire* for baritone, male choir, and orchestra. The release is part of a large-scale "rescue" operation to make available once more (or for the first time) significant recorded performances from the 1950's—most of them from labels that have become inactive over the past two decades.

I had a small hand in the instigation of the taping of the choral repertoire here, which took place during a 1953 American tour of the Helsinki University Choir. I knew that Remington was scheduled to do the recording in Cincinnati for a mono disc, but great was my surprise when A-V Libraries issued two-track stereo reels from the same sessions, engineered by the late Robert E. Blake. The results achieved in *The Origin of Fire*—a setting of the *Kalevala* counterpart of the Prometheus legend—were spectacular for the time, on the tape especially, but also on the Remington disc: the entrance of the chorus following the extended *arioso-recitative* for solo baritone is still a hair-raiser, and it affords unique insight into the role of Finnish speech-rhythm in the music of Sibelius. Except for what seems to me a bit too much mid-range pre-emphasis, the Varèse Sarabande disc does a very decent job of recapturing the sound of the original (including some of the unavoidable background hiss). The *Pohjola's Daughter* reading by Thor Johnson, who conducted the Cincinnati Symphony from 1947 to 1958, is strong and well-knit, as is his handling of the cantata. The violin tone of the orchestra, however, sounds a bit thin both in the original 1953 issues and on the new album.

The overside Finnish male-choir pieces conducted by Martti Turunen, leader of the Helsinki University Choir for nearly a generation, are both varied and highly representative. It's a shame, though, that these unaccompanied choral works were taped in what sounds like a dead studio or rehearsal room rather than in the livelier ambiance of Cincinnati's Music Hall.

There has never been any doubt in my mind about Sir Alexander Gibson's credentials as a Sibelius interpreter, and this new RCA Gold Seal release under his direction is a most agreeable and varied mini-concert, with the lovely *Rakastava (The Lover)*, for strings and tympni, separating the two sets of picturesque, if less substantial, *Scènes Historiques*. (The only other currently available domestic release that includes both sets is a full-price London disc that is neither as well played nor as well recorded.) Except for a rather too long and drawn-out treatment of the finale, Gibson's *Rakastava* is properly romantic and sensitive. The essence of this music is still best communicated by conductor Leif Segerstam on the imported Swedish Bis LP-19, but the RCA disc represents good value. D.H.

SMETANA: *Trio in G Minor, Op. 15* (see MENDELSSOHN)

RECORDINGS OF SPECIAL MERIT

STRAVINSKY: *Concerto for Two Solo Pianos; Sonata for Two Pianos; Zvietotchnoy Waltz;* (Continued on page 166)

Order Toll Free!  
Except N.Y., Alas, Hawaii  
SCA 800-221-0974

FOR ORDERS ONLY!  
Mon-Thurs 9AM-9PM, Fri-Sat 9AM-5PM, N.Y. Time

STEREO  
HOT-LINE



CHECK US OUT!

- ✓ Our prices are the lowest.
  - ✓ Discounts on over 60 major brands.
  - ✓ Reliability: one of the oldest audio mail-order houses in the U.S.A.
  - ✓ Rated #1: by a leading trade publication.
  - ✓ Large inventory: we buy in volume getting the best deals from the manufacturers you get the best deal from us.
- GIVE US THE OPPORTUNITY TO BEAT THE BEST DEAL YOU'VE BEEN ABLE TO FIND.

— QUOTES AND INFORMATION —  
(212) 253-8888, 9AM-5PM, MON.-SAT., N.Y. TIME

Write or Call us now for the lowest price quotes and a Free price flyer.

STEREO CORPORATION OF AMERICA

SR-1629 Flatbush Ave.  
Brooklyn, New York 11210

CIRCLE NO. 73 ON READER SERVICE CARD



# FOR THE PRICE OF A WATCH, OWN THIS GENIUS OF A CHRONOGRAPH.

Now there's a chronograph whose design dramatically outdistances all others. That's not big, bulky and mechanical like some. Or costly, finicky and undependable like others. And unlike the red LED's with their push-to-light displays and quick-to-die batteries — this one uses a power conserving liquid crystal display instead.

It's the Realtime Quartz Chronograph. A timepiece that masterfully joins the genius of micro-circuitry, ruggedness and styling. And it's available to you by mail through the Sharper Image, for only \$69.

## So much data. Squeezed so thin.

Slimmer than 7mm, only 2.9 ounces, the Realtime chronograph is everything you could ask for in a watch, or a stopwatch.

In watch mode, it continually displays the hour and the minute, and every second flashes by. In large, crisp, liquid crystal digits. (Without you pressing buttons.) Its Union Carbide batteries last a year or more and can be easily changed by your local jeweler. Separate batteries for night light and time give you extra dependability.

Accuracy is calibrated to within 65 seconds a year.

Press the side button to command the month, date, and day of week. Easy to read, even in bright sunlight. It's American made chip is programmed to adjust for the end of the month, with resetting needed only once every four years.

## They're off!

Stopwatch is activated with a command from the righthand face button (no interruption of watch operation).

Now you're ready to time any event to 1/100 of a second with uncanny precision, thanks to a quartz crystal whose vibrations split every second into 32,768 parts. The Realtime is more accurate than the finest mechanical chronograph ever made.

Record lap times. Cumulative times. Flick to watch mode anytime without interrupting the count. Or freeze the numbers at any moment. Take time out. You may even time beyond 60 minutes with Realtime's automatic start-over.

## Built to take it.

The Realtime Quartz Chronograph runs in the rain. Goes swimming. Climbs mountains. It's carefully crafted of 100% solid stainless steel throughout — case, bracelet, clasp, buttons. The face crystal is hard rock glass (unlike the easily scratched plastic ones on most chronographs). It's shock-resistant, and invulnerable to perspiration, dust and the weather.



Realtime is in fact water resistant to 3 Atmospheres of pressure, and can be safely immersed in water to 80 feet.

## What more do you get for \$69?

### Assurance.

Your Realtime will never need maintenance as the solid state components have no moving parts. In the unlikely event that it needs repair, there are prompt service-by-mail facilities right here in the U.S. There's a 1 year factory warranty on parts and labor.

3.26 13

2.10 FR

0.00 00

26.59 89

59.53 01

## Buy without obligation.

We want you to be satisfied with your Realtime Quartz Chronograph.

After you receive it, wear it. Put it through the paces. Compare it with any chronograph that comes along. If for any reason whatsoever it's not the timepiece you expected, return it within two weeks. You're guaranteed a full and courteous refund, with no questions asked.

To order, send check for \$69 plus \$1.50 delivery (add \$4.14 sales tax in Calif.). Credit card holders may order with our toll free number below.

ORDER TOLL FREE (800) 824-7888. Ask for Operator 25R.  
IN CALIFORNIA CALL (800) 852-7777.

## THE SHARPER IMAGE

260 California Street, San Francisco, CA 94111.  
Alaska and Hawaii (800) 824-7919.





The changes are subtle and probably not noticeable to the average listener, pertaining primarily to the distribution of orchestral parts, dynamics, and the trombone part writing. As far as I could determine, the only textual change (and a welcome one) is a slight extension of the "Hosanna in excelsis" ending of the Benedictus.

Neville Marriner renders a scrupulously musical and well-organized account of the Mass. His approach is dignified without being ponderous, and by using a well-drilled chorus of the proper size he avoids the heaviness that hangs over some of the other recorded versions. The tempos are well-judged and textures are clear. All four soloists are good without being outstanding. In their brief solos, the soprano and alto are heard clearly, the tenor and bass with less than optimum presence.

What I miss here is the sharpness of contours and the incisiveness that Colin Davis imparts to his admirable version on Philips 802 862. The *Confutatis* section and the brief brass interludes in the Benedictus (which evoke the solemn mood of *The Magic Flute*) are cases where dynamic contrasts and a sense of drama are insufficiently emphasized. Mozart the musical dramatist—and he was emphatically that, in his religious works as well—is not given all his due in this otherwise laudable undertaking. G.J.

**MOZART: Sonata in D Major for Two Pianos** (see STRAVINSKY)

#### RECORDING OF SPECIAL MERIT

**POULENC: Sonata for Violin and Piano.**  
**RAVEL: Sonata for Violin and Piano; Berceuse sur le Nom de Gabriel Fauré.** Gerald Tarack (violin); David Hancock (piano). SINE QUA NON SUPERBA SA 2016 \$3.98, © C-2016 \$3.98.

Performance: **Sympathetic**  
 Recording: **Very good**

The music here is eminently attractive, the performances exceptionally sympathetic. The Poulenc sonata, heard so seldom that even now it will come as a "discovery" to most lis-

teners, is most intriguing, with echoes of the Organ Concerto in the first movement and more than a few characteristic surprises in the *Presto Tragico* final movement; it could hardly ask for more effective advocates than Tarack and Hancock. Their approach in the familiar Ravel sonata may seem a little understated compared with the big, dramatic one of Wanda Wilkomirska and Antonio Barbosa (Connoisseur Society CS-2038), and the sound, which is really quite good, may seem a bit on the dry side, but this is a fully convincing performance, handsomely played, as is the welcome little encore. I would not be without the Wilkomirska/Barbosa Ravel, especially since the coupling on that disc is a glorious performance of the Grieg C Minor Sonata, but I wouldn't want to do without the Poulenc sonata either, and the Sine Qua Non price makes the duplication painless. R.F.

**PROKOFIEV: Romeo and Juliet, Op. 64** (see MENOTTI)

**PUCINI: La Fanciulla del West** (see Best of the Month, page 101)

**RAVEL: Boléro** (see DEBUSSY)

**RAVEL: Sonata for Violin and Piano; Berceuse** (see POULENC)

**ROCHBERG: Carnival Music.** Alan Mandel (piano). *Black Sounds for Seventeen Players.* Oberlin Wind Ensemble. *Nach Bach.* Igor Kipnis (harpischord). GRENADILLA GS 1019 \$6.95.

Performance: **Good to excellent**  
 Recording: **Varied**

George Rochberg is consistently one of the most interesting—in the simple meaning of that overworked word—of American composers. He has never stood still, and, whatever the ultimate value of his various works, his skill, imagination, and thoughtfulness rarely let us down. The three works here were written in 1964 (*Black Sounds* and *Nach Bach*) and 1970 (*Carnival Music*), and they show an evolution from a rather austere, brooding, dissonant chromaticism to a wide-ranging mix

of the modern serious idiom and the traditional vernacular.

*Black Sounds*, written or adapted for a dance by Anna Sokolow, is not in the serialist mode of Rochberg's earlier work but is rather an obvious but effective tribute to Varèse. *Nach Bach*, based on the E Minor Partita and written for Igor Kipnis, is a wonderful jumble of pure and distorted quotations from Bach surrounded by highly dissonant harpsichord comments, meditations, and punctuations—all perfectly suited to the instrument and its historical aura (and excellently played by Kipnis). *Carnival Music*—with its march, blues, and rag elements, highly altered quotations from Bach and Brahms, and rhythmic dissonance—is, as might be imagined, the most fun, especially in its lively Toccata-Rag finale. (It is notable that this was one of the first contemporary uses of rag, at a time when the rag revival was just getting under way.) But it is also a piece that has a great deal of scope in its essential nonpurity. Alan Mandel is effective in it—not surprisingly, since the work embodies the mixed musical genre this enterprising pianist has cultivated rather successfully. Incidentally, this is the only new recording on the album; the tapes of the others were originally made for Columbia and Desto. E.S.

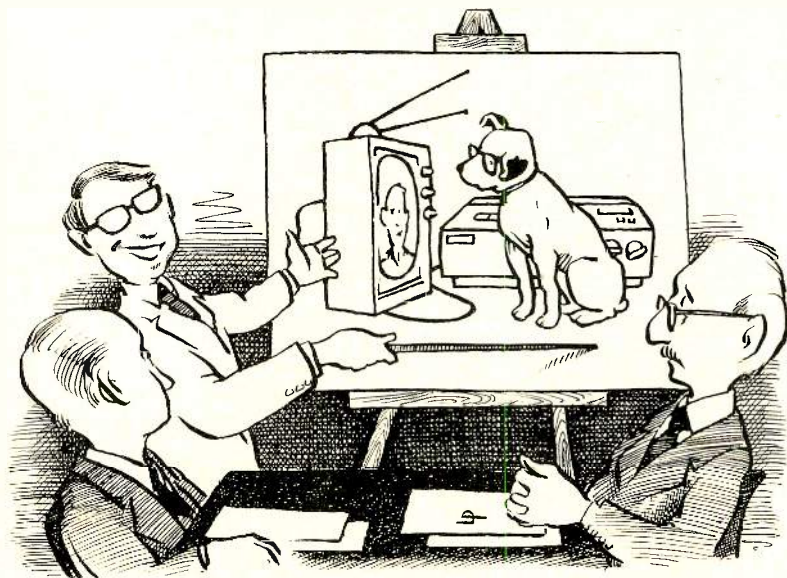
**ROSSINI: Petite Messe Solennelle.** Kari Lövaas (soprano); Brigitte Fassbaender (alto); Peter Schreier (tenor); Dietrich Fischer-Dieskau (baritone); Munich Vocal Ensemble; Reinhard Raffalt (harmonium); Wolfgang Sawallisch, Hans Ludwig Hirsch (pianos); Wolfgang Sawallisch cond. RCA ARL2-2626 two discs \$15.98, © ARK2-2626 \$15.98.

Performance: **Good**  
 Recording: **Very good**

The *Petite Messe Solennelle* was written in 1864, when Rossini was seventy-two and had not been composing for the theater for more than thirty years. The music is sincerely devotional, but this Mass is neither "petite" nor really "solennelle." It is longer than any Mass written by Mozart, Cherubini, or Schubert, and almost as long as Beethoven's *Missa Solennis*. And it is more "solemn" in the spiritual sense than in the liturgical or ceremonial sense, for it is far less theatrical than Rossini's earlier *Stabat Mater*. The new RCA recording, like most of its predecessors, uses the original modest setting for soloists, chorus, two pianos, and harmonium. In a way this is a pity, for no modern recording of the composer's later orchestral version exists—the old mono Period 588, heavily cut, was deleted years ago. In its original form, the Mass appears a bit too long, but the appeal of its sequence of arias, ensembles, and choruses cannot be denied. Many of these reveal the old master's melodic invention and compositional skills not only unimpaired but near peak form in his self-advertised *vieillesse*.

The performance here, though not outstanding, is good enough to be recommended. Most impressive among the soloists is Brigitte Fassbaender; she sings her first solo, *Crucifixus*, very movingly and then reaches great emotional heights in the beautiful final *Agnus Dei*. Soprano Kari Lövaas sings with appealing tonal purity and flawless musicianship, if a bit coolly for my taste. Peter Schreier excels in the ensembles, but for his somewhat operatically conceived aria, *Domine Deus*, I would prefer a more ringing, Italianate approach.

(Continued on page 162)



"... And then we thought we'd tie the whole thing together with the slogan 'His Master's Visage'..."



# THE NEW Stereo Review SRT14

## STEREO TEST RECORD

THE EDITORS AND TECHNICAL STAFF OF STEREO REVIEW PRESENT THE MOST COMPREHENSIVE, ACCURATE AND EASY-TO-USE TEST RECORD EVER DEVELOPED.

Here, at last, is a record that contains everything you need to get the fullest, most realistic reproduction from your stereo equipment.

Whether you've spent thousands on your stereo system or have a more modest setup, the SRT14 is an indispensable tool for helping you realize the full potential of your equipment.

Best of all, you don't have to be an electronics engineer to use it. You can actually perform a complete stereo-system checkup by ear alone.

### A test lab in a record jacket

Employing the most advanced recording, mastering, and pressing techniques, the Stereo Review SRT14 is produced to strict laboratory standards. Engraved in its grooves are a series of precisely recorded test tones, frequency sweeps, and random-noise signals that enable you to accurately analyze and check your stereo system for:

- Frequency response.
- Stereo separation.
- Cartridge tracking.
- Channel balance.
- Hum and noise, including turntable rumble
- Wow and flutter
- Optimum speaker placement, and more . . . much more.

And you can do it all without any instruments . . . by ear alone.

### Step-by-step instructions

Included with the SRT14 is a detailed instruction manual complete with charts, tables, and diagrams. This takes you step by step through the testing process. It explains the significance of each test. It tells you what to listen for. It clearly describes any aberrations in system response. And it details corrective procedures.

### For professionals too

The usefulness of the SRT14 is not confined to the nontechnical listener. Included on the record are a series of tests that call for the use of sophisticated measuring instruments, such as oscilloscopes, chart recorders, and distortion analyzers. These tests permit the advanced audiophile and professional to make precise measurements of transient response, recorded signal velocity, anti-skating compensation, IM distortion, and a host of other performance characteristics.

### SRT14 record contents

**FREQUENCY-RESPONSE TEST, LEFT AND RIGHT CHANNELS.** Consists of half-octave warble tones that permit testing and adjustment of frequency response of a sound system over the full audio range.

**STEREO SEPARATION.** Indicates the amount of signal leakage from one channel into another using warble tones from 400 to 12,800 Hz.

**PHONO-CARTRIDGE TRACKING, HIGH FREQUENCY.** Consists of a two-tone test signal (16,000 and 16,300 Hz) that repeatedly swoops to a high level and returns to a fixed low level. The level and quality of an audible "difference tone" indicates mistracking.

**PHONO-CARTRIDGE TRACKING, LOW FREQUENCY.** A single 300-Hz tone recorded with similar swoops indicates mistracking as an increase in harmonic distortion.

**CHANNEL BALANCE.** Separate random-phase noise sources for the two channels permit balancing not only of overall channel levels, but also of the individual tweeters and mid-range drivers in the speaker systems.

**PHASE TEST, SPEAKERS AND PHONO-CARTRIDGE.** A low-frequency warble tone is recorded alternately in and out of phase several times to establish correct interchannel phasing.



**NOISE TEST.** A very low-level recording of a piano provides a reference playback level by which the low-frequency noise of a sound system playing an unmodulated groove can be judged.

**RECORD-PLAYER FLUTTER TEST.** A passage of piano music is recorded three times with increasing amounts of flutter. The degree to which the record-player's flutter "masks" the recorded flutter indicates its relative severity.

**FREQUENCY-RESPONSE SWEEP, 10,000 TO 40,000 HZ.** The frequency response and channel separation of a phono cartridge at ultrasonic frequencies can be measured with a voltmeter or other appropriate instrument to give an indication of the cartridge's suitability for CD-4 reproduction.

**FREQUENCY-RESPONSE SWEEP, 500 TO 20,000 HZ.** Similarly, the cartridge's response and separation over the range of important audible frequencies can be measured.

**SQUARE-WAVE TEST.** The high-frequency response, phase shift, and resonant characteristics of a phono cartridge can be evaluated quickly by viewing the reproduced waveform of an RIAA-equalized 500-Hz square wave on an oscilloscope.

**TONE-BURST TEST.** Tone bursts sweeping from 500 to 20,000 Hz give an indication of a phono cartridge's transient response when the reproduced signal is viewed on the oscilloscope.

**INTERMODULATION-DISTORTION TEST.** A phono cartridge's intermodulation distortion can be measured directly using a standard IM meter designed to analyze an SMPTE signal.

**ANTISKATING TEST.** A specially designed test signal permits adjustment of skating compensation for best reproduction of critical high-level recorded passages.

**1,000-HZ REFERENCE TONES.** Four tones whose recorded velocities increase by 3-dB steps can be used to determine (by the comparison method) the recorded signal velocity on a disc recording.

**FLUTTER AND SPEED TEST.** A 3,150-Hz tone recorded with great speed-accuracy and stability provides a signal for use with a flutter meter or frequency counter.

**STEREO-SPREAD TEST.** A series of recorded gun shots provide a guide to optimum speaker placement for the most subjective satisfying stereo image.

### The final step



Start getting the most out of your stereo system. Make the SRT14 your next record purchase. Just complete the coupon and mail it along with your remittance . . . today!

Test Record, Dept. 30013, P.O. Box 278, Pratt Station, Brooklyn, NY 11205  
Please send \_\_\_\_\_ SRT14 Stereo Test Records @ \$7.95 each  
(\$9.95 outside U.S.A.).  
 Enclosed is \$\_\_\_\_\_. Residents of CA, CO, DC, FL, IL, MI,  
MO, NY STATE and VT add applicable sales tax.  
 CHARGE:  American Express  Master Charge  
 VISA  Diners Club  
Account # \_\_\_\_\_ Exp. Date \_\_\_\_\_  
Master Charge Interbank # \_\_\_\_\_ (4 #'s over your name)  
Signature \_\_\_\_\_  
Print Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_



## Hi-Fi Buys

ON PIONEER Technics  
KENWOOD Samsui  
AND OTHER FAMOUS BRANDS

 <b>KENWOOD KR-4070</b> AM/FM RECEIVER 40 watts RMS, at 8 ohms, no more than .05% THD.	 <b>PIONEER</b> HPM-100 HEADPHONE AMPLIFIER
 <b>Technics SL-230</b> Automatic single-disc FG servo belt-drive turntable.	 <b>SANSUI AU-717</b> 85 watts per channel with no more than 0.025% total harmonic distortion.
 <b>PIONEER</b> RT-707 OPEN REEL, AUTO REVERSE PLAYBACK TAPE DECK	

CALL TOLL FREE  
**800-638-0935**  
MON.-FRI. 9-8, SAT. 9-4

Orders shipped within 48 hrs. • Phone and COD orders accepted • Use Visa, Master Charge, or NAC • Call or write for quotes • Catalog available upon request • All equipment factory sealed with full warranty.

master charge  
VISA  
**Hi-Fi Buys**  
1362 HOLTON LANE  
LANGLEY PARK, MD. 20783  
**(301) 434-5330**

CIRCLE NO. 31 ON READER SERVICE CARD

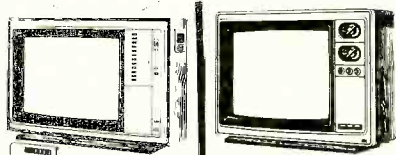
## SOUND machine

EVERYTHING IN SOUND EQUIPMENT  
2836 Kennedy Boulevard • Jersey City, New Jersey 07306  
New Jersey 201/963-6300 New York 212/349-7070

CALL TOLL FREE  
**800-526-6070** N.J. RES. CALL DIRECT  
FREE PRICE QUOTES & INFORMATION

We carry everything in stereo, audio, color & black & white TV's, C.B.'s, scanners, radar detectors, computer games, phone answering equipment, calculators, tapes, accessories, etc.

**SONY COLOR TV**  
SOUND MACHINE PROUDLY INTRODUCES  
NEW '78-'79, MODELS  
WITH ELECTRONIC TUNING.



KV 2142 R **\$650** KV 1911 **\$440**

**NEW BETAMAX SL 8600 \$895**

KV2101... \$545	KV1942R... \$545
KV1922... \$460	KV1742R... \$475
KV1724... \$400	KV1713... \$420
KV1542R... \$440	KV1513... \$375
KV1216... \$330	KV1205... \$315

We deliver anywhere in the U.S.A. Charge it by phone on BAC/VISA or DINERS. C.O.D. orders accepted. All merchandise in factory sealed cartons. Guaranteed lowest prices.

CIRCLE NO. 69 ON READER SERVICE CARD

produced with the PCM method that I have had around for almost a year. The record under review here is a 1977 example produced with substantially improved PCM equipment, and I can only say that sonically it is breathtaking! It is so free of background noise, from either the tape or the pressing, that any noise (such as turntable rumble) introduced by the playback equipment is immediately audible. These Mendelssohn performances by thirty-year-old John O'Connor are recorded with such total clarity that comparing them with most other recordings is like comparing bracing mountain air with city smog.

If Daniel Barenboim's three-disc Deutsche Grammophon recording of the complete *Songs Without Words* sets the interpretive standard, this baker's dozen by O'Connor ranks very respectably. The classic rhythmic precision associated with Mendelssohn's own playing is dominant here, though there is also judicious use of rubato. The two big favorites of the set, the *Spring Song* and the *Spinning Song*, are included, as well as the two lovely gondola pieces from Opp. 19 and 30. And Mahler buffs may be startled to hear in Op. 62, No. 3, the stark theme that, as a fanfare, opens the later master's Symphony No. 5.

With all due respect to the startling clarity of the piano reproduction here, a bit more room coloration might have added tonal warmth (the best of Connoisseur Society's U.S. recordings of Ivan Moravec, Antonio Barbosa, and Morton Estrin are good examples of such atmospheric piano reproduction). Nonetheless, this Denon disc is another milestone on the road toward perfection in recording one of the most difficult of instruments to reproduce faithfully. *D.H.*

### RECORDING OF SPECIAL MERIT

**MENDELSSOHN: *Trio No. 1, in D Minor, Op. 49.* SMETANA: *Trio in G Minor, Op. 15.* Trio Pro Arte. Bis LP-97 \$8.98 (from Qualiton Records, Ltd., 65-37 Austin Street, Rego Park, N.Y. 11374).**

Performance: **Superb**  
Recording: **Gorgeous**

This is one of the most beautiful chamber-music recordings to come along in some time, even in a year in which there have been more than a few notable releases in that category. The Trio Pro Arte is a Copenhagen ensemble made up of pianist Elisabeth Westenholz, Czech-born violinist Milan Vitek, and Pierre René Honnens, who is the cellist of the Royal Danish Orchestra. The two string players have had opportunities to play together in the orchestra for some time (Vitek is its concertmaster); how long they have performed chamber music with Westenholz, I don't know, but the two performances recorded here suggest a long, well-seasoned relationship based on mutuality of approach.

Both performances are expansive rather than supercharged, and it is an expansiveness in terms of intimacy rather than inflated gestures. The slow movement of the Mendelssohn, in particular, is breathtaking in its illumination of both the "con moto" and "tranquillo" of its heading. Some listeners, accustomed to regarding Mendelssohn as merely gentlemanly, may be astonished to discover how much depth there is in this music after all, especially as realized here in purely Mendelssohnian terms, without assuming the mask of Beethoven or Schubert.

The Smetana trio, a much lesser-known work, has had two other splendid recordings in recent years, by the Yuval Trio (Deutsche Grammophon 2530 594) and the Beaux Arts Trio (Philips 6500 133), but the Copenhagen players persuade with a level of poetry in their approach and beauty in their playing that neither of the other teams quite matches. The recording itself is similarly outstanding in its realism, richness, and balance, a perfect complement to the performances in that it, too, leaves nothing unsaid and yet presents nothing exaggerated or out of proportion. If your dealer doesn't stock this record, make him order it for you—or order it yourself. *R.F.*

### RECORDING OF SPECIAL MERIT

**MENOTTI: *Sebastian, Ballet Suite.* PROKOFIEV: *Romeo and Juliet, Ballet, Op. 64 (excerpts).* Members of the NBC Symphony Orchestra, Leopold Stokowski cond. RCA ARL1-2715 \$7.98, Ⓢ ARS1-2715 \$7.98, Ⓞ ARK1-2715 \$7.98.**

Performance: **Top-drawer Stokowski**  
Recording: **Remarkable**

For a decade or more I have been agitating for a reissue of this 1954 Stokowski recording of the music from Gian-Carlo Menotti's early ballet score *Sebastian* (1944). It is not a world-shaking masterpiece, but it is highly effective theater music. It provided Stokowski with a prime vehicle for his particular brand of orchestral wizardry, and RCA's engineers really rose to the occasion. The same series of recording sessions also produced these excerpts from Prokofiev's *Romeo and Juliet*, which Stokowski assembled from the three concert suites. It is a moving distillation of the lyrical essence of Prokofiev's score. The performances in both instances show the Old Wizard in top form. The rhythmic attacks in *Sebastian* are brilliant and slashing, and the splashes of orchestral color evoke a Matisse in sound, reaching a peak in the processional episode with its Moussorgsky-like chorale, large and small bells, and off-stage trumpets. The Prokofiev music offers Stokowski a chance to revel in magnificent string sonorities, alternately of the utmost gossamer texture and of almost Wagnerian richness.

The entire disc is not only a showcase of marvelous orchestral performance, but sonically one of the two or three major Stokowski achievements since the great Philadelphia days. The wide-open spaces of Manhattan Center make for a broad and deep sonic front that is most effective in both works. As with most reissues from early stereo tapes, there is audible hiss, but not enough to interfere with one's enjoyment. *D.H.*

**MOZART: *Requiem Mass (K. 626).* Ileana Cotrubas (soprano); Helen Watts (contralto); Robert Tear (tenor); John Shirley-Quirk (bass); Academy and Chorus of St. Martin-in-the-Fields, Neville Marriner cond. ARGO ZRG 876 \$7.98.**

Performance: **Correct but subdued**  
Recording: **Good**

This Requiem is based on a new performing edition, by Prof. Franz Beyer of Munich, that corrects certain passages, where scholars believe that Franz Süssmayr, who completed the score upon Mozart's death, was less than properly attentive to Mozartian procedures.

(Continued on page 160)



# NOW, THE SUM OF THE PARTS, INSTEAD OF JUST SOME OF THE PARTS.



Up to now, car stereo has been something of an either/or situation. Either you got plenty of power, like a whopping 20 watts. Or sensitive controls, like dual-gate MOS/FET. Either maximum stereo separation. Or minimum distortion. A local-distant switch or a mono-stereo switch.

But the time has come for something revolutionary in car stereo. The and. 20 watts of power per channel (with less than 1% THD at 12 watts RMS) and separate bass and treble controls and dual-gate MOS/FET and a phase-locked-loop multiplex demodulator and automatic fine tuning and dual ceramic filters and integrated circuitry and a local-distant switch and a mono-stereo switch, and even more. All together. In The Superpowers. The CAS-600A in-dash cassette AM/FM/MPX stereo with Dolby\* noise reduction system. And the TM-3500 in-dash 8-track AM/FM/MPX stereo with FM muting.

If you're tired of hearing either this or that, drive over to your Audiovox dealer for a test-listen. You'll find the sum of the parts sounds a lot better than just some of the parts.

The Superpowers by

## AUDIOVOX®

We build Stereo for the road. We have to build it better.

CIRCLE NO. 15 ON READER SERVICE CARD

\*Dolby is a registered trademark of Dolby Laboratories



ERVIN NYIREGYHÁZI is a pianist who will permanently inspire controversy, but there is at least one quality of the man that, whatever one's critical opinions, cannot be denied: his uniqueness. There is no one else in the world today who plays the piano this way.

Was there ever *anyone* who played this way? Verifiable evidence is lacking, but descriptions that have survived of the playing of such as Liszt and Anton Rubinstein would lead us to think that there was. For those descriptions, instead of offering us cold and clear facts about dynamics, phrasing, rubato, and liberties taken, dwell on poetic metaphors and psychological states, and are couched in adjectival superlatives—the very sort of thing the mind brings forth when confronted with the playing of Nyiregyházi. Such nineteenth-century critical conceits need not be called upon to describe any other living pianist. But that is one of the odd things about Nyiregyházi: you listen to him and you know instinctively that there is something more than piano playing at stake here, something in the playing itself that goes *beyond* playing. It would be quite as noticeable even had Columbia's just-released two-disc set of Nyiregyházi performances come to us anonymously from parts unknown.

I could not put a name to this quality. Part of it is a sense of immediate and direct emotional communication. There is no question that Nyiregyházi makes affecting music out of a lot of what normally would be considered rather rarefied material. Part of it also is the sheer *sound* of the piano as he plays it, for no one else makes it sound this way. Part of it is a sense of the past brought to life again. And part of it—for Nyiregyházi himself, probably the major part—is the expression of an intense personality: his. At their best, his performances are shatteringly powerful communications on planes both beneath and above the commonly expected and admired ones, at once undercutting the intellectual impulse and sublimating it.

To depart, if only temporarily, from abstractions, the cold and clear facts are these: however he has arrived at it or maintains it, Nyiregyházi has the true virtuoso technique, which is to say that what works for him does so with the greatest flair and fluency, but when the fingers fail, entire passages are swept onto the floor. His technique is at this time assuredly imperfect (he is in his seventy-sixth year of a hard life), for these records, which are completely unedited and uncorrected, contain many missed notes. One can say only that he gets most of the notes most of the time. But Nyiregyházi almost always fails (*when he fails in the attempt*). The few times he backs away from a challenge (as he does, for example, in the double-octave *accelerando* in the *Polnisch*) are so few that they call undue attention to themselves.

His dynamic range, especially on the high end, is unprecedented. Next to him, Horowitz sounds like he is playing a toy piano. There is such a sense of *mass* present in his fortissimos that it belies any volume setting on the amplifier (and I have been categorically assured by the producers that the only monitoring of volume in the recording sessions has been downward—when, despite pretesting,

the meters were being pinned to the top of their scales). So far as tempos are concerned, Nyiregyházi invariably opts for the slow ones, and, in fact, most of what he plays, regardless of the speed of individual figurations, is slow music. His rubato goes far beyond the bounds of what we might consider good or appropriate taste today, but he has an almost unerring sense of which notes are there to perform



Columbia Records

## The Return of Nyiregyházi

**LISZT: *Hungarian Rhapsody No. 3; Mosonyi's Funeral Procession; Nuages Gris; Abendglocken and Polnisch (from Weihnachtsbaum); Miserere after Palestrina (from Harmonies Poétiques et Religieuses); Aux Cyprès de la Villa d'Este (from Années de Pèlerinage, Troisième Année).* LISZT/NYIREGYHÁZI: *Hamlet; March of the Three Holy Kings (from Christus).* Ervin Nyiregyházi (piano). COLUMBIA M2 34598 two discs \$15.98.**

what functions, and his performances "work" in a natural if idiosyncratic way that is light years beyond the most carefully thought-out intellectual approach to the written score.

Finally, Nyiregyházi habitually recomposes the music in performance, an action expressive of a relationship between score and performer that is all but unknown (and all but high treason) today. He repeats sections, adds ornaments, changes accents, reverses dynamic and tempo indications, combines separate pieces, transcribes works clearly meant for other forces, and, in particular (and in great profusion) adds octaves at the bottom of the

keyboard to left-hand passages to produce his thunderous sound. Yet, strangely, he never seems to be calling attention to himself as pianist when he does it, but is, rather, reinterpreting the composer's original vision. It is probably a measure of just how close psychologically Nyiregyházi's vision is to Liszt's that this recomposition works so well so often. Applied to some other composers it could be disastrous.

Now, the foregoing comments, both laudatory and critical, may be objectively true and even verifiable, but, as Nyiregyházi himself might point out, they do not tell the whole story; perhaps they do not even *touch* the real story. The matter of recomposition is central to the man, for his whole view of music is at odds with our conventional compartmentalization of composer and performer, with the score as scripture to be interpreted only for the *composer's* intentions (or, on the other hand, to be used as a mere *vehicle* for the performer's virtuosic prowess). Nyiregyházi's amalgam of the composer's "vision" and his own personality is neither of these. He has said words to the effect that he would welcome appreciation of himself as a man far more than as a pianist (remember Goethe's young Werther lamenting that he was admired for his mind whereas it was his heart that was truly great), for the piano is, for him, only a means of expressing that personality. And so he seems to be asking us to take him as a whole, wrong notes (warts) and all, for the power and the nobility (that is a big word for him, as it was for Beethoven) of his personality. It poses problems that are not easily solved, but some are certain to take him that way and will have their lives changed in the bargain. He could easily become the classical cult figure of the decade.

For those of us not prone to cults, Nyiregyházi remains an uneven but fascinating and, at times, colossal musical figure. His previously released record (Desmar/International Piano Archives 111) contained unbelievable performances, taken from a concert, of Liszt's two *Légendes*. Future Columbia releases, some of which I have heard on tape, will include almost mystical revelations of such things as Liszt's *Unstern* plus works of Grieg and Tchaikovsky—and much, much more Liszt. There is a great deal to be impressed with in this first two-record set. Perhaps the greatest playing comes in about the first three-quarters of Nyiregyházi's own transcription of *Hamlet*—which falls apart in the final pages, though whether the fault is Liszt's, Nyiregyházi's, or *Hamlet's* is not all that easy to say. The Hungarian Rhapsody is awesome, as is the rarely heard *Mosonyi's Funeral Procession*. But there are great moments everywhere, and the recording seems really to capture the man's incredible sonorities.

Although the repertoire is for the most part rare, and almost everywhere fascinating, one does not buy a set like this for the pieces it contains. One buys it for the experience of a musical mind that some will declare a fraud and others will find an *Übermensch*, but which, however frustrating in its lapses from the ideal, remains altogether unique in its expression.

—James Goodfriend



# FIDELITY TURNS INTO REALITY.

## With The ADS 10 Digital Time Delay System.

If you are a typical reader of this magazine, you already own a good stereo system and your next component will be a time delay ambience-reproduction system.

The best two-channel stereo sound is still a limited illusion, a sonic painting on the wall between the stereo speakers. You don't have to open your eyes to know that you are hearing a reproduction rather than the real thing. Stereo provides a picture-window view of the recording locale, but as long as the sound is only projected at listeners from in front, stereo cannot produce the feeling of **being there** in the same acoustic space with the musicians. Better recordings and finer stereo components can improve the quality of the picture-window view but they cannot make the breakthrough to a convincing sense of "reality" in the reproduction. The you-are-there illusion in sound, that feeling of hearing the sound in **three** dimensions, can only be achieved by re-creating the enveloping "ambient" sound field which surrounds the listener in any real acoustic space. Critics and reviewers have agreed that there is nothing you can add to a decent stereo system for \$1000 which will improve its performance as much as a good time delay ambience system can.

The ambience system you will want to own is the ADS 10 — the most sophisticated and the only complete time delay system now offered to the public. The ADS 10 is a fully optimized, fully integrated, third generation digital system containing everything you need to add to your existing stereo (ambience circuitry, amplifier, and speakers) — free of the limitations and compromises of earlier time delay units. Its component parts work at maximum efficiency with each other, with no money wasted on redundant parts or unused capacity. The ADS L10 speakers were developed specifically for this application.

Building the amplifiers into the same chassis as the time delay circuitry, sharing the same power supply and cabinet, allows us to offer a **full 100 watt per channel amp**

at the price of a far smaller separate amplifier. This also simplifies installation in your home by eliminating another piece of gear requiring additional shelf space and interconnecting cables.

As for the ADS 10's time-delay and ambience-producing circuitry, we invite you to compare it with others. We believe you will find it to be the best-sounding, most natural and musical, most flexible and most logically designed ambience system available.

The ADS 10 has more flexibility of control than any other system, but it is simple to operate. Design of the controls has been human-engineered so that you can easily select the size of the hall (from an intimate club to a cathedral), the depth of the stage, the location of your "seat" and the reverberant qualities of the hall itself. An irritating problem of earlier time delay systems — the unnatural sound of the ambience-enhanced human voice, as in FM listening, for example — is resolved in the ADS 10 by a special circuit. Provision is made for adding ambience to the front channels for "dry" recordings, as well as to your own tape recordings. An ambience-enhanced headphone outlet provides the most natural, most musical headphone listening you've ever known.

Visit your ADS dealer. Bring your favorite records with you and listen to them through the ADS 10. Experience the difference between fidelity and reality. Change the hall. Deepen the stage. Move your "seat." Check the features and the performance of the ADS 10 against any other time delay system.

You'll discover the ADS 10 Acoustic Dimension Synthesizer is the system for which you've been waiting.



For a comprehensive explanation of ambience reproduction and the ADS 10 Time Delay System, request your free copy of the ADS 10 Brochure. For full information on the scientific basis, design, installation, features and functions of the ADS 10, we invite you to order the ADS 10 Owner's Manual at \$5.00 per copy.

**ADS, Analog & Digital Systems, Inc., One Progress Way, Wilmington, MA 01887**

Please send me a copy of the ADS 10 Owner's Manual. \$5.00 is enclosed.

Please send me a copy of the ADS 10 Brochure.

Name \_\_\_\_\_ Address \_\_\_\_\_ Zip \_\_\_\_\_



**Audio Discount**  
**WAREHOUSE SALES**  
**DIRECT TO PUBLIC**  
**"HOT STUFF"**

CALL TOLL FREE  
**800-631-2175**  
 FOR ORDERS & PRICE QUOTES

**LARGEST SELECTION**  
**LOWEST PRICED ANYWHERE**

RECEIVERS    TURNTABLES    TUNERS  
 SPEAKERS    CHANGERS    CARTRIDGES  
 TAPE DECKS    AMPLIFIERS    HEADPHONES  
 PRE-AMPS    COMPACTS    CAR AUDIOS

**Sansui G6000**



**\$429**

.03% THD  
 65 Watts Per Channel

**Dual CS604**

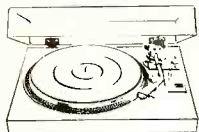
w/base - Dust Cover

**\$179**



Semi Automatic  
 Electronic Direct Drive

**PIONEER PL518**



**\$119**

Direct Drive Turntable  
 Semi-Automatic

**PIONEER KPX-9000**

**\$185**



Component Car Stereo  
 Cassett Deck w/AM/FM —  
 Tuner—Dolby

**JENSEN CAR STEREO**

**C9740**  
 Coaxial

**\$39.95**  
 6" x 9"

**C9945**  
 Triaxial

**\$59.95**  
 6" x 9"



**TDK**

Case of 10 — \$28.

Avilyn has greater sensitivity than even the best chrome tape, especially in the low and middle range, it performs with less distortion.

**CALL TODAY**  
**TOLL FREE**

**800-631-2175**

MASTER CHARGE/BANKAMERICARD  
 HONORED ON PHONE ORDERS

175 MONMOUTH RD.  
 W. LONG BRANCH, N.J. 07764  
 201-229-3300



ERA (for Eastman-Rochester Archives) has been performing this service for the old Mercury Records releases of American music, most of it performed by the Eastman-Rochester Symphony Orchestra under Howard Hanson, from the 1950's, when Mercury was way ahead of most other record companies in obtaining excellent sound (some of the releases were recorded in stereo before stereo records were even on the market). Hanson turned in emphatic, vigorous performances, usually of works by composers who remained loyal to conservative principles of tonality, and the series contained some winning music.

At the same time, Hanson managed to commit to discs quite a few of his own works, not all of which would seem to merit immortality. *For the First Time* is one that does not. It is a suite of rather impressionistic pieces (with such titles as *Bells*, *Deserted House*, *Eccentric Clock*, *Mist*, and *Dreams*) that is long on charm and colorful orchestration in a Sibelian vein, but rather short on memorable content. (There was a pedagogical intent to this work, and the album is subtitled "The Composer and His Orchestra, Volume III," but the nature of the intent is not made very clear in this reissue.)

The *Tres Himnos* by Wells Hively is something else again, and I have long cherished my copy of it. This series of meditations in a Mexican idiom, culminating with a nocturne intended to evoke the local color of a street fair, fireworks display, and religious ceremony, is wonderfully atmospheric but at the same time most sturdily constructed. Both works receive impeccable performances, and the sound holds up uncannily well. P.K.

HIVELY: *Tres Himnos* (see HANSON)

JOSEPHS: *Chacony for Violin and Piano, Op. 38* (see WALTON)

**RECORDING OF SPECIAL MERIT**

KODÁLY: *Sixteen Songs, Op. 1; Four Songs; Belated Melodies, Op. 6; Five Songs, Op. 9; Himfy Song; Epitaphium Joannis Hunyadi*. Éva Andor, Ilona Todoky, Sylvia Sass (sopranos); Boldizsár Keönc, Attila Fülöp (tenors); István Gáti, György Melis, Sándor Sólyom Nagy (baritones); Kolos Kováts, József Gregor (basses); Lóránt Szücs (piano). HUNGAROTON SLPX 11766/7 two discs \$15.96 (from Qualiton Records, Ltd., 65-37 Austin Street, Rego Park, N.Y. 11374).

Performance: **Very good**  
 Recording: **Very good**

Zoltán Kodály was a master of vocal writing, but his output of solo songs was not extensive and it was largely limited to his early years. After 1925, following his highly successful stage works *Háry János* and *The Spinning Room*, he turned to choral writing.

This two-record set, enlisting the services of contemporary Hungary's leading singers, contains nearly all of Kodály's songs for solo voice and piano. They start with Op. 1, sixteen settings of folk songs bound into a sequence that forms more of a musical than a poetic cycle. The simple, direct settings were essential to the foundation of the composer's style, for the music is shaped by the rhythm of the language. Éva Andor sings these songs movingly and sensitively. Debussy's influence, already noticeable in some of the earliest songs, is clearly perceived in *Nausikaa*,

one of the Four Songs (without opus number). These, and indeed nearly all the songs in this collection, are in a plaintive vein, dealing with sorrowful love, partings, and the fleeting pleasures of life. One distinct exception is *Farewell to Carnival*, a suitably lighthearted treatment of a playful poem. This is one of the *Belated Melodies*, so named because the texts are eighteenth-century Hungarian poems for which Hungarian composers of the pre-Bartók/Kodály era, firmly rooted in their German schooling, simply could not find the right settings.

Ferenc Bónis observes in his detailed annotations that according to Kodály "music written to Hungarian texts is virtually impossible to translate into another European language, and the melodic line flowing from such a text will sound alien to other Europeans." While I find Kodály's songs never less than interesting and frequently haunting, some may indeed sound "alien" to ears attuned to German, Italian, and French song literature—though certainly not to those who appreciate Moussorgsky, Dvořák, or Janáček. Despite the many voices involved, the singing here is almost uniformly excellent, and so is the work of the accompanist, who must play everything from austere chords to passages of Lisztian brilliance. G.J.

MAHLER: *Symphony No. 1, in D Major*. Royal Philharmonic Orchestra, Carlos Paita cond. LONDON SPC 21167 \$7.98, © SPC 5 21167 \$7.95.

Performance: **Erratic**  
 Recording: **Very spacious**

Carlos Paita's performance of the Mahler First Symphony is not for the purists. While there is fine poetic feeling in his spacious approach to the opening pages, the main body of the first movement gets a freewheeling, even fussy treatment that fails to achieve coherence for its somewhat sprawling structure. The scherzo is brisk and breezy in the main sections, but there is too much gear shifting in the trio. By and large, the ironic Funeral March comes off best here. The finale, like the first movement, loses both momentum and coherence through Paita's extreme tempo contrasts. The Royal Philharmonic Orchestra plays most responsively, with fine solo work in the woodwind department. The Phase-4 recording features the element of space rather than the usual textural-analytic microphone setup, and there is an unusually deep acoustic perspective. Bass presence is impressive and full-bodied without being exaggerated. All told, this is a disc more for sound buffs than for dedicated Mahlerites. D.H.

**RECORDING OF SPECIAL MERIT**

MENDELSSOHN: *Songs Without Words: Op. 19, Nos. 1, 2, 4, 6; Op. 30, Nos. 1, 3, 6; Op. 38, No. 6; Op. 53, No. 4; Op. 62, Nos. 1, 3, 6; Op. 67, No. 4*, John O'Connor (piano). DENON/PCM OX-7121-ND \$14 (from selected audio dealers).

Performance: **In the classic manner**  
 Recording: **Breathtaking**

If I have seemed to downgrade direct-to-disc recording as the wave of the future in favor of digital pulse-code-modulation recording, it has been because of what I have heard from a couple of 1972 and 1974 Japanese Denon discs (Continued on page 158)



# HOW MUCH MUST YOU PAY FOR A PAIR OF "DYNAMITE" SPEAKERS?

Would you believe that you can step up from merely "OK" to "absolutely dynamite" for only about \$70 per speaker?

Well it's true.

For only about \$70 each an AR dealer can put you into a pair of AR18s... an amazing listening experience that sounds a lot more expensive than it really is.

This is what you'll hear.

A firm, well-controlled, reproduction of source material. Accurate and uncolored by minor resonances in the speaker itself.

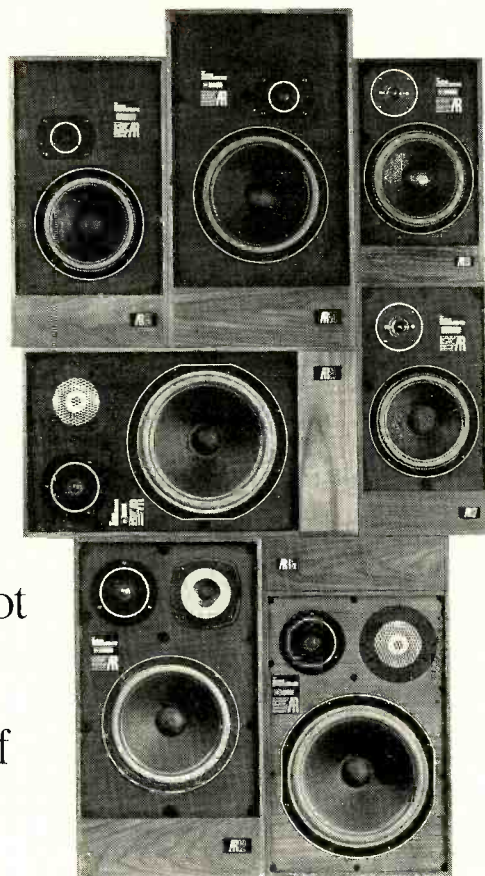
A nice flat response curve. In layman's language that means bass notes that don't get

overemphasized. Middle frequencies, where vocal passages occur, that come through beautifully. And, on the high end, strings that don't sound over bright.

There are, of course, other AR speakers beside the AR18 which boast these qualities. The bigger they come the more power they'll handle and more sound level they'll produce.

But size doesn't determine quality at AR, and every AR speaker is built (in our own factories) to deliver the same thing: truth in listening.

So stop fooling around. Buy a pair... any pair. Discover what the smart money's learning all the time. That listening to a pair of dynamite speakers can really be a blast.



READ ABOUT THEM ALL. OUR FULL COLOR BOOKLETS DESCRIBE THESE SPEAKERS AND HOW TO MAKE YOUR CHOICE. GET ONE FROM YOUR DEALER OR WRITE TO AR AT THE ADDRESS BELOW.

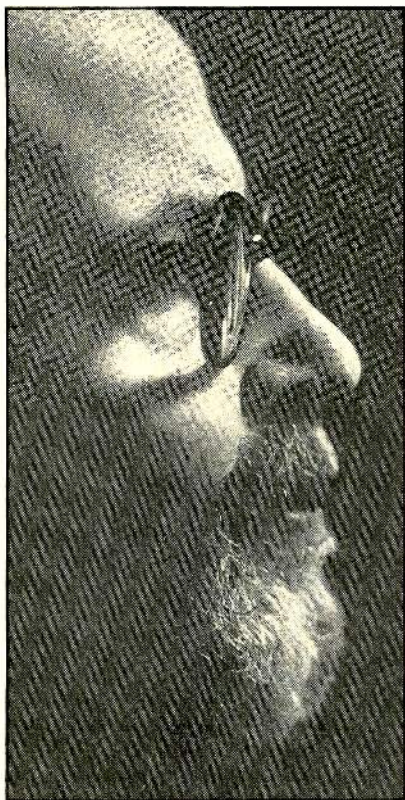
AR SPEAKERS RANGE IN PRICE FROM ABOUT \$70 TO ABOUT \$750. THIS IS THE \$750 ONE - THE INCREDIBLE AR9. ALL ARE COVERED BY THE SAME FULL 5-YEAR WARRANTY WHICH AN AR DEALER WILL SHOW YOU.



Truth In Listening

**TELEDYNE ACOUSTIC RESEARCH**  
10 AMERICAN DRIVE, NORWOOD, MASSACHUSETTS 02062  
IN CANADA: A.C. SIMMONDS & SONS LTD. ©1978





Bis Records

## Pettersson's "Vox Humana" Song Cycle

SINCE 1968, Allan Pettersson, who had been virtually unknown even in his native Sweden, has seen six of his thirteen symphonies recorded, together with a number of smaller-scale works (most notably the *Barefoot Songs*, HNH 4003/4). It was Antal Dorati's recording of his anguished and haunting Seventh Symphony (London CS 6740) that made him a figure of international interest, but as we become more familiar with Pettersson's music it is clear that there is more to him than harrowing post-Bergian eruptions. The *Vox Humana* song cycle, now available on a Swedish Bis recording, is a major example of another side of Pettersson.

The texts for the eighteen-part cycle for soloists, chorus, and string orchestra are translations into Swedish from a variety of Latin-American sources, ranging from poems by unknown Amerindians of the distant past and by Cuban proletarian poets to works of such eminent figures as César Vallejo of Peru, Manuel Bandeira of Brazil, and the late Pablo Neruda of Chile. One and all, the poems deal with the sufferings of the poor and oppressed,

and the last, by Neruda, speaks of hope for a better day to come, when the creative artist will take his proper place as a man among brother farmers and workers in a just society. Hardly months before embarking on *Vox Humana*, Pettersson had completed his fifty-four-minute Symphony No. 12 (Swedish Caprice CAP 1127), whose texts are Neruda's *Los Muertos de la Plaza* (*The Dead on the Square*) and eight other poems written in memory of those killed in a 1946 workers' revolt; it is a Dantean choral-orchestral outpouring of grief-laden wrath. In sharp contrast, the treatment of the no less militant *Vox Humana* poems is startlingly restrained.

The instrumental texture of *Vox Humana* is that of a resourcefully scored string orchestra, with the choral elements treated both as transmitters of the texts and as part of the overall musical fabric. In more than half of the sections the main burden of the text is carried by the solo voices. There is little that is overtly "expressionistic" in the settings and little of the kind of word-painting that one encounters in certain of the *Barefoot Songs*. Chiefly, one is aware of the continuous flow and momentum of the writing, which is in a chromatic, almost neo-Palestrinian vein. There are a few moments of abrupt drama, as in the Amerindian *Sentence for a Traitor*, and there are wonderfully touching passages, such as the setting for tenor and chorus of Bandeira's *The Final Poem* and the one for baritone and low strings of Vallejo's moving *A Man Goes Past with a Loaf of Bread on His Shoulder*. Unlike the immediately communicative *Barefoot Songs* and Symphony No. 7, *Vox Humana* requires numerous hearings, Swedish/English texts in hand, before one can fully integrate in one's own mind the poems and their settings.

As for the performance, the quartet of soloists does beautiful work, and the Swedish Radio Chorus and Orchestra members play devotedly under Stig Westerberg's direction. I cannot, however, help feeling that the performance would have more impact if the recording had been produced with greater attention to dramatic effect. The soloists are, quite properly, in the acoustic foreground, but Pettersson's intricately interwoven choral textures become lost or blurred because insufficient "presence" is granted to the chorus as a whole and because the possibilities of stereo directionality are not used to point up the numerous elements of interplay and dialogue among its various sections. *Vox Humana* deserves a better recording job than this, which is one of the very few less than satisfactory ones I have heard from the Bis label.

—David Hall

**PETTERSSON: *Vox Humana*.** Marianne Mellnäs (soprano); Margot Rödén (contralto); Sven-Erik Alexandersson (tenor); Erland Hagegård (baritone); Swedish Radio Chorus and Symphony Orchestra, Stig Westerberg cond. Bis LP-55 \$8.98 (from Qualiton Records, 65-37 Austin Street, Rego Park, N.Y. 11374).

of London conducted by Isidore Godfrey. That three-record set, complete with dialogue and offering the delectable bonus of *Cox and Box*, is still available on London OSA 1323. Just why it has been decided to record a second version of *The Gondoliers* with dialogue when we still have none of *The Mikado* is a mystery. Never mind, though, the album is here, and comparisons are inevitable.

A number of singers have roles in both versions, among them John Reed, who has grown from skittishness to a certain comic stature in the role of the Duke of Plaza-Toro, and Kenneth Sandford, who is again on hand as the drolly implacable Grand Inquisitor. Lyndsie Holland is a slightly fiercer spouse to the Duke than was Gillian Knight; Thomas Round and Alan Styler are more robust, though rather less charming, as the *gondolieri* Marco and Giuseppe, and Geoffrey Shovelton proves a slightly less sappy Luiz than did Jeffrey Skitch. As for the *contadini* who marry the duo of sunny gondoliers, Barbara Lilley as Gianetta and Jane Metcalfe as Tessa sing the lovely ballads Sullivan provided for them with all their hearts, but they are never as winning as Mary Sansom and Joyce Wright in the same parts on the older recording. Then there is the Casilda of Julia Goss, who performs her comic songs with the "r's" emerging as "w's" (in the manner of Bawbwa Wawa on *Saturday Night Live*); the mannerism is irritating, and in her serious songs the "r's" are conventional, rendering the whole approach ridiculous. Otherwise, she's appealing enough, delivering her coquettish lines of dialogue with vigor. Indeed, all the dialogue is recorded on a higher level and is in general more animated than on the older recording.

The Royal Philharmonic really does right by Sullivan's score, delivering every nuance intact, and the chorus sings with resounding brilliance. On the other hand, the sustained musical opening has markedly less lilt and Latin abandon than in the older version, and I missed conductor Godfrey's addition of the *Dance a Cachucha* to round out the scanty overture. But Royston Nash's performance increases in excellence as it proceeds, and by the time the plot complications were cleared up and the gondoliers and their wives safely back in Venice, I was quite won over. London has squeezed the whole production into the space of two discs, even finding room for the composer's comfortably upholstered overture to *Marmion*, so the sides are long—the last one runs better than thirty-five minutes—and the sound a bit pinched as a result (the cassette version is free of this defect.) Which to buy? If the older recording is already in your collection, no need to add another; if not, the bright playing of the Royal Philharmonic might just tip the scales in favor of this new release. P.K.

**HANSON: *For the First Time*.** Eastman Philharmonia Orchestra, Howard Hanson cond.  
**HIVELY: *Tres Himnos*.** Eastman-Rochester Symphony Orchestra, Howard Hanson cond. ERA 1015 \$5.98.

Performance: **Impeccable**  
Recording: **Excellent**

One of the pleasures of life these days is being able to replace old, beat-up copies of records you love with reissues of the same material, the sound all cleaned up and the ticks and clicks only an ugly memory. A label called

(Continued on page 154)

"more to him than harrowing post-Bergian eruptions"



tra, of his *Chóros* No. 6, a fascinating piece which should be heard in our concert halls (Turnabout Ⓜ THS-65002); this is about to be re-issued on Varese Sarabande, along with several Remington-derived items recorded in genuine stereo. In the meantime, the new label has come up with what was on the other side of the Remington Villa-Lobos, the two Enesco Rhapsodies of Op. 11, and what remains so far the only recording offered in this country of the *Dixtuor*, a most engaging piece, if somewhat less distinctive than the Rhapsodies or the Op. 7 String Octet which Enesco also recorded for Remington.

These Enesco recordings were made in 1951 or earlier (several years before the aforementioned RIAS material), and they were hardly sonic showpieces even by the standards that prevailed then. But it is good to have such works as the Roumanian Rhapsodies in Enesco's own performances (he was by no means just a "composer-conductor," but as distinguished on the podium as with his violin—and no mean pianist, either), which are as straightforward, ungimmicky, and eminently musical as one might imagine, and this reissue is a reminder that the *Dixtuor* really deserves a better fate than it has met with so far. The new disc is well worth investigating, but old-timers who have the original Remington pressings are likely to prefer them for their greater sense of immediacy, despite the quieter surfaces and smoother characteristics achieved in Varese Sarabande's painstaking processing. Although labeled "mono," the new edition of the Rhapsodies (not the *Dixtuor*) appears to have been rechanneled for phony stereo: Tom Null, who supervised the reissue, advises that the original mono tapes had been lost and his team had to work from a Remington rechanneled tape, trying to recapture the original mono character as well as possible. R.F.

**FISCHER:** *Die Friedensmesse*. Fischer Choir; Hans Bertram Symphony Orchestra, Gotthilf Fischer cond. DEUTSCHE GRAMMOPHON 2584 022 \$8.98, © 3334 022 \$8.98.

Performance: **Unexciting**  
Recording: **Very good**

Twenty years ago, in the town of Wurttenburg in West Germany, a gentleman named Gotthilf Fischer decided to round up everybody in the neighborhood who could carry a tune and combine them (including the members of thirteen different choral societies) into one big and (presumably) happy choir. After Fischer and his choir visited the Vatican in 1976, where they sang for the Pope, their director determined to go home to Wurttenburg and write a Mass inspired by his visit. The result was this *Mass for Peace (Friedensmesse)*, which is dedicated to "President Jimmy Carter, in celebration of his courageous and devoted efforts for the cause of peace throughout the world." A well-meaning but dismal work it is. Beginning with an ineptly worded prayer for freedom and peace—sung, for some reason, in English by the German members of the Fischer Choir—the work continues with the Latin text of the Mass for some forty minutes of hollow choral rhetoric. This empty exercise culminates in a final prayer, again in English, during which the Creator is asked to save the world from "pain and evil" in a way that must surely try His patience.

As for the performance, since a thousand voices sound in stereo like no more than fifty

ingeniously miked, the results are scarcely more exciting than the simplistic music Fischer's forces are compelled to sing. The melodies are amazingly elementary and must have been easy enough to learn even for the most backward amateur in the group. The Hans Bertram Symphony Orchestra (named, apparently, in honor of the producer of the album) pounds away for all the world as though it were engaged in a performance of the Beethoven *Missa Solemnis* itself. P.K.

**GILBERT AND SULLIVAN:** *The Gondoliers, or The King of Barataria*. SULLIVAN: *Marmion Overture*. John Reed (baritone), Duke of Plaza-Toro; Geoffrey Shovelton (tenor), Luiz; Kenneth Sandford (baritone), Don Al-

hambra del Bolero; Meston Reid (tenor), Marco Palmieri; Michael Rayner (baritone), Giuseppe Palmieri; Lyndsie Holland (contralto), Duchess of Plaza-Toro; Julia Goss (soprano), Casilda; Barbara Lilley (soprano), Gianetta; Jane Metcalfe (mezzo-soprano), Tessa; Betti Lloyd-Jones (contralto), Inez. D'Oyly Carte Opera Company; Royal Philharmonic Orchestra. Royston Nash cond. LONDON OSA 12110 two discs \$15.96. © 5 12110 \$15.96.

Performance: **Airy and idiomatic**  
Recording: **Excellent**

*The Gondoliers* has been recorded a number of times, most spectacularly about ten years ago by London with the D'Oyly Carte Opera Company and the New Symphony Orchestra

# If you know about ROTEL You know about Hi-Fi



Quality. Uncompromised.

## ROTEL

ROTEL OF AMERICA, INC.

1055 SAW MILL RIVER ROAD, ARDSLEY, NEW YORK 10502 (in Canada—NORESCO, Downsview, Ontario)

CIRCLE NO. 85 ON READER SERVICE CARD



# ANGEL OPERA A SEASONAL TRADITION

New For '78

Stunningly powerful.



Alluring and irresistible.



Glorious, total perfection.



An impeccable triumph.



Lacks absolutely nothing!



SBLX-3848 (2LPs/XDR Cassette)  
SBLX-3856 (2LPs/XDR Cassette)  
SCLX-3857 (3LPs/XDR Cassette)  
SCLX-3855 (3LPs/XDR Cassette)  
SCLX-3850 (3LPs/XDR Cassette)



tropovich (cello); Czech Philharmonic Orchestra, Vaclav Talich cond. HERITAGE Ⓜ HCN 8004 \$7.98 (from Qualiton Records, Ltd., 65-37 Austin Street, Rego Park, N.Y. 11374).

Performance: **Youthful**  
Recording: **Good enough**

DVOŘÁK: *Cello Concerto in B Minor, Op. 104*. SAINT-SAËNS: *Cello Concerto No. 1, in A Minor, Op. 33*. Mstislav Rostropovich (cello); London Philharmonic Orchestra, Carlo Maria Giulini cond. ANGEL □ S-37457 \$7.98.

Performance: **Mature**  
Recording: **Up to date**

The cello concerto literature contains only one repertoire item, and it is the fate of great cellists to have to record the Dvořák over and over again. Here are Rostropovich's newest and oldest. The 1952 Czech version is said to have introduced the young cellist to the West. It is a youthful performance, vigorous, even brash, full of zest and gusto. The new recording is, as it should be, much warmer, more mellow, a little draggy in the tutti but rich and passionate in the solos. I don't see any way to cast a simple vote; the first two movements probably have more depth and warmth in the new recording, but the old finale really catches the spirit.

The Angel release also includes a fine performance of a mediocre work: the Saint-Saëns concerto. The Czech recording adds a work of considerable interest: the *Othello* Overture—the last and least-known of Dvořák's symphonic trilogy that includes *Carnival* and *In Nature's Realm*. It is a striking work of great originality and dramatic power. Both exciting performances come through the 1951 mono sound very well. E.S.

#### RECORDING OF SPECIAL MERIT

ELGAR: *Sursum Corda, Op. 11; Sospiri, Op. 70; Beau Brummel, Minuet; The Spanish Lady, Burlesco; Adieu; The Starlight Express, Waltz*. VAUGHAN WILLIAMS: *The Poisoned Kiss, Overture; Two Hymn-tune Preludes; The Running Set; Sea Songs*. Bournemouth Sinfonietta, George Hurst cond. CHALFONT C77.005 \$7.98 (from Chalfont Records, P.O. Box 11101, Green Lantern Station, Montgomery, Ala. 36111).

Performance: **Idiomatically**  
Recording: **Excellent**

Here is a package of real novelties: three of the four Vaughan Williams titles (all but *Sea Songs*) appear in recorded form for the first time, and of the Elgar pieces only *Sospiri* is likely to be familiar to many listeners. Organist Michael Austin joins the trumpets, trombones, horns, timpani, and strings in *Sursum Corda*, an expansive and rather solemn piece written in 1894 to welcome the Duke of York (later King George V) to Worcester. The *Adieu* is a sentimental little piece, in a vein rather like that of *Sospiri*, and George Hurst is even more indulgent with it than Barbirolli was (but, like Sir John, he successfully avoids mawkishness). The remaining three Elgar items are lighter and more animated, and the waltz provides a really charming ending for the side.

The Vaughan Williams side is altogether more consistently attractive, and the overture to *The Poisoned Kiss* makes one curious about an opera that contains such agreeable

tunes. The hymn-tune preludes for small orchestra (*Eventide* and *Dominus Regit Me*) were composed between the Fourth and Fifth Symphonies and might be said to anticipate the latter. In *The Running Set*, a brilliant little fantasy on four dance tunes, and the *Sea Songs*, a march based on three naval songs and originally composed for band, we approach the familiar world of the *English Folk Song Suite*, but the grander, more colorful orchestration sets these little gems just as near the world of *The Wasps* and *Old King Cole*. Hurst's obviously idiomatic feeling for the material, the fine playing he draws from the Bournemouth Sinfonietta, and the outstanding sound (originated, I believe, by Polydor) combine to present everything on the record at its best, and the Vaughan Williams side is just about irresistible. R.F.

#### RECORDING OF SPECIAL MERIT

ELGAR: *Violin Concerto in B Minor, Op. 61*. Kyung-Wha Chung (violin); London Philharmonic Orchestra, Sir Georg Solti cond. LONDON CS 7064 \$7.98.

Performance: **Topnotch**  
Recording: **Very good**

This is a very different—but equally valid—treatment of Elgar's great violin concerto from the gloriously romantic and soulful one offered by Zukerman and Barenboim on Columbia. The differences lie in the essential characters of the performances in terms of tonal quality and pulse. There is more impetuosity and muscle in Solti's handling of the orchestral tutti than in Barenboim's, and, where Zukerman's tonal warmth carries all before it, it is purity and brilliance of tone, in combination with sheer agility, that make Kyung-Wha Chung's realization special. Both soloists excel in the slow movement, one of the summits of Elgar's lyrical writing, and Miss Chung's blistering finale is a violinistic tour de force. London's recording is right up to standard, with the orchestra miked a shade more closely than in the Zukerman/Barenboim collaboration. I confess my continued partiality to the expansive romantic ardor of Zukerman and Barenboim. I think this music can take it—and, for that matter, deserves it. But anybody who wants a little more muscle and a touch of emotional reticence should find the Chung/Solti disc just right. D.H.

ENESCO: *Roumanian Rhapsodies Nos. 1 and 2, Op. 11*. L'Orchestre des Concerts Colonne, Georges Enesco cond. *Dixtuor for Winds in D Major, Op. 14*. Wind Soloists of the Orchestre National de France, Georges Enesco cond. VARÈSE SARABANDE Ⓜ VC 81042 \$7.98.

Performance: **Uniquely authoritative**  
Recording: **Passable**

I am not the only one who has hoped for years that someone would get hold of the old Remington tapes and reissue such gems from the catalog of that pioneering budget label as Enesco's recordings of his own music, Manuel Rosenthal's RIAS Symphony Orchestra performances of *Gaité Parisienne* (much more animated than his Monte Carlo performance on Angel S-37209) and the *Offenbachiana* he created especially for recording, and Otto Matzerath's superb Schumann *Spring* Symphony. Not too long ago Vox picked up a few items, the most interesting being Villa-Lobos' recording, as conductor of the RIAS Orches-



er is distressingly unassertive in his "homofactus est" utterance at the close of the "Et incarnatus" section of the Credo. The chorus, trained and directed by Margaret Hillis, is just plain magnificent, the closing fugue of the Credo being a particular high point of its performance.

When it comes to picking the recorded performance of the *Missa Solemnis* from the presently available versions, I confess to being somewhat at a loss. The mono Toscanini remains a unique document. Bernstein's, like Toscanini's, is a "dare-all" affair with a special visceral excitement and fervor. Jochum's is probably the most representative of the great European tradition, and it boasts the Amsterdam Concertgebouw and a superb team of soloists. The Angel issues—Klemperer and Karajan early and late—also present realizations of unique distinction on a variety of levels. Sonically, I incline toward Jochum and Solti in that order. Musically, I would supplement these with Klemperer. Bernstein, or Toscanini. Or all three—an expensive proposition, but a pretty sure way of aurally and spiritually exploring every facet of Beethoven's unique sacred masterpiece. *D.H.*

**BERKELEY: *Sonatina for Violin and Piano*** (see WALTON)

**BRUCKNER: *String Quintet in F Major; Intermezzo in D Minor***. Vienna Philharmonic Quintet. LONDON STS 15400 \$3.98.

Performance: **Echt Viennese**  
Recording: **Warm**

The F Major Quintet is Bruckner's only mature chamber-music work, but it has not benefited much until now from the Great Bruckner Revival. Although the composer's long symphonic lines and lyric architecture lend themselves very well to chamber music, the problem is that the work is difficult to play; for the premiere, Bruckner had to write a new, easier scherzo in order for the piece to be performed at all. Even the Vienna Philharmonic musicians of today do not completely master all the problems. There are some truly awkward places in this music, and in this recording the finale never does seem completely up to tempo. On the other hand, this is gorgeous, old-time string playing of just the right kind, and the superb adagio—one of those movements that cannot be called anything else but divine or sublime—is, quite simply, a wipe-out.

The Intermezzo in D Minor is that aforementioned substitute scherzo. It is placed, a little uncomfortably, at the beginning of side one, obviously to avoid a side break during the adagio. But it does not make good sense to listen to the compromise scherzo as a prelude to the beginning of the quintet, especially since the trio is the same in both versions. It could really have been omitted; there is certainly plenty of music here without it. Despite these problems, this performance will have a lot of appeal for Bruckner lovers—especially those who like their Bruckner in the *echt Viennese* manner. *E.S.*

**DEBUSSY: *La Mer; Prélude à l'Après-midi d'un Faune***. RAVEL: *Boléro*. Berlin Philharmonic Orchestra, Herbert von Karajan cond. ANGEL □ S-37438 \$7.98, © 4XS-37438 \$7.98.

**DEBUSSY: *La Mer; Prélude à l'Après-midi d'un Faune; Rapsodie for Clarinet and Or-***

**chestra; Marche Écossaise**. George Pieteron (clarinet, in *Rapsodie*); Concertgebouw Orchestra, Amsterdam, Bernard Haitink cond. PHILIPS 9500 359 \$8.98, © 7300 586 \$8.98.

Performances: **Karajan classical, Haitink impressionist**  
Recordings: **Both rich but clear**

I didn't much care for Karajan's Debussy at first—too restrained, too classical, too dependent on big, laid-back lines and not enough on color and rhythmic fluidity. Haitink has the right languorous touch. The sonority—and a wonderful Concertgebouw sonority it is—oozes and wells up and flows. This is very beautiful and sensitive performing and recording, and most Debussy lovers will prefer it (with the little-played *Rapsodie* and the early *Marche* as a couple of minor extras).

Haitink's Debussy is far from mushy, but

he likes to keep some of the mystery, some of the mist that rises up off the Debussyan sea. Karajan, on the other hand, is a classicist who approaches Debussy as if he were Schubert. *La Mer*, with its symphonic scope, can probably take this treatment as well as any work of Debussy, and Karajan succeeds in building some of the most tremendous climaxes I have ever heard in this music. But the work that really responds to this approach is *Boléro*. The starting point here is so laid-back and the build-up so tremendous that, among a zillion recordings, this must qualify as very nearly the most exciting. As for Karajan's Debussy, I think it's entirely a question of taste. I got into it after a while, but it certainly cannot be considered the most idiomatic musical impressionism on records. *E.S.*

**DVOŘÁK: *Cello Concerto in B Minor, Op. 104; Othello Overture, Op. 93***. Mstislav Ros-



RCA Records

## Two Striking New Works by Corigliano

**J**OHAN CORIGLIANO, now forty, is the scion of a musical family, his father having been concertmaster of the New York Philharmonic for many years and his mother a pianist. Since finishing his studies at Columbia College and the Manhattan School of Music, Corigliano has been composing ambitious choral works and orchestral pieces which have won some important awards, such as the first prize he got in the Spoleto Festival Chamber Music Competition for his Sonata for Violin and Piano.

In a talk with the New York Philharmonic's program editor Philip Ramey, quoted in the liner notes accompanying RCA's new recording of two of his works, Corigliano tells about

his five-movement Oboe Concerto in some detail. He describes the opening movement in which the oboe "tunes the orchestra," the emphasis on the instrument's forceful lower register, the slow song that follows the bustling first section, the "high velocity, poly-rhythmic episode for oboe and percussion, with harp and piano" in the scherzo, the coloratura quality of the solo work in the fourth movement, and the unusual finale inspired by the rheiata, a Moroccan reed instrument. Written in 1975, the concerto is an intriguing, complex piece of work, brilliant in its exploitation of the solo instrument and daring—though seldom dissonant—in its adroit use of immense orchestral forces, in its strong rhythms, and in its surprising turns of phrase. The performance by the American Symphony Orchestra under Kazuyoshi Akiyama, with Bert Lucarelli as soloist, is a stunning one.

**E**VEN more fascinating is *Poem in October*, a setting of Dylan Thomas' modern classic about a walk the poet took on his thirtieth birthday through the Welsh town where he grew up. Thomas' lines are so musical in themselves that it is a pleasant surprise to hear how successfully Corigliano has been able to convert them into song, while the accompaniment for string quartet, harpsichord, and wind instruments is beautifully realized by the ensemble with Maurice Peress conducting. With so fine a tenor as Robert White to sing the lines and so splendidly shaded an instrumental background to convey the shifting weather of the poem, this is an excellent interpretation of a striking contemporary work. *Poem in October* is actually part of an hour-long trilogy, completed in 1970, based on three Dylan Thomas poems. Too bad the whole trilogy was not recorded. Let's hope that some day it will be. —Paul Kresh

**JOHN CORIGLIANO: *Oboe Concerto***. Bert Lucarelli (oboe); American Symphony Orchestra, Kazuyoshi Akiyama cond. ***Poem in October***. Robert White (tenor); Maurice Peress (harpsichord); Thomas Nyfenger (flute); Bert Lucarelli (oboe); Joseph Rabbai (clarinet); American String Quartet; Maurice Peress cond. RCA ARL1-2534 \$7.98.





# CLASSICAL DISCS AND TAPES

Reviewed by RICHARD FREED • DAVID HALL • GEORGE JELLINEK • PAUL KRESH  
STODDARD LINCOLN • ERIC SALZMAN

## RECORDING OF SPECIAL MERIT

**J. S. BACH:** *Italian Concerto (BWV 971)*; *Prelude in A Minor (BWV 922)*; *Chromatic Fantasy and Fugue (BWV 903)*; *Fantasy and Fugue in A Minor (BWV 904)*. **BACH/BUSONI:** *Chorale Preludes: Ich Ruf'zu Dir (BWV 639)*; *Nun Komm' der Heiden Heiland (BWV 659)*. Alfred Brendel (piano). PHILIPS 9500 363 \$8.98.

Performance: **Excellent**  
Recording: **Sensitive**

**J. S. BACH:** *English Suite No. 3, in G Minor (BWV 808)*; *Capriccio on the Departure of His Beloved Brother (BWV 992)*; *Toccatina and Fugue in D Major (BWV 912)*; *French Suite No. 5, in G Major (BWV 816)*. Wilhelm Kempff (piano). DEUTSCHE GRAMMOPHON 2530 723 \$8.98. © 3300 723 \$8.98.

Performance: **Romantic**  
Recording: **Fine**

Alfred Brendel and Wilhelm Kempff both firmly believe that Bach can be performed as effectively on the piano as on the harpsichord, both are fine pianists, and both address their instruments with a true pianism that makes no attempt to imitate the harpsichord. They come from completely opposed traditions, however, and the results they produce are strikingly different.

Brendel, according to a provocative interview printed on the jacket, postponed until re-

cently playing Bach in public because he felt unable to free himself from the influence of his teacher, Edwin Fischer, and because he has been a keen observer of the development of the Bach style on the harpsichord. His observations have resulted in a style that features a crisp, vigorous touch, a vital rhythmic approach, and highly accurate ornamentation. If he begins ornaments on the principal note, as he does in the slow movement of the *Italian Concerto*, it is for a well thought-out reason, not because of ignorance. His interpretations are based on a sure grasp of musical structure, and he makes one aware of the important differences between solo and tutti passages and between expositions and episodes. But Brendel is still a colorist in the pianistic sense and very often brings to the music a dynamic dimension of which the harpsichord is incapable. In the *A Minor Prelude*, for example, there are about sixty-eight repetitions of one figure and then about 104 repetitions of another. Not even a harpsichordist playing an instrument with seven pedals can bring such repetition off successfully. Brendel, however, avails himself of pianistic crescendos and diminuendos and renders the passages hair-raising. Perhaps the best example of combining Baroque performance practice with pianism is found in the arpeggiations of the *Chromatic Fantasy*. Again the surge of volume and imaginative figuration are telling. Nor is Brendel afraid of doublings and pedal; both are used discreetly and effectively.

Wilhelm Kempff, on the other hand, plays Bach in the nineteenth-century tradition, a tradition ignorant of proper ornamentation and essential rhythmic alterations, and uses dynamics for their immediate effect rather than for structural clarification. In the allemande of the *Fifth French Suite*, short trills are played like inverted mordents: before the beat and on the principal note. Short appoggiaturas emasculate the harmonies of the saraband of this suite, and the lack of dotting in the same movement renders the melodic line limp. The concerto-like prelude of the *G Minor English Suite* is bland because there is no distinction made between solo and tutti. Although Kempff's tone is opulent, it doesn't

have enough starch to articulate Bach's detailed, nervous lines. Only in the fugal gignes that conclude each of these works does Kempff offer some drive and excitement.

These two discs clearly demonstrate the problems confronting the pianist playing Bach today. Kempff shows us that nineteenth-century Romanticism simply will not work. Brendel reveals that profound study and discreet application of historical approaches can serve the pianist well, and he has, as a result, given us some of the finest Bach playing on discs today. S.L.

**BEETHOVEN:** *Missa Solemnis in D Major, Op. 123*. Lucia Popp (soprano); Yvonne Minton (contralto); Mallory Walker (tenor); Gwynne Howell (bass); Chicago Symphony Orchestra and Chorus, Sir Georg Solti cond. LONDON OSA 12111 two discs \$15.96.

Performance: **Good to superb**  
Recording: **Sumptuous**

Solti's reading of Beethoven's titanic Mass strikes me as occupying a middle ground between Bernstein's divine frenzy (Columbia M2S 619) and Jochum's intense devotion (Philips 6799 001). Except for what seems to be a slight lack of choral presence until the Sanctus, the London sonics are outstandingly fine: spacious in ambiance and extraordinarily rich and full-bodied in the orchestral department. The vocal soloists are well balanced with each other and with the orchestra as well. Interpretively, Solti seems to me to be unusually restrained up through the Credo, exercising great care as to clarity of texture and nuance. Only with the onset of the Sanctus, and most especially in the Benedictus with its seraphic violin solo (exquisitely played by Victor Aitay), does the element of exaltation make itself really manifest in this performance. But it then persists through the shattering *Agnus Dei* right to the very end.

The women on Solti's team of vocal soloists are consistently fine throughout; Yvonne Minton's prayerful solo in the *Agnus Dei* is especially memorable. Bass Gwynne Howell is also in splendid, darksome form in his opening here. However, tenor Mallory Walk-

### 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.



instrumentalists, and therefore also the ones who enjoyed the longest careers. This album features sixteen of them, ranging from Lovie Austin (recorded in 1924) to Toshiko Akiyoshi (recorded in 1961) and including only three performers—Una Mae Carlisle, Mary Lou Williams, and Jutta Hipp—heard on the other two volumes. It's an interesting collection which mirrors the history of jazz from barrel-house and the New Orleans style to bop and beyond, and it demonstrates in a most graphic and enjoyable way that women have had a place in jazz from the very beginning. How sad for all of us that they were denied their rightful equal status. Let's hope that the release of this series will encourage more young women to pursue a musical career in jazz—and, for that matter, in jazz criticism.

**F**INALLY. I should mention that the technical quality obtained by engineer Jerry Valburn is generally excellent. But I wish more care had gone into the packaging; the covers are dreary, recording data are incomplete and in many instances inaccurate, names are misspelled, and the labels give only song titles. This is an important release, and it deserves better. —Chris Albertson

**WOMEN IN JAZZ: Volume 1, All Women Groups. The International Sweethearts of Rhythm: Digging Dyke; Vi Vigor; Don't Get It Twisted. Jean Starr: Sergeant on a Furlough; I Surrender Dear; Moonlight on Turhan Bay; Seven Riffs with the Right Woman. Mary Lou Williams: Timmie Time; Humoresque; Boogie Misterioso. Norma Carson: Cat Meets Chick; The Man I Love. Beryl Booker: Don't Blame Me; Low Ceiling. Edna Williams: A Woman's Place Is in the Groove; Body and Soul. STASH** © ST 111 \$6.98.

**WOMEN IN JAZZ: Volume 2, Pianists. Arizona Dranes: Crucifixion. Vera Guilaroff: A Cup of Coffee. Lovie Austin: Traveling Blues. Lil Hardin Armstrong: Put 'Em Down Blues. Mary Lou Williams: The Rocks. Una Mae Carlisle: Don't Try Your Jive on Me. Cleo Brown: Mama Don't Want No Peas an' Rice an' Coconut Oil. Hadda Brooks: Chopin Nocturne. Beryl Booker: Love Is the Thing. Rose Murphy: My Blue Heaven. Nellie Lutcher: Hurry On Down. Dorothy Donegan: St. Louis Blues. Barbara Carroll: Morocco. Hazel Scott: 'Round Midnight. Jutta Hipp: Indian Summer. Toshiko Akiyoshi: Tempus Fugit. STASH** © ST 112 \$6.98.

**WOMEN IN JAZZ: Volume 3, Swingtime to Modern. Mills Cavalcade Orchestra: Lovely Liza Lee; Rhythm Lullaby. Mike Riley and His Round and Round Boys: You're Giving Me the Run-Around. Una Mae Carlisle and Her Jam Band: I Would Do 'Most Anything for You. Lulle Ellboj's Orchestra, featuring Valaida Snow: Caravan; My Heart Belongs to Daddy. The International Sweethearts of Rhythm: Jump Children; Slightly Frantic. The Hip Chicks: Popsie; Striptease. Woody Herman Orchestra, with Marjorie Hyams: Northwest Passage. Kathy Stobart: I Can't Get Started. Hans Koller's New Jazz Stars, with Jutta Hipp: All the Things You Are. Beryl Booker: Squirrel. Terry Pollard: T & S. Vi Redd: That's All. STASH** © ST 113 \$6.98.



PEOPLE WHO ENJOY JACK DANIEL'S, generally like Herb Fanning and his signs.

Herb runs a little store here in Lynchburg. And it's full of old things reproduced from Mr. Jack Daniel's day. For instance, there's a bar sign that also tells the temperature; a wall plaque designed around the 1904 World's Fair; and some old-time posters, mirrors and serving trays. If you'd like to own any of these items, just jot Herb a note at The Lynchburg Hardware Store. He'll send you full particulars.



CHARCOAL  
MELLOWED  
DROPS  
BY DROP

Tennessee Whiskey • 90 Proof • Distilled and Bottled by Jack Daniel Distillery  
Lem Motlow, Prop., Inc., Lynchburg (Pop. 361), Tennessee 37352

Placed in the National Register of Historic Places by the United States Government.





United Artists/Springer-Battmann Film Archive

Marilyn Monroe and other musicians in *Some Like It Hot*

## Women in Jazz

EXCEPT as vocalists and pianists, women have been all but excluded from participation in jazz, a situation that becomes strikingly evident when one examines the "Women in Jazz" series recently released by Stash Records. Along with the previously released two-record set "Jazz Women: A Feminist Retrospective" (Stash ST 109), the three new discs contain performances by virtually every woman who ever played jazz, and aside from the pianists, most of whom recorded with some regularity, these five discs (the contents of that first two-record set are not listed here) contain very nearly all the recordings ever made by female jazz instrumentalists, including quite a few that never before saw commercial release. Measure that against the more than 200,000 jazz recordings made since 1917 and a picture of gross discrimination comes into sharp focus.

The jazz world has always been male-dominated, even on the non-playing levels (can you name a female jazz critic?), and when women have been employed, it was often as a decoration or gimmick. "You weren't really looked upon as a musician . . . there was more interest in what you were going to wear or how your hair was fixed," vibraphone player Marjorie Hyams remarked recently. "They just wanted you to look attractive, ultrafeminine—largely because you were doing something they didn't consider feminine."

Hyams was a member of Woody Herman's celebrated 1944-1945 orchestra—the so-called first "Herd"—and thus one of the few women to be hired as a regular instrumentalist in a major, otherwise all-male band. She is heard

on six selections in the first volume of the Stash series, "All Women Groups," and she solos on an aircheck of Herman's *Northwest Passage* that is included in the third volume, "Swingtime to Modern." A fine player of the Lionel Hampton school, Marjorie Hyams could certainly have had a longer, more rewarding career in jazz if attitudes had been different or if she'd been a man, and the same can be said of quite a few of the women represented on these records.

L'Ana Webster—who became L'Ana Hyams after marrying Marjorie Hyams' brother—was up against even greater odds, for she played the tenor saxophone (definitely not considered a ladylike instrument, even today). But there's nothing wrong with her spirited solo on *You're Giving Me the Run-Around* (Volume 3), one of four sides she cut for Decca with the otherwise all-male Mike Riley and His Round and Round Boys band in 1938. She is more subdued but no less effective on six sides by the Hip Chicks (Volumes 1 and 3), recorded for the Black and White label in 1945.

Judging by those same selections, trumpeter Jean Starr had a great deal to offer; her work on *Seven Riffs with the Right Woman* is particularly effective. Speaking of trumpet players, Volume 1 also contains two decent examples of Norma Carson's work. *The Man I Love* and *Cat Meets Chick*. But, good as those 1954 sides are, Carson played infinitely better at an informal jam session I attended in Iceland that same year, which brings up an important point: most of the women heard on these Stash releases were given little opportunity to display their talent on records, so it is quite possible that we are not hearing them here at their best.

That, however, is not the case with Valaida Snow, a trumpeter and vocalist who had one of the most remarkable careers in jazz. Snow began performing professionally around 1920. She worked in Shanghai in 1926 and toured Russia, the Middle East, and Europe between 1929 and 1932, when she made her first recordings (with the Washboard Rhythm Kings). She went to England with the Blackbirds Revue in 1934, then made several Atlantic crossings during a period in which she played for films in Hollywood and cut records in London for Parlophone. The selections reissued here, *Caravan* and *My Heart Belongs to Daddy* (both Volume 3), were recorded for Sonora in Stockholm in 1939, and they show to full advantage both sides of Snow's considerable talent, her hot, growling trumpet style contrasting with her soft, sweet voice. The following year she made six sides for the Danish Tono label before the Nazis sent her off to a concentration camp. Released in mid-1943, Snow was allowed to return to the U.S., where she resumed her career until her death in 1956. EMI would do well to reissue her Parlophone recordings.

Two of the most satisfying recordings in a more modern vein are *A Woman's Place Is in the Groove* and *Body and Soul* (Volume 1), which were recorded in 1946 and feature extraordinary performances by trumpeter Edna Williams and a violinist identified as "Ginger Smock or Emma Colbert." I don't know either of them—and the liner notes on all three albums generally avoid biographical information—but they should not have been as neglected as they obviously were.

Two big bands, the Mills Cavalcade Orchestra and the International Sweethearts of Rhythm, are represented. The Mills band, a mixed group led by trombonist George Brunis, is heard on Volume 3 in two recordings made for Columbia in 1935; it was a fairly dull band, playing dull arrangements as accompaniment to a dull vocal group. On the other hand, the Sweethearts of Rhythm—a band that boasted black, white, and Oriental members and had its origin in 1940 at Piney Woods College, Mississippi—was excellent. It played with precision, it swung, and it featured fine solo work, particularly by saxophonist Viola Burnside, who blows up a storm on *Vi Vigor*. As represented by two sides on Volume 1 and two even better sides on Volume 3, the group easily measures up to any all-male band, and it's better than most. But *where* did they get a title like *Digging Dyke*?

OBVIOUSLY, I cannot mention all the women represented on these albums, but I would be remiss if I didn't at least point out the excellent work by guitarist Mary Osborne on Volume 1, the fine piano performances of Beryl Booker (including one with Miles Davis) on Volumes 1 and 3, English tenor saxophonist Kathy Stobart's superb reading of *I Can't Get Started* on Volume 3, German pianist Jutta Hipp's wonderfully free-flowing *All the Things You Are* (Volume 3), and the characteristically fine and unique performances by Mary Lou Williams on all three volumes.

I have reserved mention of Volume 2, "Pianists," for last, because it is, overall, the best album. That may well be because pianists were the most widely accepted of the female

\*Yes: Morgan Ames, who reviewed for this magazine from December 1965 to December 1966. And Marian McPartland has always had more than one string to her bow. —Ed.



## THE INSIDE STORY ON HOW AKAI MAKES RECORDED HISTORY.

**GX-650D** Reel Capacity:  
Up to 10½" reel; Tape Speed:  
15, 7½ and 3¾ ips ( $\pm 0.5\%$ );  
Wow/Flutter: Less than 0.04%  
RMS at 15 ips; Frequency  
Response: 30 Hz to 30,000 Hz  
( $\pm 3$  dB) at 15 ips; Distortion:  
Less than 0.4% at 15 and 7½ ips  
(1,000 Hz "O" VU); Signal-to-  
Noise Ratio: Better than 58  
dB (measured via tape with peak  
recording level of +6 VU);  
Heads: (3) one GX Playback,  
one GX Recording and one  
Erase Head; Motors: (3) one  
AC Servo Motor for capstan  
drive; two Eddy Current Motors  
for reel drive.

**GX-270D** Reel Capacity:  
Up to 7" reel; Tape Speed: 7½  
and 3¾ ips ( $\pm 0.7\%$ ); Wow/  
Flutter: Less than 0.06% RMS  
at 7½ ips; Frequency Response:  
30 Hz to 23,000 Hz ( $\pm 3$  dB)  
at 7½ ips; Distortion: Less than  
1% (1,000 Hz "O" VU); Signal-  
to-Noise Ratio: Better than  
60 dB (measured via tape with  
peak recording level of +6 VU);  
Heads: (3) one GX Forward  
Playback, one GX Reverse Play-  
back, one combination GX  
Recording/Erase Head; Motors:  
(3) one AC Servo Motor for  
capstan drive, two Eddy Current  
Motors for reel drive.

**4000DS Mk II** Reel  
Capacity: Up to 7" reel; Tape  
Speed: 7½ and 3¾ ips ( $\pm 2\%$ );  
Wow/Flutter: Less than 0.12%  
WRMS at 7½ ips; Frequency  
Response: 30 Hz to 23,000 Hz  
( $\pm 3$  dB) at 7½ ips; Distortion:  
Less than 1% (1,000 Hz "O"  
VU); Signal-to-Noise Ratio:  
Better than 56 dB (measured  
via tape with peak recording  
level of +6 VU); Heads: (3)  
One 1-micron gap Playback  
head, one Recording head, one  
Erase head; Motor: 4-pole  
induction motor.



## THE BEST-SELLING REEL-TO-REEL DECKS SINCE THE BEGINNING OF RECORDED HISTORY.

From the beginning, the name AKAI has been synonymous with some of the most significant discoveries in the audio recording field.

First, AKAI led the industry with the electronics and technology required to produce the very finest motors, the heart of a tape recorder. Another advancement was the exclusive AKAI glass and crystal ferrite (GX) head—it remains totally unsurpassed for optimum sound and wearability—guaranteed for 150,000 hours, the equivalent of playing 24 hours a day for 17½ years.

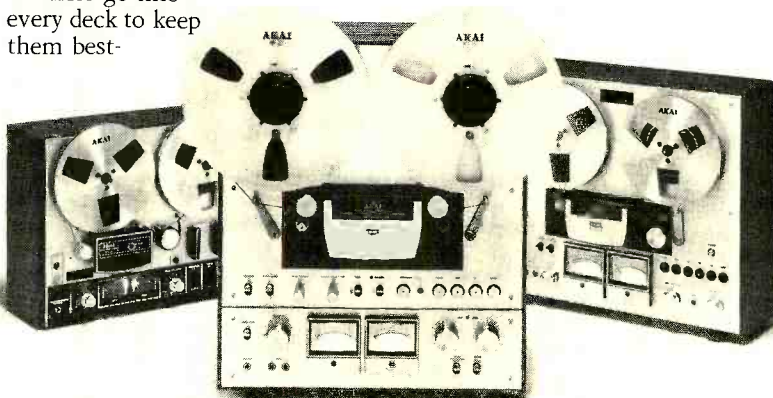
Today, AKAI continues to make one of the broadest lines of two and four channel reel-to-reel decks. And our 20+ years in the business go into every deck to keep them best-

selling. From the high performance GX-650D loaded with features, to the mid-priced GX-270D with reverse record and playback, to the hottest-selling 4000DS Mk II. For multi-track recording, the Quadra-Sync® GX-630DSS is also available.

See your AKAI dealer today, because no matter which of the 11 AKAI decks you choose, you'll be getting the best there is into your system. As well as the best value for your money; something mummy always said to look for.

# AKAI

You never heard it so good.



### ART COLLECTORS:

For an 18" x 24" reproduction of this Charles Bragg etching suitable for framing, send \$2 to AKAI, Dept. SR, P.O. Box 6010, Compton, CA 90224, ATTN: Tut.



Great specifications  
won't impress your ears...  
Great sound will!



Speaker Shown:  
Apollo 8853

According to the 1978 Stereo Review Stereo Directory and Buyers Guide, there are at least 111 manufacturers of high fidelity speaker systems. All of whom would have you believe that they have perfected "The Listening Experience". Most of them will try to tell you how their speakers sound by their specification claims.

Frankly, that is impossible. You have to listen to a speaker to adequately judge its quality.

At AAL we utilize the finest domestic and international raw drivers. Superb craftsmanship is performed by union workers. Computer aided design yields optimum performance. All of this adds up to great sound... Which is what speakers are all about.

**Listen to us!**

American Acoustic Labs  
629 West Cermak Rd.  
Chicago, Illinois 60616



**SPEAKER SYSTEMS**

has had an almost complete turnover of personnel since the 1975 sessions. The newer band is by far the more cohesive, but the greatest improvement is in the rhythm section (which consists of bass and percussion, for Hersey omits keyboards altogether). Again, Hersey has found interesting soloists to frame with his brassy, pungent arrangements, most notably trumpeter Kenny Mason and saxophonist Stan Strickland, but bassist Ernesto Provencher and saxophonist Len Detlor—who was on hand for the first album as well—deserve special mention too.

For all I know, Hersey's group may exist only in the recording studio, but I hope not. It deserves the prominence that this album just might give it. C.A.

#### RECORDING OF SPECIAL MERIT

**DUKE JORDAN: *Duke's Delight*.** Duke Jordan (piano); Richard Williams (trumpet); Charlie Rouse (tenor saxophone); Sam Jones (bass); Al Foster (drums). *Truth; Undecided Lady; In My Solitude*; and three others. INNER CITY IC 2046 \$7.98.

Performance: **Our delight, too**  
Recording: **Good**

Duke Jordan received his basic training at the dusk of the Swing Era, playing with Al Cooper's Savoy Sultans and a sextet led by Coleman Hawkins at Monroe's in Harlem. He joined the bop movement early and became one of its leading keyboard exponents, taking a trail blazed by Bud Powell but not following it quite as strictly as most of his colleagues did. Jordan worked with Charlie Parker on a fairly regular basis for three years in the Forties, recording with him for Savoy and Dial (including many sides recently reissued on Savoy and Warner Bros.) and touring with him as part of Norman Granz's Jazz at the Philharmonic. He has also recorded on his own—for Signal, Blue Note, and Charlie Parker Records—and as a sideman with Cecil Payne, Sonny Stitt, and Charles McPherson.

"Duke's Delight" was recorded in New York three years ago by the Danish Steeple-Chase label, but it could just as well have been taped twenty years ago. That isn't meant as a put-down; it's merely a statement of fact, and in these days of crossover music, fusion jazz, fusic, or whatever they'll think of calling it next week, it might even be taken as a compliment. Dates such as this one—straightforward with a round of solos sandwiched between opening and closing head arrangements—were common (perhaps too common) during much of the Fifties and well into the Sixties, but the maturation of rock and the introduction of a fast-growing variety of electronic accessories and instruments changed the public's taste. Today this type of uncomplicated session is regarded as old-fashioned by many (what? no back-up singers? no overdubbing? no computerized simulators?), but jazz lovers will find it a sound for sore ears.

Jordan is a fine composer—his *Jordu* is a bop standard—and he wrote all but one of the selections in this set. The exception, Duke Ellington's *In My Solitude*, is also the only track that doesn't feature the quintet. Jordan plays it unaccompanied and gives it a beautiful reading, with just a touch of the Ellington piano style. Good solos are taken by all throughout the rest of the album. Tenor saxophonist Charlie Rouse should be recorded more often in this context, and trumpeter

Richard Williams should be recorded more often, period. C.A.

**BUD SHANK: *Heritage*.** Bud Shank (alto saxophone); Bill Mays (piano); Bob Magnusson (bass); Steve Schaeffer (drums). *If I Were a Bell; Dearly Beloved; Elsa; My Ship*; and four others. CONCORD JAZZ CJ-58 \$7.98.

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

Bud Shank was born in California, and that's where he has remained for most of his life. He is very active as a film and record session man and as a composer of jingles, but fortunately he also finds time for some straightforward jazz. A fine alto and an excellent flute player, he is a founding member of the L.A. Four, that wonderfully cohesive group with Laurindo Almeida, Ray Brown, and Shelly Manne, and he also leads groups of his own.

This album was presumably recorded recently (I wish Concord Jazz would start giving us dates), and it features Shank's Parker-oriented alto with the Bill Mays Trio. Except for an awkward, ragged opening chorus on the old Tommy Dorsey theme, *I'm Getting Sentimental Over You*, it's smooth sailing as Shank breezes through a program of seven familiar standards and one oddity, *Elsa* (which was introduced by Bill Evans on his 1961 Riverside album, "Explorations," and has since all but disappeared). There is an intimate feeling about this album; Shank and the Mays three are obviously no strangers to each other, and it's delightful to hear bassist Bob Magnusson in this context. He worked with Shank in 1970-1971, when they both toured with Sarah Vaughan, and I hope he is present on Shank's next album—or vice versa. C.A.

**PAUL WINTER: *Common Ground*.** Paul Winter (vocals, soprano and alto saxophones, contrabass sarrusophone, harmonium); Steve Gadd (percussion); Paul McCandless (oboe, English horn); Oscar Castro-Neves (guitars, bass, keyboards); David Darling (cello); other musicians. *Ancient Voices; Ocean Dream; Eagle; Icarus; Midnight; Trio*; and six others. A&M SP-4698 \$7.98, © AAM 4698 \$7.98, © AAM 4698 \$7.98.

Performance: **Interesting and inventive**  
Recording: **Excellent**

Just as there has always been integrity in Paul Winter's work, there has also been a peculiar kind of generation gap that has denied him the kind of broad-based success he deserves. He started off on recordings with his own jazz group, playing beautifully but in a style grounded in an earlier time. He hasn't been too active lately, but this new album is a success on every count. It is an interesting and inventive blend of the natural sounds (or songs) of such animals as the humpback whale, the African fish eagle, and the timber wolf with Winter's own vocals and various instrumentals. He's assisted by a number of very fine musicians, and some of the effects they create are truly memorable. The problem is that it all seems to be five years too late, and in pop music that is a couple of generations. Artists should be released from the "tyranny of relevance," but the audience Winter needs always demands immediacy. Still, "Common Ground" is worth listening to as an example of beautiful craftsmanship. P.R.

(Continued on page 146)





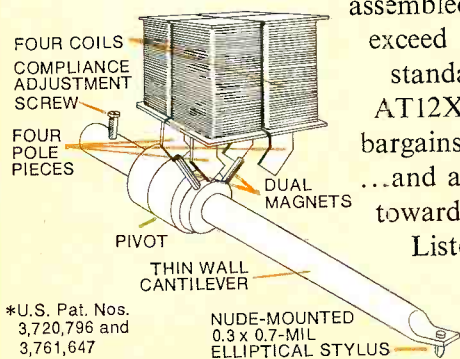
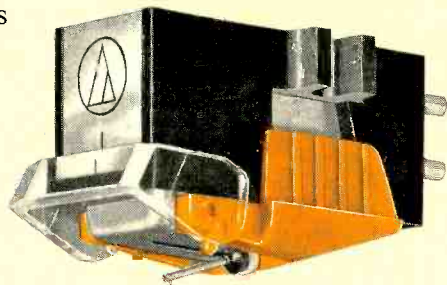


# Q. Where should you start in your search for better sound?

## A. At the beginning. With a new Audio-Technica Dual Magnet™ stereo phono cartridge.

Our AT12XE, for instance. Tracking smoothly at 1 to 1-3/4 grams, depending on your record player. Delivers smooth, peak-free response from 15 Hz to 28,000 Hz (better than most speakers available). With a minimum 24 dB of honest stereo separation at important mid frequencies, and 18 dB minimum separation even at the standard high-frequency 10 kHz test point. At just \$65 suggested list price, it's an outstanding value in these days of inflated prices.

Audio-Technica cartridges have been widely-acclaimed for their great sound, and for good reason. Our unique, patented\* Dual Magnet construction provides a *separate* magnetic system for *each* stereo channel. A concept that insures excellent stereo separation, while lowering magnet mass. And the AT12XE features a tiny 0.3 x 0.7-mil nude-mounted elliptical diamond stylus on a thin-wall cantilever to further reduce moving mass where it counts. Each cartridge is individually



\*U.S. Pat. Nos. 3,720,796 and 3,761,647

NUDE-MOUNTED 0.3 x 0.7-MIL ELLIPTICAL STYLUS

assembled and tested to meet or exceed our rigid performance standards. As a result, the AT12XE is one of the great bargains of modern technology...and a significant head start toward more beautiful sound.

Listen carefully at your Audio-Technica dealer's today.

**audio-technica**  
INNOVATION □ PRECISION □ INTEGRITY

AUDIO-TECHNICA U.S., INC., Dept. 108F, 33 Shiawassee Avenue, Fairlawn, Ohio 44313  
In Canada: Superior Electronics, Inc.

CIRCLE NO. 14 ON READER SERVICE CARD

coding. It is called pulse-code modulation (PCM), and, with special equipment developed by Nippon Columbia, the master is recorded on two-inch video tape using a standard broadcast-type video-tape machine. The result is fine, but if the notes hadn't told me I would never have known. C.A.

**EGBERTO GISMONTI:** *Sol Do Meio Dia* (see Best of the Month, page 103)

**SCOTT HAMILTON:** *Swinging Young Scott*. Scott Hamilton (tenor saxophone); Warren Vache (trumpet); John Bunch (piano); Michael Moore (bass); Butch Miles (drums). *Thru' for the Night; Warren's Rush; Liza; Blues for Mastertone*; and four others. FAMOUS DOOR HL-119 \$8 (from Harry Lim Productions, 40-08 155th Street, Flushing, N.Y. 11354).

Performance: **Good Scott**  
Recording: **Very good**

**SCOTT HAMILTON:** *Scott Hamilton, 2*. Scott Hamilton (tenor saxophone); Nat Pierce (piano); Monty Budwig (bass); Cal Collins (guitar); Jae Hanna (drums). *East of the Sun; I Want to Be Happy; Love Me or Leave Me; The Very Thought of You; There Is No Greater Love*; and five others. CONCORD JAZZ CJ-61 \$7.98.

Performance: **Great Scott**  
Recording: **Very good**

He has the impeccable taste, full-bodied sound, and robust attack of the Swing Era's star tenor men, and he plays in a style that reached maturity in the late Thirties. But Scott Hamilton just turned twenty-four. If you add all that up, you will understand why his recent emergence has answered the prayers of all who clung to the memories of Coleman Hawkins and Ben Webster in their prime, convinced that they would never hear the likes of that sound again. Sure, Hamilton's style of playing is highly derivative, even bordering on imitation, but he is well equipped with fresh ideas, and he has mastered the language of the great tenors to an amazing degree. The young keeper of the flame has already appeared on numerous Famous Door and Concord Jazz albums as a sideman and once on the former label as a leader. Now each of these labels—staunch perpetrators of manifestly swinging, unpretentious jazz—has released a new album of Hamilton heading up a quintet. Each has different sidemen and slightly different instrumentation, but the results are the same: free-flowing, rich-as-butter, small-band swing as relaxing as a warm bath.

The Famous Door release, "Swinging Young Scott," has pianist John Bunch heading a solidly swinging rhythm section and features Warren Vache on trumpet. Vache plays with a great deal of drive and fluency, occasionally revealing a slight bop influence but generally staying in the Roy Eldridge/Charlie Shavers mode. Vache and Hamilton work very well together, but the latter has the edge. A Hamilton/Eldridge recording simply has to be arranged (the two have worked together, but I don't believe any of their collaborations were recorded).

Guitarist Cal Collins—who worked with Hamilton in the Benny Goodman band—joins Nat Pierce, Monty Budwig, and Jake Hanna to support Hamilton on the Concord Jazz album, "Scott Hamilton, 2," which is both a mellower and a longer set (seven minutes and





**BILL EVANS**  
Six profoundly artistic hands

1963 and 1967, but have since been deleted). Evans has a marvelous sense of dynamics, and he imbues his performances with a wide range of emotions; he'll attack a melody with fire and passion, then turn around and tiptoe out of a chorus with delicate grace. Then, too, he has a penchant for lovely melodies and a wonderful talent for writing them—his *Song for Helen* (dedicated to his friend and long-time manager/producer Helen Keane), played on one electric and two acoustic keyboards, bears that out, as does his one-piano rendering of Duke Ellington's rarely heard *Reflections in D*. I have never thought much of the electric piano as a jazz instrument, but Evans uses it both sparingly and well. On *Maxine*, a waltz for his daughter, he combines it with two acoustic tracks so that it sounds like a guitar and reminds one of the guitar/piano sound that was so popular in the heyday of the King Cole Trio.

There seems to be a resurgence of interest in Bill Evans these days (new releases and reissues have doubled my collection of his albums within the last couple of years) as a generation raised on the Beatles and the Stones discover what many of us have enjoyed for two decades: his timeless, exquisite music, his profound artistry. Can six hands play better than two? When they all belong to Bill Evans, the answer is a resounding yes. C.A.

**TOMMY FLANAGAN: *Alone Too Long*.** Tommy Flanagan (piano). *Parisian Thoroughfare*; *Here's That Rainy Day*; *Maybe September*; *Billie Holiday Medley—Glad to Be Unhappy/No More/That Old Devil Called Love*; and four others. DENON/PCM YX-7523-ND \$14 (from selected audio dealers).

Performance: **Too detached, perhaps**  
Recording: **Very good**

Tommy Flanagan has appeared on countless recordings as a sideman or accompanist and with his own trio, but this is his first extended solo outing. It's pleasant enough, but I think Flanagan missed the rhythmic support as much as I do when I listen to him go it alone; without a bass to move him along, he plays in a staccato style that borders on noodling. He is a fine player, however, very lyrical and very sensitive throughout this album, particularly on the Billie Holiday medley.

The notes accompanying this Japanese import (recorded in New York last December) make much of the technique used in the re-

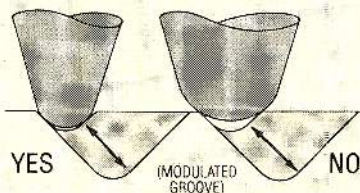


# fact: a stylus tip does not a cartridge make. so why all the fuss?

The stylus tip is only part of the complex stylus and cartridge structure, and performs a single function — it positions the entire stylus assembly so that all groove undulations are traced without damaging the record. The production of a top-quality tip calls for exquisite micro-craftsmanship, precision polishing, unwavering uniformity, and exact orientation. (However, important as it is, an exotic diamond stylus tip configuration simply isn't a cure-all for what might ail an otherwise deficient cartridge, regardless of high-flying claims you may have heard or read.)

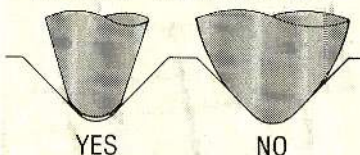
Here are the basic criteria a top-quality stylus tip must meet:

### IT MUST FIT THE MODULATED GROOVE

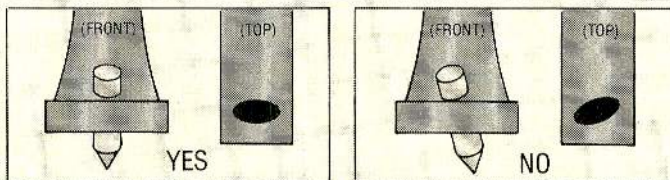


If the tip is shaped so it's oversized at its contact points, it can rise out of the modulated groove (the arrows indicate modulation of one groove wall) and "crest" at the record surface, causing extreme distortion and noise.

### IT MUST NOT "BOTTOM" IN THE GROOVE

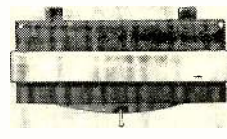


A slightly-undersized or too-pointed stylus tip may ride the groove bottom, lose contact with the groove walls, mistrack, and generate high noise levels.



### IT MUST BE CORRECTLY ORIENTED

Skewed or rotated orientation introduces distortion.



### IT MUST BE A GENUINE SHURE STYLUS

For unwavering uniformity, look for the name "Shure" on the grip.

Please send for our "Scientific Study of Competitive Styli" booklet (AL548) explaining the important specifications all Shure styli are required to meet.

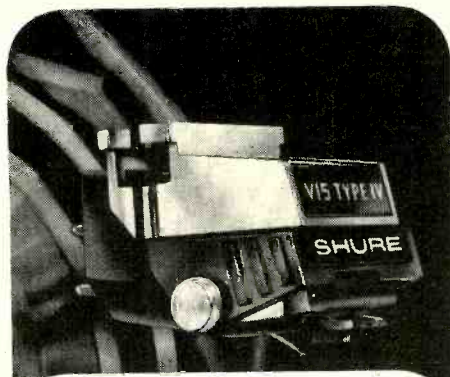


## High Fidelity Cartridges & Replacement Styli

Shure Brothers Inc., 222 Hartrey Avenue, Evanston, IL 60204. In Canada: A. C. Simmonds & Sons Limited  
Manufacturers of high fidelity components, microphones, sound systems and related circuitry.

CIRCLE NO. 64 ON READER SERVICE CARD





## fact: the IV does more... much more!

Era IV begins! The new Shure V15 Type IV phonograph cartridge is an altogether new phono cartridge system that exceeds previous performance levels by a significant degree — not merely in one parameter but in totality. The Type IV offers:

- Demonstrably improved trackability across the entire audible spectrum.
- Dynamically stabilized tracking overcomes record-warp caused problems, such as fluctuating tracking force, varying tracking angle, and wow.
- Electrostatic neutralization of the record surface minimizes clicks and pops due to static discharge, electrostatic attraction of the cartridge to the record, and attraction of dust to the record.
- An effective dust and lint removal system.
- A Hyperelliptical stylus tip configuration dramatically reduces both harmonic and intermodulation distortion.
- Ultra-flat response — individually tested.

### V15 Type IV SUPER TRACK IV™ Stereo Dynetic® Phono Cartridge

For complete details on this remarkable new cartridge write for the V15 Type IV Product Brochure (ask for AL569) and read the exciting facts on the V15 IV for yourself.



Shure Brothers Inc.  
222 Hartrey Ave., Evanston, IL 60204  
In Canada:

A. C. Simmonds & Sons Limited  
Manufacturers of high fidelity components, microphones, sound systems, and related circuitry.

Boys; and nine others. A&M SP-6004 \$7.98, © AAM 6004 \$7.98, © AAM 6004 \$7.98.

Performance: **Very good**  
Recording: **Very good**

As music this is better than average, and as a glimpse into history, it is even better than a *Classics Illustrated*. It is a project, an album and a booklet. Glyn Johns produced the sonic part and Paul Kinnerley produced the text, including the lyrics, and put together the booklet, which has some authentic photos by Matthew Brady and others and some posed ones of our singer-actors: Jessi Colter, the Southern Belle who is left behind (eventually to perish) by Matt Fuller, played by John Dillon (who goes off thinking these Yankees will be a pushover and winds up a post-war outlaw); Waylon Jennings, the drifter, a wounded vet of the Texas war who sort of narrates and comments from time to time (it would be a better-sounding album, of course, if he did more of the singing); and Steve Cash, the Ozark Mountain Daredevil who plays Caleb, one of the South's white-trash volunteers (he winds up sick of killing and pulpit-bound).

The thing is told from the Southern angle of view, but realistically (which, of course, may be the most romantic way of all, from that angle); it does not bother with the baloney about states' rights so dear to the heart of the South-leaning history teacher who tried to teach me this subject in college (I always figured she had been in Georgia when Sherman's men came through, pillaging and burning and raping, and nobody laid a hand on her, and that was her problem—she was about the right age). I don't know what else they have in mind for the project, movie- or TV-wise, but story lines a lot worse have attracted some attention, and so, needless to say, has some much worse music. The thing seems to need *more* music, though; it's edited awfully tightly, and there are big historical time gaps. It would have been worth the effort and delay to make a two-disc album of it, allowing for coloring in more of the sketches and whatnot. As it is, it should get those kids' noses out of their history books. N.C.



**GATO BARBIERI: *Tropico***. Gato Barbieri (tenor saxophone); orchestra, Dale O. Warren arr. and cond. *Where Is the Love; Bolero; Evil Eyes*; and four others. A&M SP-4710 \$8.98, © AAM 4710 \$7.98, © AAM 4710 \$7.98.

Performance: **Plop plop, fizz fizz**  
Recording: **Good**

Argentinian tenor saxophonist Gato Barbieri made his reputation as a jazz player in the early Sixties, when he lived in Europe and performed with such American artists as Ted Curson and Don Cherry, but by the early Sev-

enties it was clear that he was heading along the pop route. Now the composer of the music for *Last Tango In Paris* (for which he won a Grammy) has come under the diluting spell of David Rubinson & Friends, Inc., the organization that over the past few years has been watering down Herbie Hancock's music, and his new album finds his robust tenor in a frame that would have been eminently suitable for the late Freddy Gardner. Too bad. C.A.

**GARY BARTZ: *Love Affair***. Gary Bartz (clarinet, alto saxophone, soprano, percussion, vocals); George Cables, Nate Morgan (keyboards); Wah Wah Watson, Juewett Bostick (guitars); Patryce Banks, Sybil Thomas, Beloyd Taylor (vocals); other musicians. *Big Apple Love; Penelope; At Last*; and three others. CAPITOL SW-11789 \$7.98, © 8XW-11789 \$7.98, © 4XW-11789 \$7.98.

Performance: **Mostly miserable mush**  
Recording: **Okay**

Gary Bartz used to play jazz, and he was very good at it; recently, however, he has switched to a sort of funk-pop style, which in itself is not a major sin except that he is very bad at it. Bad? No, dreadful. To be as fair as possible, I listened to this album as a "pop" release, but viewed from any angle it just doesn't make it. It is ridden with simplistic clichés and fifth-grade lyrics sung by Bartz and a chorus of undistinguished voices, and much of it, especially Bartz's four compositions, sounds like amateur night in Dubrovnik. Only *Penelope*, by Agosto Aiguero, and John Coltrane's *Giant Steps* show any signs of the talent Gary Bartz used to exhibit. This is one "Love Affair" not to remember. C.A.

#### RECORDING OF SPECIAL MERIT

**BILL EVANS: *New Conversations***. Bill Evans (keyboards). *Song for Helen; I Love My Wife; Reflections in D; After You*; and four others. WARNER BROS. BSK 3177 \$7.98, © M8 3177 \$7.97, © M5 3177 \$7.97.

Performance: **New topics, too**  
Recording: **Very good**

In 1941 Victor issued a most unusual record by "Sidney Bechet's One-Man Band," on which Bechet played *The Sheik of Araby*, performing—by way of overdubbing—on six instruments simultaneously: piano, drums, soprano saxophone, bass, tenor saxophone, and clarinet, in that order. Without the benefit of tape and multiple tracks, however, the record was not very satisfactory from a technical standpoint. The Bechet recording was undeniably a gimmick, and, on the whole, not a particularly good record, but the three separate reed instruments, interwoven to create one voice, held a certain fascination. Multiple-track tape machines have, of course, made this sort of thing common today, and there is some validity to the argument that having a musician play along with a canned performance—whether it be his own or someone else's—deprives the end result of spontaneous rapport. But the technique can also be employed to advantage, as it is in Bill Evans' "New Conversations."

This album marks Evans' debut on Warner Bros., but it's actually his third set of "conversations" for four or six hands ("Conversations with Myself" and "Further Conversations with Myself" were released on Verve in



# The new Yamaha Separate.



## At the cutting edge of sound.

At the very edge of audio technology is exactly where the new Yamaha A-1 Amplification System stands.

Our engineers got there by cutting out excess circuitry and components through innovative configurations that reduced the very number and possibilities for noise and distortion to occur. It's as close as you can get to the proverbial straight wire with gain.

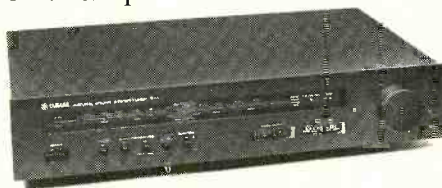
For a key example, note the computer-grade DISC switch on the right front panel. Engage it and you virtually direct-couple the phono cartridge to the output power amp. When disengaged, the tone control circuit is inserted between the DC phono equalizer and the DC amplifier. Sleekly positioned behind the bottom front panel, these precision tone controls can be used to enhance any signal source.

There's even a built-in MC Head Amp so

you can enjoy the transparent highs and extended frequency response of a moving coil phono cartridge.

In short, precision sound has never been achieved so cleanly and simply in look and function. So go for the cutting edge. Listen to the new A-1 Amplification System and its companion, the new T-1 Tuner, at your Audio Specialty Dealer.

For his name, check the Yellow Pages, or write Yamaha.



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





## PIONEER

### PIONEER ELECTRONICS

SX1980	WRITE
SX1280	OR CALL
SX1080	FOR
SX980	PRICES
SX750	\$287.00
SX650	194.00
SX550	185.00
SX450	160.00
SA-9500 II	305.00
SA-8500 II	230.00
SA-7500 II	165.00
TX-9500 II	265.00
TX-8500 II	196.00

### PIONEER TURNTABLES

PL-570	WRITE
PL-530	\$164.00
PL-518	115.00
PL-516	105.00
PL-514	89.00
PL-112	71.00

### PIONEER CASSETTE DECKS

CTF-9191	\$314.00
CTF-8282	285.00
CTF-7272	235.00
CTF-6262	200.00

### PIONEER LOUDSPEAKERS

HPM-150	\$330.00
HPM-100	160.00
HPM-60	120.00
HPM-40	80.00

### OTHER BARGAINS

SONY STR-7035	\$132.00
MARANTZ 3200	120.00
SHURE V-15 TYPE 3	59.00
TEAC A-170S	145.00
DUAL 1245S W/V15-III	192.00
GERRARD GT55 W/M95ED	155.00

- \* THESE AND FORTY MORE MAJOR COMPONENT BRANDS.
- \* PRICES ARE WITHOUT FREIGHT.
- \* WRITE OR PHONE YOUR NEEDS - ALL QUOTES MAILED SAME DAY.
- \* ALL UNITS FACTORY SEALED.
- \* FULL MANUFACTURER WARRANTY.
- \* PRICES AND AVAILABILITY SUBJECT TO CHANGE WITHOUT NOTICE.

send for free catalog

name \_\_\_\_\_  
 address \_\_\_\_\_  
 city \_\_\_\_\_  
 state \_\_\_\_\_ zip \_\_\_\_\_



CIRCLE NO. 33 ON READER SERVICE CARD

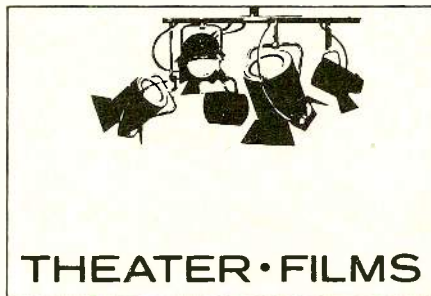
## DISCO



### RECOMMENDED DISCO HITS

- ATLANTIC STARR. A&M SP-4711 \$7.98.
- GLADYS KNIGHT AND THE PIPS: *The One and Only*. BUDDAH BDA598 \$7.98.
- THE GLASS FAMILY: *Mr. D. J. You Know How to Make Me Dance*. JDC 62177 \$7.98.
- PHIL HURTT: *Giving It Back*. FANTASY F9552 \$7.98.
- WAR: *Youngblood (Livin' in the Street)*. UNITED ARTISTS UA-LA904H \$9.98.
- WINNERS. ROADSHOW UA RS-LA868-H \$6.98. © RS-EA868-H \$7.98, © RS-CA868-H \$7.98.

(List compiled by John Harrison.)



## THEATER • FILMS

**SGT. PEPPER'S LONELY HEARTS CLUB BAND.** Original-soundtrack recording. Peter Frampton, the Bee Gees, George Burns, Steve Martin, Aerosmith, Earth, Wind & Fire, others (vocals and instrumentals). *The Long and Winding Road; A Day in the Life; Golden Slumbers; Carry That Weight; Get Back; Polythene Pam; Oh! Darling*; and twenty-one others. RSO RS-2-4100 two discs \$15.98, © 8T-2-4100 \$15.98, © CT-2-4100 \$15.98.

Performance: **Thoroughly awful**  
 Recording: **Swell**

Someone at *Rolling Stone* whose name now escapes me once reviewed "The Archies' Greatest Hits," admittedly an easy target, with almost haiku-like pithiness: "Herein are contained twelve convincing arguments against the Capitalist System." Up the figure to twenty-nine, and you've got a pretty good idea of the magnitude of the turkey that is "Sgt. Pepper." It's pointless to moan about it, though. The project was, as anyone with even reasonably normal sensibilities knew all along, doomed from the start. All you can do is marvel at just how thoroughly awful it turned out to be. You have to work hard, it

appears, to make the most utterly indefensible album of the Seventies, especially given the competition. But Robert Stigwood (a bow to whatever direction Australia is in), the Bee Gees, Peter Frampton, and everyone else connected with this project have achieved the apotheosis of mediocrity, and for that they merit respect, if nothing else, from mere mortals like you and me. Think of it: Stigwood brought it home a hit and *there isn't a single disco song to be found on the entire album!* Clearly, the man is a Titan of Our Time.

As for the performances enshrined within the jacket of RSO 4100, little can be said; if there is any justice in this life, none of the stars responsible will ever be taken seriously by anyone again. Frampton sings *The Long and Winding Road* with all the soul and feeling of a three-day-old mackerel, Robin Gibb warbles *Oh! Darling* as if he had just O.D.'d on helium and belladonna, Alice Cooper wreaks Phantom-of-the-Opera havoc with *Be-cause*, and a host of deservedly obscure newcomers sleepwalk through the rest.

Oh sure, you can bewail the fact that impressionable children will come away believing that "Sgt. Pepper" has some connection with the Beatles. You can cry that the once unblemished reputation of hero-producer and all-around good guy George Martin is now irredeemably smirched. But does any of that matter? Hardly. Because, when you get down to it, "Sgt. Pepper" is about one thing and one thing only: it is the ultimate validation of H. L. Mencken's immortal dictum, "Nobody ever went broke underestimating the intelligence of the American public." But anybody who knowingly pays for this crime against nature should be publicly dunked. S.S.

**STAR WARS (John Williams).** Music from the film. John Rose (organ). DELOS DEL/F25450 \$7.98.

Performance: **Very good**  
 Recording: **Exceptionally good**

There are so many versions of John Williams' hectic, hard-breathing score for *Star Wars* already on the market that you'd think still another could be nothing but gratuitous. Here John Rose, organist of Trinity College in Hartford, Connecticut, plays the whole thing on the Austin organ at Hartford's Cathedral of St. Joseph in a special arrangement by Robert Edward Smith. The organ contains more than 8,000 pipes, and while there must be more exciting music to be played on it than that dreary old *Star Wars* theme, Rose certainly makes the most of his opportunity. The fighter attacks and battles in outer space elicit appropriate shudders and groans with all stops out, but most of the time he adopts a surprisingly subtle and subdued approach to a score that is not long on understatement. The result is less nerve-wracking than I expected, and it's a treat for organ buffs. P.K.

### RECORDING OF SPECIAL MERIT

**WHITE MANSIONS.** Waylon Jennings (vocals, guitar); Steve Cash (vocals, harmonica); John Dillon (vocals, guitar, keyboards, dulcimer, fiddle); Jessi Colter (vocals); Eric Clapton (guitar, dobro); Bernie Leadon (guitar, banjo, mandolin, dobro, steel); other musicians. *Story to Tell; Dixie, Hold On; Join Around the Flag; White Trash; The Last Dance and the Kentucky Racehorse; Southern* (Continued on page 140)

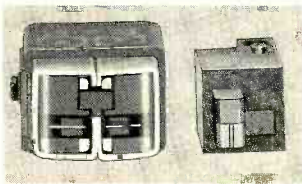


The Realistic SCT-30 tells it like it is:

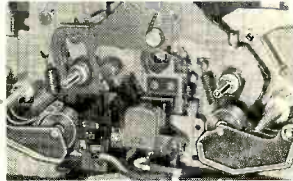
# Why 3 heads are better than 2. Why 2 capstans are better than 1. Why double Dolby\* is better than single.

## 3 Heads.

Two independent record and play heads eliminate the compromises of one combined r/p head, and the head assembly is integrated to eliminate azimuth error. The result: cleaner sound. The third head lets you monitor



your recording an instant after it's made, without interrupting the program. SCT-30 has 3 heads!



## 2 Capstans.

Dual capstans (instead of the usual 1) reduce wow and flutter to an inaudible 0.06% WRMS or less, and extend the audio frequency response. SCT-30 has dual capstans!

## Double Dolby.

You know the single Dolby system cuts noise and adds dynamic range. But let's examine double Dolby. You get Dolby on both record and monitor so you know exactly what your tape will sound like.

You get a decoder for recording superb Dolby FM stereo. And you get simultaneous listening enjoyment of the decoded broadcast on receivers with tape monitoring. The Realistic SCT-30 has double Dolby! About \$380.



## PS. - Supertape® Gold.

To go with 3 heads, 2 capstans and double Dolby, you need a cassette tape that will enhance — not degrade — performance. That's why we design and manufac-

ture Supertape Gold in our own Fort Worth factory. Like SCT-30, it's a playmate you can believe in at a price you can afford.

## Why Realistic®?

Because Radio Shack has delivered quality audio at sensible prices since 1921, its Realistic tape and recorder line can point to over 5,000,000 customers as living proof of these claims. Add after-sale service that isn't lip service. Add in-house engineering and manufacturing of much of the Realistic line. And add the convenience of neighborhood shopping where you get "sound talk" from a specialist. That's Realistic!

\*TM Dolby Laboratories, Inc.



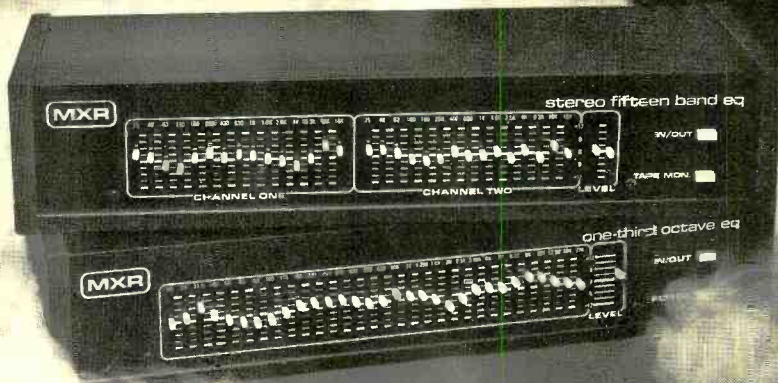
**Radio Shack®**  
The nationwide supermarket of sound™.

Radio Shack is a Division of Tandy Corporation, Fort Worth, TX 76102. Over 7000 locations in nine countries.



# Most components just provide recreation

# MXR provides Creation



Create with MXR's two newest equalizers, the Stereo Fifteen Band Eq and the One-Third Octave Eq. Two great new eqs that not only put you in complete control of your acoustic environment but provide even more creative contour of your music as well.

The Stereo Fifteen Band Eq is an expanded version of our popular ten band Stereo Graphic Eq. With two channels each having fifteen bands spaced 2/3 of an octave apart, you have even more creative power for bending, shaping, enhancing the sound. No matter how fine your home component system is, problems such as poor room acoustics or program quality may occur. The Stereo Fifteen Band Eq gives you the control to create the exact sound you desire.

The One-Third Octave Eq goes even further in providing precision control over your system's sound. A single channel unit, its thirty-one frequency bands are spaced 1/3 of an octave apart to give you the most creative power available at any price.

Both units feature a range of -12 to +12 decibels on each band, high slew rate (7V/microsecond) and incredibly wide dynamic range (better than 100 dB). The eqs feature walnut side panels (rack mounting hardware also included) and are built with rugged, reliable MXR quality.

Hear them perform at a fine audio dealer near you, or write MXR Innovations, Inc., 247 N. Goodman St., Rochester N.Y. 14607.

In all of creation, MXR keeps providing.

Also distributed in Canada by White Electronic Development Corporation, 6300 Northam Drive, Mississauga, Ontario.



Consumer  
Products Group

Fowley who made it. Trouble is, he made it quite a few years ago as manager and producer of the embryonic Rolling Stones, who unceremoniously dumped him about 1967 and went on to make the series of albums on which their reputation will someday undoubtedly rest. Opinions on the depth of his contribution to the success of the Stones vary. Some say that he lived out all his most outrageous fantasies through Mick Jagger and Brian Jones; others reckon that it all would have happened pretty much the same way without him. One thing is certain, however: he was never much of a producer, and the real production chores on the Stones' classic early records were delegated to the various engineers—notably Ron Malo and Dave Hassinger—whose services he was smart enough to enlist.

Since then, Oldham has mostly been a dabbler. There have been a few production efforts—the Jimmy Cliff live album, for one, which was abominable—but not much else. Now he has come back at the helm of a band that he has apparently convinced the good folks at RCA is going to be that most tedious of items, the (you guessed it) Next Rolling Stones. I wouldn't take bets on it. The Werewolves (not a bad name, actually, but unfortunate in view of Warren Zevon's *Werewolves of London* hit) are an agreeable, mainstream guitar band à la Bad Company or Aerosmith, with some of the same blues roots as Oldham's first charges. They probably sounded very good in the bar where he most likely discovered them. Beyond that, though, they have absolutely no sound of their own, and the only interesting thing about the whole venture will be seeing if Oldham can still manipulate the media with the same flair he demonstrated in the old days. For the moment, however, rest assured that the Werewolves are just a group, not a way of life. S.S.

#### RECORDING OF SPECIAL MERIT

**TAMMY WYNETTE: *Womanhood*.** Tammy Wynette (vocals); instrumental accompaniment. *Womanhood*; *That's What Friends Are For*; *You Oughta Hear the Song*; *What's a Couple More*; *I'd Like to See Jesus (On the Midnight Special)*; *Mem'ries*; and five others. EPIC KE 35442 \$6.98, EA 35442 \$7.98, © ET 35442 \$7.98.

Performance: **Vintage Wynette**  
Recording: **Very good**

This is Tammy Wynette's best recording in a while in that it typifies her; it's a good-quality cross-section of what she does, the kinds of songs, the instrumental sound, the vocal mannerisms and decorations. She's followed the "Tammy Wynette album" formula before, of course, but the difference is that these are not mostly token songs but real ones, engaging enough to engage Tammy. And when that happens, you hear in her the oddest mixture of toughness and vulnerability. Of course, *I'd Like to See Jesus (On the Midnight Special)* is outrageous, but so is one facet of Wynette, looking to perk people up, shock their eyebrows. Yet, as a couple of decent hurting songs let you into another facet of her, you see, or hear, a kind of little-girl insecurity. And she's never sung better than she does here, never more stylishly, never more slyly. N.C.

(Continued on page 138)



TIME has a way of casting a roseate haze over remembered joys, and the maxim that you can't go home again often turns out to apply as well to the popular pleasures of the theater, including the musical comedies that entertained us in days that were never, perhaps, so halcyon as we think they were. Still, it is a mistake to patronize the past, and even as I write this Broadway is packing them in at revivals of *The King and I* and *Hello, Dolly*, business is brisk off Broadway at such hits of old as *Pins and Needles* and *Once in a Lifetime*, and out at the Jones Beach Theater the crowds are assembling nightly for *Annie Get Your Gun*.

It's a propitious atmosphere for the rerelease of original-cast recordings, and RCA has been making the most of the opportunity with its *Legendary Broadway Shows* series. The latest trio of musicals to be dusted off for this purpose includes Rodgers and Hammerstein's 1947 offering *Allegro* and the 1952 revue *Two's Company*, in which Bette Davis returned to Broadway, both in beautifully restored mono sound, and, in stereo, *Flora the Red Menace*, which brought Liza Minnelli to the Great White Way for the first time way back there in 1965. All these records were in the catalog once, but they disappeared when sales fell off. Whether or not they were brought back "by popular demand," from the point of view of musical-comedy history it is good to have them out of the archives. How they hold up as entertainment is another matter entirely.

**A**LLEGRO was an experimental attempt to tell, in the bucolic, simplistic style of *Our Town*, the story of a small-town doctor's younger years, from babyhood to his being offered the post of physician-in-chief at a big Chicago hospital—a job he turns down in order to go home to the girl he really loves. Instead of realistic sets there were light projections and portable props, and a kind of Greek chorus commented on the action. Much of this seems as pretentiously unpretentious today as it did in 1947 when the show opened to mixed reviews, and the score has more than its share of sticky and slushy stretches, believe me. At the same time, there are some lovely interludes, such as when William Ching (in the role of the aspiring doctor's dad) sings the male-chauvinist hit ballad *A Fellow Needs a Girl*, or when Lisa Kirk (as Emily, a Chicago nurse fond of delivering home truths) dispels the dewy sentimentality for several blessed minutes with *The Gentleman Is a Dope*. Additional relief is provided by *Money Isn't Everything*, a waltz set to "an untypically sardonic Hammerstein lyric," as annotator Alfred Simon points out.

*Allegro* turns out not to be the buried treasure some of its champions through the years have claimed it was, but it does have its moments, and the original-cast performances are splendid, especially those of John Battles as the doctor who gives it all up for love, Gloria Wills as the wrong girl who becomes his wife, and Annamary Dickey as his dotting mother. Roberta Jonay, as Jennie, the model hometown sweetheart, appropriately keeps her mouth shut most of the time.

In quite another mood is the musical revue *Two's Company*, which brought Bette Davis

back to the musical theater for the first time in twenty years (she had enjoyed top billing in the summer-stock *Cape Cod Follies* way back in 1929 and soon after appeared in several Broadway flops before making it in the movies at Warner Brothers). *Two's Company* was in one kind of trouble or another from the time the leading lady's planned return to the stage was first announced, causing one critic to comment that it was as though Sarah Bernhardt were coming back to do *Hellzapoppin'* on roller skates. Davis got sick, threatened to drop out, and actually *passed out* on opening night after her first number. She revived and gamely went through with it, however, and her fans were not disappointed.

The songs are mostly by Vernon Duke with

who gives up socking cops and making Bolshevik speeches to settle down in the end to a commercial-art job in the advertising department of a fancy New York store on Fifth Avenue. Bob Dishy plays Harry Toukarian, the stammering young Demosthenes who takes Flora to her first cell meeting and falls in love with her. Though *Flora* pulls all its political punches, it is fairly entertaining on the musical level. The songs are not the kind you are likely to go around humming later, but they're pleasant enough to hear again, especially *A Quiet Thing*, with Liza at her most attractively subdued best; *Hello Waves*, with the artfully comic Dishy singing to the sea with pebbles in his mouth; a tender musical valentine called *Dear Love*; and a series of ex-

Springer/Bettmann Film Archive



Liza Minnelli and Bob Dishy in *Flora, the Red Menace*

## Musical Comedy Revivals

lyrics by Ogden Nash, but there are additional lyrics by Sammy Cahn and several tunes by Sheldon Harnick. The show was staged by Jules Dassin with the help of Jerome Robbins and Charles Sherman. And the star, whose husky cigarette baritone all too often sounds like a parody of itself, is surrounded by first-rate soloists and an excellent ensemble. But the score is one of Duke's least inspired ones, and Nash was not up to his usual standard either. The revue is a series of period lampoons on such subjects as the impractical aspects of architecture by Frank Lloyd Wright, the ordeals of Sadie Thompson, the harmonics of hillbillies, and the shortcomings of the male sex. Davis is interesting to hear, if only for her courage, but the only real *singing* is provided by Ellen Hanley in the torchy *Haunted Hot Spot*.

Compared with *Allegro* and *Two's Company*, *Flora the Red Menace*, for which Liza Minnelli's favorite team Kander and Ebb supplied the songs, sounds surprisingly alive after thirteen years. The plot concerns a group of cute kids who join the Communist Party in the Depression year of 1933, with Liza in the role of a young artist and class valedictorian

uberant, Blitzstein-derived ditties to supply the right Union Square ambiance, with our girl right in there belting away among the comrades. Communism in the 1930's was never quite so cute, so innocent, or so appealing an affair as it's made out to be in *Flora*, but as a record album the whole thing holds up rather better than we had any right to expect.

—Paul Kresh

**ALLEGRO** (Richard Rodgers—Oscar Hammerstein II). Original-cast recording. John Battles, Lisa Kirk, others (vocals); chorus and orchestra, Salvatore Dell'Isola cond. RCA Ⓜ CBM1-2758 \$7.98.

**TWO'S COMPANY** (Vernon Duke—Ogden Nash—Sammy Cahn). Original-cast recording. Bette Davis, Hiram Sherman, others (vocals); chorus and orchestra, Milton Rosenstock cond. RCA Ⓜ CBM1-2757 \$7.98.

**FLORA, THE RED MENACE** (John Kander—Fred Ebb). Original-cast recording. Liza Minnelli, Bob Dishy, others (vocals); orchestra, Harold Hastings cond. RCA CBL1-2760 \$7.98.



# Experience the Olds 88 Holiday Coupe.



Holiday option includes T-bar shifter, sport mirrors, console, buckets, sport wheel, color-matched wheel discs.



## A full-size car with a look of sportiness and a feeling of driver involvement.


The basic qualities of a great road car have already been engineered into the Delta 88. What the Holiday Coupe option does is give you the sporty touches that you love, but rarely find, in a big, solid car born for the open road.

Slip into the bucket seat. Start the engine. Slide the T-bar shifter into DRIVE. Wrap your hands around the sport steering wheel.

Then settle back and let the 88 Holiday Coupe show you what great road cars are all about.

The nicest thing about it is you get the solid feel and generous room of a full-size car wrapped in a Body by Fisher.

What more can we tell you? Take a test drive at your Olds dealer's soon. Discover that great Olds feeling — and the special

driving excitement the 88 Holiday Coupe can spark in your life. 

*Oldsmobile*

**88 Holiday Coupe**  
Have one built for you.





# Time and a bit of genius make the difference.

It wasn't easy to create the world's finest DC receiver. It took time. A great deal of it. For research. For development. For testing. And it also took a bit of genius — the kind of genius that Sansui engineers are world famous for. But we at Sansui were determined. And we succeeded. So now there is a patent pending on Sansui's unique new DC amplifier circuitry.

The Sansui G-6000 DC receiver, like Sansui's entire G-line of DC receivers, incorporates this unique technology. It delivers music reproduction so superb you will actually hear the difference.

With Sansui's DC amplifier circuitry you get better low frequency response. It extends all the way down to zero Hz (DC), from main-in. That's one reason it's called a DC receiver.

With Sansui's DC amplifier circuitry you get better high frequency response. It goes all the way up to 200,000Hz, from main-in. Just try to find another receiver with frequency response this wide.

With Sansui's DC amplifier circuitry you also get fuller and faster response to musical transients. This is measured in slew rate and rise time. And the slew rate and rise time figures of the Sansui G-6000 are far better than those of any competitive models.

And with Sansui's DC amplifier circuitry there is virtually no distortion. While eliminating the capaci-

tors, we've solved the time delay problem that causes transient intermodulation distortion (TIM). And total harmonic distortion is a mere 0.03% at full rated power: 65 watts/channel, min RMS, both channels driven into 8 ohms from 20-20,000Hz.

The Sansui G-6000 DC receiver is much more than its extraordinary amplifier circuitry. It is also a superb FM section, with excellent sensitivity, selectivity and signal-to-noise ratio, virtually without distortion.

The G-6000 also gives you high-technology protection circuitry that keeps both your speakers and receiver safe, always. It offers perfectly positioned and highly accurate power, tuning and signal meters. And human engineering, for greatest ease-of-operation. The G-6000 is also elegantly styled with a beautiful simulated walnut grain finish.

Listen to the G-6000 or any of Sansui's full line of DC receivers at your franchised Sansui dealer today. You'll easily hear the difference that Sansui DC makes.

## 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. 60 ON READER SERVICE CARD

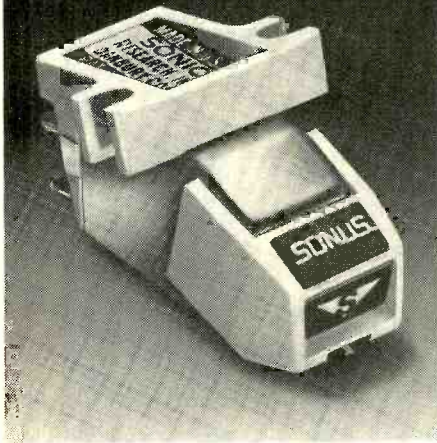
## The Sansui G-6000 DC Receiver





## SONUS SERIES II.

THE BEST  
KEEPS GETTING  
BETTER.



The original Sonus cartridge established a new standard in high definition phonograph reproduction. Yet we believe there is even further room for improvement in this often-overlooked area of high fidelity. So we have taken the original Sonus cartridges and refined their designs, taking full advantage of the latest in materials and techniques. Sonus Series II cartridges are the result of these new design developments.

The new Sonus Gold consists of three models with identical bodies and stylus assemblies, differing only in the form of their diamond tips. The new Sonus Silver comes in two stylus types, and shares all the qualities of their more costly counterparts, yet still can offer a dramatic improvement in sound reproduction overall. Both series employ a transducer system characterized by reproduction of exceptional accuracy, clarity and definition. For full details and a recommendation of which model is correct for your particular system, we suggest a visit to the Sonus dealer nearest you, or write us.

SONIC RESEARCH, INC., Sugar Hollow Rd.  
Danbury, Conn. 06810

# SONUS

High Definition Phono Cartridges

mous vitality and a certain lust for center stage that precluded boredom.

Here Olivora sounds so soft-spoken, vulnerable, and dazed with the wonder of her own feelings as she swoons through each song that one quite expects to find a little puddle of remorse under the speakers. The Piaf influences have been expunged and the remaining Streisand is the Streisand of *Evergreen*, leading to saccharine readings of such mush as Neil Diamond's *Solitaire* and Jason Darrow's *Honesty*. Olivora collaborated on writing two songs here, *Let's Make Some Memories* and *The Right Garden*, which are as drippy as *Evergreen* itself. But she has so narrowed her interpretive range that one can almost sing the next phrase ahead of her. Pity. P.R.

**ALAN PARSONS PROJECT:** *Pyramid* (see Best of the Month, page 105)

**ELVIS PRESLEY:** *Elvis Sings for Children—and Grownups Too!* Elvis Presley (vocals); instrumental accompaniment. *Let Me Be Your Teddy Bear; Wooden Heart; Five Sleepyheads; Puppet on a String; Angel; Old MacDonald; How Would You Like to Be;* and four others. RCA CPL1-2901 \$6.98.

Performance: **But mostly for children**  
Recording: **Variable**

This is a theme shuffling of reissues, one of many you'll probably be seeing. The ingredients for it come mostly from the soundtracks of those movies Elvis made that were so out of it, so irrelevant, that you halfway started to wonder if they were relevant in some far-out, B. Traven sort of way. Yes, one of them did indeed stoop so low as to have him sing *Old MacDonald*, which turns out to be something of a high point, musically, in the company of *Puppet on a String* and *Wooden Heart*. Elvis would sing anything and probably at one time or another did. On the other hand, the Elvis myth does seem to fascinate children, and I think his singing makes pretty good contact with certain children I know personally. And you could do a lot worse shopping for children's albums. Adults who tend to be analytical are advised to stay away from it, as the why that lurks behind it and so much of the seeming piffle Elvis attended to (with, all in all, quite a lot of care) tends to drive analytical types crazy. Don't ask me how I know. Hoo hah. N.C.

**LIVINGSTON TAYLOR: 3-Way Mirror.** Livingston Taylor (vocals, guitar); instrumental accompaniment. *Going Round One More Time; L.A. Serenade; Gonna Have a Good Good Time; I Will Be in Love with You; I'll Come Running; Living Without You;* and four others. EPIC JE 35540 \$7.98.

Performance: **Liv is half alive**  
Recording: **Very clean**

The biographical sketch that accompanies "3-Way Mirror" warns us not to view this collection of songs as representative of a "new and improved" Livingston Taylor. Well, there certainly isn't much new here except a more commercial pop setting with sweeping strings, glissandos, ooh's, aah's, and all that. And the only improvement I can detect is the increased clarity of the vocals—this time you can hear everything Liv has to say. The problem is that what he says doesn't come across with the same warmth and intimacy he gave us a few years back in such songs as *Lost in*



LIVINGSTON TAYLOR  
Toying with vocal techniques

*the Love of You* and Harold Arlen's *Over the Rainbow*.

Livingston seems to be toying with different vocal techniques, mixing accents and experimenting with phrasing, and one expects this from an artist who's been on a five-year sabbatical from recording. But he just doesn't come alive. Some of the songs are partly to blame in that their choruses are too short and weak for the build-up they receive. In *Living Without You*, for instance, the entire chorus is merely the phrase "Living without you" repeated twice, and *How Much Your Sweet Love Means to Me*, a samba-style tune, ends with a whimpering "Oh, did I ever say/How much your sweet love means to me." Furthermore, it would have given the whole album a boost if the arrangements had been opened up for some solos or instrumental breaks. I mean, why use talented studio heavies like Lee Ritenour and Richard Greene and then limit them to rhythm-section duties?

On a more positive note, I am glad to report that there are three very worthwhile songs here. The opening track, *Going Round One More Time*, proves that Livingston can write a good hook. *I Will Be in Love with You* puts him in McCartney's class as a creator of endearingly silly love songs. And a hot little Motown item titled *I'll Come Running* shows that he can still get in the groove. But the best thing about "3-Way Mirror" is that Livingston Taylor is back. His greatest strength has always been his performing, which he will be doing plenty of as the opening act for the current Ronstadt tour, and I've got a hunch that there's nothing wrong with him right now that a little time on the road won't cure.

—Richard Sarbin

**WEREWOLVES.** Werewolves (vocals and instrumentals). *The Flesh Express; Hollywood Millionaire; Too Hard; City by the Sea; Never Been to Hades; Silence;* and five others. RCA AFL1-2746 \$7.98, © AFS1-2746 \$7.98, © AFK1-2746 \$7.98.

Performance: **Werepoodles**  
Recording: **Okay**

Andrew Oldham is one of the more colorful hucksters of our time, a sort of English Kim  
(Continued on page 136)





## Here's another Empire 698 Turntable dashing off the assembly line.

It takes 15½ hours to make an Empire turntable.  
Each one stands over 80 separate inspections before  
it reaches the end of the line.

And after the assembly is done, we test it some more.  
Wow and flutter, rumble, and speed accuracy are  
electronically confirmed to meet specifications before  
final approval.

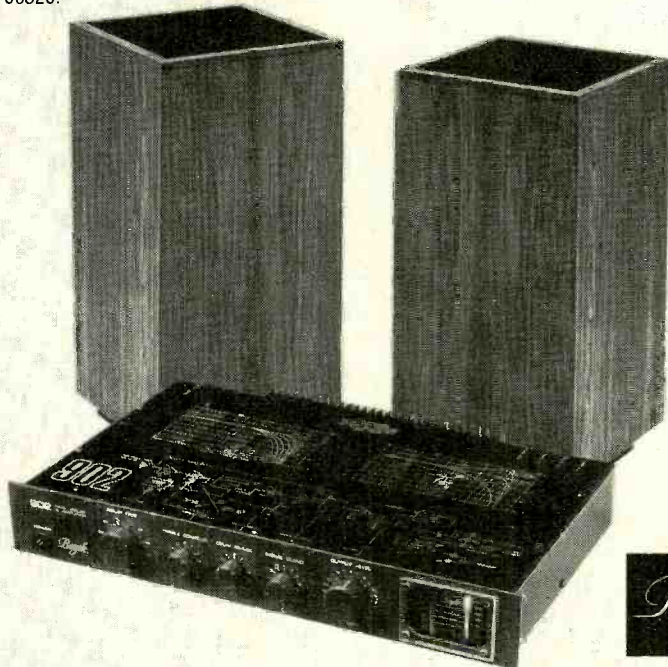
It's not a fast way to finish a turntable, but it's a great  
way to start one.

# EMPIRE

Empire Scientific Corp., Garden City, New York 11530  
CIRCLE NO. 99 ON READER SERVICE CARD



The Bozak 902 Time Delay System is by far the best way to increase your listening pleasure, regardless of your components, source material, or room. No matter how good your equipment is, it will never reproduce the lifelike dimension of a concert hall performance. What you're presently missing, and what the Bozak 902 electronically recreates, is the reverberant sound and special ambience of a live performance. The complete system greatly benefits from Bozak's thirty years of designing and manufacturing professional sound equipment. It includes a delay unit with integrated amplifier, plus two specially designed indirect radiating speakers. For literature write to Bozak Inc., P.O. Box 1166, Darien, Conn. 06820.



## THE NEW BOZAK 902 TIME DELAY SYSTEM. MAKES YOUR GREAT SOUNDING SYSTEM SOUND EVEN BETTER.

CIRCLE NO. 18 ON READER SERVICE CARD

## INSTANT SHELVING

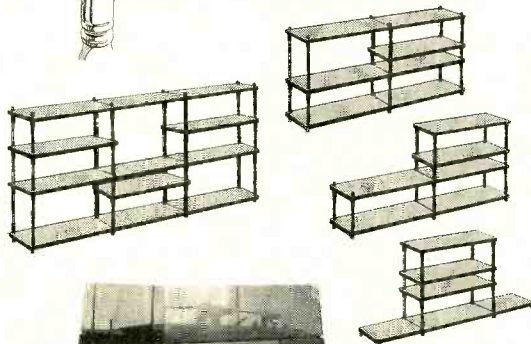


You assemble Kirsch Shelving in minutes with just a twist of the wrist. Ring-Lock® construction assures stability.

Modular design lets you start small and add on as your needs grow.

Available in Kirsch kits or components in a choice of stain-resistant, vinyl-laminated finishes.

For shelving brochure and dealers near you, write Kirsch Co., Dept. DR 1078, Sturgis, Mich. 49091.



**Kirsch**

THE GREAT SPACEMAKER

CIRCLE NO. 40 ON READER SERVICE CARD

©Registered TM,  
Kirsch Company

but I am especially fond of *Amor Marinero* (*Sailor's Love*), a sinuous tango that brings out her vocal flexibility and dynamic range, and *Cisne Cuello Negro* (*Black-Necked Swan*), which she sings with a dazzling display of power, phrasing, and long breath.

The singing twin guitarists Los Gemelos, Miss Mistral's frequent collaborators, provide suitably idiomatic backing, and the sound is fine. There are, alas, no texts or translations for gringos, but whether you know Spanish or not, if you appreciate good singing you'd better get this record.

—William Livingstone

### RECORDING OF SPECIAL MERIT

**MARTIN MULL: *Sex and Violins*.** Martin Mull (vocals, guitar); vocal and instrumental accompaniment. *Birds Gotta Swim; I Haven't the Vegas Idea; The Mother-in-Law Song; Westward Ho!; Cleveland (Revisited)*; and six others. ABC AA-1064 \$7.98, © 8020-1064 (H) \$7.95, © 5020-1064 (H) \$7.95.

Performance: **Very good**  
Recording: **Very good**

Martin Mull is a humorist and actor who started in the early 1970's with a series of Warner Brothers albums that won him a cult following. His satire on blues singers (in which he played a ukulele with a baby bottle for a "slide" guitar effect and sang white as white can be) was brilliant. In the past few years he's become nationally known through several syndicated TV series—first *Mary Hartman, Mary Hartman*, in which he played a villain, then *Fernwood 2 Nite*, and now *America 2 Nite*, the latter two being talk-show spoofs with Mull as host.

Mull's humor is based on exploding the pretensions of people who don't have any right to their pretensions—small-town rubes looking for a hot night in Las Vegas, a clod who's proud of his trailer home, a big-town nerd trying to be Continental in sexual affairs. Mull's portraits of these people are distressingly accurate, cleverly written, and well performed. On "*Sex and Violins*" he satirizes the recording industry by introducing a character purportedly from the record company. This person assures Mull that the album won't sell, but I sure hope it does. Martin Mull is a very funny fellow.

J.V.

**JANE OLIVOR: *Stay the Night*.** Jane Olivor (vocals); orchestra. *Honesty; He's So Fine; Solitaire; Song for My Father; The Right Garden*; and five others. COLUMBIA JC 35437 \$7.98, © JCA 35437 \$7.98, © JCT 35437 \$7.98.

Performance: **Tame**  
Recording: **Elaborate**

Whoever is guiding Jane Olivor's career is sending her up the garden path to the just-another-girl-singer gazebo. It would be sad to think of her languishing there, because she does have talent and that extra little something that makes a star. In the beginning of her career, not very long ago, she quickly became a cult figure with her intense, extravagantly dramatic performances that suggested Piaf and Streisand simultaneously. Whatever her faults were then—a rampant tendency to ham it up, a hyperenergetic, Moscow Art Players concentration that made a mortal storm out of every line—at least she had enor-

(Continued on page 132)

STEREO REVIEW



# Motorola introduces the complete sound system for your car.



The TC887AX In-Dash Cassette with AM/FM Stereo, the EQB 3000 Graphic Equalizer, plus 3-way and 2-way speakers.

This new system from Motorola® gives you 30 watts of output and a sound that can sound as good as many home stereo systems.

The TC887AX has cassette features like automatic reverse for continuous play of the cassette without removal and reinsertion, locking fast forward to advance the tape quickly and quietly, locking rewind to rewind the tape and repeat a program, and direction indicator lights. Plus push-button tuning, a local/distance switch, balance control for adjusting right and left channels, a fader control for adjusting the front to rear sound level.

The Motorola EQB 3000 Graphic Equalizer has been designed specifically for the varying automotive environment. It compensates adequately for car

acoustic levels, speaker placement and ambient road noise. With five frequency bands from 60 Hz to 10,000 Hz, and a fader, it enables you to tailor the sound to your preference.

The Pow-R-Handler™ Professional Series 3-way speakers have 20 oz. one piece magnets and one inch aluminum voice coil for superior heat dissipation. The 2-ways are co-axial speakers with 10 oz. one piece magnets.

And this is just one of the many systems you can create with Motorola components. Listen to them at a dealer near you. And start getting sound in your car that can be as good as the sound you get at home.



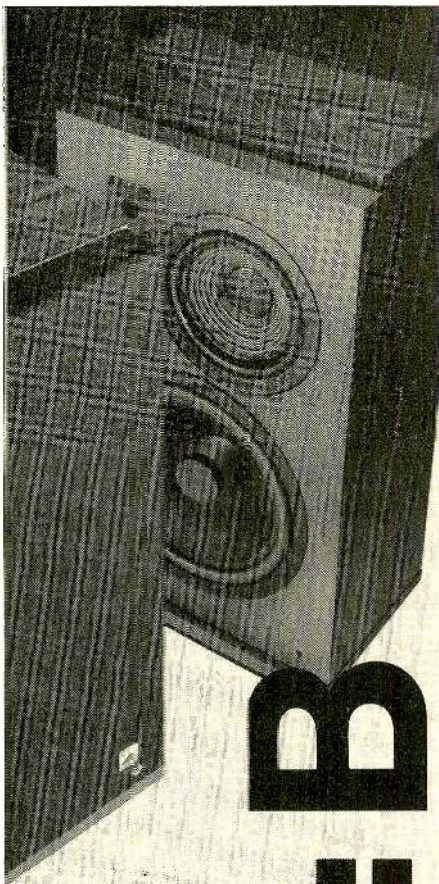
## MOTOROLA

*Auto Sound Systems*

To find the dealer nearest you, write: Market Relations Manager, Motorola, Inc., Automotive Products Division, 1299 East Algonquin Road, Schaumburg, Illinois 60196. Motorola is a registered trademark of Motorola Inc.

CIRCLE NO. 51 ON READER SERVICE CARD





## It sounds like music

An incredibly solid 30 Hz low end gives you bass response not found in any other speaker of this size. This is clean bass. It isn't phony. There is no "hump" around 80 Hz to give the impression of bass when there really isn't any. What's on your source material is what you're going to hear—accurately.

There is no sacrifice at the high end either. Both front and rear-firing tweeters give you the uniform total acoustic power output that takes you into a "live-music" environment.

When you buy your next pair of speakers, do yourself a favor—audition the Interface:B's. If your criteria is musical accuracy, the Interface:B's are what you'll buy.



**Electro-Voice®**

a gulton company  
600 Cecil Street  
Buchanan, Michigan 49107

# Interface:B™



"... And I want that tape recorder right out in the open where everybody can see it. . . ."

trusively into the programming of the average FM rock station. That just might happen, and there's nothing wrong with "Mariposa de Oro" technically, but I can't make a very deep connection with it. In fact, it suggests that unrelieved good taste and technical facility can leave you just as hungry as too much grossness and ineptitude. But, one at a time, the songs should slip into radio programming as easily as a Big Mac slips down a teenager's throat.

**RONNIE MILSAP: *Only One Love in My Life.*** Ronnie Milsap (vocals, piano); instrumental accompaniment. *Let's Take the Long Way Around the World; Back on My Mind Again; Only One Love in My Life; I'm Not Trying to Forget; No Relief in Sight;* and five others. RCA AFL1-2780 \$7.98, ® AFS1-2780 \$7.98, © AFK1-2780 \$7.98.

Performance: **Good**  
Recording: **Good**

Funny thing: country singers who play the piano don't sing slow songs very well (unless you count Charlie Rich as a country singer). Ronnie Milsap does it better than most, although there's a lackluster *Once I Get Over You* here to blemish this one. Not that it would otherwise be blemish-free, but it has, as they say, its moments. Milsap is one of the blacker-sounding country singers, and his repertoire doesn't sound quite like anyone else's, country or pop. Yet the songs are mostly fairly simple ones. He's been one of the toasts of Nashville in the last few years, possibly for the very reason that he sounds a lot more pop than country, which fits right in with Nashville's lusting after urbanity. Here Milsap performs as well as usual, but the thing excites me about as much as day-old bread does when I'm not in one of my lean periods. The one that's supposed to be exciting, *Too Soon to Know*, with its vocal uppercuts and orchestral didoes, is definitely the low point. But then the profile never gets very

high anywhere. It's a professional job, though, with several cuts that would go well on the radio somewhere between Grace Slick and Johnny Paycheck.

N.C.

### RECORDING OF SPECIAL MERIT

**NATI MISTRAL Y LOS GEMELOS.** Nati Mistral (vocals); Los Gemelos (vocals, guitars, percussion). *Callecita Encendida; Zamba de Valderrama; Caballo de Paso; Adiós a la Llanera; Luna Tucumana;* and five others. ALHAMBRA CPS 9553 \$5.98 (from Alhambra Records, 552 West 27th Street, Hialeah, Fla. 33010).

Performance: **Excellent**  
Recording: **Good**

If critics had the power the public attributes to them, the name of the great Spanish singing actress Nati Mistral would be a household word. "If Nati Mistral were American," Richard Dyer wrote in the *Boston Globe*, "Barbra Streisand would be looking for work." In the February issue of *STEREO REVIEW*, Peter Reilly included a Mistral album on his list of the best records of the stereo era and referred to her as the Maria Callas of the Spanish song. And wherever I could publish, I have been frothing at the mouth about her for years. She remains, however, in this country at least, a connoisseur's singer, a favorite of critics, and a cult figure for a small but avid American following.

This new album, recorded in Spain by Discos Columbia and released here by Alhambra Records, is an impressive addition to Miss Mistral's discography and an important addition to any Latin or international collection. It consists of ten folk-influenced popular songs from various parts of the Spanish-speaking world, all new to her recorded repertoire. They show off the beauty of her voice, her musicality, her superb diction, and her phenomenal interpretive gifts. I like all ten songs,

(Continued on page 130)



# the unreel deck



**The AIWA AD-6900U. Super specs and sound quality we defy any reel-to-reel to beat. Plus a lot of extras.**

For openers, the AD-6900U delivers a frequency response of 20 to 20,000 Hz and an S/N Ratio of 68 dB using FeCr tape with Dolby\* on. And only 0.04% WOW and FLUTTER (WRMS). Great numbers, but there's more.

**The exclusive AIWA Flat Response Tuning System (FRTS) gets sensational sound out of any kind of tape on the market.**

With just the push of a button, FRTS will use its own circuitry to measure the precise bias level of any kind of tape and adjust for the flattest possible response. And with the built-



Exclusive AIWA 3 head V-cut design

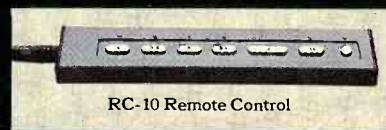
in 400 Hz and 8 kHz oscillators, the AD-6900U offers the most precise test recording possible, so you know exactly what to expect before you record. Coupled with AIWA's exclusive combination 3-head V-cut design, you can expect absolute optimum results in recording, playback and test.

**The AD-6900U features Full Logic operation and exclusive Double Needle Meters.**

Full logic feather-touch push button controls and dual motor operation make the going easy, and the feather-touch operation with Cue and Review can't be found on any other cassette deck. And no other reel-to-reel or cassette deck offers Double Needle Meters that combine both VU and Peak functions on each meter.

**Plus a full array of extras, including AIWA's exclusive SYNCHRO-RECORD.**

When you use the AD-6900U with AIWA's AP-2200 turntable, Synchro-Record activates recording automatically when the record is cued, and stops when the tone arm lifts. Mic/line mixing, oil-damped cassette ejection, Double-Dolby Noise Reduction with fully adjustable calibration, optional RC-10 remote con-



RC-10 Remote Control

trol, low profile design and your choice of rich wood side panels or tough rack-mount handles make this deck an unparalleled value.

The AD-6900U is the absolute deck. When you hear it, when you use it, you'll agree it's UNREEL.

## AIWA®

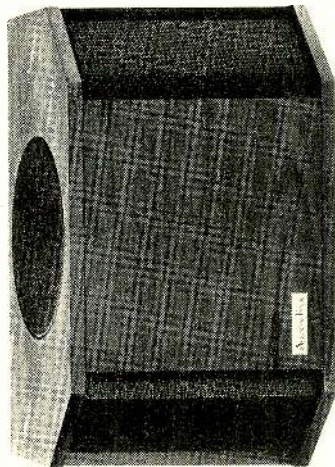
Distributed in the U.S. by: **AIWA AMERICA INC.**, 35 Oxford Drive, Moonachie, New Jersey 07074 • Distributed in Canada by: **SHIRO (CANADA) LTD.**

\*Dolby is a trademark of Dolby Laboratories, Inc.

CIRCLE NO. 5 ON READER SERVICE CARD



# ALLISON: FOUR



\$195\*

"Listen to the Four if you possibly can. It is worth hearing — even if you are not shopping for a speaker — just for a demonstration of how good a small box can sound."

Hirsch-Houck Laboratories — Equipment Test Reports  
STEREO REVIEW June 1978, Copyright Ziff-Davis Publ. Co.  
\*Higher in the South and West.

ALLISON ACOUSTICS 7 Tech Circle, Natick, Massachusetts 01760

that I don't care much for the sound of her voice. There is an irritating, caterwauling edge to it that was not apparent on her group albums, possibly because of the vocal mix provided by Nona Hendryx and Sara Dash. This is not to say that her latest set has no redeeming qualities. In fact, it is a considerable improvement over her debut solo disc.

As might be expected, there are several tracks here that aren't much to listen to but might pass muster as "exercise music" in the run-of-the-mill disco vein, among them *Save the Last Dance for Me* and *You Make It So Hard (To Say No)*. *Eyes in the Back of My Head* is an amusing romper in which Patti's nasal Minnie Mouse voice seems appropriate. But she is sufficiently skilled to alter her tone when she cares to. On *Monkey See, Monkey Do*, it is tempered to an appealing cuteness; on *Quiet Time*, the stridence falls within the acceptable range for gospel-flavored pop fare; the surprising softness of her voice on *Little Girls* might lead a listener to believe that some promising outsider had barged in on the session and snatched the microphone away from Patti. An unanticipated treat is a successful excursion into salsa on *Teach Me Tonight (Me Gusta Tu Baile)*, in some respects the most interesting track to be found here, with nice support from Sheila Escovedo on timbales and Willie Colon on congas.

In sum, "Tasty" demonstrates Patti LaBelle's potential as a solo performer, and at this point it appears that versatility is likely to become one of her assets. If she continues to move in this direction, my misgivings may well turn into outright respect for her talent — if not her voice. *P.G.*

**LITTLE RIVER BAND:** *Sleeper Catcher* (see *Best of the Month*, page 103)

**KENNY LOGGINS:** *Nightwatch*. Kenny Loggins (vocals, guitar); vocal and instrumental accompaniment. *Nightwatch*; *Easy Driver*; *Somebody Knows*; *Angelique*; *Down in the Boondocks*; and four others. COLUMBIA JC 35387 \$7.98, © JCA 35387 \$7.98, © JCT 35387 \$7.98.

Performance: **Smooth**  
Recording: **Voluptuous**

There's a nice melodic flow about this, but it's all a bit overdone and slick for me. The songs range from Joe South's unpretentious *Down in the Boondocks* to some of Loggins' own

most flamboyant noodlings yet, but they're all gussied up just a bit too much, and everything seems such a production that your attention is arrested by the wrong parts. There's music in it, all right, but it's under an overlay of studio sophistication and careful planning. It's as if there's a transparent wall between Loggins and the listener. *N.C.*

**LOUISIANA'S LE ROUX.** Louisiana's Le Roux (vocals and instrumentals). *Take a Ride on a Riverboat*; *Love Abductor*; *New Orleans Ladies*; *Crazy in Love*; *Slow Burn*; and five others. CAPITOL SW-11734 \$7.98, © 8XW-11734 \$7.98, © 4XW-11734 \$7.98.

Performance: **Smooth**  
Recording: **Very good**

You know how it is. Sometimes you're impressed with the musicianship more than you like the tunes, and even though you have to admit the tunes aren't bad, there's something that seems to come up short in one or another of them at just the *wrong* time. This album makes a great *cappella* start, as Le Roux is strong on vocals, individually and, especially, together. But the songs that are attractive in the pretty sense, like *New Orleans Ladies*, tend to be thin and not so lively, and the "interesting" ones, like *Love Abductor*, are the kind that seem increasingly homely as they become increasingly familiar. Everywhere the lyrics are somewhere between early Poco and disco, meaning the less attention you pay to them the better off you'll be. But the musicianship is there, and so is a sound, and there's a lot of promise. When Le Roux gets its songs together as well as it has got its band together, it'll be all right. *N.C.*

**DAVE MASON:** *Mariposa de Oro*. Dave Mason (vocals, guitar); instrumental accompaniment. *Don't It Make You Wonder*; *Searchin'*; *Warm and Tender Love*; *Share Your Love*; and seven others. COLUMBIA JC 35285 \$7.98, © JCA 35285 \$7.98, © JCT 35285 \$7.98.

Performance: **Treading water**  
Recording: **Very good**

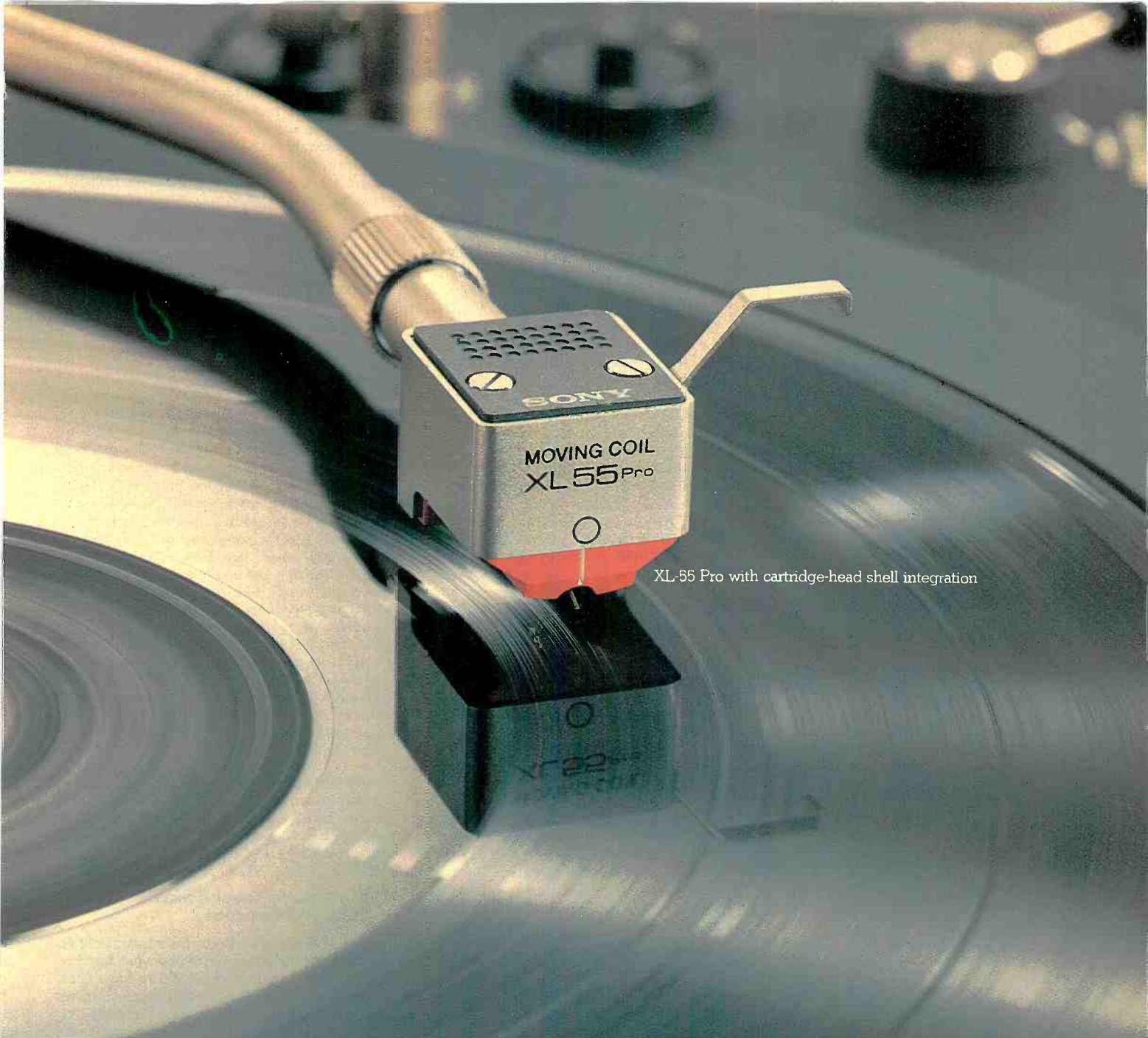
Dave Mason's too old for his mother to have been enraptured by Fleetwood Mac just before he was born, and too old to have been taken with Boz Scaggs' "Silk Degrees" in his formative years. Nevertheless, it sounds like the goal here was to slip five or six cuts unob-  
(Continued on page 128)

LOUISIANA'S LE ROUX: strong vocals and solid musicianship



Capitol Records





XL-55 Pro with cartridge-head shell integration

# Command Performance.

**A new Sony cartridge designed for the ultimate in sound.**

In a high performance sound system, the single most important element between your record and your ears is the cartridge.

That's why Sony went to a lot of trouble to create a highly original MC (Moving Coil) cartridge so superbly sensitive, the sound hardly seems to be coming from the record at all.

It uses a unique, simple figure-8 coil generating mechanism newly developed by Sony. To minimize resonance, it adopts an extremely intricate carbon-clad

cantilever, etc. The result—almost incredible sound transparency.

And that's only the beginning of the sophisticated technology and loving care Sony has lavished on the astounding XL-55 Pro.

We're convinced it was worth the extra effort. And we can back our claim with some pretty impressive statistics. But why read statistics when you can listen to the real thing?

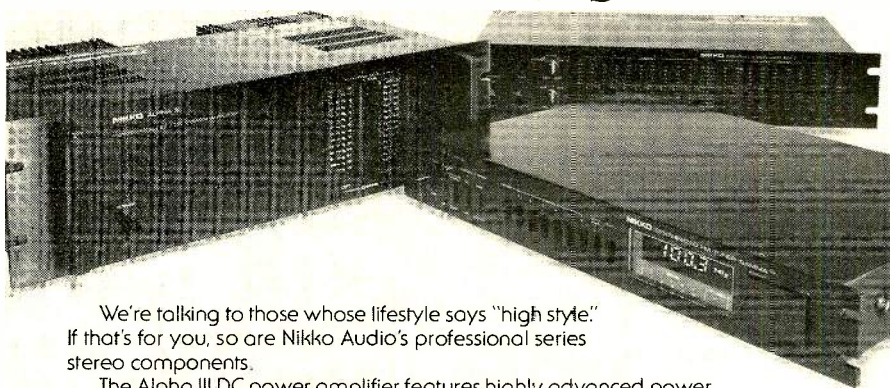
Hearing is believing.

# SONY®

CIRCLE NO. 65 ON READER SERVICE CARD



# If You Have the Means, Nikko Has the High End



We're talking to those whose lifestyle says "high style." If that's for you, so are Nikko Audio's professional series stereo components.

The Alpha III DC power amplifier features highly advanced power MOS-FET circuitry which enables it to produce a resounding 80 watts per channel\* at a low 0.006% THD. Complete with LED readout to monitor the pulse of power in each channel.

If you like to get involved with shaping the destiny of your music, the 10 band per channel ( $\pm 12$ dB boost or cut) EQ 1 graphic equalizer lets you adjust your audio system to suit your room acoustics and your taste.

The Gamma V synthesized digital FM stereo tuner features automatic (or manual) tuning with LED station frequency readout that is as accurate as the state-of-the-art permits.

Yet, as "high end" as Nikko's components are, the "means" it takes to acquire them is surprisingly low. Call this toll-free number for the name of your Nikko dealer and find out for yourself: (1) 800 423-2994.

## Nikko Audio

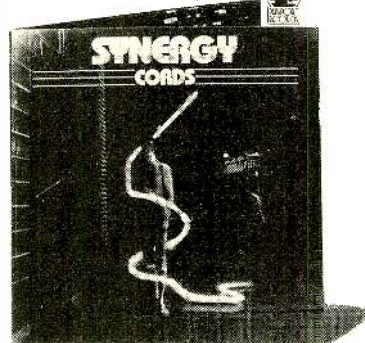
For Those Who Take Their Stereo Seriously

Nikko Electric Corp. of America, 16270 Raymer St., Van Nuys, CA 91406 • (213) 988-0105  
\*both channels driven into 8 ohms, 20Hz to 20kHz

## "If a listener can hear 'Cords' and be transported, then I've succeeded..."

On two widely-acclaimed albums, Larry Fast has been the one-man synthesizer show called Synergy. Now, he's made a brilliant new album—CORDS\* "The title," says Fast, "refers to patch cords and musical chords. On CORDS, I'm trying to combine prototype technology—including the first recorded use of a revolutionary guitar synthesizer—with a musical approach that will affect people emotionally—If a listener can be transported by the music... then I've succeeded."

CORDS. By Larry Fast's Synergy. Listen. And be transported.  
On Passport Records and GRT Music Tapes.



Manufactured and distributed by Arista Records.

\*Specially Pressed on Clear Vinyl

A worthwhile investment? Kiss? Isn't that a contradiction in terms? No, not really. It is tempting to write Kiss off as merely the heirs to the audience commanded in the early Seventies by Grand Funk Railroad and later by Alice Cooper—the teenage rowdies to whom a bad *Rolling Stone* review of their heroes amounted to a badge of honor. It's tempting, but it's not entirely accurate, because for sheer crass exploitation of its fans Kiss is in a league by itself. But that's what makes Kiss such a healthy phenomenon: they're so upfront about being a scam.

Beyond that, though, Kiss' music is actually a lot better than it needs to be. These guys play with a fair amount of style, humor, and intelligence, and their records, if not works of art, are at least going to be remembered as endearing period classics, much like the ridiculous (and in retrospect obviously satirical) surf/car singles of Jan and Dean. A large part of rock is a gigantic, ludicrous joke, and nobody in this decade has understood that better than Gene, Ace, Paul, and Peter. Granted, that doesn't have quite the same sound as John, Paul, George, and Ringo, but who in his right mind would want it to? "Double Platinum" is recommended to residents of the Teenage Wasteland everywhere. S.S.

### RECORDING OF SPECIAL MERIT

**BONNIE KOLOC: *Wild and Recluse*.** Bonnie Koloc (vocals); instrumental accompaniment. *Roll Me on the Water; Up Is a Nice Place to Be; Lie Down by Me; Golden Slumbers*; and three others. EPIC JE 35254 \$7.98, Ⓟ JEA 35254 \$7.98, Ⓞ JET 35254 \$7.98.

Performance: **Exceptional**  
Recording: **Very good**

That title isn't just an idle pun but is a simplification of two sides of Bonnie Koloc, who is also musically contradictory and difficult to pin down. She's a treat to listen to almost all the time, though. The one thing that hurt this album, I thought, was her slowed-down, unaccompanied version of *Jazzman* (as part of *Lucky Suite*) which takes showing off of vocal prowess so far that you forget which song she's singing. But that's symptomatic of a basically healthy way she does things, as is a bit of funky stuff that works: Gene Autry's (Ray Whitley actually wrote it) *Back in the Saddle Again*. Bonnie's a kidder, but she's also very direct and sounds like she knows it's better to be outrageous than outraged. And she sings a wild range of notes with clarity and distinction and seems comfortable in a number of different song styles. There's a lot of Americana in this album, although it seems to be there by accident. Since there are so few true accidents, there could be a connection to the amalgam of styles that seem to have shaped Bonnie Koloc as a singer. Hers is an American voice if I ever heard one. N.C.

**PATTI LABELLE: *Tasty*.** Patti Labelle (vocals); vocal and instrumental accompaniment. *Save the Last Dance for Me; Monkey See, Monkey Do; Eyes in the Back of My Head*; and six others. EPIC JE 35335 \$7.98, Ⓟ JEA 35335 \$7.98, Ⓞ JET 35335 \$7.98.

Performance: **Better than before**  
Recording: **Satisfactory**

The main thing that keeps me from really enjoying Patti Labelle's new solo recording is  
(Continued on page 126)



# Sheer pleasure from Plymouth.

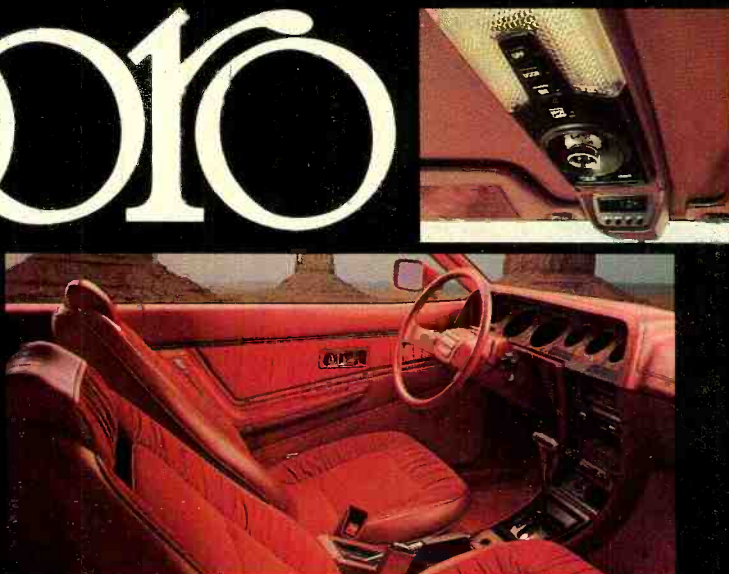


# Sapporo

There are a select few cars that cause drivers to experience a certain excited anticipation even before an ignition key is turned. This is one of them.

It's called Sapporo and it's one automobile that's built for those people who feel that driving need not be mundane.

Sapporo offers an impressive list of standard features, including **40** <sup>MPG</sup> <sub>HWY</sub> **29** <sup>MPG</sup> <sub>CITY</sub>\* the exclusive Silent Shaft engine, one of the smoothest and quietest 4-cylinder powerplants available anywhere. And with our MCA Jet System, an engineering marvel that utilizes air injection, Sapporo will get you some great mileage along with your great performance.



\*EPA estimates based on Sapporo's 1.6 litre engine and manual transmission. Your actual mileage may differ depending on how and where you drive, the condition of your car and its optional equipment. California mileage lower.

Sapporo... the incredible sport coupe that was designed to afford drivers something they may not have experienced for a long time... sheer pleasure.

## See the sophisticated sport coupe from Plymouth.

CIRCLE NO. 20 ON READER SERVICE CARD



# Video Review

**T**ODD RUNDGREN did an interesting thing this past May. He went into New York's Bottom Line for a week-long engagement and, in cooperation with the Visiondisc Corporation, came up with an audio/video souvenir of his final two performances, now available as an hour-long cassette titled "Live/Special." (This makes him, by the way, the first major rock artist to get in on the forthcoming home-video revolution, as noted in these pages in our August "Bulletin"). If I were critic Jon Landau, I'd probably greet the finished product this way: "I have seen the future of live recorded rock-and-roll and it is the video cassette." But I'm not, so I won't. What I will say, however, is that I have seen the future and it's an awful lot of fun.

The Rundgren show, as thus immortalized, is a very satisfying mixture of slickness and spontaneity, the kind of thing that both video aficionados and rock purists should get off on equally. The sound was mixed by Rundgren himself, and it is wonderful (the cassette, unfortunately, due to the limitations of current hardware, is in mono, but it is state-of-the-art as far as that goes, and the Visiondisc people have Rundgren's stereo mix in abeyance for the time when the hardware catches up). To his credit, Todd has resisted the temptation to do a Peter Frampton and doctor the tapes into relative perfection. So we do get an occasional out-of-tune guitar or missed cue, but we also get that sense of risk taking and audience communication that is the major pleasure of a live performance. And the camera work is as good as if not better than anything you'll see on the networks, which is to say unobtrusive, exactly the way rock-and-roll should be presented but rarely is.

What is most interesting to me is how the small screen manages to humanize Rundgren at the same time it makes him appear far more compelling than I would have believed possible. To be frank, I have never cared for Todd as a live act because, like Bob Marley, George Harrison, or (to a lesser extent) Patti Smith, he's a Believer in some vague, mystical, uninvolved Something, and this messianic streak

has resulted in a series of unlistenable bits of instrumental flatulence with such titles as *A Treatise on Cosmic Fire*, the jazz-rock fusion horrors that reduced his mass audience to a smallish cult. But even though he's dispensed with most of that this time out and returned to the irresistible pop treacle about unrequited love that made his initial reputation, the guru inside him clearly remains intact, so it is the spatial limitations of the medium, it would seem, that so convincingly create the impression that Todd is both endearing and intelligent. Scaled down in this way, his troubling obsessions seem mere eccentricities, charming rather than arrogant. This frees the viewer to concentrate on both his strengths (fine guitar playing, real skill as an arranger and leader) and weaknesses (cleverness for its own sake, a flakey stage demeanor that demonstrates what a Flower Child throwback he is), and as a result one gets a sense of Todd's overall artistic vision that is far more enlightening than any live album or concert documentary could ever be. In short, this is not just a record of some good music with accompanying pictures—it's good musical television, a hybrid whose full potential, it appears, is just beginning to be realized.

**M**y only real complaint (you *knew* there was going to be one, didn't you?) concerns the special visual effects. Bill Etra, who handled them, is generally sparing in his approach, thank the Lord; most of the time they effectively illustrate the music, and they even maintain one's interest when the music gets a little out of hand. Even at their best, though, they are hardly more sophisticated technologically than the kind of trippy psychedelic gimmicks that were *de rigueur* for rock visuals during the halcyon days of Haight Ashbury.

And I should add that I'm less than impressed with all that video "Art" everyone and his dog Eric seems to be doing in SoHo these days. But, since the nature of the performance Rundgren puts on does have more than a little in common with the rock/theater pieces of the mid and late Sixties (check out the pantomime stuff on *Eastern Intrigue* and you'll see what I mean), perhaps Etra's approach is deliberately anachronistic and the only way to go. I suppose I should reserve judgment on that score until I see some more of Visiondisc's productions. That caveat aside, however, this strikes me as an exemplary presentation of an artist good enough to deserve no less. I came away from it wishing I had been at the Bottom Line last May, and, given my reservations about Todd the performer, that means that somebody is doing something right. I suspect that if you already like him a little, "Live/Special" will make you fall on your face.

And let's see now . . . while we're on the subject, how about video cassettes of Elvis Costello, or Bruce Springsteen, or the Rolling Stones, or Bob Seger, or Neil Young, or Warren Zevon, or Graham Parker, or Tom Petty, or Talking Heads, or Jackson Browne, or . . . well, you get the picture, I think (no pun intended). Any takers out there?

—Steve Simels

**TODD RUNDGREN:** *Live/Special*. Todd Rundgren (vocals, guitar, piano); the Hello People (vocals); Moogy Klingman (keyboards); John Siegler, Kasim Sultan (bass); John Wilcox (drums). *Wouldn't Have Made a Difference; Black and White; Zen Archer; Can We Still Be Friends?; Couldn't I Just Tell You; Black Maria; Range War; Cry Wolf; I'm So Proud; Ooo Baby Baby; La La Means I Love You; I Saw the Light; Eastern Intrigue; Love in Action; Hello It's Me; Just a Victory*. VISIONDISC RTR-946-3444-M, sixty-minute video cassette (mono) available in both Beta-max and VHS formats, \$34.95 slow speed, \$44.95 fast speed (from Visiondisc Corp., P.O. Box 102, Cooper Sta., New York, N.Y. 10003).



## Todd Rundgren at the Bottom Line



Russell Elicof Helf Photos



# Power-hungry speakers have finally met their match.

If you're enthusiastic about today's less efficient, super-accurate speaker systems, you know you need a very efficient, super-power receiver to drive them.

And if your ears are good enough, you know the value of lots of power to handle critical musical passages with any speaker system.

That's why we created the new KR-8010. With 125 watts per channel, minimum RMS both channels driven at 8 ohms, from 20 to 20,000 Hz with no more than 0.03% total harmonic distortion, you've got all the power you really need.

But more important, the KR-8010 gives you an extremely clean, low-distortion signal at the same time.

For example, the signal-to-noise ratio through the phono input is the best you'll find on any receiver (90 dB). Its overall frequency response is matched

precisely to the RIAA curve  $\pm 0.2$  dB. And the tuner delivers sensitivity and selectivity that you'll really appreciate in signal-crowded cities.

To shape that signal into music, the KR-8010 offers a full range of front-panel controls usually found only in esoteric separates and recording studios. Like tape dubbing while listening to another source. And dual FM muting levels. MIC input and fade control. Bass, treble and midrange tone controls. And more.

The point is simply this: At \$675.00\*, the KR-8010 is made for the listener who demands as much from his receiver as he does from his speakers.

Next time you're at your Kenwood dealer listen to your favorite speaker with the KR-8010.

We think that your ears will finally meet their match.

\*Nationally advertised value. Actual prices are established by Kenwood dealers.

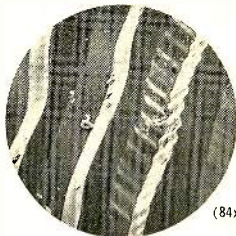


## KENWOOD

For the dealer nearest you, see your Yellow Pages, or write Kenwood, P.O. Box 6213, Carson, CA 90749. In Canada: Magnasonic Canada, Ltd.

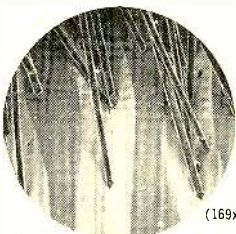


# Take a close look at a better record cleaner. Audio-Technica AT6002



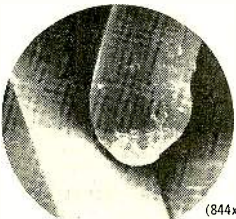
(84x enlargement)

This is an A-T scanning electron microscope photo of the dirt that must be removed if your records are to sound clean. It's dirt that is falling on your records even as you listen.



(169x enlargement)

Our unique carbon fiber brush sweeps each groove literally hundreds of times as the record plays, just *before* the stylus touches the groove. The carbon fiber brush helps conduct static charges away, making groove cleaning easier. And the incredibly small 6 micron diameter reaches deep into the groove for the smallest particles.



(844x enlargement)

Immediately behind the brush, our velvet pad captures and holds dust particles as you play. And moisture released from an inner reservoir helps to dissolve stubborn deposits to prevent static build-up.



This 4-way attack on dirt (brush, pad, liquid, and conductive path to ground) is uniquely effective. For proof, clean a record with any other system. Then "play" it with the AT6002. You'll find dirt removed by the AT6002 that was left behind by other cleaners. Try it today. Just \$12.95 at all Audio-Technica dealers.



**audio-technica**  
INNOVATION □ PRECISION □ INTEGRITY

AUDIO-TECHNICA U.S., INC.  
Dept. 108F-2, 33 Shawnee Avenue  
Fairlawn, Ohio 44131  
In Canada: Superior Electronics, Inc.



Motown Records

BUTLER AND HOUSTON: cool restraint and spirited vitality

popular motifs punctuated with tastefully applied, lilting, r-&-b-flavored rhythms. He has an engaging vocal style and a rather high voice with a light quality that permits him to bounce about on the notes with apparent ease, most notably here on *Everlasting Love*. There are a few moments, as in *I Go for You*, when he sounds faintly like a Marvin Gaye minus the heavy sensuality, and occasionally the Bee Gees' influence is unmistakable, but overall he is not derivative or imitative of any particular artist. For the most part, the fare here is late-adolescent romantic—without being gratefully squeaky-clean in the Osmond vein. The vocal backgrounds (some contributed by older brother Barry, who also helped produce the disc) are blended in skillfully to enhance rhythmic flow, but the instrumentals are strictly functional and attain no distinction. This is certainly not "blue-eyed soul," to use that pejorative phrase; Andy Gibb's music is more deeply rooted in middle-of-the-road pop.

Gibb is a bit bland for my taste, but his ability to be pleasant without easing into anything that might be remotely construed as offensive, or even arousing, might be his ace in a period when no one seems to want to make too many musical waves. In this respect, he might well be the perfect popular troubadour for the relatively quiet late Seventies. P.G.

**THELMA HOUSTON AND JERRY BUTLER: *Two to One*.** Thelma Houston, Jerry Butler (vocals); instrumental accompaniment. *If It Would Never End; Find a Way; We Owe It to Ourselves; Never Gonna Get Enough*; and four others. MOTOWN M7-903R1 \$6.98.

Performance: **Together again**  
Recording: **Satisfactory**

"Two to One" has all the ingredients that made this pair's first duet album so appealing: the smooth blending of vocal styles, with Thelma injecting a spirited vitality to counterbalance Jerry's cool restraint; the respect for each other's space that permits both artists to stretch out without appearing to hog the show; and the skillful handling of material. The only shortcoming here is in the songs, which too frequently fail to rise above the merely pleasant despite the stylish manner in

which they are executed. The second side is better than the first: Butler stirs up some genuine steam on *Never Gonna Get Enough*, and Houston gives full vent to her fine voice on *Don't Pity Me*. But in comparison with their earlier album, this one is a bit tepid. P.G.

**MILLIE JACKSON: *Get It Out'cha System*.** Millie Jackson (vocals); instrumental accompaniment. *Go Out and Get Some (Get It Out'cha System); Keep the Home Fire Burnin'; Logs and Thangs; Put Something Down on It; Here You Come Again*; and four others. SPRING SP-1-6719 \$7.98.

Performance: **Clean**  
Recording: **Good**

Well, the first lady of raunch is with us again, but from the contents of this album it appears that someone must have told her to cool it on the raw references that have become her stock in trade; the patter she offers us here is a pretty pallid blue. The comments interwoven with the songs on "Get It Out'cha System" would not even merit a "Parental Guidance" rating, much less a tantalizing "X." The beat is good, and Millie blasts into each track with the earthy gusto that qualifies her as a first-rate r-&-b belter, even without the raunch. Maybe a cleaned-up Millie is more suitable for airplay, but I, for one, prefer her when she lets it all hang out. P.G.

## RECORDING OF SPECIAL MERIT

**KISS: *Double Platinum*.** Kiss (vocals and instrumentals). *Strutter '78; Do You Love Me; Hard Luck Woman; Calling Dr. Love; Let Me Go, Rock 'n Roll; Deuce; Detroit Rock City; She; Beth; Makin' Love*; and ten others. CASABLANCA NBLP-7100-2 two discs \$11.98, © NPL8-7100 \$13.98, © NPL5-7100 \$13.98.

Performance: **Better than need be**  
Recording: **Good**

Facts first: Kiss went to England and remixed all the previously released tracks included on "Double Platinum." Everything has a lot more punch in these new versions, so even if you own the songs already, you'll find that this set is a worthwhile investment.

(Continued on page 124)





# The Pile Driver: It's just no match for the Heil Driver.

Since the turn of the century, "Pile Driver" speakers have laboriously "pushed" the sound out. This can result in a blurring and clipping of notes.

The revolutionary new Heil Driver in Lafayette's Criterion Series 3000 loudspeakers "shoots" the sound out.

There's no blurring or clipping. Every note is crisp and clearly defined.

Ever since "talking machines" first started talking, speakers have produced sound by pushing the sound waves out of the speaker with a diaphragm. Sometimes referred to as a "driver." Or "pile driver."

This system has definite disadvantages. To reproduce sound faithfully, the driver has to have very rapid rise time (acceleration) and decay time (deceleration). But the mass of the driver is so great, it fights against its own immense inertia. So sound gets blurred. Parts of notes get clipped short.

The only solution is to reduce the mass of the driver so it can react more quickly. And that's exactly what Dr. Oscar Heil has done.

The Heil Air Motion Transformer\* is the heart of Lafayette's new Criterion Series 3000 speakers. The Heil Driver is simplicity itself. It has just one moving part. Rather than "push" the air out, it "shoots" it out.

The faster a driver reacts, the higher the fidelity. The Heil Driver reacts incredibly swiftly. It actually transfers sound energy to the air more than 5 times the speed of its own motion! There is no blurring or clipping of notes. No ragged top ends. No rounding off of the initial "attack." Every note is clear.



**THE CRITERION 3001** incorporates a 10 in. heavy duty woofer in a parted book shelf cabinet. It delivers a deep, solid bass and high efficiency.

**THE CRITERION 3002** is a small tower design which couples the 10 in. woofer acoustically to a 10 in. passive radiator. It delivers a deeper, lighter bass.

**THE CRITERION 3003** is a larger tower design featuring a 12 in. heavy duty woofer coupled acoustically to a 12 in. passive radiator. It has an even fuller, deeper bass and greater power capacity.

All 3 are equipped, with a variable high frequency Brilliance Control to tailor treble response to the acoustics of any room.

We predict that your reaction to the Criterion Series 3000 speakers featuring the remarkable Heil Driver will be the same as ours.

In a word: "Heil-lelujah!"

**FREE 1979 CATALOG** Lafayette's catalog is all new for 1979! 172 illustrated pages — half in full color. Features our complete line . . . everything Lafayette makes or sells. Write Lafayette Dept. 11108, 111 Jerricho Turnpike, Syosset, N. Y. 11791.

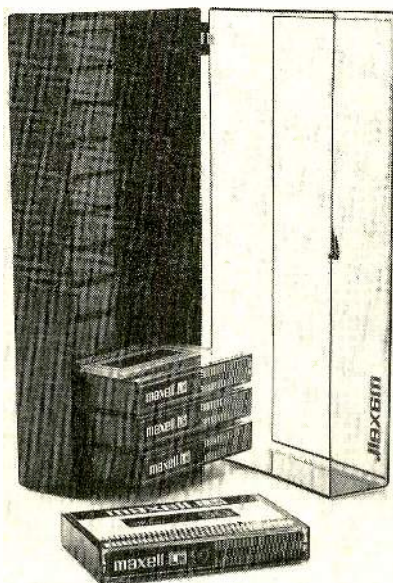
# Lafayette

We let you hear what you've been missing.

\*Trademark of ESS Inc.



# An open and shut case for buying Maxell LNI tape.



The case in point is this twelve slot cassette storage file.

It's free when you buy this special package of four Maxell Ultra Low-Noise cassettes. Some of the world's finest all purpose tape.

That way you'll not only have recordings that are free of dropouts and noise, you'll have a great place to keep your tapes safe and sound.

Case closed.



\*Available at participating dealers.

CIRCLE NO. 46 ON READER SERVICE CARD

touches *Ariel*. But it's still an important album because Friedman has talent and—to his credit—he takes chances. *Lucky Stars* is a conversation between lovers wherein the boy admits he saw a former girl friend for lunch and is embarrassed about it. *Rocking Chair (It's All Right)* is a little psychodrama in which a fellow imagines he's receiving advice on life from objects in his room—the rocking chair, the radio, the coffee cup, etc. *The Deli Song (Corned Beef on Wry)* is the most artistically ambitious selection: three characters, a boy and a girl falling in love and a hard-bitten waitress, sing and act out the situation (Michele Lamb is the girl and Lorraine Rebidas is the waitress).

Friedman's attempts to expand the popular song into a musical drama—a phonographic theater somewhat on the order of the great days of radio drama—is a logical progression from his earlier songs, which are nearly all character studies. He does not describe situations so much as the reactions of his characters to these situations; he doesn't write lyrics so much as dialogue. He is a musical dramatist, a pop-song playwright.

Friedman hasn't yet fully worked out his theories. This album finds him still struggling to make his ideas musically coherent, forceful, and palatable, but it is a thrill to hear him in the process. Excelsior, kid! And break a leg!

J.V.

**PETER GABRIEL.** Peter Gabriel (vocals); instrumental accompaniment. *On the Air; D.I.Y.; Mother of Violence; White Shadow; Indigo; Exposure;* and five others. CHARISMA. CDS 4013 \$6.98, ® TP 19181 \$7.98, © CS 19181 \$7.98.

Performance: **Dank**  
Recording: **Average**

Peter Gabriel, former lead singer of Genesis, is a sort of gothic punk and deserves more blame than most for the existence of such trash as Kiss. On the other hand, the latter-day men in greasepaint and platform shoes and others whose gimmick is looking ridiculous did miss a point about Gabriel: the music that surrounds him is not a total loss, and the musicians behind him play with some skill (though, in this case, they seem to have few ideas beyond some kind of theory about the glory of repetition). Still, he's a mediocre, run-of-the-mill rock singer with another of those high-pitched English-boy voices hiding as much as possible behind the instrumentals. A number of these songs—while they'd be listenable if we could get someone to sing them—probably would prove increasingly sappy the more words you could make out. Gabriel might still be good theater; I haven't seen him lately so I don't know. But I do know that I'd rather look at this album than listen to it.

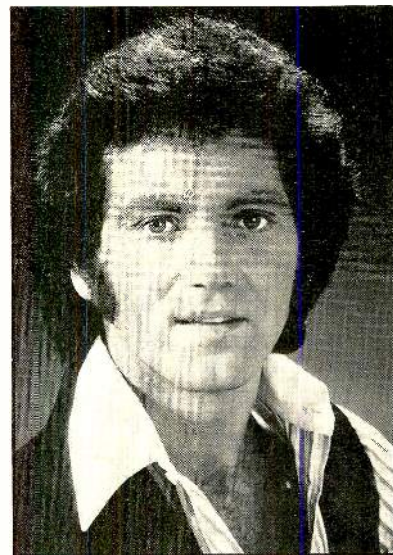
N.C.

**LARRY GATLIN: Oh! Brother.** Larry Gatlin (vocals, guitar); vocal and instrumental accompaniment. *Do It Again Tonight; I've Done Enough Dyin' Today; L.A. You're a Killer; I've Got You; Standin' by Me; Night Time Magic;* and four others. MONUMENT MG 7626 \$7.98, ® T 7626 \$7.95, © C 7626 \$7.95.

Performance: **Good, but...**  
Recording: **Very good**

The title of this album is intended to give some recognition to Larry Gatlin's brothers, Steve and Rudy, who are prominent in that

harmony singing that helped put his sound up there in the country firmament. But what the content of the album suggests is that here is another talented fellow whose writing suffers when fame puts increased demands on his time. And he can't write as well as he can sing in the first place. *Night Time Magic* has been a hit of sorts and is pleasant enough, but even it sounds like a rewrite of two or three of his earlier songs. A good percentage of "Oh! Brother" was recorded in London and another chunk of it in L.A., and it has a sort of rock-to-schmaltz sound, although a number of the songs do have familiar Gatlin turns in the melodies and changes. *I've Got You*, while not particularly satisfying, is patently by Gatlin for Gatlin's voice. The rest is a little better than filler (I like side two better than side one), except for *Cold Day in Hell*, which is simply a dud. I don't know, come to think



Monument Records

LARRY GATLIN  
A singer and a half

of it, that I've ever heard Gatlin sing a song written by someone else, but this album suggests that he should give that idea some thought—he is a singer and a half. Or he could try getting people and commitments and the demands of notoriety off his back, as a writer has to do in order to really work at the craft. At any rate, these weak songs in the company of this fine voice are out of their class.

N.C.

**ANDY GIBB: Shadow Dancing.** Andy Gibb (vocals); vocal and instrumental accompaniment. *Shadow Dancing; Why; (Our Love) Don't Throw It All Away; Everlasting Love; I Go for You; Good Feeling;* and four others. RSO RS-1-3034 \$6.98, ® 8T1-3034 \$7.98, © CT1-3034 \$7.98.

Performance: **Engaging**  
Recording: **Good**

This album was my first exposure to Andy Gibb, youngest of the performing Bee Gees clan, but something far less mysterious than intuition tells me that we'll all be hearing a lot more from him. As with his astonishingly popular brothers, everything about him seems to beckon to a broad audience. Though the lyrics of his songs don't seem to say much, the music, most of which he wrote himself, rides the ear well, being a pleasant pastiche of

(Continued on page 120)





1½" Mylar® dome tweeter for extrawide 170° high frequency dispersion.

High and mid frequency controls are continuously variable to adjust response to suit any room, program material or individual taste.

Two 3½" midranges with individual tuned isolation chambers.

Low frequency driver with specially treated polyurethane foam suspension for lower distortion, free cone movement, and smoother response.

# An inside look at Jensen's Total Energy Response.

You're looking at the heart of one of the most uniformly accurate sound reproducers made today. A Jensen Lifestyle Speaker.

Unlike many speakers that require special on-axis listening positions—or others that bounce the sound all over your room—Lifestyle is engineered to deliver a wide spectrum of musical information throughout the listening area. In proper perspective. With all the depth and imaging your source material is

capable of. And at real-life volume levels. That's what Total Energy Response is all about.

In fact, for perfectly integrated speaker systems and total quality control, we make every element that

**JENSEN**  
LIFESTYLE SPEAKER SYSTEMS

Division of Pemcor, Inc.  
Schiller Park, Illinois 60176

goes into the manufacture of our Lifestyle speakers. From the heavy duty magnets to our handwound, high power voice coils. Even the computer-designed crossover network. And of course, all of our precision woofers, midrange drivers and 170° dispersion dome tweeters.

But please, give a critical listen to these speakers in person. We think you'll agree, a notably superior design concept has resulted in audibly superior sound reproduction.





Only good music. Music without distortion. If your turntable is a BSR Quanta® turntable. You see, with the introduction of the Quanta models 600, 700 and 800, BSR has created a turntable base with virtually no resonance.

# NO MORE BAD VIBRATIONS.

Other turntables reduce resonance. ESR virtually eliminates resonance with concrete and foam. Low-frequency absorbing foamed concrete inside high-frequency absorbing foam.

Not one little vibration thanks to the isolation of the resonance-tuned suspension feet. No acoustical feedback. Just beautiful sound. And that's only the beginning.

On every BSR Quanta turntable is an S-shaped statically balanced tonearm. Viscous damped cueing for perfectly smooth arm movement. And on the Quanta 800 is the most accurate Quartz Phase-Locked Loop direct drive motor in existence. The quartz generated pulsed LED strobe display provides visual monitoring of the speed.

BSR Quanta turntables. Non-resonating. Not bad.

**BSR**

QUANTA®

**THE NON-RESONATING TURNABLES.**



BSR Consumer Products Group, Inc. 303, Brauvelt, NY 10913 • Distributed in Canada by BSR (Canada) Ltd., Rexdale, Ont. • © Quanta is a registered trademark of BSR (USA) Ltd.

album, had advance orders from record distributors of 1.3 million units, which means that the LP "shipped platinum" to record stores. Though platinum albums are becoming more the norm than the rarity in today's expanded pop market, it is still pretty special for a group to hit platinum its second time out. Atlantic Records, a hot label for twenty-five years, reports that advance orders for "Double Vision" are the highest in its history.

Given all that, you'd suppose that the music of Foreigner is extremely novel or that the members of the band have the same kind of popular appeal the Beatles used to have. But neither is true. Like the Swedish group Abba, Foreigner makes montages of riffs, figures, chord changes, and sentiments derived from every successful group of the past twenty years—only they don't do it as clinically as Abba does. The music here is enjoyable and it comes across as candid, but it doesn't have a great deal of personality. Overall, Foreigner sounds like the J. Geils Band before it went stale.

The opening track here, *Hot Blooded*, first released as a single, begins with a familiar chug-chug guitar figure like the one used in 1969 on *Gimme Gimme Good Lovin'*, a bubblegum hit with rhythm-and-blues overtones, and both songs are about a fellow in search of fleshy fluff. Compare *Blue Morning*, *Blue Day* with *Six O'Clock*, which John Sebastian wrote for the Lovin' Spoonful, and you'll find them cousins. *You're All I Am* is very much in the manner of Paul McCartney (in the days when he was worth hearing), and *Tramontane*, an instrumental that is more or less a gilded riff, reminds me of the Band's *Chest Fever*. The material was written during a long and hectic road tour, and some of the songs seem to have been dashed off to meet the deadline of a recording date. (The sound, by the way, is excellent; engineer Keith Olsen, who co-produced, is also responsible for the fine, clean sound on Fleetwood Mac's "Rumours" album.) None of the material approaches *Cold as Ice*, the hit single from Foreigner's first album.

So what accounts for the 1.3 million pre-orders? Well, Foreigner is easy to listen to and enjoy. A heavy schedule of personal appearances kept up the momentum of the first hit album and preconditioned the audience for "Double Vision," which was released at the beginning of the summer when everyone was ready for summer madness and looking for music to feed or augment it. Finally, the rock audience is no longer looking for heroes to worship but for entertainers. Ideology and fervor are swell things, but they don't leave you much time for dancing. J. V.

**DEAN FRIEDMAN: "Well, Well," Said the Rocking Chair.** Dean Friedman (vocals, guitar); instrumental and vocal accompaniment. *Rocking Chair (It's Gonna Be All Right)*; *Shopping Bag Ladies*; *Don't You Ever Dare*; *The Deli Song (Corned Beef on Wry)*; *S & M*; and four others. LIFESONG JZ 35361 \$7.98, © JZA 35361 \$7.98, © JZT 35361 \$7.98.

Performance: **Challenging**  
Recording: **Good**

Dean Friedman hit the charts last year with the hilarious *Ariel*, a song about a typical teenage tryst which was written with wit and bite. I missed his first album, alas, and on the second, again alas, there isn't anything that

(Continued on page 118)



It's midnight. You're losing, and your roll is critical. Click. The music stops and so does your concentration.

**Introducing the you-don't-have-to-stop-what-you're-doing switch.**

No matter what you're doing, it has to be more interesting than getting up to turn over a cassette. So now you don't have to. The tape will automatically reverse itself and play side two, then shut off. In Auto-Repeat mode, the tape plays until tomorrow, or whenever you turn it off.

**Read this if you can't live without knowing how we combine quality and convenience.**

Some people just want to listen to good sounds. But if you're

interested in how it happens, a specifically designed TEAC transport mechanism makes the auto-reverse and auto-repeat functions work with incredible precision. Independent capstans pull the tape in either direction. And our newly-designed head-shift mechanism has solved a problem that's plagued the industry for over a decade: how to achieve reversing convenience without sacrificing channel crosstalk. Now, with the A-601R, you can get one-way sound performance from a two-way machine. What's more, we've further improved sound quality by utilizing our new "Sendust" head which combines the permeability of metal with the wear factor of ferrite.

**There's a single simple source of information.**

All function indicators, including direction lights, are located on a central panel which also includes a solenoid-controlled direction switch. So one glance tells you what's happening. And then there's Memory Stop, Mic/Line Mixing, 3-Stage Bias and Equalization Selections, Precision VU Meters, a Timer Switch and all the other reliable features you've come to expect from TEAC.

TEAC tape decks are first. Because they last.

# TEAC.

First. Because they last.

TEAC Corporation of America  
7733 Telegraph Road  
Montebello, CA 90640

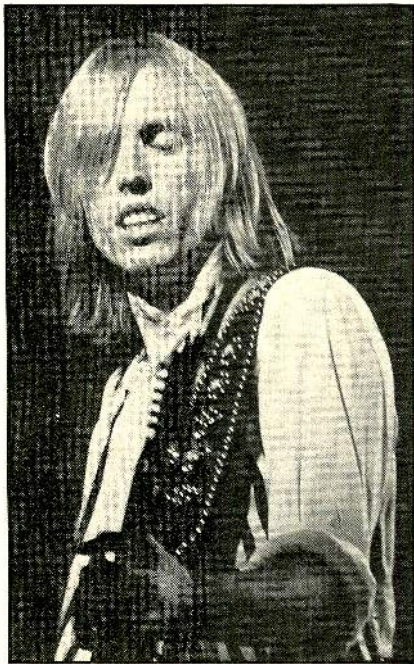
CIRCLE NO. 80 ON READER SERVICE CARD

## The A-601R can play longer than you can. Automatically.

Wow & Flutter: 0.07%  
Signal to noise ratio: 65dB with Dolby  
Frequency Response: 30-16,000 Hz (CRO<sub>2</sub>/FeCr)  
30-14,000 Hz (Normal)







Ebel Roberts

## The Tom Petty Synthesis

Now here's a truly magnificent anomaly: a late-Seventies rock band peddling a mid-Sixties synthesis that sounds like neither a history lesson nor a pastiche. When you think of all the bands that have attempted this in the past and failed despite lots of native talent, and when you consider with a shudder the hordes of similar failures the rise of Power Pop as a critically sanctioned concept will inflict upon us, you can only shake your head and wonder: how do Tom Petty and the Heartbreakers get away with this kind of seemingly old-fashioned music?

The answer, perhaps, is that it's simply a matter of personal taste. The archetypes Pet-

ty draws on—the Stones and Roger McGuinn—are, to my ears at least, a lot more vital than the pop influences, the Beatles in particular, that almost everybody else from the Raspberries on down have reworked. Which is to say that Petty's stuff seems a lot less candy-coated, and you can be sure that he will never go the Eric Carmen route and start grinding out overblown, Elton Johnish MOR pabulum. He's a rocker.

But I suspect there's more to it than that. Even when Petty's being as superficial as any other revivalist, it's a lived-in superficiality; he seems truly to believe in all this stuff with the same fervor and intensity you find in all the great ones, from Chuck Berry to Bruce Springsteen. Even the relatively uninspired things on his group's new album, "You're Gonna Get It," seem less like creative failures than good-natured filler, like the B-sides of old British Invasion singles or the deliberate joke cuts on Byrds albums. And for all the formal perfection of what Petty and the Heartbreakers do (they've obviously done their homework), none of these tunes strike you as being too clever for their own good.

If you don't believe that any of this is possible (and just between you, me, and the wall, until Petty's last album neither did I), listen here to *Magnolia*, or *I Need to Know*, or *When the Time Comes*. Then consider how exciting it's going to be when Petty finally transcends his influences—which, if his rate of growth continues apace, should be only two or three albums from now. And then thank your lucky stars that, with the Eighties less than a year and a half away, we have one more classic rock-and-roll band trying to give radio back to the kids and to help all of us make the transition to the More Interesting Times it now seems reasonable to expect are ahead. —Steve Simels

**TOM PETTY AND THE HEARTBREAKERS: *You're Gonna Get It*.** Tom Petty and the Heartbreakers (vocals and instrumentals). *When the Time Comes; You're Gonna Get It; Hurt; Magnolia; Too Much Ain't Enough; I Need to Know; Listen to Her Heart; No Second Thoughts; Restless; Baby's a Rock 'n' Roller.* SHELTER DA-52029 \$7.98.

*Life Is a Carnival; Talent Night at the Nashville Inn; Flying Dreams;* and five others. ARISTA AB 4183 \$7.98.

Performance: **Very good**  
Recording: **Good**

Commander Cody, a.k.a. George Frayne, is a good-time fellow with a fine sense of the ironic and the ridiculous. He uses the trappings of country music for songs about characters and situations seen through a city slicker's slightly bloodshot eye. Among the standouts in this latest collection are *Thank You, Lone Ranger*, in which the masked rider of the plains saves a rancher's daughter and gets her with child; *He's in Love (He's in Trouble)*, about a shore-leave sailor falling for a transsexual; and *Talent Night at the Nashville Inn*, as sweeping and bitter a commentary on amateur nights in Music City, U.S.A., as you are likely

to hear this or any other year. Frayne is a very fine satirist, which may be one of the reasons why he hasn't become a Recording Star but has maintained a faithful audience. You might want to join the faithful after listening to "Flying Dreams." I've already sent in my application form. J.V.

**RITA COOLIDGE: *Love Me Again*.** Rita Coolidge (vocals); instrumental accompaniment. *You; Slow Dancer; Sweet Inspiration; Love Me Again; Bye Bye Love; The Jealous Kind;* and four others. A&M SP-4699 \$7.98.

Performance: **Low-energy**  
Recording: **Clean**

Sorry, but listening to this reminds me of what Dorothy Parker said about Cal Coolidge when someone told her he had just died: "How can they tell?" Rita has the voice, and here, thanks largely to Booker T. Jones' hand in the production, she has the backing, but she still sounds like the back-up singer she used to be, reticent (or something) about stepping forward and taking charge of a song. When you fear the singer is about to nod off during *Bye Bye Love*, you tend to brace yourself with some very strong coffee (or something) for the slow ones—and you tend to wish she would too. But *Hello Love, Goodbye* finds her a little more actively passive, and it is a lovely exception to the above grouching. She *does* have the voice, pretty enough on the high notes and with a truly rare beauty on the low ones. But the star of the show can't just have it; she's also got to do it. N.C.

### RECORDING OF SPECIAL MERIT

**DERRINGER: *If I Weren't So Romantic, I'd Shoot You*.** Rick Derringer (vocals, guitar); Kenny Aaronson (bass, vocals); Myron Grombacher (drums, vocals). *It Ain't 'n' Funny; Midnight Road; If I Weren't So Romantic, I'd Shoot You; EZ Action; Sleepless;* and six others. BLUE SKY JZ 35075 \$7.98, © JZA 35075 \$7.98, © JZT 35075 \$7.98.

Performance: **Excellent**  
Recording: **Good**

By all odds this is Rick Derringer's best album. It is also one of the best straight-ahead rock albums of the decade. The instrumental performances are lean, tight, and muscular, the vocals are flexible and confident, and the material is 'way above average for rock songs. All the selections are good, no-nonsense rock, but the three standouts are the title tune (music by Derringer, lyrics by Alice Cooper and Bernie Taupin), Warren Zevon's *Lawyers, Guns and Money*, and Derringer's *EZ Action*. Derringer, bassist/vocalist Kenny Aaronson, and drummer/vocalist Myron Grombacher have done right by themselves as artists while performing a public service: they have put life back into rock. J.V.

**FOREIGNER: *Double Vision*.** Foreigner (vocals and instrumentals.) *Hot-Blooded; Back Where You Belong; Blue Morning, Blue Day; Double Vision; I Have Waited So Long;* and five others. ATLANTIC SD 19999 \$7.98, © TP 19999 \$7.98, © CS 19999 \$7.98.

Performance: **Enjoyable**  
Recording: **Excellent**

Foreigner is currently the hottest act in the pop-record business. This, the group's second (Continued on page 116)

light. Again the program is composed of sturdy melodies that offer dozens of opportunities for improvisation, and Atkins and Paul make the most of them. Paul's playing is a little less frisky and boyish than it was on "Chester and Lester"; he seems to be taking things a bit more seriously here, while Atkins, a trifle cautious on the first album, has opened up and swings more. There is some clowning between them on *I'm Your Greatest Fan* in which Atkins jokingly says, "I don't wanna record with you any more," and Paul replies, "Just one more album." Make it a dozen more, boys, and you'll be doing the world a favor. J.V.

**COMMANDER CODY: *Flying Dreams*.** Commander Cody (vocals); vocal and instrumental accompaniment. *Thank You, Lone Ranger; Cry Baby Cry; He's in Love (He's in Trouble);*



# FISHER INTRODUCES THE RECEIVERS THAT LISTEN TO YOU.

Ever since 1937, when Fisher introduced the world to the first high fidelity system, we've been constantly looking for ways to make sound even better.

One of our biggest improvements came in 1959 with the world's first stereo receiver — the famous Fisher 500.

Now, we proudly announce our latest major advance: the all-new RS2000 Studio Standard series — *the receivers that listen to you.*

**Sound the way you like it.** With the RS2000 series, you're not limited to only simple bass and treble controls like other receivers. Instead, you tell the receiver exactly how you want the sound tailored by setting its built-in graphic equalizer's slide controls. By boosting or cutting each of the five equalizer controls, you can transform hohum sound into the most exciting you've ever heard. You get sound that exactly matches your taste, your moods, and your environment.

Say you want to really feel the drums on a disco record. Just push up the 50 Hz (low bass) slider, and you get just the effect you want — without disturbing the tonal color of voices and other instruments. Want to really bring a vocalist "up front"? Add a little 1 kHz (midrange) boost. And so on. In a few seconds, you can make such a dramatic improvement in the sound of all your records, tapes, and FM broadcasts that you won't want a receiver without this fabulous built-in feature.

**There's logic to our front panel.** Most sophisticated receivers keep you guessing when it comes to operating the controls. Not the Fisher RS2000 series. We've engineered a unique "Panel Logic" system with an illuminated, computer-like display that tells you at a glance what the receiver is set up to do.

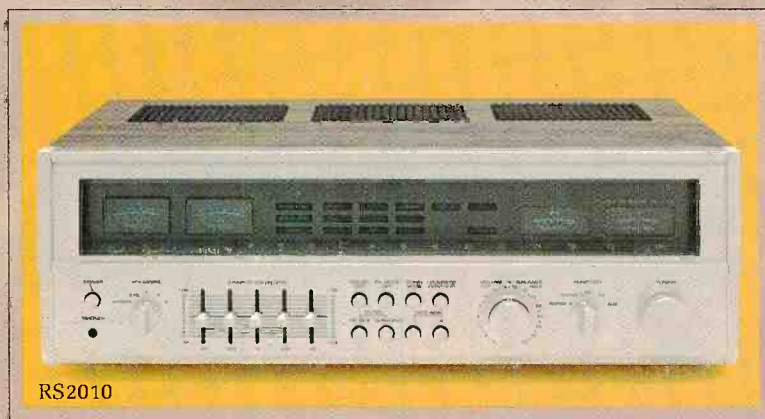
The RS2010, below, has great performance specs like superb 1.7  $\mu$ V (9.8 dBf) FM sensitivity, and plenty of power (100 watts min. RMS per channel, into 8 ohms, 20-20,000 Hz, with no more than 0.09% total harmonic distortion). Other models are available from 45 to 150 watts per channel.

Listen to the Fisher RS2000 series receivers. Once you do, you'll never be satisfied with the sound of a receiver without an equalizer.

Available at selected audio dealers or the audio department of your favorite department store. For the name of your nearest dealer, call toll-free in the continental U.S.: 1-800-528-6050, ext. 871 (in Arizona, 1-955-9710, ext. 871). For a copy of the new Fisher guide to high fidelity, send your name and address and \$2 to: Fisher Corporation, 21314 Lassen St., Chatsworth, CA 91311.

 **FISHER**

The first name in high fidelity.





**MARSHALL CHAPMAN:**  
*real triumph  
 over real inhibitions*



Epic Records

until the sententious sandbag of Harry Chapin's newest album drops on you. I tell you, these beached remnants of the Sixties are getting windier than a baked-beans and sauerkraut agape conference. Perhaps the true flavor of Chapin is best illustrated by a few samples of his lyrics, such as "And I know you're frightened/By my laughter/But you're not afraid/To hold my pain" from *It Seems You Only Love Me When It Rains*. Or "If you try to look/But you don't touch/Then you won't touch/But you'll never feel/And if you don't feel/You'll never cry/And if. . ." from *If You Want to Feel*. Chapin's music is as lethargic as his verse, and by the end of this album I felt like one of those floating bodies in the ads for *Coma*.

P.R.

**RECORDING OF SPECIAL MERIT**

**MARSHALL CHAPMAN:** *Jaded Virgin*. Marshall Chapman (vocals, guitar); instrumental accompaniment. *Turn the Page; The Island Song; You're the One for Me; I Forgot to Put the Music On; A Thank-You Note*; and four others. EPIC JE 35341 \$7.98, © JEA 35341 \$7.98, © JET 35341 \$7.98.

Performance: **Coming through**  
 Recording: **Good**

Marshall Chapman is to Waylon Jennings as Patti Smith is to Mick Jagger; that is, she does what some had thought was a man's thing on the stages of country rock. It's true that Marshall, and for that matter her whole band,

would be more believable if she didn't try so hard to sound tough, but there's more than that streak of personality coming through—and in this album she has some fine tunes to wrap it all in, starting with Bob Seger's *Turn the Page*. Anyway, a certain amount of strutting comes with the job, as males have defined it, and so does a certain amount of real triumph over real inhibitions, make no mistake about that. Chapman is gutsy in addition to being able to act that way, and when she tells you women get horny too, by George you believe it. Here her band, as produced by Al Kooper, gives her mostly a hard rock sound, which is a good enough start, but I think ultimately she has to have a band sound that's just hers, the way Waylon does, the way Willie does, the way Mick does. This is edging up on it, though, and shows you plainly enough that Marshall Chapman has something and will be around for a while.

N.C.

**RECORDING OF SPECIAL MERIT**

**CHESTER AND LESTER:** *Guitar Monsters*. Chet Atkins and Les Paul (guitars, vocals); other musicians. *Limehouse Blues; I Want to Be Happy; Over the Rainbow; Meditation; Lazy River; I'm Your Greatest Fan*; and five others. RCA APL1-2786 \$7.98, © APS1-2786 \$7.98, © APK1-2786 \$7.98.

Performance: **Excellent**  
 Recording: **Excellent**

Like the first album pairing these two master guitarists, this second outing is a thumping de-  
*(Continued on page 114)*

# WHO ARE YOU

**New Song  
 Had Enough  
 905  
 Sister Disco  
 Music Must Change**



**Trick Of The Light  
 Guitar And Pen  
 Love Is Coming Down  
 Who Are You**

MCA-3050  
 Produced by Glyn Johns and Jon Astley

# NEW FROM THE WHO

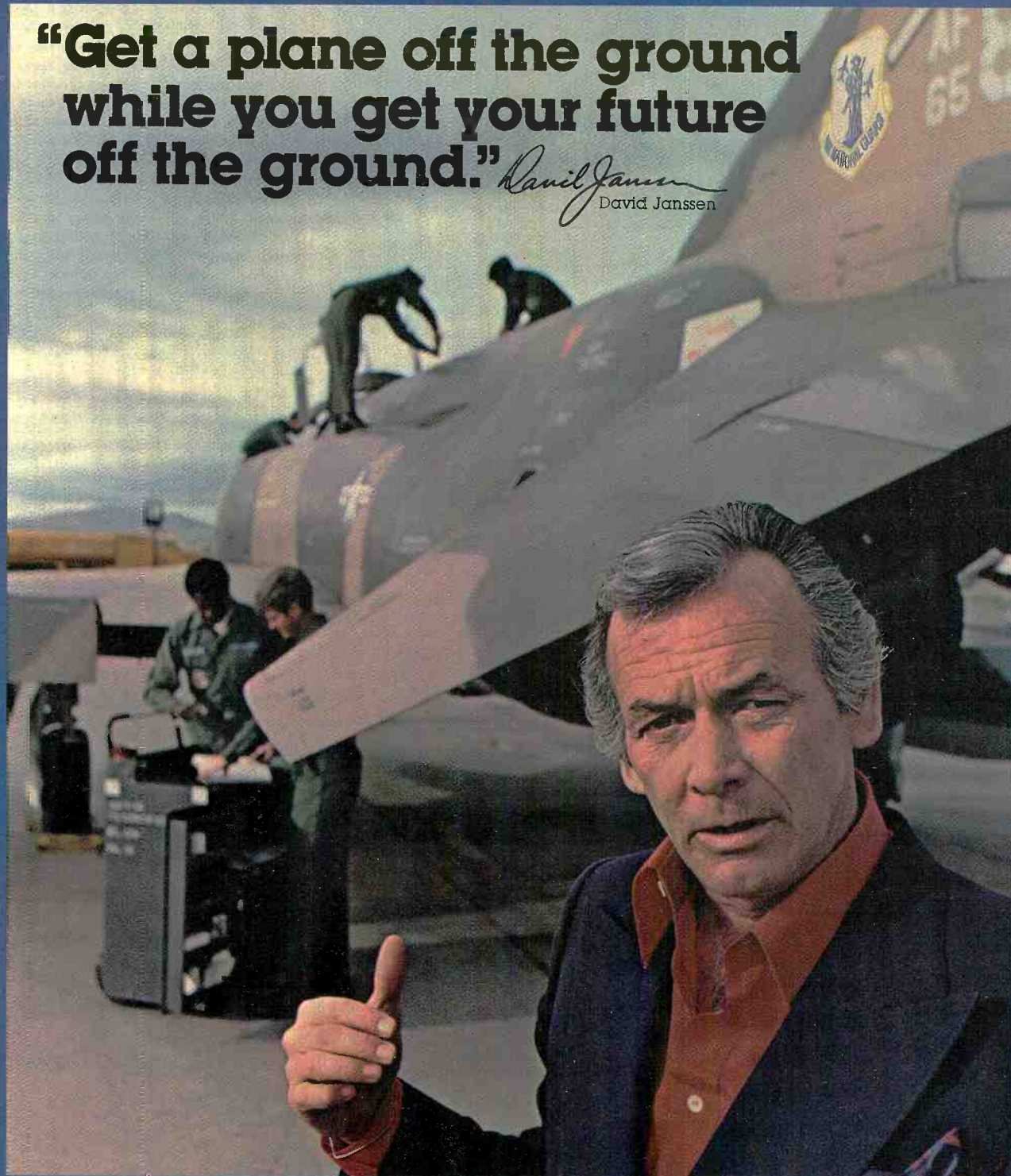
MCA RECORDS

© 1978 MCA Records, Inc.



**"Get a plane off the ground  
while you get your future  
off the ground."**

*David Janssen*  
David Janssen



You put an Air Guard pilot into a jet that tears down the runway faster than a race car.

But you don't let him go it alone. You back him up with the finest radar technicians, engine mechanics, weather experts. Air Guard men and women who've learned their skills at the best schools money can buy.

And that's where you come in. Become a part of the professional Air Guard team. Learn any one of hundreds of skills. Skills vital to your country's defense. Skills that are vital to your future.

See your local Air National Guard recruiter. Or call us, toll-free, 800-638-0936 (except in Alaska, Hawaii and Puerto Rico). In Maryland call 301-981-3610.

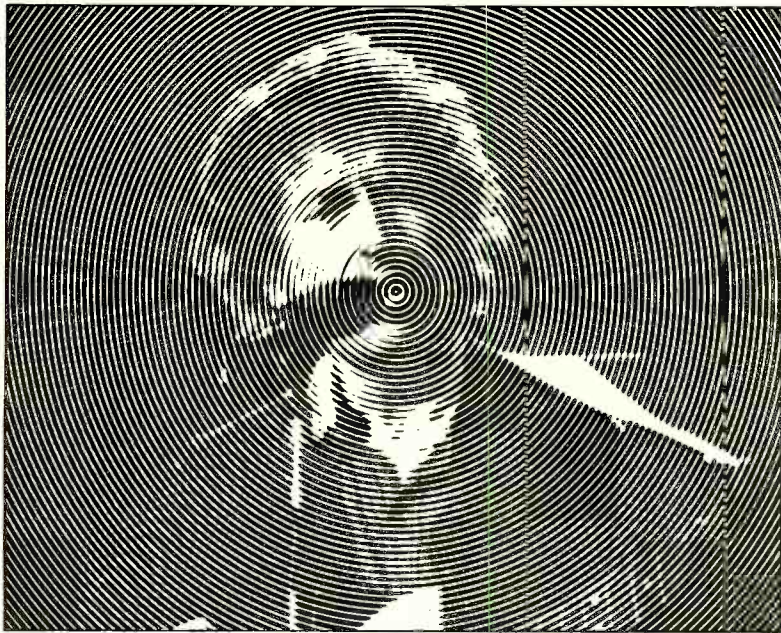
**We Guard  
America's Skies.**

CIRCLE NO. 83 ON READER SERVICE CARD



The Guard belongs.





Joseph Sta

## Powerhouse Dylan

It's a new Bob Dylan album and you can't help thinking about the, uh, you know, the d-i-v-o-r-c-e. So, hell, let's talk about it. A high-price Boston analyst at a medium-price cocktail party once told me two things that seem to apply here: there is no way to go through a divorce without getting depressed, whether one consciously recognizes it or not, and artists often use their depression more creatively than they use their happier moments. If the man is right, then the ingredients might be right to make this new Dylan album a powerhouse. And it is. The further implication in this, for those who like their logic tied up in a square knot, is that Dylan not only figured to be down a bit when he conceived and executed "Street-Legal," but is indeed an artist. And he is.

Those in the faction that's always yipping "What do you see in him?" at the rest of us do so because they have been looking for craftsmanship, not art. Dylan does not *craft* music. *I can play the harmonica better than he can, I have at least fifteen hippie-type friends who can play the guitar better than he can, and I know several people who can recycle folk- and rock-tune turns as well as he usually does. And of course any number of people can sing as well as he does—if by "sing" you mean attend to intonation and phrasing and other technicalities.* Dylan's vocals, though, argue that it's better to be right than to be technically wonderful. And his words—through the years, the most important thing about him—come from a unique observation point, and they come out through an almost romantically cold-blooded understanding of the difference between words and the things they attempt to describe, between imagery and image.

Those who used to yip for him to get back to protest songs, topical songs, to "regain his social conscience," were of course looking for *politics* rather than art. Well. Sticking to

craftsmanship and politics would work for some people (although I believe it actually was involved in the death of a few of our troubadours), but Dylan has had, as he has been trying to tell people, *work* to do. In the very old days, some attention was paid to those who influenced him—various bluesmen, various poets, and Woody, of course, but damned few outright politicians. Like others who started out as journalists but were really literati all along, Dylan probably sensed the trap of topicality, the unreliability of headlines as a basis for literature.

And so he moved on, not exactly in a straight, sure line. In "Street-Legal" he hasn't arrived yet—hasn't, in fact, got the line entirely free of wobbles—but he's mixed content and style into a fine stew, making observations that are at once general and specifically yours, mine, and the other guy's, all, on the surface, different. Doing it with the old Dylan flair, too. "Betrayed by a kiss, on a cool night of bliss/In the valley of the missing link" . . . well, it *could* be archeologists having a

He knows what he's doing even when he doesn't know...

lovers' quarrel in Olduvai Gorge, if that's your thing. Other lines just chill your bones: "Lovers obey you/But they cannot sway you/They're not even sure you exist." You've known the feeling, I'm sure. Regarding the blues influence, *New Pony* harks back to that structurally, and if you want to, you can also hark it back to the divorce, obliquely: "Some-

times I wonder what's goin' on with Ms. X [Ex?]/She got such a sweet disposition, I never know what the poor girl's gonna do to me next."

Throughout the album, Dylan is trying on a new sound, as he tends to do from time to time, this one a sort of reedy rock instrumentation with much ado from a vaguely r-&-b chorus. The chorus is probably used so much (a little *too* much for me and everyone else I've played the album for) by design, to lighten things up, to put the idea of a little choreography in your mind and say, often enough so you won't forget, that it's a song, it's still a song.

For there are two things missing from "Street-Legal," two characteristic Bob Dylan things. One is the squeaky harmonica, which would be at odds with the smoother sound that prevails here (the old one-take sloppiness is missing, too, this being one of the most carefully produced Dylan albums yet, which stifles spontaneity some but not entirely), and the other is the old off-beat humor Dylan used to chuck in there at odd moments. On the contrary, this one has more moments like, "You can't find no salvation/And no expectations/Any time, any place, anywhere. . . ." Or: "Horseplay and disease/Are killing me by degrees/While the law looks the other way."

As for the world situation, he looks at an era (just once) rather than at the latest thing in *Newsweek* and asks—in a song that suggests he's read Carlos Casteneda—"Señor, can you tell me where we're headin'"/Lincoln County Road or Armageddon?" Again, if you're a specifics freak and don't mind how trivial your specifics get, you can read an esoteric richness into that: the Lincoln County War was a contributing factor, you might say, in the life of Billy the Kid, the subject of the movie *Pat Garrett and Billy the Kid*, in which Dylan appeared and for which he wrote the music. I tell you, if A. J. Weberman, the guy who used to analyze Dylan's garbage, is still cross-indexing Dylan's lyrics, he's going to have a field day with this album.

WHAT else you have with it depends on what you want, to some extent. Unless what you want is humor and a squeaky harmonica. Listen lightly and you hear a new sound—not radical, but different and rather nice. Listen more intently and you find ideas about that old favorite, the human condition, and a richness of expression borne on one of the bona fide styles of our time . . . though you'll still be bothered by the excess of chorus. But if he had given it to us raw, some of it might have bitten back. He knows what he's doing even when he *doesn't* know what he's doing. That's one definition of an artist.

—Noel Coppage

**BOB DYLAN: *Street-Legal*.** Bob Dylan (vocals, guitar); Ian Wallace (drums); Jerry Scheff (bass); Billy Cross (guitar); Alan Pasqua (keyboards); Steve Douglas (saxophone); other musicians. *Changing of the Guards; New Pony; No Time to Think; Baby Stop Cryin'; Is Your Love in Vain?; Señor (Tales of Yankee Power); True Love Tends to Forget; We Better Talk This Over; Where Are You Tonight (Journey Through Dark Heat).* COLUMBIA JC 35453 \$7.98, © JCA 35453 \$7.98, © JCT 35453 \$7.98.



message from a descending elevator in a coal mine. Cherry and Laury stick to sweetness and light, which becomes them, and which, in the small doses here, isn't *that* cloying. P.R.

**DAVID BROMBERG BAND:** *Bandit in a Bathing Suit*. David Bromberg (vocals, guitar, mandolin, fiddle); Dick Fegy (guitar, banjo, mandolin, fiddle); John Firmin (reeds); Curt Linberg (trombone); other musicians. *If You Don't Want Me Baby; Queen Ellen; Sweet Sweet Sadness; Peanut Man*; and five others. FANTASY F-95555 \$7.98, © 8160-95555(H) \$7.95, © 5160-95555(H) \$7.95.

Performance: **Disappointing**  
Recording: **Very good**

Man does not live by funk alone, David Bromberg, and slathering it over with eclecticism can get old too. I think the biggest problem with "Bandit in a Bathing Suit" is that the songs mostly don't give Bromberg's band much to hang anything on—several are notoriously tuneless. The first side is called "mostly electric," the second "mostly acoustic," and I don't care much for dividing up the songs that way, either. *Sweet Sweet Sadness* on the first side, a little electric, is the high point. Side two has a lot of funky lyrics, some picking that doesn't quite jump out at you in the usual Bromberg way, and more weak tunes. Bromberg seems to have all kinds of bands incorporated in this one. He does a nice near-jazz instrumental called *Peanut Man* that's all too brief, and then it's fiddles and banjos in the next cut. Maybe *he* can keep it straight, what his band's sound is, but me, after listening to this, I'm wallowing. Wallowing's not much fun without good tunes. N.C.

**LISA BURNS.** Lisa Burns (vocals); instrumental and vocal accompaniment. *Soul Deep; When You Walk in the Room; Love Gone Bad; Victim of Romance; In the Streets; Slow Burn*; and four others. MCA-2361 \$6.98.

Performance: **Déjà vu**  
Recording: **Evocative**

Talk about mixed emotions. When I listen to Lisa Burns I don't know whether to sneeze, laugh, or shed a tear for my lost youth. She obviously tries to sound like Ronnie Spector of the Ronettes, and the production of this album is a facsimile of producer Phil Spector's "wall of sound" bravura, the kind of corny whim-wham of the early Sixties that rock historians still speak of with reverence. Not that Spector's productions didn't work. Who could resist the Righteous Brothers' *You've Lost That Lovin' Feeling* or the Ronettes' *Be My Baby*? They were examples of superb hambone sure to raise a lump in the throat. But why should anyone at this late date try not only to re-create their period flavor but to sing like she *believes* in it?

The tone for the album is set in the opening selection, *Soul Deep*, written by Wayne Carson Thompson (who also wrote *The Letter*) and recorded by the Box Tops in 1969 with Alex Chilton's distinctive lead vocal. Burns follows Chilton's pattern, and the arrangement includes a break where a guitar plays a descending run—an item taken from the arrangement for Spector's *You've Lost That Lovin' Feeling*. Jackie DeShannon's *When You Walk in the Room* is quite a grabber, and *Victim of Romance* was written by Moon Martin in the style of Ellie Greenwich and Jeff Barry writing for the Dixie Cups circa 1963.

But *Love Gone Bad*—also by Martin—is a departure for Ms. Burns, since in this song she tries to sound like Linda Ronstadt. Hmmm. . . . Well, whatever she's trying to do, I enjoyed her album. J.V.

**HARRY CHAPIN:** *Living Room Suite*. Harry Chapin (vocals, guitar); orchestra. *Dancin'*

*Boy; Poor Damned Fool; Jenny; Flowers Are Red*; and five others. ELEKTRA 6E-142 \$6.98.

Performance: **Pompous**  
Recording: **Good**

If you think that Bob Dylan's film *Renaldo and Clara* was a narcissistic bore, just wait  
(Continued on page 112)



Pat Hodges, Jessica Smith, Denita James

## Hodges, James & Smith

I'll mince no words in declaring that Hodges, James & Smith is one of the best female singing groups I've heard in any year, measured by any criterion. Though there are only three of them, they emit a wall of sound that would be admirable for a choir, and the range of their voices is so rich and broad in texture as to cover the full spectrum of musical passion.

There might be an inclination to compare them with the old Supremes, considered by some the greatest "girl group" of all time, but HJ&S are cut from their own very distinctive cloth. While ample room is allotted for solos, no single voice or personality dominates their sets. Instead, they function as a cohesive unit, moving in and out of the music with exceptional deftness, punctuating the longer statements with bursts of beautifully harmonized ensemble singing. They seem to hold an assortment of rhythms in the palms of their hands, using them as they wish to achieve the greatest impact.

Happily, all the promise HJ&S showed on their first set for London, "What's on Your Mind," has been fulfilled on their thoroughly

outstanding new album, "What Have You Done for Love?" The pace varies from that of the sweet ballad *That's the Way*, through kickers such as the title song, to the two most captivating tracks, a dazzling rendition of *You Can't Hide Love* (previously done by Earth, Wind & Fire) and *Hide-a-Way* (which Bill Withers wrote and produced just for them). Furthermore, their zest and forcefulness are matched by background instrumentals and arrangements several cuts above the average. All the elements merge here into a thoroughly dazzling, thoroughly delightful whole. May they sing on and on and on.

—Phyl Garland

**HODGES, JAMES & SMITH:** *What Have You Done for Love?* Hodges, James & Smith (vocals); instrumental accompaniment. *What Have You Done for Love?; The San Francisco Rag; You Can't Hide Love; Falling in Love; Hide-a-Way; You Know Who You Are; That's the Way; Here Is Where Your Love Belongs; Seems So Long; Darling, I Promise.* LONDON PS 713 \$6.98, © 8 713 \$7.95, © 5 713 \$7.95.





# POPULAR DISCS AND TAPES

Reviewed by CHRIS ALBERTSON • NOEL COPPAGE • PHYL GARLAND • PAUL KRESH  
PETER REILLY • STEVE SIMELS • JOEL VANCE

**LYNN ANDERSON:** *From the Inside*. Lynn Anderson (vocals); orchestra, Buddy Skipper arr. *Rising Above It All; Touch and Go; Bucket to the South; Sometimes When We Touch; From the Inside; Fairytale*; and four others. COLUMBIA KC 35445 \$5.98, Ⓟ CA 35445 \$6.98, © CT 35445 \$6.98.

Performance: **Easy**  
Recording: **Excellent**

Lynn Anderson long ago edged into the kind of thing Crystal Gayle and Dolly Parton are getting so much notice for now: popping the country-girl image. Anderson has a nice voice and a seemingly effortless way of using it, and there are a lot of violins and few fiddles backing her. The result, when the songs are reasonably good, as they are in this case, is a nice MOR album—except here the singer seems to be listening to the words, which MOR singers don't ordinarily do. Nice MOR albums usually have an all-pleasant/nothing-memorable quality, but in this case you may be able to latch onto *When You Marry for Money* ("... you earn every penny you get"), not because it's that good a song but because of the bizarre amount of orchestration they've given it. I'd like to hear the whole thing again with half the orchestra laid off. N.C.

**THE BACKALLEY BANDITS.** The Backalley Bandits (vocals and instrumentals); instrumental accompaniment. *Stayin' Ain't Crossed*

*My Mind; Come On Over; Takin' a Chance; Love Stuff; Georgia Women*; and four others. LONDON PS 712 \$6.98, Ⓟ 8-712 \$7.95, © 5-712 \$7.95.

Performance: **Fair**  
Recording: **Very good**

Alas, alas. Since Dan Penn and Chips Moman produced this album, and since Penn and Spooner Oldham contributed two songs, I expected some of the American Studios magic, the sort that worked so well for Elvis Presley, B. J. Thomas, and the Box Tops. It's not here this time, though. The Penn/Oldham tunes, *Come On Over* and *Takin' a Chance*, are throwaway items well below the level you'd expect from the team who wrote *Cry Like a Baby* and the mini-concerto *I Met Her in Church*. Even so, the tunes might work if *Come On Over* were sung and played harder and if *Takin' a Chance* had some whimsicality to it. But the Backalley Bandits (four men and two ladies) don't have the bite or the humor. The other selections, mostly written by the group, are dangerously close to hack writing and are sung with all the sincerity of encyclopedia salesmen. Well, even mighty talents like Messrs. Moman, Penn, and Oldham can't be red-hot all the time. J.V.

own tributes to master guitarists of other eras, apparently for sheer pleasure. On the present disc he has extended that concept to a group. The name "Count Talent and the Originals" pokes fun not only at group names in general but also at the very idea of broad commercial success.

The jolly crew on board for this outing includes vocalist/bassist Roger Troy, whose intimate and casual style is always a delight; he's featured on *You Was Wrong* (written by Bloomfield) and *I Need Your Loving*, a recreation of the 1960's rhythm-and-blues hit by Don Gardner and Dee Dee Ford. Bloomfield takes the vocal on his own *Peach Tree Man*, sounding very much like Randy Newman. Nick Gravanites essays *Saturday Night*, and Anna Rizzo leads the wassail on *Sammy Knows How to Party*. "Count Talent" is a delightful, candid, and relaxing album—one you ought to have in your collection to play for special friends when they want to hear the real stuff. J.V.

**THE BOONES:** *First Class*. Cherry, Lindy, Debby, and Laury Boone (vocals); orchestra. *I'm a Believer; Let Me Be Lonely; Father's Arms; Perfect Love; Dance*; and six others. LAMB & LION LL-1038 \$6.98.

Performance: **Debby's show**  
Recording: **Good**

Debby Boone takes the lead vocal on six of the ten songs here, and while none of the material can hold a candle, so to speak, to *You Light Up My Life*, she comes across as a consistently appealing performer with a nice emotional tug in her lyric readings. This is particularly obvious in her run-throughs of such pale things as *My Love Will Never Change* and *Caught in This World*, both by Chris Christian and both with the lyric and melodic consistency of peanut butter. That she is able to bring a hint of life and passion to them is what makes her so interesting as a singer. Her sisters Laury, Cherry, and Lindy take turns on the other tracks, and the only one who comes a real cropper is Lindy in *I Love You More Than My Rock and Roll*, in which she sounds like she's bellowing her

## RECORDING OF SPECIAL MERIT

**MICHAEL BLOOMFIELD:** *Count Talent and the Originals*. Michael Bloomfield (guitars, vocal, piano); vocal and instrumental accompaniment. *Love Walk; I Need Your Loving; You Was Wrong; Bad Man; Peach Tree Man; Saturday Night*; and four others. CLOUDS 8805 \$7.98, Ⓟ CLD 8805 \$7.95, © CLD 8805 \$7.95.

Performance: **Jamboree**  
Recording: **Good**

Guitarist Michael Bloomfield has here assembled a group of musicians and singers for a busman's holiday in which nobody takes anything too seriously but does his job just right and has a good time into the bargain. On Bloomfield's last album, "Analine" (Takoma B-1059), he played personal favorites and his

### Explanation of symbols:

- Ⓜ = reel-to-reel stereo tape
- Ⓟ = eight-track stereo cartridge
- Ⓢ = stereo cassette
- Ⓢ = quadrasonic disc
- Ⓜ = reel-to-reel quadrasonic tape
- Ⓢ = eight-track quadrasonic tape

Monophonic recordings are indicated by the symbol Ⓜ

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



ics, too, with splendid clarity, impeccable balance, and just the right degree of warmth to provide the most lifelike aural setting. In its thirty years plus of distinguished performances (with no change in personnel), the Quartetto Italiano has given us nothing finer than this; it is about as close to Schubert's heartbeat as any recording of his music has yet brought us—which makes it about as indispensable as any record could be.

—Richard Freed

**SCHUBERT:** *String Quartet No. 15, in G Major, Op. 161 (D. 887)*. Quartetto Italiano. PHILIPS 9500.409 \$8.98, © 7300.617 \$8.98.

## Alan Parsons and Eric Woolfson Offer Musical Trips for The Seventies

I HAD a hard time deciding what category to file the Alan Parsons Project's new album "Pyramid" under. Moon Rock? Space Rock? Rock Trek? What we need, I think, is a new record bin labeled "Mood Music of the Seventies" for music written, played, and recorded by and for people who like to listen with the utmost concentration and in complete immersion—who like, in short, to take trips.

With the release of its latest Arista disc, the Alan Parsons Project has clearly earned a top spot in this new category. The song *What Goes Up (Must Come Down)* is getting heavy and much-deserved airplay these days, and it epitomizes what engineer Parsons and co-producer Eric Woolfson can do: combine soaring, lushly orchestrated melodies, intriguing lyrics, good solo instrumental work, choral voices, and a heavy rock beat into a thoroughly absorbing musical experience. No wonder: Parsons' previous credits include the Beatles' "Abbey Road," Pink Floyd's "Dark Side of the Moon," and other highly acclaimed LP's.

*What Goes Up* follows in the Moody Blues/late Beach Boys tradition, of course, but there are others just as good that won't let you down either. There's *The Eagle Will Rise Again*, for instance: the words are incomprehensible—and unimportant, for the song is almost hypnotically beautiful. *Pyramania* (that's not a misprint—the title refers to the pyramid fad, not to fires) tongue-in-cheekily suggests that "You can keep the edge of a razor as sharp as an/Eagle's eye, you can grow a hedge that is vertically straight/Over ten feet high, all you really need is a pyramid and just a little luck." And the now almost conventional "I'm-a-star-but-I'm-lonely" number called *Shadow of a Lonely Man* can take its place with the best of its kind.

A tendency toward stylistic inconsistency may explain why Parsons' previous effort, "I, Robot," was more a technical masterwork than a musical



ALAN PARSONS AND ERIC WOOLFSON

accomplishment: it simply failed to communicate a unified and cohesive musical idea. Only one cut on "Pyramid"—*One More River*—makes distracting noises; it aims for straight rock and ends up breaking the album's mood. But that's just a small quibble. Everything else the Project does this time out they do well. What's more, they've performed some engineering magic that fully measures up to the demands of the mood. Listen especially to the harpsichordish opening of *The Eagle Will Rise Again*, or to the space-age, Ted Weems whistling of the opening and closing themes of *Can't Take It with You*. There's also a tambourine accompaniment to the latter that is so realistic you can practically hear each "ping" as the metal jingles connect. The more I listen to "Pyramid," the more I like it. You can't say that too often these days about anything, so light up, lay back, let go, and listen.

—Edward Buxbaum

THE QUARTETTO ITALIANO: close to Schubert's heartbeat



Arife Pflaer/Phonogram

**THE ALAN PARSONS PROJECT:** *Pyramid*. The Alan Parsons Project (vocals and instrumentals). *Voyager; What Goes Up . . . ; The Eagle Will Rise Again; Hyper-Gamma-Spaces; In the Lap of the Gods; One More River; Can't Take It with You; Pyramania; Shadow of a Lonely Man*. ARISTA AB 4180 \$7.98.





EGBERTO GISMONTI: *Brazilian folk elements and modern jazz interwoven*

“*Sol Do Meio Dia*”—which is dedicated to the Xingu Indians of the Amazon basin and their chief, Sapain, who taught Gismonti to play the flute and was his guide through the jungle—is a triumph *against* modern technology (that is, all that electronic funk pap some record companies seem bent on grinding out these days), a magnificent, exotic excursion into a world of hauntingly beautiful, timeless music.

Gismonti is clearly a romanticist, and most of his music is a soulful, delicate weave of Brazilian folk elements and modern jazz—not the slick, commercialized combination Stan Getz and João Gilberto gave us a few years back, but a more esoteric blend. Nana Vasconcelos, the percussionist who contributed so vitally to Gismonti’s previous album, plays an equally important role on “*Sol Do Meio Dia*,” which also features Norwegian saxophonist Jan Garbarek on one selection, *Café*, and appearances by fellow ECM regulars Ralph Towner and Collin Walcott. The addition of these musicians gives the new album a more varied sound—you’ve simply never heard anything quite like *Sapain*, which features Gismonti, Towner, and Walcott blowing into bottles (*à la* the old Southern jug bands) and blending that sound with whoops from Gismonti and Vasconcelos. Gismonti’s two piano pieces, *Coração* and *Baião Malandro*, reflect opposite ends of the emotional spectrum, the first being a solemn, introspective solo, the second a voluminous, rhapsodic foot-stomper (with Vasconcelos subtly contributing on the berimbau), and both surpass Gismonti’s brilliant keyboard work on the “*Dança das Cabeças*” album.

I don’t know how well Polydor promoted Egberto Gismonti’s first album,

but I hope Warner Brothers (ECM’s new distributor) goes all out on this one. Gismonti is a uniquely talented performer whose scope reaches far beyond the limits of jazz and whatever else comes under the heading of “popular music.” —Chris Albertson

**EGBERTO GISMONTI:** *Sol Do Meio Dia*. Egberto Gismonti (eight-string guitar, wood flute, kalimba, piano, voice, bottle); Jan Garbarek (soprano saxophone); Ralph Towner (twelve-string guitar); Nana Vasconcelos (berimbau, percussion, voice, bottle); Collin Walcott (tabla, bottle). *Café* (*Procissão Do Espírito*); *Dança Solitária No. 2* (*Voz Do Espírito*); *Coração* (*Saudade*); *Raga* (*Festa Da Construção*); *Kalimba* (*Lua Cheia*); *Palácio de Pinturas* (*Construção da Aldeia*); *Baião Malandro* (*Fogo Na Mata/Mudança*); *Sapain* (*Sol Do Meio Dia*). ECM ECM-1116 \$7.98.

## Schubert’s Last and Greatest Quartet by The Quartetto Italiano: Indispensable

**T**HE last and greatest of Schubert’s string quartets—No. 15, in G Major, Op. 161 (D. 887)—is heard far less frequently than its two immediate predecessors, the beloved A Minor, Op. 29 (D. 804), and the D Minor (D. 810) whose slow movement is based on *Death and the Maiden*. The G Major has no sobriquet, no associations with Schubert’s songs, and, although it is in a major key, the music is starkly and

unremittingly tragic, without the leavening of conspicuous lyricism that has made the other two quartets and the great Quintet in C Major so much better received. There is little effort to please here; instead we have an anguished outcry such as Schubert rarely permitted himself (there are near-parallels in the Piano Trio in E-flat, particularly in the slow movement, but that work does not reach the stage of tragic exaltation that informs this one).

I cannot recall a performance of the G Major Quartet, on records or live, in which the first-movement exposition repeat was taken, as it is in the new recording by the Quartetto Italiano—but that is only the least of the distinguishing features that set this version apart from all the others available now. One might think that this substantial repeat, especially played with the intensity the Italians bring to the music, would upset the balance of the work (the timing for the first movement in this performance is just short of twenty-three minutes), and/or that so much intensity piled upon intensity would leave the listener exhausted before the second movement can get started. But, in a curious sense, the repetition, in which the intensity is not relaxed a whit, somehow serves as its own resolution, and there is less of a sense of headlong plunge into the development. This austere, majestic, uncompromising music easily sustains these proportions; indeed, after hearing this performance, one might say it demands them.

In the remaining three movements one is taken by the expressiveness achieved within the prevailing framework of aristocratic self-control, by the exquisite delicacy in dynamic shading and the molding of phrases—a delicacy which is neither self-conscious nor in any way inhibiting to the strength and drive of the performance. The subtlety in the opening of the scherzo, to cite only one point, actually projects more demonic excitement than performances that go for speed and glitter: the tautness and tension are remarkable, and so is the beauty of the Italians’ tone, in the work’s most hectic passages as well as the ideally realized slow movement.

While comparisons are really beside the point in the face of this sort of music-making, I could not help finding even the Melos Quartet’s admirable statement of this work (in Deutsche Grammophon set 2740 123) a little heavy-handed and unimaginative after hearing this one, and the Amadeus (DG 139 103), for all its elegance, doesn’t begin to plumb the depths reached by the Italians. Philips has given the Quartetto Italiano quite an edge in terms of son-



changes and other interpretive twists and turns. In short, one might say that this music really *cooks*, Baroque-'n'-roll style! The analogy is not as far-fetched as you might think. A bit of performance-practice style with feeling and vernacular swing turns out to be the tonic (no pun intended) that should rejuvenate the aging Baroque revival.

The imaginative fantasy of *The Four Seasons*—fully brought out here for the first time in my hearing—obviously dominates this set, but there are many charms in the other works: the two oboe concertos, the *Storm at Sea*, *The Hunt*, *Il Piacere* (here translated as "Joy"), the minor-key concertos which Harnoncourt connects with the Commedia dell'Arte tradition. Alice Harnoncourt's performances as violin soloist are so much a part of the total feeling and conception that their occasional roughness will hardly be noticed. Oboist Jürg Schaefflein, playing on an eighteenth-century instrument, is equally an outstanding soloist and a crucial part of this unique ensemble. The recording quality is first-rate, and the accompanying booklet includes an essay by Harnoncourt giving a very convincing explanation of his approach to the music. But, ultimately, it is not the musicological thesis, accurate though it may be, that wins the day, but the musical validity of its realization. It is not often that one hears a performance that really does turn a familiar piece of music into something fresh,

exciting, and new, but that is the case here without a doubt. There have been other idiomatic and excellent recordings of *The Four Seasons* (particularly CRD 1025, reviewed in January 1977), but this one of the complete Op. 8 stands, to my mind, by itself.

—Eric Salzman

**VIVALDI: *Il Cimento dell' Armonia e dell' Inventione*, Op. 8.** Alice Harnoncourt (violin); Jürg Schaefflein (oboe); Concentus Musicus Wien, Nikolaus Harnoncourt cond. TELEFUNKEN 6.35386-00-501 two discs \$8.98.

---

## Little River Band: One of Two Rock Bands That Effectively Mix Jazz and Rock

ONE of the problems music journalists occasionally encounter is the problem of praise. How do you effectively salute a group (or a performer) that simply knocks you out? It is, unfortunately, much easier to tick off a band's sins and shortcomings, and when trying to do the opposite the journalist runs the risk of sounding impre-

cise, insincere, or, even worse, goeey.

The reader will therefore please take this problem into consideration while I attempt to explain why the Little River Band is so bloody good. They are one of the two rock bands I've ever heard who effectively mix jazz and rock: Little River Band is Australian and the other, Motherlode, was Canadian. (Just why outlander groups should be artistically successful in mixing jazz and rock while such home-grown bands as Chicago are commercially successful with a *bad* blend escapes me.) Little River Band's arrangements and its instrumental and vocal performances are downright delicious. The ensemble sound blends like the colors in an oil slick, and the solos are beautifully conceived and delicately understated. That's for sure. But I'm not so sure whether the material itself is as good as it appears to be. Divorced from the musical performances, the lyrics tend toward the pedestrian—though the construction of the melodies shows solid workmanship. Whatever doubts may spring into my mind about the material, however, another playing of the album soon dissolves them.

Perhaps what is most appealing about the Little River Band is that they don't require the listener to work—he is neither asked nor expected to grant the group any artistic handicaps or to work himself into a preconceived emotional state before hearing the music. Little River Band is in complete control of itself and offers the listener an entertaining, fully realized, artistic package. Listen to this album and prepare to be hooked.

—Joel Vance

**LITTLE RIVER BAND: *Sleeper Catcher*.** Little River Band (vocals and instrumentals). *Shut Down Turn Off; Reminiscing; Red-headed Wild Flower; Light of Day; Fall from Paradise; Lady; Sanity's Side; So Many Paths; One for the Road.* HARVEST SW-11783 \$7.98.

---

## Egberto Gismonti: A Scope Far Beyond the Limits of Jazz and "Popular Music"

**B**RAZILIAN multi-instrumentalist Egberto Gismonti, who last year dazzled and delighted my ears with his first ECM album, "*Dança das Cabeças*," has done it again. His new release,

THE LITTLE RIVER BAND: David Briggs (top left),  
Beb Birtles (front), Glenn Shorrock, George McArdle, Derek Pellicci, Graham Goble





the cast is too large for individual praise role by role.

Comparing this brand-new edition with London's OSA 1306, I find that the nearly twenty-year-old set holds up astonishingly well in all respects, even sonically. One can easily score a few points in favor of Domingo over the less malleable Mario del Monaco, or find Milnes more vivid in portrayal (if not necessarily in voice) than Cornell MacNeil, but the two performances are, on the whole, on the same level. The superiority of Renata Tebaldi's Minnie, however, is unchallenged in the later recording, particularly in that peerless second-act poker game. But the new set will have its partisans too, and rightly so, for it does eminent justice to a very effective opera.

—George Jellinek

**PUCCHINI: *La Fanciulla del West*.** Carol Neblett (soprano), Minnie; Sherrill Milnes (baritone), Jack Rance; Plácido Domingo (tenor), Dick Johnson; Francis Egerton (tenor), Nick; Robert Lloyd (bass), Ashby; Gwynne Howell (bass), Jake Wallace; Jonathan Summers (baritone), Sonora; Robin Leggate (tenor), Joe; Malcolm King (bass), Larkens; Paul Crook (tenor), Harry; others. Chorus and Orchestra of the Royal Opera House Covent Garden. Zubin Mehta cond. DEUTSCHE GRAMMOPHON 2709 078 three discs \$26.94, © 3371 031 \$26.94.

di; he soon had 'em lined up around the block for all-Vivaldi concerts. The revival quickly reached the point where no party was complete without a stack of Baroque records on the changer; Vivaldi, outdistancing Bach, was No. 1, and *The Four Seasons* was his flagship.

From that innocent vantage point, Vivaldi and the Baroque were the ultimate in decorative art. No matter what the program notes said, the music was played and listened to as a kind of rococo geometry—abstract, symmetrical, charming, forward-driving, and pure. The fallacies of the Romantic interpretation of eighteenth-century music were duly exposed—and the fallacies of the clean, pure, modernistic approach were substituted.

The modern, abstract, puristic approach never had anything much to do with the eighteenth century, of course. We know perfectly well that Baroque style was highly flamboyant and theatrical; the key art of the period was, after all, *opera*. Audiences everywhere understood a kind of common language of expression—the so-called “affects” in which musical figures were used to represent emotional states as well as external images. Not surprisingly, instrumental music was often highly programmatic and obviously intended to be as expressive as vocal music.

*The Four Seasons* are the first four of a set of twelve concertos—ten for violin and two for violin or oboe—published in Amsterdam and Paris in the

late 1720's under the collective title *Il Cimento dell' Armonia e dell' Inventione*, a title that Nikolaus Harnoncourt translates as “bold experiments in harmony and invention.” And, indeed, bold experiments is what they sound like in these performances, for Harnoncourt and his musicians have made some bold interpretive decisions. They have decided that metrical rigidity and a limited range of articulations and dynamics—the hallmarks of Baroque performance in modern times—are not called for, that Vivaldi's own score instructions point, in fact, quite clearly in the opposite direction. They articulate, they change tempos, they use multiple dynamics and dynamic changes. And they take the program seriously: the barking dog literally barks, the birds twitter, the peasants stomp, the rain patters on the roof, the ice cracks—and so does the lightning, with all the intensity of a Richard Strauss tone poem!

Not that this ever sounds like nineteenth-century Romantic music. The triumph of Harnoncourt and his musicians here is that they conjure up more eighteenth-century feeling than the hidebound chug-chug-chug performances we are generally subjected to in the names of Purity and Fidelity. The instruments are all of the period and are played in the eighteenth-century manner these musicians have studied very carefully. The pacing and forward drive are tremendous, and they are carried through all the tempo

## Vivaldi's Seasons: New Centus Musicus Performance Outclasses Everything of Its Kind

MAY as well say it right out: Nikolaus Harnoncourt's performance of *The Four Seasons* with the Centus Musicus of Vienna is so different and, in my opinion, so far outclasses everything of its kind that has preceded it that Vivaldi and Baroque music will just never be the same again. Of course, we all know *The Four Seasons*—the *Nutcracker* Suite of Baroque music. Or do we? As played in this new Telefunken recording, it's a very different work and a very different ball game.

The rediscovery of Baroque music BB&H (Before Bach & Handel) goes back a good many years, but it really hit big in this country in the Fifties when a pit musician by the name of Max Goberman announced that he was recording the complete works of Vival-

THE CENTUS MUSICUS OF VIENNA:  
*Vivaldi and Baroque music will never be the same again*



Marjell Anders



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



Carol Neblett (Minnie) and Placido Domingo (Dick Johnson) in *La Fanciulla del West*:  
*She won him in a poker game*

## Puccini's *Girl of the Golden West* in a Smooth, Tautly Controlled New Performance

DEUTSCHE GRAMMOPHON was wise to base its new recording of Puccini's *La Fanciulla del West* on the opera's 1977 Covent Garden revival. With the exception of Sherrill Milnes, the casts for the new recording and for the London stage production are identical. It is therefore not surprising that the set captures a smooth and tautly controlled performance—and *La Fanciulla* is just the kind of opera in which ensemble work is crucial.

Zubin Mehta's leadership was highly praised by the English critics—praise

evidently deserved, for the recording testifies to his authoritative direction. There is passion and excitement here, yet the music never seems to be over-driven. Puccini's shrewdly written score has its share of surefire emotional climaxes, but Mehta manages to create an incendiary moment even out of the tense confrontation between Rance and Sonora in Act I, a scene that sometimes passes in the theater, as it has in recordings, almost without notice. Chorus and orchestra perform beautifully, and they are supported by effective production touches—faraway voices, storm effects, and other sounds of nature—that are judiciously done, without excess.

Placido Domingo seems ideally cast as Johnson/Ramerrez, the improbable bandit. His physical appearance may be against him, but that is immaterial in a recording; he finds so much poetry in this music, combines ringing tones with such melting phrasing and exemplary musicianship, that he is quite persuasive enough to win our hearts as well as Minnie's. In the role of the heroine, Carol Neblett matches a fetching presence with gleaming tones. Vocally she cannot be faulted, but the colors she uses to depict the many sides of Minnie's character are not really strong enough. Sherrill Milnes characterizes Jack Rance very well: a brooding gambler, a Wild West Scarpia without the latter's elegance but with a sense of fair play unknown to that Roman scoundrel. He is vocally impressive most of the time, though the climax of his brief aria, "*Minnie, dalla mia casa*," is rather effortful.

I don't know what the term "idiomatic performance" might mean in an opera in which California miners are given Italian melodies to sing, but these Covent Garden stalwarts acquit themselves nobly. If I single out Francis Egerton (Nick), Malcom King (Larkens), and Glynn Howell (Wallace) for special mention, I do it only because





Kenwood K-1530

Akai GX-5700II

Hitachi D-900

# You paid a lot for good specs. Now spend a little more and hear them.

Just because you put a great deal of money into your tape deck, it doesn't necessarily mean you'll get a great deal of sound out of it.

Unless of course, you're using the tape that's engineered to get the most out of high-performance equipment. Maxell.

Maxell is specifically designed to give you extended frequency response, the highest possible signal-to-noise ratio and the lowest distortion of any tape in its price range.

Which is why people who own the finest tape decks use Maxell more than any other brand.

Of course, there are other reasons. Like the fact that every Maxell tape has a unique non-abrasive head cleaner. And a full warranty that covers the one thing other manufacturers don't cover. Everything.

Try Maxell.

It's sure to make the sound that comes out of your tape deck worth every penny you put into it.



Maxell Corporation of America, 60 Oxford Drive, Morristown, N.J. 07074

CIRCLE NO. 45 ON READER SERVICE CARD



# Onkyo TA-630D Cassette Deck with the Exclusive Accu-Bias System.

The reason  
you waited  
to buy one.

With cassette hardware and software changing constantly, a lot of you have been waiting. Holding off for top technology.

You've got it.

Onkyo's TA-630D with our exclusive Accu-Bias is here. And it's the only cassette deck with

adjustable bias in a two-head configuration. Which right there offers lower distortion, better low frequency response and little or no crosstalk. That's a lot, but there's more.

You know how important it is to have optimum bias when you record. Too low a bias signal and you have distortion. Too high a bias signal and you lose high frequency response.

Other cassette decks have adjustable bias and equalization, set at the factory for average conditions. Onkyo doesn't believe in playing averages. And gives you Accu-Bias.



Accu-Bias is Onkyo's exclusive system. It works with a pair of reference signal generators built into the TA-630D. Feed these signals to your tape, and read the reproduction signal on the meters. If bias is off for that cassette tape, you compensate with continuous, variable settings until you get an absolutely flat frequency response. It's that simple...and you get the best high frequency response, least distortion and lowest signal to noise ratio.

You get all that because the bias signal primes your tape as the recording is made, and every manufacturer's tape is different. Even when equalization is correct, if the bias is incorrect, it results in producing peak or losing the high frequency characteristic. Again, this depends on the tape used...all of which respond differently.

*Does it work?*

After all the effort Onkyo's gone to so you can have the only two-head continuously variable bias control you might expect fantastic sound.

You've got it.

You've got frequency response of 20-15,000 Hz on normal tape; 20-18,000 Hz with FeCr and CrO<sub>2</sub>

S/N ratio with FeCr is 58dB, goes up to 68dB with built-in Dolby\* NR System. Wow and Flutter are negligible at 0.055% WRMS by use of a DC servo motor for constant speed.

There's still more, but you'll have to find out from your Onkyo dealer. Be prepared for a stunning cassette listening experience and features found only in higher-priced decks. Listen for the difference Accu-Bias makes and find out what keeps Onkyo a step ahead of state-of-the-art.

*\*Dolby is a trademark of Dolby Laboratories, Inc.*



ARTISTRY IN SOUND

## ONKYO®

Eastern Office: 42-07 20th Ave., Long Island City, NY 11105 (212) 728-4639

Midwest Office: 935 Silver Drive, Wood Dale, ILL. 60191 (312) 595-2970

West Coast Distribution Center: Damar Industries, Inc. 20600 Nordhoff Street, Chatsworth, CA 91311 (213) 998-6501

Canada: Sole Distributor, Tri-Tel Associates, Ltd., Ontario Canada



# PUNK ...

"Virtually all punk singers favor the most determinedly proletarian English dialects they can muster. . ."

don't admit it. And it is possible that one or two of these outfits, notably the Clash, may even have been—how you say—*sincere*.

Not that it matters. All this publicity, coupled with the fact that the Pistols' Johnny Rotten had bona fide star quality (which cannot be said of Joey Ramone) caused the London scene eventually to overshadow what had happened on New York's Bowery. As a result, many people now believe that the English invented punk in the first place. Indeed, Elvis Costello, one of the unclassifiable not-quite-punk types who has been lumped with the movement anyway, has announced with a straight face that "there's never been a decent American rock band," echoing the anti-Americanism that also runs through much of the British New Wave. The Clash, the most overtly "political" of the hard-core punk bands (guitarist Mick Jones has made pro-Red Brigade statements), do a song called (*I'm So*) *Bored with the USA*, and virtually all punk singers favor the most determinedly proletarian English dialects they can muster as a rejection

of their hippie elders' fascination with American culture (surfing, cars, even the blues).

After the official, rather sudden demise of the Sex Pistols (whose self-destruct act was viewed by many as the ultimate expression of artistic integrity in the face of corrupt record-business pressure), English punk ceased to be controversial and was officially interred by the press. And while new young bands continue to be signed on both sides of the Atlantic, things have obviously changed. On the fashion level, the safety pins that were punk's most visible trappings now look as quaint as love beads, and more and more bands are rejecting that kind of packaging as too limiting.

**I**F we can believe advance reports, America's industrial heartland, the Akron/Cleveland area, is where the future of the New Wave lies. Stiff Records, the independent label whose alumni include the Damned and Elvis Costello, is now readying a push behind several groups from that area. Most of them are dada-ist art-rock groups who owe far more to such vaudevillians as Captain Beefheart and King Crimson than to Iggy or Johnny Rotten. What hasn't changed, though, is that the big commercial breakthrough has still failed to occur. Very few of the hard-core punks have cracked the charts. In America, only the Ramones and Patti Smith have made it. And in England, despite number ones for the Pistols and the Stranglers, the Clash, who have received a press more unashamedly supportive than that accorded any act in recent memory, sell just moderately well.

Sales figures, however, are beside

the point. Sturgeon's Law, that 90 percent of everything is crap, is just as true for punk as for any other new-laid music, but punk was and is something to cheer about nonetheless. A recent *Forbes* article on the record business pointed out that more people than ever are buying albums, but that they're all buying the same *kind* of music, and consequently there are no longer the specialized audiences necessary to support a small hit that is outside the mainstream. This is a depressing prospect, and punk has been the first concerted effort by people who are *passionate* about their music to break the stranglehold that the major labels and their bland, market-researched superstars have on our listening habits.

Certainly there's no question that punk has brought about a long-overdue re-evaluation of the relationship between rock performers and their audiences, and it has also alerted us once again to the dangers inherent in too much cozy rapport between musicians and the industry. In general it has given us all a tremendous, energetic kick in the butt. So if, as Lester Bangs suggests, rock-and-roll since Kiss and Peter Dinklage has been about "the pacification of a generation which does not want to rebel against anything except the possibility of missing out on an upwardly mobile job opportunity," then punk/New Wave may well be what its most enthusiastic boosters think it is: the single most important musical development of the Seventies.

And, oh yes, Trippy—you *can* dance to it. Hope you're out of bed real soon.

Love,

Steve Simel



JOHNNY ROTTEN



SID VICIOUS



ELVIS COSTELLO

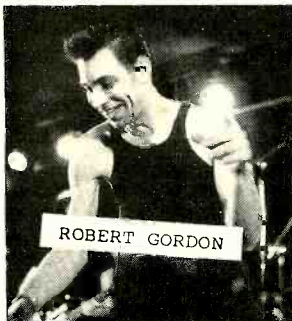




derfully imaginative studio band whose live shows are, to these ears, more uneven than the Grateful Dead's. Hell's incredibly pretentious street-poet act, on the other hand, will someday seem as hilarious as Jim Morrison's acid raps.



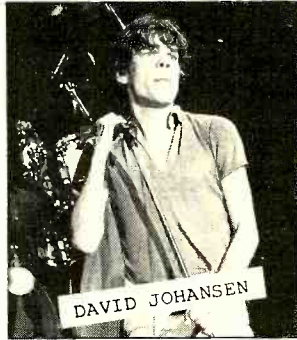
• **TUFF DARTS** (SIRE SRK 6048). **ROBERT GORDON: *Fresh Fish Special*** (PRIVATE STOCK PS 7008). Robert Gordon has yet to back himself out of the artistic corner of his Fifties fetish, but at least he's trying. His old band, Tuff Darts, is an obnoxious mainstream metal aggregate that peddles sexist lyrics and a stage act similar to what Sha Na Na now does on the tube. Avoid at all costs.



• **TALKING HEADS: *More Songs About Buildings and Food*** (SIRE SRK 6058). An eccentric mixture of Sixties funk and SoHo minimalism; admittedly for special

tastes, but somehow it works. *Plus* Tina Weymouth, the cutest bass player in rock (sorry, guys, she's married).

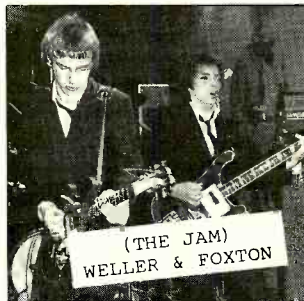
• **BLONDIE: *Plastic Letters*** (CHRYSALIS CHR 1166). Deborah Harry's sex-kitten routine strikes me as more cabaret than punk, and although the band plays an intriguing mishmash of Sixties pop styles with a certain verve, the end result hardly transcends the admittedly less-than-serious sources. Good mindless fun, though.



• **DEAD BOYS: *Young, Loud and Snotty*** (SIRE SRK 6038). Some say that this adequate bar band, which four years ago was probably doing Mott the Hoople covers, is the most exciting act to emerge from the whole scene. Not me.

## England:

• **EDDIE AND THE HOTRODS: *Life on the Line*** (ISLAND 9509). An energetic, brash young blues-based band lurching toward pop to good effect.

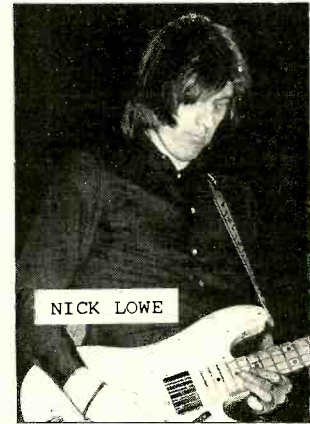


• **ELVIS COSTELLO: *This Year's Model*** (COLUMBIA JC 35331). The most compelling rocker out of England since John Lennon, perhaps, or merely the most interesting singer/songwriter since Warren Zevon. Decide for yourself.

• **SEX PISTOLS: *Never Mind the Bollocks, Here's the Sex Pistols*** (WARNER BROS. K-3147). I never saw these guys, and you probably didn't either, so none of us is qualified to say whether or not session cats played all this stuff. Never mind. Their rise and fall is the most amazing story in rock history. For all that, however, they are probably more important as an influence than for their music.

• **THE JAM: *This Is the Modern World*** (POLYDOR 6129). Because of a couple of reasonable early Who imitations, these guys have conned a lot of people into taking them seriously as something more than a Sixties nostalgia band. Rubbish. Boring tunes, contrived social consciousness, and I pass.

• **THE STRANGLERS: *No More Heroes*** (A & M 4659). Misogyny, watered-down Doors organ licks, and a big So What. They are nonetheless currently the hottest live act in England. To me, inexplicable on all levels.



• **SHAM 69: *Tell Us the Truth*** (SIRE SRK 6060). Okay, guys, I will: don't give up your day jobs. Punk already reduced to a formula.

• **NICK LOWE: *Pure Pop for Now People*** (COLUMBIA 35329). Somewhere between the *National Lampoon* and Paul McCartney, Lowe is proof positive that there is rock after Thirty. Brilliant.

• **GENERATION X** (CHRYSALIS CHR 1169). Their hearts are in the right place, but that's about it. Punk pretty boys for hip prepubescents.

• **THE CLASH** (CBS import). Most critics who've attended their live shows come away seeing God, but on record at least they veer most confusingly between the slightly ragged and the excitingly anarchic. You'd do well to wait for the American version, which will include some recent (and very fine) singles.



# PUNK 000

"Word went out across the country: anybody who can play three chords on a guitar can start a band."

stream rock tradition. They too, however, shared a punk attitude of "let's get back to good basic music and to hell with laser beams." Their penchant for short hair and mod clothes (check out the cover of the Feelgoods' "Down by the Jetty" to see what I mean) was an important visual influence.

But the climate wasn't yet *right*, and neither contingent amounted to much. The pubs dried up, and Mercer Arts fell down (the roof caved in, actually). The Dolls stiffed in Middle America (probably because of far too many extravagant claims made for them by over-zealous, chauvinistic New York critics), and by the end of 1974 it seemed that it was all over. But that was an illusion. Back on New York's Lower East Side, a hundred little moron bands who had arrived too late to cash in were working feverishly to reverse the tide. One of them, the embryonic Television, convinced the owner of a decaying Bowery saloon called CBGB (short for Country, Blue Grass, and Blues) to let them loose on his tiny stage. A year later New York was the rock-and-roll capital of the world, at least in terms of media attention and sheer numbers of unrecorded working bands (some new, some Mercer Arts veterans). Word went out across the country through a teenage underground linked by fanzines and an occasional farsighted radio station: anybody who can play three chords on a guitar can start a band. Needless to say, this kind of revolutionary populist concept appealed immensely to any kid who didn't have the thousands of dollars needed to get a mainstream rock outfit on the road or who couldn't relate to the wispy banality of the stuff being foisted on us as rock-and-roll via television and most FM stations.

The big record companies were predictably slow to catch on to what was happening. Patti Smith was grabbed up first, after a *Village Voice* cover photo of her with Bob Dylan convinced Arista she was . . . um . . . legitimate. Staid Atlantic eventually took over the independently made "Live at CBGB" two-record document, and Sire, a label heretofore best known for the progres-

sive yodeling of Focus, brought the Ramones to the world. Still, although just about all the major New York acts got record deals soon after (the Shirts waited the longest, and their album is only just now coming out), there was a certain reluctance to sell the music for what it was. Or, as a highly placed executive at a company which has since signed the Jam put it to me succinctly, "You can go to the toilet trying to promote punk rock."

What finally brought punk out of the dumper was the fact that English kids got wind of what was happening, and for a variety of reasons—including a pop mania that has always far exceeded ours, as well as a particularly messed-up political and economic situation—turned it into something of their own. The Ramones, who are almost a cartoon of a punk band, visited England in 1976 and were totally misinterpreted. Instead of seeing them as satirists, as older veterans *pretending* to be pinhead hoodlums, the British took the Ramones' studied teenage cool at face value. English groups and fans latched onto the idea of punk not as entertainment or even Art, but as an alternative to the drabness of their own lives, as a way of addressing social issues and attracting attention to themselves and their problems. English punk, as it developed almost literally overnight, had an Angry Young Man undercurrent to it that was so palpably real that even some rock fans who thought the music itself fairly mediocre found themselves unaccountably responding to it. Hence, in a dizzying succession, the Sex Pistols, the Damned, the Clash, the Jam, the Buzzcocks, the Stranglers, the Vibrators, and on and on.

**T**HIS is not to say that much of the activity was anything other than the traditional rock-and-roll game of *épater les bourgeois*, or shock the old fogies enough and the kids will buy your records. Punks sticking safety pins through their cheeks (a startling though certainly unintentional metaphor), reports of violence at punk clubs, and the nasty Sex Pistols saying naughty words on British television, being dumped by two record companies and banned by the BBC—all of that made for great copy. The sensationalist British newspapers ate it up, and in less than a year they turned punk into a national obsession. The bands themselves claimed self-righteously that they were above such hoary hypes. But that too is an old gambit: rule number one at rock manager's school is that a front-page headline in an evening paper is worth all the rock-press coverage in the world—but

## A HIGHLY SELECTIVE BASIC LIBRARY OF PUNK

### The United States:

• **RAMONES: *Rocket to Russia*** (SIRE SRK 6042). The Ramones pretty much define the mainstream of American punk—loud, deliberately stupid, three-chord tunes made to order for lyrics about sniffing glue and beating on the brat. Clearly, to take this at all seriously is a risky business, but lots of folks I respect do. The Ramones are humorists, they insist, and beneath the racket is an old-style New York pop sensibility. That may be true, but if they're joking I don't think they're *funny* enough. In a year or two, when they've moved on to dispensing Sixties folk-rock covers (an unreleased studio version of the Searchers' *Needles and Pins* already exists), it will prove only that they have good record collections. Relevant quote from Peppy Marchello of the Good Rats: "The Ramones respect us because we can tune our guitars."



• **MINK DEVILLE: *Return to Magenta*** (CAPITOL SW-11780). Solid, occasionally incandescent, old-school Latin-tinged r-&-b. Before punk, we would have grouped them with the J. Geils Band. Reactionary stuff, granted, but honest, and they'll probably be around a while.

• **PATTI SMITH: *Horses*** (ARISTA AL 4066). The most commercially successful American punk so far and one of the least typical, Patti may or may not be turning into the egomaniacal monster some have predicted, but basically, as she goes so goes the movement. Recent hits notwithstanding, this remains her best album.

• **TELEVISION: *Adventure*** (ELEKTRA GE-133), **RICHARD HELL & THE VOIDOIDS: *Blank Generation*** (SIRE SRK 6037). Television, since Richard Hell's departure, has turned into a won-





Barbarians (the first kids in their area, somewhere in Connecticut, to grow their hair long and the only group whose major claim to fame was a drummer with a hook for a right hand). Most of these wonderful period relics can be found collected on Sire's excellent "Nuggets" collection (Sire 3716).

But punk as an *idea* really became institutionalized only after the emergence of one Iggy Pop (né Stooze), who is to the New Wave roughly what James Brown is to r-&-b: the Godfather. The music on Iggy's first two albums, unlike the prevailing Woodstock Nation efforts of the day (1969-1970), sounded like the death throes of an industrial society, all fuzz-tone and wah-wah, the lyrics equal parts terminal boredom and teenage frustration. The cover pictures showed us a scuzzy bunch of leather- (or vinyl-) jacketed geeks with bad teeth working very hard at looking sullen. Iggy was canonized early on by the Detroit press corps, who saw him as the last authentic rock madman, and he was scoffed at by the editors of *Rolling Stone*, who saw only a pretentious third-rate Jim Morrison clone. They were both right, but no one could deny that he was some kind of (for want of a better word) *phenomenon*, and, as a result of his pioneering, punk rock became a useful generic description, part of our common language if not of our shared listening habits.

Around this same time, however, there were waiting in the wings two other barbarian hordes, ready to set the stage for the New Wave that now confronts us: the pub contingent in London and the glitter crew in residence at New York City's Mercer Arts Center.

**I**N New York a lot of the attitudes that have come to represent the New Wave—contempt for older bands, disregard for conventional instrumental virtuosity—were originally exemplified by the New York Dolls (and, indeed, Dolls singer David Johansen has gone on to become a sort of Grand Old Man of the current scene). Although the Dolls were identified at the time as decadent pansexuals in the tradition of such avatars as David Bowie and Lou Reed, underneath the make-up was clearly a punk band struggling to get out.

In London, things were a lot more professional. Bands like Ducks Deluxe, Brinsley Schwarz, Dr. Feelgood, and others could not only play well, but were clearly part of an ongoing main-

*Debbie Harry of Blondie searches frantically for a missing pair of Dr. Dentons.  
(All photographs by Ebet Roberts.)*



DEAR STEVE:

While attending a Hot Tuna concert in 1970, I ingested several Quaaludes and a bottle of Boone's Farm wine, fell down a flight of stairs, and smacked my head into the knee of a nearby usher. As a result, I was in a coma until just three months ago. Upon awakening, I found much had changed (apparently I missed the Revolution), so I had to catch up on my reading (fortunately I have a life-time subscription to STEREO REVIEW, and all my back issues were piled neatly by my respirator). I am readjusting to contemporary life fairly well, but one thing does have me confused. I keep coming across references to some kind of music called either punk rock or New Wave. What is it? Should I like it? And why don't they play it on the Ed Sullivan Show?

*Power to the Opposite Field,*

*Trippy Van Winkle*

Sleepy Hollow General Hospital  
Tarrytown, N.Y.

still shows no sign of abating and the species has not yet defined itself. But if you want to get a handle on what all the yammer is about, I hope my comments will serve your purposes—or at least make a little light reading while you're still in the hospital.

**T**HE first thing you should understand is that punk, like rock itself, means many things to many people, and although for a short time it may have had circumscribed, definable limits, that's no longer true. In fact, the term "punk rock" is by now as nearly meaningless as, say, "Romanticism." It is useful only in that it allows for easy, *inexact* classification of numerous musicians of widely divergent attitudes and stylistic persuasions. However, punk did not spring full grown out of the air. Like Alex Haley, it too has roots. The difference is that his were in Africa, while punk's were in Hollywood.

"Spiritually," and especially as a *visual* style, punk began in the movies in the early Fifties with James Dean

most incredibly moronic three-chord hit *Louie Louie* is even now the true test of a rock fan, the easiest way to separate the men from the dilettantes. Loud, raucous, stupid, flouting all known canons of good taste, this school remained pretty much a regional phenomenon, but through the great success of the Kingsmen's quintessential garage record, it made an indelible impression, for good or ill, on anyone who came into contact with it at an impressionable age.

Later on, fledgling rock critics began using "punk" to describe the music made by a whole slew of groups who, in the wake of the British invasion, had formed their own garage ensembles, gone on to become local sensations, and released various one-shot hits emulating (poorly, in most cases) their British betters before returning to the just obscurity of history. The seminal punk band in that regard was Chicago's Shadows of Knight, who looked like the Stones and sounded like the Yardbirds with arthritis, but just about ev-

**Steve Simels  
explains (but does  
not apologize for)**

# PUNK ROCK

DEAR TRIPPY:

Glad to hear you're recovering. As to your last question, sorry to break it to you so brutally, but not only has the Sullivan Show been canceled, Ed himself is now hosting the Great Variety Show in the Sky (one assumes Elvis is a frequent guest, and that God is not as offended by his bump and grind as the CBS censors were in 1957).

Your other questions, however, require fuller explanation, and consequently I'm going to share my reply with STEREO REVIEW's readers. I hope you don't mind. While I'm sure that many of them are indeed aware that a motley crew of musical Visigoths has been making noises at the gate of the Rock Establishment for the last few years, it's likely that at least a couple of them may think the term "New Wave" refers to French art films of the early Sixties or that a punk is something little kids smoke behind the barn. The following explanation of punk is in no way definitive since the horde of new bands

and Marlon Brando. It was introduced into rock-and-roll by Elvis Presley, whose demeanor in those days would most likely shock the sweet old ladies who frequent current Elvis-impersonator acts. Elvis got a lot from Dean and Brando, and it's easy to visualize him as either the misunderstood teenager of Dean's *Rebel Without a Cause* or as the motorcycle hood of Brando's *The Wild One*. Presley's resemblance to them was not lost on teenagers of the period. All of this is relevant to our discussion because the recent resurgence of interest in Fifties rockabilly, the music made by Elvis' label-mates at Sun Records, is largely owing to the fact that punk bands, especially in New York City, have rediscovered the stuff with a vengeance.

But there are other punk progenitors. As far as anybody can tell, the term "punk" was first applied to a particular school of pre-Beatles rock bands operating in the Northwest—outfits like the Sonics, the early Paul Revere, and most of all the Kingsmen, whose al-

ery high school of the period had an identical band, and if you rummage through your old 45 collection, you'll undoubtedly uncover a small-time hit waxed by some group whose members once sat in front of you in Driver Ed.

Critic Dave Marsh now claims that the very first use of the term in print came in a review he wrote of a performance by Question Mark and the Mysterians, famous for their all-time imbecilic smash *96 Tears*, which had only two chords. This was a particularly influential work because of its cheapo organ sound, which reappeared later on Elvis Costello and Blondie records. At any rate, the Mysterians were clearly of the same school as the Shadows. Other notables of this genre included the Swinging Medallions (a drunken fraternity band from the Deep South), the Castaways (a Texas outfit who, if you want to listen, sound amazingly like Talking Heads), the Knickerbockers (four greasers from Bergenfield, New Jersey, whose *Lies* is still the best Beatles imitation of all time), and the



# 'I know why I smoke.'

"There's only one reason I ever smoked. Good taste.

"So when I switched to low tar, I wasn't about to give that up. If you don't smoke for taste what else is there?"

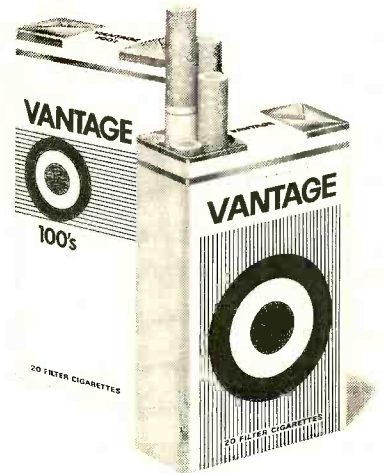
"But there was all that talk about tar.

"Unfortunately, most low tar cigarettes tasted like nothing. Then I tried Vantage.

"Vantage gives me the taste I enjoy. And the low tar I've been looking for."

*Vince Dougherty*

Vince Dougherty  
Philadelphia, Pa.



Regular, Menthol, and Vantage 100's

FILTER 100's: 10 mg. "tar", 0.8 mg. nicotine, FILTER, MENTHOL: 11 mg. "tar", 0.8 mg. nicotine, av. per cigarette, FTC Report MAY '78.

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



units are intended primarily for recorded-ambiance *extraction*, while the Audio/Pulse and Phase Linear units have a relatively higher proportion of their circuitry devoted to the creation of reverberation (ambiance *synthesis*).

In general, both goals—ambiance recovery and ambiance synthesis—are valid, and both are well served in the various time-delay models available. In most cases the operating controls have sufficient flexibility to deal with the available range of recordings. With some recordings (made in good acoustical environments) it is best to turn off the synthesized reverberation and use pure delay to provide the natural ambiance and three-dimensional realism.

With most recordings, however, experience shows that a blend of both approaches yields optimum results: initial delay to extract the hidden three-dimensionality in the recording, plus a modest amount of delayed reverberation to enrich and extend the recorded ambiance, placing it in natural acoustic perspective around the listener.

Some of the features in time-delay units may not have an immediately evident purpose and therefore deserve comment:

- *Front delay mix* involves mixing some delayed reverberation into the front speakers to add depth and realism to mono discs.

- *Low coherence* refers to the fact that in ambiance synthesis the added reverberation can tend to sound quasi-monophonic if the two reverberation channels have identical characteristics. Appropriate circuitry can be used to alter one or both channels, resulting in an incoherence that is more spacious and diffuse in quality.

- *Tone controls*. As can be seen in the comparative table of units, designers have not agreed on a standard high-frequency bandwidth limit for delay systems, in part because of cost (reduced delay bandwidth is cheaper) and in part because the desired bandwidth seems to depend on the recording being played. A treble control on the delayed sound provides useful flexibility. Tone controls also help in matching the sound of dissimilar front and rear speaker systems.

Incidentally, although Acoustic Research is not currently marketing a consumer delay unit, two other manufacturers are already applying a clever trick discovered by psychoacoustician Paul Milner while using AR's experimental sixteen-channel delay system: if the delayed sound has a bandwidth of at least 6,000 Hz, undelayed higher frequencies can be mixed into the rear channels to extend the effective bandwidth without causing psychoacoustic confusion in localization. □

## THE AUDIBLE BENEFITS OF TIME DELAY

**T**HE effect of a time-delay system on the quality of reproduced sound is both dramatic and subtle. It is most dramatic when the delay system is switched *off* and the entire three-dimensional ambient sound field appears to collapse into the front wall of the listening room. The delayed sound does not call attention to itself when it is on, but listeners experience a profound sense of sonic deprivation when it is removed. The sound of conventional two-channel stereo seems flat, dull, and artificial by comparison.

On the other hand, switching on the delay system does not produce an immediate blaze of sonic glory to reward your investment. Typically, it yields a gradually perceived "rightness" of sonic texture and an apparently expanded listening space. The effect of the delay is simply too natural to be spectacular. If you walk into a room where a properly adjusted time-delay system is in use, you may not even be aware of its presence. Everything simply sounds uncommonly realistic.

Some delay units, of course, can be made to be quite spectacular. By cranking up the longest delays, wide bandwidths, maximum reverberation, and increased delay-channel levels, thrillingly huge spaces can be simulated. The experience of hearing an enormous cathedral echoing around one's head while one sits in a cozy living room is not soon forgotten. But most listeners find that after the first week or two they adopt more conservative settings of all of the controls, producing a system sound that is unobtrusively natural.

The first thing you may notice is the way time delay "opens up" reproduced

sound, giving it an unconstricted, airy, unboxy, spatially free quality. The sense that the musical sound is alive in the air all around you, rather than simply being projected at you from a box, goes a long way toward establishing that elusive sense of uncompromised realism audiophiles yearn for. In acoustics this is called "envelopment," the sense of being immersed in the sound field.



More astonishing is the way time-delay adds depth and three-dimensional realism to the stereo image *in front* of you. Even though time-delay systems normally do not affect the signal going to the front stereo speakers in any way, the presentation of ambiance to the ears from side-oriented speakers transforms the perceived character of the front stereo image as well. Voices and instruments become rounded, three-dimensional, with increased stage depth behind them and even an improved separation of details in some recordings.

Although time delay is in no sense a substitute for a dynamic-range expander, it has a surprising effect on perceived musical dynamics. It is well known that nonlinear distortion of an audio signal produces a sense of psychological strain that affects the perceived loudness of reproduced sounds. It may be that the *spatial* distortion of two-channel stereo has a similar effect. Whatever the cause, listeners report that by reproducing a three-dimensional ambient field around the listener, the time delay produces a sensation of "presence," punch, and dynamic impact that loudness alone never quite provides. The sense of presence and depth remains convincing at low levels as well, a boon for late-night listening. In fact, many listeners find the differences between ordinary stereo and time-delayed ambient stereo even more strikingly dramatic at modest listening levels than when the ears are being overwhelmed with sonic power.

The final (and for some listeners most valuable) benefit of time delay is that it restores an unexpected degree of solid realism to the reproduction of low frequencies. In most listening rooms the distribution of bass energy is quite uneven due to "standing waves" which produce peaks and valleys in the bass response of the system. The common practice of locating both stereo speakers along the same wall reinforces these aberrations. But adding time-delayed bass energy at the sides of the room tends to even out the standing waves, with a palpable increase in low-bass definition and power. Surprisingly, this occurs even with loudspeakers having limited low-frequency response.



discovery that had also been made independently by others: that the natural hall ambience contained in many stereo (and even mono) recordings, which in normal playback is "hidden" from us by the masking phenomenon, can be revealed and reconstructed in the listening room with startling realism simply by delaying the sound and playing it through loudspeakers located at the sides of the room. By using an electronic delay system, the secondary channels can be delayed by 30 milliseconds, 50 milliseconds, or even more, with a corresponding enlargement of the perceived "space" in which the performance takes place. This is a much greater delay than could be achieved in any domestic listening room by distant speaker placement.

Note that at delays longer than 50 milliseconds or so, Haas-effect fusion may no longer occur, and the delayed sound may be heard as a distracting slap-back echo. Therefore, when longer delays are set up (for cathedral-like spaciousness), some designers arrange that the delay line be "tapped" so as to provide additional shorter delays. This will avoid sonic gaps exceeding the psychoacoustic fusion limit, and it is one of the reasons why the majority of

delay units provide two to four "initial" delays rather than one. Of course, when playing slow, sustained music this consideration is not important.

The "ambience extraction" technique can yield an effect far beyond what you'd expect, but it is successful only when there actually is natural ambience contained in the recording. You can expect to find such ambience in most recordings of classical music, some jazz-band discs, and on-location "live-performance" recordings of all kinds of music. But many popular recordings are quite "dry," having been studio-produced in such a way as to eliminate authentic ambience entirely. Delay will deepen and enrich such sound, but if you want to open it up, to effectively move the musicians out of the dry studio into a more acoustically spacious locale, then more processing is required. To create this larger ambience, many delay units are designed to add synthesized *reverberation* as well as time delay.

Reverberation effects can be generated by feeding the output of a delay line back to its input so that the signal is recycled back through the delay, at increasingly lower levels, until it simply fades away. All of the available delay

units contain this feature, usually with the feedback going to the opposite channel to simulate lateral reflections bouncing back and forth. This type of reverberation must be used conservatively if a natural effect is to be preserved; if turned up to a clearly audible level, simple electronic reverb has a characteristic hard, "twangy" sound.

But various tricks can be used by designers to improve the realism of synthesized reverberation. They can recycle multiple initial delays (rather than one) and arrange the various delay lengths so that, when recycled, they pile up on one another and yield a naturally high "echo density." Or they can make the delay irregular or random to avoid the "flutter echo" twang or chatter caused by evenly spaced delays. Finally, it is possible to make the outputs incoherent (unrelated to each other in phase or in time), thus enhancing the sense of spaciousness. Sometimes mechanical reverberation devices are resorted to—springs, for example.

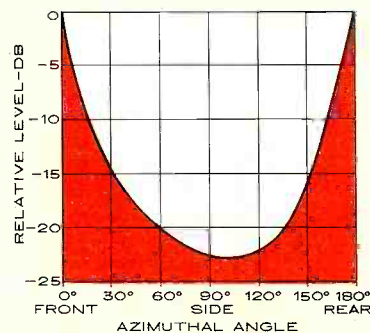
As you can see from the table of *home* (rather than *professional*) time-delay units on page 88, designers have employed a variety of approaches to synthesized reverberation. For example, the Sound Concepts and Bozak

manufacturers recommend that the secondary amplifier have at least one-fourth to one-half the power output of the main stereo amplifier. And two manufacturers insist that you may need fully as much power for the delay channels as you do for your main stereo channels—especially if the time-delay speakers are less efficient than the main stereo pair, as they may be if they are smaller.

● **Setting the delay-channel level:** There are various ways of judging how loud to play the delayed channels. At first you will probably run them unnaturally loud to revel in the big, spacious sound. Then, as you become accustomed to hearing the sound of acoustic space around you, a lower level will seem more "right." A simple guide is to turn up the delayed channels until the rear speakers become audible as distinct sound sources. Then slowly turn down the rear-output level until the rear speakers disappear into the ambient field—and stop. If you have any doubt about whether the rear speakers are really contributing anything important, switch them off and you will hear the three-dimensional ambient sound field collapse toward the front wall.

● **Speaker placement:** The accompanying figure suggests that the optimum location for ambient-field loudspeakers is at the sides of the room at an azimuthal

angle approximately 90 to 120 degrees away from the front on each side. However, the speakers will still be effective over a rather broad range of angular locations extending from 45 to 150 degrees. The only locations to avoid are those directly in front of and directly behind the listener (the peaked colored areas).



Least masking of ambient sound occurs if speakers are to the sides.

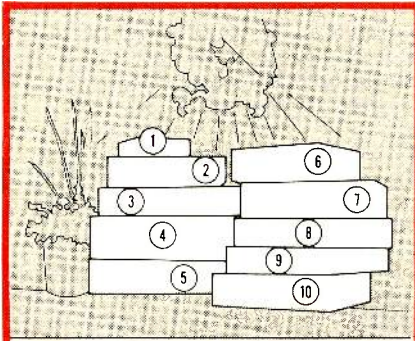
Unless the speakers are truly omnidirectional, speaker aiming can also affect the results. It is unrealistic to expect that a single pair of delayed-channel speakers can be a perfect stand-in for all of the reflecting surfaces in a night club or a concert hall (a six-speaker delay system, for those who can manage it, is certainly

better than a four-speaker system). But if you can arrange your delayed-channel loudspeakers to scatter their sound uniformly around in the room so that the delayed sounds arrive at your ears from all directions, then you will substantially improve the realism of the ambient-field illusion. Experiment with aiming the speakers diagonally upward or rearward so as to bounce their sound off walls and ceiling. And remember that a time-delay system will in most cases sound more realistic at home than in a showroom, because of the absorbing materials and acoustic-tile ceiling commonly found in stores.

● **Suitable recordings:** A time-delay system is a device for improving the realism of good recorded sound. It is not a substitute for good recordings. Especially with delay systems intended mainly for ambience *extraction* rather than ambience *synthesis*, the realism of the final result depends very much on the quality of the ambience information hidden in the recording. With all time-delay systems, the most thrillingly realistic results are obtained with recordings made in good acoustical environments with "honest" stereo recording techniques. Live concert tapes are most consistently impressive with time delay; the quality of three-dimensional realism they deliver must be heard to be believed.



# ...TIME DELAY



## THIS MONTH'S COVER

Time-delay units: (1) Sound Concepts Concert Machine; (2) Audio/Pulse Model Two; (3) ADS 10 Acoustic Dimension Synthesizer; (4) Phase Linear Model 6000; (5) Bozak Model 900 (superseded by Model 902); (6) Southwest Technical Products 2AS/A; (7) Audio/Pulse Model One; (8) SAE Model 4100; (9) Advent SoundSpace Control; (10) Sound Concepts SD550. Photographed at the Vanderbilt Museum, Centerport, New York.

When live music is heard in a large acoustical space, the cumulative strength of the dozens of reflected sounds reaching the listener's ear during each note may exceed the strength of the direct sound from the stage. But because the reflected sounds arrive *later* than the direct sound, we are often not conscious of them (although long-delayed reflections *will* be consciously perceived as a reverberant "tail" to the sound). Those delayed, reflected sounds that arrive less than 50 milliseconds after the direct sound (or after each other) fuse with the direct sound of each note of music, adding loudness, fullness, and three-dimensional "depth" to the perceived sound. These are the special qualities that a concert hall or other large space can lend to music and that a small listening room cannot.

This three-dimensionality, so familiar in live performances, has largely eluded audiophiles and their reproduced music for years. What makes it so difficult to attain? Mono and even stereo reproduction are unsuccessful in providing it, for reasons suggested by the figure on the facing page. Although mono and stereo recordings frequently contain a wealth of ambient information, in playback it will come—along with the direct content—from the speaker or speakers up front, where it

is most subject to masking. Increasing the recording's reverberant content in an attempt to "unmask" it is no help; the sound becomes cavernous and even more remote from the listener, whereas the real object is somehow to get the listener acoustically *into* the auditorium with the performers.

As has been known for at least a decade, this "you-are-there" illusion can be fully achieved only by enveloping the listener with an ambient sound field, and several approaches are possible. *Binaural* sound, specially recorded for reproduction through headphones, can be brilliantly effective. Four-channel sound was originally an attempt to bring about this listener envelopment with loudspeakers and special recordings. At its best it was—and is—*quite* effective (unfortunately, four-channel became embroiled in controversies largely peripheral to its ambience-creating abilities). In addition, there have been special loudspeakers designed to propagate ambience within typical listening rooms, and, largely as a fall-out from four-channel, various techniques have been devised for extracting or synthesizing ambient information from conventional recorded material. These extraction/synthesis

schemes can work well, particularly when additional rear (or side) speakers are used to handle the derived signals. But they depend totally on the content of the recordings used, and some programs do not have enough out-of-phase ambient information to yield much of an effect at all. The credibility of the result is also affected by the placement of the ambience speakers. If they are too close to you, the precedence effect may occasionally cause them to be heard as the primary sound source, thus disastrously confusing the spatial presentation. In some listening rooms it may not be possible, of course, to place them at a sufficient distance, but there is a solution: the introduction of time delay can accomplish exactly the same thing as locating the ambience speakers at the necessary distance. It can also accomplish other things, as we shall see.

## What Time Delay Does

When evaluating the time-delay units on the market it is helpful to remember that there are two distinctly different design goals which their designers may be trying to achieve: ambience *recovery* or ambience *synthesis*.

In 1970 E. R. Madsen announced a

## USING A TIME-DELAY SYSTEM

**O**PTIMIZING the performance of any one time-delay system obviously depends on the circuit design and what controls are available, but there are some few general principles that apply to all of them.

● **Installation:** Though it is electrically possible to connect some of the delay units through the tape-monitor loop of an amplifier or receiver, they are most conveniently connected between the preamplifier and the power amplifier or between the "preamp-out" and "main-in" jacks of modern receivers and integrated amplifiers. The delay unit accepts the signal from the control preamp and provides separate outputs to the front and rear amplifiers. Just about any amplifier with adequate power output can serve for the rear speakers, and some delay units have suitable rear amplifiers built in.

With this arrangement, the rear volume control on the time-delay unit simply adjusts the *relative balance* between front (direct) and rear (delayed) sounds; once set, it should not need frequent readjusting. The main amplifier's volume control becomes a "master" volume control for the entire system, raising and lowering the level of all four speakers simultaneously. Similarly, the tone con-

trols affect the signals to all speakers equally, and the same is true of any equalizer or dynamic processor connected to a tape-monitor or external-processor loop of the system.

● **Choosing amplifier and speakers:** Delay-channel speakers should not call attention to themselves with a brilliant sonic personality. Indeed, since they are not intended to be noticed as sound sources at all but are rather stand-ins for the walls of the acoustical environment where the recording was made, a neutral personality is preferred. Most important, the delay-channel speakers should have a smooth mid-range, preferably similar in overall balance to the mid-range of your main stereo speakers, so that the delayed sounds will blend in well. Extended deep-bass and top-treble response is usually irrelevant, but the bass-reinforcement potential of time-delay will be best realized if the speakers are not *conspicuously* bass-shy. Finally, the delay-channel speakers should have fairly wide dispersion, thus creating a uniform ambient field rather than beaming their output at the listener.

How much power is needed for the delay channels? People disagree. Some users report satisfaction with 15-watt-per-channel secondary amplifiers. Several



flections can be rather weak and still contribute to our perception of the sound field.

Of course, if a reflected sound arrives a long enough time after the original sound, we will hear it as a separate echo no matter what direction it comes from. But at shorter delay times an important process called "fusion" occurs. The ear has a short-term memory in which each sound is stored for about 1/20 of a second (50 milliseconds) and is compared with succeeding sounds. Whenever two similar sounds arrive less than 50 milliseconds apart, they are "fused" in the brain into a single sound which is perceived as coming from the direction of the first-arriving sound. This is called the "precedence" or Haas effect. (Continued overleaf)

## Notes

<sup>1</sup> Price includes 100-watt/channel amplifier and pair of L10 loudspeakers. Features: selectable bandwidth, voice-canceling reverb, six-channel mode, randomized (between channels) output, front delay mix.

Full-bandwidth output (delayed to 7 kHz with undelayed higher frequencies mixed in). Bass and treble controls. Reverb echo density converges to reduce flutter-echo.

Randomized (between channels) outputs. Optional six-channel or eight-channel operation. Contour (bass boost) control. Front delay mix.

<sup>2</sup> Price includes 25-watt/channel amplifier. Randomized (between channels) outputs. Bass and treble controls.

<sup>3</sup> Price includes 35-watt/channel amplifier and pair of speakers; Model 901 without amplifier and speakers available for \$625. Bandwidth varies from 2 to 7 kHz depending on delay and treble-contour settings.

Output includes short delay with 8-kHz bandwidth mixed with long delay at 3-kHz bandwidth. Includes spring reverberator for long delay (up to 4 seconds).

Variable front delay mix. Direct feed-through for decoded four-channel signals.

<sup>4</sup> In mono; 50 milliseconds in stereo. Variable front delay mix, treble control, optional direct feed-through for decoded four-channel signals. Available as SD 550R with rack-mounting panel.

For automobile/mobile applications. Price includes 7-watt/channel amplifier. Remote control (\$40) optional.

<sup>5</sup> Noise figure not weighted; may include ultrasonic clock leakage. Unit available only as mail-order kit for experienced builders. Direct/delay mixing. Clock has control input for special effects.

## HOW TO DELAY AN AUDIO SIGNAL

**I**n any real acoustic space the reflected ambiance sounds arrive at the listener's ear slightly later than the direct sounds from the stage. In electronically recreating the experience of being in an acoustic space, we cannot delay an electronic signal by reducing its speed; in electronics, signals usually travel through a circuit at the speed of light or they don't travel at all. So we must stop each signal, "quick-freeze" and store it briefly, and then release it without altering its character or quality. Two quite different means of accomplishing this became available to audio designers at about the same time. One involves digital circuitry; the other, more-or-less unconventional analog circuits.

● **Digital:** This operation is accomplished by encoding the audio signal into digital form (that is, into a series of pulses and "non-pulses"). The audio signal itself is not delayed—only the pulses, which contain a coded representation of the audio signal. Either of two coding techniques may be used. In PCM (pulse-code modulation), groups of pulses and non-pulses comprise binary numbers (made up of 1's and 0's) expressing the amplitude of the audio waveform voltage from instant to instant. In DM (delta modulation), pulses are produced in a continuous series rather than in groups, and the order of the pulses represents the moment-to-moment changes in the audio-waveform voltage.

In either case, the resulting pulses are fed into a "memory"—digital storage cells like those used in computers. Here, either of two kinds of storage may be used. In the first type, a "serial shift register," the cells are lined up in a row; each pulse enters the first cell, is then shifted into the second cell while another pulse enters the first, and so on. Since the cells are connected in series, the pulses emerge from the last cell in the same order as they entered the first. The second type of digital storage is the "random-access memory"; as its name implies, the RAM gives the designer greater flexibility, since pulses can be retrieved from any cell. When the pulses emerge from the digital memory, they go through a digital-to-analog converter that re-creates the audio signal.

● **Analog:** This approach employs an integrated-circuit device specifically designed for signal-delay purposes: it is called an "analog shift register" or, more familiarly, a "bucket brigade." Instead of sending a digital pulse code into a memory as a representation of the audio, in this approach the audio signal itself is chopped into fine bits which are fed through a serial shift register. When the bits emerge at the other end they are reassembled into the audio waveform.

In essence, a bucket-brigade IC consists of hundreds of tiny capacitors func-

tioning as storage cells for small packets of electronic charge. Beyond that, operation is basically that of a serial shift register (see above)—or like a row of firefighters handing buckets of water down the line to the fire.

**I**n both analog and digital delay lines, the length of the delay is determined by two factors: (1) the number of storage cells in the memory and (2) the speed of the electronic "clock" that moves signals from cell to cell. In some time-delay units a front-panel control enables the clock speed to be varied to change the delay times; in other designs, output taps at various points in the memory provide a selection of delays.

The cell-to-cell signal transfer is not perfect; with each shift a bit of signal is lost. Thus, a potential problem is that frequency response and signal-to-noise ratio may be noticeably poorer as the delay length is increased. In a digital delay line, imperfections in the pulses don't matter; as long as the pattern of the pulses is recognizable, the decoder will reconstruct the whole audio signal with the same quality at all delay lengths. (Of course this advantage in the digital approach may be offset if limitations in the decoder add noise or distortion to all of the reconstructed signals.) Thus, in both analog and digital circuits, canny engi-



neering is required in order to obtain audibly good results, and "compander" noise-reduction systems essentially similar in principle to the Dolby B technique are therefore normally built into consumer time-delay devices, adding that much more to their complexity.

This complexity is one of the reasons that any hopes for dramatic decreases in the prices of time-delay units are probably unjustified for the foreseeable future. The technology required to make a complete time-delay unit in one integrated circuit (IC) is still at least several years away from being perfected. A typical digital delay line may use as many as thirty IC's for its memory alone, and additional IC's will be required for the digital converters, the electronic "clock," and the analog audio circuits, plus whatever noise reduction is employed.



# ...TIME DELAY

are at least partially reflective. The live-performance environment therefore bathes the audience area in reflections from almost every direction and available surface—walls, balconies, columns, ceiling, and even the floor. Depending on the reflectivity of these surfaces, the sound may stay alive in the air, bouncing from reflective surface to surface, for as long as a second or more before the reverberations fade away into inaudibility.

Two important differences distinguish reflected sounds from direct

sounds: (1) reflected sounds arrive at the listener's ear from all directions—from the sides, from above, and from behind—while direct sounds arrive only from in front; (2) direct sounds arrive at the listener's ear first, while reflected sounds arrive after delays of some milliseconds. Sound travels through air at a speed of approximately one foot per millisecond (0.001 second), so a reflected sound which travels an extra distance of, say, 20 feet arrives approximately 20 milliseconds later than a direct sound. Both of these characteristics relate to a special aspect of human hearing and affect our perception of sound.

How does the ear respond to the arrival of direct and reflected sounds from differing directions? In controlled

experiments listeners have been exposed to a primary sound in front plus secondary sounds arriving from various angles—in front, from the sides, and from behind. The figure on page 91 (box) shows how strong a secondary sound has to be in various locations in order to be audible over the primary sound coming from the front. Those arrivals from in front or in back of a listener must be nearly as strong as the direct primary sound or they will be "masked." But if the secondary sound arrives from any direction to the sides of the listener, it can be quite weak and still be audible. Therefore, when we hear live music in any acoustical environment, the front-to-back reflections are largely masked by the direct sound from the stage, but the many lateral re-

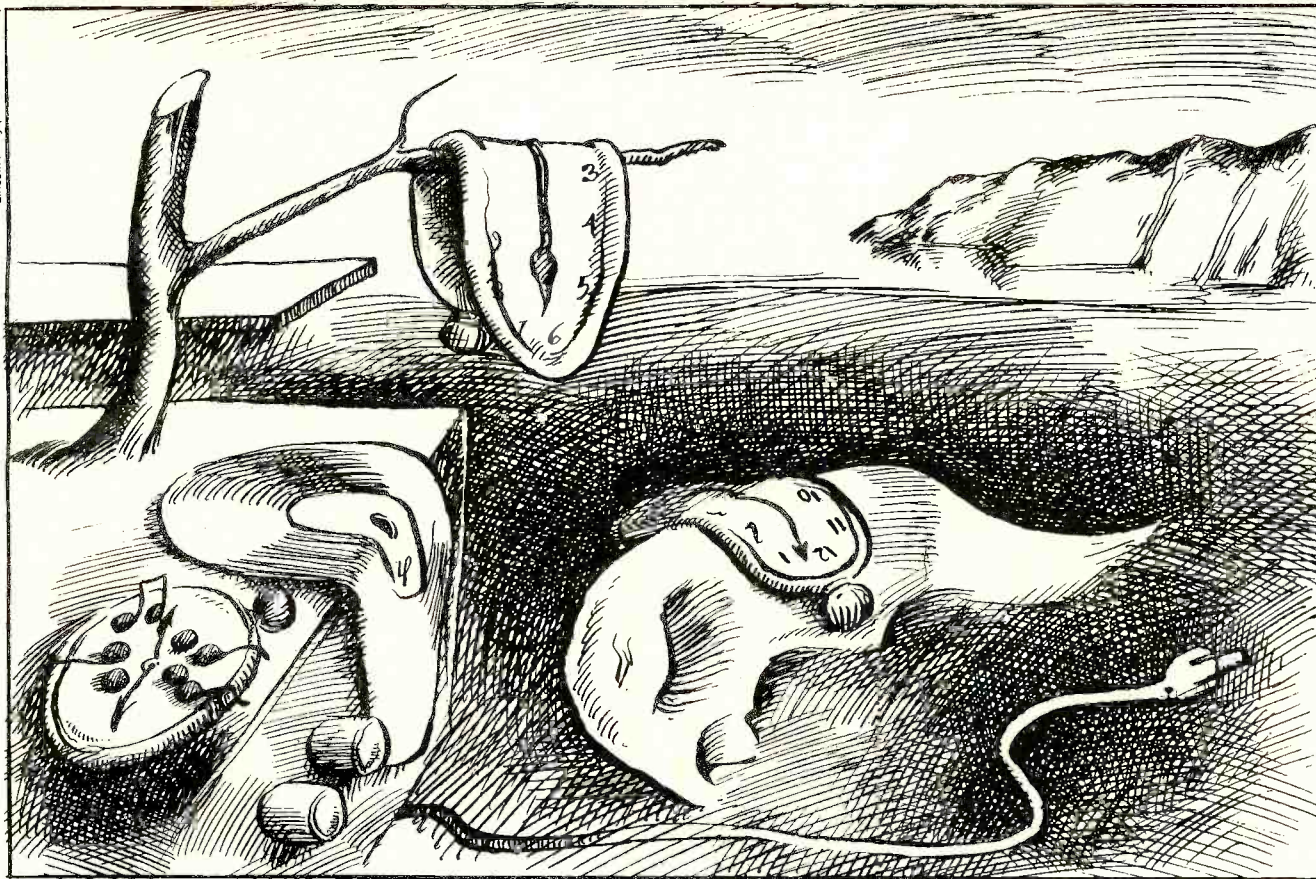
## CONSUMER AUDIO TIME-DELAY SYSTEMS

Manufacturer	Model Name or Number	Advertised Price*	Type of Circuit	Longest Initial Delay, milliseconds	Dynamic Range or Weighted S/N Ratio, dB	Bandwidth, kHz	Number of Initial Delays†	Reverberation Density
Analog & Digital Systems, Wilmington, Mass. 01887	ADS 10 Acoustic Dimension Synthesizer	\$995 <sup>1</sup>	Delta mod. with shift registers	100	80	13	3	High
Advent Corp., Cambridge, Mass. 02139	Model 500 SoundSpace Control	\$600	PCM with RAM	99	80	See note	2	High
Audio/Pulse, Inc., Div. Gould, Inc., El Monte, Calif. 91731	Model One	\$700	Delta mod. with shift registers	94	65	8	4	High
	Model Two	\$540 <sup>2</sup>	Delta mod. with RAM	94	80	10	3	Medium
Bozak, Inc., Norwalk, Conn. 06854	Model 902	\$975 <sup>3</sup>	Bucket brigade	120	70	See note	1	Low
Phase Linear Corp., Lynnwood, Wash. 98036	Model 6000	\$600	Bucket brigade	90	88	See note	2	Medium
Scientific Audio Electronics, Inc. (SAE), Los Angeles, Calif. 90012	Model 4100	\$500	Bucket brigade	50	60	5	3	Medium
Sound Concepts, Inc., Brookline, Mass. 02146	SD-550	\$675	Bucket brigade	100 <sup>4</sup>	90	9	1	Low
	Concert Machine	\$300	Bucket brigade	70	64	6	1	Low
Southwest Technical Products Corp., San Antonio, Texas 78216	2AS/A	\$250 (kit)	Bucket brigade	100	48 <sup>5</sup>	5.5	3	Medium

\*Except where specified, prices include only the delay unit; a second pair of speakers and stereo amplifier are required, typically raising the system cost by \$200 to \$400.

†Provision of multiple initial delays maintains Haas-effect fusion with long delay and increases echo density in the reverberation.





In the continuing search for the perfect “you are there” sound experience, audio designers’ attentions now turn to

# TIME-DELAY SYSTEMS

**O**VER the last two years a new category of audio component has appeared on the market: the time-delay system. First introduced by Sound Concepts and Audio/Pulse, it immediately won wide acceptance among advanced audiophiles. Six more manufacturers have now introduced time-delay units, and more may enter the field in months to come.

What is the purpose of delaying an audio signal? How does such delay improve the fidelity of reproduced musical sound—if, in fact, it does? How do time-delay units work? How do you use them? What are the principal differences between the various units on the market? Though none of these questions have short answers, it is possible to develop a rough understanding of what time delay is designed to do and

how it does it through a comparatively brief examination of the subject.

## The Underlying Theory

It is sometimes supposed that the objective of high fidelity is to “bring the musicians into the listening room,” and, indeed, there are some kinds of music with which this would be appropriate: a solo folk singer, a string quartet, or a piano, if reproduced perfectly, would sound right at home in the living room. But a symphony orchestra, a rock band, a pipe organ, or a Handelian chorus would not. Even if you could fit

such sound sources into a normal-size living room physically, they would not *sound* good there. The pleasure we take in hearing these sound sources depends critically on the acoustical character of the environments in which we hear them. So, in reproducing these kinds of music, the objective is to create the illusion that the listener is present in the environment where the music is taking place—in a nightclub with a jazz combo, in a concert hall with an orchestra, in a cathedral with a pipe organ and chorus.

When you hear live music—whether in a nightclub or a concert hall—only a small part of the sound comes *directly* from the stage to you. Most of it goes everywhere else—toward the stage paneling, up to the ceiling, out to the walls of the hall—and these surfaces

By Peter W. Mitchell



**In 20 Years of Sound There's Been Nothing Like Our Programmable  
Digital Time Delay Computer.**

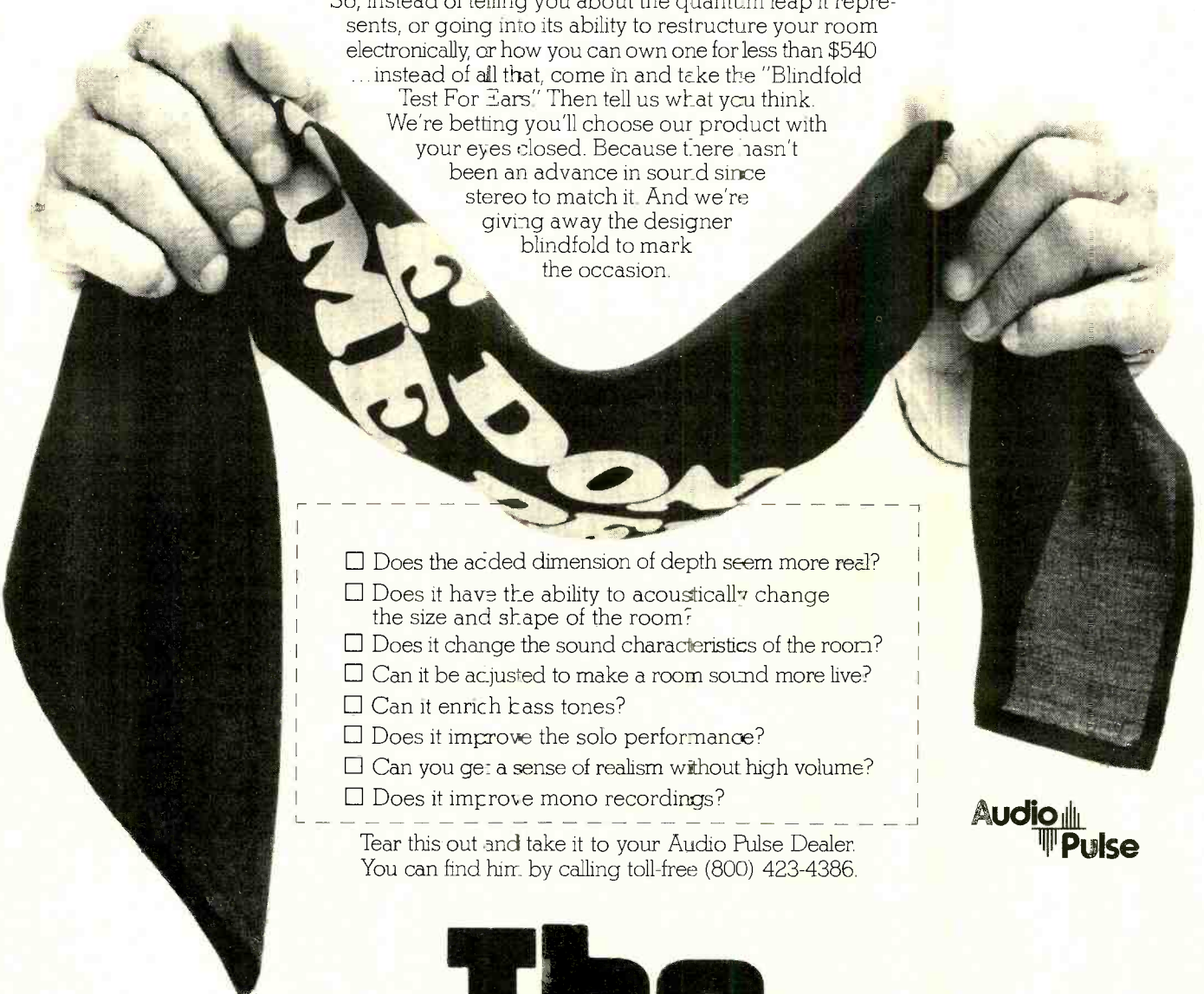
When Audio Pulse introduced the first digital time delay, people could hardly believe their ears. The computer system restored a convincing "concert hall" ambience to recorded music.

Now that we've introduced the remarkable Model Two, with its built-in amplifier and affordable price, we're even more convinced that you must hear it.

So, instead of telling you about the quantum leap it represents, or going into its ability to restructure your room electronically, or how you can own one for less than \$540

... instead of all that, come in and take the "Blindfold Test For Ears." Then tell us what you think.

We're betting you'll choose our product with your eyes closed. Because there hasn't been an advance in sound since stereo to match it. And we're giving away the designer blindfold to mark the occasion.

- 
- Does the added dimension of depth seem more real?
  - Does it have the ability to acoustically change the size and shape of the room?
  - Does it change the sound characteristics of the room?
  - Can it be adjusted to make a room sound more live?
  - Can it enrich bass tones?
  - Does it improve the solo performance?
  - Can you get a sense of realism without high volume?
  - Does it improve mono recordings?

Tear this out and take it to your Audio Pulse Dealer.  
You can find him by calling toll-free (800) 423-4386.

**Audio**  **Pulse**

# The Blindfold Test For Ears



parison somewhat sharpened by the fact that he has lost a lot of weight in the last two or three years. He talks about himself with a mixture of deprecation and a tremendous, natural egotism. He is laid-back, extraordinarily adroit and versatile in his field, and very much a New York City product.

A typical Allenesque incident which dramatizes Hamlish's adroitness and found him *literally* laid-back occurred about two years ago. Hamlish had written a score for *The Entertainer*, a show starring Ray Bolger to be broadcast here on NBC and also in England and Australia. Bolger was required to sing and accompany himself on the piano in one scene. Although the scene had been well rehearsed, he got last-minute cold feet during the taping. Not trusting his own pianistic abilities, Bolger refused to play. With no second piano available to be played off stage, and with time as usual a precious commodity, Hamlish came up with a clever but kinky solution. He stretched out on the floor beneath the piano and reached up to the keyboard, managing to play from this position flat on his back. Bolger, seated at the piano the while, mimed the hand motions and sang while the camera was maneuvered to film the scene leaving Hamlish out.

**M**ARVIN HAMLISCH started early as a child prodigy who entered Juilliard at the age of seven and spent eleven years there. He had—and still has—the kind of natural musicality that retains everything and recapitulates it all on demand; hence his chameleon-like musical nature, or, if you prefer, that tape-recorder brain. His classical training from Juilliard did not really take, because Hamlish's nervous temperament did not suit him to become a performer of other people's music. His own preference in music was, from an early age, pop, and his plunge into the business resembled the career of a Tin Pan Alley composer of fifty years ago.

After he left Juilliard, he took a degree at Queens College in New York, where he studied theory and modern music, but his heart was elsewhere. At sixteen he wrote a hit song for Lesley Gore; at eighteen he was the rehearsal pianist for the *Bell Telephone Hour* and arranger for a Broadway turkey by the name of *Henry Sweet Henry*. (The director was George Roy Hill, later director of *The Sting*, and the choreographer was Michael Bennett, later the creator of *A Chorus Line*.)

The real break came when Hamlish played for a penthouse party given by Sam Spiegel—a gig he almost turned down. Spiegel liked the way he played

*Blue Moon* and agreed to audition a song of Hamlish's for the theme of a new Burt Lancaster movie. He liked it and hired him to write the score. Hamlish moved with quick and easy success into the Hollywood film scene and wrote a succession of scores, including those of two Woody Allen films—plus *The Way We Were* and *The Sting*, the last two earning him Academy Awards.

*The Sting* is a slightly ticklish subject since Hamlish won the award for a score that was not strictly original, but an adaptation of the music of Scott Joplin, which was at the time making a long-delayed and richly deserved comeback. Hamlish defends himself by arguing that he has always given Joplin due credit. *A Chorus Line* followed and then the hit song from *The Spy Who Loved Me*. "Nothing like a movie to create an instant musical smash," he says.

**W**ILL he go back to the theater? Of course, and soon. Hamlish and good friend and lyricist Carole Bayer Sager are collaborating on the score for a new show written by Broadway's darling, Neil Simon. Called, appropriately enough, *They're Playing Our Song*, the musical is directed by Robert Moore and will open in February, about the same time Hamlish's new album should appear.

How about the movies? Of course. He's working on a soundtrack for *Ice Castles*, a film about an ice skater. It provides lots of musical opportunities, almost like a ballet—and of course Hamlish would like to compose one of those some day too. He's also providing the music for the upcoming film version of the long-running Broadway comedy *Same Time Next Year*.

Finding himself with time to spare despite all this film, theater, and recording activity, Hamlish recently took on a monumental task. Not only did he perform with the Los Angeles Philharmonic for two evenings in early September, but he also conducted and arranged the entire program. The first half of each concert was in the "Hamlish's Greatest Hits" format, while the second featured material from his upcoming album.

He would like to write more for theater, but the logistics and economics of the contemporary musical theater make it impossible.

"When you do film scores, you do one after the other. That's good, because if you're a writer, you want to write. I would like to have been around in the old days of Arlen, Gershwin, and Porter; they would do one or two shows a year plus write for revues. Look at me—I have a hit show and then I have to wait three years for another crack at it. When you wait so long, the pressure on the next one really builds up, and that's not good."

**H**AMLISCH takes justifiable pride in his versatility. He sees himself as a kind of musical technician who can turn out anything as required and, furthermore, turn it into instant gold. He even boasts of his ability to—dread word—*compromise*; that is, to shape any idea of his own into exactly what is needed. And yet, underneath he has a very definite image of himself as an old-fashioned pop-song romantic.

"I believe," he says with more than a trace of fervor, "in making people cry, in strong melody, in the old changes. Some people think G7 to C is horrendous, passé. I think G7 to C can be wonderful." His method is simple: write a strong, traditional melody and then give it a contemporary beat. The beat gets it on the radio and out to the millions; the strong, traditional underpinnings give it—or so he hopes—a chance for longevity.

"You see," he confides, "I really want to write *standards*, not just the hit of the moment." □



New York, March 1, 1975: A backstage autograph session at New York City's Uris Theater where Hamlish picked up two Grammy awards.



# MARVIN HAMLISCH

What has Hollywood's  
first real superstar  
composer been up to lately?

By Eric Salzman

Los Angeles, April 9, 1974: Debbie and Cher flank Marvin at the Motion Picture Academy Awards to congratulate him on his three Oscars—one for the song *The Way We Were*, the others for the complete scores for *The Sting* and *The Way We Were*.



Wide World Photos

**M**ARVIN HAMLISCH describes himself alternately as a chameleon and as a cassette tape recorder. Like the chameleon, which changes color according to its environment, and like the recorder, which changes its program each time a new cassette is popped in, Hamlisch is equally at home with and individually responsive to whatever environment he finds himself in, whether it is film, theater, or the recording studio. He is, of course, the adaptor of Scott Joplin rags for the soundtrack of *The Sting*, the composer of the award-winning Broadway musical *A Chorus Line*, the tunesmith on Carly Simon's pop hit *Nobody Does It Better* from the last James Bond film thriller and on Barbra Streisand's smash title song from *The Way We Were*. He is also the author of several major background scores. Marvin Hamlisch is therefore Hollywood's first real superstar composer—but he lives in New York. Although he spends a good deal of working time in California, he makes frequent trips back to the East Coast. He explained why when I talked to him in his Manhattan apartment recently.

"Of course I have to come back. I live here. Anyway, the Yankees are losing; the Yankees need me."

At thirty-three, Hamlisch has scaled some heights, but he has not yet conquered *all* the peaks. Up until now he has written for some outstanding performing talents, Streisand, Simon, and Liza Minnelli among them. Now he is busy writing for a new and largely unknown singing talent: himself. He makes no claims for his vocal abilities, but, voice or no voice, he is putting together a solo album for Elektra. It is tentatively titled "How Do You Know When You Get There" and is scheduled for release in February.

"When I hit it big in the movies, I wanted to go back to my first love, the theater. When I hit it big in the theater, well, it was natural for me to want to do a club act and to go into the recording studio. Some of the best performing artists today do only their own material, so I can't write for them. I've done a good deal of club work by myself as well as with others. It's natural to be a singer/songwriter today."

**H**AMLISCH muses about the media. "You can do the most tremendous scoring for films but it's the title song that counts. Film is unlike the theater, where you don't need a hit song to be successful. Writing a hit song gives instant gratification, instant celebrity—

around the world in three months and all that. I love it, but I don't know if the rewards are everything they're cracked up to be. Musical shows have longevity; a good show goes on in music history forever. Writing for the theater is also artistically satisfying even though it's not really your show, you're not really in total artistic command. A good theater composer is always working toward the total success of the show, he's not just on his own musical trip." Was he talking specifically about *A Chorus Line*—a successful show that, nevertheless, lacked a real hit song?

"Shows don't have hit songs much any more because show music usually doesn't have that strong rhythm which will get the music onto the pop stations; rock is just not a really theatrical rhythm. Also, you can't do in the pit what you can do in the modern recording studio—you can't get that sound."

In the theater, he works from a concept—"what the song will do for us, what the theatrical context will be." In a non-theatrical situation, he usually works from a single line—the title or refrain. In both cases, his lyricists fill in the words to the music that Hamlisch has written around the basic idea.

Hamlisch might be described as a kind of musical Woody Allen, a com-





Technics' EAH-830 headphones



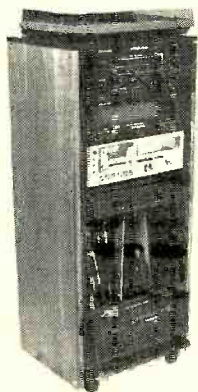
In-dash KE-2000 from Pioneer



The Marantz CAR-420 "CompuTuner"



JVC's LK-500 "MusicTower"



A basic rack from Intrra

five FM and five AM stations—a total of ten—and a conventional-appearing tuning dial that employs thirty-two LED's instead of a dial pointer. There is also a built-in cassette player. Other new POA products are the \$250 KPX-9000 "Supertuner," also with cassette player; the similar \$180 KPX-600 "Supertuner"; two new cassette players, the \$140 KP-88G and \$120 DP-66G, the former with Dolby noise reduction; and a host of new car speakers, including several three-way designs. The "Supertuners" and cassette players are designed to be used with separate Pioneer power amplifiers.

ADS has a new car speaker, the two-way 300C, which is an adaptation of its very compact Model 300 home speaker. Price is \$150. Clarion has a 6 x 9-inch car woofer, the SK-103 (\$150 per pair), with an outboard mid-range and tweeter. A somewhat smaller companion model is planned at \$130. Additional new Clarion products include a cassette-player/receiver (Model PE-751A, \$340) with such features as auto reverse and Dolby noise reduction, a new power-booster/equalizer, and several under-dash radio, cassette, and eight-track products. J.I.L. is similarly into cassette and eight-track, with seven new in-dash radio/tape combinations, two of which have digital readouts and memory features.

The "Linear-Drive" headphone series from Technics makes use of a new rectangular film-diaphragm driver and is said to employ special acoustical compensation. The three models are the EAH-810, the EAH-820, and the EAH-830; prices are \$40, \$60, and \$80. Audio-Technica's ATH-1 "Gram Cracker" headset (\$30) weighs in at just 4¾ ounces. It is a dynamic non-isolating design with "supra-aural" cushions. Analogue's AH-500, a two-way headphone, is supplemented by two less elaborate models, the AH-400 and AH-300.

The Nagaoka line of record-care products from Osawa is quite extensive, featuring an adhesive roller to clean discs as well as a variety of sprays, brushes, adjustment aids, and tape-care items. At \$10, Sound Guard's Stylus Care Kit is said to provide virtually everything needed for stylus care, including cleaning fluid, brushes, a device to blow away debris accumulations, and a magnifying glass. Empire has added to its "Audio Groome" line with an antistatic record mat, stylus cleaning fluid, a low-mass carbon-fiber headshell (\$15), and connecting cables with gold-plated plugs (\$11). A fifth Empire product, Disco Film, is applied to the record from its applicator container, allowed to set, and then peeled off, taking dirt and other contaminants with it! It's startling to watch in use. Audio-Technica's latest record-care item is the AT6012 "Sonic Broom" (\$11), a fine-fiber cleaning pad with a reservoir in the handle to contain and dispense cleaning fluid. And a Discwasher product has nothing to do with records; it's an air mattress in the shape of a bottle of Discwasher fluid, and it comes free with the purchase of the company's DiscKit.

The Decca Microbe, a pivoting assembly with several brushes that mounts on the front of a cartridge, discharges static, cleans the record, cleans the stylus, and protects both from accidental damage.

Equipment racks and other storage sys-

tems busted out all over again this June. JVC stepped in with five new models, four in a vertical format and one horizontal; one of them, the LK-1000, has a lockable glass door. The SAE R-1 (\$200) and R-2 (\$240) are all-steel vertically oriented racks on casters with standard EIA vertical spacing for equipment-mounting hardware. This manufacturer also offers stackable rack assemblies for its components as well as a cassette-storage rack.

Intrra makes an attractive 19-inch rack with walnut side panels and a choice of fastener schemes. Levitation Systems bases its approach to components on a vertical pole stand to which brackets can be bolted at any height and spacing. A wide variety of accessories can be added to the basic system. Amstrad's SR 301 houses that manufacturer's equipment in a vertical wood compartment complex available in vinyl finishes of walnut, teak, and black. And the Gusdorf line of fine-furniture units for audio components goes on and on.

## Addenda

Finally, we'd like to fill in a few omissions from last month's coverage. Teac has initiated a line of electronics with two integrated amplifiers, the 50-watt AS-M50 and the 30-watt AS-M30. Black or silver panels will be available, as will rack-mounting facilities. Prices are under \$300 and under \$200, respectively. A pair of matching tuners is also planned.

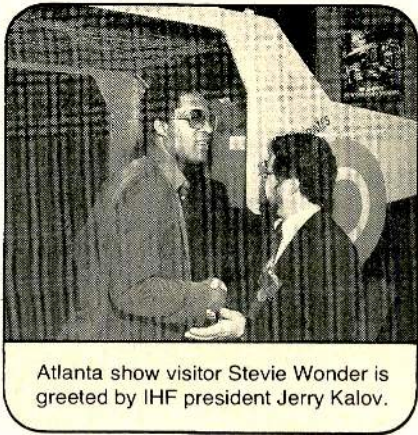
Burwen's Remote Variable Field Equalizer operates in six bands per channel and is a hand-held unit connected by a 20-foot cable to a "base-station" module incorporated into the audio system itself. Adjustments of up to ±44 dB are possible at the frequency extremes. Lux has made some significant additions to its Laboratory Standard Series, including a tuner, an integrated amplifier, a preamplifier, an equalizer, and stereo and mono power amplifiers. And Bose now has a relatively modest receiver and a turntable as part of the Model 360 prepackaged component system.

So there it all is for another busy year, awaiting delivery to your local audio emporium—which reminds me to add that a product's appearance at a trade show is no necessary guarantee of its immediate availability. Prototype designs can present problems in the production stages, suppliers can lag on the delivery of necessary parts, or dealer reaction can, on occasion, be too tepid to justify actual introduction of a product. There may therefore be a little wait before you see some of the products mentioned above "in the flesh." Please do not upbraid us for any such tardiness or hound us for additional information. Further news about a given product's market destiny will be passed on to you in our New Products pages as we receive it.

As usual, we are making available a list of addresses of manufacturers mentioned in this report. A stamped, self-addressed long envelope sent to Stereo Review, Dept. CES, One Park Avenue, New York, N.Y. 10016 will bring it to your mailbox. Peace and undistorted sound be with you. □



## New Products...



Atlanta show visitor Stevie Wonder is greeted by IHF president Jerry Kalov.

The Sansui version is a stereo speaker system with two small drivers mounted left and right on the front panel. The Ultralinear is a mono system with a pair of 4½-inch woofers and a central 1-inch soft-dome tweeter.

Synergistics' innovation for this year is the S-92 "three-piece" speaker system, consisting of a bass commode containing two 12-inch woofers and a pair of shallow panels with 4½-inch mid-ranges and film-diaphragm dynamic tweeters in a vertical array. Price is nominally \$2,500 for the ensemble. The most modest of the Audioanalyst "PhaseMatrix" systems, the M2, is also becoming available at \$139. Its small size invites car installation. Audioanalyst will also be offering a subwoofer, the "BassMatrix," at \$249. Cizek already has a subwoofer, the MG-27 (\$295), which can be used with an electronic crossover or the internal passive crossover supplied. Two separately enclosed 10-inch woofers are employed.

The two-way, air-suspension Euro 5 is the first of an emerging new line of Visonik speaker systems; it carries a price of \$170. RTR's pyramid-shape PS/1 is called a "satellite" speaker system. This three-way design (8-inch woofer) is strongly recommended for use with the DAC/1 subwoofer with a response down to 16 Hz. "The Reference" is Hartley's most recent loudspeaker design, incorporating that manufacturer's formidable 24-inch woofer together with mid-range, tweeter, and super-tweeter drivers. And on the subject of tweeters, Burhoe Acoustics announces a new 1-inch unit with a compound-curve diaphragm and response rigorously specified up to 25,000 Hz. Presumably it will find wide employment in the various Burhoe designs.

CES gave the world its first look at the B&W DM2/II, a redesign of a highly successful earlier B&W model. The present system is three-way and supplied with an acoustically beneficial pedestal. Cerwin-Vega has a new truncated-pyramid multi-way system with a highly unusual looking hemispherical woofer diaphragm. It works well—and very loudly—with a new 18-inch double-spider subwoofer that has a stationary central dust cap. The Jennings Research Group has no fewer than thirteen models in its line. A somewhat smaller line of three

models from BlackMax also includes the M5001 automotive two-way system. The BlackMax woofers have voice-coil bobbins of "polyimid," a transparent synthetic material created by duPont that is said to be exceptionally temperature-resistant.

Qysonic is a relatively new company offering a series of column speakers with plenty of high-frequency sparkle. Acoustat has been around long enough to enter into a second generation of products, which it has with the Monitor, a large, full-range electrostatic with its own built-in amplifier that drives the electrostatic elements directly without an intervening step-up transformer. The existing Acoustat X can be converted into a Monitor with a factory-available kit. Associated Sound is a very new company marketing the "Mr. Johnson" loudspeakers, top model of which is the Pentagon (\$265), a multidirectional system designed to be used with either of two subwoofers priced at \$275 and \$325.

The Metronome, another speaker system in the pyramid configuration, has undergone further modification and is now recommended for use with sophisticated add-on aluminum-ribbon tweeters selling for \$990 the pair. Another unusual loudspeaker, manufactured by Beta Sound, is an acoustic-labyrinth design available in two versions, the 075 and the larger 1001 B, both in rather handsome cabinets integrated with large mid-range horns. The Point 3 System is a three-piece ensemble with a woofer commode that can serve as a coffee table.

PSB is a Canadian outfit aiming at the production of essentially conventional systems affording high performance for the money. Model designations (Avanté II, Passif II, etc.) are imaginative, and the line includes a mobile-applications system, the Alpha (\$220 per pair). Other prices (per pair) range from \$340 to \$990. The new GLE Series of three two-way and three three-way systems is the latest news from Canton. Emanation, a young New England company, has four "residential" speaker systems on its roster and two "commercial" designs with generally higher power-handling ability. Sound Dynamics, meanwhile, will shortly be adding the Model 2183, described as a professional monitor system, with a price of \$1,500. The consumer speaker line from TSS is now led by the T-4000 (\$319), a two-way column design employing a 6-foot transmission line for its 8-inch woofer.

In its more elaborate designs, Analogue favors separate modules for its mid- and high-frequency drivers. In the new AL-6 and AL-7 these drivers are film-diaphragm dynamic units, and they are mounted in a curved screen supported above the woofer cabinet by a pole. Fulton Musical Industries favors speaker systems that use its FMI 80 as a mid-range/tweeter module, as does the new B Modular System, with two 8-inch woofers to provide the lowest frequencies.

AAL now has a mini speaker, the Micro 100, using a 4-inch woofer and a 1-inch dome tweeter in an aluminum cabinet. LTC continues with its Neoprene-loaded woofer that deliberately attenuates mid-range output while enhancing deep-bass response. The line is now three models strong, including a "tower" system, the \$340 Model 100. Showco, a company that has spent most of

its operating life in the commercial sound field, now also has a tower speaker for home use, the Pyramid S-200, with a downward-firing woofer and other drivers placed in various locations about the 42½-inch-high enclosure. The Clarke systems from New England Audio Associates comprise two models, the Prelude and the Precedent, with 8- and 12-inch woofers, respectively, and cabinet finishes of wormy chestnut.

While there are certainly enough domestic speaker systems to contend with, the invasion of overseas models continues with increased intensity. Ramko, an Israeli company, already has an extensive line of (mostly ported) loudspeakers, and it has announced its intention to create new designs to suit the preferences of the national and even regional U.S. market. The Unitra loudspeakers, including the three-way ZG-60 and ZG-40 (the latter with a 10-inch passive radiator), are products from Poland, the Hungarian Videoton continues to show an extensive line that includes some remarkable values, and the British are still coming. JR Loudspeakers arrived with the LPA subwoofer, presumably to be used with the diminutive JR 149 "cylindrical" full-range systems. Mordant-Short brought the new "Signifier" [sic] system, a three-way design. Celestion has been here for some time and now seems firmly entrenched with its six Ditton models. Amstrad is swarming up the beaches with the two-way Acoustra 1500 and 2500 and the three-way EX.300. H/H Acoustics has numerous high-quality raw drivers to purvey, all of them basically woofer and mid-range devices (appropriately, the "Invader" series is prominent). And another British company called Moonlight Electronics has produced a handsome brochure that tells absolutely nothing about their remarkably styled speaker products except to say that they photograph well (they do) and that the company repudiates all conventional specifications.

## Accessories

If the various digital demonstrations overwhelmed the shows with quality, the mobile stereo equipment did the same with quantity. Marantz has entered this market in a big way, leading off with two versions of the CompuTuner, Models CAR-420 and CAR-410, microprocessor-equipped automobile receivers with digital readout for station frequency (which also functions as a clock), six preset stations that can be stored in the microprocessor memory, and built-in cassette players. A pair of similar units without microprocessor features is also available, together with an extensive line of car speakers.

Jensen's car receivers, consisting of three models with cassette players and three more with eight-track facilities, all have Dolby-B noise reduction that functions for tape and for Dolbyized FM broadcasts. Four of the receivers can be switched into biamp operation, and the two top-of-the-line models for the respective tape formats include separately housed power amplifiers. Jensen's prices range from \$300 to \$470.

Pioneer of America's KE-2000 (\$270) also has memory features capable of presetting



mid-range and a 1¾-inch cone tweeter. Kenwood's LS-Series-B line is new, with four ported models employing woofers ranging in size from 12 to 8 inches in three- and two-way configurations. Prices range from \$300 each to \$235 the pair. Pioneer also has new ported systems, the two-way Project 80 and the three-way Project 120.

An interesting new subwoofer has been made a part of the Audio Pro line of Swedish-made audio products from Intersearch. A built-in 150-watt amplifier presents the subwoofer's two 7-inch drivers with a complex source impedance (with certain of its characteristics adjustable) that is able to electrically simulate the addition of mass and mechanical damping to the drivers as required. The result is said to be an unusually compact subwoofer with response and reasonable sensitivity down to 20 Hz. Price is \$695, which includes the crossover necessary to join the subwoofer to existing full-range systems. Intersearch also offers their own full-range systems at prices from \$157 to \$295.

The Transar/atd from ESS has acquired a new amplifier to drive its remarkable low-frequency transducer and also to adjust its relative output in 1-dB steps. Among several new developments at JBL is the L220 system, the company's first phase-aligned product. The necessary alignment of the various drivers' acoustic centers has been accomplished by acoustical loading devices, so that the undesired effects from irregular speaker-mounting surfaces are said to have been eliminated. JBL also has a new, inexpensive two-way design, the L19, together with a program under which its professional studio monitors will be marketed by consumer audio dealers.

Exotic cabinet shapes are meeting with favor amongst some major speaker manufacturers this year. The Epicure "Trilogy" is a three-way design with a 10-inch woofer

housed in a narrow truncated pyramid. The new Ohm I is similar in shape, with five drivers mounted either on the top or the frontal surfaces and a price of \$475. Design Acoustics' D-12 "Dodecahedron" speaker has given way to the D-12A, again with a symmetrical twelve-sided enclosure, but now with an even greater variety of drivers (two 8-inch woofers, two 5-inch cone mid-ranges, one 1½-inch dome mid-range, three 1½-inch cone tweeters, and two 1-inch dome tweeters) positioned irregularly but strategically on its various external surfaces. Hemispherical or spherical dispersion can be selected. The Shahinian "Obelisk" has now gone into production. It features an 8-inch woofer, a 10-inch passive radiator, and three 1-inch dome tweeters in its internally complex enclosure (externally it does resemble a squat obelisk with vertical sides).

Phase coherence is still the byword at Technics, which has now prepared its large systems—including the SB-E200 and SB-E100—with horn-loaded mid-ranges and tweeters for introduction to the market, and also added some phase-coherent ported bookshelf systems—the three-way Models SB-X50 and SB-X30 and the two-way SB-X10—at prices of \$500 to \$200 the pair.

B.I.C. has just established a loudspeaker line outside the Venturi series. The new designs, consisting of the Models 66 (\$269), 44 (\$179), 22 (\$135), and the two-way Model 11 (\$85), are all air suspension and have as their object the achievement of moderately high efficiency together with extended, uniform frequency response.

Small speakers continue in vogue. Yamaha's two-way NS-10M "Mini-Monitor" has a 7-inch woofer in a true bookshelf-size cabinet and a price of \$130. The JVC S-M3, another two-way, has a 4-inch woofer, a 1-inch dome tweeter, and a price of \$160 per pair. The Hitachi HS-1 (\$100) goes to a 4½-inch woofer in a sealed enclosure. Akai's

SW-7 (\$145 per pair) has a horn tweeter together with a 5-inch woofer and no grille except for a perforated metal screen over the woofer, and Aiwa's SC-47E employs a single driver in a ported enclosure. Price: \$90 the pair.

The CM/530 is the latest in the series of "computer optimized" systems from Koss. It has an 8-inch woofer and an 8-inch passive radiator together with a 1-inch dome tweeter. The RH541 is the latest motion-feedback loudspeaker from Philips, equipped with a built-in 30-watt amplifier, a 6-inch woofer, and a 1-inch dome tweeter. It costs under \$200. Mitsubishi has developed a sandwich-construction woofer cone of aluminum honeycomb surrounded by glass fiber. This has led to the production of the 12- and 10-inch drive units used in the new MS-30, MS-20, and MS-10 air-suspension speaker systems, which are three-way (MS-30) and two-way designs.

There have been great changes at ADS, culminating in a Series II encompassing the top-of-the-line Models 710, 810, and 910 (prices are \$280, \$360, and \$660, respectively), and three new two-way models, the 420 (\$109), 520 (\$149), and 620 (\$189). The company also has a plug-in 300-watt bi-amplification module for the 910 Series II in the works.

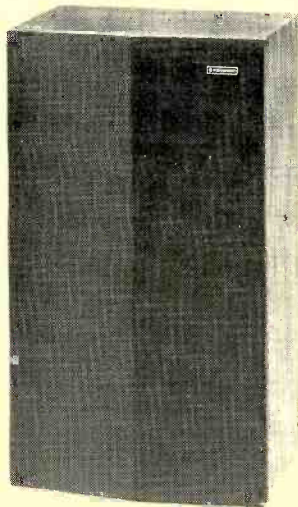
Bozak, now reorganized under new management, has revealed the LS-300 (\$260), with an 8-inch woofer and cone mid-range and tweeter, the first of a new series of phase-coherent loudspeakers. B.E.S., continuing with its line of planar-diaphragm dynamic loudspeakers, has expanded to the two-module D190w (\$599) and the four-module D280w (\$997), which stands a full 76 inches high. The dbx Model 5000 is a subwoofer in a circular ported enclosure that, with its built-in power amplifier, operates from 25 to 100 Hz.

The Chartwell LS3/5A, marketed by Osawa, is called the "Baby Monitor" as a result of its compact dimensions, the largest of which is only 12 inches. Another British design, the Leak 3090, is anything but compact, with a 15-inch woofer in a transmission-line enclosure and an upper sub-cabinet (it swivels) containing three more drivers plus output-level controls. Suggested price is \$870.

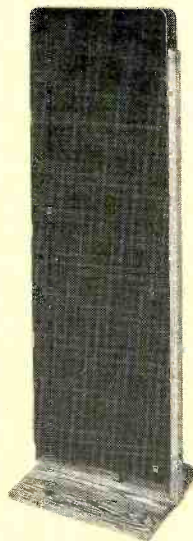
Development of its top-of-the-line Model 330 three-way speaker system has led Avid to redesign much of its existing loudspeaker line to achieve the same goal—an object Avid calls "Minimum Diffraction." The result is five new models, all with specially shaped "couplers" around the mid- (if present) and high-frequency drivers, and all without any raised front-panel surfaces that might serve as secondary reflective sound sources. The specific design goals of Thorens' "Sound Wall" speaker systems, Models HP 308 and HP 360, have resulted in a pair of tall, broad floor-standing units only 4 inches deep. Dynamic drivers in multi-way configurations are reportedly concealed within.

The rack-mountable monitor speaker system is a new concept represented most prominently by Sansui's "Cue Monitor Speaker Ensemble" and Ultralinear's RM-19. Both are black-panel units the approximate size of an integrated amplifier.

The Kenwood LS-408B



The four-module B.E.S. D280w





## New Products...



In Atlanta, Chip Carter (left) and Annette and Jeff Carter (second from right) chat with the IHF's Len Feldman (center) and Jerry Kalov.

limiter to prevent overload on signal peaks. Akai has added one new cassette design, the GXC-706D, with front loading, a glass/crystal-ferrite head, and a price of \$280. The three-head DT-30 from Mitsubishi has some features that parallel those of the more elaborate Aiwa machines, including a two-tone bias-adjust system and automatic switching of the deck into the record mode when the Mitsubishi DP-EC20 record player is used in association with it. A two-head Mitsubishi deck, the DT-10, has a meter calibrated for C-60 and C-90 cassettes that tells the amount of recording time remaining. The meter works by means of an optical system that senses the rotation of the supply hub.

A de luxe cassette deck (Model TA-680D) with a price of about \$700 has been added to the Onkyo line to join the TA-630D introduced just recently. Kenwood's latest cassette decks are both front-loading machines with prices of \$275 (Model KX-630) and \$225 (Model KX-530). JVC appears to have no fewer than ten new cassette machines, ranging from the budget-price KD-10 to the \$530 solenoid-controlled KD-3030, with one of them, the \$360 KD-1636II, being a stereo portable equipped with Super ANRS. A JVC exclusive found on the new \$500 KD-85 is a display of twenty-five LED's that indicate peak recording levels in five different frequency ranges. The SAE TWO line has a cassette deck, the C3D (\$400), with front loading and a solenoid-controlled logic-interlocked transport. Harman Kardon's top model, the hk3500, is a three-head, two-motor deck with an 8,000-Hz oscillator for trimming bias to the tape being used. A pair of two-head machines, the hk2500 and hk1500, have also been introduced by Harman Kardon.

Wireless remote control is now offered on two more Fisher cassette decks, the CR5150 and the \$550 CR5125, both incorporating three heads. The CR5150's remote controller duplicates all transport functions (the CR5125's merely engages and disengages the pause function), and the machine has a large digital clock/timer built in. Also, Fisher remains one of the few manufacturers still actively working in the eight-track cartridge field, marketing a new Dolbyized

deck, the ER8125, and a machine that will handle both cassette and eight-track, the ER8150.

Rotel's new RD-2200 has rows of thirteen LED's to indicate peak levels being fed to the cassette. Optonica's RT-6505 is basically the company's impressive microprocessor cassette deck in black-panel form, with a price of \$370. Lenco will shortly have a new cassette deck, the C 1202, seen at the shows in prototype form and expected to sell for just under \$400. Another Lenco highlight is a new version of the RAC-10 cassette player/changer, this one with switchable Dolby noise reduction and a built-in monitor speaker. Denon's cassette deck, the DR-350, has a specially designed cassette well that promotes accurate alignment of the cassette. Sharp and Philips both have new front-loading machines (Models RT-1157 and N2535, respectively) priced at about \$200. The Sharp deck incorporates the company's "Automatic Program Search System." And among several new machines from England are the strikingly styled Neal 302 Studio Cassette Recorder with three motors and adjustable bias, and the front-loading 7060 and 7070 from Amstrad.

Developments in open-reel include the replacement of Teac's classic four-channel "Simul-Sync" A-3340 with the new \$1,500 A-3440. The new unit has the same general specifications as its predecessor but completely new transport, circuitry, and logic boards as well as a redesigned control layout. At \$800, the new A-2300SR three-motor 7-inch-reel machine is the least expensive auto-reversing deck in the Teac line; the \$1,050 A-3300SR is the corresponding model with 10½-inch reels. Finally, the A-6100 MK II is an improved version of Teac's half-track machine intended particularly for mix-down operations.

Tandberg's impressive new TD 20 A, a 10½-inch-reel machine (\$1,200), incorpo-

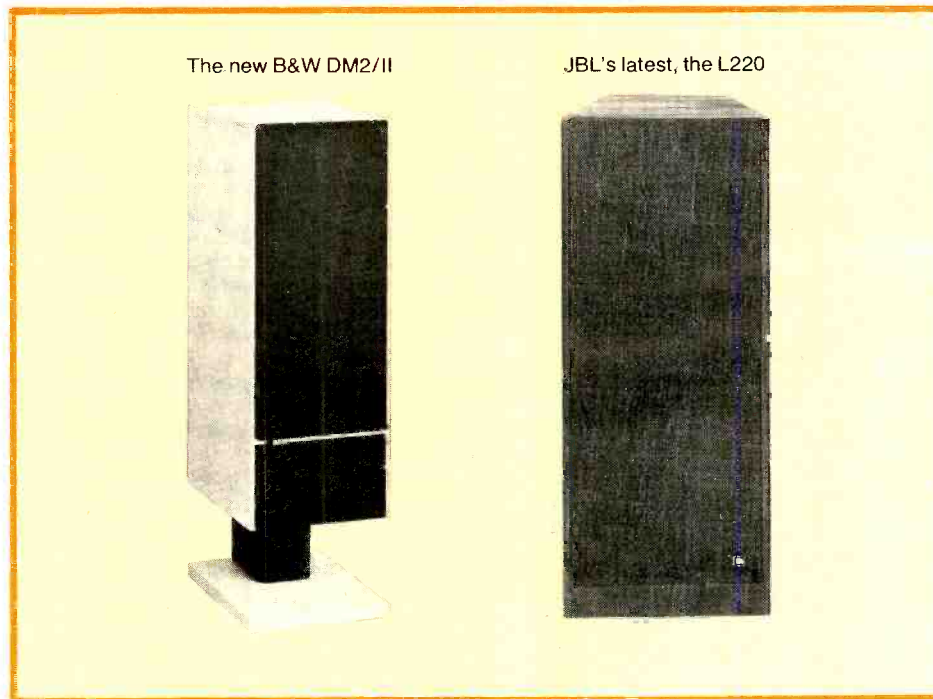
rates the manufacturer's Actilinear circuitry and is unique in having a fourth motor used to engage the pinch roller and tape guides. It is a two-speed machine available in combinations of 3¾, 7½, and 15 ips in half- or quarter-track formats. Bias is adjustable at the front panel, and Tandberg says it can easily be changed to handle metal-alloy tape when it becomes available in open-reel form.

Technics has created three new open-reel models, all taking 10½-inch reels and all equipped with the "Isolated Loop" transport. The \$2,000 RS-1520US is a half-track model, while the TS-1700US at the same price is a quarter-track machine with automatic reverse. All three of Akai's latest open-reel offerings take 7-inch reels. The basic Model GX-4000D becomes the GX-4000DB when Dolby noise reduction is added. The GX-267D has three motors and six heads distributed around a central capstan to facilitate auto-reverse operation. Finally, the English-made Ferrograph has returned in the hands of Neal, once again offering its series of Logic 7 semi-professional open-reel machines.

## Speaker Systems

As always, we were impressed—maybe even stunned—at the number of new loudspeakers at the shows, particularly at the CES. If everyone who attended the CES took a speaker home with him, we are certain there would be more than enough left over to provide canned music for every restaurant and cocktail lounge in Chicago. In the face of such a staggering multitude we must, as usual, confine ourselves to major manufacturers and highlights.

Marantz's MK II speaker line is now augmented by a new design with a 15-inch woofer, the Model 8, which also has a 5-inch





side of video from the "Visc-II" disc, accompanied by two channels of audio. Among the most recent Matsushita introductions is the "Visc-AD," with two channels of digital audio playing for 30 minutes per side (no video is included).

The Visc players are compact, reliable, and simple to operate. They employ a mechanical (piezoelectric) pickup with a stylus life on the order of 1,000 hours. Price of the players in Japan is not expected to exceed \$600. The discs themselves will cost approximately 20 to 50 per cent more than conventional audio records. Ultimate availability will of course depend on the interest shown by record companies. While Visc of course faces considerable competition from other entrants in the video-disc sweepstakes, it is interesting to note that there is likely to be a certain amount of intersystem compatibility, with Visc able to play the Selectvision discs from RCA, for example.

## Tape Equipment

Technical upheavals large and small have shaken the cassette format since its inception, and this year the quakes continued with even more than their usual intensity. First of all, the anticipated arrival of the two-speed (1 $\frac{1}{2}$  and 3 $\frac{3}{4}$  ips) cassette deck took place; it was *three* arrivals in fact, consisting of the T-1, T-2, and T-3, all from B.I.C. A higher tape speed benefits every aspect of performance having to do with sound quality, and this is the motivation behind the introduction of the new machines. It also, of course, converts the playing time of a C-90 to that of a C-45, a C-60 to a C-30, etc., thus leaving the user to decide the playing time vs. fidelity question for himself. The top-of-the-line T-3 is a three-head dual-capstan machine with "double-Dolby" noise reduction and user-adjustable Dolby calibration. The T-1 is the "basic" B.I.C. two-speed (and two-head) machine. All three are front-loaders with handsome black-panel styling.

The second recent quake has been the anticipated arrival of metal-alloy (rather than metal-oxide) tapes, of which 3M's Metafine is expected to be the first product available. At \$1,300, the recently announced (see September "Tape Talk") Tandberg TCD 340 AM is Metafine-ready, with three heads, a highly refined transport, and Tandberg's new "Actilinear" electronics. The Tandberg TCD 340 A (\$1,150) is virtually the same machine without the Metafine capability, while the \$650 TCD 320 is a two-head design.

Nakamichi, as innovative and imaginative as ever, has adopted a radical stance on metal-alloy cassette tape. In a long technical paper the manufacturer pointed out that today's head technology could not take full advantage of present metal-alloy tapes in a two-head cassette machine because the single narrow record/playback gap would result in head-core saturation with the high bias levels required. Accordingly, Nakamichi proposed a "broad-bias" version of metal-alloy tape, a sample of which it stood ready to demonstrate, that could be successfully recorded with appreciably lower bias levels. Full-strength metal-alloy tape would

be left to three-head machines such as the Nakamichi 1000 II "ZX," a prototype of which was shown at CES, along with a prototype of the 600 II "ZX," the proposed two-head machine for the broad-bias tape. Both machines employed the Telefunken consumer noise-reduction system developed in cooperation with Nakamichi. Marantz had no comment on this controversy, except to introduce the new 5025 cassette deck with a Metafine pushbutton discreetly in evidence on the front panel. (Marantz also introduced a basic Model 5000 cassette deck, the \$190 Model 1810 as part of the "Promotional" line, and under the Superscope name a line of portable three- and two-head cassette decks, with and without Dolby, at prices ranging from \$120 to \$240.)

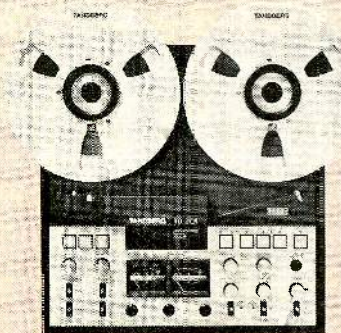
The three-head, three-motor Model C-1 is Teac's new top-of-the-line cassette machine, incorporating a transport that has hitherto been reserved for commercial users. The \$1,300 deck has dual capstans, complete solenoid switching of transport functions, and facilities for easy and optimum interface with an external dbx noise-reduction module. The same transport is available in three other new machines, the three-head A-800 (\$700), the A-601R (\$600), and the A-700 (\$550).

Another three-head machine with a rather special transport is the Eumig CCD, which eliminates the capstan flywheel in favor of an optical scanning system that feeds back through a servo to correct the speed of the capstan motor instantaneously. The CCD also has another unique (to my knowledge) feature: voltage-controlled amplifiers for its gain stages, so that level controls do not handle actual music signals but only provide d.c. control voltages that adjust amplifier gain. Price: \$1,300.

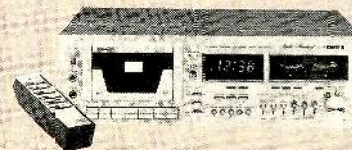
Three new cassette decks now grace the Pioneer lineup, the foremost of which (second in the total line) is the CT-F900, a \$475 three-head machine with fluorescent recording-level indicators, a digital tape-counter/timer with LED readout, and various modes of memory rewind. The Pioneer CT-F700 has three meters, the third of which functions both as an aid in setting the deck's continuously variable bias and as a specially equalized peak-reading meter during recording. The third Pioneer machine, the basic CT-F500, has all the conventional cassette-deck features for a comfortable \$175.

Newest of the Yamaha cassette decks is the TC-320, a \$225 front-loading unit. And newest of the Technics cassette decks is the similarly equipped \$200 RS-616, a modest follow-up to the very elaborate RS-M85 low-silhouette machine (\$650) brought out earlier in the year. Hitachi's D-7500, the three-head design with the Hall-effect playback head, is now entering production, with the retail price estimated at \$700. And Aiwa has brought out two new cassette decks, one of them, the AD-6900U, with the manufacturer's excellent two-tone system for bias adjustment as well as separate meter needles for peak and average levels, and the other, the AD-6350U, with bias fine-tuning for ferric-oxide tapes.

Front-loading cassette decks (Models 819 and 809) are now available from Dual. The company's "fade/edit" function has been included in the 819, along with a switchable



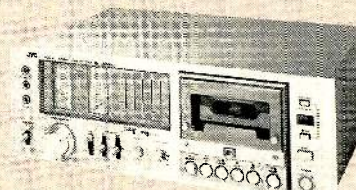
Tandberg's "Actilinear" TD 20A



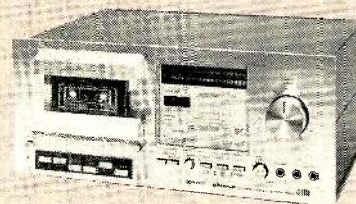
Fisher's CR5250 with remote control



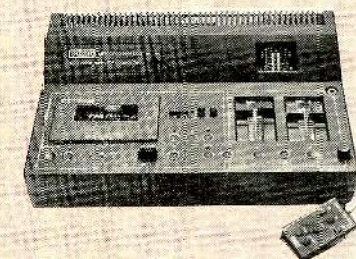
The glamorous Teac Model C-1



The JVC Model KD-85



The Pioneer CT-F900



Eumig's novel CCD "Metropolitan"



## New Products...



Matsushita's "Visc" video-disc system was demonstrated at Chicago CES.

through the platter itself. Lenco presented a similar sort of surprise this year: a system based on fiber optics that provides a shadowgraph display of exactly where the stylus is as it traverses a record side. The feature is described as a convenience in cueing and timing, and it will be incorporated in the L-744DD direct-drive turntable intended to sell for between \$250 and \$300. Lenco also announced a new belt-drive machine, the L-246, at between \$170 and \$180.

Audionics introduced the LK1, a very straightforward 33 $\frac{1}{3}$ -rpm belt-drive turntable with emphasis on immaculate performance. An optional electronic control adds 45-rpm operation. Braun's two turntables, the PES 550 and PS 550 S, have black platters flush with their motorboards as well as other stylistic innovations. Denon now has three basic turntable mechanisms, all direct-drive. The Monitor Audio line from England presented its first direct-drive turntable in the U.S., the ET 500. And JBE, another English organization, has a number of novel turntables with unusual platter designs and, in some cases, transparent acrylic bases. About the most novel turntable design you can buy at this time, however, is the Oasis T-1, a fluid-drive machine with a coupling somewhat reminiscent of an automobile's automatic transmission. The device's platter is powered by two motors, and it will take up to two tone arms.

## Phono Cartridges

Phono-cartridge manufacturers, who generally do not introduce new models of their intricate little gems on a regular basis but rather as advances in technology permit, tend to maintain a low profile at the shows. Nevertheless, the latest cartridge products are always on display, and this year they included a few new introductions.

The MK III series from ADC encompasses a new version of the XLM in addition to four new models in the QLM series. A new cantilever structure and refinements in the shape and polish of the styli are the major features, these reportedly leading to less record wear.

The Sonus cartridges, now organized un-

der a "Gold" series and a "Silver" series, are all new for this year. The Blue, Red, and Green labels have been retained for the Gold series, all three models being identical except for stylus configuration (line-contact, elliptical, and spherical, respectively). The Silver series of two models offers line-contact and elliptical tips.

Thorens has brought out a moving-coil phono cartridge, the TMC 63/TMC 70, the two model designations referring to the different versions of the Iso-track tone arm that will accept the cartridge (the cartridge is fully integrated with the replaceable arm shaft for the appropriate tone arm, thus ensuring an ideal arm-cartridge relationship). For stylus replacement, participating dealers will exchange the entire cartridge/arm-shaft assembly for a new one. And Ortofon has introduced its least-expensive moving-coil cartridge yet, the MC 10, at a price just over \$100.

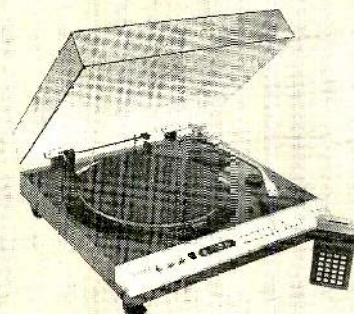
Beryllium cantilevers distinguish the two new top-of-the-line pickups from Audio-Technica, the AT15SS (\$150) and the AT20SS (\$195). They also have new stylus configurations, referred to as "Shibata Plus." The new stylus assemblies (\$75 and \$95) will fit the previous A-T top-of-the-line cartridge bodies, affording an improvement in performance. Meanwhile, Osawa has brought out a phono cartridge with a carbon-fiber cantilever as part of its Moving Permalloy series. The \$100 300 MP is joined by the \$65 200 MP and the \$35 100 MP to complete the line.

An exceptionally sturdy pickup for professional use is now being produced by Empire under the designation "Broadcast One." Grace has a cartridge, the SF-90, that is integrated with a headshell that fits the standard bayonet connector used on many tone arms. And the Grace distributor, Sumiko, has also announced a new line of cartridges under the Andante name. Goldring's G900 is an exceptionally low-mass cartridge (4 grams), made so in the interest of controlling tone-arm/cartridge resonance. Denon has also achieved a significant reduction in cartridge mass in the latest of its DL-103 moving-coil series, the DL-103D.

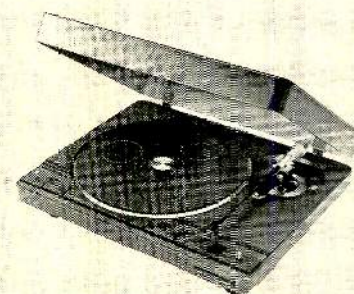
Nagatronics, a new name in the U.S. but one of the old-time Japanese suppliers of jewel tips for other cartridge manufacturers, is making its debut with a full line. The top Nagatron cartridge employs a ribbon (as in a ribbon microphone); it is, as far as we know, the first such design to appear. And Micro/Acoustics, Pickering, Shure, and Stanton displayed their current offerings, with Pickering announcing the XV15/625DJ, a ruggedized cartridge designed specifically for rough disco use.

## Video

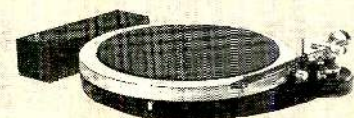
The emergent video-disc player is not just a turntable, but rather the heart of a whole new playback technology for both video and audio programs. This year at CES, Matsushita (Panasonic) gave many their first opportunity to observe its "Visc" system in action. The system plays discs—recorded in real time and produced through conventional pressing techniques—of 12- or 7-inch diameters. Playing time is up to an hour per



Optonica's RP-XI prototype



The ADC 1700DD turntable



Micro Seiki's DQX-500



The Marantz Model 6370Q



B.I.C.'s 918MPC "VIA Series"





Exhibition floor at the 1978 Atlanta IHF audio show

the new tone arm (supplied) and a separate control box.

Pioneer's record-player line this year is deeper by four direct-drive models and one belt-drive model. The direct-drive machines are all quartz-locked and feature Hall-effect controlled motors; model numbers are PL-630 (\$400), PL-610 (\$350), PL-560 (\$275), and PL-540 (\$225). The more elaborate units have meters to show the effects of their pitch controls. Marantz's new top player, the quartz-locked direct-drive 6370Q, has a new tone arm with refined geometry for minimum lateral-tracking-angle error, and a little reservoir in the pivot assembly to contain a special fluid for arm damping. Marantz has also added a second direct-drive machine, the 6270Q. Kenwood's two latest turntable offerings are divided between direct-drive and belt-drive designs, with the \$260 direct-drive KD-5070 featuring the manufacturer's antiresonance resin-concrete base. The belt-drive KD-2000 with a floating suspension is priced at \$145. All of JVC's new turntable models are quartz-locked direct-drive, and one of them (the \$270 QL-5) is available without tone arm as the QL-50 for \$220. Sansui's newest direct-drive turntable, the SR-5090, has a tone arm with a great deal of mass deliberately built into the pivot assembly.

Akai has joined the ranks of record-player manufacturers with its first five such products. Models at \$300 and \$250, the AP-307 and AP-306, are quartz-locked direct-drive machines. The belt-drive AP-100 is available

at \$130. Yamaha's YP-D8, the company's second direct-drive turntable, has a handsome ebony base and a price of \$395. Garrard's seven new introductions are led by belt-drive, single-play machines, the \$210 GT35AP and the \$165 GT25AP. A new direct-drive manual, the DD130, is priced at \$160. Fisher has been at work expanding its "Linear Motor" series of direct-drive turntables; it now stands at three models with the addition of the MT6250C and the MT6224C.

ADC believes it has licked problems associated with turntable-base resonance with a "sandwich" type of base construction in which the physical characteristics of two dissimilar materials serve to damp one another. The top model employing the technique is the \$250 direct-drive (quartz-locked) 1700DD, followed by two less expensive machines (\$200 and \$130). The technique has also been extended to three new top models in the Quanta line of ADC's parent organization, BSR. Model numbers are 800, 700, and 600, and prices are \$230, \$180, and \$130. Five new models have also been added to the BSR McDonald line, led by the \$70 multi-play 250S with integral ADC magnetic cartridge.

Stanton has introduced a new record-playing system, the 8005A, with the company's magnetic-suspension system for the platter and a new unipivot arm that will be available separately at a projected price of \$150. The whole 8005A system, including Stanton 881S cartridge, is slated to sell for

about \$500. As part of its SAE TWO line, SAE now offers the T3T direct-drive turntable (\$225) with front-edge-mounted controls. Lux has significantly enlarged its phono offerings, first with the \$285 PD270 direct-drive turntable supplied without tone arm, with the TA-1 tone arm (about \$125) with switchable arm shafts for conventional and moving-coil cartridges, and finally with the 115C moving-coil phono cartridge with titanium cantilever and modified elliptical stylus, planned to sell at \$195. Thorens' newest turntables are the TD-115C and the TD-110C, both with new servo systems to control motor speed and compensate for variations in the load on the motor, and with improved versions of the "Isotrack" tone arm. The TD-115C has automatic end-of-disc shut-off and tone-arm lift; the TD-110C is a manual machine.

Five new Visonik turntables were announced at the IHF show, led by the \$250 direct-drive DD-8200 and followed up by four belt-drive units priced from \$200 down to \$125. Series 20, the esoteric branch of Pioneer, offers the PLC-590 as its turntable; the unit is quartz-locked direct-drive and is supplied without arm, although mounting panels for the Shure/SME and other arms are provided. Mitsubishi has improved the direct-drive system and elaborated on the operating conveniences for the new DP-EC20 and DP-EC10 turntables, which retain a highly unusual feature: an optical system that detects disc diameter (and hence playing speed) by means of a light that shines



# NEW AUDIO PRODUCTS

Ralph Hodges completes his survey of offerings at the audio industry's two most recent trade shows

**T**HE road that leads from the audio designer's workbench to your listening room is long and convoluted. One of the principal stops along the way is the industry trade show, at which manufacturers get an opportunity to persuade your local retailer that what he really needs to make his showroom the hottest spot in town is product X, or Y, or Z.

The audio component market has grown to such a size over the last couple of decades that an ever-growing number of trade shows has had to be organized to serve it. In the April issue we reported on the Winter Consumer Electronics Show (WCES) in Las Vegas, and we are now engaged in digesting for our readers the multitudinous innovations on display at the Institute of High Fidelity-sponsored show in Atlanta in May and the Summer Consumer Electronics Show in Chicago in June. Last month we covered the purely electronic components—receivers, amplifiers, tuners, etc.—and this month we turn to those that are at least partly mechanical in operation. First we'll look at record players.

## Record Players

Some years ago most of the action in record players centered on automatic turntables. Then basic manual and single-play turntables began to come into their own. Next it was direct-drive and, ultimately, quartz-locked direct-drive. Most recently came automation and remote-control features, courtesy of ADC and its Accutrac machines. What is the trend in record players this year? More automation, this time from (among others) Optonica, an established master of automation techniques, whose ingenious microprocessor cassette decks have already caused quite a stir.

The Optonica RP-XI is a direct-drive turntable with a keyboard front panel to program as many as ten operating instructions into the internal microprocessor memory. A hand-held remote-control unit duplicates all the keyboard functions and communicates with the turntable itself via infrared light. The RP-XI can be programmed to play any bands on a record in any order, and since it employs a high-resolution laser device to scan the record, it is able to "count" individual grooves and thus even play preselected *portions* of bands. The scanning mechanism is physically separate from the tone arm, so that any phono cartridge can be used. A LED digital readout displays the programming status of the machine and indicates which instructions are being carried out at any given moment. The RP-XI is scheduled to be available some time next

year, but the price—probably high—has not yet been decided upon.

More automation comes in the form of the four MP (microprocessor) belt-drive turntables in B.I.C.'s new VIA series. VIA (Variable Isolation Adjustment) refers to a readily accessible control that permits the user to "tune" the compliance of the turntable suspension for minimum acoustic feedback. It is a feature of all nine VIA machines, a line which includes a manual model, four changers, and four automatic single-play units. In addition, the two top changers and single-play units have microprocessors to handle all automatic functions and to govern platter speed precisely, the rotational rate being sensed by an optical system and fed back to the speed-control circuitry. A LED digital readout indicates speed and can also be switched to function as an electronic stop watch for timing recorded selections. Prices for the nine machines range from \$100 to \$320.

The five new Philips Project 7 belt-drive, single-play turntables also use a feedback system to regulate platter speed—it is, in fact, basically the same system used in their motion-al feedback speakers. Platter speed is referenced to the frequency of a quartz-crystal oscillator through a phase-locked loop. The Philips machines range in price from about \$150 to \$300.

There are seven new models from Dual this year, three with record-changing capability and two (Models CS714Q and CS731Q) representing the manufacturer's

last word (at the moment) in single-play turntable technology, with quartz-crystal phase-locked-loop platter drives. The Dual "antiresonance filters" built into the tone-arm counterweight assemblies are user-tunable on these two top models, which are also available with an exceptionally low-mass phono cartridge designed in collaboration with Ortofon to achieve an effective total tone-arm/cartridge mass of 8 grams.

Technics, never a company to be shy about its eminence in the record-player area, contented itself with a mere nine (!) new models this year. Five are direct-drive models, two of them quartz-locked, and four are belt-drive designs. One of each category—the direct-drive SL-3350 and the belt-drive DL-235—change records, and seven of the machines have all controls accessible even when the dust covers are closed. The direct-drive units start at \$180 and go up to \$320, while the belt-drive models range from \$100 to \$180.

Micro Seiki's turntable line is now seven strong. Three models come with the new MA-707 tone arm, which has a sliding weight that can be used to establish an arm-cartridge resonance frequency of 10 Hz with virtually any cartridge of the user's choice (instructions for adjustment are provided by the company). Highlights include the \$700 DQX-1000, an improved version of the innovative DDX-1000 that can take up to three tone arms (none is supplied), and the \$500 DQX-500, a strikingly designed machine in a circular format with an outrigger support for





**TRACTION OF  
FRONT WHEEL DRIVE**



**QUICK  
ACCELERATION**



**HIGH GAS  
MILEAGE RATINGS**



**BUILT IN GERMANY**



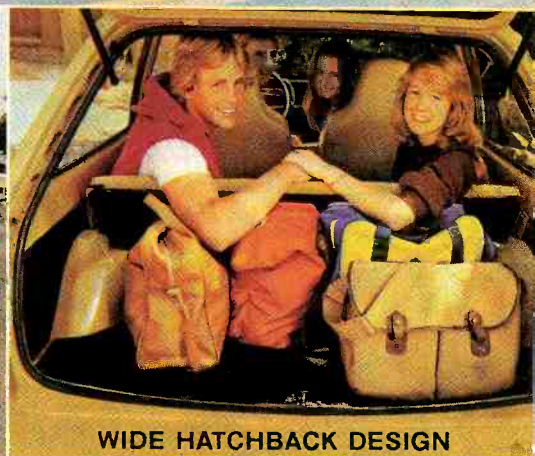
**RACK AND PINION STEERING**



**LOTS OF BACK SEAT ROOM**



**SOLD AND SERVICED AT OVER  
5,000 FORD DEALERS**



**WIDE HATCHBACK DESIGN**

# FIESTA. WUNDERCAR!

## Imported From Germany.

Ford Fiesta is Europe's most successful new car in history. (Based on new car nameplate sales in the first 16 months.) It's an import buyer's dream. A car that's at home on the San Diego Freeway as well as on the high-speed autobahn. Fiesta—Wundercar.

## Excellent Performance.

Performance is what Ford Fiesta is all about. With front wheel drive and Michelin steel-belted radials to help take you up hills, through mud and over ice and snow.

Rack and pinion steering for precise handling. And acceleration that will absolutely move you. In Ford tests, 1978 Fiestas accelerated from 0 to 50 MPH in an average of about 9 seconds. And their front disc brakes brought them from 50 to 0 MPH in an average of 3.3 seconds.

## High EPA Gas Mileage Ratings.

Fiesta not only gives you great performance, but also high fuel economy ratings. 1979 EPA gas mileage estimates were unavailable at the time this ad was published.

See your Ford Dealer for actual 1979 EPA ratings.

## At Over 5,000 Ford Dealers.

Fiesta is sold and serviced at over 5,000 Ford Dealers and backed by Ford Motor Company, Dearborn, Mich. Test-drive a Fiesta and see why we call it Wundercar.



# FORD FIESTA

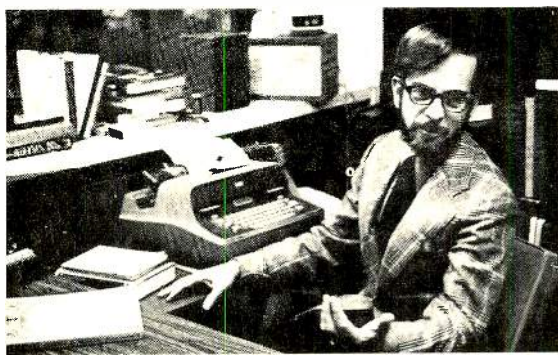
FORD DIVISION





# Going on Record

By James Goodfriend



## IRATE CONSUMERS

**T**HE way to put the fear of God into any classical record man is to tell him that he has a three o'clock appointment with an irate consumer. It isn't that he fears a fight. There is no reason for a fight, for the chances are that he will agree with the irate consumer on whatever there is to be irate about. The fear comes in because, whatever the complaint may be, he knows he probably won't be able to do much about it.

I except from the possible complaints all matters of opinion: that this conductor's Beethoven is better than that conductor's Beethoven; that this tenor was better suited to the role than that tenor; that the proper way to record such and such a group is 'way back and with plenty of room ambiance rather than close up and detailed. I also except those matters beyond anyone's control: that this orchestra is under contract to another company; that that soloist was booked solid so far in advance that it was impossible to include him in the project; and so forth. What is left is a problem profile delineated by a number of legitimate complaints, many of them small, that somehow show the classical record business to be a microcosm of the advanced technological society that somewhere along the line slipped its reins and has gotten away from all of us.

Record companies are of two types: too large and too small. There are certain difficulties that they share and others that are specific to each of them. The individual difficulties are these: the too-small company is too small, which is to say that there are too few people to do too much work, and the too-large company is too large, which is to say that the work is so subdivided, and the pieces of any project so widely scattered, that there is no one who can do anything about the whole.

Precisely at this point, the irate consumer who has written a letter—or letter after letter—to an offending record company should begin to realize why he has not received a reply. The man in the little company understands the offense and the problem, but has no time to answer the letter—if in fact he has had the time to read it. The man in the big company is sensitive to the indignation expressed in the letter, but he only partially understands the complaint and therefore has to look around the organization to find the prop-

er person to understand the other part of it. In both cases there is an unseemly delay in response and the consumer becomes incensed.

If all this seems terribly familiar, it is meant to. The difficulties that plague a consumer dealing with an errant utility or a toy manufacturing company or a supplier of kitchen utensils plague him also in dealing with record companies. The problems those other companies have in rectifying honest errors and omissions have their parallel in the problems of record companies. Let us examine only a couple of these.

A consumer orders—and pays for—a record from a small company. The company is not really geared for mail order, but since it is small and its distribution is therefore limited, it has let it be known that it will fill such individual orders. But the record is not yet available to be sent. Perhaps there have been production problems, or licensing problems, or the master tape is tied up in customs, or whatever. The company can either deposit the check, hold it, or send it back. Sending it back requires a covering letter (or else the company might as well not be in business) which no one has the time to write. Holding the check invites an inquiring letter about whether it was ever received, and this must be answered by a letter of explanation that no one has the time to write. Depositing the



check at least stalls things for a time, long enough, the company hopes, for the problems to have been surmounted and the record to have been made available. Eventually, of course, come additional letters not only from the irate consumer, but from consumer organizations, the Better Business Bureau, the local chamber of commerce, and a congressman's office. All must be answered, but, it is to be hoped, only with the statement that everything has now been put right.

Take another case: a consumer buys, at a record store, an album put out by a large company. The album is supposed to include printed texts but it doesn't, and the store is loath to open another album to see if the texts are present, or perhaps it doesn't *have* another copy of the album. The consumer writes indignantly to the record company. The secretary who opens the letter may be put off by its indignant tone; it is, after all, not *her* fault. Surmounting that, she must then verify the fact that the album is *supposed* to contain texts. That much established, it seems from the outside that it would be a simple matter to walk over to where the texts are kept, select a copy of the proper one for album BZY 645328749XY, stuff it into an envelope, mail it, and make everyone happy. But large companies aren't set up that way. The album texts are divided between the pressing plant (where, supposedly, they have all been inserted into the proper albums) and the warehouse. There may be a reference copy of the completed album in the record-company office, but you can't pinch the text from that one to satisfy even an irate consumer. Furthermore, the problem is really rather more complex than it seems. Is the omitted text in this album an isolated instance, or have all or even some of the other albums been similarly shortchanged? If others are missing texts, then this complaining letter is sure to be only the first swallow of a long summer and something needs to be done fast. The one thing that *isn't* done fast is to get the text to the complaining consumer. It will be done eventually, of course, but there is no one whose job is *specifically* that, and some one or two or three people will have to take time off from what their jobs properly are to fulfill all the steps of the process necessary to get an extra copy of the texts *from* the warehouse *into* the mail *to* the proper address. Perhaps there will be time for an actual written answer to the original letter, perhaps not.

**B**UT it is when the consumer mentions depressing defects that the record man—from large company or small—most tends to head toward the window. Record pressing is always done someplace else, by someone else (even when the record company owns the pressing plant), and even when test pressings have been checked and approved, things can (and often do) go wrong somewhere in the run. So the company lamely, but gamely, offers the irate consumer a new copy of the disc, fully aware that the new pressing may contain the identical flaws—or even different ones—but hoping against hope that it won't. Pressing is the bane of the record industry, and when someone invents a new and fool-proof way of pressing good records, the consumer problems of the record industry will largely disappear. There may even be time to answer all the other letters. But don't bet on it. The prices we pay for our technological wonders are not all prefaced by dollar signs.



# The Bose® Model 301 bookshelf speaker. Is it the best-selling, or just the best?

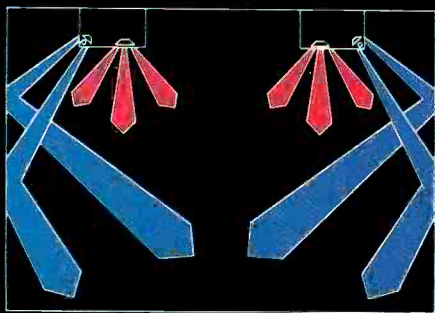
Small size, small price, big performance. That potent combination is the reason why over a

quarter of a million Model 301 Direct/Reflecting® speakers have been sold since they were first introduced. And that probably makes the Model 301 the best-selling bookshelf speaker in the world.

But we didn't build the Model 301 to win popularity contests. We built it to give you Bose sound...open, spacious, clear, room-filling sound...in a small, economical package.

And to do that required an exceptionally sophisticated design.

The right and left speakers are designed as a mirror-image pair.



An asymmetrical configuration, with both sides working together to create full, rich, balanced stereo. Throughout your entire room, not just someplace in the center between both speakers.

The extended-range woofer faces forward, but the tweeter is angled sideward to bounce high-frequency sound off side walls. This produces the correct balance of reflected and direct sound that gives Bose Direct/Reflecting® speakers their live-performance quality.

The unique Direct Energy Control, an adjustable vane positioned in front of the tweeter, allows you to shape the sound of the Model 301 to fit the acoustics of your room.

And unlike heavy, oversized, so-called bookshelf speakers, the Model 301 actually fits comfortably on a normal-size bookshelf.

The price? A little over one hundred dollars apiece. With the Model 301, you get a dimension of performance you can't buy in speakers costing twice as much.

The Bose Model 301 bookshelf speaker. Probably the world's best selling. Certainly the world's best sounding.

**BOSE**®



# The Pop Beat

By Paulette Weiss



## WOMEN IN MUSIC

**M**AYBE it started the day primitive man first noticed that his mate's voice was different and, well . . . interesting. "Hey, that kid can sing!" he may have said in surprise. Perhaps he permitted her to join in post-hunt chants and such. From that day on, a career in music has been more acceptable than most others for a woman considering (gasp! shudder!) a professional career at all.

Someday, if all goes well, a study of "women in music" will be about as pertinent as one of vegetarians or short people in the same field; sure, all three have idiosyncrasies, but when it comes down to making music, will that really matter? For now, irrelevant differences between men and women still matter enough that some institutions have had to devise interesting methods of protecting women (and minorities) from unfair, sometimes even unconscious discrimination. For instance, one-third of all major U.S. symphony orchestras now hold behind-the-screen auditions, and a pretty face or figure can no longer influence a vote either pro or con. Not surprisingly, the percentage of female members in these orchestras has gone up dramatically. According to *Symphony News* magazine, there are 36 per cent more women in all U.S. symphony orchestras than there were ten years ago, and today women make up more than 40 per cent of metropolitan orchestras.

Although music has long been open to women in ways most other fields haven't, it still has its female "ghettos" with boundaries clearly marked. Women have been accepted as vocalists and as keyboardists on instruments from the harpsichord to today's piano. They've been permitted to play ladylike stringed instruments such as the lute, the harp, the violin, and the modern guitar, and even to become pop composers. (Women classical composers are not significantly better received these days than they were a hundred years ago, but then the male contingent has not been having an easy time of it lately either.)

Accepted, yes; respected, credited, *paid*? No, generally not, at least not until quite recently. A telling example of the pervasive neglect that has fed this situation occurred just last year when the Songwriters' Hall of Fame opened in New York: not a single woman was represented. It was certainly not a

conscious expression of prejudice, but there it was. (Curator Oscar Brand was much embarrassed by the implied sexism of the omission and immediately put together an exhibit called "Here's to the Ladies" which has since been incorporated into the museum's permanent collection.) And the omission certainly couldn't be chalked up to any *shortage* of talented women songwriters. Both the length of the list bearing their names and the number of standards they have written doubtless come as quite a surprise. That so many of these names are *totally unfamiliar* is particularly disturbing; the reason is that they have simply never been properly credited. Among the unknowns are Ruth Lowe (*I'll Never Smile Again, Put Your Dreams Away*), Effie Canning (*Rock-a-Bye Baby*), Dana Suess (*You Ought to Be in Pictures*), Ann Ronell (*Willow Weep for Me. Who's Afraid of the Big Bad Wolf*), and two lyricists, Dorothy Donnelly (*The Student Prince*) and Rida Johnson Young (*Naughty Marietta*), whose major works have for years been entirely credited to their male collaborators (Sigmund Romberg and Victor Herbert, respectively).



Although women's accomplishments have been circumscribed and neglected in the past, the point of the "women in music" brouhaha is, of course, that they are at last getting *in*, not merely hovering in the doorway. Here's

just a handful of the growing number of highly successful female professional songwriters: Betty Comden, Cynthia Weil, Dorothy Fields, Elizabeth Swados, Ellie Greenwich, Carolyn Leigh, Micki Grant, and Carol Hall. The writer/performers are even more numerous, so no angry letters if I've left out your favorite: Carole King, Mary Lou Williams, Judy Collins, Gretchen Cryer and Nancy Ford, Joni Mitchell, Carla Bley, Carly Simon, Alberta Hunter, Janis Ian, Joan Baez, and Carole Bayer Sager.

Female performers, moreover, are hitting the charts as never before. A special feature in *Billboard* called "Starwomen" recently reported that they now often command 40 per cent of the pop charts, and that magical 50 per cent share is in the offing. Steve Simels once asked in these pages if women could rock, and he answered that very question in his August interview with Patti Smith. She is one of the finest, most uncompromising rockers the genre has produced, and Grace Slick, Elkie Brooks, Stevie Nicks, and the Wilson sisters of Heart are not to be sneezed at either. Yes, but can they *swing*, others may ask. Stash Records' "Women in Jazz" series and Chris Albertson's review of it (page 146) provide a resoundingly affirmative answer.

**I** OBVIOUSLY have a personal stake in women's being fully accepted in this business of music, but it must be acceptance as equals, with no condescension, no coddling. Mary Lou Williams, an outstanding jazz musician who is now a professor of music at Duke University, says it with astringent directness:

"My career has been one-nighters with men all my life. I did some starving too. Today you run into these women who insist on getting in, and they can't cut it. They never singled me out as a woman. If you're good, you'll do the work." Williams is one of the few strong enough to have blasted through the extra barriers women face in an already difficult career, but determination and aggressiveness do not necessarily go hand in hand with talent. Special privileges for women? No. Equal opportunity? Absolutely.

As the doors have opened in all areas of the music business, women have not hesitated to walk in, becoming disc jockeys, recording engineers, and producers, but it's still a struggle. Liz Saron, an engineer at Media Sound Studios, remembers a recording session with Mick Jagger: "He said he felt women have no place in the studio and should be home making quilts." Not a surprising statement coming from notoriously sexist Mick, who voiced a still unfortunately prevalent sentiment. I mean, *some* guys. . . . Women are having trouble getting into sales and attaining executive status in the music biz, but they are already doing thoroughly professional jobs as writers, photographers, and publicists. And they're getting credit for it too.

**T**he overall prognosis for a healthy integration of the sexes in this country is good, and in the field of music it's excellent. It will take more time, of course; it's still a rather novel idea, this one of equality based on something other than mere muscle. And though it goes against habits developed over thousands of years, if we can continue to civilize each other without relapsing into old ways, women are bound to enter the mainstream of professional and creative activity. *All* talent is still too precious to waste.







# SAE TWO by SAE

## R3C Receiver : Start out on the right receiver.

If you're about to build a super hi-fi system, you need a strong start. We recommend the R3C.

Preamp, amp and AM/FM tuner. It's all the electronics you need in one compact, self-contained unit.

And it has features normally associated with receivers twice the price.

Examples : Loudness compensation to let you hear full bass and highs at low volume. Separate tuning and signal strength meters. They virtually guarantee perfectly accurate tuning.

R3C. For a great system, start here.

- 30 Watts RMS† per channel @ 8 Ohms from 20Hz to 20kHz with less than 0.09% Total Harmonic Distortion.
- Separate signal strength & center of channel meters for precise tuning.
- Full low & high frequency loudness compensation.
- A low filter for rumble protection.
- Suggested Price\* — \$335.00

## T3U Tuner : The tuner that's accurate. In it's own quiet way.

An extremely wide, linear dial scale makes perfectly accurate tuning of FM stations as easy as a flick of the wrist.

Then once you get there, a steep quieting slope makes sure nothing comes through but the station. FM muting plus hi-blend for low noise make sure there's no doubt about it.

A tuning meter helps you visually to achieve the perfect center of the channel. You'll see signal strength. Not just hear it.

T3U. Use it with the integrated amp and you have a super high quality electronic system.

- Linear tuning scale for precise tuning.
- Steep quieting with 37.3 dBf (40 microvolt) sensitivity for 50dB S/N.
- Linear phase filters for excellent separation — 45dB @ 1kHz.
- FET input for low overload & high sensitivity 10.3dBf (1.8 microvolt).
- Suggested Price\* — \$275.00

## C3A Integrated Amplifier : The amazing, effortless, integrated amp. An amp and preamp all in one.

Most integrated amps pick one thing and do it pretty well. Well, that's not enough for the C3A.

It can handle two tape recorders, with the ability to dub from either one to the other.

But it's not just flexible. It's easy. Extra large, stepped volume control provides precise, graduated adjustment. Front panel headphone jack makes private listening simple.

There's even an audio muting capability to adjust the amp to varying efficiencies of speakers.

C3A. It can do anything you can do.

- 50 Watts RMS† per channel @ 8 Ohms from 20Hz to 20kHz with no more than 0.05% Total Harmonic Distortion.
- Provisions for 2 tape recorders with full tape dubbing.
- Full high & low frequency loudness compensation.
- 40 Step attenuator-type volume control.
- Suggested Price\* — \$325.00

## C3D Cassette Deck: The cassette deck with a mind of its own.

What's gotten into the C3D? A microcomputer chip.

A chip that will prevent you from accidentally misusing the controls, and from stretching or tearing tape. A chip with a memory for finding a predesignated spot on a cassette. It's full, solenoid-operated logic control.

There's more: Dolby\*\* noise reduction, switches for maximum utilization of latest tape formulations, and optional accessory remote control.

The C3D. What a mind.

- 30-18kHz linear response within  $\pm 3$ dB.
- Full-logic tape control system.
- DC-Servo motor for low wow/flutter — less than 0.06%.
- 3 Step Bias & EQ switches.
- Suggested Price\* — \$400.00

Please send more information on the new  
SAE TWO by SAE

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

**SAE**  
Scientific Audio Electronics, Inc.

P. O. Box 60271, Terminal Annex, Los Angeles, Ca. 90060

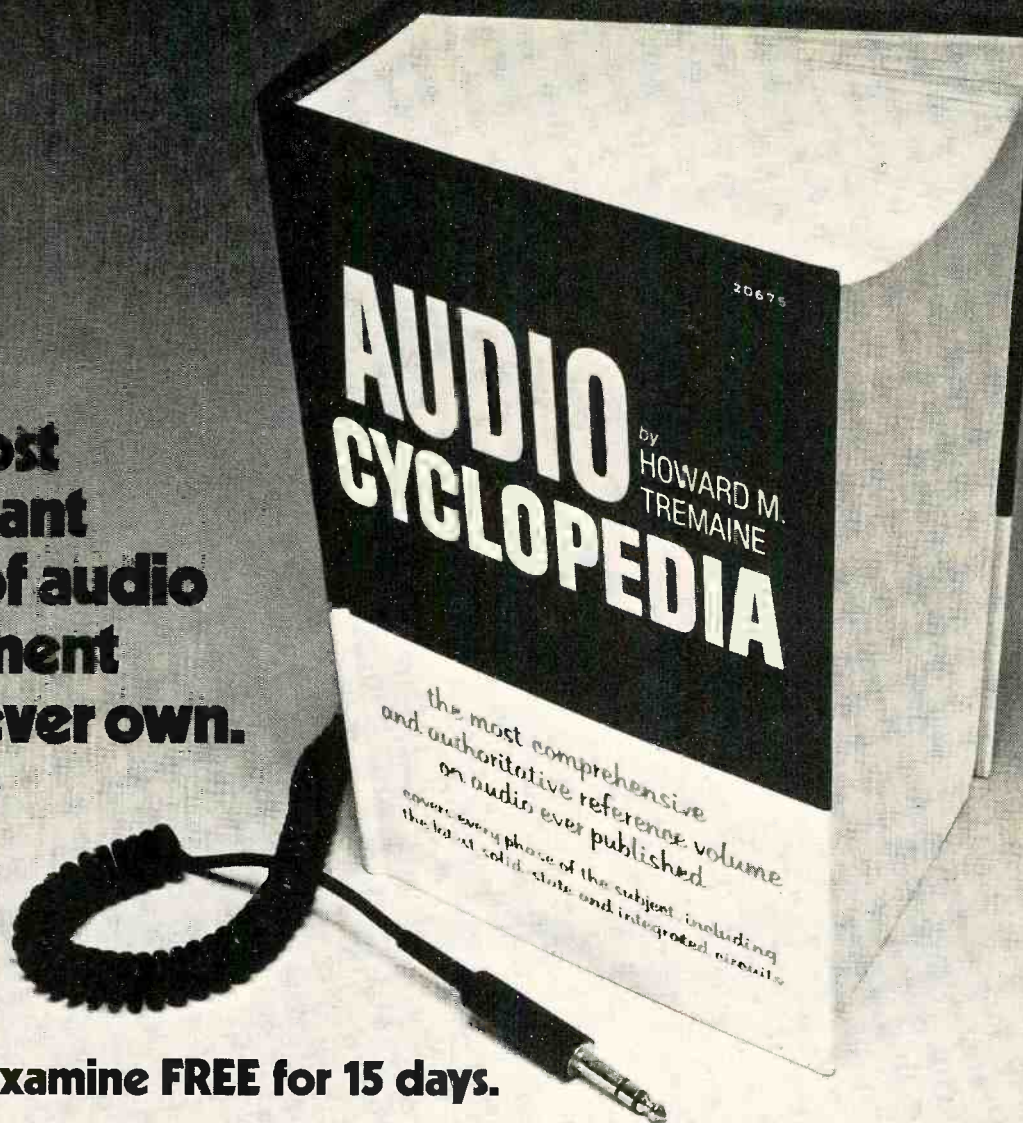
\* Dealer will determine actual price.

\*\* Dolby & Dolby Systems are Registered Trademarks of Dolby Labs, Inc.

† Per FTC Standards.



**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 Styli
- 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 \$39.95 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. **BD46A**



measured on axis and about 30 degrees off axis all the way up to 18,000 Hz and beyond.

Although tone-burst tests are, at best, a crude indication of a speaker's transient-response properties, the bursts we measured from the Epicure 3.0 were very good at all frequencies, including the crossover regions. The speaker sensitivity was fairly low, as one would expect from any acoustic-suspension system, so a 2.8-volt input of random noise in the 1,000-Hz octave produced an 84-dB sound-pressure level (SPL) 1 meter from the grille. This corresponds to 2 watts into the speaker's nominal 4-ohm impedance. As we have pointed out in the past, this is not an efficiency rating, but rather a measure of how loud a sound the speaker will produce for a given drive voltage.

Epicure's emphasis on low distortion has borne fruit, as shown by the bass-distortion measurements we made. At 1 watt (2 volts) input, the total harmonic distortion (THD) was well under 0.2 per cent at 100 Hz and increased very slowly with decreasing frequency to 0.45 per cent at 50 Hz and 0.75 per cent at 40 Hz. Even in the deep bass the woofer maintained its linearity; the distortion was a mere 2.2 per cent at 30 Hz and 5 per cent at 20 Hz. With a 10-watt input, the increase of distortion was slight, reaching 2.2 per cent at 35 Hz and 8.9 per cent at 20 Hz.

The impedance curve, except for a rise to about 25 ohms at the woofer resonance of 33 Hz, was at or near 4 ohms from 100 to 10,000 Hz and rose to about 7 ohms at 20,000 Hz. Clearly, this speaker will not present any unusual load conditions to any amplifier—for all practical purposes, its impedance is equivalent to the resistive load normally used when testing amplifiers.

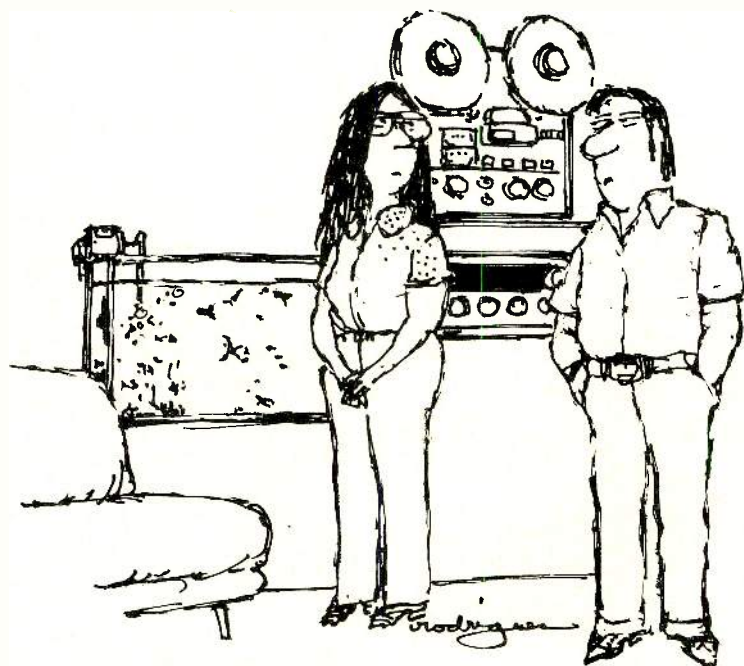
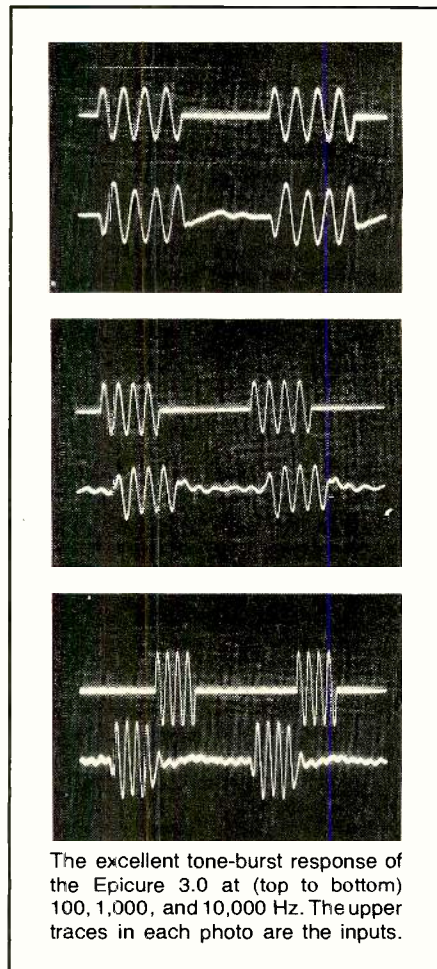
● **Comment.** The Epicure 3.0 has a distinctive sound character, and we spent hours listening to it and comparing it with other speakers in an effort to isolate and identify its special quality. What we heard was only partially

explainable in terms of frequency response, and a balanced sound that never screamed or honked, thudded or boomed. This is a "flat" speaker, to the extent that any speaker can be so described, and it does not emphasize or diminish any part of the audio-frequency spectrum. Still, we have heard other speakers that measured as flat or flatter, and they did not sound like this one.

The 3.0 is meant to be used free-standing, without reinforcement from room boundaries (although some interaction with the floor is probably unavoidable). Knowing the bass response, we were surprised how little *apparent* bass the Model 3.0 had—until such sounds as the drums in Stravinsky's *Firebird* made it plain that the speaker could deliver whatever the program called for with no strain whatever (we measured 200-watt peaks into the speakers on those drum beats!). The apparent lack of bass on ordinary program material indicates an absence of boom or artificial coloration in the upper bass, and this is one feature that sets this speaker aside from many others.

We suspect that the directional properties of the Epicure 3.0 (or, more accurately, the *lack* of directional properties) had the most to do with its sound quality. The speakers had a diffuse, blended sound that filled a hypothetical stage at the end of the room. This was strikingly obvious when we switched to other, conventional bookshelf speakers on that same wall, not far from the 3.0's. These speakers had an octave-to-octave sound balance and general sound quality not unlike those of the Epicure 3.0. Although the frequency response did not change much when we switched, the entire spatial distribution of the program did. The bookshelf speakers sounded like a pair of good compact speakers (which they were), but the Epicure 3.0's unmistakably opened up the end of the room, providing a sense of depth and ambiance similar to the effect of a good time-delay enhancement system. In

fact, when we first listened to the 3.0's and noted this quality, we realized that our own time-delay system was operating (this is not desirable when one is trying to judge speaker quality critically). When we shut it off, the change in spatial distribution was remarkably



"I found out why your tropical fish keep dying. You plugged the air pump into the 'switched' receptacle."

small, almost as though the 3.0's were duplicating some of the effect of the delay system, though only in the front of the room.

This diffuse, open sound quality had no negative effect on stereo perspective. Quite the contrary: the Epicure 3.0 has an exceptionally well-defined "stereo image." We normally do not use that overworked and over-emphasized expression, but this speaker really can position specific sounds in definite locations. We do not find this effect very often in live music, but it is certainly highly regarded by many audiophiles. For those who especially prize it, the Epicure 3.0 has this quality in full measure.

The Epicure 3.0 is not inexpensive, but it is very handsome and not so large that it is visually overpowering in normal-size rooms. The need to install the speakers well away from the walls should pose no aesthetic problems, since their shape is fundamentally that of a stable, free-standing structure and they look very much "at home" when so placed. The Epicure 3.0 is a very respectable entry into the ranks of top-quality speakers.

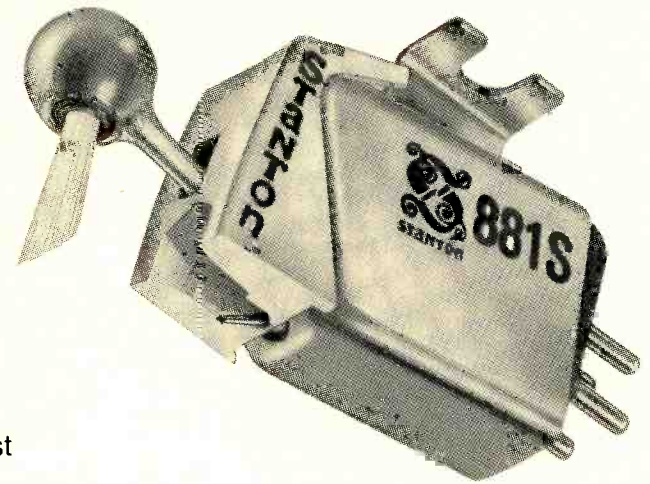
Circle 110 on reader service card



# Let's set the record straight!

## Stanton has had it all for more than 15 years.

The 881S has been acclaimed worldwide as the finest cartridge available. It embodies a unique combination of features developed by Stanton. After all, it was Stanton who pioneered the first Magnetic Stereo Cartridge — as well as the first CD-4 pickup produced in the United States.



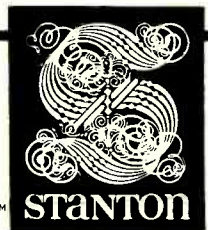
© Stanton Magnetics Inc. 1978

<b>1.</b>	<b>FEATURE</b> <b>Record Static Elimination System</b> Every Stanton cartridge for the last 15 years has featured a patented stylus assembly which neutralizes the atmosphere surrounding the diamond stylus and discharges record static harmlessly into the grounded record playing system.	<b>BENEFITS</b> A. Eliminates harmful static electricity at the record. B. Eliminates static clicks and pops at the loudspeaker. C. Enables the brush to do a <i>proper</i> cleaning job. D. Permits the use of an Ungrounded Brush. E. Eliminates electrostatic dust attraction to the stylus tip.
<b>2.</b>	<b>FEATURE</b> <b>"Longhair"® Brush</b> Its independently hinged action does not interfere with the tracking force of the stylus while its tapered nylon bristles clean the grooves in front of the stylus. Stanton developed it in 1966.	<b>BENEFITS</b> A. Cleans records efficiently. B. Damps tonearm resonance. C. Improves low frequency tracking. D. Dynamically stabilizes tonearm system. E. Aids in playback of warped records.
<b>3.</b>	<b>FEATURE</b> <b>Stereohedron™ Stylus Tip</b> Patented in 1976, the Stereohedron stylus tip has a far greater bearing radius and more contact area with the groove.	<b>BENEFITS</b> A. Exceptional frequency response. B. Superior protection of high frequency signals in the groove. C. Longer record life. D. Longer stylus life. E. Better tracing ability.
<b>4.</b>	<b>FEATURE</b> <b>High Energy Rare Earth Magnet</b> First introduced by Stanton in early 1977, this type of magnet enabled the complete miniaturization of the stylus assembly and tip mass. It is the beginning of a whole new generation of cartridges.	<b>BENEFITS</b> A. Outstanding tracking ability. B. Unequaled transient response. C. Higher output with one tenth the mass of ordinary magnets. D. Superior tracing ability.

**Add it all up... and you see why Stanton is imitated... but unequaled!**

Write today for further information to Stanton Magnetics, Inc.,  
Terminal Drive, Plainview, N.Y. 11803.

... the  
choice  
of the  
professionals™





out the kind of minor, irritating "bugs" that so often mar one's enjoyment of a product whose performance is otherwise satisfactory.

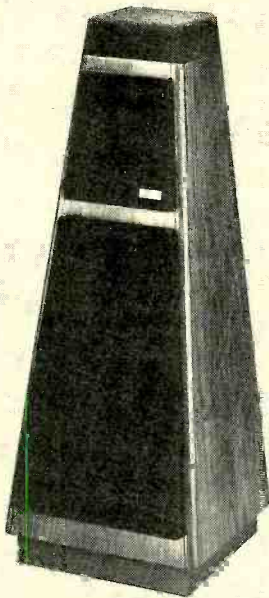
The Denon DP-6700 is a very expensive record player. Our experience with it suggests that its price is well justified. It probably won't sound any different from another much less expensive record player (using the same

cartridge, of course), so long as you are only a listener and do not handle it yourself. When you do handle the tone arm and the other controls and feel for yourself how "right" everything is about this unit, even the sound may seem enhanced. This is a product made for audiophiles who can afford to indulge themselves with an exceptional product—one that

was not built down to a price. The same, equally valid justification accounts for the continuing appeal of Porsche and Mercedes-Benz automobiles. A lesser product may also "do the job," but you can be sure that the experience of using it is just not the same.

Circle 109 on reader service card

## Epicure Model 3.0 Speaker System



**T**HE floor-standing Model 3.0 is Epicure's finest speaker system. The design goals were: flat response over a wide bandwidth, wide dispersion, low distortion, and excellent transient response. While few would dispute that these qualities are necessary for any really fine speaker system, the manner in which the Epicure engineers set out to achieve them is somewhat unconventional.

The rounded-edge, truncated-pyramid shape of the Model 3.0 resulted from the designers' decision that low time-delay distortion (that is, phase linearity) was a necessary prerequisite for the type of transient response they were seeking. Their studies convinced them that reflections from the edges of both conventional and "stepped" cabinets were major contributors to the "time-smear" effect they wished to eliminate. The 3.0's cabinet is free of the discontinuities that, in EPI's view, often negate the benefits of special physical driver arrangements. The enclosure was also designed to minimize cabinet surfaces around each driver so as to make it relatively "invisible" at the corresponding acoustic wavelengths. The shape of the cabinet places the drivers effectively in a single vertical line, achieving phase alignment without a stepped cabinet and the problems it is said to cause. In addition, the rounded edges of the cabinet further reduce the reflections that can take

place when sound waves impinge on sharp edges.

The 10-inch acoustic-suspension woofer, which operates up to about 400 Hz, occupies the lower portion of the pyramid, a volume of about 2 cubic feet. The cone center is about 22 inches above the floor. Above it, in a separate sealed section of the cabinet, is the 6-inch-cone mid-range driver, which operates up to 2,600 Hz. In selecting a relatively large cone driver to cover the mid-range, Epicure departed from the general practice among speaker designers, many of whom prefer to use domes or small cones. These require either a relatively high crossover frequency or steep cutoff slopes if the system is to have a large power-handling capacity. The Model 3.0's mid-range driver operates as a small acoustic-suspension system with a low-frequency limit of about 75 Hz, which permits the mid-range output to roll off mechanically at a 6-dB-per-octave rate. The woofer's high-frequency response is rolled off by a network at a 12-dB-per-octave rate.

The tweeter of the Epicure 3.0 is a ¾-inch inverted-dome type, mounted in its own miniature enclosure (about 2 inches in diameter) at the top of the pyramidal cabinet. It is covered by an acoustically transparent, black foam-plastic cap that matches the grilles over the other drivers. The crossover between the

mid-range driver and the high-frequency driver is at 2,600 Hz, with a slope of 18 dB per octave. Ferrofluid is used in the magnetic gaps of these drivers, both to damp resonances and to conduct heat away from their voice coils (thus improving their power-handling ability).

Space unfortunately does not permit a full discussion of the many novel and interesting features of the Epicure 3.0 system. A few, however, are worth mentioning. The nominal 4-ohm impedance has been designed to be as nearly resistive (uniform with frequency) as possible. The dispersion of the system at high frequencies is unusually good, as evidenced by the specification that the response from 32 to 10,000 Hz varies only  $\pm 3$  dB over a 180-degree angle in front of the speaker (in the horizontal plane), while from 10,000 to 18,000 Hz the variation is only  $\pm 4$  dB over the same angle. The speaker efficiency is fairly low, but it can be driven satisfactorily by amplifiers rated to deliver from 30 to 100 watts per channel continuous output (the speaker will withstand peaks up to 500 watts).

The Epicure 3.0 is 41¾ inches high and 16½ inches square at the base, tapering to 8½ inches square at the top. It weighs 87 pounds. The wood cabinet is finished on all four sides in oiled walnut, with the two black foam grilles on the front and the "cap" on top over the tweeter. Production models have a three-position high-frequency-level switch next to the tweeter, but our test sample lacked this feature. The connection terminals are underneath the enclosure. Price: \$575.

● **Laboratory Measurements.** The Epicure Model 3.0's overall frequency response, combining the semi-reverberant listening-room measurements and a close-miked woofer measurement, was flat within  $\pm 3$  dB from 25 to 20,000 Hz. Considering the totally different conditions under which our data were obtained, the agreement with Epicure's rating of 32 to 20,000 Hz  $\pm 3$  dB was gratifying.

Although we did not carry our measurements beyond 20,000 Hz, the output was rising as we approached that frequency. The only departure from "flatness" that we could see in the composite frequency-response curve was a depression, averaging only about 2.5 dB in amplitude, between 400 and 5,000 Hz. However, the reverberant measurement as we make it is not really precise enough to establish the "reality" of that small deviation.

There was no doubt, however, about the high-frequency dispersion of the Model 3.0. In our measurements it was indistinguishable from that of any of the "omnidirectional" speakers we have tested. There was essentially no difference between the response curves

(Continued on page 66)



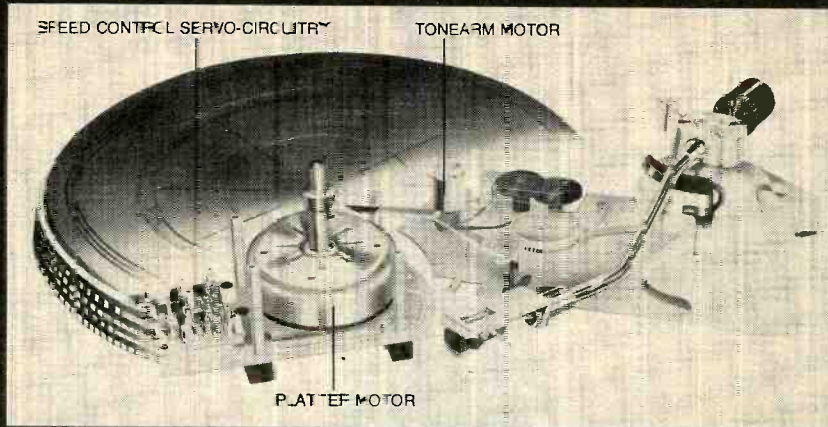
# To beat the other turntables, we gave our arm a little extra muscle.

The new Sanyo TP1030 may look like other direct drive turntables.

But it plays like no other you can buy. Because of a great arm. With a little muscle of its own.

**The arm.** The TP1030's low mass tonearm says "precision" from its rugged, light-alloy headshell to the micrometer-adjustable stylus force gauge. We counterbalanced it laterally, as well as vertically. The counterweight is heavier, and located closer to the pivot to reduce rotational inertia. The arm, with its anti-skating mechanism, rides in a bearing assembly that's virtually frictionless to provide superior tracking response.

**The muscle.** Most automatic turntables use a complicated linkage of gears, cams, and levers that "steal" power from the platter in order to operate the tonearm mechanism. While this arrangement works, it's far from ideal. So we gave the TP1030 a separate little DC motor and precision gear train just to operate the tonearm. No linkages to add friction or mass to the tonearm assembly. No slurring of sound when you reject a record as the shock load of the arm mechanism hits the drive



motor. Instead the tonearm is picked up, positioned, and set down more gently than you've ever seen.

**The rest.** The TP1030's platter motor is special, too. It's an IC-controlled, direct drive servomotor that turns in incredible 0.03% wow & flutter and -70dB rumble specs. And, of course,

the TP1030 offers electronic speed change with a built-in strobe and independently adjustable pitch on 33 and 45 rpm. Plus programmable operation that lets you choose automatic play of a single record, or automatic continuous repeat. Add other nice touches like complete LED status indication, a built-in styus examination mirror, a base of real wood, and dust cover, and you might think this sophisticated turntable is out of your reach.

**The price.** Surprise! The cost of this superb high fidelity component is just \$170\*... which makes it the real value winner in deluxe turntables today.

See the TP1030 and also what's new in Sanyo receivers and cassette tape decks at a nearby Sanyo audio component dealer.

© 1978 Sanyo Electric Inc., 1200 W. Artesia Blvd., Compton, Calif. 90220

**SANYO**  
That's life.



TP1030

CIRCLE NO. 61 ON READER SERVICE CARD

\*Manufacturer's suggested retail. Actual selling price determined by individual dealer.



compensation is supplied by a noncontacting magnetic system that reduces the antiskating torque as the arm travels toward the center of the record (where the frictional forces that produce the skating effect are claimed to be less). The antiskating knob can be adjusted while a record is being played, since it is mounted on an extension of the arm base rather than on the arm itself. Pulling out the knob separates the magnets and disables the antiskating system.

The cueing lift is oil-damped for both directions of arm movement, and the lift lever is located near the front of the arm for easy handling. The headshell, of the familiar four-pin plug-in type, is made of a magnesium alloy said to be much lighter and more rigid than the more commonly used aluminum. The connection terminals in the tone arm and the phono plugs on the special low-capacitance cable supplied with the arm are gold-plated for low contact resistance and oxidation inhibition.

In the DP-6700 system (which does not include a cartridge), the DP-6000 turntable and DA-307 tone arm are mounted on a very heavy laminated wood base covered in brown leather-like vinyl and supported by four spring-mounted feet whose heights are individually adjustable for leveling the turntable. The hinged, tinted plastic dust cover remains open at any intermediate angle and has convenient metal finger lifts in its sides. The Denon DP-6700 system is large as well as heavy, with approximate overall dimensions of 20% x 7% x 16½ inches with the cover closed. It weighs about 37½ pounds. Price: \$1,060.

● **Laboratory Measurements.** The Denon DP-6700 record-player system was tested with a Denon 103D moving-coil cartridge installed in its arm and an external Denon HA-1000 head amplifier (pre-preamplifier). The flutter and rumble specifications of the DP-6000 turntable are far better than those of any test record we know of, so we had no expectation of matching the 0.015 per cent wrms flutter rating (and we do not use the DIN B weighting that was the basis for the -77-dB

rumble specification). However, we did measure a weighted rms flutter of 0.045 per cent and a weighted peak (DIN) flutter of ±0.07 per cent. Both figures represent excellent performance by any standards. The unweighted rumble was -32 dB, including both vertical and lateral components, and -37 dB with vertical rumble canceled. With ARL weighting, the figure improved to -59 dB, a good figure though not quite the best we have measured. Both the flutter rate and the predominant rumble energy were in the 5- to 10-Hz range.

In general, the turntable performance was fully comparable to that of the better direct-drive units we have tested, being neither better nor worse in any significant respect. The speed, according to the crystal-controlled reference oscillator in our Meguro flutter meter, was 0.02 per cent fast, a completely negligible error. The vernier speed adjustment had a range of +11 to -8.5 per cent, and the speed did not change detectably, in either the fixed or variable mode, when we varied the a.c. line voltage from 95 to 140 volts. From a standing start, the turntable required 1 to 2 seconds to reach operating speed. It could be switched between its two speeds more quickly, taking less than 1 second to go from 33⅓ to 45 rpm and roughly 1 second to go back.

Although we could not measure the tone-arm bearing friction directly, the arm's tendency to balance unambiguously and float freely in any balance condition was indicative of very low friction. The actual tracking force was within 0.02 gram of the indicated value. The tone-arm tracking error was about as low as can be measured visually with a stylus protractor, on average less than 0.3 degree per inch of radius, reaching a maximum of 0.4 degree per inch at a 6-inch radius.

The effective arm mass (less cartridge) was only 14 grams. Though not quite as light as some specially designed low-mass arms, the DA-307 is substantially less massive than most current record-player tone arms. Since the arm was intended to operate compatibly with the relatively low compliance of the Denon 103 series cartridges, its mass could not have been further reduced without placing the

resonance in the audio range. In our tests with the 103D cartridge the combination resonated at a nearly ideal 9 Hz with an amplitude of about 6.5 dB.

The antiskating had to be set about 1 gram higher than the tracking force for optimum correction. This is a very noncritical adjustment, especially with the Denon 103D cartridge, which has excellent tracking ability. The cueing device produced absolutely no lateral arm drift, returning the pickup to the same groove it had left even when we used the maximum available antiskating torque. The capacitance of the arm and signal wiring was exceptionally low, only 61 pF (picofarads) per channel to ground and 3 pF between channels.

Since it was evident that Denon had used the combination of a heavy base and softly sprung feet to isolate the system from conducted vibration, we expected the base isolation to be very good. Nevertheless, we were surprised to find out just *how* good it was. Unequivocally, the Denon DP-6700 had better base isolation against conducted vibration in the audio range than *any* other direct-drive record player we have ever tested. In fact, its margin of superiority was typically 20 to 40 dB, and often much more. Only one belt-driven turntable we have tested could match the DP-6700 in its immunity to feedback from conducted vibration, and that also was a large, heavy, and expensive unit.

● **Comment.** Our comments on the Denon DP-6700 system must necessarily skirt the question of "how it sounds," since we are not reviewing the cartridge, which is mainly responsible for the audible output of a record-playing system (for the record—pun intentional—it sounded very, very good). More to the point is that so many things about the DP-6700 have been properly executed and so few have been overlooked or done incorrectly. As a matter of fact, we could find nothing about it that we did not like except, perhaps, its large size, which may complicate installation in some cases. Most of the things that impressed us are so obvious that it is hard to understand why *every* record player does not have them. The DA-307 tone arm has the finest manual cueing-lift device we have had the pleasure of using, with zero arm drift under any conditions (all that this requires is a high-friction surface on the lift bar to contact the arm tube and prevent slippage between them, a fact which seems to have escaped the notice of most record-player designers). Moreover, it is simple and straightforward to set up and adjust; one does not need an external stylus-force gauge or tracking-error protractor to be certain of getting optimum performance. The mounting for the DA-6000 turntable not only isolates it effectively against audio-frequency vibration and acoustic feedback, but is surprisingly effective at infrasonic frequencies. In other words, the DP-6700 is an impressively stable unit under any practical home-use conditions and does not have to be handled with undue delicacy to avoid jarring the pickup.

We could probably go on indefinitely, but the point should be clear by now. Denon has made a record player that shows full evidence of thoroughness and care in its design and construction. We would be willing to bet that the engineers who designed it actually used it to play records, and in the process weeded

(Continued on page 64)



"... However, if you're looking for something a little better than state-of-the-art. . . ."



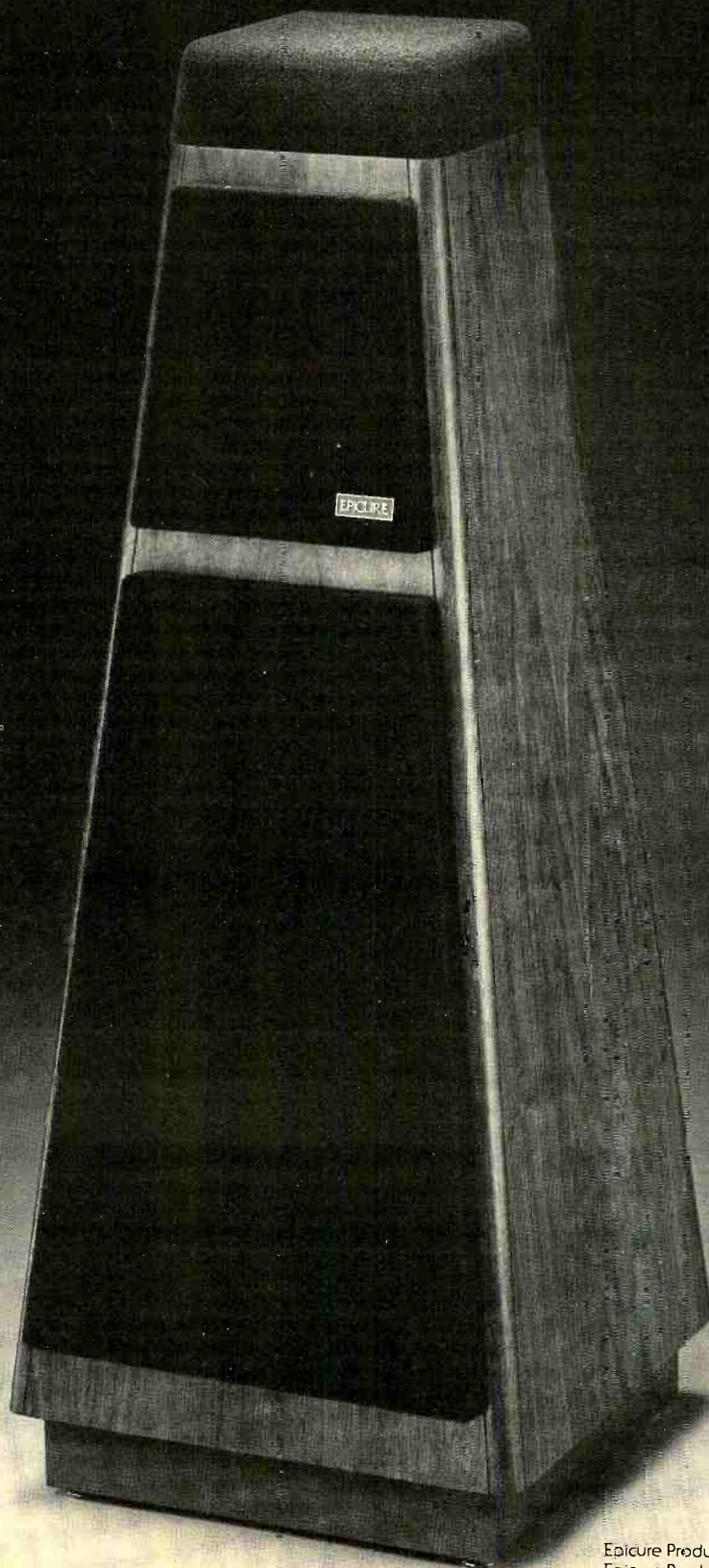
# 3.0

---

The last word in the ongoing dialogue between musical art and the state of the art. A loudspeaker creation from Epicure representing over 2½ years of development that will significantly influence the design of dynamic loudspeakers for years to come. The 3.0 is priced at about \$500 per speaker and can now be experienced at select audio stores everywhere.

---

**EPICURE®**



CIRCLE NO. 32 ON READER SERVICE CARD

Epicure Products, Inc., Newburyport, MA 01950  
Epicure Products (Europa) GmbH, Munich, Germany



burst signal, using a very short duty cycle of one burst each half second. When the level was set to give a 0-dB indication on a continuous signal, it read -1 dB on a 1-millisecond burst and -6 dB on a 0.1-millisecond burst (which was only one cycle of the 10,000-Hz tone). Using a -21-dB signal as a reference level to check the response time over a reduced dynamic range, we found that a 1-millisecond pulse read 0 dB and a 0.1-millisecond pulse read -6 dB.

• **Comment.** Our preliminary examination and bench tests of the Audio Technology Model 510 left us with a very favorable impression of its design, construction, and performance. Connecting it to the speakers of a music system did nothing to lessen that impression. The

45-dB dynamic range was sufficient to give a continuous visual display of program levels, and the fast response/slow decay of the display let it follow brief program peaks while continuing to show the long-term average output (in the form of the continuously lit LED's at lower levels). Its operating speed was dramatically demonstrated to us by its vivid response to a power-line transient from an air-conditioner compressor. At the low listening level we were using (the -33- and -39-dB lights on the Model 510 were the only ones energized by the program) we heard nothing from the line transient, yet it lit up about half the LED's on the display for a fraction of a second!

In its standard form the Model 510 is small enough to fit almost anywhere in or around a

music system or to be built into rack panel or console for professional applications. Other variations are available, including a vertical-reading front panel, solid-oak end panels, and single- and double-instrument rack-mount panels, which can be ordered from Audio Technology, 1169SR Tower Road, Schaumburg, Illinois 60195. A model with red, green, and yellow LED's will be available shortly.

Anyone who, for any reason, would like to know the absolute peak operating levels in his system or who wishes to monitor the dynamic program variations accurately while listening or recording will find the Audio Technology Model 510 to be an invaluable accessory at a surprisingly modest price.

Circle 108 on reader service card



Denon DP-6000 Turntable  
and DA-307 Tone Arm

**D**ENON high-fidelity components are manufactured by Nippon Columbia and distributed in the U.S. by American Audiopoint, Inc. Denon's finest turntable is the DP-6000, a quartz-locked, direct-drive, two-speed unit that is available either unmounted or as a part of the DP-6700 record-playing system, in which it is installed with a Denon DA-307 tone arm (also available separately) on a special heavy, isolating base.

The DP-6000 has a full-size, 4-pound, die-cast aluminum-alloy platter driven by a servo-

controlled a.c. motor at either 33½ or 45 rpm. The speed is normally locked to a highly stable frequency derived from a quartz-crystal oscillator. The servo feedback is obtained from a ring of magnetic material coated on the inside rim of the platter and containing 1,000 recorded pulses. A pickup head, resembling the head of a cassette deck, senses the pulses as the platter rotates and compares their frequency to the reference signal derived from the crystal oscillator. Any rotational deviation, even one occurring as a phase shift,

causes a correcting signal to be applied to the drive motor.

The platter is almost entirely above the motorboard, but it is surrounded by a beveled ring that conceals the strobe markings on the rim of the platter. These are lit by a neon lamp within the beveled housing; its light flashes are derived from the control frequency rather than from the commercial power line. This allows a single row of marks to be used for indicating both speeds. The stroboscope can be viewed through a window in the beveled ring.

The operating controls of the record player are also on the beveled surface. They include a pushbutton power switch and four momentary-contact pushbuttons for selecting the operating speed and starting or stopping the motor. The button whose function has been selected is back-lit to show the operating status of the turntable. A small pushbutton converts the turntable-speed control from the quartz reference signal to a conventional vernier-adjustable direct-drive system. A knurled wheel under the strobe window varies the speed over a nominal  $\pm 6$  per cent in the variable operating mode.

The Denon DA-307 is, at first glance, a simple tubular S-shaped arm with a rather long rear-counterweight extension and two black metal base extensions that contain the arm lift (cueing) and antiskating mechanisms. Close examination shows that the arm is much more sophisticated than it at first appears. Denon engineers have given much thought to the ways in which unwanted vibration can reach the record-playing system and interfere with correct reproduction. One of these paths is through the arm base and pivots. To prevent vibration from reaching the pickup through this route, the arm tube is decoupled from the pivoted counterweight section, *forward of the pivots*, by a rubber damping section. The two sections of the arm are connected by a single wire that positions them accurately and controls the tension of the coupling between the sections. According to Denon, this feature greatly reduces transmission of acoustic energy to the pickup through the arm base.

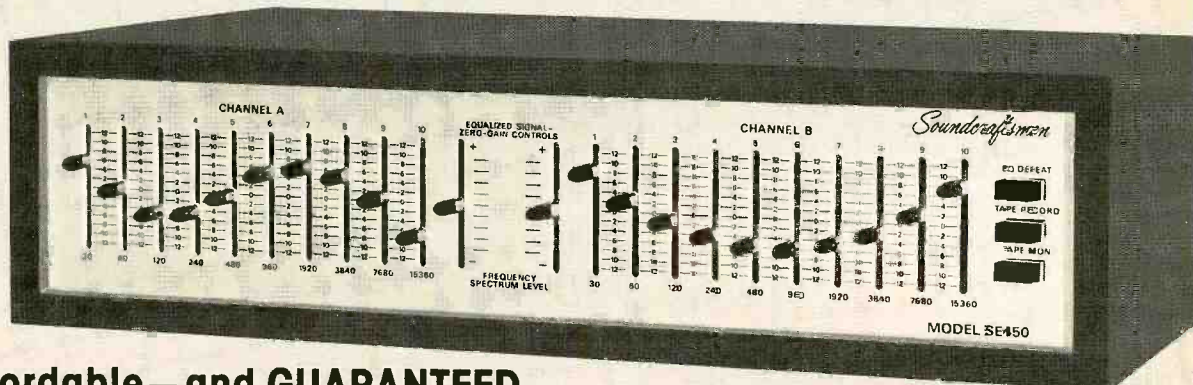
The tracking force is set by a rotating counterweight with a scale calibrated from 0 to 2.5 grams at 0.1-gram intervals. Antiskating com-

(Continued on page 62)



# Soundcraftsmen equalizers

the **NEW**  
**SE450**  
**\$249<sup>00</sup>**  
(including cabinet)



the **BEST**  
in EQ is now affordable—and **GUARANTEED**  
to enhance and improve any fine system!

**THE EQUALIZER YOU BUY  
SHOULD HAVE THESE FEATURES:**

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 for each EQ curve.

#### SE450 SPECIFICATIONS

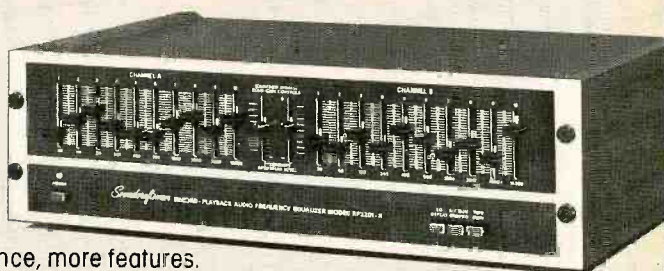
**SIGNAL-TO-NOISE:** 105dB below full output. **INDIVIDUAL CONTROLS:** 32dB total adjustment range. a.  $\pm 16$ dB each octave (all other octaves set at max.) b.  $\pm 12$ dB each octave (all other octaves set at zero) **TOTAL GAIN/CUT:** +22dB, -28dB, all controls set at maximum. **THD:** Less than 0.01% at 2V.

**FREE BROCHURE!**

(Circle readers service card below)

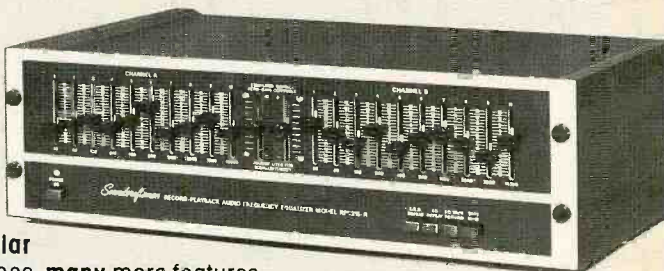
**WHY'S & HOW'S  
OF EQUALIZATION**

**RP2201-R**  
**\$299<sup>00</sup>**  
(including cabinet)



Same performance, more features.

**RP2215-R**  
**\$370<sup>00</sup>**  
(including cabinet)



Spectacular performance, many more features.

## Soundcraftsmen's

PERFECT-PAIR MAKES A TERRIFIC-TRIO

- 1 20-band 2-channel **GRAPHIC EQUALIZER**
- 2 patch-panel **PUSHBUTTON PRE-AMP**
- 3 250-watt **CLASS 'H' AMPLIFIER**

#### 1 PE2217-R EQ SECTION

A stereo ten-octave Graphic Equalizer complete with zero-gain level controls, visual level monitoring through L.E.D.'s, the ability to pre-equalize tape recordings, tape monitor facilities, front panel equalizer switching and our exclusive Instructional Test Record and Computone Charts. Signal-to-noise better than 106dB down,  $\pm 12$ dB per octave (typ  $\pm 14$ dB), total gain/cut capability +30dB, -36dB.

#### 2 PE2217-R PRE-AMP SECTION

Two independent discrete phono preamplifiers. Tape dubbing between two or three recorders with optional simultaneous equalizing and monitoring. Front panel tape input-output jacks. Double-dubbing into two recorders simultaneously. Two stereo headphone jacks. 84dB S/N and .01% distortion. Includes walnut-grained sculptured side panels, removable for 19" rack mounting.

#### 3 MA5002 POWER AMP

The new Class "H" Analog logic Vari-Portional circuit with Auto-Crowbar protection circuit, input level controls, adjustable range meters, main and remote speaker selection, clipping indicators, Vari-Portional indicators and speaker protection. 250 watts RMS minimum p/c 20-20KHz @ 8 ohms, less than 0.1% THD. T.I.M. better than 0.02%. Slew rate better than 50V per micro-second.



\$549<sup>00</sup>

\$799<sup>00</sup>

CIRCLE NO. 68 ON READER SERVICE CARD

Manufactured in California, U.S.A. by Soundcraftsmen, 1721 Newport Circle, Santa Ana, CA 92705



The Uni-Sync PMS-1 is compact and designed for rack mounting. It can be powered from a 115- or 230-volt a.c. line. Its black front panel is 19 inches wide and 1¾ inches high, and the unit is 5 inches deep. Weight is 6 pounds. Price: \$149.

● **Laboratory Measurements:** Although the calibration-control markings are in terms of watts, the percentage markings on the LED's actually refer to voltage levels. This distinction is not sufficiently emphasized in the instruction sheet accompanying the unit—in fact, it is not mentioned at all.

We connected the Uni-Sync PMS-1 to the output of an audio-signal generator, monitoring the applied voltage on an accurate a.c. voltmeter. Both channels were driven simultaneously. We first verified that they had identical sensitivities for all settings of the calibration control. Then, setting the control in turn to each of its calibrated marks, we measured the 1,000-Hz input voltage required to make the 100 per cent light come on and converted this to the equivalent power into an 8-ohm load. The typical error in the LED readout display was less than  $\pm 15$  per cent, which is

quite acceptable for a monitoring device such as this, considering its likely applications.

The control was then set so that the 100 per cent light came on with exactly 10 volts applied at 1,000 Hz, and the voltage calibration of each of the LED's was checked. The error, as a percentage of the total "full-scale" reading, increased smoothly from one or two per cent at the upper end of the range to 10 per cent at the lowest reading (where it amounted to 100 per cent of the reading). The PEAK light came on at 10.7 volts, a mere 0.6 dB above the 100 per cent level.

We checked the frequency response of the PMS-1, starting with 10 volts of 1,000-Hz input giving a 100 per cent indication. There was no change in sensitivity down to 50 Hz, and at 20 Hz a 9.4-volt input was sufficient for a 100 per cent indication. At the high frequencies the sensitivity dropped slightly, and an input of 10.9 volts was required at 20,000 Hz.

The final test of the response time was made with a tone-burst signal of adjustable duration. The continuous signal was adjusted to give a 100 per cent reading. An input duration of at least 15 to 20 milliseconds was needed in order to obtain a true level reading. A 4-

millisecond burst read 60 to 70 per cent of its actual level, and a 1-millisecond signal indicated only 40 per cent. Although this was not quite as fast as some peak indicators we have seen, it would appear to meet most requirements for audio-peak monitoring.

● **Comment.** The electrical performance of the Uni-Sync PMS-1 appeared to be quite satisfactory for its intended purpose, and the device can be connected without difficulty to an amplifier of almost any power rating.

Unfortunately, the choice of linear calibration intervals implies a limited dynamic range. On ordinary (uncompressed) music, for example, the 10 per cent light will rarely flash at a level setting that may cause the 100 per cent light to flash on an occasional peak. The lack of a logarithmic (decibel) response characteristic thus somewhat limits the value of this unit in a home music system. In those professional performing applications where hard rock music (or other material) with a limited dynamic range is involved, the PMS-1 would undoubtedly be more effective.

Circle 107 on reader service card



Audio Technology  
Model 510 LED Peak Display

**T**HE Audio Technology Model 510 is a compact peak-responding level indicator that uses two parallel rows of LED's to monitor and display the instantaneous program levels in two audio channels. It has a 45-dB display dynamic range, with the sixteen LED's in each channel being turned on at level increments of 1 to 6 dB. Around 0 dB (the maximum reading is +6 dB), the lights are spaced at 1-dB increments, and the intervals open up to 3 dB and 6 dB near the lower end of the scale. On the front panel there is also a push-button that changes the operating mode from a low-level line monitor with a 0-dB sensitivity adjustable from 50 millivolts to 5 volts (dBm setting) to a power monitor covering a range from 0.003 to 400 watts (dBw setting).

In the rear are separate inputs for the two operating modes—screw terminals for the speaker inputs and phono jacks for the line inputs. A control next to each of the latter

changes its sensitivity over a wide range. Above the power-reading input terminals are two small, three-position slide switches for setting the nominal 0-dB display sensitivity to 25, 50, or 100 watts and for correcting the wattage calibrations for nominal system impedances of 4, 8, and 16 ohms. The input impedance of the Model 510 is greater than 10,000 ohms, and it will not load the circuits to which it is normally connected. Above the line cord (the unit is powered from the 120-volt a.c. line, from which it draws less than 10 watts) is a three-position slide switch that controls the power to the Model 510 and supplies an internal 60-Hz calibration signal at a +4-dBm level (1.22 volts) to both line inputs.

The Model 510 has a very fast response time (rated at less than 50 microseconds for a 20-dB level rise to 750 microseconds for a full 45-dB rise), and a slower decay time that takes from 300 to 650 milliseconds for the

same level changes. This enables its LED's to show very fast transients with an accuracy of  $\pm 0.25$  dB over the full 20- to 20,000-Hz audio range.

The dual inputs of the Model 510 enable it to monitor levels in different parts of a music system. For instance, the line inputs can be connected to the outputs of a tape recorder and the power terminals to the speaker outputs of the amplifier. The front-panel button on the Model 510 can be used to switch between monitoring either power output or a low-level signal at any time.

The Audio Technology Model 510 is 7½ inches wide, 1¾ inches high, and 5½ inches deep. It weighs 2.2 pounds. Price: \$129.95.

● **Laboratory Measurements.** Our measurements on the Audio Technology Model 510 consisted principally of confirming the detailed final test data sheet that accompanied our test sample. For all practical purposes, our measurements were in complete agreement with the manufacturer's. The overall range of the display was 44.75 dB, and each display step was within 0.25 dB of the indicated value. The internal calibration signal was at +5 dBm instead of +4 dBm. The frequency response was within  $\pm 1$  dB from 5 to beyond 20,000 Hz, and it was down 3 dB at 120 kHz. At maximum line-level input sensitivity, a 0.42-millivolt signal at 1,000 Hz gave the lowest reading (-39 dB), and 36 millivolts was needed for a 0-dB reading. In the power-level mode, a 9.6-volt input lit the 0-dB light with the 25-watt and 4-ohm settings (10 volts would be the ideal reading for that condition). The display changes for the different power and speaker-impedance switch settings were exactly as specified (3 dB per step of change).

To check the response time of the display, we drove the line input with a 10,000-Hz tone-

(Continued on page 60)



# Introducing the new TDK necessities.



## A complete selection of unique, high quality recording accessories.

Even today's sophisticated cassette decks are only as good as the tape you put into them. But once you realize just how good cassette high fidelity can be, regular maintenance and proper set-up become as necessary to your ears as having the right cassette and deck.

So we've developed a line of accessories which are unique in features, engineered to TDK's precision standards, and are just plain useful:

- Instant Head Demagnetizer: battery operated in a compact cassette shell for one-second, hazard-free discharge of magnetic build-up on even the most out-of-the-way heads on virtually any deck; home, auto or portable.

- Level Adjust Test Tape: customized from our professional line, for sure-fire channel balance when recording or playing back.

- Endless Cassettes: exclusive TDK engineering for repeated messages or environmental sound tapestries, etc.

- Quality Index Cards and Cassette Labels: thoughtfully designed to help you maintain order in your library.

- Head Cleaning Kit: specially-engineered for more occasional, full-scale maintenance, featuring non-toxic aerosol cleaning agent, and brush, inspection mirror and cleaning probes.

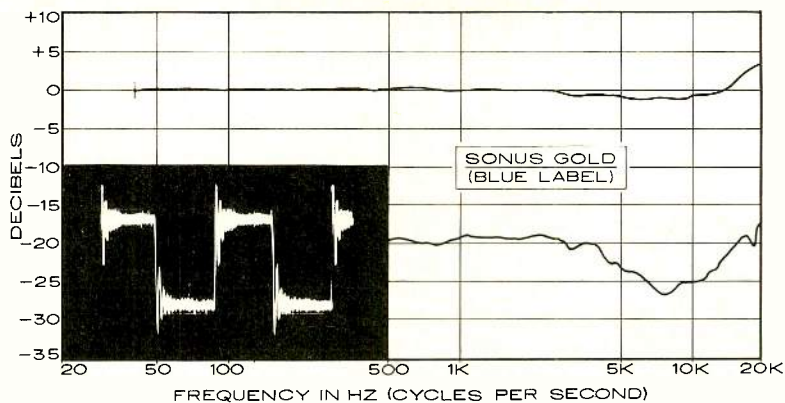
Plus of course, our elegant CP-36 Deluxe Cassette Storage Cabinet, 7 and 10-inch metal

and 10-inch plastic take-up reels, and head cleaner cassette. We've offered the state of the art in cassettes for 10 years. The new TDK necessities will help you get the high level of performance and enjoyment from your tape, deck and music that you've come to expect over that time... for some time to come.

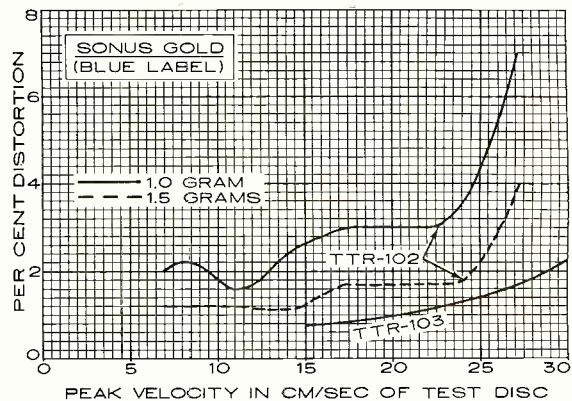
TDK Electronics Corporation, Garden City, New York 11530.

**TDK**  
The Machine for your Machine®





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 (see text), which indicates 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.

wide frequency response of a CD-4 cartridge. It showed the record's inherent ringing at about 40,000 Hz over the entire duration of the square wave. We also found a large overshoot—about the full amplitude of the square wave—followed by ringing that decayed rapidly. This apparently results from the relatively undamped stylus resonance that occurs at about 35,000 Hz.

● **Comment.** The Shure "Audio Obstacle Course" records confirmed that the Sonus Gold (Blue Label) cartridge has a very high tracking ability (not surprising in view of our other measurements). The older ERA III record was played without difficulty at 1 gram except for a slight "sandpaper" quality on the fifth level of the sibilance test. Increasing the force to 1.5 grams cleared this up. The newer record, ERA IV, which has proved to be a

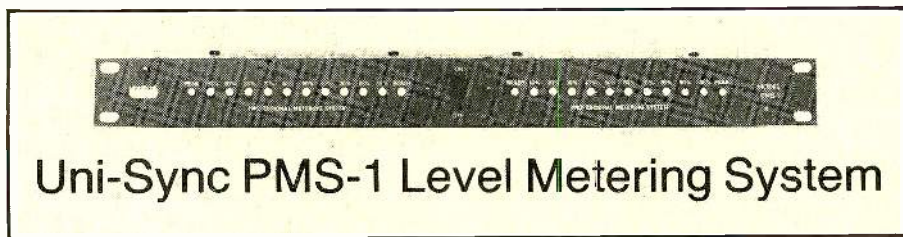
very severe test of a cartridge's middle- and high-frequency tracking ability, was also negotiated handily at 1 gram except for the beginning of mistracking on the fifth level of the combined harp and flute section. In that case, an increase to 1.5 grams of tracking force had no significant effect.

These records represent a much more severe tracking test than almost any commercial music record we know of. When we listened to more usual recorded material with the Sonus Gold, we found it to be as smooth and free of coloration as its measurements imply; it had no particular colorations, even subtle ones, that we could find. The detection of such colorations, which are often the only differences between cartridges whose measurements are basically similar, depends to a great extent on the specific records one uses, as well as the total listening environment and

one's personal taste. To our ears, this is as flat and clean a cartridge as we have heard.

Aside from such purely personal reactions, we must point out that the Sonus cartridge is very tolerant of load conditions. Load resistances of 40,000 to 100,000 ohms and almost any capacitance up to 400 pF have only the slightest effect on its performance. For the same reason (a very low coil inductance of 150 millihenries, compared with 500 to 1,000 millihenries for most cartridges), it is less likely than most cartridges to interact with a preamplifier's equalizing circuits. It would seem that Sonus has made what is very nearly a universally applicable top-quality cartridge, with unusual freedom from requirements for any special interfacing with the rest of the system.

Circle 106 on reader service card



**T**HE Uni-Sync PMS-1 Professional Metering System is a peak-responding level indicator suitable for connection to any audio amplifier in a home or professional sound system. The PMS-1 is a stereo device whose two completely independent channels have "floating" grounds so that there is no danger of creating ground-loop hum when connecting it to a system and no possibility of trouble from incorrect polarity. The 72,000-ohm input

impedance of each channel will not load any circuit to which it is connected.

The front-panel indicators are two rows of colored LED's. When the power is turned on, the first light for each channel (marked READY) comes on in green. Proceeding outward from that point, there are green LED's at each 10 per cent interval from 10 to 50 per cent of maximum, amber LED's at 60, 70, and 80 per cent, and red LED's at 90 and 100 per

cent. And one final red light is marked PEAK.

In the rear of the PMS-1 are two pairs of heavy-duty, five-way binding posts for connection to the amplifier outputs, a line fuse, and a horizontal-slider calibration control that adjusts the sensitivity of the display, setting both channels simultaneously. (Its scale is calibrated from 2 to 200 watts, with intermediate calibrations at levels of 5, 20, 50, 100, and 175 watts.)

There are three methods of calibrating the PMS-1 for any given audio system. The calibration control can simply be set to the rated power output of the amplifier. Alternatively, the maximum signal level can be applied to it and the control adjusted until the 100 per cent light flashes. Finally, the most accurate method of adjusting the PMS-1 is to observe the amplifier output on an oscilloscope and adjust the calibration control so that the 100 per cent light comes on just as the amplifier output begins to clip. (Continued on page 58)



# While others are reaching for this technology, Sony brings it within your reach.

It takes a sharpened technical sense to deliver innovation at sensible prices.

Who else but Sony could manage it? We know turntables backwards and forwards. As far back as 1966, we were breaking ground: in that year, we applied a slow-speed, servo-controlled motor to turntables.

Today, we present the PS-X7, X6 and X5. Three fully automatic, direct drive turntables that are a direct challenge to the competition.

And the competition will soon find that we've got the features they don't want to face.

## **The X-tal Lock. X-act speed accuracy.**

A traditional servo system doesn't serve you well enough. It can heat up, creating speed drift.

More critically, increased friction between the stylus and record during loud passages can slow the speed into a range where a conventional servo isn't sensitive enough to read. But your conventional ears can.

Sony's X-tal Lock system cannot be accused of the above. A quartz generator perfectly regulates the servo, locking in speed *electronically*. It's impervious to temperature, load, or voltage changes.

## **Our brushless and slot-less is matchless.**

Sony's new motor gives brushes the brush. The ring shaped permanent magnet rotor and fixed coil eliminate cogging. The torque is high. The rotation smooth. The start-up, quick.

## **Sony's Speed Monitoring System. Like millions of tiny State Troopers.**

The X-tal Lock system is worth x-actly nothing, unless the right information is relayed to it. Our system uses a precise magnetic pulse signal, recorded on the platter's outer rim.



Sony PS-X7

An 8-pole magnetic pick-up head receives it. Then transmits it to the servo electronics.

Most systems use only one pole. By using 8—and averaging them—we get above average accuracy.

## **Want functional controls? The case is closed!**

Our dust cover lives down to its name. It remains closed, protecting record and machine, allowing immediate access to controls without lifting the cover. (On the X7 and X6, the controls are touch sensitive.)

Underneath the cover, you'll find a safety clutch mechanism to protect the tone arm, should it accidentally be grabbed while in motion.

And on the X7 and X6, an optical sensing system—to automatically return the arm at record's end. (In the X7, a carbon fiber tone arm.)

These turntables are even worth more dead, than alive. Because their cabinets are made from an acoustically dead material. They won't vibrate.

Vibration is also cut by our thick rubber mat, heavy aluminum platter and viscous filled rubber feet. (The X7's mat is filled with the same damping material).

Much has been engineered into these turntables that we haven't mentioned, including lightweight tone arms with a cast aluminum alloy headshell.

So tightly built are they that we didn't even have room for bigger prices.

Cartridges are not included

# SONY®

© 1977 Sony Corp. of America, 9 W. 57 St., N.Y., N.Y. 10019. SONY is a trademark of Sony Corp.

CIRCLE NO. 67 ON READER SERVICE CARD



The front-panel power meters were reasonably accurate, with typical errors of 30 to 40 per cent (both read the same at all points). Since they are not measuring devices in any sense but merely indicators of the approximate power output of the receiver, this is acceptable accuracy.

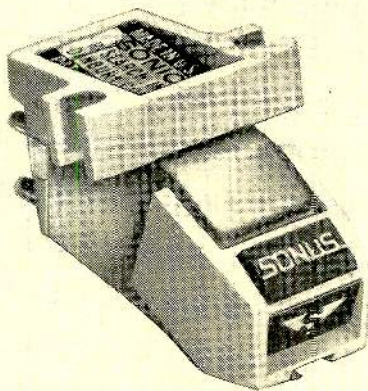
The JVC JR-S501 is perhaps not quite so imposing in sheer bulk as some of the super-

power receivers currently on the market, but it is still surprisingly heavy for a unit of its size. Its power-output capability is more than adequate for any reasonable home application, and it is a solidly constructed receiver that, in our opinion, offers just about the ideal mix of tuner performance, audio power, low distortion and noise, and operating flexibility at an attractive price. We'd also like to com-

ment on the highly successful styling refinements applied to the JR-S501. Without losing the distinctive appearance created for last year's models, JVC has introduced a freshness and a substantially enhanced functionality in the new receiver that attest to the quality of the redesign.

Circle 105 on reader service card

## Sonus Gold "Blue Label" Phono Cartridge



**T**HE new Sonus Gold phono cartridges are a refinement of the original Sonus design using the latest materials and manufacturing techniques to improve an already fine product. They feature a newly patented stylus suspension in which the stylus pivot, made of an elastomer material designed for high compliance and linearity, is located at the dynamic center of rotation of the moving system. A high-efficiency magnetic system makes it possible to use a very small section of magnetic material in the cantilever itself for minimal effective mass. The short, rigid cantilever is designed so that the stylus tip is on the same axis as the magnetic armature, minimizing the effects of torsional resonances on the cartridge output. A more sensitive coil structure permits a significant reduction in armature mass while retaining the same output level. This, combined with a 50 per cent reduction in the weight of the diamond, results in a virtual halving of the effective mass of the moving structure—which in turn permits a redesign of the stylus suspension for greater resiliency and less damping.

As with the earlier Sonus cartridges, the Gold series consists of a single basic cartridge body with a choice of three interchangeable stylus assemblies. These are also virtually identical, differing only in the specific shapes of their diamond tips. The styli are identified by the colors of their end labels. The Blue Label has a modified line-contact stylus suitable for playing CD-4 as well as stereo records. The Red Label stylus has a conventional elliptical tip, the Green Label a spherical tip.

All three Sonus models are designed to track at forces from  $\frac{3}{4}$  to  $1\frac{1}{4}$  grams ( $1\frac{1}{2}$

grams is given as the maximum force in the sheet accompanying the cartridge). They have the same output-voltage rating of 0.8 millivolt for a velocity of 1 centimeter per second (cm/sec) at 1,000 Hz with a  $\pm 2$ -dB tolerance in level. A hallmark of Sonus cartridges is their extremely high compliance, which is rated at  $50 \times 10^{-6}$  cm/dyne in the Gold series. The cartridge coils have a relatively low inductance, making them less critical than most in respect to load capacitance and resistance. The suggested list price of the Sonus Gold (Blue Label) cartridge is \$140. The Red Label and Green Label versions are \$125 and \$110, respectively. Replacement styli cost \$74 for the Blue Label cartridge, \$59 for the Red, and \$44 for the Green.

● **Laboratory Measurements.** We mounted the Sonus Gold cartridge in a good-quality integrated record player whose tone arm has an effective mass of 19.5 grams. Ideally, because of its high compliance, the cartridge should be used in a very low-mass arm, but our tests showed that it was perfectly usable in the more massive arm with no apparent ill effects.

The performance of the Sonus Gold within the audio band was measured with the CBS STR 100 test record. The cartridge load was 47,000 ohms in parallel with 170 picofarads (pF), approximately what one would encounter with most of today's low-capacitance record players. The frequency response was flat to about 10,000 Hz and rose slightly at higher frequencies to a maximum of about +3 dB at 20,000 Hz. The channel separation shown in the graph (see page 56) was measured with the CBS disc. It averaged about 18 dB at 1,000

Hz and improved to 20 to 25 dB at 10,000 Hz and 16 to 22 dB at 20,000 Hz. A recheck of separation with the JVC TRS-1005 test record gave better results: 25 to 30 dB in the mid-range and 24 dB at 20,000 Hz. We also measured the effect of larger load capacitances on the cartridge's frequency response. An increase to the rated maximum of 400 pF boosted the output slightly above 6,000 Hz to a maximum of about +2.5 dB at 15,000 Hz.

Since the Blue Label is also a CD-4 cartridge, we measured its response up to 50,000 Hz with the JVC TRS-1005 record. The output rose to a maximum of +5 to +7 dB at 35,000 Hz, with an overall variation of approximately  $\pm 5$  dB up to 45,000 Hz (the rated variation is less than  $\pm 6$  dB). Separation was at least 13 to 18 dB up to 45,000 Hz.

These tests were made at a 1-gram tracking force, which we had determined was sufficient to enable the cartridge to track our high-velocity test records. Even the 300-Hz tones of the German Hi Fi Institute test record could be played at their 70-micron level at 1 gram. For those who want the ultimate in tracking ability, an increase to 1.5 grams extended the Blue Label cartridge's capability to 90 microns.

The output of the cartridge was 2.8 millivolts at 3.54 cm/sec, and the channel levels were matched within 0.6 dB. The vertical stylus angle of 30 degrees was greater than we have measured on a cartridge in recent years. Sonus informs us that the cartridges are initially assembled with a higher-than-normal vertical angle and that after a short period of use the stylus position shifts to a permanent setting of about 24 degrees. The low-frequency resonance in our tone arm was at 7 Hz with an amplitude of 6 dB. This is an acceptable resonance frequency (although near the lower limit of acceptability), and it would seem to justify our use of a "normal" tone arm for this test instead of a special and costly low-mass arm.

The intermodulation distortion, measured with the Shure TTR-102 test record, remained 3 per cent or less up to a 23-cm/sec velocity before increasing to 7 per cent at 27 cm/sec. An increase in tracking force to 1.5 grams reduced the distortion substantially, to between 1 and 2 per cent from 7 to 24.5 cm/sec and only 4 per cent at 27 cm/sec.

With the 10.8-kHz tone bursts of the Shure TTR-103 record, we found the repetition-rate distortion to be about average for a good cartridge. It increased smoothly from about 0.7 per cent at 15 cm/sec to 2.25 per cent at 30 cm/sec. The square-wave response with the CBS STR 112 record was consistent with the

(Continued on page 56)



# Finally. Someone to fill you in on the blanks.

People tell us blank tape has their heads reeling.

We know why. Blank tape is a jumble, presenting as many confusing options as a Chinese menu. Written in Chinese.

Sony is prepared to make order out of the chaos. And no one is more equipped. We've been making tape for 30 years. It's how Sony got started. So we know it backwards and forwards. Forward and rewind.

Right now, Sony makes 4 different blank tapes. Each has a distinct purpose. We're going to slam through the jargon, telling you clearly and specifically, which tape fills which need.

Others try to make their customers into engineers. We'd rather make our engineers talk like our customers.

## Basic Blank.

The workhorse tape, technically called Low Noise—don't trouble yourself why. It's for those times when you just want to get it down.

In school, a boring lecture on "The history of the thank-you note through the ages."

In the office, yet another budget meeting. In the car, for your cassette player.

At home, for your Uncle Iggy practicing the oboe.

## Better Blank.

While Basic Blank is primarily for speech recording, Better Blank is primarily for music. (Its technical name is Hi Fidelity, one of the few technical names to explain anything.)

Better Blank is sensitive to a wide dynamic range—which means the lows and the highs. It's particularly valid in the bass register—and it won't hurt too much at the cash register.

Better Blank is not Ultimate Blank, but you can still use it in a living room, concert hall, or off a record.

## Beautiful Music Blank.

If you want to sound knowledgeable, call it Chromium Dioxide. A thin coating of that substance makes this tape loyal and faithful in the high frequency range.

So piccolos will sound perfect. Lead singers, sublime.

Use this tape when quality—particularly in the high range—is the highest priority.

## Best Blank.

When the object is the ultimate, and money is no object. Officially called Ferri-Chrome, this tape offers low distortion and a wide, flat frequency response.

It combines Chromium Dioxide, to pick up the highs, with Ferric Oxide—so the lows reach new heights. There is no better tape to reproduce music.

But do you need Ferri-Chrome? Some say that only the Verri-Crazy can tell the difference. But it's nice to know that the difference is there—if you have the ears to hear it.

# SONY®

© 1978 Sony Industries, A Division of Sony Corp. of America.  
9 West 57 Street, New York, N.Y. 10019. Sony is trademark of Sony Corp.

## Basic Blank.



## Better Blank.



## Beautiful Music Blank.



## Best Blank.





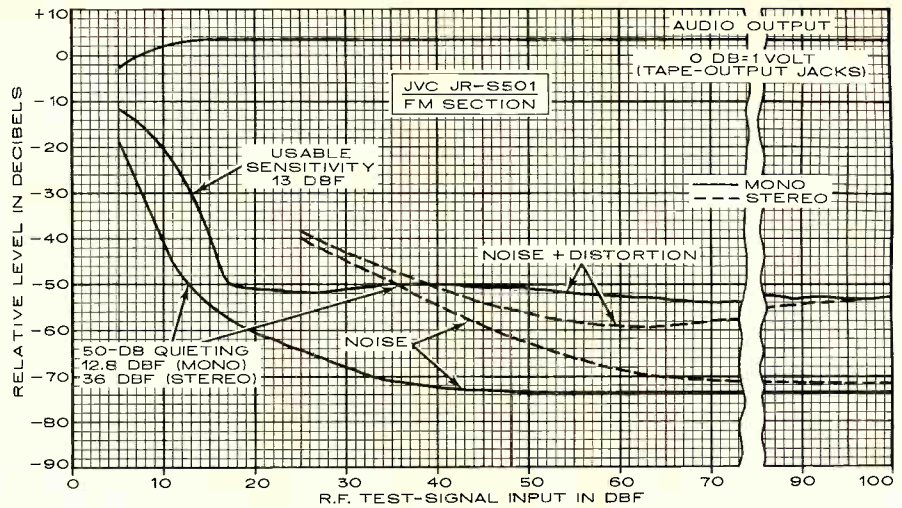
The cabinet of the JR-S501 is finished in a silver gray with plastic side panels. Together with the satin-aluminum front-panel trim, these contrast attractively with the black main portion of the front panel. The receiver is about 22 inches wide, 6½ inches high, and 17 inches deep. It weighs about 46 pounds. Price: \$699.95.

● **Laboratory Measurements.** A one-hour preconditioning period at one-third power output left the top of the cabinet—over the output-stage heat sinks—very hot to the touch. However, the rest of the exterior of the receiver remained cool. The IHF clipping headroom was 0.4 dB (that is, output with a steady 1,000-Hz test signal clipped at 132 watts into 8 ohms), and the IHF dynamic headroom was 1.3 dB (162 watts output with short-term test signals). The amplifier could be driven to a reference 1-watt output by 21.5 millivolts (mV) at the high-level inputs, or 0.175 mV at the phono input. The phono input overloaded at 260 mV (rated 250 mV). The A-weighted noise levels, referred to a 1-watt output with standard IHF input terminations, were almost identical for the two inputs, measuring -71 and -70 dB, respectively.

With a 1,000-Hz test signal the harmonic distortion of the JR-S501 was extremely low, measuring only 0.007 per cent up to 100 watts output, 0.009 per cent at 130 watts, and 0.13 per cent at 140 watts. The intermodulation (IM) distortion was 0.015 per cent or less from 1 to 140 watts output. The total harmonic distortion (THD) at rated power was about 0.032 per cent at 20 and 20,000 Hz, and it was under 0.01 per cent from 200 to 12,000 Hz. The residual distortion of our test-signal generator (about 0.02 per cent at 20 Hz) accounted for much of what we measured at the low frequencies. The distortion was roughly the same, or even slightly less, at reduced power outputs.

The SEA tone controls provided, as expected, a near infinity of possible frequency-response characteristics. The loudness compensation moderately boosted both low and high frequencies as the volume setting was reduced and did not unduly color the sound. The high-frequency filter had a gradual slope of 6 dB per octave, making it relatively ineffectual as a noise filter; its -3-dB response point was at 3,000 Hz. The response with the low-frequency filter was down 4 dB at 20 Hz.

The RIAA phono equalization was accurate within ±0.5 dB from 20 to 20,000 Hz and



changed by less than 0.5 dB when measured through the inductance of a phono cartridge. The phono-input impedance was equivalent to a 47,000-ohm resistance in parallel with a 118-pF capacitor.

The FM tuner section of the JVC JR-S501 was one of the few we have seen whose 50-dB quieting sensitivity was better than its usable sensitivity (due to a very steep limiting curve). The two were, respectively, 12.8 and 13 dB in mono. The stereo usable sensitivity was set by the switching threshold at 25 dBf, and the stereo 50-dB quieting sensitivity was 36 dBf.

The ultimate quieting at a 65-dBf input was 73 dB in mono and 70 dB in stereo, with respective distortions of 0.22 and 0.11 per cent (although most tuners have more distortion in stereo than in mono, there are exceptions, such as this one).

The stereo FM frequency response was very flat, varying only +0.6, -0.3 dB from 30 to 15,000 Hz. Nevertheless, the 19-kHz pilot carrier was reduced to -72 dB by the effective carrier-canceling circuit in the FM section. The AM rejection was 68 dB at a 65-dBf input, and the capture ratio was 1.87 dB. Image rejection was 77 dB. The alternate-channel and adjacent-channel selectivity figures were 73 and 10.7 dB, respectively.

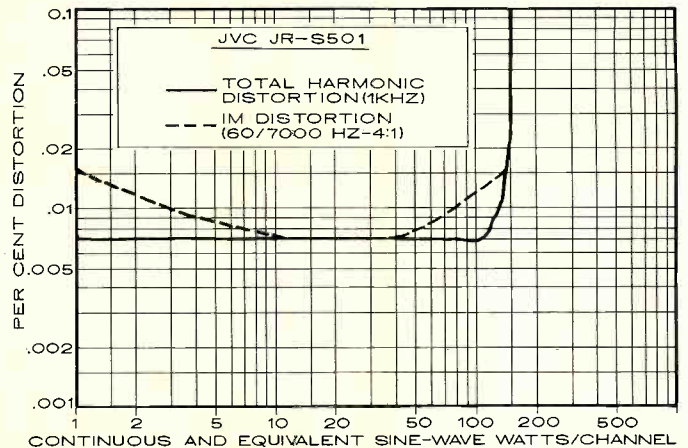
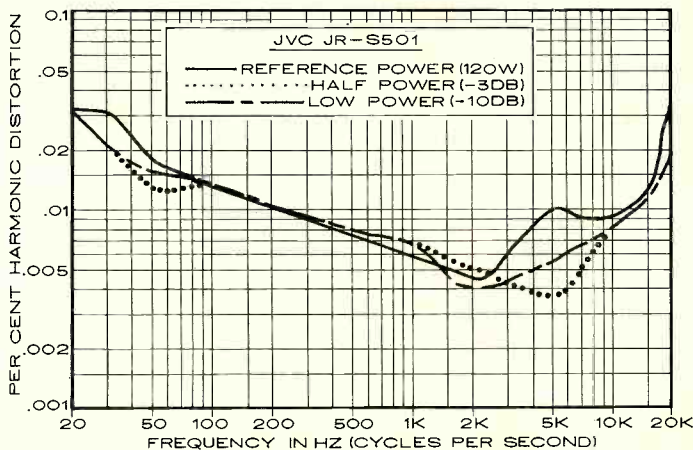
The FM tuner's stereo separation was exceptional, exceeding 50 dB up to 2,000 Hz and gradually falling to 38 dB at 15,000 Hz. The muting and stereo thresholds were identical at

25 dBf. The tuner hum level was a low -72 dB. The AM tuner frequency response was down 6 dB at 90 and 2,800 Hz.

● **Comment.** The JR-S501 had no specific performance "bugs" that came to light during our tests and an extended use period. The FM muting worked positively, with a slight thump. The dial calibration on the FM band was slightly off (by as much as 200 kHz at some points), but we are sure this was merely the result of a slight misalignment. Although we have never been enamored of horizontal tuning wheels for FM receivers, the "feel" of the JVC tuning control, and its location at the bottom of the panel, made it a pleasure to use. The same comment applies to the other front-panel controls, all of which operated with very little effort and a sense of precision that was very much in accord with the receiver's total "image."

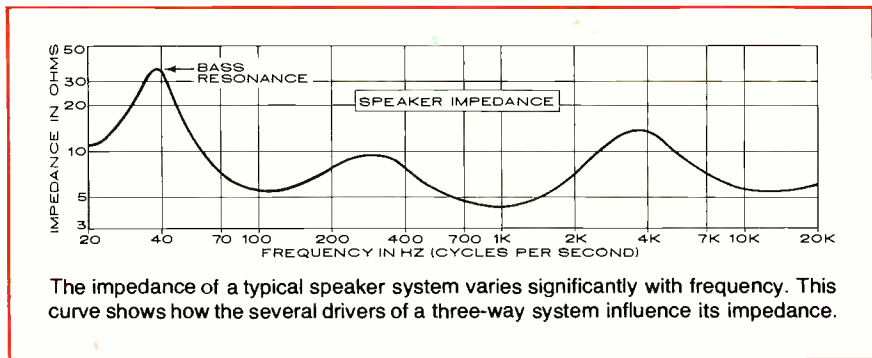
Surprisingly, the JR-S501 does not have separate preamplifier outputs and power-amplifier inputs. However, at some sacrifice of flexibility in tape recording, the equivalent can be achieved by using the TAPE 1 outputs as the preamplifier output (with the SEA REC button depressed). This allows the flexibility of the SEA graphic equalizer to be used when driving an external power amplifier or signal processor. A return signal from a processor could, in turn, be connected to the TAPE 1 recorder-playback jacks on the receiver.

(Continued on page 54)





from 1 to 100 ohms in a 1, 2, 3, 5 progression. Then we remove the cable from the resistance standard, connect it to the speaker, and make a sweep from 20 to 20,000 Hz. The result (see graph) shows the variation of impedance with frequency. It also serves to confirm or contradict the manufacturer's impedance rating. For example, the speaker whose impedance is shown carries a nominal rating of 8 ohms, but it would be more accurate to rate it at 6 ohms (the minimum impedance immediately above the bass resonance frequency is the more or less standard point at which ratings are made). However, it is not uncommon for a speaker rated at 8 ohms to measure 4 ohms or even less at some frequencies—as seen in the graph here at 1,000 Hz. This sort of thing is noted in our test reports when it occurs, since it can affect the suitability of a pair of speakers used *simultaneously* with some other pair driven from the same amplifier.



Next month we will conclude our discussion of speaker testing with a description of the simulated live-vs.-recorded test that we have performed for many years, a review of its ad-

vantages and disadvantages, and an explanation of why we no longer use it, plus a short description of the subjective listening criteria that we apply to speaker evaluation.

## Equipment Test Reports

By Hirsch-Houck Laboratories



JVC JR-S501 AM/FM Stereo Receiver

**H** EADING a new line of stereo receivers from JVC is the JR-S501, rated to deliver 120 watts per channel to 8-ohm loads from 20 to 20,000 Hz with no more than 0.03 per cent total harmonic distortion. It features a "DC" complementary-symmetry power amplifier. JVC points out that its amplifiers have fewer coupling capacitors in their signal paths than other competitive "DC" amplifiers and claims that this results in a measurable and audible advantage. (Note that so-called DC amplifiers inevitably contain at least some coupling capacitors; the question of how many there ought to be—and where—is evidently a controversial subject among amplifier designers.)

The FM tuner section of the JR-S501 has a phase-locked-loop (PLL) IC stage for its multiplex section and a pilot-signal canceler that attenuates the 19-kHz pilot signal in the audio channels with minimal loss of high-frequency

response in FM reception. Instead of conventional tone controls, the JR-S501 has a "Sound Effects Amplifier" (SEA), a five-band graphic equalizer with its control bands centered at 40, 250, 1,000, 5,000, and 15,000 Hz. This provides much greater control versatility than any conventional tone-control configuration. In the JR-S501, the SEA controls are vertical sliders at the right of the panel, each having six positions (detented) of boost and of cut, plus a detented "flat" center setting. The balance control is a horizontal slider (center detented) below the SEA controls.

The left side of the panel, like the SEA section finished in black, has the tuner dial scales and two pairs of meters. One pair is the tuning-meter section, with a relative-signal-strength indicator and a channel-center indicator. The other pair consists of the audio-output meters for the two channels, calibrated logarithmically in power delivered to an 8-

ohm load from 0.1 to 120 watts. The legend PLL STEREO appears in red between the meter pairs when a stereo broadcast is received. Between the dial and SEA sections is a silver panel with a vertical row of five light-touch pushbutton switches. Four are program selectors—for FM, AM, phono, and auxiliary sources—and the fifth disables the FM interstation-noise muting. Below them is the horizontal tuning wheel, recessed into the panel to be fairly unobtrusive yet still readily usable.

The satin-finish silver lower portion of the panel is stepped forward from the main part of the receiver, and a row of similarly colored pushbuttons is on the horizontal top surface of the "step." These include the power switch, two speaker selectors, the low- and high-frequency filters, two tape-monitor switches, mono/stereo mode, loudness compensation, and a selector for either of two phono inputs. In addition, a DUBBING button makes it possible to dub tapes from either of two tape decks to the other. An SEA REC button increases the recording versatility of the receiver by supplying the TAPE 1 recording outputs with a signal from the output of the preamplifier, so that the program can be modified by the SEA equalizer before it is recorded. At the right of the stepped section is the horizontal volume slider. There is also a stereo-headphone jack on the front portion of the step near the power switch.

On the rear apron of the receiver are the various signal inputs and outputs (including a DIN socket duplicating the functions of the TAPE 1 circuit), plus an FM DET OUT jack for use with any future discrete four-channel FM demodulator. There are antenna inputs for 75- and 300-ohm FM antennas and an AM wire antenna in addition to the hinged AM ferrite-rod antenna. Insulated spring connectors are used for the speaker outputs, and one of the two a.c. sockets is switched.

(Continued overleaf)



# You'll Never Know Unless You LOOK AND LISTEN!

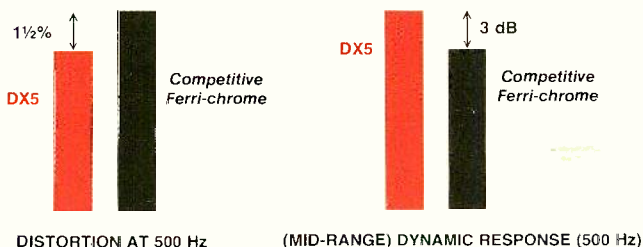
- Denon is a true "tape manufacturer", not just a packager.
- Denon developed its own formulations technology before introducing Denon tape.
- The dimensions of Denon tape engineering are:
  1. Low distortion under complex musical conditions as well as test tones.
  2. Dynamic range in the frequency zone of dense musical content.
  3. "Perfect-polish" tape surfaces and foolproof transport mechanics.

## DENON TAPE

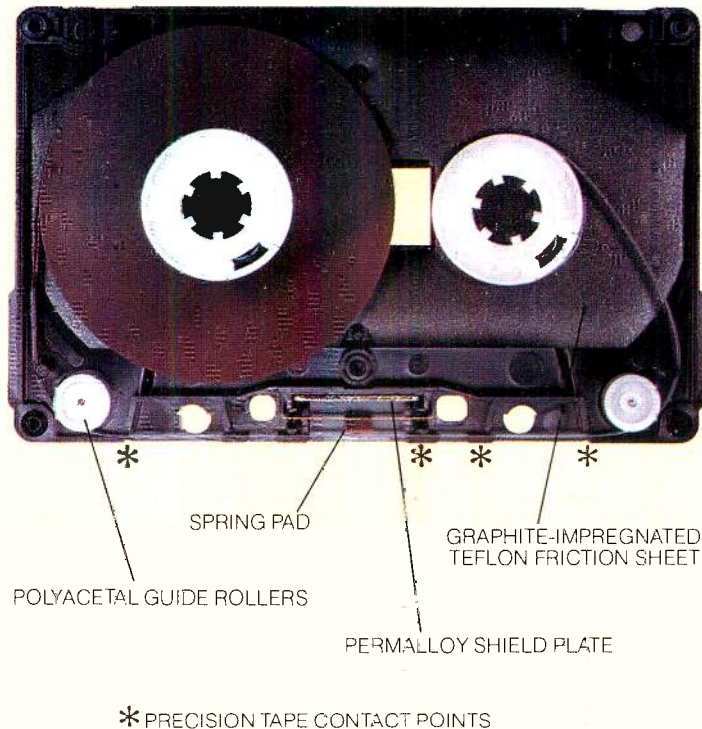
**DX3**—Super-sensitive ferric oxide that outperforms all others.

**DX5**—Perfect-polish ferric/cobalt that can capture and replay the dynamics of today's demanding program material.

## THE PROOF



## DENON Transport Excellence



**DENON TAPES** available only from authorized American Audioport/DENON dealers.

**American Audioport, Inc.**  
 A DIVISION OF THE DISCWASHER® GROUP  
 1407 North Providence Road Columbia, MO 65201



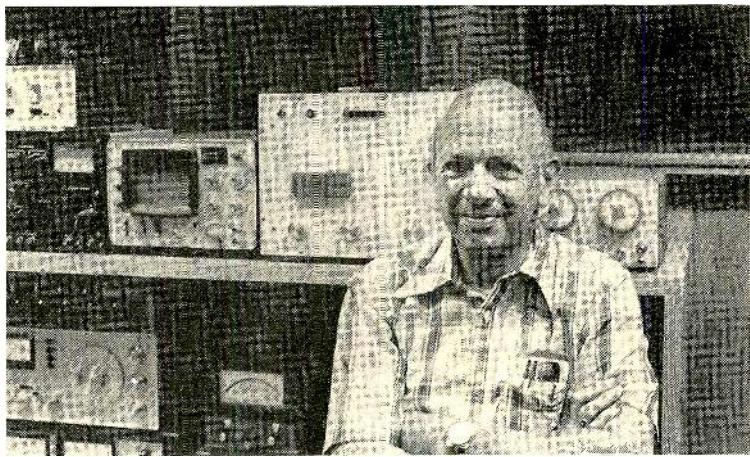
A vintage advertisement for Denon. The background is a solid, deep red color. On the left side, a dark brown, aged violin is shown from a three-quarter view, angled towards the top left. Its body is made of wood with a visible grain, and it has a dark, possibly black, finish on the f-hole and bridge. The strings are visible, and the neck extends towards the top left. To the right of the violin, the text "Musical Reasons have produced the Best Tapes" is written in a white, elegant, cursive script. Below the violin, an open book of sheet music lies flat, showing two pages of musical notation. A silver pen or pencil is resting on the right page of the sheet music. The lighting is soft, creating subtle shadows and highlights on the violin's body and the pages of the sheet music.

*Musical Reasons  
have produced the  
Best Tapes*

**DENON**



By Julian D. Hirsch



## ● Testing Loudspeakers—Part 3 ●

**I**n the two issues just previous I have been discussing how Hirsch-Houck Labs does basic frequency-response and distortion tests on loudspeakers. This month I will turn to some other significant but less basic tests.

We at Hirsch-Houck Labs have ambivalent feelings about tone-burst testing. There is a certain logical appeal to driving a speaker with a transient signal of precisely repeatable characteristics and observing how the transient waveform is reproduced acoustically. (Transient waveforms bear a much closer resemblance to music waveforms than sine waves do.) The problem lies in interpreting the output waveform from the microphone, which is amplified and displayed on an oscilloscope. It usually varies widely with frequency, and its appearance may change radically with a very small frequency change (for example, a shift from 1,036 to 1,054 Hz could completely alter the shape of a tone burst). It is reasonable, therefore, to ask what significance a tone-burst waveform really has, and we are beginning to question it ourselves. In any case, it is certainly more informative to the person conducting the test than to a reader, who must judge the speaker's performance from photographs of a few selected "typical" bursts.

When we make this measurement ("test" is more accurate, since we do not actually "measure" anything), we generate the signal with a General Radio 1396-B tone-burst generator. It can form bursts of almost any desired length and repetition rate, and they always start in-phase from the point at which the waveform crosses the zero-voltage axis. The tone-burst signal is displayed on one channel of a dual-channel Tektronix oscilloscope, and the amplified microphone output is connected to the other channel so that they can be photographed simultaneously. The microphone is moved about, usually at a distance of several feet from the speaker and roughly on the axis of the driver whose operating frequency range includes the tone-burst frequency. The delayed sweep of the scope is used to compensate for the time it takes the acoustic waveform to travel from speaker to microphone, so that the acoustic burst and electrical burst can be displayed most clearly.

The frequency of the burst is varied over

the range from about 100 to 10,000 Hz, and we look for unusually good or bad burst patterns. We normally use a burst of four cycles, which reveals any delay in the start-up and/or ringing at the end of the burst. Long bursts, which are sometimes used by manufacturers to represent a speaker's tone-burst response, usually mask these effects. Some speaker systems give a nearly ideal burst shape at most frequencies, while others seem unable to generate a recognizable burst at any frequency. We select "typical" bursts, in the ranges covered by different drivers, for photographing and publication.

It's safe to say that a speaker whose tone-burst response is uniformly excellent is probably a pretty good speaker and that one unable to create a recognizable burst is *not* a good speaker. But those same conclusions could also be derived from a few minutes' listening to ordinary program material. Between these extremes, we find it well-nigh impossible to draw any firm conclusions from tone-burst tests. We still make this test, which is easy to perform, in the hope that it will (as it sometimes does) give us a meaningful clue to some aspect of a speaker's performance. It should not be given undue weight by the reader, however.

**S**ENSITIVITY is a speaker rating rather important to the user, and it is one of the few in which our measurements correlate fairly well with most manufacturers' ratings. It is some-

times referred to as "efficiency," but the preferred term is "sensitivity." It is usually taken to be a measure of the sound-pressure level at a distance of 1 meter from a speaker being driven by a 1-watt signal (based on the speaker's rated, or nominal, impedance). Sometimes it is expressed in terms of the power needed to produce a fixed sound-pressure level (such as 94 dB). These two forms of the rating are easily converted from one to the other because of their mathematical relationship.

Pink noise, which covers the entire audio range, is sometimes used as a test signal for sensitivity. We prefer to use an octave-wide band of noise centered at 1,000 Hz. The subjective loudness of a speaker system (which is what the sensitivity rating is all about) is more likely to be a function of its mid-range performance than of its output in the low bass or extreme treble. A sine-wave signal cannot be used for measuring sensitivity, since the combination of speaker-response irregularity and acoustical standing waves (if a "live" room is used) would make the measurement results very uncertain.

Our sensitivity measurements can be used for comparisons between speakers, although they do not really define how loud a given speaker will sound in a given room at a specified drive level. Since our measurement is made in a live room, it usually gives a sound-pressure reading 2 to 3 dB higher than the anechoic measurement used by many speaker manufacturers for *their* sensitivity ratings. This occurs because in a live room the microphone receives some reflected energy as well as direct radiation from the speaker.

To measure speaker impedance, we connect the speaker in parallel with the sweeping audio oscillator and chart recorder of our General Radio Response Plotter. The 600-ohm oscillator output impedance is "loaded" by the much lower impedance of the speaker so that the actual output voltage (which is what the recorder trace shows) is a direct function of the magnitude of the speaker impedance.

First, we calibrate the system by connecting the cable that will go to the speaker to a precision decade-resistance box so that we can mark on the chart the impedance values

(Continued on page 51)

### Tested This Month

JVC JR-S501 AM/FM Receiver  
Sonus Gold "Blue Label" Cartridge  
Uni-Sync PMS-1 Metering System  
Audio Technology 510 Peak Display  
Denon DP-6000 Turntable  
and DA-307 Tone Arm  
Epicure Model 3.0 Speaker



# An inside look at Jensen's Total Energy Response.

You're looking at the heart of one of the most uniformly accurate sound reproducers made today.

Jensen Lifestyle speakers present a faithful reproduction of music, with all its complexities and tonal balances. They accurately distribute this sound throughout your listening room. Which is what Total Energy Response is all about. It's the uniform radiation of sound throughout the entire listening area...at all frequencies.

Unlike many speakers that require special on-axis listening positions—or others that bounce the sound all over your room—Lifestyle is engineered to deliver a wide spectrum of musical information through-

out the listening area. In proper perspective. With all the depth and imaging your source material is capable of. And at real-life volume levels.

## How does Jensen achieve Total Energy Response?

With a series of drivers and crossover components designed for wide dispersion and engineered to work in total unison with each other for proper stereo imaging.

In fact, for perfectly integrated speaker systems and total quality

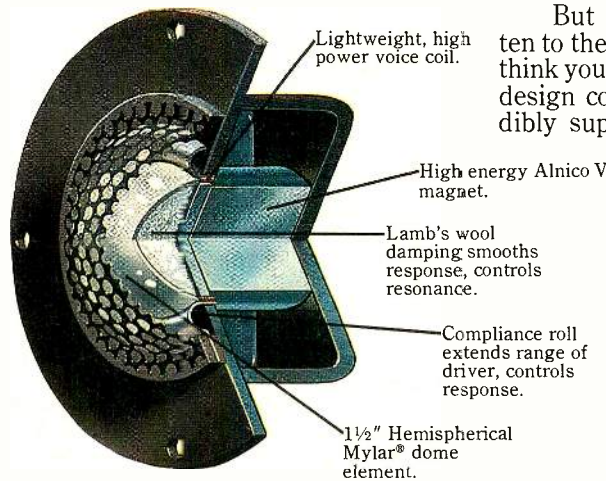
control, we make every element that goes into the manufacture of our Lifestyle speakers. From the heavy duty magnets to our hand-wound, high power voice coils. Even the computer-designed crossover network.

At Jensen we take pride—in and extra care—in producing the specially designed Mylar dome tweeters that provide 170° high frequency radiation. The same goes for the polyurethane foam cone suspension woofers. And the critical midrange units with tuned isolation chambers.

But please, give a critical listen to these speakers in person. We think you'll agree, a notably superior design concept has resulted in audibly superior sound reproduction.

### The Jensen dome tweeter.

A significant factor in Jensen's Total Energy Response. High frequency sound waves travel in a straight line. But the rounded shape of this element creates a sound wavefront pattern of the same shape. Thus, as these rounded sound waves travel outward from the dome, they fill the entire listening area.



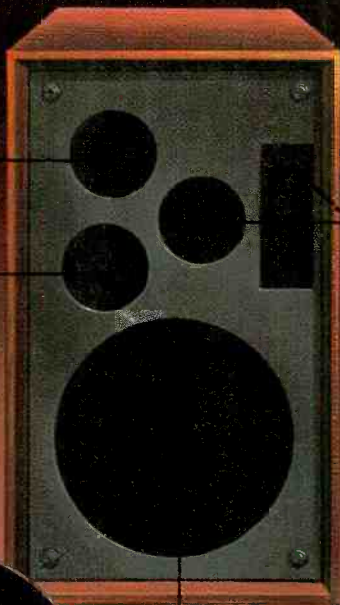
# JENSEN

LIFESTYLE SPEAKER SYSTEMS

Division of Pemcor, Inc.  
Schiller Park, Illinois 60176

CIRCLE NO. 38 ON READER SERVICE CARD





1½" Mylar® dome tweeter for extra-wide 170° high frequency dispersion.

High and mid frequency controls are continuously variable to adjust response to suit any room, program material or individual taste.



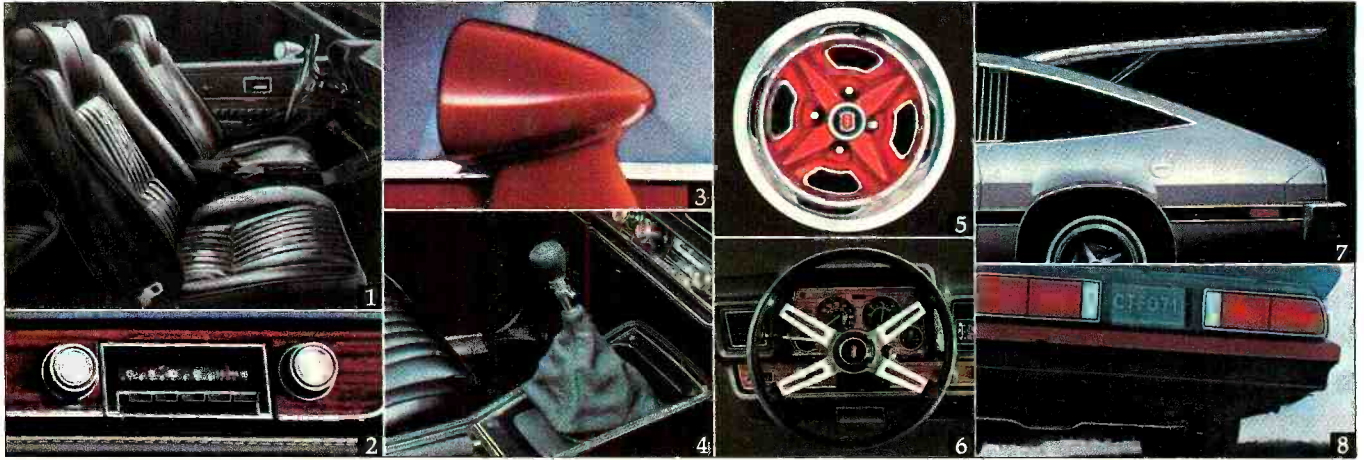
Two 3½" midranges with individual tuned isolation chambers.



Low frequency driver with specially treated polyurethane foam suspension for lower distortion, free cone movement, and smoother response.



# All '79 Oldsmobile Starfires come with standard sporty features you'd pay extra for in many other cars.



1. Bucket seats/2. AM radio/3. Sport mirrors/4. Console & 4-speed shifter/5. Sport wheels/6. Sport steering wheel/7. Hatchback/8. Rear stabilizer bar.



Starfire. Starfire SX. Starfire GT. Firenza. All of them give you the good stuff you see as standard equipment. And they're engineered to be exciting road cars for those who drive just for fun, as well as performance buffs. Moving down a road with precision and authority is what these cars are all about.

For power, you can take the 2.5-

litre (151 CID) 4-cylinder that's standard, or available 3.8-litre (231 CID) V6 or 5.0-litre (305 CID) V8\* A 5-speed transmission is available† too, and so are gages, tach and clock. The

*Oldsmobile*

**Starfire**

Have one built for you.

CIRCLE NO. 54 ON READER SERVICE CARD

decisions are yours, but one thing's for sure—if it's a sporty car you want, there's a value-packed '79 Starfire built for the way you drive. Test-drive one at your Olds dealer's.

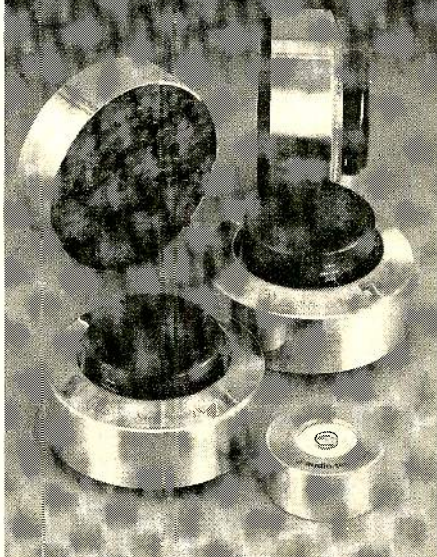
\*Starfires have GM-built engines produced by various divisions. See your dealer for details.

†In Calif. 5-speed available with 3.8-l. V6 only.





# Introducing the new AT605 FEEDBACK FIGHTER!



Now, enjoy freedom from acoustic feedback with the new AT605 Audio Insulator System from Audio-Technica.

Add the AT605 System and stop howling from feedback at high sound levels, reduce distortion or cartridge mistracking from sound energy conducted from speaker to turntable.

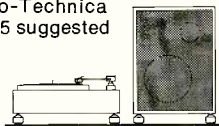
Solve problems of outside vibration like subways, heavy trucks, or jarring footsteps. Or reduce transmission of annoying sound to adjacent apartments with the AT605 System under your loudspeakers. Gain new freedom of speaker placement, and improve performance especially of high-energy, low-frequency transients.



The slightly-curved bottom surface of each AT605 flattens as weight increases so that only the right number and size of resilient rubber projections support your equipment. Four insulators support up to 36 lbs. (9 lbs. each).

The felt-covered upper support is easily adjusted for accurate leveling. A precision bubble level is included. And each unit is enclosed in an attractive brushed chrome housing.

If feedback limits the quality of your system, or restricts your choice of equipment location, the AT605 Audio Insulator System can help. At all Audio-Technica dealers for just \$26.95 suggested retail. Win the fight against feedback today!



**audio-technica**  
INNOVATION □ PRECISION □ INTEGRITY

AUDIO-TECHNICA U.S., INC.  
Dept. 108F-1, 33 Shiloh Avenue  
Fairlawn, Ohio 44313  
In Canada: Superior Electronics, Inc.

## Tape Talk . . .

indistinguishable "source" and "playback" of FM hiss (keeping the two signals at equal perceived loudness levels, of course) at  $-10$  dB, and a few more join the club at a  $-20$ -dB input level. (For this test,  $3\frac{3}{4}$ -ips open-reel and cassette decks, which run at  $1\frac{1}{8}$  ips, should be treated the same.) In my experience, most cassette decks will not be able to record and play back an FM-hiss signal that is *indistinguishable* from the original at any input level, though the amount of high-frequency dulling on the replay signal is often so slight that you'd never notice it in anything but a direct, immediate comparison with the noise source.

Using the FM-hiss test you can obviously check a three-head deck (one with separate record and playback heads) instantaneously, always being sure to make the necessary playback-level adjustments to keep both signals at equal perceived loudness. For a deck with a combined record/playback head (a two-head machine, in other words), you will have to record half a minute or so onto the tape, rewind, and then use the amplifier's "monitor" switch to alternate between the ongoing FM-hiss (source) signal and the replay of the recorded hiss (tape). Since the character of the hiss from the source won't change significantly, comparing it with the previously made recording is just as valid.

## VU or dB?

**Q.** *Why are some tape decks' record meters calibrated in "VU" and others in "dB"? Aren't they the same? Also, why does the Dolby-level mark appear at different places on the meters of different decks?*

JOYCE McLAREN  
Santa Clara, Calif.

**A.** Electrically speaking, a change in level of one *volume unit* (VU) is a change in level of one decibel (dB), and so long as you are dealing with steady signals like test tones it makes little difference which term is used. A VU meter, however, has very carefully controlled *ballistic* characteristics (how fast the needle will go from the  $-20$  to the  $0$ -VU mark and how much momentary "overshoot" will occur). It also has a specified impedance (3,900 ohms, plus a series resistor of 3,600 ohms), a defined scale ( $-20$  to  $+3$ ), uses a particular rectifier system (average-responding rather than peak-indicating), and so on. All of these characteristics are chosen so that every true VU meter will respond to complex signals, such as those of music and speech, in the same consistent, predictable way. The advantages of such standardization are obvious in professional applications.

Very few of the meters found in home tape decks are genuine VU meters, even if they use a VU-meter scale and have average-responding rectifiers. As Hirsch-Houck Labs' test reports usually show, they fail to have the same ballistic response as the genuine article. A dB meter, however, need not have VU dynamic characteristics. Indeed, the usual practice is to mark the scale in decibel units if a peak-responding meter is used. (DIN, the German standards organization, has set equally well-defined characteristics for peak-

reading meters, but in consumer decks these, too, are often ignored.)

As for the placement of the Dolby mark on the scale of the meter face, manufacturers have considerable liberty, so long as a standard-level Dolby playback tape causes the needle to deflect to the Dolby marking. If a manufacturer is using a rather sluggish meter movement (which will understate musical signal peaks), he will probably put his "double D" symbol at  $+2$  or  $+3$  dB. If he's using fast-acting meters, a true Dolby level (200 nano-Webers/meter) may fall at  $0$  dB or even below that, depending on how much "headroom" he wants to allow between a 200-nanoWeber/meter signal level and the maximum level that can be put on the tape without causing serious distortion.

## Head-material Claims

**Q.** *There seems to be quite a controversy about cassette-deck heads—ferrite, permalloy, and Sendust. Which really rate best in terms of wear and performance?*

JAY N. BHOW  
Bombay, India

**A.** There is no easy answer to your question, first because there are different *kinds* of ferrite, of permalloy, and of Sendust (or Senalloy) materials, and second because different manufacturing techniques used to produce the materials and to construct heads from them can often have a greater influence on performance than some of the "characteristic" material differences.

With that understood, however, here are some generalizations—which may not apply in specific cases—that would probably be accepted by most head manufacturers. Of the three materials, ferrite with 650 has the highest Vickers' index of hardness (500 for Sendust, 200 for hardened permalloy, and 120 for mu-metal permalloy), making it the most wear resistant. Magnetically, however, ferrite is more prone to magnetic saturation in the presence of high bias and signal levels than either Senalloy or permalloy, and its linearity at low signal levels (as in playback) is not as good either. The low coercivity and high permeability of permalloy tend to give it the highest magnetic linearity with ferric and  $\text{CrO}_2$  recording and playback signal levels. But it cannot handle as high a maximum flux density as Sendust, which presents some problems with the design of combination record-playback heads suitable for the very high recording currents likely to be required by the upcoming metal-particle tapes. Sendust will handle the highest flux densities and is nearly equivalent to ferrite in wear characteristics, but it *tends* to be slightly less linear at moderate signal levels than permalloy.

There are ways to get around the limitations these generalizations suggest, however. The best studio-mastering recorder I've ever used—reputedly capable of handling the enormous bias requirements of metal-particle tape—uses ferrite heads throughout; plainly, it doesn't lack for magnetic linearity. One prominent cassette-deck manufacturer uses a permalloy core material combined with a Sendust facing to take advantage of both magnetic and wear properties. Still another has produced a permalloy head with a rated life of 10,000 hours—which I suspect exceeds the motor-bearing life of most cassette decks.



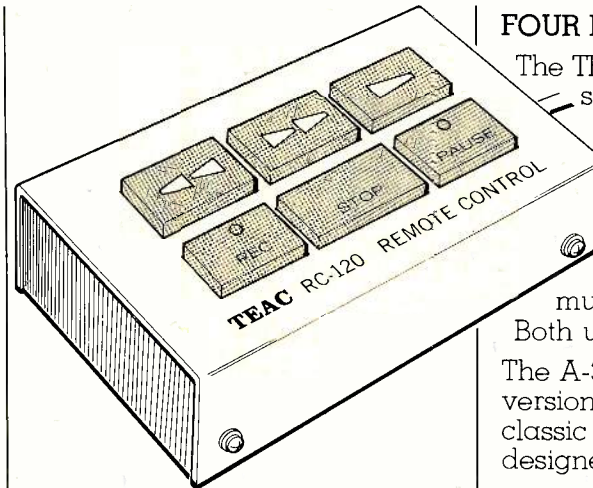
# for the informed.

## INSIDE INFORMATION

TEAC is a leading designer and manufacturer of computer and instrumentation recorders. In medical centers, for example, physicians depend on special TEAC units to record vital data in life-or-death situations; in remote wilderness areas, scientists depend on TEAC to monitor now-or-never phenomena like earthquakes.

From that experience we've learned that the quality of the transport mechanism is the single most important consideration in a tape recorder. For the computer industry, and for you. That's why many of the same engineers have designed the tape recorders we make for both.

Our entire reel-to-reel line has three motors and micro-switched solenoid operated transport systems, a blend of computer age sophistication and brute strength that nothing else can equal. Ask anyone whose opinion you respect.



## OPTIONAL REMOTE CONTROL

Unlike some reel-to-reel machines, TEAC decks have full-function remote capability. Our optional remote units are the perfect answer for recording sessions where you can't be next to the recorder, or for operational access to a recorder in a custom installation.

# TEAC®

First. Because they last.

## FOUR EXAMPLES

The TEAC A-2300SX is the best selling, most successful open reel machine ever. Over 300,000 have been sold. The SR version of the A-2300 features an auto-reverse function so you can play music in two directions.

Both use 7" reels.

The A-3300SX and its reversing version, the A-3300SR, are classic heavy-duty machines designed for 10" reels.

Whichever TEAC open reel recorder you choose, you can be sure it will last a long, long time. It was designed and built that way.

## FACE IT

In the end, the cassette recorder is for those who are fonder of convenience than fidelity. If you want fidelity you can't ignore open reel.

In all crucial specifications, open reel tape recorders are better than cassette decks. And that message comes from the people who make the best of both. TEAC.



TEAC Corporation of America • 7733 Telegraph Road • Montebello, CA 90640



# Open Reel: The format

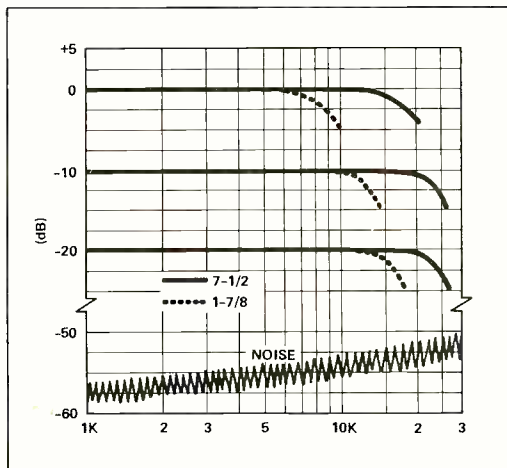
You're looking for a tape recorder. You've heard from friends and salesmen that cassette is the answer. At TEAC we make both cassette and reel-to-reel tape recorders. Because we make each for a specific person and application, you should depend on fact, not hearsay, before spending your money.

## IT'S A MATTER OF PHYSICS

There are immutable reasons why cassettes can't match open reel fidelity.

Take tape speed. Open reel tape running at 7½ ips is running four times faster than a cassette. And speed has more to do with the relationship between frequency response and signal-to-noise than anything else by far.

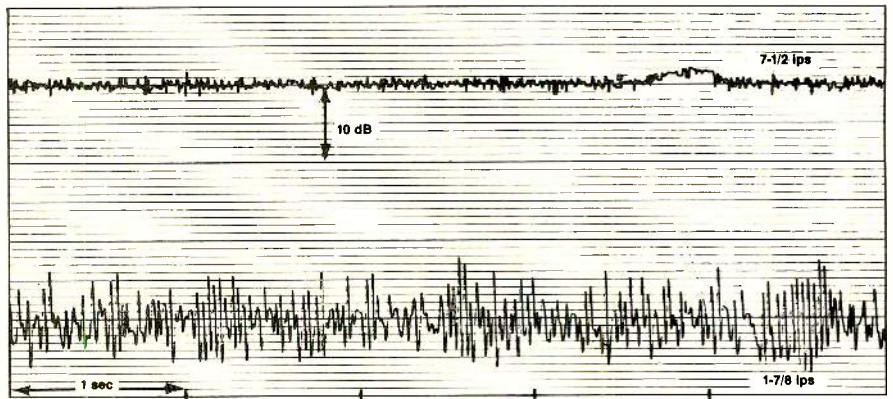
At 7½ ips all audio frequencies can be recorded at full level



Tape saturation vs. level at 7½ ips and 1⅞ ips.

without tape saturation. Recording at 1⅞ ips forces you to make drastic compromises in record levels. The more you have to back off on recording levels, the more you hurt the ratio of signal-to-noise.

In short, with a cassette deck you cannot have high frequency response and good signal-to-noise. So a cassette deck is always operating on the ragged edge of disaster. It's so much easier to get into trouble than out of it because there's a difficulty for every solution.



Comparative dropouts between 7½ ips and 1⅞ ips at 15kHz.

## MORE IS MORE

The faster the speed the longer the wavelength, the longer the wavelength the more protection you have against dropouts. You also have an easier job of editing.

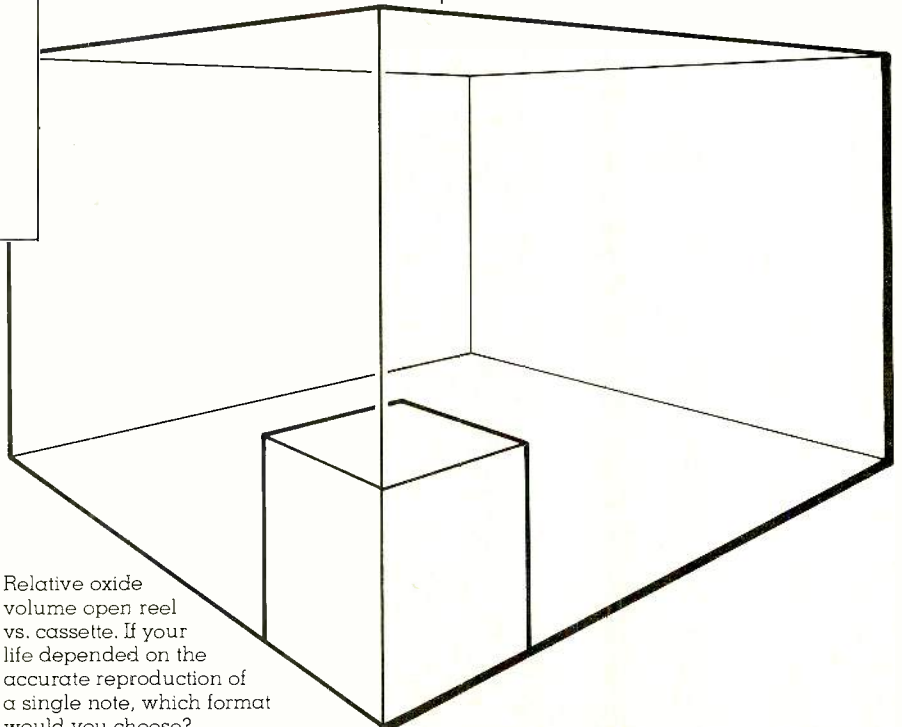
Now take track width. Open reel gives you twice the track width of cassettes. The wider

the track width the higher the output, the higher the output the better the signal-to-noise ratio. A wider track is also less sensitive to dropouts and, obviously, a wider track retains more magnetism.

And while we're on the subject of magnetism, an open reel tape has twice the oxide coating of a cassette.

Upshot: A total tape volume 16 times greater than a cassette, which means 16 times more magnetic particles to store and remember music.

If that sounds better to you, if we've convinced you the cassette format is a high price to pay for convenience, then you ought to look at the TEAC lineup of open reel tape recorders.



Relative oxide volume open reel vs. cassette. If your life depended on the accurate reproduction of a single note, which format would you choose?



# THE JVC CASSETTE DECK.

It gives you more of what the others wish they could.

Cassette recording takes a giant step forward with the new series of JVC cassette decks. Each is designed to give you everything you need to get the most out of any tape. And there are totally new features to help you make better-sounding cassettes.

## Exclusive Spectro Peak Indicator System.

With almost recording studio vigilance, 25 instant-responding LED indicators offer fail-safe protection against distortion produced by tape over-saturation. For the first time, you can constantly visually monitor the levels of five low-to-high musical frequency ranges. Then, on playback, the Spectro Peak Indicator actually lets you see how accurately the deck has performed.

## Expanded Dynamic Range and Better Noise Reduction.

Our Super ANRS circuitry applies compression in recording and expansion in playback to improve dynamic range at higher frequencies. So distortion is eliminated in sudden high peaks of any musical

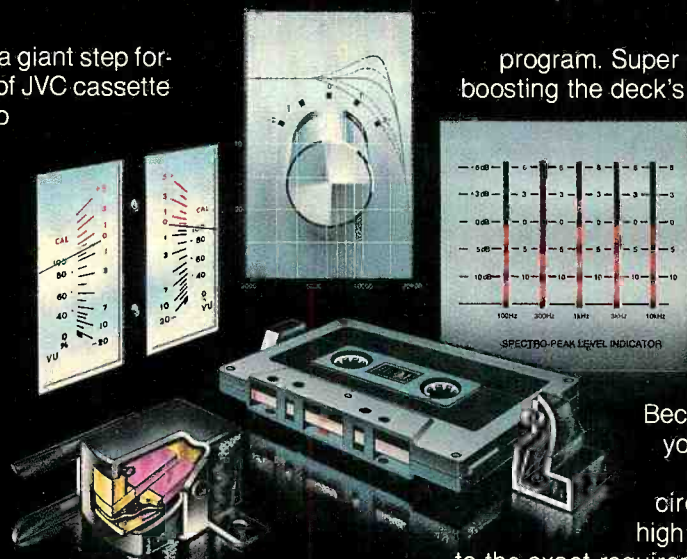
program. Super ANRS also reduces tape hiss by boosting the deck's signal-to-noise ratio by as much as 10dB over 5000Hz.

## New Head Design.

Our refined Sen-Alloy head gives you the sensitive performance of permalloy head construction, combined with the extreme longevity of ferrite, for bright, full-sounding recordings.

## Get the most out of any tape

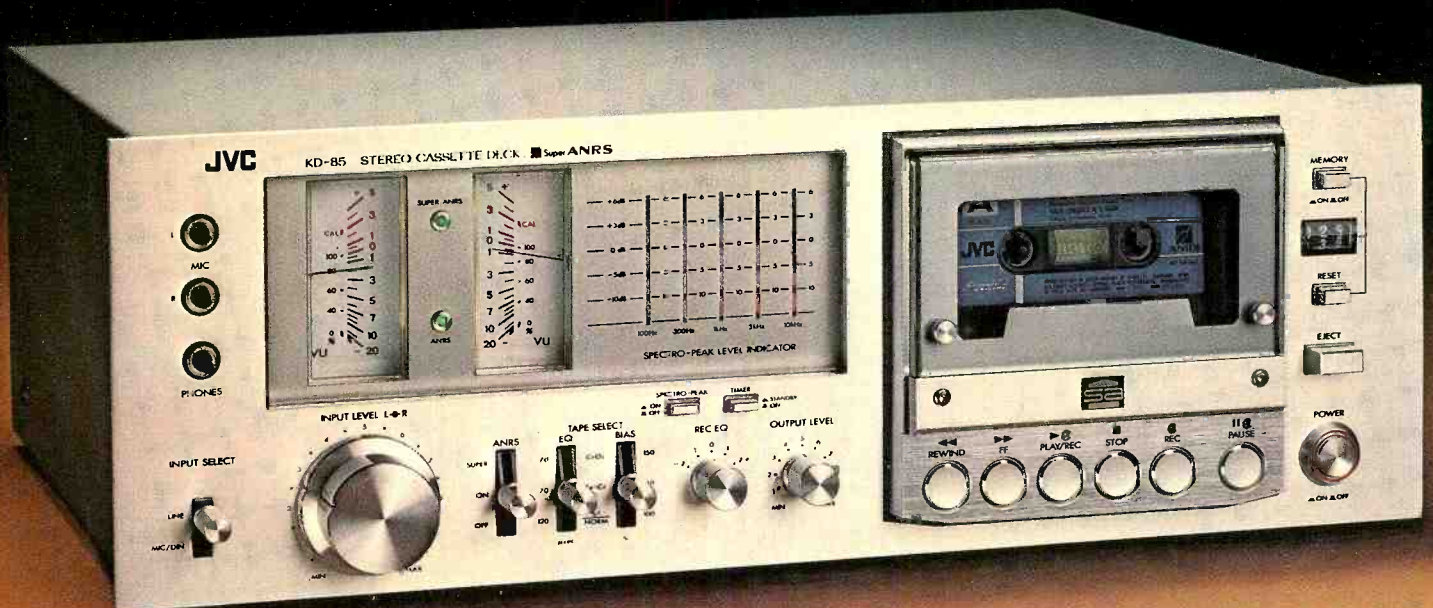
Because whichever type you select, you'll extract the most from it with our special recording equalizer circuit that lets you "fine tune" the high frequency response of the deck to the exact requirements of the tape. These innovations alone set JVC cassette decks apart from all the others. Then, when you consider our other refinements, like precision-ground capstans, gear/oil-damped cassette doors, multi-peak LED indicators, independent drive mechanisms, plus top performance specifications, you can understand why we say that JVC gives you more of what other decks wish they could. Visit your JVC dealer and you'll hear why.



Not all features in all decks.

Top: KD-65, KD-55, KD-25. Bottom: KD-10, KD-1770 II, KD-1636 II. Not shown: KD-2, KD-3030, KD-S201.

# JVC



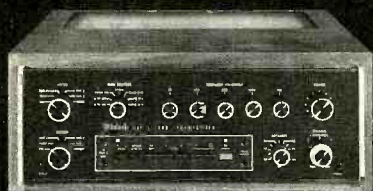
JVC High Fidelity Division, US JVC Corp., 58-75 Queens Midtown Expwy., Maspeth, N.Y. 11378. Canada: JVC Electronics of Canada, Ltd., Ont.

CIRCLE NO. 39 ON READER SERVICE CARD



# McIntosh

## "A Technological Masterpiece..."



McIntosh C 32

### "More Than a Preamplifier"

McIntosh has received peerless acclaim from prominent product testing laboratories and outstanding international recognition! You can learn why the "more than a preamplifier" C 32 has been selected for these unique honors.

Send us your name and address and we'll send you the complete product reviews and data on all McIntosh products, copies of the international awards, and a North American FM directory. You will understand why McIntosh product research and development always has the appearance and technological look to the future.

Keep up to date.  
Send now - - -

McIntosh Laboratory Inc.  
Box 96 East Side Station  
Binghamton, NY 13904

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. 48 ON READER SERVICE CARD

## Tape Talk

By Craig Stark



### No on Acetone

**Q.** *I was told at one time that acetone makes an excellent head cleaner. Does using acetone pose any danger to the heads? If so, what other cleaner would you recommend?*

SCOTT CHANDLER  
San Francisco, Calif.

**A.** Short of nitric acid, I can think of few more dangerous chemicals to use as a head cleaner than acetone. It will cut through accumulated oxide dust and gunk all right, but it can also attack the glue that holds the head laminations together, along with the plastic facing material used on some erase heads. Should a drop spill, it will also mar the plastic meter faces and plastic trim parts on your deck. In short, *never* use acetone for tape-head cleaning. Xylene, too, is very quick, but it is also fatal to heads.

The most effective commercial tape-head cleaners I know of use a fluorocarbon base; most of the cleaners you will find on audio dealers' shelves are basically colored alcohol, which is also safe, though a bit slower. If you want to buy your own alcohol cleaner, I recommend the pure isopropyl variety rather than a so-called "rubbing-alcohol compound," which may leave an undesirable lubricant film.

### FM-hiss Test

**A.** *I have not yet owned a cassette deck that could exactly reproduce FM hiss, yet I'm told this is a good test for cassette decks, since it is "white noise." Are there any cassette or open-reel tape machines that can pass this test?*

BILL AGRESTE  
Norfolk, Va.

**Q.** The ability to reproduce FM hiss without audible difference between the "source" and the "playback" from a tape deck is one of the most demanding tests of recorder performance. It's a good test for several reasons, not the least of which is that very few cassettes will get a 100 per cent rating. (On a math test, if half the class gets 100 per cent, the test is worthless as a measure of each individual's comparative level of understanding.) Moreover, it's a fair test, it re-

quires no sophisticated measuring equipment or technical training, and it's a test you can perform right in a dealer's showroom. But you must perform it correctly, within its limitations, and this may be the source of your difficulty.

First, let's understand what FM hiss is. In your letter you called it "white noise," which it is not. A white-noise test signal is one in which equal energy is contained in every frequency, whether that frequency is, say, 23 Hz or 14,023 Hz. Such a signal, though useful for many applications, gives undue prominence to the treble end of the audio spectrum. The reason for this is that each successively higher octave contains twice as many discrete frequencies. For example, between 1,000 and 2,000 Hz (a span of one octave) there are 1,000 1-Hz increments, but there are 2,000 such increments in the octave from 2,000 to 4,000 Hz.

FM hiss, on the other hand, is very close (within a couple of decibels) to being a "pink-noise" test signal, which is a signal in which equal energy *per octave* is present. (Since FM hiss isn't pure pink noise in the laboratory sense, we might borrow Julian Hirsch's happy phrase and call it "rosé noise.") Pink noise is widely used in many phases of audio testing.

In testing a recorder using pink noise (or its rosé FM-hiss equivalent), you must observe the same precautions you would if you were checking its frequency response with a sine-wave test oscillator. First, if the deck has a switchable "FM multiplex filter," switch it off. Ideally, such filters only chop out the 19-kHz stereo multiplex pilot tone, but most have some effect on all frequencies higher than 15,000 Hz. Second, if the deck has a Dolby system, switch it off too; a misadjusted Dolby noise-reduction circuit can cause frequency-response variations that are no fault of the basic machine. Third, keep the interstation FM-hiss signal from the tuner at a low level, as indicated on the deck's record-level meters.

How low? Digital and 15-ips (or faster) studio recorders should be able to copy FM hiss without any audible difference at their indicated 0-dB (0-VU) input levels. Better-grade audiophile open-reel machines should do so at a -10-dB level, and a few older machines will make it if tested at -15 or -20 dB. One or two cassette decks have been able to produce

(Continued on page 44)



# How to identify the world's finest tonearm.

When one tonearm—among all those available—is described as “the world’s finest,” some controversy may be anticipated. Fine, we welcome that possibility. There is far too little discussion about tonearms—considering the critical difference they make in how records sound and how long they last.

Simply stated, the tonearm’s function is to provide the correct cartridge-to-groove geometry and to allow the stylus to trace the groove contours freely, precisely, and with the lowest practical tracking force.

Dual’s engineering approach to tonearm performance makes us feel confident of the outcome of any comparisons.

## **The basic geometry.**

The shape of the Dual tonearm is a straight line from pivot area to tonearm head, the shortest distance between those two important points. Curved tonearms may look sexier, but contribute extra mass, less rigidity and a tendency to lateral imbalance. That’s hardly consistent with good engineering.

Every Dual tonearm is mounted in a true, four-point gimbal. The tonearm mass is centered, balanced and pivots precisely where the vertical and horizontal axes intersect.

Identical pairs of low-friction needle-point pivots and miniature ball bearings are used in both axes. The precision and quality control standards applied to their manufacture and assembly are usually found only in aerospace and allied technologies.

## **Settings for your cartridge.**

The vernier-adjustable counterbalance lets you set zero-balance with micrometer-like precision so that tracking force can then be set accurately. A tempered, flat-wound spring applies tracking force directly at the vertical pivot, and this force remains perpendicular to the record even if the turntable

chassis is not level. Anti-skating is applied around the horizontal pivot, directly counter to the skating force, and it adjusts automatically to the varying skating force encountered by the tonearm as it moves across the record.

Another Dual refinement, not available on any other integrated tonearm, is the Vertical Tonearm Control. A vernier height adjustment over an 8mm range allows paralleling the tonearm to the record without cartridge spacers. Tonearm mass remains as low as possible, and mounting and changing cartridges are simplified.

## **Another Dual exclusive: tuned anti-resonance filters.**

The counterbalance contains two specially tuned mechanical filters that absorb parasitic resonances originating in the tonearm/cartridge system and chassis. The result: flawless tracking stability maintained even in the presence of external shock and vibration whether caused by acoustic feedback, record warps or dancing feet.

## **About all Dual tonearms.**

The tonearm shown and described here is part of our higher-priced turntables. But many of its features are found in our lowest-priced model: the four-point gimbal, the straight-line design, and the precise mechanisms for balance, tracking force and anti-skating adjustment.

In fact, we’d be willing to match the performance of our lowest-priced tonearm against anyone else’s highest-priced tonearm. But one argument at a time is enough.

Now that you’ve been “armed” with the facts, we invite you to visit your audio dealer to examine the tonearms you find there—separate and built in—and decide for yourself which one is indeed the finest.

No one can argue with that suggestion.

**Dual**<sup>®</sup>



United Audio, 120 So. Columbus Ave., Mt. Vernon, NY 10553

CIRCLE NO. 50 ON READER SERVICE CARD



True four-point gimbal centers and pivots tonearm mass where vertical and horizontal axes intersect. The four needle-point pivots are tempered and honed to produce microscopically smooth surfaces. Each pivot is matched to a ball-bearing race only 0.157 inches in diameter.

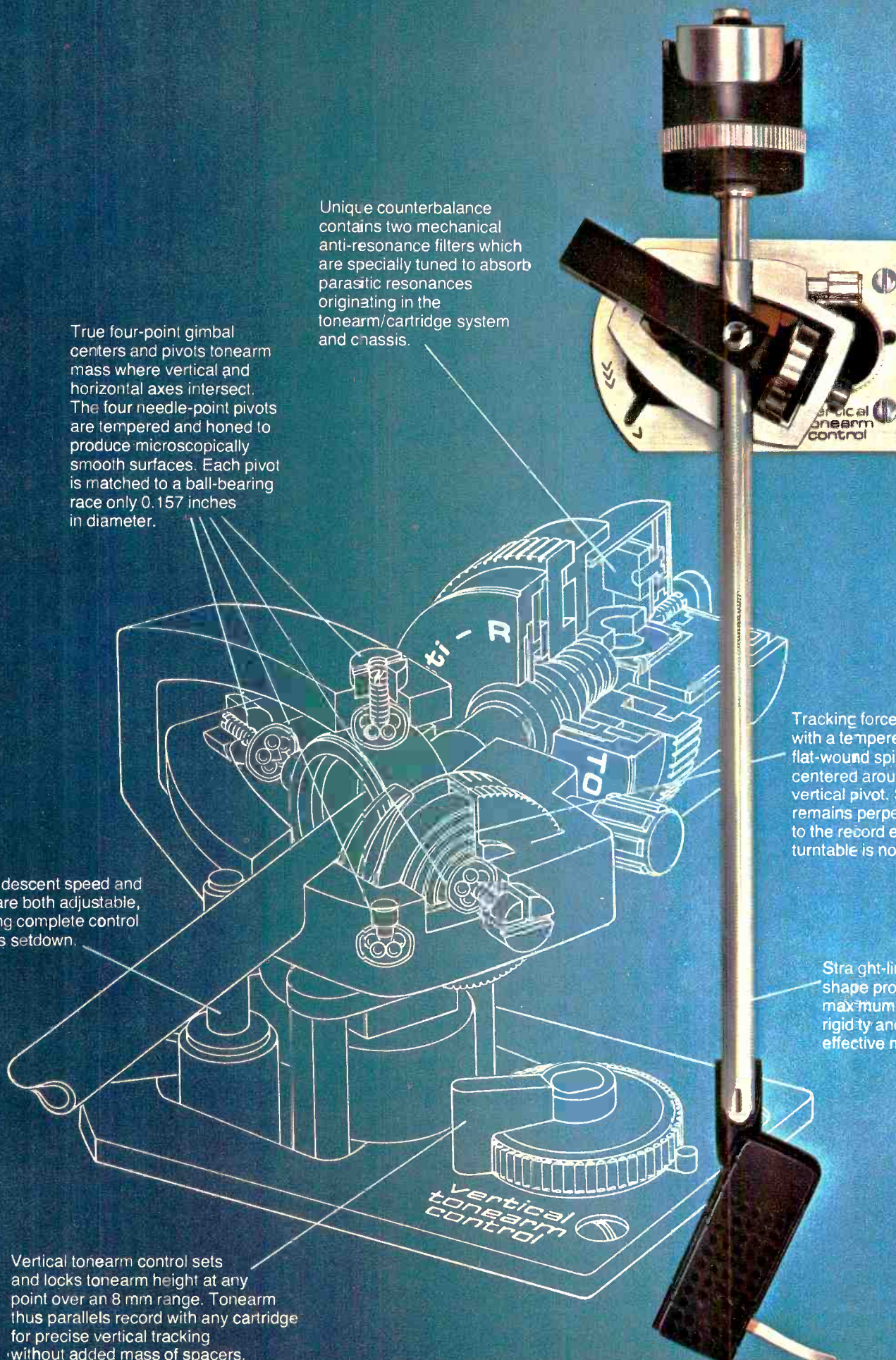
Unique counterbalance contains two mechanical anti-resonance filters which are specially tuned to absorb parasitic resonances originating in the tonearm/cartridge system and chassis.

Cueing descent speed and height are both adjustable, providing complete control of stylus setdown.

Vertical tonearm control sets and locks tonearm height at any point over an 8 mm range. Tonearm thus parallels record with any cartridge for precise vertical tracking without added mass of spacers.

Tracking force is applied with a tempered, flat-wound spiral spring, centered around the vertical pivot. Stylus force remains perpendicular to the record even if the turntable is not level.

Straight-line tubular shape provides maximum torsional rigidity and lowest effective mass.







## THE SPARKOMATIC SOUND.

# IF YOU'RE A TRAVELIN' MAN WHO THINKS CAR SPEAKERS SHOULD LOOK TOUGH BUT ACT SENSITIVE.

Car speakers have never looked as exciting. Or sounded as extraordinary.

Because these Sparkomatic "component" look 3-way speakers are a totally new outlook for 6X9 rear deck audio. And because they reproduce high fidelity like you were sitting center aisle instead of center lane.

With these Sparkomatic car speakers you get the most technologically advanced auto sound you can own. They're magnificently responsive across the full frequency range with minimum distortion, optimum dispersion, and can easily handle 50 watt power peaks.

Beneath the acoustically transparent heavy gauge wire

mesh grilles are foam-edge air suspension woofers with 20 ounce magnets, foam-edge air suspension midrange speakers with 3 ounce ceramic magnets and dome horn tweeters.

So, if you're a travelin' man who likes to travel in style, these speakers are tailored just for you.

Visit a Sparkomatic dealer for a beautiful eyeful and a magnificent earful.

**SPARKOMATIC.**  
**For the Travelin' Man™**

Car Sound/CB Equipment/Auto Clocks/Shifters/Creepers

For our free complete Car Sound Catalog write: "For The Travelin' Man", Dept. SR, Sparkomatic Corporation, Milford, PA 18337.  
CIRCLE NO. 71 ON READER SERVICE CARD



# FREE

## details... A DIFFERENT KIND OF RECORD CLUB

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

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

Look at these benefits:

### TREMENDOUS SAVINGS

on every record and tape in 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, etc.

### DISCOUNT DIVIDEND CERTIFICATES

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

### NEWSLETTERS

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

### DISCOUNT ACCESSORY GUIDE

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

### QUICK SERVICE

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

### 100% IRON-CLAD GUARANTEES

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

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

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

**DMC** DISCOUNT MUSIC CLUB, INC. 9-1078  
650 Main Street, New Rochelle, N.Y. 10801

NAME

ADDRESS

CITY

STATE

ZIP

CIRCLE NO. 23 ON READER SERVICE CARD

## Audio Q. and A. . . .

of a speaker line. Of course, the volume control will have to be turned up to compensate for the signal loss in the resistor, but what you will hear is what you would get with an amplifier damping factor of about 1. Under some conditions, and with some speakers, you might even like the results! Incidentally, low-frequency damping-factor differences may account for the low-frequency differences heard between some amplifiers (with some speakers) when the amplifiers' low ends measure the same in lab tests.

### AM Fidelity

**Q.** Now that people are talking seriously about stereo AM broadcasts, it seems to me that there is still much confusion about the permitted maximum and minimum frequency response on the AM broadcast band. For example, in the January "Audio News" it was stated that AM stations are capable of transmitting a frequency range of 50 to 10,000 Hz. But I've noticed other sources claiming limits of from half to double that frequency range. Do you have any late, definitive word on the matter?

PETER FERRER  
Evanston, Ill.

**A.** I don't know why we have had such difficulty over the years getting a definitive reply from the various authorities we've asked, but... In response to the "Audio News" item you mention, one broadcaster (station KEX in Portland, Oregon) claimed his station can and does transmit audio signals up to and beyond 20,000 Hz! A check with the FCC has clarified matters somewhat: there is indeed no effective limit on the frequency response of an AM station up to 15,000 Hz. However, signals between 15 and 30 kHz must be at least 25 dB below the level of the unmodulated carrier. The FCC also insists that stations in the same locale be spaced at least 30 to 40 kHz apart on the AM band to prevent mutual interference. And it also establishes a maximum transmitted output power permissible under various circumstances in order to prevent interference between stations on neighboring channels in different cities. So, AM stations are permitted to broadcast a full-range signal if they want to (in fact, their frequency response can be as good as that of an FM station). Nonetheless, frequency range alone doesn't determine fidelity. Noise, both atmospheric and man-made, remains a major fidelity problem for AM. No matter how clean the broadcaster's signal is, when it is picked up by the receiver it will inevitably contain noise, since noise is an amplitude modulation, just like the audio signal with which the broadcaster amplitude-modulated his carrier. (FM signals also come to the receiver with an overlay of AM noise, but receivers intended for FM reception are specifically designed to reject AM.)

Keep in mind that we are discussing potential fidelity here—what a station on the AM broadcast band can or is permitted to achieve in respect to frequency response does not necessarily correspond to what it actually sends out over the air waves, just as there are many FM stations not living up to their fidelity

potential. And there's another point to keep in mind regarding AM fidelity. While hi-fi FM receivers are commonly available, the audio quality of most AM radios and AM sections of hi-fi receivers is, in general, very bad. It's quite common for an AM tuner to have a frequency range of perhaps 100 to 4,000 Hz, which means that regardless of what is put out by the broadcaster, the sound the listener hears will be substandard. It is likely that many AM stations would sound a lot better if heard on a good-quality unit—say, the McKay-Dymek AM5 AM-only receiver. Perhaps with stereo AM a real issue now, more manufacturers will start making good AM tuners and more stations will consider broadcasting a high-quality signal—that is, if they can figure out how it will help brighten their profit picture.

### Synthesizer Reproduction

**Q.** Over the years you have taken a firm stand for accurate reproduction. I agree with your arguments, but how does the question of "accuracy" relate to the reproduction of sound that had no original live reality, such as the product of an Arp, Moog, or other synthesizer? Or, for that matter, the sound from a loudspeaker driven by an amplifier being fed by an electric guitar?

ARNOLD FOX  
Bronx, N.Y.

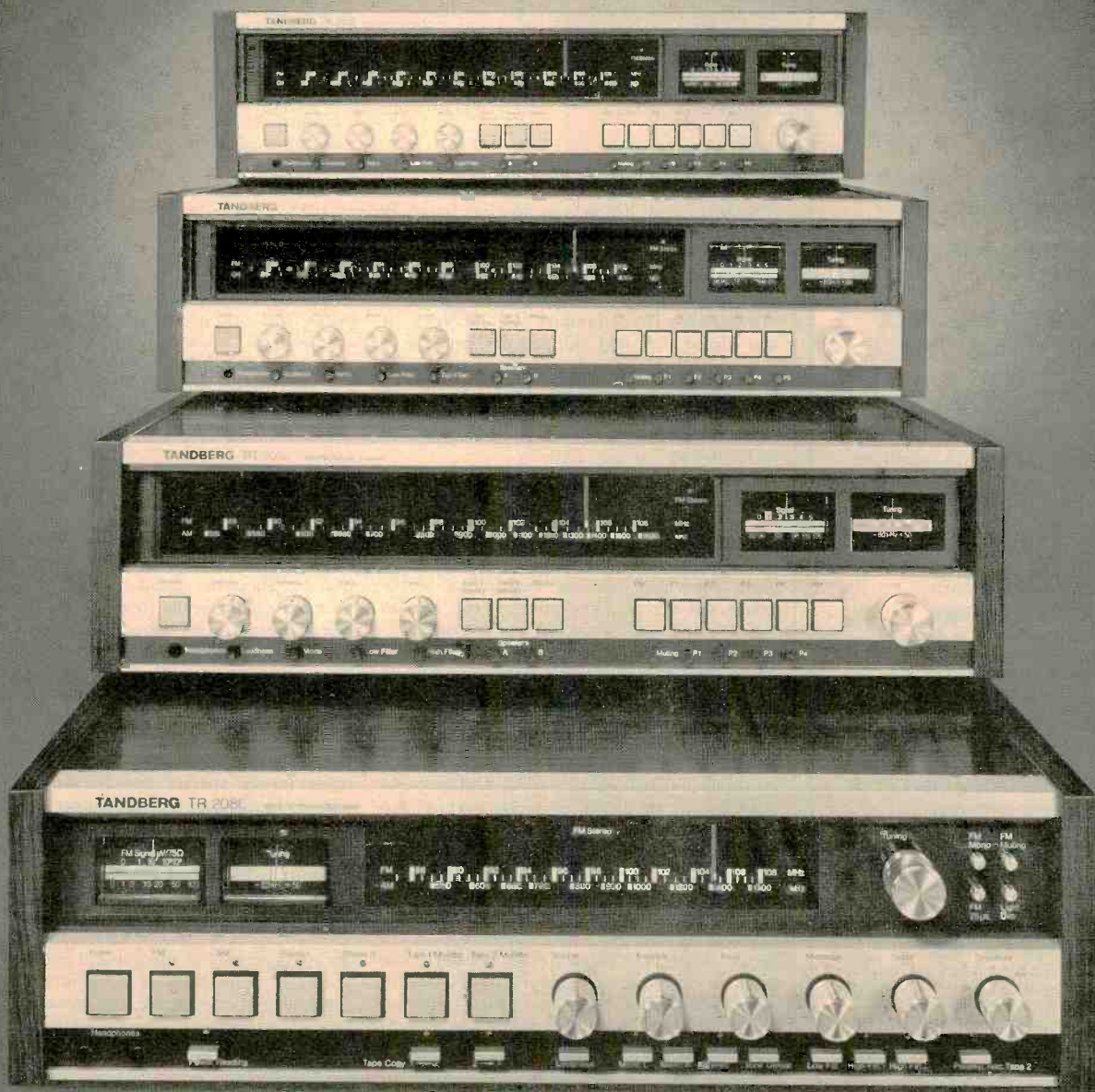
**A.** This question reads like a latter-day electronic version of the old philosophical paradox about the sound—or lack of it—made by a tree falling in the forest when there is no one to hear it. The "sound" of a music synthesizer is, of course, that which comes out of the speaker attached to it. Therefore, it seems to me that if a recording is made from the electrical output of the synthesizer, rather than from the speaker (or headset) used by the composer, it is up to the composer—if he cares to—specify the speaker or headphones to be used by the listener in order to hear exactly what the composer had in mind.

Speakers that are designed to operate with certain electrical musical instruments are another matter altogether. The special sonic characteristics of the speaker and the amplifier that drives it must be considered as much an intrinsic part of the musical instrument as is the wooden body of a Stradivarius. The difference is, of course, that any electric guitar can be hooked up to a wide variety of different amp/speaker combinations. Some combinations will produce sound that is preferred to that produced by some other combinations—and most rock musicians have their particular favorites.

At the recording session, the musician usually wants to hear captured on the tape the same sonic quality he hears live from his guitar-amp/speaker combination, not simply that of the guitar plugged into the mixing board. That is why, in a recording session, microphones are always used to pick up the acoustic output of the musical instrument's speaker. Sometimes, for a special effect, the guitar might be plugged directly into the mixer for one track and be picked up via amp/speaker and microphone for another track—with the two tracks mixed in the desired ratio. It is helpful to keep in mind that a music-instrument speaker is a sound producer and a hi-fi speaker is a sound reproducer.



# Why Buy a Datsun or Toyota When You Can Consider a Mercedes



In this world of mass produced look-alikes, there are always a select few products that stand out above the rest. Their purchase price is often less premium than you may imagine, particularly when you consider their extraordinary operating flexibility, construction and years of dependable service. And, of course, their superior level of performance.

Knowledgeable experts around the world place Tandberg high fidelity products in that special category. The TR 2080 stereo receiver, for example, is actually made up of a recognizably superior electronic tuner, preamplifier and power amplifier, each on its own separate chassis, perfectly balanced into one integrated unit. Moreover, these individual sec-

tions of the receiver offer specifications & flexibility normally associated with individual components whose total price would be much, much more than the TR 2080. So, perhaps it is even possible to consider it a bargain.

See the entire Tandberg receiver line—a series that shares more than just their exquisite rosewood cabinetry. Indeed, you will discover a commonality of performance, specifications and features that reflect the world-famous Tandberg commitment to integrity.

For the name of your nearest dealer, write: Tandberg of America, Inc., Labriola Court, Armonk, N.Y. 10504. Available in Canada.

## TANDBERG

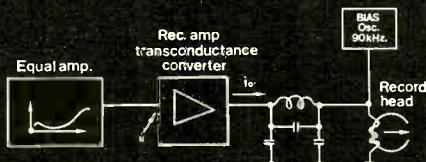
CIRCLE NO. 75 ON READER SERVICE CARD



# Tandberg Presents ACTILINEAR Recording

Open reel & cassette recorders can no longer be looked upon as add-on units in today's extremely sophisticated high fidelity sound systems, but rather as components within a total system with performance capability as technically advanced as all other components of that system.

In order to achieve this, Tandberg has developed a completely new tape recording technology known as the ACTILINEAR (Patent pending) System, the only recording technology available on the market today that can fully exploit the new high coercivity metal particle recording tape being developed.



More pertinent right now is the fact that Tandberg's new ACTILINEAR System, when used with the soon-to-be-available metal particle tape, offers performance parameters approaching those of experimental PCM technology, yet is compatible for playback on all existing tape recorders.

In conventional recording systems, the summation of record & bias current in the record head is done through passive components, leading to compromise solutions which have their distinct and pronounced weaknesses.

Tandberg engineers have developed a new recording technology without compromises. In the new ACTILINEAR System, the passive components have been replaced with an active Transconductance amplifier. Among the benefits of this new approach are:

- Up to 20 dB more headroom
- Less intermodulation due to Slew Rate limitation
- Improved electrical separation and less interference between the bias oscillator and record amplifier
- No obsolescence factor — useable with any type of tape, available now or in years to come

With its unequalled 30 year tradition in tape recorder technology, Tandberg has always been recognized worldwide for its quality products. And now, with the superior performance advantages of the ACTILINEAR System in Tandberg's new TD 20 A open reel deck, as well as the TCD 340 A and TCD 340 AM cassette decks, you will for the first time be able to achieve tape recorder performance capability equal to or better than all other components in a sophisticated sound system.

Tandberg of America, Inc., Labriola Court, Armonk, N.Y. 10504

**TANDBERG**  
CIRCLE NO. 74 ON READER SERVICE CARD

## Audio Q. and A.

By Larry Klein



### Four-ohm Power

**Q.** Since most amplifiers have a higher power output at 4 ohms than at 8 ohms, is it possible to connect 8-ohm resistors in parallel with 8-ohm speakers to provide 4-ohm loads to the amplifier (and thus take advantage of the higher output)?

BILL GOODRICH  
West Springfield, Mass.

**A.** Yes, but half the new, higher power available will do nothing but heat up the added 8-ohm resistor. The net result would be less total power available at your loudspeakers.

### Amplifier Damping Factor

**Q.** What effect does the "damping factor" of a receiver or amplifier have on its performance?

OTIS SMITH  
Hollywood, Calif.

**A.** Among all the amplifier specifications, damping factor is probably the least understood and the most worried about. Perhaps by increasing the understanding we can allay some of the anxiety. The damping factor of an amplifier refers only to the source impedance seen by a speaker at the amplifier's speaker-output terminals. This source impedance has nothing to do with the amplifier's ability to drive 4-, 8-, or 16-ohm loads but refers specifically to the effective "resistance" in the amplifier's output circuit.

What is the significance of this source impedance? If you were to feed a single pulse of energy into a woofer, the woofer cone would move in or out depending on the polarity of the signal. But whether it bounces about momentarily or overshoots (goes too far) at full excursion depends largely on the damping of the system. After all, the cone is suspended on a springy compliance, and spring systems usually require some kind of stabilizing damping. A low source impedance in the amplifier means that it provides some electrical damping of the speaker-cone movement. (The speaker's magnet assembly and the amount of flux it applies to the voice-coil gap are contributing elements in establishing the effectiveness of the amplifier's damping factor. In

this connection, too heavy a magnet for a given design can overdamp the system, causing loss of bass response.) Acoustical damping is also supplied by the enclosure, and some drivers have a great deal of mechanical damping built into their suspensions as well.

A very high damping factor (2,000, say) indicates that the amplifier's source impedance is very low. For reasons having to do with the design of the speaker and speaker-output circuit, however, such a super-high damping factor doesn't really do anything for speaker performance. Here's why: a damping factor of, say, 20 means that an 8-ohm speaker will see a source impedance of 0.4 ohm. "Improving" the amplifier's damping factor to 2,000 would mean that the speaker would then see a 0.004-ohm source impedance. This is not a significant improvement because the resistances of the speaker's voice coil, the crossover network, the speaker cable, and, possibly, a speaker-line fuse are, in effect, all between the amplifier and speaker. If these various elements total perhaps 6 ohms, then it's easy to see that any "improvement" that reduces the total series resistance from 6.4 ohms to 6.004 ohms would be of much greater benefit to an advertising copy writer than to an amplifier user. The consensus among experts on the matter seems to be that damping factors above 20 or so do nothing to improve amplifier/speaker performance—so long as all other factors remain the same.

However, there is one little-appreciated aspect of the question that shouldn't be overlooked. It could well be that a given amplifier's damping factor is very high at mid-frequencies (where it is usually rated) but falls to very low values at low frequencies (where it may be most needed). This was true of many tube amplifiers (because of deficiencies in their output transformers), but it should never be a problem with modern solid-state audio equipment.

What effect would a damping factor much lower than 20 have? Certainly nothing very terrible; it would simply cause the speaker's impedance variations at low frequencies to become audible. The bass might go from "tight" to "fuller" to "mushy," depending on where it was to start with. Anyone who would like to simulate the effect of a very low damping factor can do so by temporarily installing a 10-ohm, 10-watt resistor in one side

(Continued on page 36)







# Feast Your Ears.

Hear The System.

You'll hear the sound faithfully reproduced. Not artificially manufactured by the equipment. Because the equipment is Mitsubishi.

And Mitsubishi has a standard: what comes out must be as real as what went in.

You'll hear a system where every component has been perfectly matched to every other component. Yet each a precision instrument in its own right.

You'll see new equipment with new capabilities, new features, new designs.

The new amplifier. Not mere stereo, but dual monaural. We call it the DM Factor. For inter-channel separation at 20kHz at better than 80dB. For THD at lower than 0.01% at rated output. For remarkable clarity and definition. Ten violins sound like ten violins

instead of one big mushy solo.

The new preamplifier. With the DM Factor. Exclusively Mitsubishi. For THD of 0.002%. And specially developed to effectively handle the moving coil cartridge. For a signal-to-noise ratio of -77dB. Unheard of in any other preamplifier.

The new frequency synthesizing tuner. With THD in stereo at barely 0.08% at 1kHz. Conservative, at that. With switched selectivity for uncompromising reception. With digital read-out. With LED's to determine signal strength and precise tuning. With an uncanny ability to zero in on the quietest signal.

The turntable. Our direct drive high torque servometer eliminates gears, belts and pulleys. And with them wow, flutter and noise. Our logic control eliminates unreliable mechanisms in the nerve center. Our high resolution tone arm eliminates virtually all resonance. Everything you never wanted in a turntable.

The loudspeakers.

Meticulously constructed. Painstakingly tested. For the exact response that sounds like music, not speaker. The final link in a faultless system.

And not least, the equipment rack. As unique as The System. As clean and uncluttered as the sound.

We could go on reprinting specifications. We could go on employing adjectives. But nothing will tell you more about our audio equipment than your audio equipment.

So hear The System.

See it. Take it apart. Compare all the possibilities. All Mitsubishi or only a part. You won't settle for anything less than the whole.

Because if we've got you so far, just wait till we get your ears.

 **MITSUBISHI**  
AUDIO SYSTEMS



operating range are avoided to some extent. This is a class-AB bias situation. Should the designer choose to increase the bias to eliminate even more low-level nonlinearities, the amplifier will usually run warm. Let him increase it to the point where the transistor is always fully turned on and class A is reached.

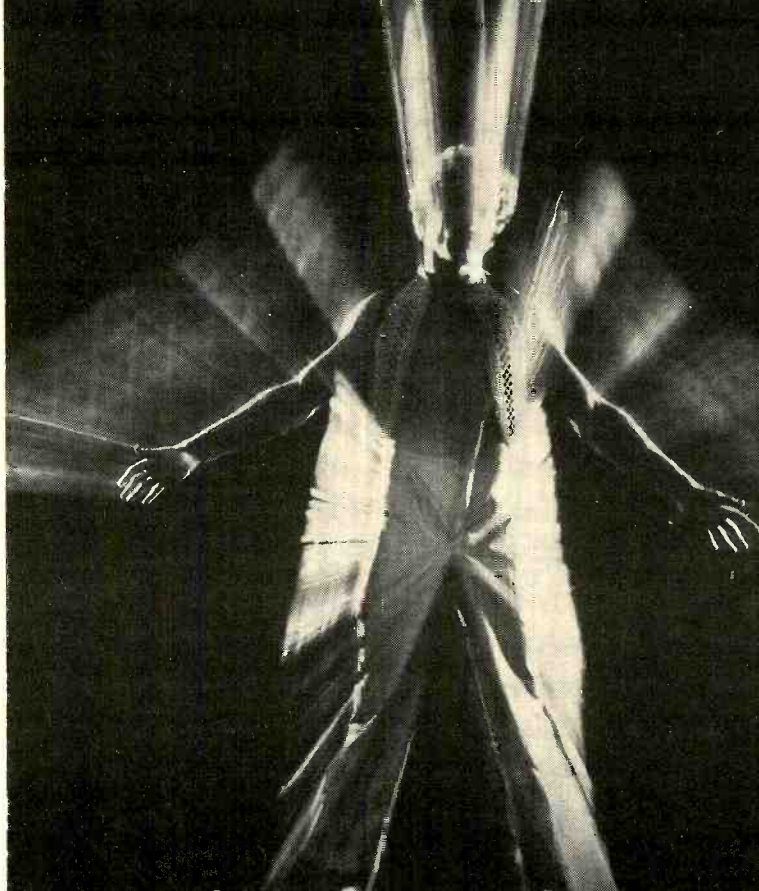
Class-A operation does a fine job of keeping the transistor in the most distortionless mode possible, but it also takes the device just that much closer to the excessive-signal region, and it therefore "wastes" a considerable portion of the linear operating range. What's left over amounts to appreciably less "headroom" for handling the audio signal, which is why class-A designs typically have rather modest power-output ratings. And since the transistor is always "on," the amplifier consumes electricity at a brisk rate, which it turns into heat, not sound. This is not an attractive situation to an amplifier designer, so he is usually inclined to take a closer look at class AB to see if there aren't a few more options open.

Remember that we're virtually always dealing with paired transistor sets in a push-pull configuration when it comes to power amplifiers, so the point at which we can expect trouble is the transition area where one transistor group is just letting go ("turning off") and the other is just taking hold ("turning on"). In class AB there is always going to be a little nonlinearity (distortion) in this area, both because the transistors are in their low-level ranges and because they are never—at least in the real world—perfectly matched to one another. The resultant distortion is referred to as "notch" or "crossover" distortion. These distortions are going to be constant in level no matter what kind of audio signal the amplifier is handling, which is one of the reasons why, in many amplifiers, distortion percentages tend to go up as power output is reduced. To avoid poor distortion figures at low power levels, an amplifier designer is often inclined to bias a little closer to class A in the class-AB design.

Today, however, with sophisticated integrated circuits ready to hand, a designer is not necessarily obliged to stick with only one bias condition. A significant number of this year's new amplifiers incorporate automatic control circuits that bias them at class A for output levels of a few watts and at something closer to class AB as the power-output demands of the music signal get significantly greater.

Is this the best of both worlds? Well, time will have to tell. The probability is that such amplifiers will tend to consume somewhat more power and run a bit hotter. At the same time, they should be able to show less measurable distortion at low power-output levels. But the big question is whether this lower distortion will have any audible significance. As prominent as notch distortion can be made to look in a laboratory measurement, in any competent amplifier design it still amounts to a very small actual output from any loudspeaker the amplifier is likely to be called upon to drive, probably well below the ambient-noise level in any practical listening room. The battle of the classes is certain to continue, and some of the new amplifiers may just bring it closer to a resolution. However, the betting here is that the issue is really not much of an issue and that we'll have to look elsewhere for the reason why our amplifiers' sound tends to please or displease us.

# Introducing THE BOOM BOX.



## It's like listening with your whole body.

You know how good a live bass feels. It talks to you through your chest.

So you know how tough it is to get that sound — and that feeling — when you're listening to records.

But now, you can get fast, fast relief from pale bass. Just hook up one dbx Boom Box. And stand back.

In just milli-seconds the Boom Box goes to work so you can feel all the vibrant, low frequency energy of live bass. Because the Boom Box recreates the low frequency sound that's often deliberately

left out in the recording studio.

You actually feel the blast of air a real bass note produces.

The Boom Box does this by seizing the lowest notes, instantly creating new notes an octave lower, and then realistically putting them back into your music. Low frequency notes surge through your hi fi system.

The Boom Box works on any music system that has a tape monitor switch. And it not only makes modest systems sound expensive, it makes expensive systems sound unbelievably real.

Hear the Boom Box. Feel the Boom Box. At your dbx dealer. You'll experience an all-time "low" in musical enjoyment.



# dbx

dbx, incorporated  
71 Chapel Street  
Newton, MA 02195  
617/964-3210



# STEREO MEDICINE FOR EVERYONE'S BUDGET.



MODEL 2102  
STEREO GRAPHIC EQUALIZER

Rooms have a way of making music suffer. Their furnishings upset music's tonal balance by absorbing, and muffling certain frequencies.

But now, we've created a remedy to help cure room acoustical problems. Help ease mid-treble harshness. Help calm booming mid-bass. Help balance every octave. And help liven your music.

It's all from our newest component. Our model 2102 stereo graphic equalizer. The price is within your budget. The warranty is five years, and transferable. And the medicine is easy for your ears to swallow.

## SPECTRO ACOUSTICS

DEPARTMENT SRO  
P.O. BOX 369  
RICHLAND, WA 99352  
TELEPHONE — (509) 375-9608

CANADA:  
TC ELECTRONICS  
QUEBEC, CANADA

INTERNATIONAL:  
FIMC  
30 GREENHILL RD.  
WESTWOOD, MASS 02090

AN AMERICAN MANUFACTURER  
OF HIGH FIDELITY COMPONENTS

# Audio Basics

By Ralph  
Hodges



## AMPLIFIERS WITH CLASS

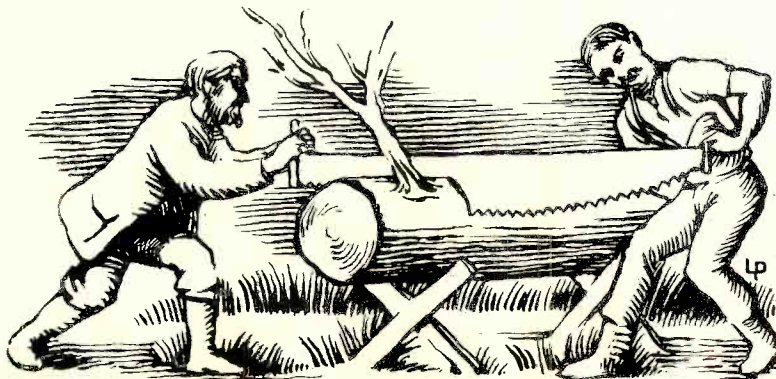
**I**n this month's pages on new audio products there are numerous references to amplifier "class": class A, class B, class AB, etc. What do these class distinctions mean, and how important is it to understand them? What they mean I'll try to explain in the next few paragraphs. Whether they're important or not remains a question each must answer for himself. Certainly they have a great influence on the cost and power output of an amplifier, but whether they have a consistent, audible effect on the sound quality of an amplifier is, and has been, a rather controversial issue.

A high-fidelity power amplifier—and virtually all of this discussion will refer to power amplifiers—almost invariably employs a *push-pull* output stage with one or more groups of transistors (or vacuum tubes) generating the actual output. Visualize an upper and a lower transistor, with the upper one bearing major responsibility for any positive excursions of the audio waveform and the lower one carrying most of the load on the negative excursions. A useful analogy is that of a two-man saw. Let us say that two lumberjacks using such a saw are constantly either pushing or pulling, so that both men are working full time. This corresponds to class-A amplifier operation. (Incidentally, I am told it is not practical to *push* a conventional two-man saw, but for the sake of this analogy we'll pretend it is.) Now suppose that the lumberjacks agree upon an arrangement whereby each man works only half the time. In other words,

when the saw has been drawn wholly into lumberjack one's territory, he stops working and rests for the other half of the "cycle" while lumberjack two pulls the saw into *his* territory. This is like class-B operation.

Sawyers will tell you that such brief respites during each sawing cycle make their lives a little easier. Similar "half-holidays" certainly make life easier for an amplifier designer dealing with real-world transistors. To get output from a transistor one applies a control signal to it. But how much signal? With a tiny signal nothing much happens. Then, as the signal increases, the transistor begins to come somewhat erratically (nonlinearly) to life. With still more signal, the output starts to increase with some regularity, and this is the "linear" portion of the transistor's operating range, in which it can be considered useful as a high-fidelity amplifying device. Finally, when the signal gets to be too large, the transistor, depending on its type, either blows itself out or again becomes nonlinear.

An amplifier designer wants to make the most of a transistor's linear range and at the same time to stay as far as possible from its nonlinear regions of operation. To avoid the nonlinearities at low signal voltages he arranges for a constant d. c. voltage, called the *bias*, to be applied to the transistor, so that it is always more or less turned on, even when there is no input signal to the amplifier. Hence, the transistor has some "head start" and the gross nonlinearities of its low-voltage





# Technics

Who needs the accuracy of Technics quartz-locked, direct-drive turntables? Professionals do. That's why radio stations use them and discos abuse them.

Now you can get all the accuracy of our professional turntables with the SL-1301 fully automatic and the SL-1401 semi-automatic, our new quartz-locked, direct-drive turntables. Accuracy like wow and flutter of only 0.025% WRMS, rumble of -78 dB (DIN B) and speed drift within 0.002%. That's professional accuracy.

How did our engineers achieve it? They started with a Technics hetero-pole, direct-drive motor. Next, they combined the functions of over 1,100 discrete circuit components into 3 IC chips, the same IC's found in our professional turntables. In one of these IC's you'll find the most reliable speed-reference device ever used in a turntable: A frequency generator quartz oscillator.

To dramatically reduce annoying acoustic feedback, both the SL-1301 and SL-1401 take advantage of Technics unique double isolated suspension system. One suspension damps out vibration from the base while the other absorbs vibrations from the platter and tonearm.

At the same time, Technics computer-analyzed, gimbal suspended S-shaped tonearm reduces friction to a mere 7 mg while it greatly increases tracking sensitivity.

The SL-1301 and the SL-1401. Both give you the accuracy of our professional turntables. With one big difference, the price.

**There are few differences between our professional turntables and these quartz-locked turntables. Accuracy isn't one of them.**

CIRCLE NO. 81 ON READER SERVICE CARD





# New Products latest audio equipment and accessories

330 (shown), a three-way, air-suspension system containing a 12-inch woofer, 2-inch mid-range, and 1-inch tweeter (crossover points are 500 and 6,000 Hz) controlled in level by separate three-position mid-range and tweeter switches. Impedance is 8 ohms, and frequency response is 35 to 20,000 Hz  $\pm 3$  dB. Efficiency is 88 dB (sound-pressure level at 1 meter with 1 watt input), with a minimum recommended power input of 15 watts and a maximum of 250 watts. An auto-reset overload-protection circuit is incorporated. The cabinet is finished in walnut veneer with a dark brown grille. The system measures 30 $\frac{1}{4}$  x 17 x 10 $\frac{1}{4}$  inches and weighs 60 pounds. Price: approximately \$375.

Circle 127 on reader service card



Two Super-tuners From Yamaha

□ As replacements for earlier highly acclaimed models, Yamaha has introduced the new AM/FM T-1 and the FM-only T-2 tuners. The top-of-the-line T-2 (shown) provides digital station-frequency readout together with a wide, linearly calibrated tuning dial. Not only is the i.f. bandwidth switchable between high and normal selectivity (in fact, the T-2 switches to high selectivity automatically when signal strength falls to 50 microvolts), but the T-2 also has circuits in the r.f. section that can be switched to favor either high sensitivity or high selectivity. A signal-canceling circuit that tracks the strength of the broadcast being received reduces the level of the 19-kHz stereo pilot signal in the tuner's output by 72 dB.

The T-2 has a usable sensitivity of 1.5 microvolts in the high-sensitivity r.f. mode and 3 microvolts in the high-selectivity mode. Alternate-channel selectivity is 100 dB in the high-selectivity i.f. mode (called DX on the front panel) and 55 dB for normal selectivity (called LOCAL). Mono harmonic distortion ranges from 0.03 to 0.08 per cent (LOCAL) or 0.1 to 0.4 per cent (DX). Stereo separation at 1,000 Hz is 35 dB (DX), improving to 55 dB in the LOCAL mode. Capture ratios are 1 dB (LOCAL) and 1.5 dB (DX). Image and spurious-response rejection are both 120 dB. Frequency response is 10 to 18,000 Hz  $\pm 0.3$ ,  $-3$  dB (30 to 10,000 Hz  $\pm 0.3$ ,  $-0.5$  dB). The T-2 measures about 17 $\frac{1}{4}$  x 2 $\frac{3}{4}$  x 13 $\frac{3}{4}$  inches and weighs approximately 15 pounds. Price: \$700.

The AM/FM T-1 also has a switch for i.f. bandwidth. Usable sensitivity is typically 1.7 microvolts with a 50-dB quieting sensitivity of

3 microvolts. Alternate-channel selectivity is 55 dB (92 dB in DX). Harmonic distortion (mono) ranges from 0.5 to 0.3 per cent, depending on the setting of the i.f.-bandwidth switch. Stereo separation at 1,000 Hz is 55 dB (30 dB in DX). Capture ratio is 1 dB, image and spurious-response rejection are 90 and 100 dB, respectively, and frequency response is 30 to 15,000 Hz  $\pm 0.5$  dB (50 to 10,000 Hz  $\pm 0.3$  dB). The T-1 weighs about 12 $\frac{1}{2}$  pounds and measures approximately 17 $\frac{1}{4}$  x 4 x 15 inches. Price: \$350.

Circle 128 on reader service card



Parenthian's Three-piece Bi-amplified Speaker

□ The Parenthian Model 3600 speaker system combines two almost-full-range three-way modules with a single subwoofer module extending response down to 20 Hz. The subwoofer, employing a 15-inch driver, contains its own 150-watt amplifier (less than 0.05 per cent distortion) as part of a motion-feedback system to maintain woofer linearity electronically over its operating range. The outboard modules each contain two 8-inch drivers (one of which operates over a restricted frequency range in such a way as to acoustically damp the other), a 2-inch upper-mid-range dome driver, and two small film-diaphragm dynamic drivers angled slightly outward. As with the rest of the Parenthian line, plate glass is used extensively in the construction of the enclosures, both alone—resulting in transparent panels in some cases—and in combination with wood laminate.

Nominal operating ranges for the Model 3600's drivers are 20 to 80 Hz for the subwoofer, 80 to 500 Hz for the 8-inch drivers, 500 to 4,000 Hz for the 2-inch dome, and 4,000 to beyond 30,000 Hz for the film-diaphragm drivers. The crossover networks are "multipoint," introducing progressively sharper

cutoffs for frequencies further from each driver's operating range. On-axis frequency response in a "simulated room" is rated at 25 to 23,000 Hz  $\pm 3$  dB. Response is within 3 dB of the on-axis specification at lateral angles of up to 45 degrees off axis. The outboard modules will handle up to 100 watts of program material, with 50 watts of amplifier power the recommended minimum. Impedance is 6 ohms nominal, 4 ohms minimum. A high-pass filter attenuates the woofer output at a rate of 24 dB per octave below 10 Hz. Each of the outboard modules is 46 $\frac{3}{4}$  x 19 x 4 $\frac{1}{2}$  inches; the subwoofer commode measures 23 $\frac{3}{4}$  x 18 x 18 inches. Price of the complete model 3600 ensemble: \$1,799.

Circle 129 on reader service card



3M Upgrades Its Eight-track Tape

□ The 3M Company has added an eight-track cartridge to its "Scotch" Master line of recording tape. The high-output, low-noise ferric-oxide tape used is said to provide high-frequency sensitivity 6 dB higher than standard cartridges. The new tape has a 2-dB increase in maximum output and 4 dB lower noise level than standard cartridges. A new binder system for the oxide is employed, and the cartridge case is precision-molded. Prices are \$3.99 for the 45-minute length and \$4.69 for the 90-minute version.

Circle 130 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.



it creates — from standard stereo recordings and broadcasts — are reconverted to analog signals after processing, and are meant to be fed to a second amplifier (which needs no controls) and heard over a second set of two or more speakers placed at the sides and/or rear of a home listening room.

Taking over all the complexities of modeling acoustic space, the SoundSpace control leaves you to make the two basic, desirable choices for creating the kind of listening space you want.

First you choose the audible size of the space you want to create, from a small club to a vast cathedral. You make the choice with the help of a digital "Size Index" readout.

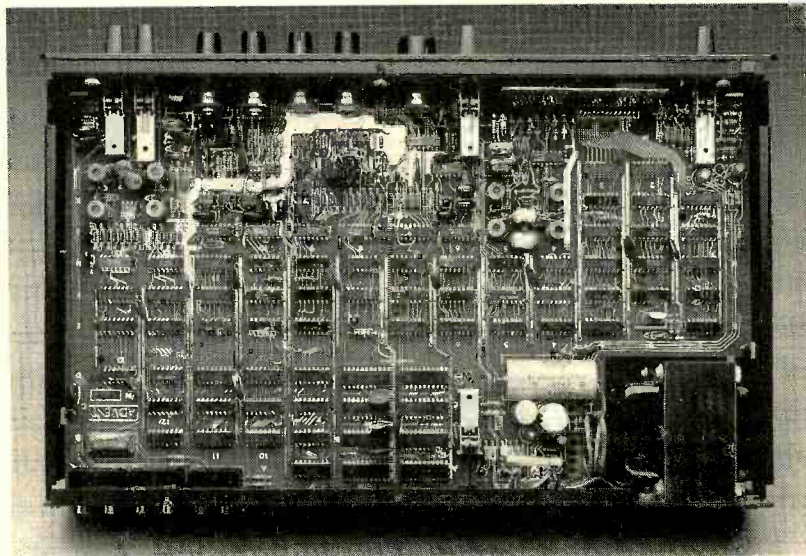
After choosing how big a space you want, you can then adjust the Reverberation control to select any of a whole range of acoustic environments—from very "dry" to very "live" in reverberation. You can, in effect, fill the hall with sound-absorbing surfaces and people, or empty it for sound that resounds dramatically.

As you make these choices, the SoundSpace control automatically makes countless other choices for you. It puts you, for instance, in the theoretical "best seat" in any space you create, and sets a "stage depth" appropriate to the size of the listening space. And in the process, it makes the many thousands of choices related to basic acoustics (including matters like coefficients of reflection and delay amplitudes) with no need for computations by the listener.

Instead of having to make a series of complex and largely unknowable choices on your own, you simply choose how big and how reverberant a space you want to create in your listening room.

## The Difference From Everything Else.

In order to bring home the kind of sound people can enjoy in public listening spaces, you have to do more than simply offer the listener some kind of "delayed sound" to mimic the ways in which time-delays produce big-hall acoustics. Reflective speaker systems, for instance, don't produce enough of a time-delay to model the public listening experience, and their effect can't be varied to produce different conditions to suit different kinds of music. Analog "bucket-brigade" time-delay products also don't have the flexibility needed to reproduce actual listening conditions, and have audibly limited dynamic range and bandwidth. And earlier generations of digital time-



*The computer-grade construction of the SoundSpace control is the most advanced in home audio equipment.*

delay devices have suffered from noise and distortion, difficult-to-use controls, and a model of acoustic space that was so limited that it tended to produce sound a lot closer to what you might hear in an underground parking garage than in a good concert hall or theater.

The SoundSpace control accurately models the characteristics of *good* acoustic spaces, employing parameters based on intensive study and computer analysis of actual auditoriums. It operates with vanishingly low noise and distortion (less than 0.1%), 80 dB of dynamic range, and controls that are both effective and easy to use. It sounds like the highest-fidelity product it is.

Whether you want the closest possible approach to "live" sound or the biggest, widest-screen presentation of what a George Martin or Peter Asher has in mind when producing a recording in a studio, we think you will find Advent's SoundSpace control a tremendously enjoyable product to own.

The suggested price of the SoundSpace control is \$595.\* For more information and a list of Advent dealers, please send us the coupon.

Thank you.

SR-10/78

To: Advent Corporation, 195 Albany Street,  
Cambridge, Massachusetts 02139.

Please send information on Advent's SoundSpace™ control, and a list of your dealers.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_

\*Subject to change without notice.

**Advent Corporation, 195 Albany Street, Cambridge, Massachusetts 02139.**



*(The SoundSpace™ Control by Advent.)*

# Another Step Closer To Hearing It All.



The last real frontier in sound reproduction is the ability to change your living room, electronically, into the kind of space where music sounds best—a good-sized space where music has room to expand and reverberate, and where the right spatial proportions and right combination of sound reflection and sound absorption produce rich, warm, and clear acoustics.

The SoundSpace™ control by Advent is a new electronic product, using the most sophisticated technology ever applied to home audio, that allows you to convert your living room into a whole range of good listening spaces of varying sizes and acoustics. It lets you experience music much as it sounds in concert halls, theaters, night clubs, cathedrals and public listening spaces.

The idea of bringing home concert-hall-and-other acoustics isn't new, and many products—from reflective speaker systems to analog and digital time-delay products—have attempted to imitate the way in which sound is shaped in live listening experiences. But Advent's SoundSpace control is the first product to allow the listener to accomplish, easily and repeatably, what really needs to be done.

The SoundSpace control makes a dramatic audible difference in the way music sounds in a living room, a far greater and more realistic difference

than anything you can experience by changing or improving conventional stereo components. It provides a three-dimensional “presence” that can't be achieved with tone controls, equalizers, reflective speakers, or added amplifier power. It expands and enlivens the sound of all kinds of recorded and on-the-air music—including the many rock and other recordings where the only original listening space you can bring home is the one in the heads of the musicians, producer, and engineers.

## What It Does.

The SoundSpace control is a 32,000-bit computer that uses the equivalent of more than 43,000 transistors. (One good indication of the sophistication of the SoundSpace control's memory and logic circuits is that in the days of vacuum tubes their hardware would have filled an auditorium—and required enough power to light up a city block.)

The SoundSpace control converts analog musical waveforms from a preamp, integrated amplifier or receiver to digital pulses for processing by its memory and logic circuits, and adds time-delays that are multiply mixed and recirculated to model the ways in which sound is delayed, reflected and absorbed in good public listening spaces. The delayed signals





## With BASF you can fill a room with sounds you never heard before.

### Sensitive Sound.

Using an anechoic chamber, the finest sound equipment available, and the most sensitive tape ever made, we were able to capture the sound of the wingbeats of a butterfly in flight... a sound similar to that of a great bird of prey.

### More sensitivity for more music.

It is a startling demonstration of the sensitivity of our New Professional Series Cassettes. You get more headroom, greater dynamic range, a better signal-to-noise ratio and unheard-of sensitivity. And that's why you hear music the way you have never heard it before on cassette.

### Sounds of other worlds.

Visit your BASF dealer soon and ask him about the New Professional Series, including Professional I, our new ferric formulation, Professional II, our new second generation chrome formulation, and Professional III, our new ferrichrome formulation that is ideal for auto cassette players.

If you would like to discover the sounds of an ant in distress, an eye winking, a butterfly in flight, and other never-before-recorded sounds, send \$3.50 to BASF OTHER WORLDS, Box 18367, Boston, Mass. 02118.

We will send you a \$4.99 Professional II C-90 cassette with these sounds. This offer will be available while supplies last. Please allow 4 weeks for delivery.

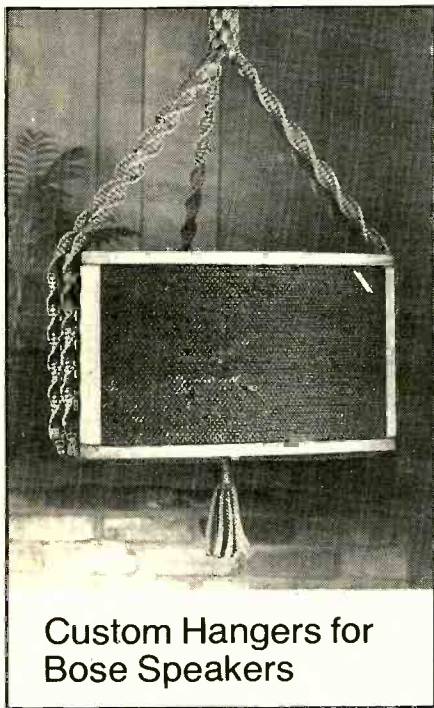


 **BASF**

Sensitive Sound. From The People Who Invented Magnetic Tape.



# New Products latest audio equipment and accessories



**Custom Hangers for Bose Speakers**

□ The latest development in the increasingly popular macramé hanging speaker supports is a design created specifically for the Bose series 901 speaker systems. The hangers suspend the speakers approximately 18 inches from the ceiling; they are available in either jute or herculon fibers and in twist or tight-square-knot styles. According to material and style, the hangers for the Bose speakers range in price from \$25 to \$36. Similar designs are available for other speakers from \$20 to \$26 for medium sizes and from \$25 to \$32 for large sizes. Manufacturer: Macramé by Kerry, 5937 Simpson Avenue, No. Hollywood, Calif. 91607.

Circle 124 on Reader Service Card



**60 Watts per Channel From Moderate-price JVC Amplifier**

□ JVC's Model JA-S55 integrated stereo amplifier is part of the manufacturer's "Tri-DC" series, meaning that the phono-

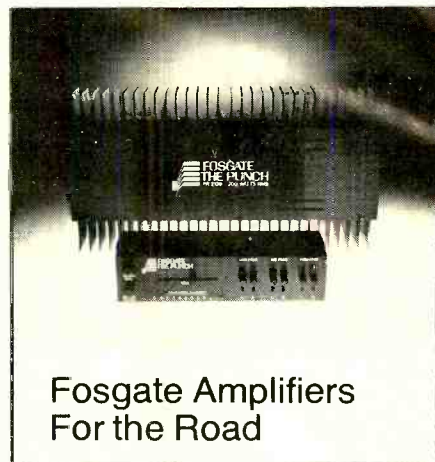
preamplifier, high-level, and power-output stages are all DC configurations. The 60-watt-per-channel continuous-power rating is referred to 8 ohms from 20 to 20,000 Hz with no more than 0.02 per cent total harmonic distortion. Intermodulation distortion is 0.01 per cent at rated output, and the signal-to-noise ratio for the phono inputs is 81 dB. The phono inputs overload at 230 millivolts. Prominent on the JA-S55's front panel are two large power meters calibrated in watts (referred to 8-ohm loads) and decibels. The bass and treble controls have ranges of  $\pm 8$  dB at frequencies of 100 and 10,000 Hz, respectively. Tape-monitoring facilities include dubbing from either of two decks to the other, and there are pushbuttons for tone-control defeat, infrasonic filter, and loudness compensation. The amplifier measures 16 $\frac{3}{4}$  x 6 x 13 $\frac{3}{8}$  inches. Approximate price: \$300.

Circle 125 on reader service card



**La Scala Opera Poster Reproductions**

□ Twelve full-color reproductions of opera posters commissioned by the Italian music publishers G. Ricordi are available from Fiesta Arts. They date from the early part of this century and reflect the stylistic influences of the time. Among the selections are posters for Puccini's *Turandot* (shown), *Madama Butterfly*, and *Manon Lescaut*, *Adriana Lecouvreur* (Cilea), and *Parsifal* (Wagner). The posters measure 27 $\frac{1}{2}$  x 19 $\frac{1}{2}$  inches and are packaged in clear plastic envelopes and shipped in heavy mailing tubes. Price: \$7.50 each plus .50¢ postage. A color brochure will be sent for \$1 (which is refundable with the first order). Write direct to Fiesta Arts, Inc., Department SR, Greenvale, N.Y. 11548.



**Fosgate Amplifiers For the Road**

□ Among three Fosgate amplifiers for automobiles is the top-of-the-line PR-2100 (shown), a biamplified system with a total power output of 50 watts per channel into 8 ohms from 20 to 20,000 Hz with total harmonic distortion of less than 0.03 per cent. Woofer and tweeter frequencies are independently selectable for five different settings ranging from 125 to 2,000 Hz. The preamplifier incorporates an active equalizer circuit, and it is dashboard-mountable. Suggested placement for the power amplifier is in the car trunk. Frequency response for both modules is 20 to 20,000 Hz  $\pm 0.25$  dB, and noise is down -80 dB from full power. Fosgate packs a warning notice with each unit to the effect that it can develop a level of 115 dB in a closed car! The preamp measures 7 $\frac{3}{4}$  x 1 $\frac{7}{8}$  x 3 $\frac{1}{4}$  inches and the power amp 14 $\frac{1}{8}$  x 2 $\frac{1}{2}$  x 8 inches. The PR-2100 is priced at \$369.95, and appropriate speakers are also available.

Circle 126 on reader service card



**Avid Presents New Loudspeaker Line**

□ Avid's new line of five speaker systems features a design that integrates driver units, cabinet enclosure, and grille assembly in a manner intended to reduce cabinet diffraction effects. At the top of the series is the Model  
(Continued on page 28)



# LOW RESONANCE

Beyond even this foamed concrete anti-resonance breakthrough, the base is isolated by energy absorbing, resonance-tuned, rubber suspension feet.

This is as close as technology has ever come to defying the physical laws of resonance.

The motor in the ADC 1700DD is also present standard of excellence: Direct Drive Quartz Phase-Locked Loop. The quartz is used in the reference oscillator of the motor.

An electronic phase comparator constantly monitors any variance in the speed, making instantaneous corrections. Even when out of the Quartz-Locked mode, the optical scanning system keeps drift at below 0.2%.

In fact, to check the speed at a glance, we've engineered the 1700DD with a pulsed LED strobe display for your convenience.

Low-mass. Low-resonance. High performance.

What is the result of all these breakthroughs? Pure pleasure.

The pleasure of enjoying your favorite music with less distortion and coloration than you may have ever experienced before. Now you can truly appreciate the integrity of the original recording.

Our engineers have reduced record wear and music distortion to a point where rumble is -70dB Din B, and Wow and flutter less than .03% WRMS.

In the history of audio technology, significant breakthroughs have been made over the past four years with the development of Quartz Lock Direct Drive, carbon fibre tonearms, foamed concrete anti-resonance construction.

And now, ADC is the first to bring them all together in the 1700DD. We invite you to a demonstration of this and the other remarkable ADC turntables at your nearest franchised ADC dealer.

Or, if you'd like, write for further information to: ADC Professional Products, a division of BSR Consumer Products Group, Route 303, Blauvelt, N.Y. 10913.

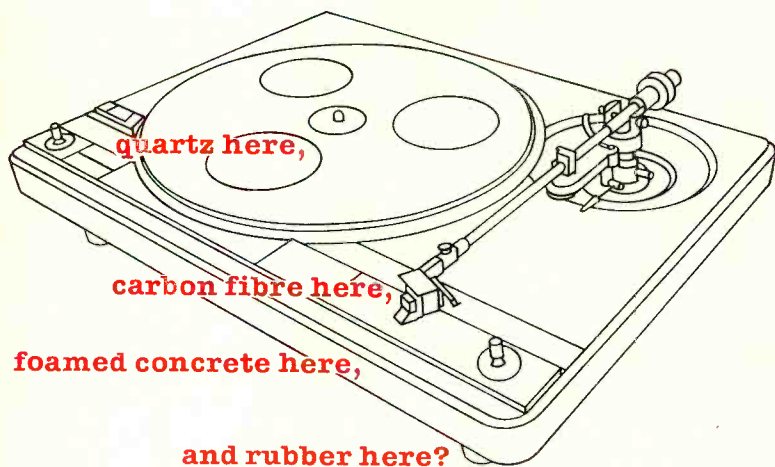
Low-mass. Low-resonance. We think you'll be highly interested.

Distributed in Canada by BSR (Canada) Ltd., Rexdale, Ont.  
\*Accutrac is a registered trademark of Accutrac Ltd.





What do you get when you put



# ADC THE FIRST LOW-MASS TURNTABLE.

ADC is in the business of building breakthroughs.

First, we brought you the innovation of the low mass cartridge. Then the remarkable computerized Accutrac® turntables. Next, the State-of-the-Art Low Mass tonearms.

And now, our engineers have combined the latest advancements of tonearm technology and turntable construction to reduce mass and resonance to new lows.

Result: new benchmarks of high performance.

Finally, the integration of a carbon fibre design tonearm. The famous LMF Carbon Fibre tonearm was the model for the tonearm found on the ADC 1700DD.

In fact, until now you had to make a separate investment in an ADC tonearm to achieve this level of performance.

A level of performance never before available on an integrated turntable.

The mass is lowered by the development of a tapered profile. It is statically balanced with a lead-filled decoupled counterweight, and the headshell is molded carbon fibre, long known for its low mass to high tensile strength ratio.

Furthermore, the headshell is connected to the arm with gold plated computer terminal pins. And the main bearing cradle is made of sintered aluminum. The pivot system utilizes micron polished instrument bearings which are hand picked and matched perfectly to both the inner and outer races, for virtually frictionless movement.

The viscous cueing is a gentle 4mm/sec., and the tempered spring anti-skate adjustment is infinitely variable to 3.5 grams.

The design, the materials and the details interact to provide incomparable performance for a tonearm on an integrated turntable system.

In fact, the tonearm alone is worth the price of an ADC 1700DD.

Finally, resonance conquered.

The technical know-how that conquered the problems of the tonearm mass, also conquered the problems of turntable resonance.

The ADC 1700DD reduces resonance to levels so negligible they are virtually nonexistent.

The achievement lies in the innovative construction formula for the turntable base that incorporates the latest advancements from European engineers.

The base is constructed with two dissimilar materials that are resonance-cancelling. First, the outer frame of the base is molded, and then a composition of foamed concrete is injected to absorb and neutralize resonance and feedback.



# SLICK

Most advertising is. Clever headline (like this one), sharp photo, slick copy.

Happiness, they tell us, is smelling like Joe Namath, eating an Egg McSomething or wearing shirts without ring around the collar. So we buy and nothing magical happens.

Our advice: clip the ad if you like it. Be much more cautious before *buying* a product.

About turntables. With 48 manufacturers competing for your attention and dollars, claims can get pretty wild. They keep telling us why this year's wonder is so much better than last year's miracle.

At Garrard, we know that the only way to stay ahead of the competition is to upgrade technology and features—not claims. That's how we've stayed at the top for over 50 years.

We believe our new GT turntables are the finest and most dependable Garrard has ever produced (they're warranted for 3 years)\*. Now that's a strong claim and we've just suggested that advertising claims are self-serving. So here's what *others* say about our turntables.

**High Fidelity** on the GT35: "...Its... tonearm... one of the lowest in mass of this general type that we have ever encountered..."

**Audio** on the GT35: "...should give years of trouble-free service..."

**Stereo** on the GT35: "...worked perfectly, and with impressive silence and smoothness..."

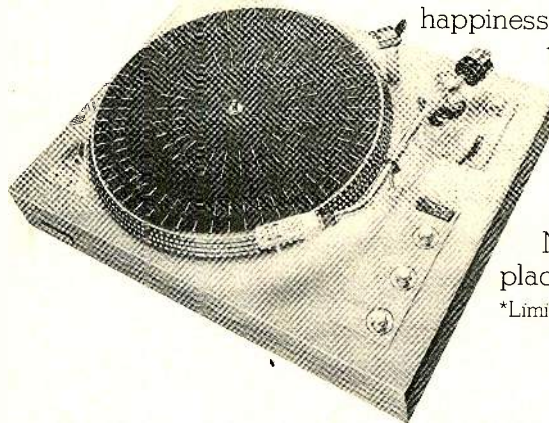
**Popular Electronics** on the GT25: "...cannot be dismissed as just another record player... the tone-arm is compatible with any cartridge presently manufactured, no matter how compliant it may be... an excellent medium-priced record player..."

**Radio Electronics** on the Delglide Automatic System (in all GT models): "...the pick-up arm is handled more gently than could be done by the steadiest of hands..."

There it is. With such reviews, you can see why we don't have to claim instant happiness. Our turn-

tables will merely change the way you listen to music. Not a bad place to start.

\*Limited warranty



## Garrard

More than ever.

For a free brochure, write:

Garrard, Division of Plessey Consumer Products, Dept. A  
100 Commercial Street, Plainview, N.Y. 11803.

CIRCLE NO. 29 ON READER SERVICE CARD



# New Products latest audio equipment and accessories



## Spoken-word Cassette Sources

□ Readings of a variety of stories are now available in cassette form from Audio Literature. Material ranges from children's stories by Hans Christian Andersen to Conan Doyle's Sherlock Holmes stories. Prices are from \$3.95 to \$12.95, depending on length. A catalog listing titles, recording lengths, and prices is available from Audio Literature, Dept. SR, 1695 Carlin Street, Reno, Nev. 89503.

Also available on a monthly rental basis (\$6.50 and \$7.50) are about 125 titles of considerable diversity from Books on Tape. For a catalog write Dept. SR, P.O. Box 7900, Newport Beach, Calif. 92660.



## Ribbon Phono Cartridge from Nagatronics

□ At the top of a newly released line of twelve different Nagatron stereo phono cartridges is the HV-9100, a hand-assembled, individually tuned "ribbon" cartridge that works in a manner similar to ribbon velocity

microphones. It works with a very fine wire ribbon suspended within a magnetic field. Since the ribbon design uses no internal coil, internal inductance is almost zero and therefore the signal is phase coherent. The HV-9100 is supplied mounted in a headshell made of a special acrylic resin, the strength and density of which are said to reduce shell resonances to a great extent. The shell is equipped with a standard four-pin mounting plug suitable for many Japanese and European tone arms. Frequency response is 20 to 30,000 Hz with channel separation of 25 dB at 1,000 Hz. Nominal output voltage is 0.04 mV at 5 cm/sec. Output impedance is 3 ohms at 1,000 Hz, and the recommended load is 10 to 30 ohms. The stylus is a 0.4 x 0.8-mil elliptical nude diamond; dynamic compliance is nominally more than  $7 \times 10^{-6}$  cm/dyne. Price: \$220. A matching pre-preamplifier, the HA-9000, is also available at \$275.

Circle 120 on reader service card



## Medium-power Integrated Amplifier From Kenwood

□ The KA-5700 is Kenwood's new medium-power stereo amplifier. The unit features bass and treble controls calibrated in 1-dB increments with click-stop switches, and there are power-output meters on the front panel. Switchable loudness compensation is included, along with a subsonic filter that cuts in a 6-dB-per-octave slope from 18 Hz down. The KA-5700 has a "tape-through" circuit that permits dubbing from one tape machine to another while the amplifier is simultaneously being used for playing another program source. The unit will handle and switch two pairs of loudspeakers.

The KA-5700 is rated at 40 watts per channel continuous into 8 ohms from 20 to 20,000 Hz. Harmonic distortion is 0.04 per cent, intermodulation distortion 0.02 per cent. The phono inputs can handle up to 180 millivolts before overload; phono-input signal-to-noise ratio is 76 dB. The high-level inputs have a 100-dB signal-to-noise ratio. The unit, supplied in a metal cabinet, weighs 16.8 pounds and measures approximately 15 x 5½ x 11¾ inches. Available as options are a walnut-veneer cabinet, wood side panels, and carrying handles. Price: about \$190.

Circle 121 on reader service card



## TDK's Super Avilyn VHS Video Cassettes

□ The development of video recorders required very high-density recording capability in both tapes and machines. TDK has for some time been producing Super Avilyn "high-density" video tape for the ¾-inch "U-Matic" system widely used in professional and industrial applications. The company has now announced that this same formulation is being marketed in VAT-60 (1 or 2 hours, depending on machine setting) and VAT-120 (2 or 4 hours) cassettes to fit VHS-format machines. Price: VAT-60, \$19.95; VAT-120, \$27.95.

Circle 122 on reader service card



## Koss' Low-cost Stereophones

□ Among the features of the new K/6A Stereophones from Koss are soft, contoured ear cushions and a wide sponge headband cushion. Frequency response is 10 to 16,000 Hz from the 2½-inch dynamic drivers. Impedance is 100 ohms at 1,000 Hz, and total harmonic distortion is less than 1 per cent for a 100-dB sound-pressure level. The K/6A weighs 13 ounces without the supplied 10-foot (extended) coiled cord. Price: \$24.95.

Circle 123 on reader service card

(Continued on page 24)





You know us best for our reputation in audio. In fact, it's audiophiles like you who have made TDK SA the best-selling High bias cassette in America today. But here's something you may not know: the same Super Avilyn engineering principle that revolutionized audio cassettes is in TDK's equally revolutionary new Super Avilyn video cassettes.

No wonder that TDK Super Avilyn is the first 4-hour capability video cassette to be quality approved by the people who know: video cassette recorder engineers. And even less wonder that Super Avilyn makes possible an image so stunning, you will feel as though you are sitting in the broadcast studio.

What's more, TDK's strict quality control works to give you low wear on delicate video heads, virtually non-existent oxide shedding, and no problems with tape stretching, even with repeated playback.

That's because TDK Super Avilyn video cassettes are an actual component of the system, not just an accessory. Our tape is housed in a precision, jam-resistant mechanism, for years of consistent high quality video reproduction. And TDK Super Avilyn VHS video cassettes are compatible with all VHS machines, both those with short-play (2-hour) capability and those with short and long-play (4-hour) options.

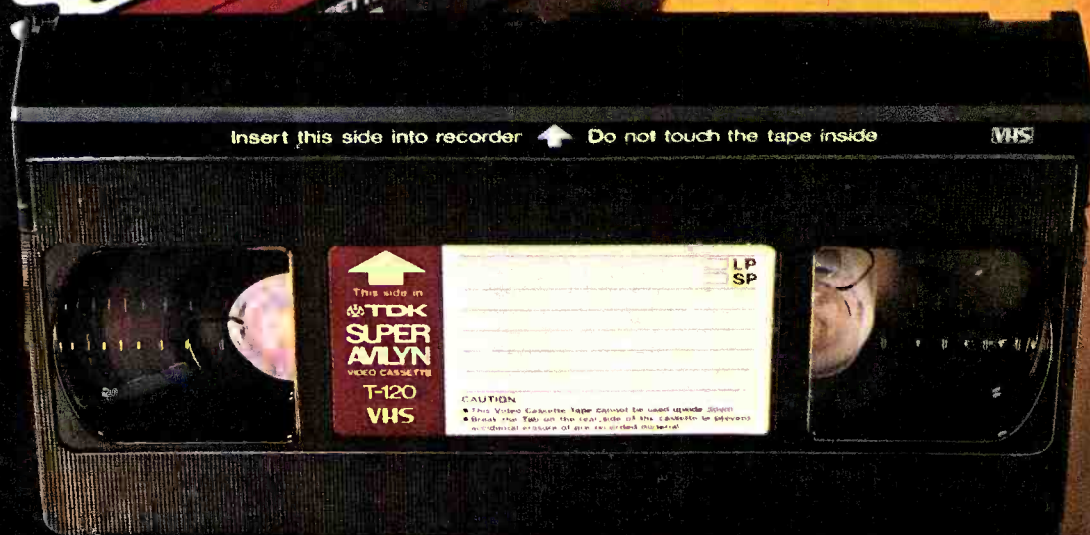
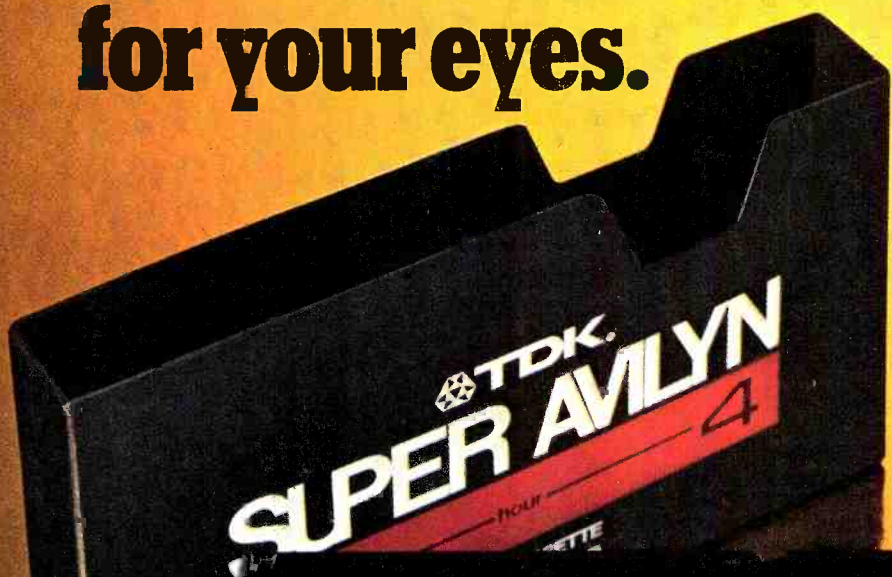
TDK Super Avilyn VHS video cassettes: model VA-T60, for one and two-hour recording; model VA-T120, for two and four hour recording. If you like things to look as good as you like them to sound, take a look.

TDK Electronics Corp., Garden City, NY 11530. In Canada: Superior Electronics Ind., Ltd.

 **TDK**®

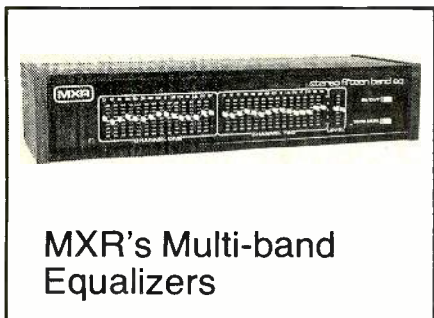
The Machine for your Machine.®  
CIRCLE NO. 76 ON READER SERVICE CARD

**What TDK  
did for your ears,  
it now does  
for your eyes.**





# New Products latest audio equipment and accessories



## MXR's Multi-band Equalizers

□ MXR Innovations has announced the "Stereo Fifteen-Band Equalizer," which permits a 12-dB boost or cut at fifteen different frequencies spaced at alternate one-third-octave centers from 25 to 16,000 Hz. The unit has front-panel bypass and tape-monitor switches and level controls. Input impedance is 20,000 ohms and output impedance approximately 100 ohms. Total harmonic distortion is less than 0.02 per cent at 0 dB (20 to 20,000 Hz) with intermodulation distortion of less than 0.01 per cent. The noise level is better than -92 dB over the audio band, and frequency response is down 3 dB at 5 and 60,000 Hz. Dimensions are 19 x 3½ x 6 inches; weight is approximately 4½ pounds. Price: \$325.

A single-channel, one-third-octave equalizer (thirty-one bands) with essentially the same specifications is available for \$350.

Circle 115 on reader service card



## New JVC Home-video Recording Equipment

□ The new JVC "Vidstar" HR-3600 has been announced as the first ½-inch video-cassette recorder with variable-speed playback controls. In addition to normal playback, the unit permits stop-action, slow-motion, and double-speed playback. The HR-3600 also features remote controls for normal, pause, still-frame, and double-speed operations. Other features are identical to those of the original Vidstar recorder. The HR-3600 measures about 18 x 6 x 12½ inches and weighs 31 pounds. Price: \$1,335.

The HR-4100 recorder and GC-3350 color

camera (shown) constitute the first portable VHS system. The HR-4100 AU has record/play functions similar to the a.c.-powered members of the JVC family and a battery-level indicator. It comes with a Model PBP-1 battery that can be recharged overnight with the Model AA-P41 a.c.-adapter/battery charger, which can handle two batteries at once. The HR-4100 measures approximately 13¾ x 5½ x 13 inches and weighs 20½ pounds with battery. Price: \$1,180.

The GC-3350 color camera comes with an optional f1.8, 6:1 zoom lens, electronic viewfinder with aperture indicator, LED recording-mode indicator, playback picture monitoring, battery-power warning, and built-in condenser microphone. When used with the HR-4100 recorder the camera draws power from the deck's battery pack; with the optional GA-20 converter it operates on a.c. The GC-3350 measures about 3½ x 12¼ x 14½ inches and weighs 7.3 pounds with lens and cable. The associated color-control unit (CCU), which mounts on the side of the deck, measures approximately 4¾ x 2¾ x 11¾ inches and weighs 2.6 pounds. Price: \$1,475.

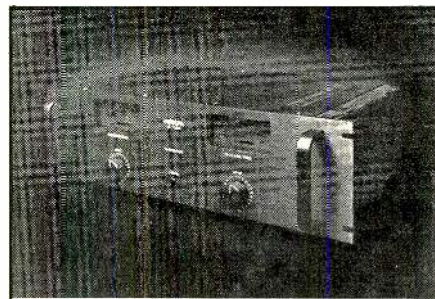
Circle 116 on reader service card



## Dynaco Goes Digital With New Tuner

□ As part of its new 2500 Series, Dynaco has announced the Model 2501 FM tuner. This is a factory-built unit featuring a varactor front end with six tuned stages and phase-locked-loop multiplex circuitry fed by a double-tuned quadrature detector. The 2501 incorporates a digital quartz clock that changes from time indication to station readout when the tuning knob is touched. At the same time, a Dynatune circuit is activated that tunes and locks in the desired station. A LED signal-strength indicator has a 60-dB range in 10-dB steps. There are four station presets on the front panel, along with selectable de-emphasis of 25, 50, or 75 microseconds. Mono sensitivity is 1.7 microvolts and 50-dB quieting sensitivity is 3.5 µV. Selectivity is 80 dB, capture ratio is 1.75 dB, and image rejection is 100 dB. Stereo separation is 45 dB from 100 to 5,000 Hz and 30 dB at 10,000 Hz. In stereo, total harmonic distortion at 1,000 Hz is 0.25 per cent. The Model 2500 tuner measures 9 x 3½ x 14½ inches and weighs 13 pounds. Price: approximately \$800.

Circle 117 on reader service card



## Metron Power Amp Delivers 125 Watts

□ The latest from Metron (a division of Cerwin-Vega) is the M-200 power amplifier, rated at 125 watts rms at no more than 0.02 per cent total harmonic distortion into 8 ohms from 20 to 20,000 Hz. With 4-ohm loads, 240 watts is available. The slewing rate is 70 volts per microsecond. There are two protection systems built in, one for the amplifier itself and the other for associated speaker systems. A rack-mounting configuration with handles is standard. Intermodulation distortion is 0.02 per cent from 250 milliwatts to rated output, and frequency response is +0, -3 dB from 2.5 to 200,000 Hz, +0, -1 dB from 5 to 100,000 Hz. Signal-to-noise ratio is greater than 105 dB, and input sensitivity is 1.4 volts. The unit weighs 31 pounds and measures approximately 19 x 13 x 6 inches. Price: \$550.

Circle 118 on reader service card



## Maxell Kit for Tape-head Cleaning

□ In addition to a supply of specially formulated tape-head cleaner and replaceable felt applicator tabs, the Maxell Tape Recorder Care Kit includes a variety of specially shaped plastic tools that can be plugged into each other to reach tape heads that might on some machines be otherwise inaccessible. Also supplied is a special mirror to facilitate inspection and cleaning of awkward locations. Price: \$8.95.

Circle 119 on reader service card

(Continued on page 20)



Extra coolness  
gives KOOL  
the most refreshing taste  
you can get in any cigarette.



Come up to KOOL.  
America's #1 menthol.

© 1978 B&W T Co.

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

Kings, 17 mg. "tar", 1.4 mg. nicotine; Longs, 18 mg. "tar",  
1.3 mg. nicotine av. per cigarette, FTC Report May '78.



casian to commend STEREO REVIEW on its policy of allowing critics to express their opinions freely in print, no matter how inane and irrelevant they may be. Let me also commend Mr. Salzman for condescending to review music he despises, rather than relinquishing the assignment to one of the thousands of critics who, for the better part of a century, have considered that work to be among the composer's finest.

SCOTT HEUMANN  
Houston, Texas

## Silent Grooves

● Enjoying a Judy Collins album the other day, I was delighted to find that when the side ended the stylus didn't immediately run out of the end groove and go *cur-chunk*, *thunking* against the label. The disc had about ten seconds of unmodulated groove that silently "played" before the inevitable end. It was lovely. Attention record manufacturers!

Also, why is it necessary always to have exactly five seconds of "dead air" between movements of a recorded classical work? When I go to concerts, the maestro may take a three-second pause between, say, the scherzo and the finale, or he may wait twenty seconds or so, depending on the nature of the music to follow.

BRUCE THOMSON  
Indio, Calif.

*The length of the "silent groove" (between, say, the movements of a symphony) is not only*

*an aesthetic decision (it must not be too short or too long) but also a practical one. In classical music particularly, it is often important to crowd as much recording time as possible onto a single disc. Then, too, in the concert hall it is possible to take considerably longer because the musicians are there in front of you—you know that they have not gone home. Too long a time between movements in a recording, however, might give you the idea that your audio system has gone on the fritz.*

## Neglected Singers

● While considering Teresa Berganza's recent recording of zarzuela arias (July), George Jellinek points out that "Berganza's long absences from our turntables should make us all feel aesthetically deprived." In fact, Berganza has been almost totally ignored by the recording industry and would be a most noble Orfeo, a brilliant Adalgisa, and a charming Cherubino! Other great artists—such as Mirella Freni, Kiri Te Kanawa, Carlo Bergonzi, and Alfredo Kraus—are equally neglected while, instead, we are inundated *ad nauseam* by recordings with Sills, Caballé, Domingo, and Pavarotti. Should Caballé "attempt" everything from Lucia to Turandot? Should Domingo record two complete versions of *Il Tabarro* and *Carmen*? I think not, if as a result we are denied Freni's Manon Lescaut, Te Kanawa's Desdemona, Bergonzi's Otello, and Kraus' Werther.

THOMAS R. WILSON  
Downers Grove, Ill.

## Direct-to-disc

● Those who have invested thousands of dollars in stereo hardware have done so, I assume, for the resulting better sound reproduction that megadollars can buy. Quality is never cheap. Messrs. Bialgalvis and Hodges, in their survey of direct-to-disc recordings in the July issue, were not concerned about "... the higher cost (roughly \$10 to \$20 per disc). . . ." True advancement involves improvement of quality while taking a step toward simplicity within relative cost categories. D-D recordings simplify the recording process by eliminating certain steps, producing higher-quality discs but at a large price increase. D-D records are a joy to all music lovers but do not yet qualify as a significant advancement in the recording field. Simply, more money can buy a better product. Advancement worth a standing ovation comes when the *same* money buys a better product.

JEREMY LEVINE  
Silver Spring, Md.

## Video Software

● Thanks for the piece on home videocassettes in July, and especially for the part on video software. I have been looking for a list of prerecorded-videotape vendors since I bought my VCR. I would like to see much more on the subject in STEREO REVIEW.

SCOTT NEWKIRK  
Sacramento, Calif.

# YOU SHOULD EXPECT MORE FROM THE PHASE 4000 SERIES TWO.

Even if you're made out of money, you'd be hard pressed to buy more preamp.

The Phase 4000 Series Two goes way beyond the boundaries of conventional preamps. First, the 4000 processes and amplifies your music without introducing any significant noise or distortion. Then it actually compensates for losses in dynamic range and signal-to-noise ratios that occurred way back in the recording process!

To prevent overloads, studios "peak limit" the high-level attacks common in today's music. The 4000 Series Two has highly advanced circuits to read peak limiting, and immediately restore the dynamic range. The combined overall dynamic range is increased by 17.5dB. So when Charlie Watts hits a cymbal, it sounds like a cymbal!

The 4000 Series Two also spots low level gain riding, where the recording engineer adds volume to a low signal to overcome noise on the master tape. The Downward Expander immediately expands the dynamics so you hear the bass as the conductor called for it, not as the engineer delivered it.

The 4000 Series Two second generation Autocorrelator reduces record hiss, tape hiss, and FM broadcast noise. Weighted overall noise

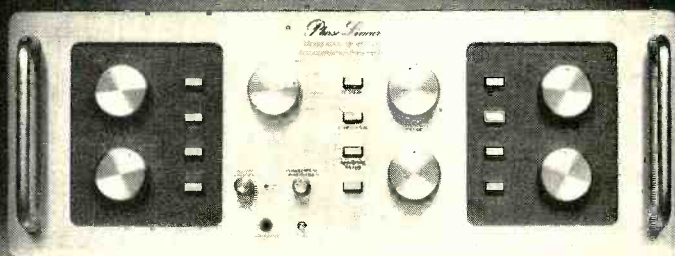
reduction is -10dB from 20Hz to 20kHz. So your music comes clean, and the background is silent.

The 4000 has two new RIAA phono stages which eliminate low level switching and reduce hum and CB interference to a minimum.

Tape monitor and dubbing circuits allow copying between decks, while listening to a third program source. There's a separate direct coupled (OCL) Headphone Amplifier. An infra-sonic filter eliminates audible effects caused by rumble.

We could go on forever, but you get the point. The Phase 4000 Series Two. It's waiting for you at your Phase dealer.

## AND YOU GET IT.



*Phase Linear*  
THE POWERFUL DIFFERENCE

Phase Linear Corporation  
20121 - 48th Avenue West  
Lynnwood, Washington 98036

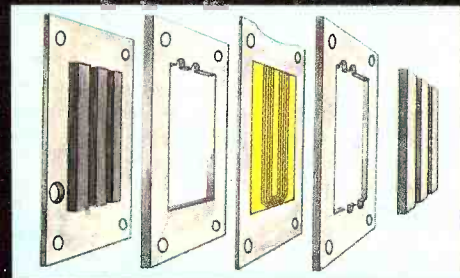
MADE IN U.S.A. DISTRIBUTED IN CANADA BY H. ROY GRAY LTD. AND IN AUSTRALIA BY MEGASCUND PTY. LTD.



Most car speakers that are advertised as "true high-fidelity for your car" sound about as convincing as a used-car salesman's pitch. More often than not, the music comes out sounding as if it were recorded in a closet full of winter clothes. The truth of the matter is that if a manufacturer wants to make car loudspeakers sound as good as the ones you hear in your home, he has to make car loudspeakers as good as the ones you hear in your home. Which means

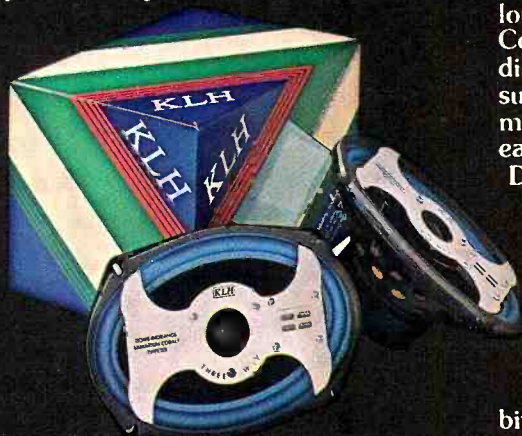
no tricks. No short cuts. No nonsense. Which is why the new KLH Model 693 DMSC automotive stereo loudspeakers sound about as good as anything you've ever heard anywhere. Maybe better. Consider the components. We use Controlled Acoustic Compliance<sup>SM</sup> Woofers with 30-ounce magnets for extended bass response. Hemispherical soft dome midrange drivers (found in only the most expensive speakers). And the most advanced driver found in any loudspeaker system — The Samarium Cobalt Tweeter (an ultra thin Kapton<sup>SM</sup> diaphragm with "printed" voice coil suspended between the most powerful magnet material known to man — rare earth Samarium Cobalt!). The 693 DMSC can be driven nicely by the stereo electronics in most cars. (You won't believe the performance if you decide to add a quality power booster.) Now instead of hearing a muffled mess from the back of your car, you can look forward to hearing every nuance of the music — the timbre of the tympany, the bite of the brass, and the sweet, mellow

### The Samarium Cobalt Tweeter



sound of the strings. And when all is said and done, isn't that what high fidelity is all about?

For more information on KLH automotive loudspeakers (we also make two-way systems, additional three-way systems, and a totally new concept in automotive sound, The Headliner series), write to KLH Research & Development Corp., University Avenue., Westwood, Mass. 02090.



**KLH**

University Avenue  
Westwood, Mass. 02090

**You've never seen this name on an automotive loudspeaker because there's never been an automotive loudspeaker worthy of this name.**



**Until now.**

CIRCLE NO. 41 ON READER SERVICE CARD



terms of pianistic finesse. However, it is Mr. Salzman's classification of Dohnányi as "a brilliantly accomplished composer" that warms the cockles of this Dohnányi fanatic's heart. The neglect of his charming, melodic music has been puzzling me for a number of years now. To paraphrase Will Rogers: I never met a Dohnányi work I didn't like!

ALEX HASSAN  
Falls Church, Va.

## Which Boris?

● The "mysterious edition" of Act II of *Boris Godounov* that was used for the Boris Shtokolov recital disc reviewed by George

Jellinek in August is actually the Dmitri Shostakovich version, which is rarely done in the U.S. If my memory serves me correctly, there was an abridged recording of a Metropolitan Opera production of it conducted by Dimitri Mitropoulos that was privately issued in the Fifties.

HOWARD WAYNE  
Brooklyn, N.Y.

## Stanley Clarke

● Chris Albertson laid an asteroid in his August review of Stanley Clarke's "Modern Man." Being bored during *Rock & Roll Jelly* implies dead batteries in one's hearing aid, in-

cient coma, or terminal numbness of the viscera. I wish Mr. Albertson a speedy recovery from whatever ails him.

ROBERT A. HICKS  
Plantation, Fla.

## Disc Quality

● In its continuing quest for quality, Desmar Records is now pressing most of its product in Europe. Effective immediately, the American pressing of the Rachmaninoff Symphony No. 3 with Leopold Stokowski conducting the National Philharmonic Orchestra (DSM 1007) is being replaced by a German pressing (DSM 1007G). As a special service to those who already own the American pressing, Desmar will exchange it for the new German one at a nominal charge of \$3.50 postpaid. Please send the record only (without the jacket) to Desmar Music, Inc., 155 Avenue of the Americas, New York, N.Y. 10013. This exchange offer is available through the mails only, and requests must be postmarked no later than November 1, 1978.

MARCOS KLORMAN  
President, Desmar Music, Inc.  
New York, N.Y.

● Enough already! It has all been said and done. The inescapable conclusion is that the U.S. of A., which has the technology to put a man on the moon, is simply incapable of producing a quiet record. Orion has been trying to achieve this for twenty years, yet current pressing quality is still a tolerable compromise at best. Since we issue an average of a record a week, it is not feasible for us to use European pressing facilities.

The answer? Tape! Open reel is best, naturally, but cassettes are a reasonable alternative, the only sensible way to go at present. We are very enthusiastic about the excellent quality we've been able to achieve in our first release. The definition, fidelity, and clarity of the music, even on a car cassette player, serve as a vivid reminder that there is still no beating electronic reproduction. Our second release of twenty cassettes (the equivalent of some thirty-five LP's) is now on its way to distributors. We plan eventually to have the greater part of our catalog (now more than 300 LP's) available on tape.

GIVEON CORNFIELD  
President, Orion Master Recordings, Inc.  
Malibu, Calif.

## Charlie III

● In his review of Charlie's "Lines" in the August issue, Joel Vance makes the all-too-common mistake of calling it the group's second album. It is actually their third album; the relatively obscure first one, "Fantasy Girls" (Columbia PC 34081), is still available and should not be overlooked.

JOHN W. HIGLEY  
Iselin, N.J.

## "Decadent" Debussy

● Eric Salzman's comments, in an August review, on the supposedly "morbid" and "decadent" music that Debussy wrote for *Le Martyre de Saint Sébastien* afford me the oc-

(Continued on page 16)

# Your playback head is slowly becoming an eraser



Magnetic buildup on your tape recorder's playback head can erase critical high frequencies and create tape hiss. Our Head Demagnetizer protects your tapes by safely removing magnetic buildup.

Designed for reel-to-reel, cassette and 8-track units, the Nortronics Demagnetizer has a flexible, vinyl-covered probe which prevents scratching or scoring of sensitive head surfaces. Look for it, along with your free copy of our 36-page Recorder Care Manual, in your audio dealer's showroom.



Recorder Care Division

## NORTRONICS

Nortronics Company, Inc.  
8101 Tenth Ave. North, Minneapolis, Minn. 55427

**We make things right.**



# “State-of-the-art Fever.”

The peculiar disease that  
has made Infinity what it is today.

(And what it will be tomorrow.)

It's chronic and incurable — our need to reach for state-of-the-art perfection; our obsession with absolute accuracy of musical reproduction.

Certainly Infinity isn't the first speaker company to create exotic technology. But when you look around and start counting, you'll discover that we're the *only* major American speaker company involved with state-of-the-art technology — year in and year out. Chronic.

## It's people like you who spread the disease.

Of course, speakers speak, and more than one Infinity speaker has sold itself. But the Infinity success story is due in no small part to knowledgeable audiophiles and music lovers — people like you — who, having heard Infinity speakers, spread the word.

In fact, the widest dispersion in stereo is the sound of friends telling friends about Infinity speakers.

And we thank you.

## Our object all sublime.

First, we'll continue to develop the most advanced speaker technology in the world. Second, we'll continue to put as much as possible of that technology into speakers at *all* prices.

## A case in point: EMIT™

We believe our Electromagnetic Induction Tweeter to be the most advanced tweeter in the world of audio.

An etched “voice coil” on an extremely low-mass diaphragm is driven by magnets of rare-earth Samarium Cobalt — the most powerful magnetic substance known. The

resulting output shares an electrostatic's delicacy of sound. But is better than electrostatics, cones and dome tweeters in power-handling capacity, transient response and horizontal dispersion.

Every speaker in the Infinity Quantum and Q lines — all the way down to our \$109\* bookshelf Qe — has one or more EMITs. Which is one reason they also have a clarity, a transparency and a smoothness of response superior to that of any other speaker in each price range.

## The formidable QRS and the more modest Quantum 5

To the rare listener who needs to consider neither speaker size nor price, our Quantum Reference Standard — at \$6500\* for the complete speakers-and-equalization system — offers tremendous energy handling capacity, accuracy of response, and a seldom heard warmth and reality.

Quantum 5 — at \$355 each — utilizes much of the same unique Infinity technology on a smaller scale, and still produces a level of accuracy that would be a revelation from speakers of any size.

## No one ever wrote a hit musical called “The Sound of Speakers.”

We're convinced that, in the long run, speaker buyers will prefer to hear *music the way the musicians intended it*, and not the way a

speaker designer intended it. Thus our continuing obsession with accuracy.

We're making progress. Five years ago only hard-core audiophiles ever heard of Infinity. Today

we're one of the three largest speaker companies in America.

But we're not discouraged. We'll keep on trying.



 **Infinity**™

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

\*Manufacturer's suggested retail price, optional with dealers. West of the Mississippi, the suggested price for a Qe is \$105; for a Quantum 5, \$340. Speaker Stand optional.

© 1978, Infinity Systems, Inc., 7930 Deering Avenue, Canoga Park, California 91304. (213) 883-4800 • TWX 910-494-4919. For information, call toll-free (800) 423-5244 (In California: (800) 382-3372).





## LETTERS TO THE EDITOR

### Rolling Stones

● STEREO REVIEW should give a copy of the Patti Smith quote on page 80 of the August issue ("Very few critics understand what we're doing . . .") to Lester Bangs, since his unbelievably ridiculous review of the Rolling Stones' "Some Girls" in the same issue definitely proves her point. I think it would be very interesting to see what Steve Simels has to say about the Stones' best album in years.

VICKI FISHER  
Tustin, Calif.

● I usually file record reviews under "M," for meaningless, but Lester Bangs' repulsive once-over on the Rolling Stones' "Some Girls" has set my poison-typing keys into motion. To declare an entire album "contemptuous" and to offer such weak evidence for it casts Mr. Bangs as the William Safire of the review set. First off, how in Keef's name does he know what the Stones actually think of women? Has he probed the inner workings of their minds, or, perchance, has the late Brian Jones communicated from the nether lands with this paragon of virtue, Sir Lester? Second, his complete put-down of the title track shows that Mr. Bangs' sense of humor lies somewhere between that of a rock and a door-knob. To take the lyrics so literally is plain foolhardy. Next, apparently his mind was away on vacation when he listened to *Shattered*, for it is not about a male hustler, as Mr. Bangs surmises, but the sad plight of New York City, as anyone who listens to the lyrics can attest.

If Mr. Bangs considers the Stones to be near death's door, I suggest that he check the latest sales charts and mull over the crowds attending their U.S. concerts. If Messrs. Jagger, Richard, Watts, Wood, and Wyman are indeed nearing the end, Les baby, then you and I and the rest of this planet should be so lucky in *our* professional dotage.

ANTHONY J. KIELBASA  
Mahanoy City, Pa.

● I was totally outraged at Lester Bangs' review of the new Stones' LP, "Some Girls." Contrary to Mr. Bangs' opinion, the Stones do not follow the trends of the day, they start them. In many instances this group has

changed the way people listen to rock music, as with *Satisfaction*, *Tumblin' Dice*, *Brown Sugar*—the list goes on and on. "Some Girls" is no exception. It would be nice if, some day, album reviewers could actually see beyond their upturned noses and judge a band for what it actually is. For sixteen years the Rolling Stones have represented evil, Satan, and decadence. This was always their mark of greatness. Is Bangs annoyed because they have stuck to it? Unlike many other rock groups, the Stones promise decadence and deliver it, in its top form. The group never claimed to be mama's boys, and they certainly aren't.

Mr. Bangs terms the title cut of the album "perhaps the most disgusting song of all in its attitude toward women—or perhaps toward other humans in general." Could it not be, instead, an honest put-down of racial biases? Yes, it most probably is. Do the falsettos on *Beast of Burden* actually sound like the Bee Gees? No, they most certainly do not. But I'm sure Mr. Bangs has worn out so many copies of the *Saturday Night Fever* soundtrack that everything non-Gibb sounds bland to him.

The Stones *are* Rock 'n' Roll and "Some Girls" is a damn good LP, possibly the best released this year.

GORMAN BECHARD  
Waterbury, Conn.

● Lester Bangs' review of the Rolling Stones' "Some Girls" precisely articulated my own feeling of disgust for the record. Moreover, Mr. Bangs' writings over the past years in STEREO REVIEW and elsewhere have caused me to respect him more than any other current rock critic.

Thank you, Mr. Bangs, for consistently writing with conviction, intelligence, honesty, and, above all, *integrity!* If we ever meet, I will feel honored to buy you a beer, milk shake, tomato juice, or any other drink of your choice.

RICHARD K. JOP  
Hastings, N.Y.

● Regarding the August review of the Rolling Stones album "Some Girls": Who the hell is Lester Bangs? With such writers as Steve Simels, Peter Reilly, Noel Coppage, Joel

Vance, Chris Albertson, Phyl Garland, and Paul Kresh, who needs *him*?

DEAN L. LAMNECK  
Mansfield, Ohio

● In the August issue, the Joel Vance review of Foghat was right off, but his review of the Isleys was right on, and the Lester Bangs review of the Rolling Stones was great, really great. Now, if someone would just tell McCartney that it is 1978 and he can't coast on cuteness any more (he makes Olivia Newton look *heavy*).

RON KOCH  
Garland, Texas

### Exotic Speakers

● I enjoyed, very much, Peter W. Mitchell's "Exotic Loudspeakers I Have Known" in the August issue. I encourage you to feature more such articles (not limited to speakers). But, as an owner/admirer of one of the exotic speakers shown, I noticed some errors on page 73 in the caption for the picture heading the article: the speakers shown are Magnepan's smaller Model MG-IIa (6 feet x 22 inches), not the Tympani ID; both the MG-IIa and the Tympani ID are planar-magnetic, not electrostatic; each Tympani ID folding screen is comprised of three 16-inch-wide panels, so that the unfolded width of the Tympani ID is 4 feet, not 3 feet. Incidentally, the MG-IIa speaker that was shown may be exotic, but its price isn't—it lists for \$825 a pair. And no, I am not a Magnepan dealer. I wish I were.

JOHN A. MITCHELL  
Norman, Okla.

*Mr. Mitchell (John A., who, as far as we know, is no relation to Peter W.) is correct on all counts. We regret the errors (ours, by the way), but we are gratified by the number of readers who discovered them—apparently a lot of you read even the smallest type—and went to the trouble of letting us know.*

### Disco Prescription

● I am prompted to write by the musical/medical question, "Does Disco Cause Cancer?," posed in August's "Editorially Speaking." I have done no research on that specific disease, but I *do* have definite symptomatic evidence that disco music causes hemorrhoids. I have no professional confirmation of this, but the location of the pain makes the conclusion inescapable.

ED HEATH  
Lexington, Ind.

*The Editor prescribes a little light exercise—such as, say, dancing—to work the pain out.*

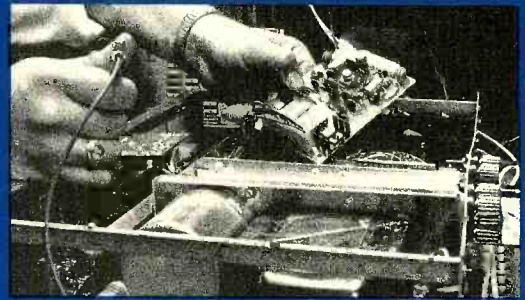
### Dohnányi

● Heartfelt thanks to Eric Salzman for his August review of the Quintessence release of Earl Wild's Dohnányi. Now that both Julius Katchen versions of the *Variations on a Nursery Tune* are unforgivably deleted, Wild's performance assumes first place. Dohnányi's own renditions, conducted (in chronological order) by Collingwood and Boulton, are witty and musical but leave much to be desired in  
(Continued on page 14)



# Performance individualizes mass production.

The inevitable by-product in the mass production of electronics is significant variations on a unit-to-unit basis. So much so that when the cus-



tomer obtains his receiver, he is never sure exactly what he has bought.

That's the reason Sherwood is the first (and only) manufacturer to certify the performance of its receivers.

After manufacturing, every Sherwood receiver is returned to our laboratories for evaluation and testing of the critical areas of the amplifier, preamplifier and tuner sections. A certification of the results is then notarized and posted on the outside of the carton.

During this process the set is meticulously adjusted to ensure peak performance. For instance, all of our units are rated at .2% Total Harmonic Distortion (the audible threshold of distortion) yet many units exceed that standard by 10 to 20 times.

In fact, the certified specs of a Sherwood typically far outstrip the posted specs of competitively priced models.

At Sherwood we haven't eliminated mass production. But we have definitely improved it by individualizing it.

Sherwood Electronic Laboratories,  
4300 North California Avenue  
Chicago, Illinois 60618

**SHERWOOD**  
The certified performance line.



Sherwood Certified Performers start at \$200. See notarized certificate for actual performance on each unit.

CIRCLE NO. 62 ON READER SERVICE CARD

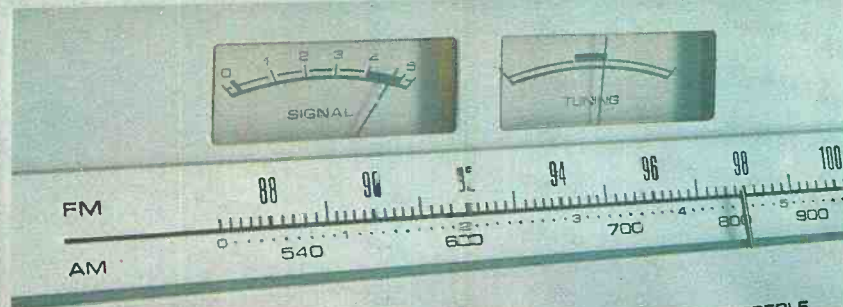


# Sherwood's Certified



SHERWOOD

S-7650 CP STEREO RECEIVER



POWER

ON

OFF

PHONES

SPEAKERS

OFF

A

B

A+B

BASS

TREBLE

*Certified  
Performance  
Certified  
Performance*

The performance of this unit has been tested and certified.



# GRAND MASTER™ BY AMPEX.

## UNTIL NOW, ONLY THE PROS WERE READY FOR IT.

High-tensile strength leader staking prevents leader/hub detachment.

Graphite-impregnated Teflon® friction plates for smooth tape wind.

Head-cleaning leader tape keeps recorder heads clean.

Felt pad and beryllium/copper spring assembly for precise tape to head contact.

True-Track™ fore-and-aft guide system for precise azimuth control.

Precision guide rollers with stainless steel pins provide smoother tape movement with minimal friction.

When we invented Grand Master studio recording tape in 1973, professional recording engineers grabbed it. And Grand Master soon became the unquestioned leader in its field.

But in 1973, not even the most sophisticated home users had the kind of equipment that could drive tape hard enough to explore Grand Master's amazing potential. For output sensitivity. Ultra-wide dynamic range. Improved signal-to-noise. And low distortion.

In the studio, yes. But not at home.

Now, the world has changed. Home equipment has improved dramatically. With bias flexibility. Higher output. And lower distortion.

So that now, the time is right for Grand Master.

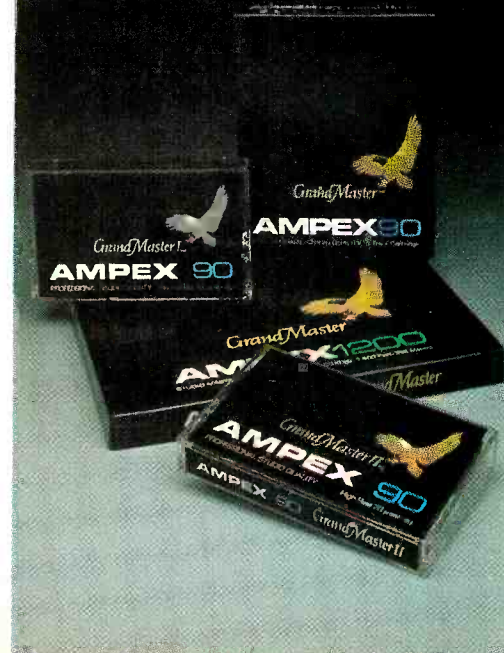
In cassette, 8-track, and open reel. Including a specially formulated Grand Master II cassette, for high bias.

You're ready for it. And it's ready for you.

## GRAND MASTER BY AMPEX. WE THINK YOU'RE READY FOR IT.

Ampex Corporation, Magnetic Tape Division, 401 Broadway, Redwood City, California 94063 (415)367-3887

CIRCLE NO. 7 ON READER SERVICE CARD





# Editorially Speaking

By William Anderson



## IBERIAN SIBYL, HIBERNIAN PAN

**T**HE wondrous mystery we call language is at once mankind's most distinguishing feature and our most glorious accomplishment. More wondrous still, in addition to a plenitude of verbal languages living and dead, we have the miracle of a musical one as well. What we do *not* have is a dictionary to permit us to translate from one type into the other, and the reason is very likely the one given by Mendelssohn: it is not that music's meaning is too vague or amorphous to be explicated verbally, but just the other way around—words are too coarse, too ambiguous to deal with music's great precision. And that is why music criticism is largely an exercise in picking flowers with a bulldozer. The solution is obvious: since we all *understand* music (have you ever met anyone who claimed not to?), we must all learn to speak it (sing it?) too if we really want to particularize our reactions to it adequately. In the meantime, verbal imprec-

sion is the best I can offer as I try to share with you the delight of a couple of this summer's musical experiences.

A welcome new performer at Lincoln Center's twelfth annual Mostly Mozart Festival was the Belfast-born flutist James Galway. He appeared in an all-Schubert program with pianist Christoph Eschenbach, and he turned out to be not only the superb virtuoso his recordings have led us to expect, but the kind of lovable, unabashed show-off to make the heart of Phineas Taylor Barnum swell. He plays a gold flute and knows exactly how it should sound: a provocative blend of the earthy and the unearthly, seductive and a little hair-raising at the same time.

The popularity of the flute just now is something of a phenomenon of our musical life: there seems to be almost a cascade of flute recordings pouring out and more young flutists around than you can shake a stick at.

Perhaps it is merely that the instrument is so portable—more so even than the guitar—or perhaps it is because, like the guitar, it lends itself so quickly and easily to amateur music-making (the step up to the professional level is another set of scales entirely, of course). Galway's explanation, offered with a leprechaunish mock-gravity, is more direct: "Why, it's the instrument of love—just *look* at it!" It is also an instrument that arouses in me—at least in Galway's playing—an unusual motor sympathy: a wind instrument takes breath, breathing makes the best kind of musical phrasing—and there I am breathing and phrasing right along with the performer.

Perhaps the most popular of the Mostly Mozart regulars has been the Spanish pianist Alicia de Larrocha (it has been waggishly suggested that the Festival be rechristened Mostly Alicia in her honor). Her August program this year consisted of a Bach French Suite, three Mozart sonatas—and a breathtaking surprise: a performance of the A Minor Sonata No. 8 (K.310) that was the most stunning Mozart I have ever heard. She herself characterizes the sonata as the finest Mozart ever wrote (coincidentally, in the summer of 1778)—perhaps the finest *anyone* ever wrote. She was playing it in public for the first time—playing it as if it were Beethoven, in a manner that quite simply *predicts* Beethoven.

The first-movement Allegro was in the imperative mood, a peremptory summons to important matters right from the first grace note, the Andante anguished and moving, the Presto not hurried or smudged, but measured, grandly inexorable, and chillingly final. It was one of those once-in-a-lifetime events, a communication in the musical language that brought the audience to its feet with a roar.

Flutist Galway's latest recording is "The Magic Flute of James Galway" (RCA LRL1-5131), and an all-Bach album is imminent; pianist De Larrocha's is "Mostly Mozart, Volume Three" (London CS 7085), but let us hope we haven't too long to wait for that K. 310 sonata.

## Stereo Review

**PUBLISHER**  
EDGAR W. HOPPER  
**EDITOR**  
WILLIAM ANDERSON  
**MANAGING EDITOR**  
WILLIAM LIVINGSTONE  
**EDITORIAL COORDINATOR**  
LOUISE GOOCH BOUNDAS  
**ART DIRECTOR**  
BORYS PATCHOWSKY  
**TECHNICAL DIRECTOR**  
LARRY KLEIN  
**TECHNICAL EDITOR**  
RALPH HODGES  
**MUSIC EDITOR**  
JAMES GOODFRIEND  
**POPULAR MUSIC EDITOR**  
PAULETTE WEISS  
**SPECIAL PROJECTS EDITOR**  
STEVE SIMELS  
**ASSISTANT MUSIC EDITOR**  
VIVIANNE WINTERRY GOODMAN  
**PRODUCTION EDITOR**  
JOHN HARRISON  
**ASSISTANT EDITOR, RESEARCH**  
RICHARD SARBIN  
**COPY EDITOR**  
DAVID STEIN  
**EDITORIAL ASSISTANT**  
BARBARA AIKEN

### CONTRIBUTING EDITORS

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

### LONDON EDITOR

HENRY PLEASANTS  
**ADVERTISING DIRECTOR**  
JAMES J. SULLIVAN  
**ADVERTISING SERVICE MANAGER**  
LINDA BLUM  
**EXECUTIVE ASSISTANT**  
PEGI McNEANEY

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

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

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

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  
Philip B. Korsant, President  
Furman Hebb, Executive Vice President  
John R. Emery, Sr. Vice President, Finance  
Phillip T. Heffernan, Sr. Vice President  
Edward D. Muhlfield, Sr. Vice President  
Philip Sine, Sr. Vice President, Secretary  
Lawrence Sporn, Sr. Vice President, Circulation and Marketing  
Arthur W. Butzow, Vice President, Production  
George E. Morrissey, Vice President  
Sydney H. Rogers, Vice President  
Sidney Holtz, Vice President  
Albert S. Traina, Vice President  
Paul H. Chook, Vice President  
Edgar W. Hopper, Vice President  
Robert N. Bavier, Jr., Vice President  
Selwyn Taubman, Treasurer  
W. Bradford Briggs, Vice Chairman

ZIFF CORPORATION  
William Ziff, Chairman  
I. Martin Pompadur, President  
Hershel B. Sarbin, Executive Vice President



# HITACHI

## The New Leader In Audio Technology



...introduces the world's most powerful 50 watt receiver.

The new Hitachi SR 804 stereo receiver has the revolutionary Class G amp that instantly doubles its rated power from 50 to 100 watts to prevent clipping distortion during those demanding musical peaks (note the clipped and unclipped waves in the symbolic graph above). The SR 804 is conservatively rated at 50 watts RMS, 20-20,000 Hz into 8 ohms with only 0.1% THD.

Class G is just one example of Hitachi's leadership in audio technology. Power MOS/FET amplifiers, R&P 3-head system cassette decks, Uni-torque turntable motors, and gathered-edge metal cone speakers are just some of the others. There's a lot more. Ask your Hitachi dealer.



**HITACHI**  
When a company cares,  
it shows.

CIRCLE NO. 26 ON READER SERVICE CARD

Audio Component Division, Hitachi Sales Corp. of America, 401 West Artesia Boulevard, Compton, CA 90220. (213) 537-8383





# Stereo Review BULLETIN

---

● FLAT-PANEL TELEVISION has recently moved a few more inches toward reality. The display panel ("picture tube," if you will) on the 14½ x 7½-inch set shown by Sharp at the summer CES is only 2 inches thick. Sanyo's prototype "LED Panelvision" is said to have a picture as bright as that of conventional black-and-white TV--thanks to 6,144 light-emitting diodes. And Japan's NHK has developed an experimental 16-inch gas-discharge color panel that is probably the world's largest.

● AUDIO DISC RECORDINGS AND VIDEOCASSETTES are being marketed together for the first time by Improvising Artists Records, a progressive jazz label. The albums are Sun Ra's "St. Louis Blues," Marion Brown and Gunter Hampel's "Reeds 'n' Vibes," Perry Robinson's "Kundalini," and a concert at the Great American Music Hall in San Francisco that includes Paul Bley, Bill Connors, Jimmy Giuffre, and Lee Konitz. The video presentations vary. Some are straight documentaries of the musicians performing, but others combine abstract interpretations of the music made with video synthesizers. All can be ordered from Improvising Artists Records, 26 Jane Street, New York, N.Y. 10014. Price: for disc and videocassette, \$39.95; disc alone, \$7.98.

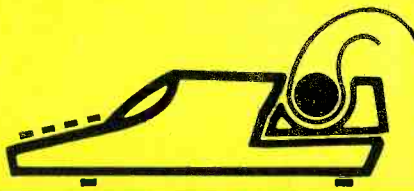
● AMPEX GOLDEN REEL AWARD GOES TO BLUE OYSTER CULT: Whenever a record completely mastered and mixed on Ampex professional tape is certified gold or platinum by the RIAA, Ampex presents a plaque to the artists and \$1,000 to the charity of their choice. When the Cult, noted for loudness, received an award for "Spectres," they asked that the donation go to the New York Society for the Deaf.

● SOPRANO CAROL NEBLETT, who sings the title role in Deutsche Grammophon's new recording of Puccini's The Girl of the Golden West, is the first American to record the role of Minnie. Her co-stars include the American baritone Sherrill Milnes as the sheriff Jack Rance and the Spanish-Mexican tenor Placido Domingo as the bandit Ramerrez (also known as Dick Johnson). See Best of the Month for review.

● ATTENTION, COLLECTORS: Those copies you may have of the Rolling Stones' latest, "Some Girls," have just increased in value. Atlantic quietly recalled the original run after an irate Lucille Ball objected to the Stones' unauthorized use of her picture, and the new inner sleeve now bears the legend "Cover under reconstruction." In related news, the joint Capitol/Columbia twelve-inch promo single issued during the Mink DeVille/Elvis Costello/Nick Lowe tour is reported to be fetching prices ranging from \$35 to \$100 (!) at record stores specializing in New Wave artifacts.

● A HOME VIDEO TAPE AND DISC PROGRAMMING SEMINAR sponsored by the International Tape Association will be held October 18-20 at the St. Regis Sheraton Hotel in New York. Industry leaders will participate in workshops that will disseminate information for motion-picture studios, independent producers of theatrical and TV films, TV-network and station personnel, and anyone engaged in or contemplating involvement with video tape and disc programming. For registration information write: ITA, 10 West 66th Street, New York, N.Y. 10023.





● IMPROVED DISC QUALITY may turn out to be one of the benefits of a whole new generation of record-cutting lathes from such companies as Neumann and Cybersonics. Because of its compactness, the Cybersonics unit is of special interest to direct-to-disc producers, who feed several cutting lathes simultaneously. Neumann's innovative VMS 80 includes a combined microscope and video camera to display the groove on a TV monitor during cutting. The virtual elimination of rumble is claimed for the Neumann lathe, which applies new technology originally developed for video-disc mastering.

● CONDUCTOR CARLO MARIA GIULINI will make his inaugural appearances as music director of the Los Angeles Philharmonic on October 26, 27, and 28, leading the orchestra in Beethoven's Ninth Symphony. A repeat performance on Sunday, October 29, at 1:30 (PST) will be telecast live by satellite throughout the United States and part of Europe. Check local listings. By that time Zubin Mehta, Giulini's predecessor in L.A., will have taken over as music director of the New York Philharmonic, making his TV debut in his new job on September 20 in the Live from Lincoln Center series sponsored by Exxon on the Public Broadcasting Service.

● CIGAR-BOX-SIZE "MINI" AUDIO COMPONENTS, lately all the rage in Japan, will shortly begin to turn up in the U.S. as well. In addition to Mitsubishi, whose "microcomponents" made their first public appearances at the summer trade shows, Pioneer, Yamaha, and Sanyo are all reported to be working on "compact" lines. And of course Philips is preparing to drop its 4 1/3-inch-diameter "super-fi" digital minidisc on the market any day now. Must be a trend.

● WILLIE NELSON'S NEW "STARDUST" ALBUM (Columbia JC 35305), a collection of country reinterpretations of standard hits from the Twenties, Thirties, and Forties, has put such composers as Irving Berlin, Hoagy Carmichael, Duke Ellington, and Kurt Weill back on the charts. Revivals of this kind are also quite common in the disco field, where such old songs as Baby Face (1926) and Tangerine (1942) were early-Seventies hits. According to ASCAP spokesman Walter Wager, such revivals do more for composers and lyricists than increase their royalties. "A songwriter works not only for money," he says, "but also for approval, and it's terrific to have the approval of another generation."

● A NEW ELECTRONICALLY CONTROLLED TONE ARM by Sony uses servos instead of counterweights and springs to apply tracking force and antiskating. Feedback from motion-sensing devices permits compensation for arm-cartridge resonances and record warp. Production is scheduled to begin this fall; the arm will be sold, with turntable, for something over \$700.

● ROSSINI'S THE TURK IN ITALY will be telecast in Exxon's Live from Lincoln Center series by the Public Broadcasting Service on October 4. The new English-language production by the New York City Opera Company will feature Beverly Sills, Susanne Marsee, Henry Price, Alan Titus, Donald Gramm, and James Billings. Julius Rudel conducts.





## Record Ecology in DiscKit Form —you'll save more than money

DiscKit is a milled walnut tray and dust cover that saves you 15% with the Discwasher products in the kit. (\$46 versus \$54 separately)

DiscKit includes: 1) The Discwasher System Record Cleaner with D3 Fluid, 2) the Zerostat anti-static pistol and test light, and 3) the SC-1 Stylus Cleaner.

But you'll save more than money. You'll save your rec-

ords from imbedded micro-dust, your cartridge stylus from abrasion and your ears from a lot of static.

Record Ecology from Discwasher—a substantial bargain.

(Walnut tray and dust cover are available separately as

the Discorganizer, \$12.50.)

All from Discwasher, Inc., 1407 N. Providence Rd., Columbia, Missouri 65201.





FORMERLY HI FI/STEREO REVIEW

# Stereo Review®

OCTOBER 1978 • VOLUME 41 • NUMBER 4

## The Equipment

NEW PRODUCTS	
Roundup of the latest audio equipment and accessories.....	18
AUDIO BASICS	
Amplifiers with Class..... RALPH HODGES.....	30
AUDIO Q & A	
Four-ohm Power, Damping Factor, AM Fidelity, Synthesizer Sound..... LARRY KLEIN.....	34
TAPE TALK	
Head Cleaning, FM-hiss Test, VU or dB?, Head Materials..... CRAIG STARK.....	40
TECHNICAL TALK	
Testing Loudspeakers—Part 3..... JULIAN D. HIRSCH.....	48
EQUIPMENT TEST REPORTS	
Hirsch-Houck Laboratory test results on the JVC JR-S501 AM/FM stereo receiver, Sonus Gold "Blue Label" phono cartridge, Uni-Sync PMS-1 level metering system, Audio Technology Model 510 LED peak display, Denon DP-6000 turntable and DA-307 tone arm, and Epicure Model 3.0 speaker system..... JULIAN D. HIRSCH.....	51
NEW AUDIO PRODUCTS 1978	
Concluding a survey of the Atlanta and Chicago hi-fi shows..... RALPH HODGES.....	76
TIME-DELAY SYSTEMS	
The last word (so far) in "you are there" listening experiences..... PETER W. MITCHELL.....	87

## The Music

MARVIN HAMLISCH	
What has Hollywood's first real superstar composer been up to lately?..... ERIC SALZMAN.....	84
PUNK ROCK	
Well, you see, James Dean and Marlon Brando were really responsible..... STEVE SIMELS.....	94
BEST RECORDINGS OF THE MONTH	
Opera: Puccini's "Girl of the Golden West" . . . . Instrumental: Vivaldi's "Seasons" and other concertos. . . . Jazz-Rock: Little River Band's "Sleeper Catcher" . . . . Jazz: Egberto Gismonti's "Sol Do Meio Dia" . . . . Chamber Music: Schubert's String Quartet No. 15. . . . Rock: The Alan Parsons Project's "Pyramid".....	101
POPULAR DISCS AND TAPES	106
Hodges, James & Smith..... PHYL GARLAND.....	107
Powerhouse Dylan..... NOEL COPPAGE.....	108
The Tom Petty Synthesis..... STEVE SIMELS.....	114
Video Review: Todd Rundgren at the Bottom Line..... STEVE SIMELS.....	122
Musical Comedy Revivals..... PAUL KRESH.....	135
Women in Jazz..... CHRIS ALBERTSON.....	146
CLASSICAL DISCS AND TAPES	148
Two Striking New Works by Corigliano..... PAUL KRESH.....	149
Petersson's "Vox Humana" Song Cycle..... DAVID HALL.....	152
The Return of Nyiregyházi..... JAMES GOODFRIEND.....	156
A Little Szymanowski Festival..... GEORGE JELLINEK & RICHARD FREED.....	164
Guitar Roundup..... IGOR KIPNIS.....	170

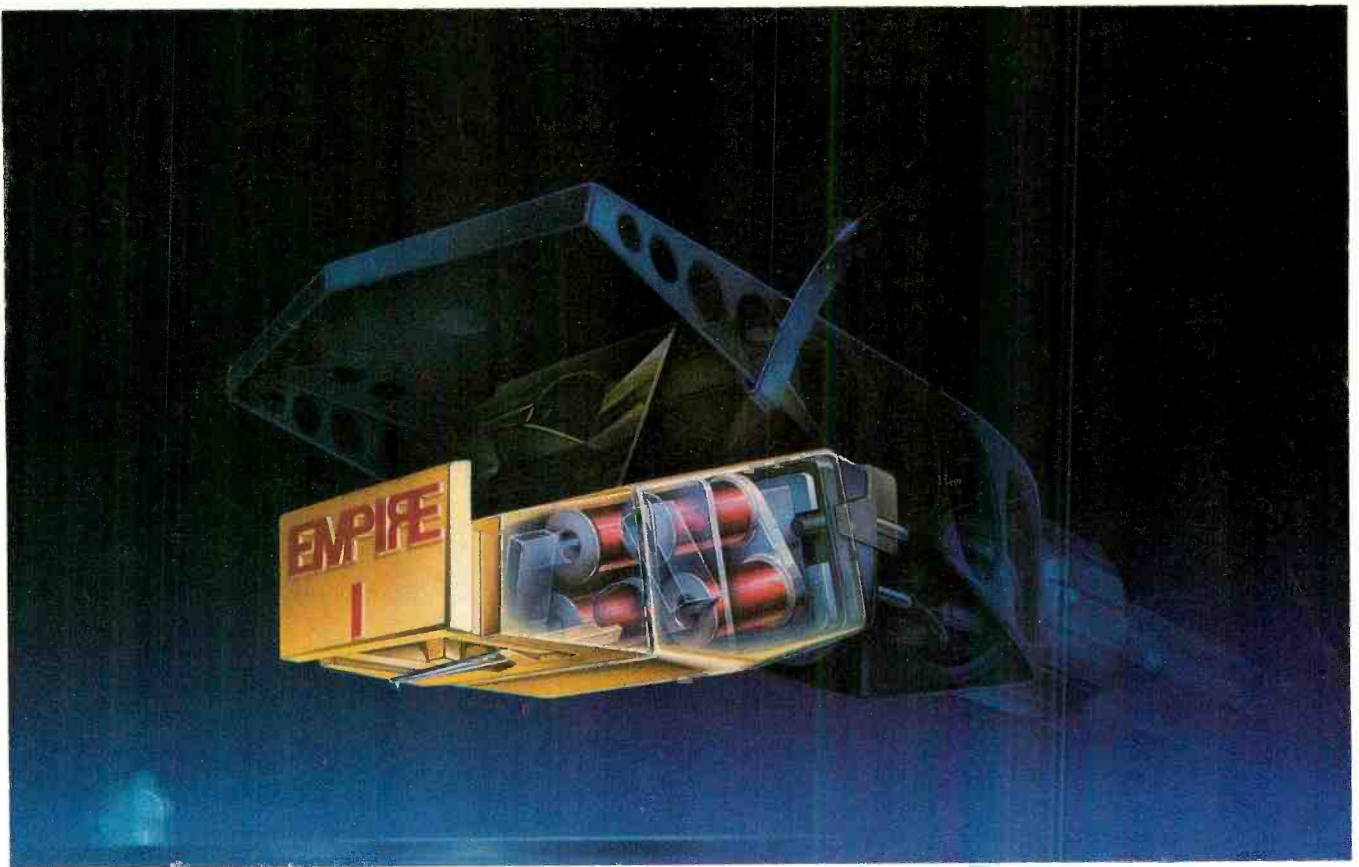
## The Regulars

BULLETIN.....	5
EDITORIALLY SPEAKING..... WILLIAM ANDERSON.....	8
LETTERS TO THE EDITOR.....	12
THE POP BEAT..... PAULETTE WEISS.....	72
GOING ON RECORD..... JAMES GOODFRIEND.....	74
ADVERTISERS' INDEX.....	175

COVER: Design by Borys Patchowsky; photo by Bruce Pendleton. See page 90.

COPYRIGHT © 1978 BY ZIFF-DAVIS PUBLISHING COMPANY. All rights reserved. Stereo Review, October 1978, Volume 41, 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. Philip B. Korsant, President; Furman Hebb, Executive Vice President; Selwyn Taubman, Treasurer; Philip Sine, Secretary. Also publishers of Boating, Car and Driver, Cycle, Flying, Popular Electronics, Popular Photography, Psychology Today, Skiing, Stereo Directory, and Tape Recorder Annual. One-year subscription rate for U.S. and possessions, \$9.98; Canada, \$10.98. All other countries, one-year subscription rate \$14.98, cash orders only, payable in U.S. currency. Second-class postage paid at New York, 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 Co., One Park Avenue, New York, N.Y. 10016.





## No matter what system you own there's an Empire Phono Cartridge designed to attain optimum performance.

Detail, brilliance, depth.

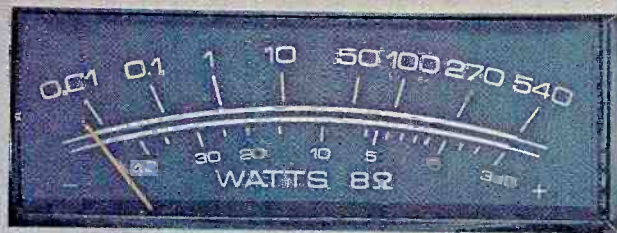
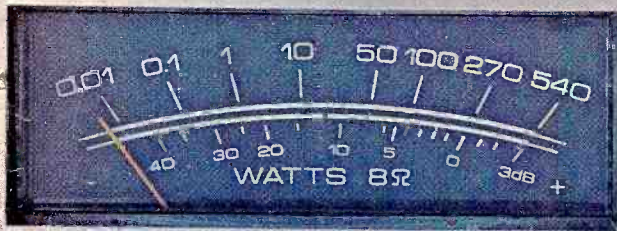
This is the promise of each Empire Phono Cartridge and although there are many Empire models, each designed to meet specific turntable performance characteristics, every Empire cartridge contains the following features:

Features	Details	Benefits
Unique Fixed Unidirectional Three-Magnet Structure	Every Empire cartridge uses 3 high energy ferrite magnets in the cartridge body to provide a high level of unidirectional flux.	Higher and more linear output signal, immunity to bi-directional magnetic distortion, and improved hum and microphonic rejection.
Molded Four-Pole Magnetic Assembly	Every Empire cartridge employs a four-pole magnetic assembly that is precisely aligned and locked in place by a high pressure injection molding process... providing a uniform and orthogonal magnetic field.	Improved crosstalk and reduced distortion that is insensitive to tracking force.
Tubular moving Iron Design	By using a tubular high magnetic saturation iron armature we obtain an optimum ratio of output level to effective tip mass.	Improved tracking ability and widened frequency response.
Four Coil Hum Bucking Assembly Plus Electromagnetic Shielding	Using custom designed computer controlled machines, a precision drawn copper wire (thinner than human hair and longer than a football field) is wound onto a symmetrical 4 bobbin structure. By using 2 coils per channel a symmetrical electrical circuit is formed.	Improved rejection of hum and stray noise fields.
Aluminum Alloy Cantilever	The Empire computer designed tubular cantilever provides optimum coupling of the diamond tip to the moving magnetic system resulting in minimum effective stylus tip mass.	Superb low level tracking, reduced tracking distortion... plus enhanced wideband separation characteristics.
Precision Ground Oriented Diamond Tips	Empire diamonds are precision ground, polished and inspected in house, using sophisticated television cameras and powerful microscopes to ensure accurate angular orientation.	Reduced tracing phase distortion, together with reduced wear of both the record and the diamond tip.

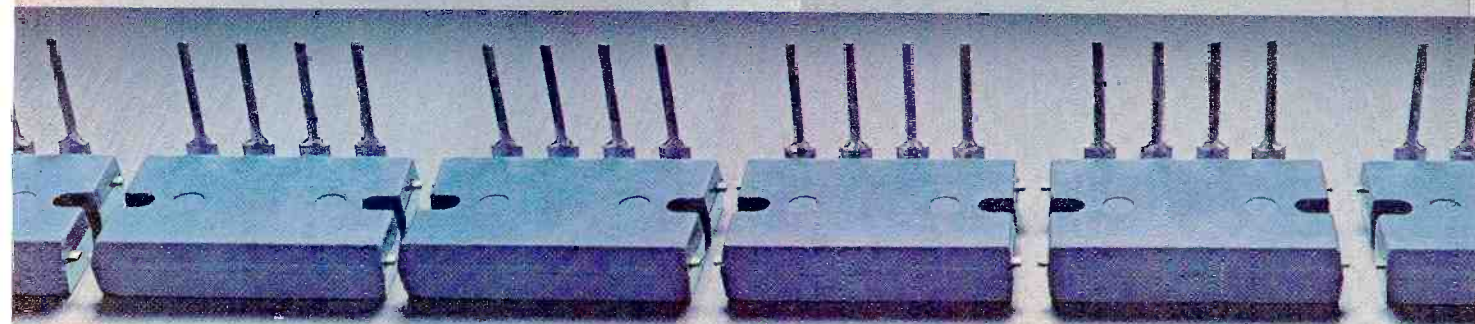
For the full story on Empire cartridges we suggest you "test-listen" to one at your local Empire dealer, and for information on our full line of cartridges, write for our brochure "How to Get the Most Out of Your Records": **Empire Scientific Corp.**, Garden City, N.Y. 11530

# EMPIRE





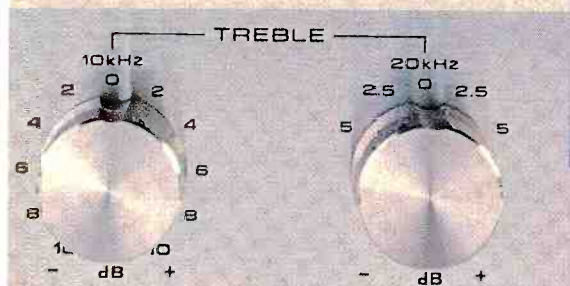
Wattage meters that let you see what you're hearing.






High powered transistors that don't need fans.



Impedance switches that let you get the most out of your cartridge.



3,000 different combinations of tone.

-  FINE TUNE
-  QUARTZ LOCKED
-  STEREO

Quartz sampled tuning for near perfect FM reception.

A power section that puts out a continuous power output of 270 watts per channel from 20 to 20,000 hertz with less than 0.03% total harmonic distortion.



PHOTOGRAPH BY MICHAEL O'NEILL FOR THE NEW YORK TIMES





“It’s the ideal stereophone for all types of music from hard rock to classical because of the extreme lows and highs.”

Nancy Knapcik  
Audio Saleswoman, Chicago, Illinois

“The sound of the Koss HV/1A is really hearing the natural sound that the record is putting out.”

*By substantially reducing the mass of the moving diaphragm assemblies used in the HV/1A, Koss has been able to achieve a wide-range frequency response of unusual fidelity. Delicate overtones, which add to the faithfulness of the reproduction, are retained. Yet, bass response is extended, clean and un-muddied.*

“It’s a really distinct, professional sound as if you were listening to a large set of quality speakers in the room.”

*Unlike conventional stereophones which contain the sound waves in a sealed acoustical chamber, the Koss HV/1A High Velocity Stereophone vents the back sound waves to the rear without raising the resonance or inhibiting transient response. This unique electroacoustical*



*design concept provides not only unusual lightness and hear-thru characteristics, but also the exciting, full-range Sound of Koss as well.*

“The Koss HV/1A stereophone has a frequency response of 15Hz to 30kHz. That’s a very wide range... from the lowest lows you can hear to the highest highs. You can’t hear that in a cheap headphone. There’s no clipping or other types of

distortion.”

*Thanks, Nancy! We’re sure that your customers couldn’t agree more... or hear more than all 10 of the audible octaves the HV/1A delivers. Nor will they enjoy more listening comfort than with the HV/1A’s glove soft vinyl headband and acoustical sponge ear cushions.*

“You can tell they’ve got quality just by looking at them. They’re not a cheap

plastic like so many headphones.”

*Designed to fit close to the head, the new Koss HV/1A Stereophone has a stylish, low-silhouette design without the cone-type projections found in other headphones. This slim design permits unusually fine acoustical tuning of the element chamber at the factory.*

“I think men and women are all looking for the same thing: a really good sound.”

*Why not ask your Audio Dealer for a live demonstration of the Koss HV/1A and HV/1LC with volume-balance controls. And while you’re there listen to the beautiful sound of the new Koss CM Speakers. But by all means, write c/o Virginia Lamm, for our free, full color stereophone and speaker catalog. Once you’ve experienced the Sound of Koss, we think you’ll agree with Nancy: hearing is believing.*

© 1978 Koss Corp

 **KOSS**® stereophones/loudspeakers  
hearing is believing™

KOSS CORPORATION, 4129 N Port Washington Ave. Milwaukee, WI 53212 International Headquarters Milwaukee facilities Canada France Germany Ireland Japan

CIRCLE NO. 2 ON READER SERVICE CARD



# 225 MARANTZ SYSTEMS. S A MATCH - FROM \$650\* TO \$2100\*.

