

SEPTEMBER 1980 • \$1.25 Stereo Review®

Julian Hirsch: Is Hi-Fi Getting Better?

NEW AUDIO PRODUCTS: 1980 Summer Consumer Electronics Show

EQUIPMENT TEST REPORTS: ADC Integra XLM III Phono Cartridge

Bozak MB-80 Speaker System • Fisher DD-300 Cassette Deck

Heath AP-1800 Preampifier • Onkyo TX-5000 AM/FM Stereo Receiver

ANDRÉ PREVIN: Portrait of an American Conductor in His Prime

**THIS MONTH'S
DISC SPECIALS:**

The Canadian Brass
A New Luisa Miller
Carole King
A Beatles Concerto



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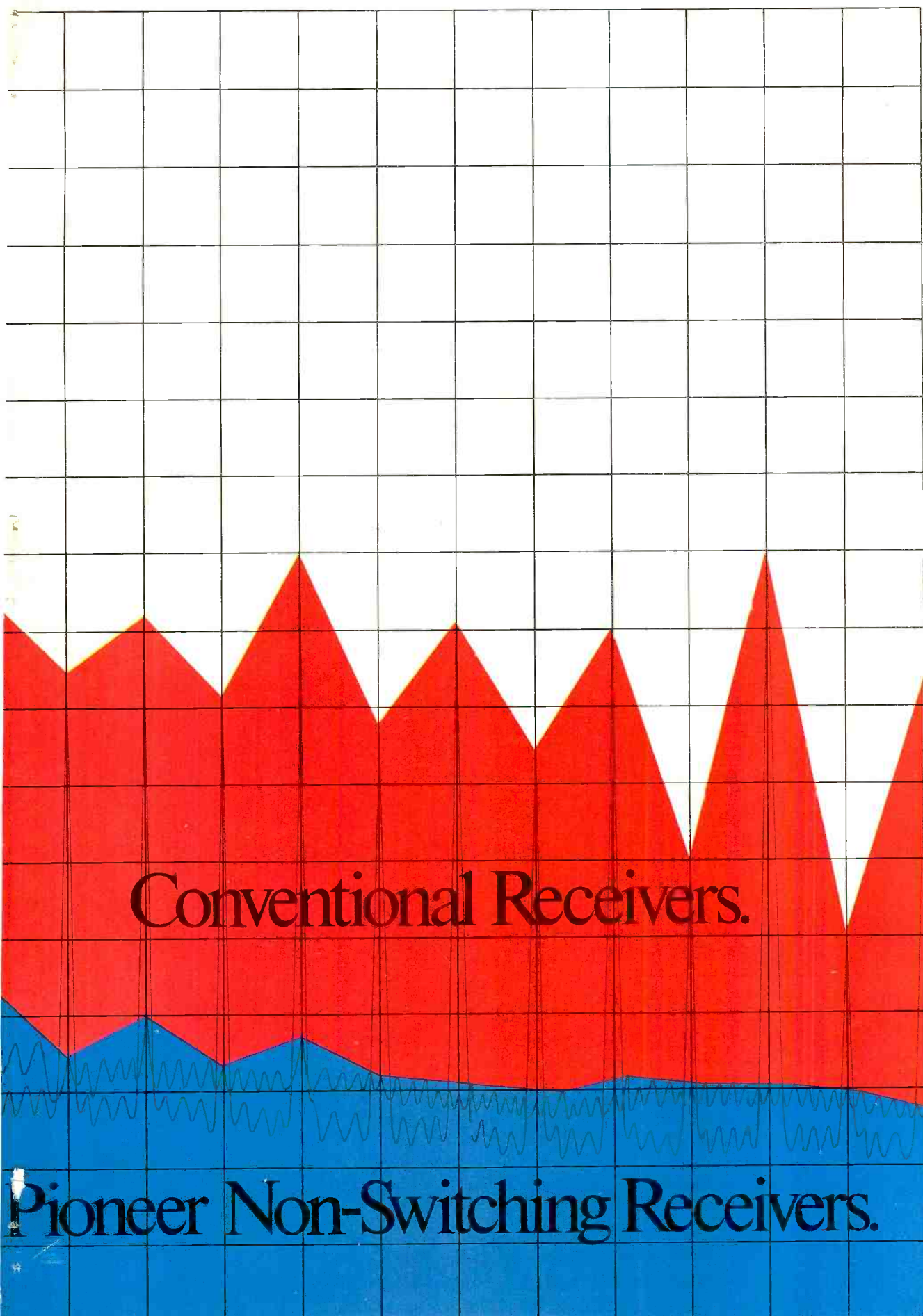
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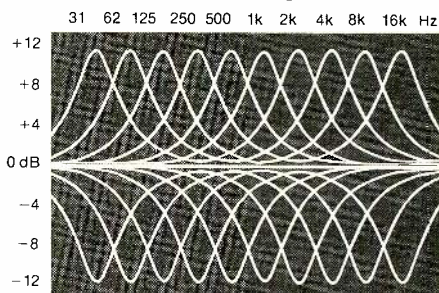
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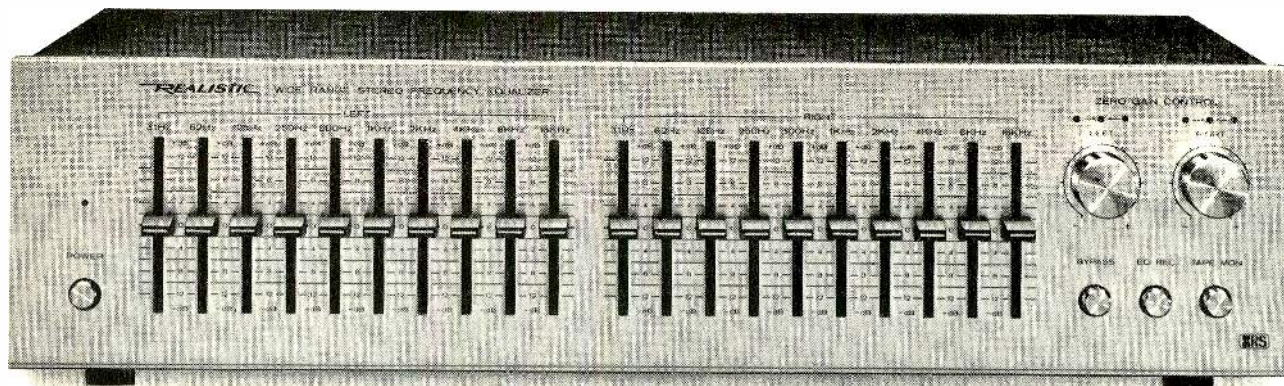
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SEPTEMBER 1980 • VOLUME 45 • NUMBER 3

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COVER: Photo by Ken Veeder (courtesy Angel/EMI).

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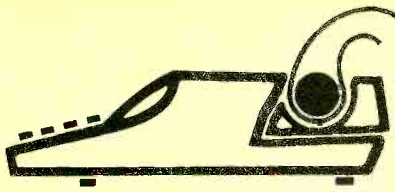
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Edited by William Livingstone

● VIDEO MERGERS? General Electric Co. (GE), of the U.S., Matsushita Electric Industrial Co. Ltd. (MEI), of Japan, Victor Company of Japan, Ltd. (JVC), and Thorn EMI Ltd., of England, are considering the formation of three jointly owned companies to support the introduction of the Video High Density (VHD) videodisc system in the United States market by producing programs and manufacturing VHD hardware and software. In a bid for the European home video market, RCA has gone into partnership with the Beta and Taurus film companies of West Germany to acquire video programs and to market videodiscs in RCA's SelectaVision format in German-speaking countries.

● BUY MORE BUBBLEGUM! Chu-bops, a new brand of gum marketed by a Wrigley subsidiary, are packaged like little pop albums and displayed in miniature record racks. For the first release of small chewable (but not playable) discs major labels have leased rights to cover art from hit albums by such artists as Abba, Billy Joel, and the Knack. List price: 35¢.

● CHANGE, ITALO-AMERICAN DISCO GROUP, topped Billboard's disco chart for ten straight weeks with "The Glow of Love" (RFC 3438), the first album to hold the Number One spot for that length of time. Previously tied for disco-chart top-spot longevity were Gino Soccio's "Outline" and Chic's "Dance, Dance, Dance" with eight weeks each.

● THE 1980-1981 CLASSICAL-MUSIC SEASON on the Public Broadcasting Service begins September 24 when Exxon's Live from Lincoln Center series presents a concert by the New York Philharmonic in honor of violinist Isaac Stern's sixtieth birthday. Zubin Mehta will conduct, and violinists Itzhak Perlman and Pinchas Zukerman will assist Stern with the solos. On September 27 Texaco's Live from the Met series will present Puccini's Manon Lescaut with Renata Scotto and Placido Domingo, James Levine conducting. Check local PBS stations for times and stereo simulcast information.

● CONTEST FINALS LIVE BY SATELLITE on National Public Radio include the Three Rivers Piano Competition from Heinz Hall in Pittsburgh on September 5 at 8:00 p.m., the Rockefeller Competition for the performance of American music (by violinists this year) from Kennedy Center on September 27 at 6:00 p.m., and the Friedheim Awards for composition (of orchestral music this year) from Kennedy Center on September 28 at 6:00 p.m.

● A RECORD PRICE OF \$250,000 was paid for Spring Farm Fond Rose at the New York State Fair at Syracuse. Spring Farm Fond Rose is not a rock group, but a Holstein cow sold by well-known stock breeders John Lennon and Yoko Ono. Does this begin the Moo Decade?

● BUY MORE CASSETTES! Magnetic Gold, a new line of prerecorded cassettes, will be sold by General Entertainment Corp. in 130,000 nontraditional music outlets. Priced at \$3.99 and \$4.99, the cassettes will be best-selling recordings licensed from major labels. Reasoning that the Baby-Boom buyers, who made records the world's biggest entertainment medium in the 1960's and 1970's, no longer hang out in record stores, GEC plans to put Magnetic Gold cassettes in the places where those buyers now spend their time and money: hardware stores, supermarkets, and drug stores.

● HONORS AND AWARDS: To singer Anne Murray (Capitol), her own bronze star in the sidewalk in Hollywood's Walk of Fame. The 1,718th artist so honored, Ms. Murray is up there (or down there) with the likes of Greta Garbo, Frank Sinatra, and Beverly Sills....To U.S. violinist Kathleen Winkler (29), the first prize in the Carl Nielsen International Violin Competition in Odense, Denmark. Ms. Winkler, on the music faculty at Hamline University, St. Paul, Minn., received a gold medal and \$4,000....To conductor Herbert von Karajan, a listing in the 1980-1981 Who's Who in America along with Yankee pitcher Rich Gossage, Muppeteer Frank Oz, and director Franco Zeffirelli.

Speaking of Music...

By William Anderson



VIDEO SOFTWARE

It is hard to think of an area of human experience where means and ends are intertwined more inextricably than they are in audio. Discs and tapes can be played only if you have the proper equipment—but which comes first? Who would be foolhardy enough to produce (or buy) musical software in the absence of hardware to play it on, who would manufacture such hardware in the absence of something to play on it? The industry has traditionally solved this chicken-and-egg problem (though not without trepidation) in favor of the software, the most recent successful example (quad doesn't count) being the changeover to stereo: record companies were recording (though not pressing) in stereo long before any reasonable amount of stereo playback equipment was available to buyers.

The problem presents itself all over again, however, with the arrival of a radical new technology—such as video. Video may prove to be the hardest nut (egg?) the industry has ever had to crack. First of all, the market potential appears to be so enormous that everybody is even more determined than usual to get his fair share of the pie. Musicians, for example, want not only their customary recording-session fees but royalties on individual discs sold *and* on broadcast playback as well. (And why not?—can't you just see the efflorescence of video disc jockeys on every TV channel as soon as the software is available?) Accounting costs alone could consume most of this loot, so negotiations go on.

New recording aside, software agencies have been laying up stores of old movies and

the like for some time, but they know little more about the salability of such items than they do about the probable demand for, say, Gregorian chant. And so, it is likely that some entrepreneur courageous enough to trust his instincts in the matter will walk away with the pot while the losers, wedded to calamity, are transfixed by the naysayers' chant, "How many times can you watch a TV program or a movie without getting bored?" (The question is irrelevant, but the answer is "Just as often as a bibliophile rereads the books that fill his shelves, as often as the audiophile replays the hundreds of records in his collection.")

It all comes down to the question of just what, in music, is videogenic. Opera, ballet, and Broadway musicals, which already have a visual dimension, certainly. Recitals, classical or popular, very likely—as long as the performer has the magical audience rapport of a James Galway, a Vladimir Spivakov, or a Mabel Mercer. Instrumental soloists perhaps—closeups of fingers on keyboards or guitar frets are always fascinating. Chamber music and full-orchestra works are problematical, though some young camera genius could come up with a solution tomorrow. In the meantime, much of this music has a conspicuous nationalistic cast (Sibelius, Smetana, Dvořák) and could be served up with suitable travelog footage; and, too, a lot of it is dance music (ländler, minuet, waltz, mazurka) that could be imaginatively staged. But anything programmatic beyond that, despite the unquestioned success of *Fantasia*, would be risky.

In the meantime, skeptics might sit themselves down for a salutary screening of that landmark Hollywood musical known as *Singin' in the Rain*. It offers a fine historical parallel: just as the addition of sound revolutionized silent movies in the Twenties, so the addition of video will revolutionize audio records in the Eighties. □

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Ziff-Davis Publishing Company

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Midwestern Office, The Pattis Group: 312 679-1100

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Telephone: 407-1930/6821, 582-2851

Circulation Office

P.O. Box 2771, Boulder, Colorado 80323

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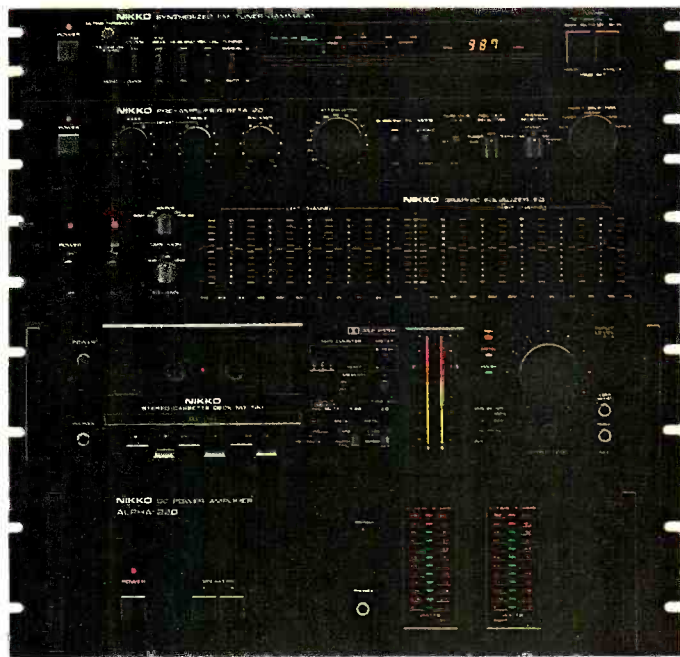
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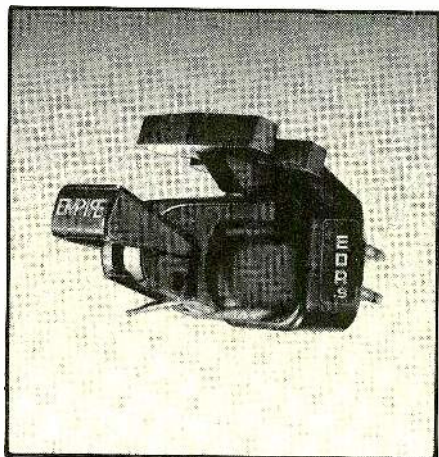
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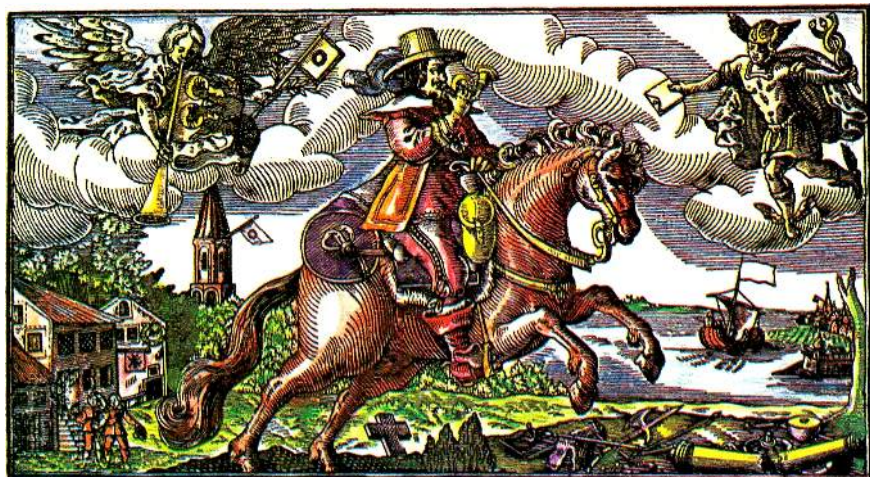
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LETTERS TO THE EDITOR

The Beatles

● Steve Simels' July review of the Beatles' "Rarities" album contained an uncalled-for attack on the Beatles and Beatles fans. First of all, if you're going to trace all evil on the radio back to the Beatles, why not take it a little further to *their* influences? Why blame the Beatles and not Elvis Presley, Chuck Berry, or Buddy Holly? And if we Beatles fans are "living in the past," what does that make classical-music buffs—cavemen?

JOHN HOCHWALT
North Canton, Ohio

● I was very disappointed with Steve Simels' review of the Beatles' "Rarities" album. His introduction of the issue of record-company "politics" into the review was beside the point, but what disturbed me more was his saying that the Beatles no longer speak to him. He is clearly showing *his* age with that! Worse yet was his blaming the "Fab Four" for such disasters in pop music as Barry Manilow and Foreigner. That's true to a degree, but any breakthrough artist is bound to leave a wake of cheap imitators. Using the same kind of reasoning, we could blame Miles Davis for fusion or David Bowie for Gary Numan.

ERIC L. JOHNSON
Kearney, Neb.

● I object to Steve Simels' phrase "shake their aging booties" in his review of the Beatles' "Rarities." The word "aging" has such bad connotations. Why does he never refer to his beloved Rolling Stones that way? On average, the Beatles are younger than the Stones, and the latter are *still* shaking their booties on stage. Why bring age into the discussion at all?

JON WOOLSEY
Fairfax, Va.

● I have no quarrel with Steve Simels' charge that the Beatles' "Rarities" is merely a collection of "footnotes," but the overall tone and "philosophy" of his review was self-righteous and adolescent. The key sentence is: ". . . all your heroes have feet of clay; every one of them will let you down if you give them the chance." This expresses

the peevish fury of a twelve-year-old who has just discovered that his father is not perfect. Of course no hero is perfect; none ever was, none ever will be. But they can remain heroes nonetheless by virtue of their accomplishments or style. So Bob Dylan and Grace Slick have dared grow in directions that do not fit Mr. Simels' plans for them. I'm not entirely pleased with what they are doing now myself, but that does not dilute their past accomplishments.

JOHN PEN LA FARGE
Sante Fe, N.M.

● Steve Simels says that the Beatles were great and the biggest influence in the Sixties, but then he says he doesn't listen to them any more. Who cares? Plenty of people still listen to the Beatles because there *still* isn't anything better around. If Mr. Simels really prefers reviewing groups like Li'l Queenie and the Percolators, that's his choice. And by the way, the list price of "Rarities" is \$8.98, not \$5.98 as stated in the review.

GEORGE GALESTRO
Brooklyn, N.Y.

● I really enjoyed Steve Simels' article on the Beatles and totally agree with him that listeners of today should try new and different types of music.

ROD LEONARD
Norman, Okla.

Steve Simels replies: I didn't expect to make any friends with the "Rarities" review, but I must admit I'm a wee bit surprised at just how deep fervor for the Fab Four still runs. In response to the above letters, and at the risk of arousing even more reader ire, I must observe that (1) classical-music buffs who reject contemporary serious music (and they are legion) are every bit as myopic as rock fans fixated on the Beatles; (2) aging is germane in a discussion of rock-and-roll because (sad but true) the best rock has generally been a product of terminal flame-out rather than long careers; (3) if, say, Bob Dylan suddenly turns into a self-righteous bore, one is perfectly justified in re-evaluating his early work—

(Continued on page 10)

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Performance identical to the 670ZX. Every feature except off-tape monitoring. Exclusive Nakamichi *Auto Azimuth Alignment* and Discrete 3-Head design. Master record-level fader too. An extraordinary value!
*Dolby is the trademark of Dolby Laboratories.

the child, after all, is father to the man; and (4) it's totally beside the point whether or not 1980 rock-and-roll is better or worse than the Beatles' output. Would you stop going to the theater simply because nobody in the last four hundred years has topped Shakespeare?

As for the price of the "Rarities" album, it was raised by the manufacturer after my review went into print.

Loretta

☉ I hope Noel Coppage was smiling when he wrote (in his July review of the album "Loretta") that Loretta Lynn's pronuncia-

tion is "almost unique (even for a Kentuckian)" Loretta Baby is from eastern Kentucky, the mountains, with influences from Appalachian Virginia. We western Kentuckians, most of us at least, talk English purty good. Besides, most of us flatlanders don't care for hay-kickin' music, even though Nashville is all too close by.

Steve Simels' reference (in the same issue's "Simels Live") to John Fogerty's work as "swamp music" is a new one to me. I always thought of Fogerty's stuff as "gets me where I live" music (not many swamps in western Kentucky). Simels should be stumping for the revival of Creedence Clearwater, which played with a straight-ahead, driving beat, much like a steam loco-

motive working tonnage down the tracks (more than one CCR song made reference to railroads and trains as well as bayous and backwoods).

The Beatles can continue to sell records by not being the Beatles any more. Loretta Baby can do all the "walkun' after midnat" she wants. As for me, I'd rather walk by the log where the catfish bite or walk along the railroad at night (lines borrowed, of course, from CCR's *Green River*, the quintessence of their way of doing things).

JERRY MART
Hopkinsville, Ky.

Tommy Caldwell

☉ The reference to "the late Toy Caldwell" in Noel Coppage's July review of the Marshall Tucker Band's "Tenth" is incorrect. It was Toy's brother Tommy (the band's bass player) who was recently killed in an automobile accident in Spartanburg, South Carolina. As far as I know, Toy and the rest of the band are on a concert tour.

LARRY S. SOLOMON
Knoxville, Tenn.

Pop Editor Paulette Weiss replies: Sorry for the mistake, which was mine, not Noel Coppage's.

Home-grown Whistler

☉ James Goodfriend's July review of Tomás Hacki's "Whistle Concert" was welcome, but his lament that virtuoso whistling has "all but died out in this country" shows that he has not heard the music of our native whistling entertainer Jason Serinus. With a repertoire ranging from Bach to Steve Wonder, Serinus has become known to television viewers through appearances on the *Tonight Show*, the *Merv Griffin Show*, and *PM Magazine*. Most important, he was responsible for the vocal debut of the canary Woodstock in the Peanuts feature *She's a Good Skate, Charlie Brown* (which will be rebroadcast next February). Woodstock's rendition of Puccini's "*O mio babino caro*" brought international recognition to Serinus and promises of more Woodstock performances.

Like Hacki, Serinus is a fun-loving entertainer; but, unlike him, he steadfastly avoids kitsch, bird calls, and "all the tricks," concentrating instead on producing a vibrant, pure tone (which the *Los Angeles Times* and others have described as "otherworldly" and "disembodied") and on emotional depth and range. Gerald Nachman of the *San Francisco Chronicle* recently called him "not just unique and fun, but a real performer . . . the Pavarotti of Pucker."

Serinus performs annually at the San Francisco Opera Fair, frequently appears elsewhere, and will spend a week as artist-in-residence at Simon Frazer University in Vancouver this fall. He is preparing a tape of classical music for private distribution, and there are hopes of his doing a Woodstock disc and a children's album. Interested readers may write to Serinus c/o Mirasound, 2037 Irving Street, Suite 216, San Francisco, Calif. 94122.

JAY GUY NASSBERG
San Francisco, Calif.

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WHY? Because WE CARE about HOW an equalizer does its job BEST!
That's the reason for Our 10-POINT "TOTAL-SYSTEM EQUALIZATION"

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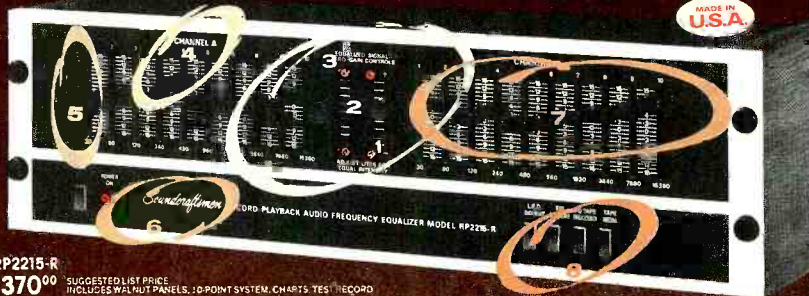
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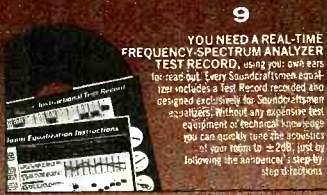
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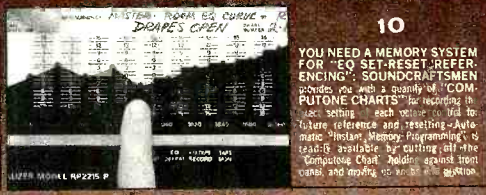
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RP2215-R
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SUGGESTED LIST PRICE
INCLUDES WALNUT PANELS, 10-POINT SYSTEM, CHARTS, TEST RECORD



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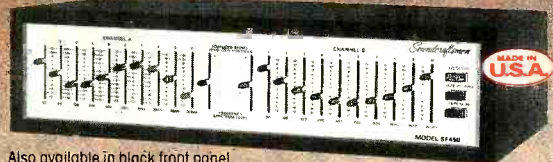


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NEW BASIC EQUALIZER \$249

WITH 9 ESSENTIAL EQ FEATURES:

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- 3—Tape Monitor
- 4—Two Master Output Level
- 5—EQ defeat
- 6—±16dB-12dB EQ/octave
- 7—S/N-105dB
- 8—Cabinet Included as shown
- 9—THD less than 0.01% @2V.



Also available in black front panel.

FREE! 16-page Full-Color Brochure

Includes TEST REPORTS, complete specifications, Class "H" amplifier ENGINEERING REPORT, EQ COMPARISON CHART, and the "WHY'S & HOW'S" of equalization—an easy-to-understand explanation of the relationship of acoustics to your environment. Also contains many unique IDEAS on "How the Soundcraftsmen Equalizer can measurably enhance your listening pleasures," "How typical room problems can be eliminated by Equalization," and a 10-POINT "DO-IT-YOURSELF" EQ evaluation checklist so you can FIND OUT FOR YOURSELF WHAT EQ CAN DO FOR YOU.

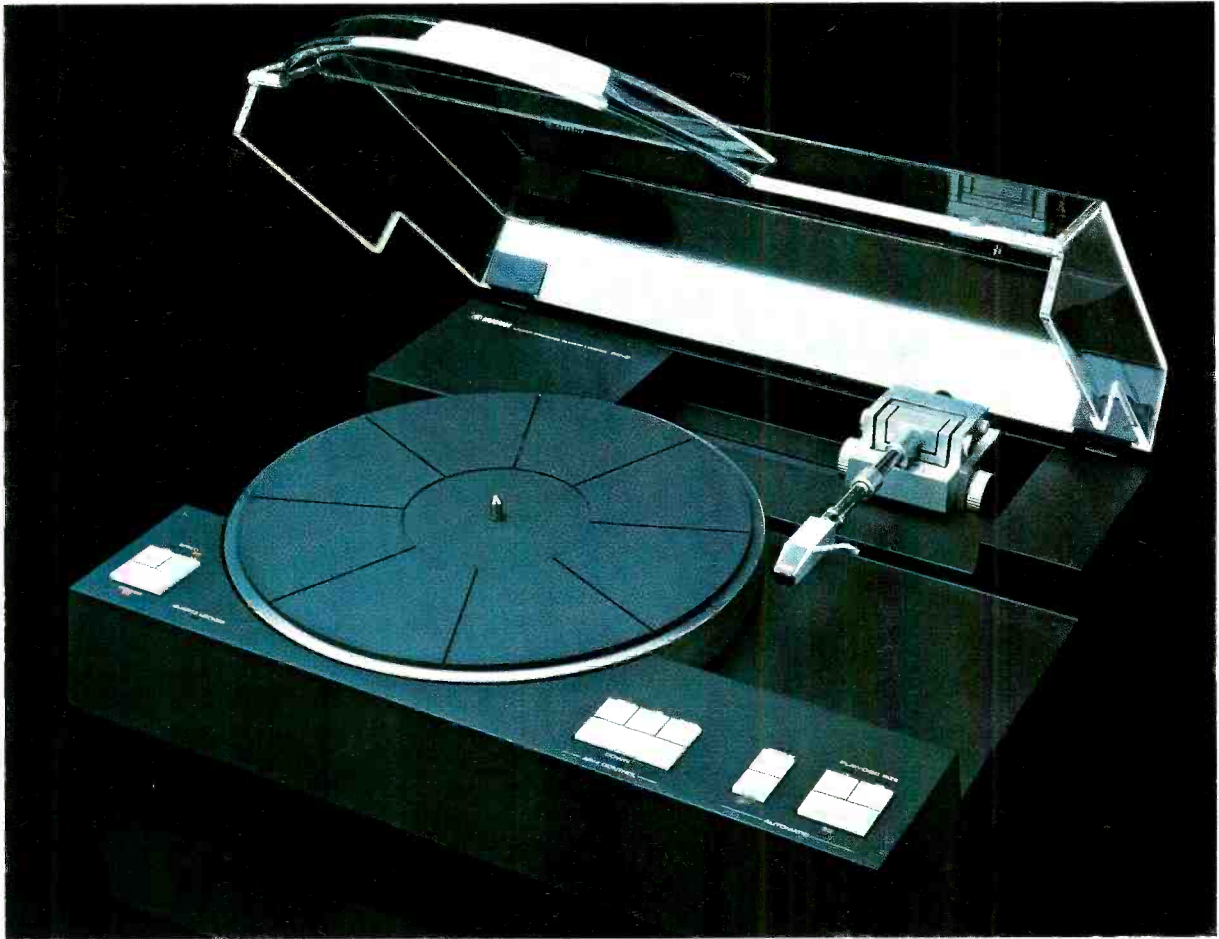
SEND \$6.00 FOR EQUALIZER-EVALUATION KIT: 1-12" LP TEST RECORD.

1 SET OF COMPUTONE CHARTS, 1 COMPARISON CONNECTOR, 1 INSTRUCTION FOLDER

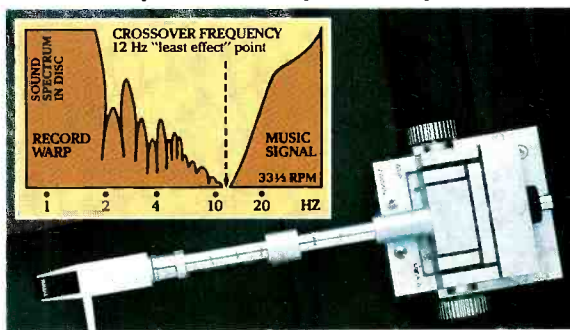


Made in U.S.A. by SOUNDCRAFTSMEN • Santa Ana, CA 92705 • CANADA: F. S. GOULD LTD., Montreal, QUEBEC, H4T 1B8

Yamaha's PX-2 linear tracking turntable. A class of one.



Yamaha's new PX-2, the flagship of a remarkable new series of turntables from Yamaha, is destined to become the new standard of the audio industry. It is a masterpiece in the art of music reproduction. Totally in a class by itself.



One of the major performance advancements on the PX-2 is Yamaha's unique optimum mass straight tonearm assembly. This design concept is Yamaha's direct challenge to the industry trend of low-mass tonearms. Among the most significant benefits of optimum mass is that it specifically addresses two of the most critical elements of music signal tonal quality—tonearm resonant frequency characteristics and high trackability with a wide range of cartridges. Tonearm mass is such a critical element in sound reproduction (especially in the low and high frequency ranges) that Yamaha has designed this optimum mass tonearm to insure its resonance frequency is at the "least effect" point (See graph.) As a further benefit, the vast majority of available cartridges can be effectively

matched with the Yamaha tonearm. Even MC types.

But the optimum mass tonearm is only one factor that puts the PX-2 in a class by itself. There's much more. Like an extraordinary 80dB S/N ratio, with incredibly accurate tangential tracking—constantly monitored by an opto-electronic sensor. The PX-2 is also a study in durability with its solid, anti-resonant monolithic diecast aluminum base. And the combined effect of the hefty platter and the heavy-duty DC motor depresses wow and flutter to below 0.01%.

Yet with all this performance, the PX-2 is deceptively easy to operate. All the microprocessor-activated controls are easily accessible—without lifting the dustcover.

The balance of the turntables in our new line (the P-750, P-550, P-450 and P-350) all incorporate this same optimum mass tonearm philosophy. Each will set new standards for performance per dollar invested.



Visit your local Yamaha Audio Specialty Dealer for a personal test of our remarkable PX-2 and the other superb turntables in our new series. You'll hear music that's truly in a class by itself.

For more information write us at Yamaha, Audio Division, P.O. Box 6600, Buena Park, CA 90622.

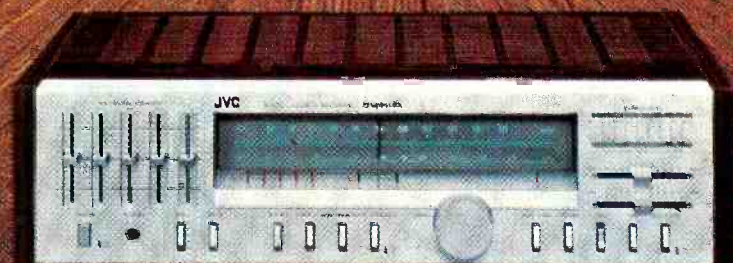
*Yamaha cartridges shown (MC-1X and MC-7) on both models are optional.



CIRCLE NO. 53 ON READER SERVICE CARD

**After stunning the audio world
by going beyond Class-A ...**

SUPERCLASS



we stunned the competition with this Super-A receiver.

When JVC brought out "Super-A" amplifiers last year, they were hailed as a tremendous achievement. Now, we go a step further with our new line of Super-A receivers. Which means you can get Super-A amplification along with JVC's 5-band graphic equalizer, a terrific FM/AM tuner, and everything else that has made JVC a premier name in receivers. All for prices you'd expect to pay for conventional class-A/B receivers.

What does Super-A sound like?

By eliminating switching and crossover distortion (you can actually see them disappear on an oscilloscope), Super-A eliminates the subtle harshness which makes some conventional amplifiers hard to listen to. The sound is natural and detailed, with the delicate texture

of musical instruments coming through clearly.

At the same time, the R-S33 receiver shown here gives you a hefty *40 watts per channel into 8 ohms, from 20-20,000 Hz, with no more than 0.007% total harmonic distortion*. Power like this in a conventional Class-A would cause it to run hot and weigh a ton, to say nothing of costing you a fortune. But the R-S33 costs only \$329.95.*

5-band graphic equalizer

With conventional tone controls, you can make only crude adjustments of problems like cartridge peaks, speaker roll-off and room

acoustics. But with JVC's 5-band graphic equalizer, you can make adjustments in five separate tonal regions. So you can boost deep bass without creating mid-bass boominess. Mellow out a voice without cutting the highs. Boost the extreme highs and more.

Traditional JVC quality

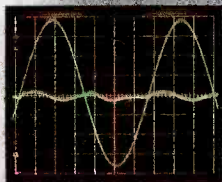
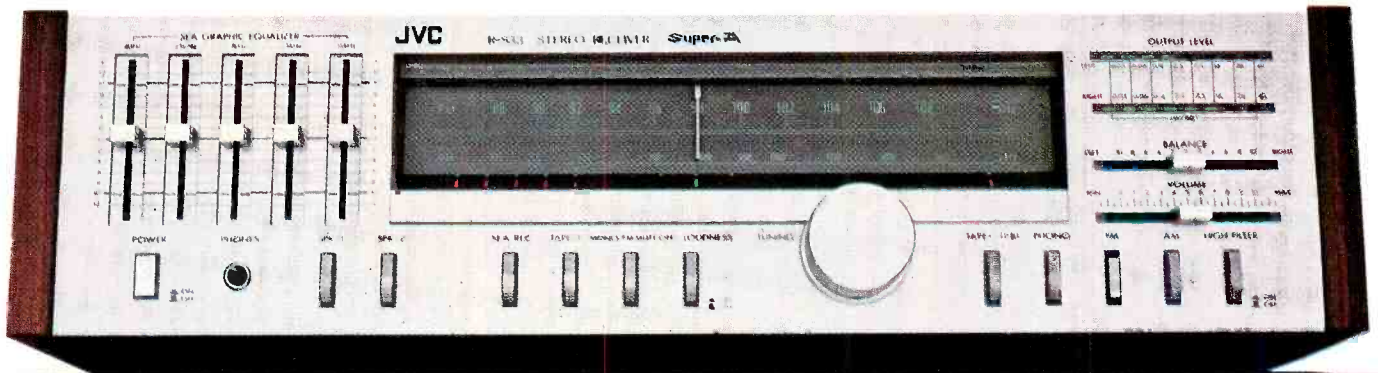
With all this going for the R-S33 receiver, you might almost think we cut corners to offer it at such a great price. We didn't.

As with past JVC receivers, you get a direct-coupled DC power amplifier section. A sensitive tuning section with linear-phase IF stages. Two tape monitors with equalizer and dubbing facilities. LED power meters. And JVC's patented, error-free Triple Power Protection system.

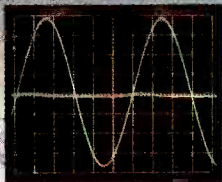
*Manufacturer's suggested retail price.

R-S33

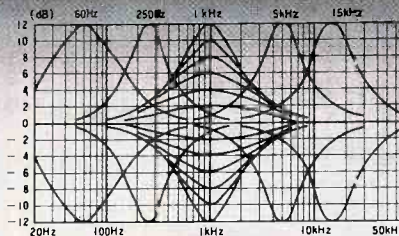
Super-A receiver



Conventional Class-A/B
Jagged center line indicates the presence of high-order harmonic distortion. This is the result of transistor switching in some conventional amplifiers.



JVC Super-A
Center line shows minimal distortion in output waveform. Switching and crossover distortion (high-order harmonics) are notably absent.



S.E.A. graphic equalizer permits independent adjustment in 5 tonal regions.

800-221-7502

Just call his toll-free number for the location of your nearest JVC dealer (212-476-8300 in New York State). While you're there, you might also want to check out our low-distortion, class-A/B receivers, the R-S11 and R-S55. And if you want the extra convenience and accuracy of quartz-synthesized digital tuning, you can get it in our R-S55 and our R-S77 with Super-A.

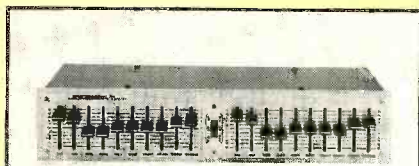
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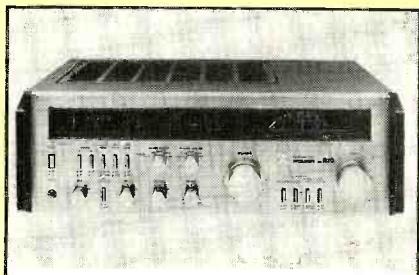
New Products latest audio equipment and accessories



Ten-band Graphic Equalizer from Spectro Acoustics

□ Available with either a black-anodized or brushed-silver aluminum front panel, Spectro Acoustics' Model 2102 has ten individual slide controls per channel with center frequencies of 30, 60, 120, 240, 480, 960, 1,920, 3,840, 7,680, and 15,360 Hz and an adjustment range of ± 15 dB. The slide controls are steel-encased, silicone-damped, and center-detented to ensure long life, low noise, and easy use. With active circuitry replacing inductors, the Model 2102 offers a signal-to-noise ratio better than 90 dB and distortion of 0.006 per cent (controls set to flat). The unit has no level-monitoring lights because, it is claimed, it can handle up to ten times the usual input-signal voltages. Price: \$200.

Circle 120 on reader service card



Mitsubishi Receiver Has Touch-sensitive FM Tuning

□ Mitsubishi, new to the receiver field, is introducing a line of three AM/FM units. The mid-price one, the DA-R10 (shown), features touch-sensitive lock tuning for FM; the automatic-frequency-control circuit is switched off during manual tuning and back on when the knob is released. The tuner also has switchable i.f.-mode selectivity (wide or narrow) to aid tuning in difficult reception areas. The power-amplifier section is direct-coupled. Features include low (18-Hz) and high (8,000-Hz) filters with attenuations of 12 dB per octave, a tone-control-defeat switch, a ten-position volume control, a program-selector switch, an independent selector switch for feeding material

to and dubbing between two tape recorders, and selector switches for two pairs of stereo speakers.

Power output is 45 watts per channel minimum into 8 ohms from 20 to 20,000 Hz with no more than 0.02 per cent total harmonic distortion (THD). Signal-to-noise ratio (S/N) is 94 dB for phono and 106 dB for aux. RIAA-equalization accuracy is ± 0.3 dB from 20 to 20,000 Hz. The FM section's THD in stereo is 0.1 per cent in the wide i.f. position and 0.2 per cent in the narrow position, with a S/N of 84 dB in mono and 80 dB in stereo. The FM frequency response is 50 to 15,000 Hz ± 0.5 dB. With a selectivity of 30 dB, the AM section has a S/N of 52 dB and THD of 0.5 per cent. Measuring 18½ x 6½ x 16¼ inches, the DA-R10 weighs 27 pounds. Price: \$390.

Circle 121 on reader service card



Orthodynamic Yamaha Headphones

□ The new Yamaha YH-100 headphones use Yamaha's orthodynamic design, in which the flat voice coil is photo-etched across the surface of the diaphragm; when a signal is applied to the coil, the diaphragm's response is said to be immediate and uniform across the entire surface. Claimed benefits are lower distortion and improved transient response. Frequency response is given as 20 to 20,000 Hz. With a 1-milliwatt input, the sound-pressure level is 98 dB. Harmonic distortion is less than 0.3 per cent with a 90-dB sound-pressure level. The unit has a divided headband with a soft leather strap that rests on the listener's head; metal bands provide inward pressure to keep the phone housings correctly positioned. The YH-100 comes with an 8-foot cord with standard three-conductor phone connector. Price: \$95.

Circle 122 on reader service card



Philips Turntable with Front-mount Controls

□ The front-mounted controls on Philips' AF729 turntable, which allow operation with the dust cover closed, include speed selection (33½ or 45 rpm), play/reject, and vernier speed adjustment. The cue lever is under the dust cover. There is an electronic feedback system to monitor and control the speed of the belt-driven platter. To aid in acoustic isolation, the AF729 has a free-floating subchassis. Weighted-rms wow and flutter is less than 0.05 percent, and rumble is lower than -65 dB (DIN B). Price: \$199.95, including the friction-hinged dust cover.

Circle 123 on reader service card



Bass Enhancer from Numark Electronics

□ The Model DF120 "Bass Bomb" from Numark Electronics provides a bass boost that is variable in level from 0 to +12 dB and in frequency from 40 to 160 Hz. An infrasonic filter (20-Hz cutoff, 18-dB-per-octave slope) minimizes noise from the turntable, acoustic feedback, and warped records. Specifications include total harmonic distortion of 0.01 per cent, 114-dB signal-to-noise ratio, and stereo separation of 68 dB from d.c. to 10,000 Hz. Dimensions are 4¾ x 2 x 7¼ inches; weight is 2½ pounds. Price: \$99.95. Numark Electronics Corp., Dept. SR, 503 Raritan Center, Edison, N.J. 08817.

Circle 124 on reader service card

(Continued on page 17)

TDK Metal. Now you can have ninety minutes in either case.



TDK sets the metal standard for most metal deck manufacturers. With good reasons. Superior high frequency MOL for extended response. Up to 8 dB greater MOL at high frequencies than any high bias tape. High coercivity and remanence for superior sensitivity and additional recording headroom.

This unsurpassed sound comes housed in two different cases. In the case of the MA-R, there is a unique TDK die-cast metal frame. Its unibody construction creates perfect integrity between sides A and B. This insures against signal overlap, channel or sensitivity loss from one side to the other. The Reference Standard Mechanism assures a lifetime* of superior performance. TDK MA has a computer-molded cassette shell. Like MA-R, it's specially designed for the best interfacing with the 3-head metal deck. And

its Laboratory Standard Mechanism assures years of pure metal sound.

Now in both cases, TDK gives you a choice of 60- or 90-minute lengths. Whichever you choose, you'll hear how TDK makes a perfect case for metal.



*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.

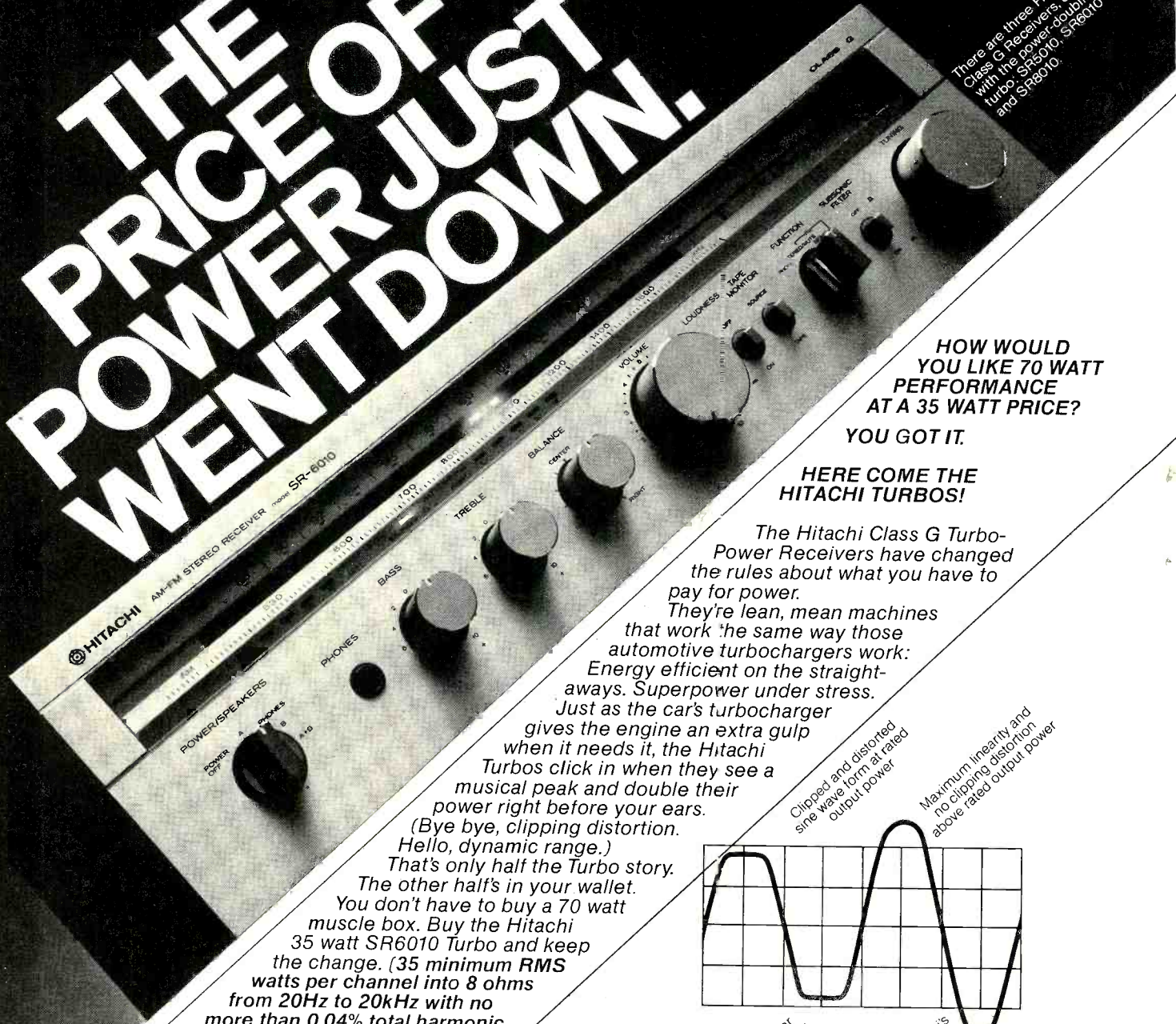
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TDK.

The machine for your machine

CIRCLE NO. 47 ON READER SERVICE CARD

THE PRICE OF POWER JUST WENT DOWN.



There are three Hitachi Class G Receivers, each with the power doubling turbo SR5010, SR6010 and SR8010.

HOW WOULD YOU LIKE 70 WATT PERFORMANCE AT A 35 WATT PRICE? YOU GOT IT.

HERE COME THE HITACHI TURBOS!

The Hitachi Class G Turbo-Power Receivers have changed the rules about what you have to pay for power.

They're lean, mean machines that work the same way those automotive turbochargers work: Energy efficient on the straight-aways. Superpower under stress.

Just as the car's turbocharger gives the engine an extra gulp when it needs it, the Hitachi Turbos click in when they see a musical peak and double their power right before your ears.

(Bye bye, clipping distortion. Hello, dynamic range.)

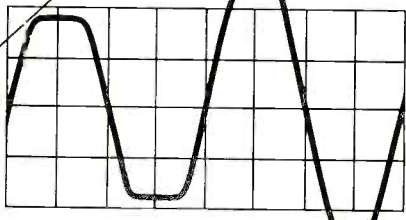
That's only half the Turbo story. The other half's in your wallet.

You don't have to buy a 70 watt muscle box. Buy the Hitachi 35 watt SR6010 Turbo and keep the change. (35 minimum RMS watts per channel into 8 ohms from 20Hz to 20kHz with no more than 0.04% total harmonic distortion.)

The Hitachi Class G Turbo-Power Receivers. Nothing is as powerful as an idea whose time has come.

Clipped and distorted sine wave form at rated output power

Maximum linearity and no clipping distortion above rated output power



Bipolar Transistor

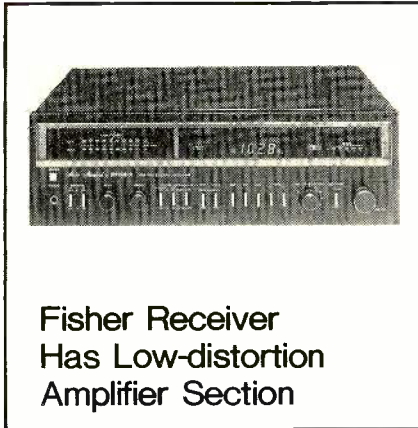
Hitachi's Class G

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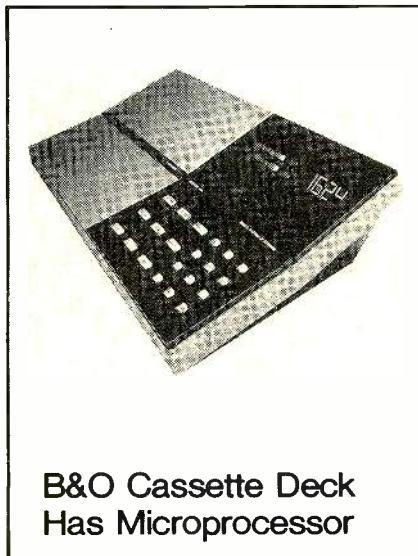
latest audio equipment and accessories



**Fisher Receiver
Has Low-distortion
Amplifier Section**

□ Rated at 50 watts per channel, the Fisher RS250 receiver has a class A-II d.c. amplifier circuit. It is said to combine the low distortion of class-A operation with the higher efficiency of class-B operation. Total harmonic distortion at rated power is less than 0.02 per cent. Mono FM sensitivity is 1.9 microvolts (10.8 dBf). The tuner section has a digital frequency display, dual-gate MOSFET r.f. stage, linear-phase i.f. filters, and a PLL multiplex decoder. Amplifier features include a built-in moving-coil-cartridge pre-preamp, tape/source monitoring for two tape decks, and dual LED bargraph power meters. The RS250 is available in a brushed-aluminum or black finish. Price: \$449.95.

Circle 125 on reader service card



**B&O Cassette Deck
Has Microprocessor**

□ The Beocord 8000 is the first cassette deck from Bang and Olufsen to incorporate a microprocessor. It has the ability to plot tape position in real time, making it possible to tell, in minutes and seconds, how much

tape has been played and to relate tape length to the duration of a recorded piece. It also features an automatic search system; when the appropriate time is fed into the machine, the tape will automatically advance to the start of the desired selection. An automatic memory, functional in the record mode, makes it possible to return to the previous starting point by pressing a button.

Specifications for the two-head (erase and record/play) Beocord 8000 include wow and flutter of less than 0.1 per cent, frequency response 30 to 16,000 Hz \pm 2.5 dB (with metal and chrome tapes), and a signal-to-noise ratio of 68 dB (with metal tape and Dolby noise reduction). Dimensions are approximately 20 x 15 x 12 inches, weight about 16 pounds. Price: \$895.

Circle 126 on reader service card

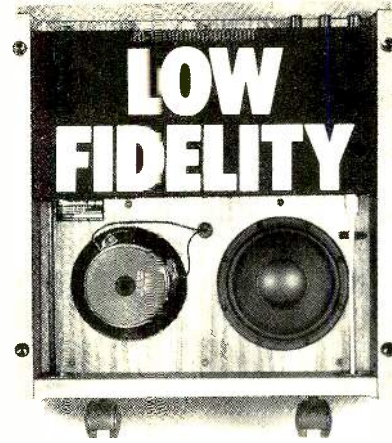


**Micro-Acoustics'
Lightweight
Phono Cartridges**

□ Micro-Acoustics' System II cartridges were designed to be lightweight. Two of the three models available, the Model 630 (shown) and the Model 3002, weigh only 2.5 grams and track at from 0.7 to 1.4 grams; the 4-gram Model 382 has a rated tracking-force range of 0.75 to 1.5 grams. The Models 630 and 3002 both have beryllium cantilevers and a "Micro-Point II" stylus shape that resembles that of a record-cutting stylus. The transduction method uses "electrets" directly coupled to the cantilever, which is said to make the cartridges' performance immune to differing preamp input resistances and capacitances. Frequency response of the top-of-the-line Model 630 is given as 5 to 20,000 Hz \pm 1 dB; output voltage is 3.5 millivolts and channel separation 30 dB at 1,000 Hz. Styli are user replaceable. All the cartridges are supplied with add-on weights for use in arms and turntables that require higher cartridge mass. Prices: Model 630, \$250; Model 3002, \$150; Model 382, \$120.

Circle 127 on reader service card

(Continued overleaf)



AUDIO PRO B2 50 SUB WOOFER

**Without fidelity
in the low
frequencies,
no speaker can
deliver full high
fidelity.**

But the reason for adding the Audio Pro B2-50 Subwoofer to your system goes much deeper than having the bass essential to "life-like" sound reproduction.

The powerful built-in amplifier and fully adjustable passive/electronic crossover of the B2-50 enable your main amp and speakers to operate more efficiently, with less distortion.

Even the best of systems will become far better with the addition of a subwoofer. And the speed, accuracy and power of Audio Pro's patented "Ace-Bass" principle make the B2-50 the best subwoofer system.



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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.

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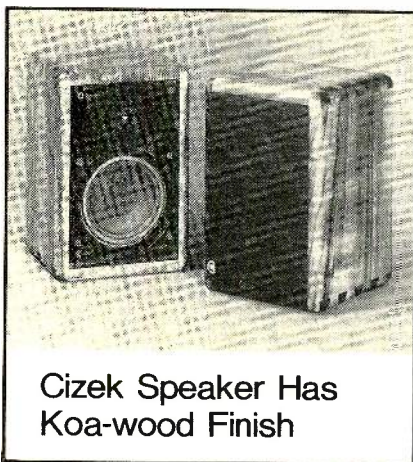
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CIRCLE NO. 11 ON READER SERVICE CARD

New Products

latest audio equipment and accessories



Cizek Speaker Has Koa-wood Finish

□ The Cizek KA-1 speaker has a 6½-inch acoustic-suspension woofer and a 1-inch dome tweeter. System impedance is a nominal 4 ohms, and efficiency is 86 dB sound-pressure level at 1 meter with a 1-watt input. Frequency response is given as -3 dB at 70 Hz, rising to flat at 100 Hz and within ±1.5 dB through the rest of the audible range. The 13½ x 9 x 8¾-inch cabinet is made of solid 7/8-inch-thick Hawaiian koa wood with rounded dovetailed corners for structural strength and better dispersion. The drivers are mounted on a 1-inch-thick panel of Acuthane, a urethane-based material. The grill is of acoustically transparent foam. Price: \$590 per pair. Cizek Audio Systems, Inc., Dept. SR, 15 Stevens Street, Andover, Mass. 01810.

Circle 128 on reader service card

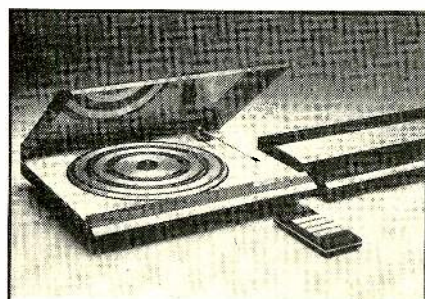


Quartz-locked Tuning in Onkyo Receiver

□ The quartz-locked tuning circuitry in Onkyo's TX-5000 receiver is activated as soon as the user's fingers leave the tuning knob after tuning the unit close to the desired frequency. The amplifier section of the unit has a separate extremely low-frequency feedback loop said to stabilize frequency and phase response with speakers and to lower intermodulation distortion. Output power is specified as 65 watts per

channel into 8 ohms from 20 to 20,000 Hz with no more than 0.03 per cent total harmonic distortion. The RIAA phono-input frequency deviation is ±0.5 dB; phono signal-to-noise ratio is 76 dB (IHF A-weighted). The tuner section's usable sensitivity is 1.8 microvolts in mono, 4 microvolts in stereo; FM frequency response is from 30 to 15,000 Hz ±1.5 dB. No specifications are given for the AM section. Dimensions are 22½ x 7½ x 14½ inches. Price: \$499.95.

Circle 129 on reader service card



Bang & Olufsen Turntable Has Low-mass Arm

□ Made of lightweight extruded-aluminum tubing, the "low-inertia" tone arm in the B&O Beogram 3404 turntable is fitted with a low-mass MMC20EN elliptical-stylus cartridge. The complete cartridge/tonearm combination has an effective mass of 6.5 grams and a resonant frequency of 14 Hz. The unit also has a pendulum-spring suspension system said to be virtually immune to external shock and vibration, automatic skating compensation, and electronic-servo turntable drive. Turntable operation is automatic and includes automatic speed selection. Controls are on a slanted front panel and are accessible with the dust cover closed. When connected to B&O's Beomaster 2400 receiver, the Beogram 3404 can be operated by remote control. The unit measures 17¼ x 14½ x 3½ inches. Wow and flutter is less than 0.025 per cent and DIN-measured rumble is stated as -65 dB. Price: \$495.

Circle 130 on reader service card

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

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



“...but it sounded sensational in the store.”

You've just invested \$800 in the hi-fidelity system of your dreams. Now it's turning into a nightmare. Where has the sound gone? The sound that sold you on the system? The answer is all around you.

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Hi-fidelity systems are made to exact specifications. But, those specifications don't include your room dimensions and "personality": i.e., drapes, carpeting, ceiling height, etc. And, they all affect the sound your system ultimately delivers.

How ADC Sound Shaper® equalizers custom-tailor sound.

In a nutshell, ADC Sound Shaper® equalizers segment the audio frequency range and adjust the level of each segment to achieve the sound you want. And, unlike the basic "tone control," an equalizer can balance even the most difficult midrange frequencies.

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from even your old "goodies," improve record, tape and broadcast quality and, in the case of the Sound Shaper Two, allow you to make and dub studio-quality tapes without a studio.

Re-mix records while you listen.

A recording engineer mixes and balances music based on his ears. Which may mean that you don't hear what you want to hear.

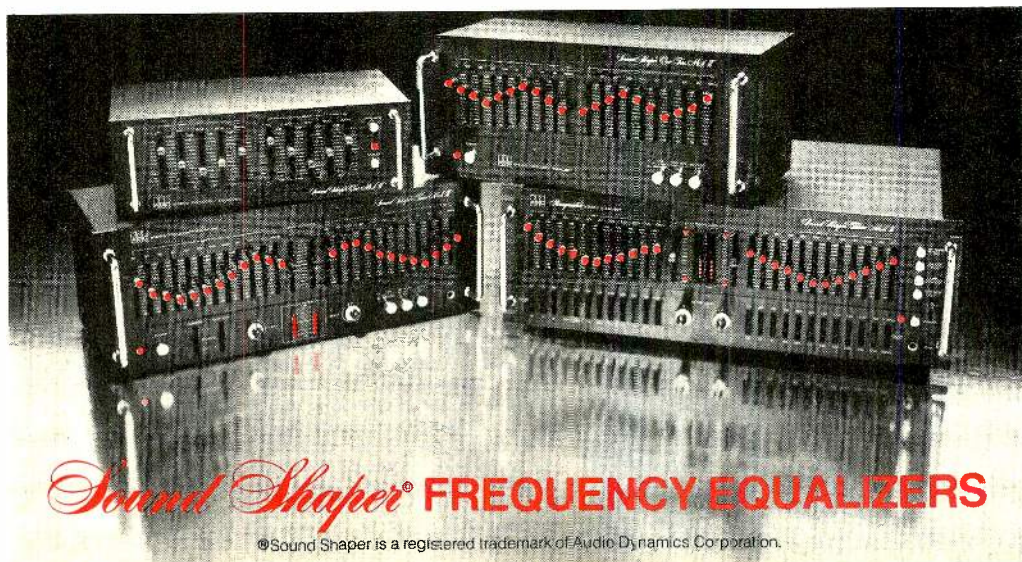
With an ADC Sound Shaper, you can. Want more vocal and less instrumentation? — You can have it. It's easy. And, the LED-lit slide controls available on most models make it even easier, because you can visually plot the equalization curve.

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ADC makes several different Sound Shapers. Everything from the basic Sound Shaper One, to our top-of-the-line Sound Shaper Three, the *Paragraphic*™ equalizer.

For more information, just look for the "Custom-Tailored Sound" display at fine audio stores everywhere.

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Interface: C Series II is the fulfillment of our six-year association with optimally vented speakers based on the theories of A.N. Thiele—speaker designs first introduced by Electro-Voice in 1973. The Interface: C offers you a unique combination of high efficiency and high power capacity—the only way to accurately reproduce the 120+ dB peak sound pressure levels found in some types of live music.

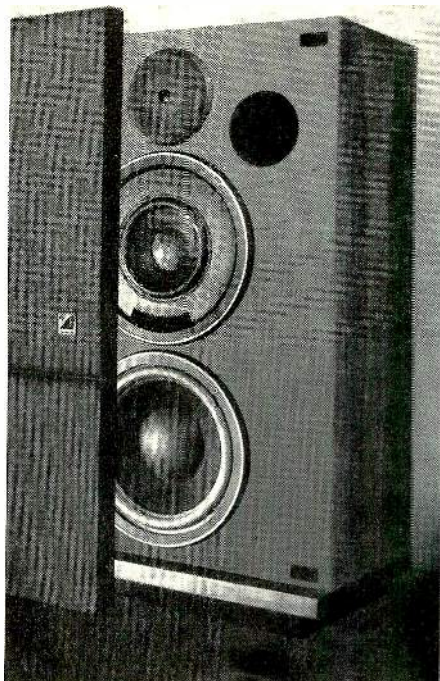
The SuperDome™ tweeter, an E-V exclusive, and the VMR™ vented midrange driver, the first to apply optimally vented design to mid frequencies, ensure your music is reproduced without the coloration normally found in other high-efficiency drivers. An honest 30 Hz low end totally eliminates the need for expensive subwoofer assemblies.

When you spend \$1,000 for a speaker system, get your money's worth. Audition the Interface: C Series II at your nearest Interface dealer. If you want a speaker that sounds like music, the Interface: C Series II is the one you'll buy.



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Audio Q. and A.

By Larry Klein

Technical Director Klein looks for the appropriate jacks to plug into. Does this mean minicomponents are on the way out?



Power and Dynamics

Q. *I've read several articles about equalizers that say a 3-dB boost requires double the output power from the amplifier. It seems to me that most amplifiers will run out of power pretty quickly under that circumstance. Won't completely digital discs—and even the dbx-encoded discs—present the same problem? Will I need a thousand watts per channel?*

IRWIN GOLDMAN
Syosset, N.Y.

A. The question of dynamic range involves not just the loudness, but also the softness of sound reproduction. How loud the signal can be is limited by the maximum sound-pressure level your speaker can deliver when driven by the power your amplifier can provide. Either the speaker or the amplifier may be the limiting factor. How soft it can be is limited by the noise on the disc and in your system, plus the acoustical noise in your listening room. The limiting factor, with good equipment, is usually the disc noise. With that as the background, let me turn you over to Jerome Ruzicka of dbx. I asked him recently about the special demands that dbx-encoded discs might make on amplifier power, and here's what he said:

"The digitally mastered dbx disc has the potential of delivering a 90-dB dynamic range. The question is whether or not this implies a significant increase in amplifier-power requirements. First (in my opinion), the more power a person can afford the better, whether we're talking about dbx-encoded discs or not. Of course, the existence of greater dynamic range on dbx discs suggests that greater power capability can be put to good use. But what about the person with modest power, say 50 watts per channel (I think that is modest today!)? Can he benefit from dbx discs? The answer is yes.

"If one sets the volume control so that the peak levels are as high as those normally listened to (and which presumably do not drive the amplifier into distortion), the real benefit of large dynamic range is immediately apparent. Record-surface noise is inaudible, and other noises that mar the music performance on conventional records (rumble, groove echo, etc.) are also virtually eliminated. In other words, you can listen to the music, not to the record. As pointed

out by Julian Hirsch in the January 1980 issue of STEREO REVIEW: 'Operating the system in this manner requires little or no additional power unless you have been playing records at reduced levels to keep the noise from being audible.'

"Now, if one wants to play the music louder than in the past, more power will be needed no matter what type of record is being played. And, as you know, a lot of additional power is needed to increase the perceived loudness of sound. (An increase in the peak-to-average signal levels will affect the perceived overall loudness level, but that's an additional complex factor I'd like to save for discussion another time.)"

Although it was answered (indirectly) by Mr. Ruzicka, the question of "running out of power" is worth a few more words. Yes, a 3-dB increase does mean a doubling of the power, but if the average power output is, say, 0.5 watt, then there's no real problem. Difficulties arise only when a system is being played close to its loudness limits normally. A "mere" 3-dB boost can then send a modestly powered amplifier into severe clipping, with possible destruction of mids and tweeters.

Japanese Labeling

Q. *While reading a Japanese hi-fi magazine brought back by a friend, I suddenly became aware that apparently all Japanese hi-fi products have English front-panel labeling, including some never exported to the U.S. Do you know why?*

JESSE WARREN
Grand Rapids, Mich.

A. It occurs for the same reasons that most perfumes—whatever their country of origin—have French names. Glamour, mystique, and supposedly superior know-how are all subliminally communicated by foreign labeling—even though the product is locally produced (the French seem to be the only nationality immune to such foreign intrigue—but they, after all, gave us the word "chauvinism").

I first became aware of the Japanese belief that English somehow connotes high technology during a visit to Japan about seven years ago. In a Tokyo hi-fi store I came across a new but not very complex

(Continued on page 22)

Recording studios and radio stations that pride themselves on the quality of their master tapes and broadcast signals specify Studer Revox audio equipment.

If you take the same kind of pride in the quality of the music reproduction in your home, you'll specify Studer Revox, as well. Like the new B780, the first receiver good enough to be a Revox.

A sophisticated microprocessor and quartz-crystal reference oscillator provide the B780 with a digital synthesis FM tuning system so accurate that the only way to equal

it manually would require a laboratory distortion analyzer.

The microprocessor memory also lets you "program" the frequencies (and even the optimal antenna

rotator settings!) of up to 18 stations,

for instant pushbutton recall.

A digital frequency readout tells you exactly where you are, and

a signal strength meter calibrated directly in dBf tells you just how much signal your antenna is supplying.

After equipping the world's most advanced sound studios, Studer Revox is ready for your living room.

And if stations in your area utilize Dolby[®] FM processing, a simple plug-in circuit board is available.

LED digital indicators independently show which of the five stereo inputs is being fed to your recorder(s) and which to your speaker system(s). Separate bass, treble, and presence controls (plus defeat switch), along with separately switchable high- and low-cut filters, ensure proper tonal balance between nearly any music source and your living-room/loudspeaker acoustic environment. And the power amp features individual-stage, local feedback design for lowest TIM (transient intermodulation distortion) and a sophisticated SOAR protection circuit that safeguards both the amplifier and your speakers.

Of course, professional-oriented designs cost more than "home consumer" equipment. You can feel it in the controls and you'll hear it, not only now, but years from now. With Studer Revox, professional design is a matter of pride, and if you share that pride in sonic quality, you'll visit your Revox dealer.

STUDER REVOX

Studer Revox America, Inc. 1425 Elm Hill Pike
Nashville, TN 37210, (615) 254-5651
Offices: LA (213) 780-4234; NY (212) 255-4462

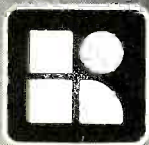
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Are your records really clean? Vac-O-Rec[®], the sure way.

There are plenty of record cleaning products around, but none of them can match the Vac-O-Rec system. Vac-O-Rec rotates the record past a metalized mylar brush which discharges static electricity. This in turn loosens the dust. Then, separate super soft mohair brushes gently reach into the grooves to loosen and effectively remove micro dust. Finally, all dust and dirt is vacuum cleaned away.

The result — a really clean record free of dirt and surface noise. Vac-O-Rec is UL and CSA listed. Don't put up with noise, or risk damage to your priceless records. See Robins Vac-O-Rec at your dealer. Manufactured in U.S.A. By Robins Industries Corp., Commack, N.Y. 11725.



ROBINS

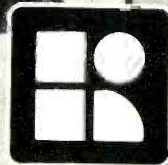
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It whistles while it works

Listen to the Robins WhistleStop electronic head demagnetizer whistle as it eliminates performance-robbing residual magnetic build up from your tape head. Hear the difference in sound quality and reduced distortion. Simply insert like any cassette. Complete with batteries. At your hi-fi dealer.



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COMMACK, NEW YORK 11725

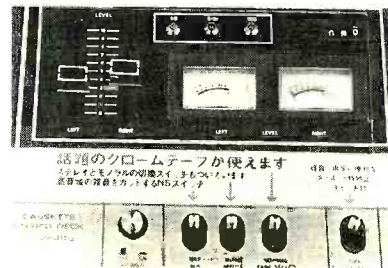


US

cassette deck that had a transparent overlay bearing Japanese characters interpreting the English labeling underneath (see photo below).

On a more recent trip I learned that English usage had gotten so far out of hand that even Japanese home appliances began appearing with English labeling. That apparently was the last straw, for an organization of outraged housewives (OOH?) was promptly formed to combat the inappropriate and excessive intrusion of English into Japanese domestic life.

One final note relating to the Japanese fascination with foreign hi-fi technology: During a recent visit to one of the larger Akihabara audio stores I noticed several very esoteric U.S. (and English) products whose names I knew but had never seen on the shelves of a U.S. dealer. And during the recent CES I had lunch with a California manufacturer of very sophisticated and costly amplifiers. He told me that almost a third of their production goes to Japan, and for that reason they've had to revise the component-parts list in their amplifiers. It seems that the Japanese high-end dealers insist that there be no Japanese-made resistors or capacitors in esoteric U.S. products lest they somehow lose their "import" glamour for the Japanese audiophile. The fact that the Japanese parts are sometimes



better (and usually cheaper) is apparently not relevant. I guess for some people, the grass is always greener . . .

IC Reliability

Q. I am used to rugged point-to-point wiring and selected internal components (things that were once labeled "military"). The exceedingly complex circuits of today's ICs are measured in microns, which makes me wonder how dependable they are and how well they stand up to constant use. What's your view on this?

JOHN M. GREENE JR.
Vallejo, Calif.

A. I was a hi-fi service technician (repairman) during the heyday of vacuum-tube hi-fi, and, believe me, things are a lot better in terms of reliability now. Then it used to be recommended that FM tuners be re-aligned and an amplifier's output tubes be checked (and probably replaced) annually. The high mass of the component parts of these large, "rugged" units made shipping them a risky business, as evidenced by frequent "dead on arrival" complaints. And once they were set up and working, the normal heat of operation would slowly but inevitably cook the life out of the internal parts. □

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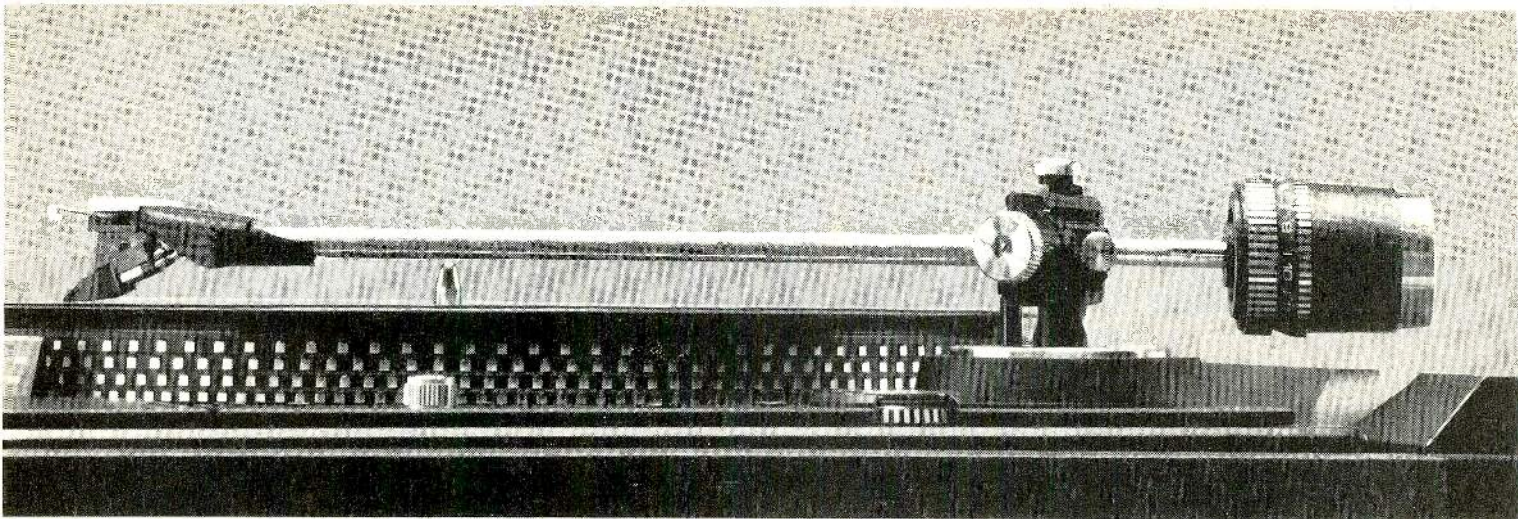
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LIMIT ONE COUPON PER PURCHASE. OFFER EXPIRES, JUNE 30, 1981.

SCOTCH® MASTER™ CASSETTES. THE TRUTH COMES OUT.

3M



All your records will sound better with Dual's new ULM tonearm and cartridge system.

Even if they look like this.

Although none of your records may be in such bad shape, many are probably warped enough to present serious problems to conventional turntables.

The high inertia of a typical tonearm and cartridge combination, with approximately 18 grams total effective mass, causes the stylus to dig in riding up the warp and to take off on the way down. Tracking angle and tracking force vary widely—as much as 30 percent. And a warp as small as 1.0 mm (which is barely discernible) can generate harmonic distortion of 11.5 percent. That's audible!

These problems have now been solved by Dual's new Ultra Low Mass tonearm and cartridge system.

The potential for this solution has existed ever since the development of Dual's dynamically-balanced tonearm with its gyroscopic gimbal suspension and straight-line tubular design.

Dual's research into the effects of mass on record playback led to a collaboration with Ortofon. A cartridge was developed with substantially less mass than any in existence. It weighs just 2.5 grams, including mounting bracket and hardware.

At the same time, the mass of the Dual tonearm was further reduced so that a perfectly matched tonearm and cartridge system emerged. Its total effective mass is just 8 grams. That's less than half the mass of conventional tonearm and cartridge combinations.

Tracking a record with the same 1.0 mm warp, the ULM system reduces harmonic distortion to only 0.012 percent. That's 958 times less than that produced by the conventional tonearm and cartridge!

Not only is the overall sound audibly improved, but stylus and record life are significantly extended.

To experience the demonstrable advantages of ULM, bring a badly warped record to your Dual dealer. Listen to it played with the ULM tonearm and cartridge. (All nine new Dual turntables feature this system.)

You will hear the difference that ULM can make on all your records.

For the complete ULM story, please write to United Audio directly.

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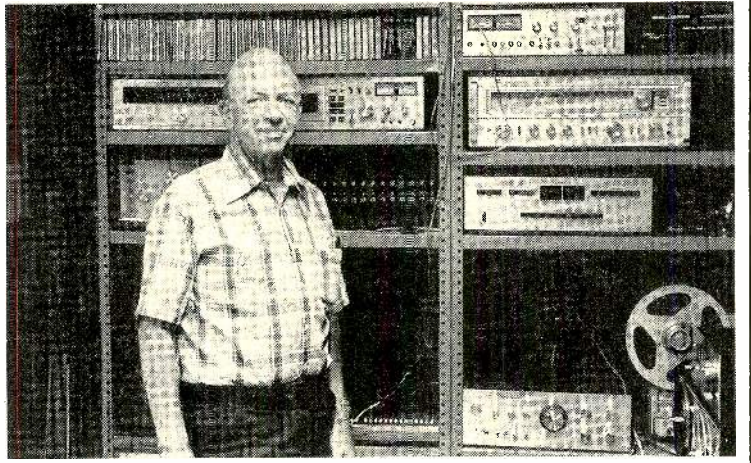
A major breakthrough in record playback technology.

Dual

United Audio
120 So. Columbus Avenue
Mt. Vernon, New York 10553.

Technical Talk

By Julian D. Hirsch



● Hi-Fi Is Getting Better ●

GIVEN the endless, on-going parade of new audio products that pass through my laboratory, it is sometimes difficult for me to find time to stop long enough to appreciate the technological improvements that have taken place over the years. Each new product line is introduced boasting a host of "new" circuit designs or a dramatic reduction in one or another form of distortion and is accompanied by the not-very-subtle suggestion that startling improvements in sound quality will result from these design innovations.

Over the years, I have developed what I think is an understandable "show me" attitude when evaluating new products. If the improvements in performance can be measured, well and good. I am always pleased to praise improvements in any product category. And if, by some chance, the "improvement" can also be *heard*, so much the better. Obviously, *major* breakthroughs (such as Dolby noise reduction, acoustic-suspension loudspeakers, and the long-playing record) occur only rarely, but evolutionary advances take place constantly. This progress in hi-fi component performance is brought home to me forcibly whenever my test instruments are no longer capable of measuring the performance claimed for a product. It is necessary for me to upgrade my lab equipment periodically by purchasing new, more advanced instruments. (Somehow, by some strange corollary of Murphy's Law, test-equipment performance always seems to lag behind that of the products to be measured.)

When I began evaluating audio components some twenty-six years ago, my test in-

struments were principally Heathkits, and they were not to be sneered at, since the 0.06 per cent residual distortion of the Heath audio generator and analyzer was below the limits obtainable with much more expensive, commercially built laboratory instruments of the day. Since a typical hi-fi amplifier of that time was considered good if its distortion was below 1 per cent, I was able to stay ahead of hi-fi progress for several years without a major investment in new test equipment.

In those pre-stereo days, my Boonton 202B FM signal generator, with its residual distortion of about 0.5 per cent, was capable of measuring the performance of most FM tuners. Around 1960, stereo became a commercial reality, and solid-state products reached the market in numbers. We added a Scott stereo generator to modulate our old Boonton FM signal generator for stereo measurements. (In truth, this left something to be desired with respect to channel-separation measurements, but then, so did the tuners of that day!)

With many of the early transistor amplifiers, measuring distortion was less of a problem than keeping the amplifier from self-destructing during the measurement. Our trusty Heath instruments were, for the most part, able to cope with early solid-state amplifiers, which were certainly no better than tube amplifiers in such areas as distortion and frequency response.

This restful situation was short-lived, however. By the early Sixties we began to receive amplifiers with claimed distortion levels of 0.01 per cent or even lower; FM tuners followed suit with rated distortions of

0.3 per cent or better. The time had come to retire our Heathkits, which had given us nearly ten years of faithful and reliable service. In fact, some of those units, now over a quarter-century old, are still in good working order!

A large improvement in our test equipment's performance was necessary, and for audio measurements this took the form of acquiring a Radford low-distortion oscillator and distortion-measuring set. With a residual distortion of about 0.002 per cent, this was better than most of the amplifiers we were to encounter for the next few years. The venerable Boonton 202B signal generator was relegated to being the No. 2 generator for those FM measurements requiring two signal generators, and a Sound Technology 1000A replaced it. Its residual distortion of less than 0.1 per cent and noise level of nearly -80 dB (plus a 50-dB channel-separation specification) made it more than the equal of any tuner of the time (the mid to late Sixties), and we were confident that we would be ahead of product performance for a good while. That confidence was sadly misplaced!

In the Seventies, we replaced the early Radford distortion analyzer with their new Series III version; it was easier to use but it didn't extend our measurement capability much. For that a Hewlett-Packard 3580A spectrum analyzer was the answer; with it we could make accurate measurements down to 0.003 per cent or lower. Since there was (and still is) no *need* for home-entertainment audio equipment to have a lower distortion level than that, we were set, we

Tested This Month

ADC Integra XLM III Cartridge • Fisher DD-300 Cassette Deck
Bozak MB-80 Speaker System • Heath AP-1800 Preamplifier
Onkyo TX-5000 AM/FM Stereo Receiver

thought, for the foreseeable future. Wrong again!

In a growing number of cases, our amplifier distortion measurements ended by being the residual of our test equipment. In other words, the distortion from the amplifier under test was less than that generated in the test equipment, a sure sign that our instruments were no longer adequate for measuring the products we were evaluating. The 0.002 to 0.003 per cent "floor" had to be breached, and we did this a couple of years ago with a Hewlett-Packard 239A low-distortion oscillator. In combination with the Radford analyzer and the H-P spectrum analyzer, this enabled us to make distortion measurements down to 0.0003 per cent (-110 dB), safely below the capabilities of *any* consumer product—or that, at least, is what we thought.

Well, once more we had underestimated the pace of progress. With more than one new amplifier we have reached the bottom limit of our measurement capability. A parallel condition has come about with FM tuners, many of which outperform the Sound Technology 1000A generator in distortion, noise, and sometimes in channel separation. Since only a couple of very expensive custom-modified laboratory signal generators can match the claimed performance of today's best tuners, we have probably come up against another "brick wall."

I have recounted this saga of the contest between the laboratory and the marketplace only to show how far the performance of today's home-entertainment electronics has advanced in the last ten to twenty years. A pertinent question for the reader to ask at this point would be, "What do these improvements mean to me? Can I *hear* any difference because of them?"

MOST people are aware that the law of diminishing returns applies to improvements in any product category. Almost anything can be made "better" at increased cost, but sooner or later a large increment of cost produces such a small improvement that it is not economically justified. In my opinion we have long since passed this point in the development of most types of hi-fi equipment (specifically the electronic components). The situation is ameliorated by the fact that many of these improvements have come about through technological ad-

vances that have added little or nothing to product cost, so that the consumer has been able to "have his cake and eat it, too." It is clear that an inflated 1980 dollar buys much more audio performance, by any objective standard, than a 1970 or 1960 dollar ever did.

Let me give a specific example. To refresh my memory of what things were like "in the good old days," I looked up my file on a stereo receiver I tested in late 1968. It was a transistor receiver rated to deliver 50 watts per channel to 8-ohm loads with 1 per cent distortion. Its IHF usable FM sensitivity was rated at 1.6 microvolts, and the FM distortion rating was 0.65 per cent. This receiver sold for \$340 in 1968, which would be something like \$700 translated into today's dollars!

In many respects, such as RIAA-equalization accuracy and basic frequency response, this unit was comparable to the typical inexpensive receiver that today sells for under \$300. In those days, before the FTC ruling on advertised power ratings, this 50-watt-rated receiver delivered *just* 50 watts at 1,000 Hz at the clipping point, with distortion typically 0.2 to 0.4 per cent at most power outputs. At 40 watts output, however, the high-frequency distortion increased considerably, to 3 per cent at 20,000 Hz. The FM sensitivity was 2.3 microvolts, with distortion of 0.75 per cent in mono.

By today's performance standards, this 1968 receiver would barely qualify as a high-fidelity component, but in its day it did a fine job and sounded perfectly good. As a matter of fact, we would be willing to bet that if heard in a double-blind comparison, it would be difficult to distinguish between it and any contemporary \$300 receiver on an FM broadcast, and possibly even when playing records. Nevertheless, consider how much more performance one's money buys today.

Most manufacturers today would have their public believe that these endless performance improvements are *audibly* beneficial. In most cases this is simply not so. There may be no *disadvantage* in having an amplifier whose distortion at full power is less than 0.01 per cent as compared to another product with ten to twenty times that amount (although it is claimed by some that the large amounts of feedback used to get those minuscule distortion readings *do* de-

grade some aspects of amplifier performance), but we find that there is certainly no audible advantage either.

Compared with the amplifiers of a few years ago, most current models deliver considerably more power—30 watts and up even in the lower price ranges—and usually have less than 0.1 per cent distortion at any usable power level. There can be no argument that 30 to 50 clean watts are better than 10 to 15 not-so-clean watts, so it might seem that the consumer is getting a good break. On the other hand, there is absolutely no scientific evidence that reducing distortion to the vanishingly low levels we find today (under 0.001 per cent in many cases) has any audible benefits whatever.

Keep in mind that *any* recorded or broadcast program may have *at least* a thousand times as much distortion (by the time the signal reaches the amplifier inputs) as almost any really good amplifier, and it does not take any technical expertise to judge the *relative* importance of these two sources of distortion—the program itself and one's amplifier. True digital recordings, on disc or on tape, will make a radical change in that situation, but they are not here yet, and their tremendous dynamic range may make severe demands on today's amplifiers and/or speakers that they will be hard pressed to meet.

THE noise levels of many of today's amplifiers are somewhat lower than those we have seen in the past, although the contrast with earlier products is not as striking as in the case of distortion. Again, except for digital-playback program sources or such "intermediate" products as dbx-encoded records, *any* program source used today will have much more inherent noise than will be contributed by any amplifier, so that paying a lot of extra money for a few more decibels of dynamic range in the form of lower noise in the amplifier may not be economically justifiable.

It is not my intention to make light of the performance levels achieved by present-day amplifiers. As a group, they are superb products with accurate phono equalization and freedom from overload, in many cases with useful operating conveniences and attractive appearance. Further, the problems of fragility and self-destructive tendencies of the earlier transistor amplifiers have been resolved, both by more rugged output devices and by more effective protective systems.

However, to remain competitive in today's market, where most amplifiers are pretty much alike except for "cosmetics," a few control features, average and peak power outputs, and their ability to drive difficult loads, many amplifier manufacturers have set up straw men to be knocked down by their latest creations. Most of the obscure or newly discovered types of distortion we have been hearing so much about, whether arising from switching anomalies in the output stage or from various slew-induced causes, fall into this category. With enough effort, all of them can be induced in the laboratory or under other artificial conditions, but they have little or no connection with what occurs in the real world. I would not ask anyone to take my word for that; just ask yourself when was the last time you

(Continued on page 28)



"... We apologize for the 0.0026 per cent wow and flutter in the final passage of the last recording."

AKAI MINI-COMPONENTS. FOR PEOPLE WITH MORE TASTE THAN SPACE.



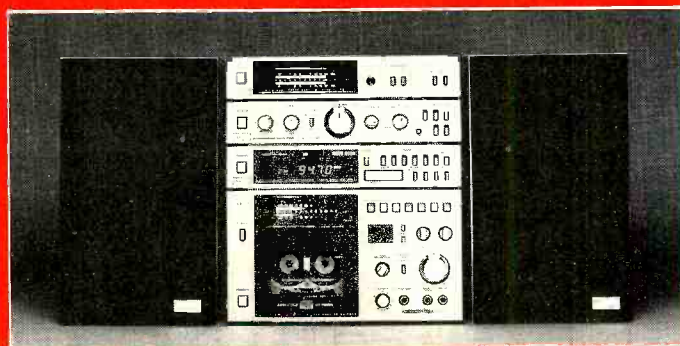
Through the magic of LSI technology, pulsed power supplies and a unique mini circuit board design, AKAI has masterfully managed to craft a collection of audio components that rivals many systems twice its size. The new UC-5 series.

For starters, you'll find gold-plated pin jacks and input terminals standard throughout to minimize distortion and maximize durability.

And an optional infrared remote control unit that allows operation of every major function within the system.

AKAI's steadfast dedication to quality doesn't diminish with the size of the package.

Further proof. A pre-amp with a phono cartridge selector for either moving magnet or moving coil cartridge, two tape monitors, tape dubbing, tone control



The UC-5 series. Both pre-amp and amp, digital tuner, metal cassette and 2-way bookshelf speakers.

defeat switches and more.

Signal-to-noise is 105dB and THD is a very tidy 0.005%.

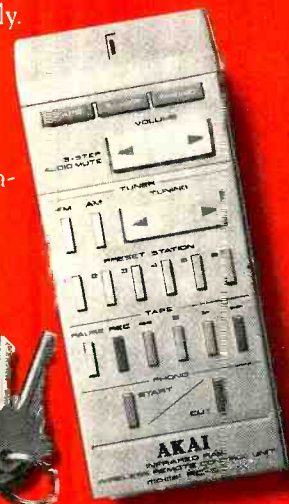
Next up, a DC power amp including fluorescent power meters, clipping indicator, subsonic filter and pulsed power supply.

On to the quartz synthesized AM/FM tuner, with five-LED signal strength indicators, digital frequency display, six-station preset capability, and both auto and manual tuning.

And our *metal-capable* cassette deck rounds out the package, with two DC motors, twin field super GX Head, solenoid controls, fluorescent bar meter with 2-step peak level indicator and an electronic LED tape counter. Plus timer recording; auto stop, memory, and auto play/rewind/repeat.

All in all, a pretty substantial package of components that measures a fashionably lean 10 7/8" wide. Incredible.

And for the music lover with more taste than money, AKAI offers the economically-minded UC-2 series with integrated amp. Coupled



Our optional infrared remote control unit allows operation from across the room.

with a pair of their own specially designed two-way speakers, both the UC-5 and UC-2 aptly prove you can get giant stereo sound.

Without cramping your style.

Write to AKAI, P.O. Box 6010, Compton, CA 90224.

A K A I

YOU NEVER HEARD IT SO GOOD

heard one of these special distortions, with positive proof that it was from the claimed source and no other. I have myself yet to experience that moment of revelation, which may help to explain some of my audio agnosticism, but I am prepared to change my mind on the matter if presented with a convincing demonstration.

The marketing dilemma faced by most hi-fi electronics manufacturers was described succinctly by Larry Klein when he noted that each manufacturer has the problem of convincing the buying public that his new models are somehow superior both to

his own models of last year and to his competitors' models of this year. This is obviously a terribly difficult task when the equipment is *all* so good.

To sum up: today's amplifiers (and the amplifier sections of receivers) are, as a class, vastly superior to their predecessors. As a matter of fact, they are much better than they have to be. I think I can safely say (here we go again) that distortion levels will not be routinely reduced below 0.001 per cent, but if they are I do *not* intend to try to keep up with the challenge of measuring them! Since we have already reached the

mini-millennium (one-thousandth of 1 per cent), I do not expect any amplifier manufacturer to *backtrack* and downgrade his products deliberately in the name of reason and common sense, but I fervently pray that the race toward zero distortion stops here and now in favor of improvements in other areas of amplifier performance.

In future issues I will discuss some other hi-fi components and how they have evolved over the years, as well as how close they are at present to the state of perfection sought by so many designers—and by the most dedicated audiophiles. □

Equipment Test Reports

By Hirsch-Houck Laboratories



ADC Integra XLM III Cartridge

THE ADC Integra series cartridges derive their name from the integration of a high-quality induced-magnet cartridge with a molded carbon-fiber head shell, a design that provides benefits not always realized when a separate cartridge and head shell are used. The cartridge itself is a version of ADC's well-known XLM, in which the magnetic armature (near the stylus-cantilever pivot) is machined to fit precisely into a suspension block that performs both positioning and damping functions for the moving system. A fixed magnet induces magnetic flux in the armature, whose motion distributes it between the fixed pole pieces that pass through the coils embedded in the cartridge body. The stylus assembly is easily replaceable by the user.

The XLM cartridge has been integrated with a slender supporting structure molded of conductive carbon fiber. This material provides an electrical path for draining static charges to the system ground, shields the external cartridge leads, and results in a mass reduction of 25 to 50 per cent as compared to equivalent separate pieces.

The Integra cartridge has a four-pin plug that mates with the socket on the end of any tone arm designed to accept the standard four-pin head shell. Since not all tone arms are designed for the same stylus overhang distance (normally about 50 mm for the distance between the stylus and the end of the tone arm), the position of the cartridge in

the Integra is adjustable over a range of 0.32 inch (8.13 mm). In addition, the cartridge assembly can be tilted in the vertical plane through a range of ± 8 degrees to compensate for differing arm heights above the record surface. This allows the vertical tracking angle of the cartridge to be adjusted to its optimum value with any arm simply by pivoting the cartridge to make its bottom surface parallel to the record. Thumb screws on the sides of the cartridge body lock the overhang and vertical-angle settings once they have been made.

The total weight of the ADC Integra cartridge is 12 grams, compared to the 18 to 20 grams of a typical combination of a cartridge and a separate head shell. Most tone arms can be balanced with a 12-gram load, but for those that cannot, ADC supplies two small auxiliary weights, totaling 3 grams, that can be screwed into the position-locking screws if they are needed. The cartridge is also furnished with a small stylus-cleaning brush.

There are three models in the ADC Integra series, designated XLM I, XLM II, and XLM III. They differ only in their stylus dimensions and related characteristics such as tracking force and high-frequency response. We tested the top model, Integra XLM III, which is fitted with a 0.2 x 0.7-mil nude elliptical stylus designed to track at forces between 0.9 and 1.5 grams. Price: \$130.

● **Laboratory Measurements.** The specified load for the ADC Integra XLM III is 47,000 ohms in parallel with 275 picofarads (pF) of capacitance. We installed the cartridge on the tone arm of a Pioneer PL-400 record player with a total load capacitance of 315 pF. When the vertical angle was set as closely as possible to the correct position, the measured vertical tracking angle was 24 degrees.

The frequency response, measured with the CBS STR 100 test record, was ± 1.5 dB from 40 to 20,000 Hz. A measurement up to 50,000 Hz with the JVC TRS-1005 record showed a smooth reduction of output above 20,000 Hz to about -6 dB at 30,000 Hz, but with no signs of the usual high-frequency stylus resonance. The 1,000-Hz square-wave response with the CBS STR 112 record was a nearly ideal square wave with a single small overshoot, also indicative of a well-damped high-frequency resonance. The channel separation was more than 30 dB up to 1,000 Hz, falling to about 20 dB at 5,000 Hz and 10 to 15 dB between 10,000 and 20,000 Hz. The JVC record showed strong, uniform channel separation all the way to its upper limit of 50,000 Hz, although the output was far down at that frequency.

Load-capacitance changes had little effect on the high-frequency response of the cartridge. Between 180 and 315 pF there were only minor changes, and even 415 pF merely reduced the output above 15,000 Hz by a couple of decibels. The 315-pF value (essentially equivalent to the rated 275 pF) gave the flattest overall response, but it was clear that the cartridge could perform with full effectiveness under any load likely to be encountered in a home music system. In the test tone arm, the low-frequency resonance was at the near-ideal frequency of about 10 Hz. In almost any tone arm that could accept this cartridge, the resonance would not be far from that frequency.

The output of the XLM III was 5 millivolts at a 3.54-cm/sec velocity, with the channel levels balanced within 1.5 dB. Our

(Continued on page 30)



Introducing the bookshelf turntable.

Mitsubishi's new linear-tracking, vertical turntable. The LT-5V.

It fits where ordinary turntables won't. Like on a bookshelf.

It has a tangential tonearm instead of a pivot arm. So tracking error is infinitesimal.

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And its price is half that of other linear-tracking turntables.

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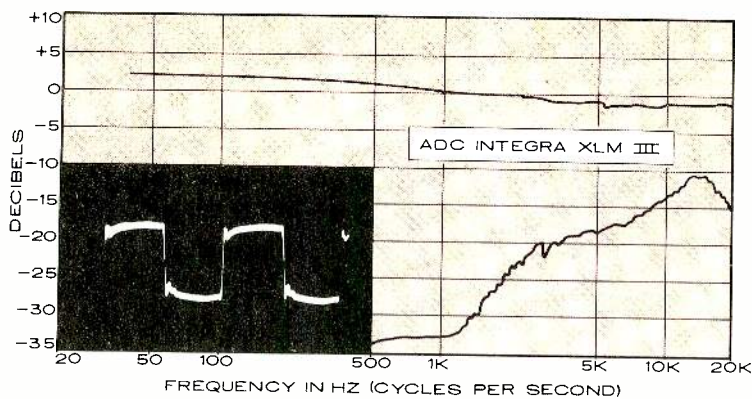
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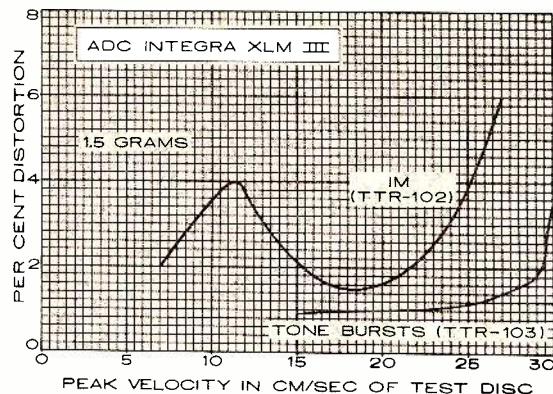
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CIRCLE NO. 28 ON READER SERVICE CARD



In the graph at left, the upper curve represents the smoothed, averaged frequency response of the cartridge's right and left channels; the distance (calibrated in decibels) between it and the lower curve represents the separation between the two channels. The inset oscilloscope photo shows the cartridge's response to a recorded 1,000-Hz square wave (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 recorded-signal groove velocity at which 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 whose average velocities are much higher than about 15 centimeters per second.

preliminary tracking tests showed that the cartridge should be operated at its rated maximum force of 1.5 grams (a good policy with any cartridge). At 1.5 grams it tracked our low- and middle-frequency high-velocity test records and the 60-micrometer level of the German Hi Fi Institute test record.

The intermodulation distortion of the cartridge, measured with the Shure TTR-102 record, was not particularly low at most velocities (1.5 to 4 per cent from 6.7 to about 25 cm/sec) but was still a very acceptable 6 per cent at 27 cm/sec. The high-frequency tone-burst distortion with the Shure TTR-103 record was low and nearly constant over a wide range of velocities, measuring between 0.7 and 1.2 per cent from 15 to 27 cm/sec and 3.6 per cent at the record's maximum of 30 cm/sec.

● **Comment.** Integration of the cartridge and head shell is a trend we welcome, since it eliminates or greatly simplifies one of the most onerous and critical operations involved in setting up a hi-fi system. In some integrated cartridges we have seen, there

has been no provision for adjusting the stylus overhang, and many are more massive than would be desirable. ADC has solved both these problems and has in addition provided the vertical-angle adjustment found on no other cartridge we have seen.

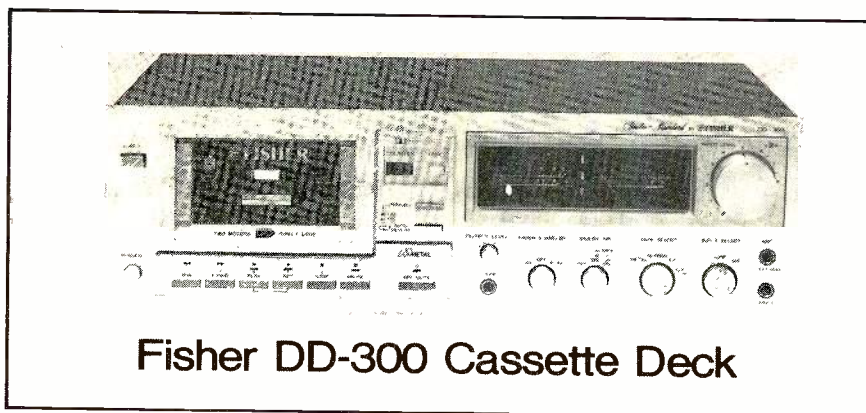
Although the Integra XLM III is a very high-quality cartridge (whose frequency response is among the flattest we have measured), its output voltage is substantially higher than that of most comparable cartridges. This translates into a small but measurable improvement in signal-to-noise ratio, since the hum shielding of the cartridge appears to be very good. Furthermore, the damping of the stylus resonance has apparently been accomplished largely through mechanical means, making the overall cartridge frequency response relatively independent of external load conditions. A lot of things have been done right in this cartridge, and frankly we found no flaws in its design or performance.

The ADC Integra XLM III may not be the "best" (whatever that might be!) cartridge one can buy, but it is also far from

being the most expensive. By current standards it would probably qualify as an upper-medium-price cartridge. In subjective tracking tests with Shure's Audio Obstacle Course records it tracked everything on the ERA III record except for a trace of a rattle on the highest level of the bass drum. The ERA IV record is much more difficult, and on it we heard the hardness that signals the onset of mistracking on the very highest levels of the record. The Integra XLM III shares that particular characteristic with most of the top-quality cartridges we have tested recently.

All things considered, we think ADC has produced a phono cartridge that gives excellent value for the money spent. For anyone who likes a neutral, uncolored sound, this cartridge may well be the preferred choice, with the added "plus" that it may be able to track some warped records better than many other cartridges because of its well-placed low-frequency resonance in typical tone arms.

Circle 140 on reader service card



Fisher DD-300 Cassette Deck

THE Fisher DD-300 "Studio-Standard" is a moderately priced, front-loading cassette deck with two motors, two heads, logic-controlled solenoid transport operation, and the ability to use metal tapes as well as more conventional formulations.

The single capstan of the DD-300 is directly driven by one servo-controlled motor, while a second, governor-operated d.c. motor drives the supply and take-up reels. The record/playback head is constructed from "MX/Ferrite," which we take to mean that the pole-piece area, where the tape actually contacts the head, is made of one of the various sandust alloys while the core of the head is ferrite. Both materials are capable

(Continued on page 36)

Music sculptor.



Meet the music sculptor. The new EQ400 car stereo graphic equalizer. Sensitive. Perceptive. And remarkably precise. Simply connect it between your stereo source and power amplifier.

Then reshape the response of your music to your own taste. Enhanced mid-bass... a little more sheen to the strings... a bit more bite on the brass. Contour, mold, enhance the music until it's just right for your ears.

15 bands: total control.

That's right. A full *fifteen* bands are at your command with this graphic equalizer. To shape your music like no other car equalizer can.

Looking at the EQ400 you'll see five sliding controls with a ± 12 dB range. Look closer, and for each control lever there's a selector for three different bands. Fifteen in all.

Center frequencies controlled are:

60 Hz	80 Hz	125 Hz
160 Hz	250 Hz	400 Hz
630 Hz	1000 Hz	1600 Hz
2400 Hz	3500 Hz	5000 Hz
7000 Hz	10,000 Hz	14,000 Hz

Even more precision.

Our desire for precision doesn't stop with the fifteen bands.

The EQ400 offers you more precise tuning *within* each band as well.

The top-mounted sliding scales on the EQ400 are physically almost twice as long as the short, front-mounted controls on most other equalizers. Which means far better resolution. For much more precise adjustments... and much more precise sound.

You can instantly compare any boost or attenuation you

the dash equalizer.

The EQ400 rests unassumingly under the dashboard. That is, until you're ready to use it.

Then... a slight pull slides it out to reveal a full, top-mounted illuminated control panel.

The top-mounted controls are easier to see, easier to reach and easier to use.

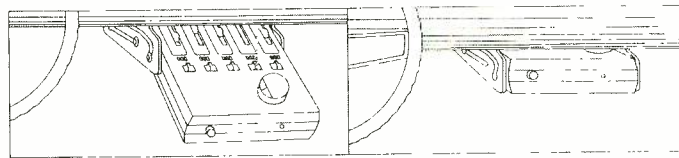
When you're finished adjusting, just slide the unit back under the dash. That way the controls aren't exposed where they can be accidentally bumped out of position. And meanwhile, an LED on the front glows to indicate the unit is on.

The same bracket can also be used to mount the equalizer right at your fingertips, between the bucket seats of smaller cars and vans.

Your own kind of sound.

No longer do you have to settle for someone else's interpretation of your music.

Because now you can shape it and enhance it with music sculptor. The Jensen EQ400 graphic equalizer. Or the EQA3000 5-Band Graphic Equalizer with built-in dual 12-watt power amplifiers. Hear what they can do... soon.



The EQ400 has a special under dash mounting. This enables you to slide it out for easy adjustment. When you're finished, slide it back. The controls then can't be accidentally knocked out of adjustment.

make with the equalization defeat switch. A front-to-rear fader control offers additional flexibility. And with its switchable 10/47 ohm input impedance, the EQ400 can be connected to any low impedance stereo source.

Slide out, tune in.

This is no ordinary under

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CIRCLE NO. 23 ON READER SERVICE CARD

Billie Holiday sings her heart out for you!

**Now you can experience
Lady Day's most moving,
memorable, original recordings
in sound so clear you
have to hear it to believe it!**

Billie Holiday gave a haunting new voice to the blues. Intense but muted. Vulnerable and sad. No singer ever reached into a song as she did, turning it into an expression of her own bittersweet emotions. And now TIME-LIFE RECORDS gets her music together as never before in the sweetest, saddest, sassiest Billie Holiday album ever—your introduction to the most comprehensive jazz series ever assembled.

In your first album, you'll feel the incredible highs and lows of 13 tumultuous years and 40 legendary Billie Holiday recordings. You'll hear Billie blend her talents with all-time greats like Benny Goodman, Teddy Wilson and Bunny Berigan. You'll thrill as she transforms songs like *The Man I Love*, *I Can't Get Started*, *Strange Fruit* and *God Bless The Child* into personalized jazz classics. And you can enjoy it all for 10 days free as your introduction to TIME-LIFE RECORDS' spectacular new series—GIANTS OF JAZZ.

Listen to Billie Holiday for 10 days FREE!

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YES! I would like to audition *Billie Holiday*, my introduction to GIANTS OF JAZZ. Please send me this three-record album along with John Chilton's *Who's Who of Jazz*, and enter my subscription to GIANTS OF JAZZ. If I decide to keep *Billie Holiday*, I will pay \$22.95 (\$27.95 in Canada) plus shipping and handling, and the book will be mine to keep at no additional cost. I will then receive future albums (each one containing three 12-inch records) from GIANTS OF JAZZ shipped one album at a time approximately every other month. Each album will cost \$22.95 (\$27.95 in Canada) plus shipping and handling and will come on the same 10-day free-audition basis. There is no minimum number of albums that I must buy and I may cancel my subscription at any time simply by notifying you. If I do not choose to keep *Billie Holiday* and the accompanying book, I will return the complete package within 10 days, my subscription for future albums will be canceled and I will be under no further obligation.

Check here if you want two tape cassettes and book instead of records. (\$2 extra). **RVAN55**

Check here if you want two eight-track tape cartridges and book instead of records. (\$2 extra). **RUANP5**

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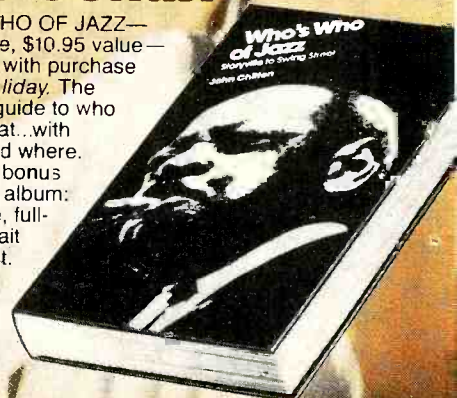
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RPANU5

Free bonus!

WHO'S WHO OF JAZZ—a 370-page, \$10.95 value—yours free with purchase of *Billie Holiday*. The definitive guide to who played what...with whom...and where. Plus extra bonus with every album: a framable, full-color portrait of the artist.



Listen to legendary performances of America's most original music! Billie and Satchmo...The Duke and Benny...and more, more, more!

Album after album of vintage originals that you could never assemble on your own!

Now, TIME-LIFE RECORDS introduces the most spectacular and comprehensive collection of jazz recordings ever assembled. The greatest performers! Their greatest performances! GIANTS OF JAZZ features brilliant artists like Louis Armstrong, Billie Holiday, Coleman Hawkins, Duke Ellington, Bix Beiderbecke, Earl Hines. Plus the great instrumentalists and singers.

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Original recordings of legendary performances! Restored in their brilliant original sound!

These landmark albums draw on vintage material from such labels as Vocation, Decca, Okeh, Brunswick, Gennett, Victor and Columbia. Each recording has been reproduced in the original monaural sound—no electronic gimmickry, no rechanneling. (Engineers at Columbia Records have developed a system of restoration unparalleled in the industry to restore the hundreds of classic recordings in GIANTS OF JAZZ.) Mail coupon today!

Your choice of 12-inch LPs, tape cartridges, or cassettes.

The heart of Billie Holiday! 40 of her all-time greatest original recordings!

Your Mother's Son-in-Law (1933); I Wished on the Moon, What a Little Moonlight Can Do, Miss Brown to You, If You Were Mine, These 'n' That 'n' Those (1935); It's Like Reaching for the Moon, These Foolish Things, No Regrets, Summertime, Billie's Blues, A Fine Romance, The Way You Look Tonight (1936); I've Got My Love to Keep Me Warm, This Year's Kisses, Why Was I Born?, I Must Have That Man!, They Can't Take That Away From Me, Sun Showers, I'll Get By, Mean to Me, Foolin' Myself, Easy Living, Me, Myself and I, Trav'lin' All Alone, He's Funny That Way, Nice Work if You Can Get It (1937); When a Woman Loves a Man, Any Old Time, The Very Thought of You, I Can't Get Started (1938); Strange Fruit, Yesterdays, Fine and Mellow, Them There Eyes, The Man I Love (1939); God Bless the Child (1941); Trav'lin' Light (1942); Lover Man (1944); Big Stuff (1946).



GIANTS OF JAZZ

Audition Billie Holiday for 10 days FREE!

TIME LIFE RECORDS



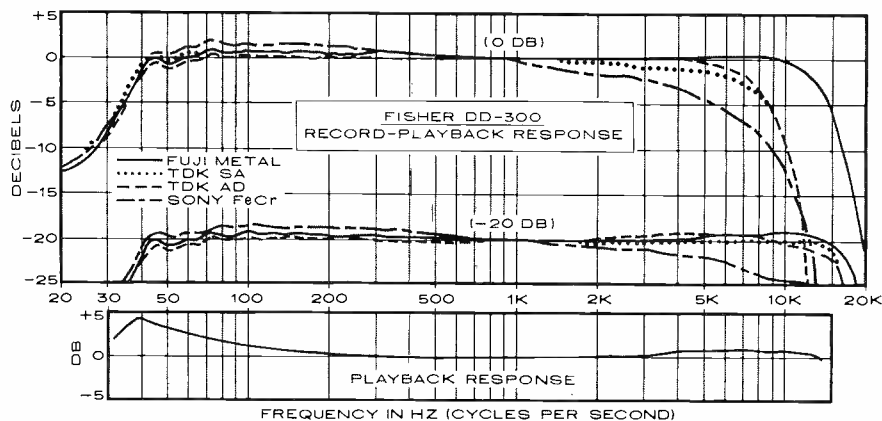
Just Released!

of accepting the high bias requirements of metal tape (approximately 50 per cent greater than is needed for CrO₂-type formulations), and both have superior wear properties compared to even "hardened" permalloy.

Cassettes are placed, tape openings downward, into slides on the rear of the transparent plastic door that covers the cassette well. The transparency of the cover, together with an illuminated orange area behind the cassette itself, permits full visibility of the cassette during operation, making it possible to estimate the amount of tape remaining on a side.

Directly beneath the cassette well are pushbutton-actuated controls for REWIND, FAST FORWARD, PLAY, RECORD, STOP, and PAUSE transport functions, along with a RECORD MUTE pushbutton intended to permit the deletion of incoming material without stopping the tape—a limited kind of electronic editing. The typical three-digit mechanical tape counter is provided, but separate MEMORY and AUTO REPEAT buttons are used to permit either stopping the high-speed rewind at "000" or continuing it to the actual end of the tape, as well as to permit putting the machine into PLAY mode automatically at either point. The AUTO REPEAT function is overridden when the deck is in its fast-forward mode; in play, however, if both MEMORY and AUTO REPEAT buttons are depressed simultaneously, the recorder stops at "000," rewinds to the start of the side, and then replays again.

A three-position switch turns the Dolby noise-reduction off, on, or on with a multiplex filter to eliminate any residual 19-kHz stereo FM pilot signal that might be passed on by a tuner or receiver. A second switch enables the DD-300 to be operated from an external timer in either record or play mode. A four-position switch sets the bias and equalization for metal, ferric, CrO₂-type, or ferrichrome tapes, and a two-position switch selects whether recordings will be made from the rear-panel "line-input" jacks or from the front-panel microphone inputs; mixing is not possible. Concentric



recording-level controls are provided, along with a playback-level control that affects both regular outputs and the level at the headphone jack.

The record-level meters are "VU" types, each having two scales: from -20 to +5 VU for most tapes and from -20 to +8 VU for metal formulations. A reading of 0 VU is marked at 3 dB below Dolby level on both scales, and the metering system is supplemented by peak-reading LED indicators for 0 VU, +3 VU, and +6 VU. The meter scales are illuminated in blue below 0 VU and in orange at 0 VU and above.

The normal "line-level" input and output connectors are located on the rear panel of the DD-330. Overall, the unit measures 17 $\frac{3}{8}$ x 5 $\frac{1}{4}$ x 10 inches in width, height, and depth; it weighs approximately 13 pounds. Available with either a silver or a black front panel, the Fisher DD-300 has a retail price of \$349.95.

● **Laboratory Measurements.** Our sample of the DD-300 was supplied with Fuji metal tape, TDK SA (CrO₂-type), TDK AD (ferric), and Sony FeCr (ferrichrome), so we used these cassettes for our evaluation. Playback frequency response, measured with Teac MTT-216 and MTT-316 test

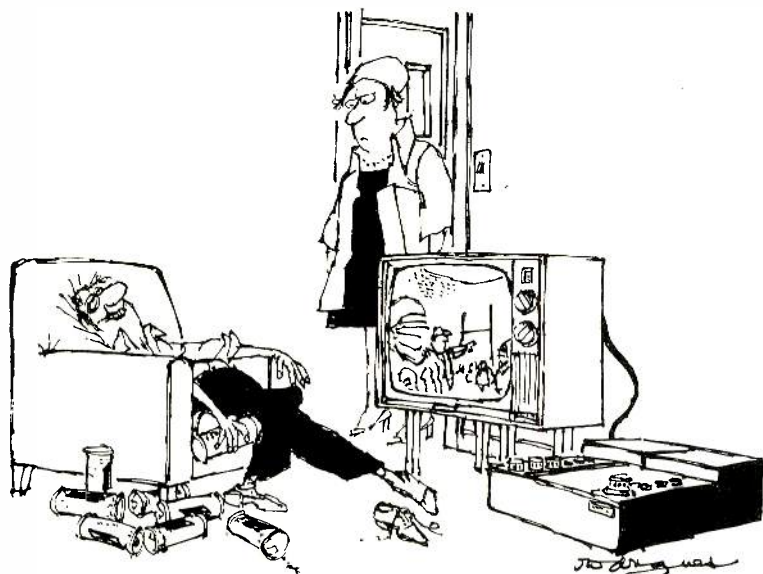
tapes, was exceedingly flat over the tapes' 31.5-Hz to 14-kHz range; the slight rise at the very lowest frequencies shown in the accompanying graph is not a property of the deck but occurs when full-track test tapes are used on a quarter-track machine.

Overall record-playback response, measured at the customary -20-VU level, dropped by 3 dB at 18 kHz with the metal tape, at 16 kHz with TDK SA and AD, and, as the graph shows, rather earlier (between 7 and 8 kHz) with the ferrichrome. The considerable advantage of metal tape in the high-frequency range is clear not only from the wider frequency response, but from the curves made at a 0-VU input level. Even at 10 kHz, there is a full 8-dB advantage, and this increases rapidly at higher frequencies. The low end of the DD-300 fell rapidly below approximately 40 Hz.

The Dolby-level markings (200 nanowebers/meter) were at +3 VU on the meter scales and were within 0.75 dB of the level on our test tape. At a 0-VU input, using a 1,000-Hz test tone, the third-harmonic distortion was 1.25 per cent with Fuji metal tape and 0.7, 0.6, and 1.5 per cent with TDK SA, TDK AD, and Sony FeCr, respectively. The metal and ferrichrome tapes permitted a +4-dB signal before reaching the 3 per cent distortion point used for signal-to-noise ratio measurements; the comparable "headroom" for TDK SA was +5 dB, and for TDK AD it was +6 dB. Unweighted signal-to-noise measurements, without Dolby noise reduction, were 53.5 dB for Fuji metal and Sony FeCr, 53.8 for TDK AD, and 54.2 dB for TDK SA. Adding Dolby and using CCIR/ARM weighting, these figures improved to 65.3, 68, 65.8, and 65.8 dB, respectively.

Wow and flutter, using a Teac MTT-111 test tape, registered 0.085 per cent on the DIN peak-weighted system and 0.071 per cent on a weighted-rms basis. Fast-forward and rewind times for a C-60 cassette were between 80 and 85 seconds. An input-signal level of 0.075 volt at the line input produced a 0-VU indication and an output of 430 mV (0.43 volt). Comparable sensitivity through the microphone preamplifier was 0.69 mV, and overload began to be detectable in the microphone stage at 0.042 volt—somewhat on the low side for recording live music, but certainly adequate for speech. The meter's ballistic characteristics were slightly slow: 500-millisecond tone bursts produced a full output indication, but, tested with the

(Continued on page 38)



"... Now don't get upshet, Edna. You'll be happy to know I got the whole game on video cashette."

The year of the bioelectronic tonearm.

Fully automatic and electronically controlled
for the ultimate in high fidelity sound reproduction.

Turntable technology is at its peak. Motors, platters and cabinets have almost all reached their performance limits. Only the tonearm remains as the last great challenge to turntable perfection. And Sony has revolutionized that with the Biotracer Tonearm.

Biotracer has dismissed tonearm resonance. Those wayward harmonics that used to break up the romance between the listener and his music. By combining a micro-computer,

velocity sensors and three linear motors in the tonearm to control every movement. All unnecessary tonearm movements caused by its own resonance or eccentricities in a record, like warping, are immediately detected by horizontal and vertical sensors. A microcomputer responds to the slightest variation and directs Biotracer's linear motors to compensate.

Sound reproduction is clear. Rich bass is richer. And high frequencies more brilliant.

All other turntable functions are also automatically orchestrated by the microcomputer. Record selection is automatic. So is repeat, lead in and out, and even stylus muting whenever it is lifted up or down.

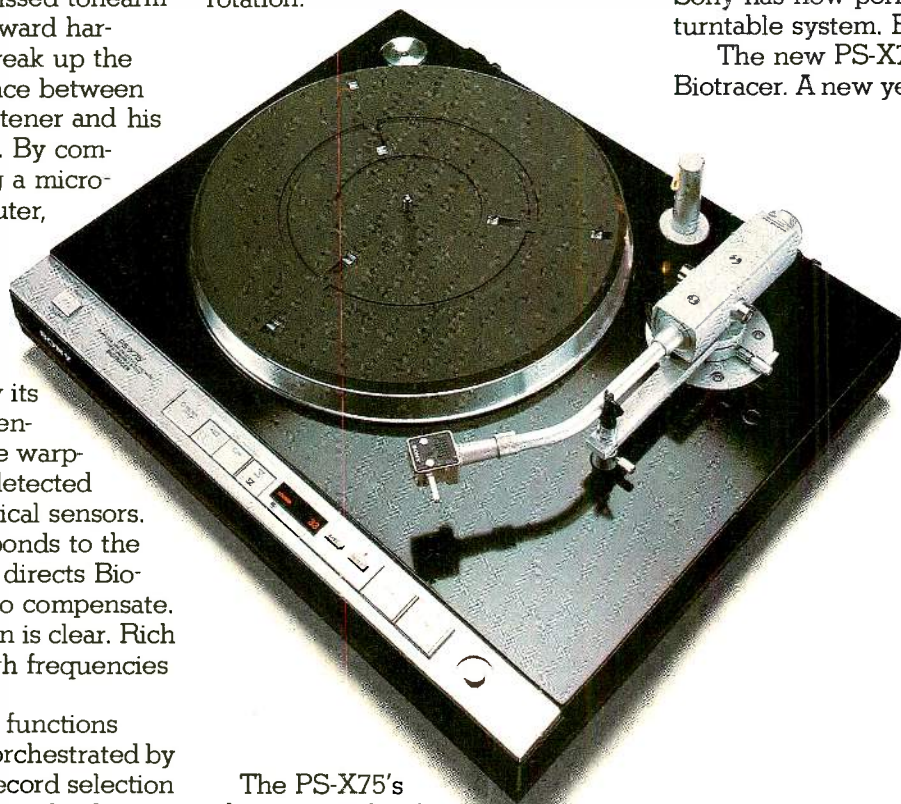
A linear torque BSL motor, together with a Quartz-crystal lock and Magnedisc servo system, assures stable speed and precise platter rotation.



And Sony has paid attention to the little things. Like convenient total front panel operation including stylus force adjustment when the dust cover is down.

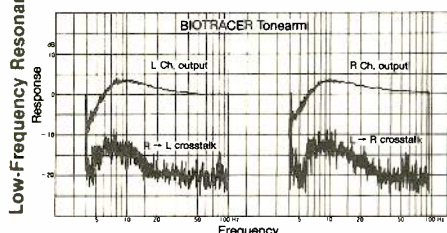
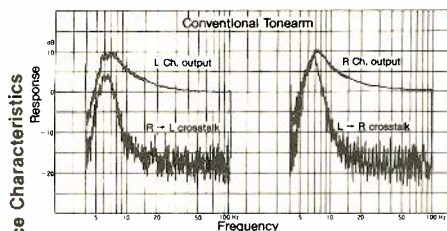
All of your music will live up to your wildest expectations. Because Sony has now perfected the entire turntable system. Even the tonearm.

The new PS-X75 turntable with Biotracer. A new year for your music.



PS-X75

The PS-X75's cabinet is made of SBMC (Sony Bulk Molding Compound) to stifle howl. And gel filled insulators absorb acoustical energy and prevent feedback between turntable and speakers.



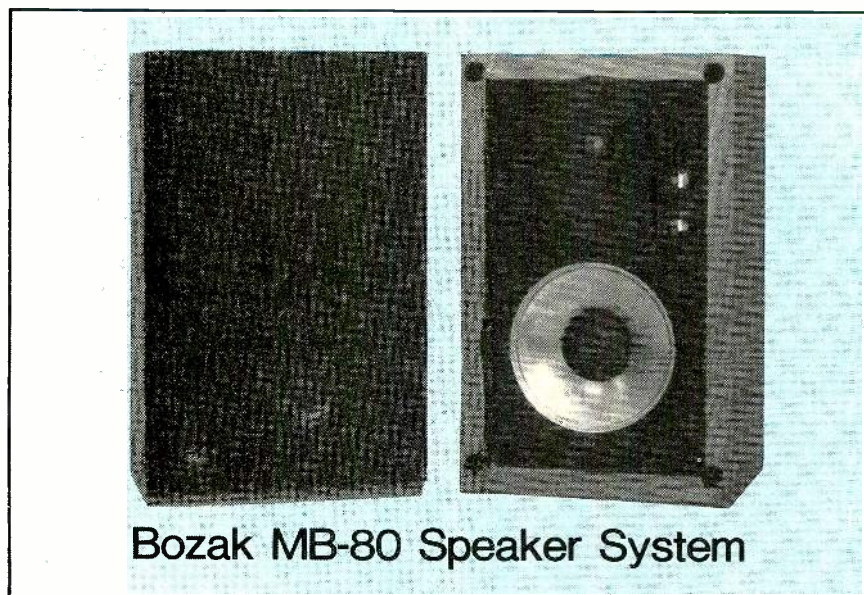
SONY
CIRCLE NO. 39 ON READER SERVICE CARD

standard 300-millisecond bursts, the reading was -5 VU. On the other hand, the peak-level LED indicators would catch this under-reading. Dolby tracking accuracy, checked at -20 - and -30 -VU levels, was within 1.5 dB of the non-Dolby frequency response up to 14 kHz, after which it dropped sharply.

● **Comment.** For listening to prerecorded tapes and for making copies of FM broadcasts and of most disc materials, the Fisher DD-300 proved to be an excellent performer. Dubbing very demanding discs or wide-range master tapes of live music brought out a slight loss below 40 Hz or so and also demonstrated the high-frequency advan-

tage of metal-alloy tape. Given its price level, one could not expect the Fisher DD-300 to be the full sonic equal of decks in the \$1,000-and-up price range, but it functioned flawlessly throughout our tests, and we can recommend it as a fine value.

Circle 141 on reader service card



BOZAK, one of the oldest names in the high-fidelity field, has traditionally been noted for relatively large loudspeaker systems, including some of the most imposing enclosures ever offered for home use. Now the company has extended its product line in the other direction, so to speak, with the introduction of the MB-80 miniature Concert Series speaker.

The Bozak MB-80 is a true "minispeaker" measuring $1\frac{1}{2}$ inches high, $\frac{7}{8}$ inches wide, and $7\frac{1}{8}$ inches deep. Despite its small dimensions, it weighs a surprising 16.2 pounds. The MB-80 is a two-way system with a 6-inch aluminum-cone bass driver in a sealed enclosure crossing over at 1,600 Hz to a 1-inch soft-dome tweeter. The nominal system impedance is 8 ohms, with a rated minimum of 6.5 ohms. There are no user-adjustable controls on the MB-80, and the $\frac{3}{4}$ -inch-spaced binding posts are recessed into the rear of its oak-veneer cabinet.

In the design of any speaker system (and especially when it is miniaturized) there are inevitable trade-offs between efficiency and low-frequency response. The overall frequency response of the Bozak MB-80 is specified as 80 to 20,000 Hz ± 3 dB measured at 1 meter on the axis of the speaker (presumably under anechoic conditions). The efficiency is relatively low, as indicated by the rated sensitivity of 81 dB output (sound-pressure level measured at 1 meter on axis) with an electrical input of 2.83 volts at 1,000 Hz (equivalent to 1 watt into 8 ohms).

The low sensitivity of the MB-80 implies a need for considerable amplifier drive power, which is confirmed by the manufacturer's recommending a minimum amplifier power rating of 35 watts per channel and a maximum rating of 250 watts. According to Bozak, the aluminum-surfaced woofer cone helps conduct some of the heat produced away from its voice coil. Protection for the tweeter is also an important consideration in a small, low-efficiency speaker system. Bozak has solved the problem simply, yet effectively, by connecting a small incandescent lamp (resembling a cartridge fuse) in series with the tweeter. The lamp is located behind the dark-brown grille cloth where it is normally invisible. An excessive average drive level to the tweeter will heat the lamp filament, increasing its resistance and limiting the maximum power delivered to the tweeter. With enough input, the lamp glows brightly enough to be seen through the grille cloth. Presumably, with a sufficient overload the lamp filament would burn out, providing the same protection as a fuse. Replacement lamps, if needed, can be obtained from automotive-supply or hardware stores. Price of the MB-80 is \$449 a pair.

● **Laboratory Measurements.** A close-miked measurement of the woofer response of the MB-80 showed a broad maximum output in the 100- to 150-Hz range, falling off at the expected 12-dB-per-octave rate below 100 Hz and more gradually above 200 Hz. The response at 1,600 Hz was

about 6 dB less than the maximum woofer output. The averaged output of the complete system in the far field of the listening room rose smoothly above 1,600 Hz, to +8 dB in the 15,000- to 20,000-Hz range. Combining the two curves, we obtained an overall response that varied only ± 4 dB from 70 to 20,000 Hz. The curve had a depressed midrange with the minimum point at 1,600 Hz, and the output rose symmetrically on both sides of that frequency.

The dispersion of the dome tweeter was excellent, with the response curves measured from the left and right speakers (one measured on its axis and the other about 30 degrees off axis) diverging only moderately at frequencies above 12,000 Hz. The tone-burst response of the speaker was good, with little variation at a number of microphone positions. The system impedance was 8 ohms or more over most of the audio range, with the minimum of 5 ohms occurring at 20 Hz and the two maxima of 18 and 40 ohms occurring at 85 and 1,400 Hz, respectively. The system sensitivity, measured with an octave of random noise centered at 1,000 Hz, was 82 dB at 1 meter with an input of 2.83 volts, agreeing closely with Bozak's ratings.

At a 1-watt input level, the distortion of the little MB-80 woofer rose smoothly from 1.5 per cent at 100 Hz to 6.7 per cent at 30 Hz. These readings, consisting largely of second-harmonic components, are higher than we usually measure on larger speakers but still low enough to be subjectively unimportant. The real limitation of the small woofer size became apparent when we increased the drive power to 10 watts. The distortion now rose from almost 4 per cent at 100 Hz to 21 per cent at 30 Hz—still an impressive performance given the size of the speaker but not completely insignificant, especially since the MB-80 must be driven with considerable power to get a relatively high listening volume.

● **Comment.** Bozak recommends installing the MB-80 2 to 3 feet off the floor and at least that distance from any other room boundary. We tried that placement and also placed a pair against a wall (as in a normal "bookshelf" installation). The differences were not major, and we would consider either location perfectly acceptable.

On first hearing the MB-80, one is struck by the fact that it does not sound in the least like a "small" speaker. The sound is quite open and well balanced. Despite the shape of the measured curve (which in any case is modified considerably by room and installation differences), there is almost no undue

(Continued on page 40)

Sony's inseparable separates.

A stylish new match in a thin new tuner and an integrated amplifier. Tune into style and grace with Sony's new slim separates. Together they give you the compactness of a single receiver, with the higher-fi engineering of individual components.

Sony's sleek ST-J55 tuner and powerful TA-F55 integrated amplifier are a perfect pair. Both with the convenience of feather touch operation. In addition the F55 features an electronic volume switch with a built-in motor to give you smooth and easy stereo command.

Frequency synthesized tuning.

The tuner's advanced technology is Sony sophisticated. Frequency synthesized tuning with a highly stable quartz-crystal oscillator locks onto the broadcasting signal and makes station selection precise and drift free. Sony sensational is the only description for our tuner's masterful performance.

The ST-J55's feather touch switches are set in a neat clean line for perfect visual operation. And you get impeccable operational ease with Memory Tuning, Auto Tuning and Manual Tuning.

Non-volatile memory with random memory preset.



The ST-J55's MNOS memory makes total operation incredibly simple. From tuning to randomly

presetting a total of 8 of your favorite FM/AM stations.

Pre-set frequencies and reception adjustments like Muting/Mode Pre-set are all memorized for problem-free tuning each time you turn the tuner on. And Sony's non-volatile memory holds all information up to ten years without power or backup systems.



Sony also supplies blank station labels so you can personalize your tuner. You can tag your pre-programmed frequencies or station names in a handy LED backlit slide out holder for at-a-glance identification.

The final touches.

Of course, you get all the higher-fi standards in the TA-F55, like Gold Plated Phono Jacks, oxygen free copper wiring, metallized film resistors and polypropylene capacitors. It's the synthesis of Sony technology and design.



Sony's amplifier takes MM and MC cartridges for maximum virtuosity.

The ST-J55's matching mate is Sony's TA-F55 integrated amplifier. They're a natural fit at exactly the same slim size. Sony's technology gives you the combination of slim elegance and powerful 65W power. THD is 0.008%, one of the lowest in this class.



Pulse Power Supply, Sony's revolutionary Heat Pipe, and Sony's innovations in simple and straight signal processing circuitry construction all result in extremely clean and noise free sound quality.

Best of all, now you can choose practically any type of MC and MM cartridge for your choice of the most satisfying musical performance an audiophile can hope for. Just set the two position load selector for each MM and MC cartridge and appreciate the TA-F55's virtuosity.

Precision and stability are Sony assured.

The ST-J55 tuner and TA-F55 integrated amplifier. Two Sony quality engineered components, whose separate stability and precision are unmatched for operational convenience and performance.

Sony's perfect pair. They're inseparable.

bass emphasis on male voices. The illusion of a low-bass output is sometimes startling, although comparisons with other speakers having an additional octave of bass leaves no doubt that the effective low-frequency limit of the MB-80 does not extend much below 60 Hz. Still, it *sounds* as if it went down further. The designed-in balance between frequencies is excellent.

At low to moderate levels, we found the MB-80 just as listenable and musical as most of the large speaker systems with which we compared it. But what about the power ratings—and *requirements*—of this speaker? Can it be played loud, and does its quality suffer at high levels?

The answer to both questions turns out to be an equivocal "Yes—and no." The MB-80 is a very fine little speaker, but it must follow the same physical restraints that apply to any other speaker. As the drive level is increased, the clarity of the sound begins to suffer, eventually becoming fuzzy and obviously distorted. If one monitors the actual amplifier power output as the volume is

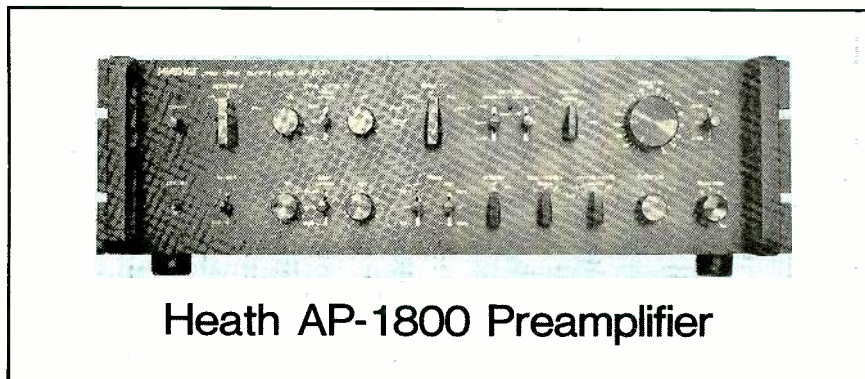
increased, however, the real reason for the loss of sound quality becomes obvious. This speaker requires a surprisingly large power input, perhaps ten times greater than many vented systems for the same listening level. This may call for an *average* of several watts from the amplifier at ordinary listening volume. On program *peaks*, therefore, a typical 50- or 60-watt amplifier or receiver is likely to be overdriven, with resulting "fuzziness." When that 50- or 60-watt amplifier is driven into hard clipping (if you can tolerate the distortion) the speakers' warning lights are likely to glow.

However, one is not necessarily limited to background-music levels with the MB-80. Use a powerful amplifier (we drove it from a 200-watt-per-channel amplifier) and the average volume can be raised to moderately high levels without excessive distortion (except possibly in the low bass, where the 6-inch woofer cannot be "pushed" too far). Finding that average levels of 10 to 20 watts did not light the protective/warning lamps, we abandoned all caution and increased the

volume until they glowed. Believe it or not, this generally occurred only when the amplifier clipped—at perhaps 250 watts output—and only rarely within its 200-watt rated output. Usually a rasping sound from the woofer occurred simultaneously with the glowing lamp, suggesting that its excursion limits had also been reached. We were never able to damage a speaker (or blow out a lamp) even by such gross abuse.

In conclusion, the Bozak MB-80 is a logical choice for a fairly small listening room, especially when it is driven by a rather powerful amplifier (it is definitely *not* designed for use with low-price, low-power receivers or as an extension speaker for such a receiver). We would suggest at least 100 watts per channel, although you *can* get by with the recommended 35-watt minimum if you don't try to play it too loud. Used with discretion, this is a thoroughly musical-sounding speaker whose sonic performance totally belies its size.

Circle 142 on reader service card



Heath AP-1800 Preampifier

THE Heathkit Pro Series audio components are the most advanced products in Heath's audio lineup, with performance and features claimed to rival those of the finest factory-built units. The Pro series units are finished entirely in black, and all are suitable for mounting in a standard EIA 19-inch rack or in the Heath Pro Series AE-1705 component rack. For more conventional installations, optional oak-finish wooden cabinets are also available for the Pro components.

At present the Heathkit Pro Series consists of a stereo FM/AM tuner, preamplifier, graphic output-level indicator, and two power amplifiers as well as the rack. For this report, we tested an AP-1800 stereo preamplifier built from a kit.

The Heath Pro Series AP-1800 preamplifier has practically every useful control feature found on other preamplifiers plus a few unique to itself. Lever switches are used for **POWER** (which controls the switched a.c. outlets through a heavy-duty 1,500-watt relay), **OUTPUT** (which connects the two sets of line-level outputs either individually or simultaneously), and the bass and treble tone-control turnover frequencies (respec-

tively 250/500 Hz and 2,500/5,000 Hz). The tone-control switches also have **FLAT** settings that bypass the circuits.

The four tone-control knobs operate Baxandall circuits for the bass and treble ranges on both channels, and each has eleven detented positions. A bar knob selects the program source from among **AUX 1**, **AUX 2**, **TUNER**, **PHONO 1**, **PHONO 2**, and **PHONO MC** (for a low-output moving-coil cartridge via a low-noise head amplifier built into the AP-1800). Lever switches to the right of the selector adjust the phono sensitivity for nominal inputs of 1, 2, or 4 millivolts and select one of three values of input capacitance for correct termination of any cartridge. The nominal input capacitances supplied with the kit are 100, 175, and 350 picofarads, but other values (greater than 100 pF) can be installed as desired.

The Heath AP-1800 has a built-in phono-overload detector circuit that flashes a bright red LED when the input level is just below that which would cause clipping in the phono-preamplifier section. This circuit senses both positive and negative waveform peaks and gives unmistakable warning that an overload has occurred or is about to

occur (in which event selecting a lower phono gain should cure the problem).

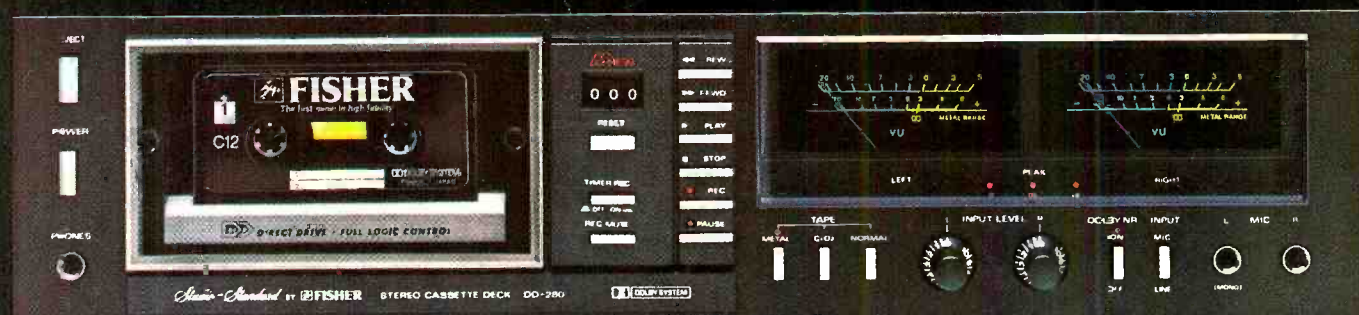
Below the selector knob are two lever switches for the audio filters, which have selectable turnover frequencies of 20 or 50 Hz for the bass and 6,000 or 12,000 Hz for the treble, all with 12-dB-per-octave slopes. With the filters switched off, the response is rolled off above 300 kHz to minimize the possibility of r.f. overload from a strong radio signal. Also, the phono preamplifier section has fixed 12-dB-per-octave filters that roll off the response below 6 Hz and above 180 kHz.

In the upper-right portion of the panel there is a small bar knob for mode selection; it feeds either the left- or right-channel signal through both outputs, normal or reversed stereo, **L + R** (mono), and **L - R**. This last mode is very useful for balancing the channel levels precisely. The large volume knob to its right has more than thirty detented steps calibrated in decibels of attenuation, and at the extreme right of the panel is a **MUTING** switch with a choice of 20 or 40 dB of gain reduction as well as the normal gain.

Along the lower right of the panel are several small bar-knob switches. One marked **ADAPTOR** inserts an equalizer or noise reducer into the signal path without using one of the tape-monitoring circuits, and another is for listening to source or the playback from either of two tape decks. A **RECORD MODE** switch connects the selected source to the tape-recording outputs, cross-connects the tape decks for dubbing from either one to the other, or completely disconnects the tape outputs from the amplifier. Two small knobs operate the balance control (center-detented) and the loudness compensation. The latter gives a flat frequency response and maximum volume at its clockwise setting. After the maximum listening volume has been set with the main

(Continued on page 43)

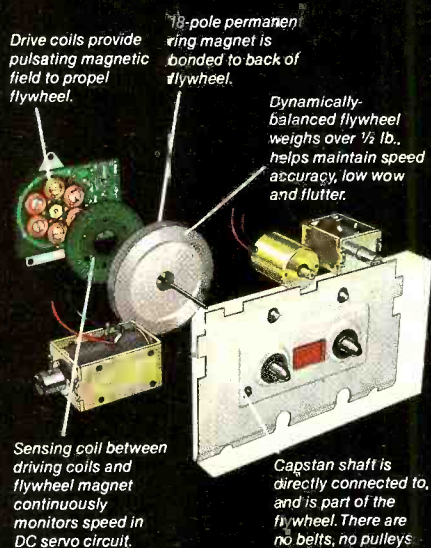
The new FISHER



Fisher Direct Drive... the most technically advanced tape drive system.

In the new Fisher DD280 cassette deck, Fisher has replaced the conventional belt-drive system with a high-torque 18-pole brushless, coreless, direct drive DC flywheel motor. The motor shaft is the tape transport capstan itself. The result is a silent, one-piece direct drive system that glides at a stable 360 rpm. Wow and flutter are reduced to an incredibly low 0.04%. Gone forever are belt wear problems resulting in speed change, belt breakage and replacement. For long term reliability direct drive is the answer.

Feather touch electronic solenoid controls. Don't look for "clunky" levers on the DD280. Transport functions are actuated by sensitive solenoid electronic switching. IC logic circuitry assures instant, positive action. You can go directly from rewind to fast forward to play... without having to manually stop between functions. LED indicators signal mode of operation.



Drive coils provide pulsating magnetic field to propel flywheel.

18-pole permanent ring magnet is bonded to back of flywheel.

Dynamically-balanced flywheel weighs over 1/2 lb., helps maintain speed accuracy, low wow and flutter.

Sensing coil between driving coils and flywheel magnet continuously monitors speed in DC servo circuit.

Capstan shaft is directly connected to, and is part of the flywheel. There are no belts, no pulleys.

Metal tape compatibility.

The DD280 is also metal tape compatible. The new metal particle tapes offer a marked improvement in signal-to-noise ratio and dynamic range over previous tape formulations. With its metal EQ and bias settings, plus high performance MX/Ferrite heads, the

DD280 produces tapes of stunning accuracy. With metal tape, the DD280 delivers an impressive frequency response of 30Hz-20kHz.

Low in profile. And high on features. The low-profile DD280 has everything you'd expect in a professional-quality cassette deck. Calibrated input level controls. Dolby* Noise Reduction. Large-scale dual-range VU meters. Peak level LED indicators and more.

It's what you'd expect from the new Fisher. We invented high fidelity over 40 years ago. We've never stopped moving ahead. The new DD280 is a perfect example. Part of the new Fisher. Where the only thing about us that's old is our dedication to quality and craftsmanship. See the DD280 soon at your Fisher Dealer.

*Dolby is a registered trademark of Dolby Laboratories.

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FISHER
The first name in high fidelity.®

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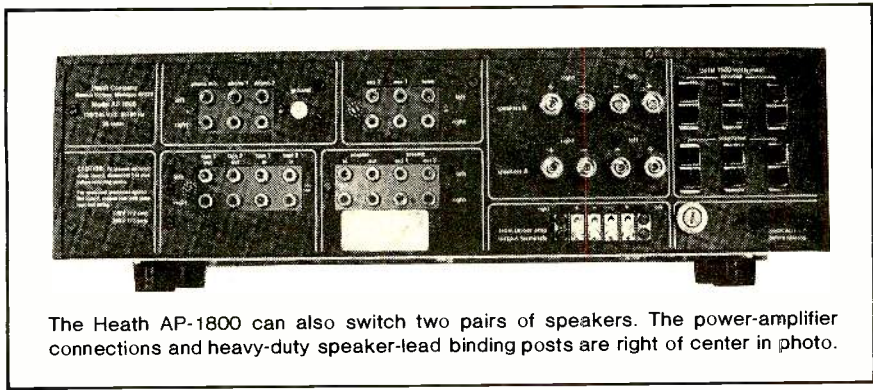
Salem



Country fresh menthol.
Light, smooth and
refreshing.

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

KING=15 mg. "tar", 1.1 mg. nicotine, 100's: 16 mg. "tar",
1.3 mg. nicotine, av. per cigarette by FTC method.



volume control, subsequent reductions can be made with the loudness control, which boosts the low frequencies relative to the middle and high ranges as it is turned counterclockwise to reduce the volume.

At the left of the panel are a stereo-headphone jack and a four-position SPEAKERS switch operated by a bar knob. The AP-1800 does not have its own headphone amplifier, but it has terminals on the rear to receive the outputs from the power amplifier and heavy-duty binding posts for two pairs of speakers. When connected in that manner, the preamplifier controls the outputs to either or both of the two sets of speakers or shuts them off entirely for headphone listening. The phones are driven, through protective resistor networks, from the power-amplifier outputs.

The rear of the Heath AP-1800 has all the input and output jacks and connections for the described functions, plus three switched and three unswitched a.c. outlets. The front panel of the preamplifier measures 19 inches wide x 5 1/4 inches high; it is 1 1/4 inches deep. Strong metal handles extend 1 1/4 inch in front of the panel. Price: \$349.95 (kit). The AE-1800-2 oak-finish cabinet is \$39.95.

● **Laboratory Measurements.** All measurements on our kit-built Heath AP-1800 were made with the IHF standard output load of 10,000 ohms in parallel with 1,000 picofarads and with the gain settings and other reference conditions of IHF-A-202 (the current amplifier test standard).

At maximum gain, the reference output of 0.5 volt was obtained with a 67-millivolt input at the AUX jacks or with phono inputs of 0.34, 0.67, and 1.35 millivolts for the sensitivity settings of 1, 2, and 4 millivolts. The corresponding moving-coil phono sensitivities were 41, 83, and 150 microvolts. The phono overload at 1,000 Hz (as indicated by the LED warning light) occurred at 96, 190, and 390 millivolts for the moving-magnet inputs and at 11, 22, and 33 millivolts for the MC input. Visible waveform distortion occurred at input levels about 20 percent greater than those that lit the LED.

Phono overload for the moving-magnet inputs was also measured as a function of frequency using the 2-millivolt sensitivity setting. The maximum undistorted input (referred to equivalent 1,000-Hz levels) was 203 millivolts at 20 Hz and 230 millivolts at 1,000 and 20,000 Hz. The measured phono-input impedance was 50,000 ohms shunted

by 100, 175, or 350 picofarads, exactly as rated, and the MC inputs were terminated internally with 100-ohm resistors. The RIAA equalization was extremely accurate, measuring within 0.1 dB of the ideal curve from 20 to 20,000 Hz.

The A-weighted signal-to-noise ratio was greater than our measurement ability (more than 74 dB below 0.5 volt through all inputs). The rated maximum output of the preamplifier is 9 volts; we measured it as 22 volts at 1,000 Hz and below, and it fell to 11.5 volts at 20,000 Hz. The 1,000-Hz harmonic distortion at 2 volts output was less than 0.0005 per cent through all inputs.

The tone controls and filters had the specified characteristics. The loudness control had no effect on the frequency response in the upper 10 dB of its range, but below that point it held the 20-Hz gain constant and reduced the output at higher frequencies. The phono response, as measured through the inductance of phono cartridges, showed a very slight high-frequency rise to a maximum of about 1 dB at 20,000 Hz. This may have been due to the interaction between the amplifier's input capacitance and the cartridge inductance, since the phono preamplifier circuit is specifically designed to isolate the feedback components from the input termination.

● **Comment.** As usual, Heath supplied a very complete and informative assembly and instruction manual with the AP-1800 kit. It includes a complete stage-by-stage circuit analysis (which we will not comment on other than to say that the design makes extensive use of differential amplifiers plus a moving-coil head amplifier with five low-noise transistors in parallel). All the active devices are discrete transistors (no integrated circuits). Our kit builder reported that it took him about 24 hours to assemble the unit, working rather slowly.

The handsome, professional appearance of the AP-1800 is complemented by the "feel" of its controls. Years ago, one could easily distinguish a kit-built component from a good-quality factory-assembled product by the relative smoothness of their controls. With the AP-1800, that is no longer true; it gives no external clues to its origin as a box of parts!

The same comment also applies to the electrical operation of the AP-1800. All switching and control actions are smooth, noise-free, and without any transients or "rough edges." We used the AP-1800 with both moving-magnet and moving-coil cartridges and were impressed by its silence—a lack of hum or hiss at any usable gain setting—regardless of the selected input. The loudness compensation of the AP-1800 ranks with the best. Not only can it be set to correspond to any acoustic listening level (a "must" for any true loudness control), but the control curves are almost totally free of any obvious response coloration. In other words, one would not suspect that the lowest audio frequencies were boosted as much as 15 dB at low settings, except that the sense of low bass is still very much present at low volume levels.

The front-panel cartridge-capacitance selector can be very useful if one habitually uses several cartridges with differing load requirements. The Heath manual lists

(Continued overleaf)



many popular cartridges, their preferred loads, and the wiring capacitance of most popular turntables, so that anyone should be able to optimize a system easily. Another advantage of having this adjustment readily available is that one can learn firsthand how much—or, more usually, how little—this

factor has to do with the total phono-system sound quality. We were also interested to see just how difficult it is for a phono cartridge to overload a reasonably well designed amplifier. With direct-to-disc, digitally mastered, and high-velocity test records at our disposal, no good-quality car-

tridge we tried was able to light the phono-overload LED, even at the 1-millivolt input setting. In sum, the Heath AP-1800 does practically everything one could want, and does it to perfection.

Circle 143 on reader service card



Onkyo TX-5000
AM/FM Stereo Receiver

THE Onkyo TX-5000 is a medium-power stereo receiver rated to deliver 65 watts per channel into 8-ohm loads from 20 to 20,000 Hz with no more than 0.03 per cent total harmonic distortion. The direct-coupled power amplifier employs Onkyo's "Super Servo" circuit, an auxiliary amplified negative-feedback path that operates only between d.c. and 2 Hz, greatly reducing the infrasonic gain of the amplifier and minimizing possible problems with d.c. drift.

According to Onkyo, the power amplifier of the TX-5000 also has high-frequency power transistors and a "linear-switching" circuit that greatly reduce switching and crossover distortion, thereby combining the lower distortion of a class-A amplifier with the higher efficiency of a class-AB design.

The tuner section of the TX-5000 has conventional analog tuning with calibrated scales on a slide-rule dial. It also has a digital frequency readout, operated from a frequency counter, that reads in steps of 0.1 MHz for FM and 1 kHz for AM. The "quartz-locked" tuning system originally introduced by Onkyo some years ago is also used in the TX-5000. It compares the nominally 10.7-MHz i.f. signal in the tuner with a reference frequency generated by an internal 10.7-MHz crystal oscillator and uses the phase difference between them to control the local-oscillator frequency. The result, effectively, is to phase lock the receiver's tuning to the station frequency, preventing any drift or tuning error.

Below the long dial window that covers the upper part of the silver-color aluminum panel are all the receiver's operating controls. Detented knobs operate the bass and treble tone controls, and the balance control is center detented. A larger tuning knob operates a smooth flywheel mechanism, and at the lower right of the panel is a smaller volume-control knob with detented positions.

The other controls are flat pushbuttons, beginning with the power switch at the left next to the headphone jack. Between the balance and tuning knobs are buttons for the SUBSONIC and HIGH filters, stereo/mono mode, and loudness compensation. Pressing the FM MUTE LOCK button simultaneously disables the quartz-lock system and the interstation-noise muting for reception of very weak stations. Next to it is the DE-EMPHASIS button, which changes the normal 75-microsecond FM de-emphasis to the 25-microseconds required for an external Dolby decoder. The remaining button of this group is marked EPS, which stands for "external processing system." This inserts an external accessory into the signal path, between the preamplifier output and power-amplifier input, through rear-panel jacks.

The remaining pushbutton controls are located between the tuning and volume knobs. They select the program source and have red or green lights that indicate their settings at a glance. One is marked for TUNER and PHONO. When it is in the out position another button to the right selects either FM or AM reception. When the button is pressed in for PHONO, a button to the left selects either the PHONO 1 or PHONO 2 inputs. The remaining two buttons are tape-monitor switches, also marked as AUX selectors. The TX-5000 has two sets of tape-recording inputs and outputs; either or both can also be used as a high-level (AUX) input.

The area above the dial scales contains several displays. Three meters at the left read output power for the two channels and FM center-channel tuning. The right-channel power meter is connected into the touch-controlled logic system, which disables the quartz lock when the tuning knob is touched. When an FM signal has been tuned in approximately (so that the center-channel meter pointer is in a center segment

of its scale), a red LOCKED light above the center of the dial lights up. If the broadcast is in stereo, another red STEREO light also comes on. While the knob is being touched, the right-channel power meter is converted to a relative-signal-strength meter for both AM and FM tuning. A moment after the knob is released (in the FM mode) the quartz lock is activated, a green TUNE light comes on (between the LOCKED and STEREO lights), and the signal-strength meter reverts to its function as a power indicator for the right channel.

On the rear apron of the TX-5000 are all the usual signal inputs and outputs, including PRE OUT and MAIN IN jacks, identified with the EPS switch that normally connects them. There is a hinged and pivoted AM ferrite-rod antenna and two a.c. outlets, one of which is switched. A three-position slide switch marked SENSOR adjusts the sensitivity of the touch-operated circuits that are controlled by the tuning knob. The Onkyo TX-5000 is 21¼ inches wide, 15¾ inches deep, and 5¾ inches high. Its metal case is covered with a vinyl simulated-rosewood-grain finish. Price: \$499.95.

● **Laboratory Measurements.** The Onkyo TX-5000 is relatively heavy for its power ratings, so we were not surprised to find that it became only moderately warm during the 1-hour preconditioning period mandated by the FTC. The 1,000-Hz output, with both channels driven, clipped at 86 watts per channel into 8-ohm loads, 118 watts into 4 ohms, and 110 watts into 2 ohms (the last limit was set by the amplifier's protective system, which shut it off before the waveform actually clipped). With an IHF dynamic-power test waveform, the maximum output at clipping was 110 watts into 8 ohms, 155 watts into 4 ohms, and 178 watts into 2 ohms (again, the protective circuit shut off the amplifier even with the 20-millisecond tone-burst signal). The IHF clipping headroom was 1.22 dB and the dynamic headroom 2.28 dB, both based on 8-ohm loads since the amplifier is not rated for use with other loads.

The harmonic distortion at the rated 65 watts output (8 ohms) was between 0.004 and 0.011 per cent from 20 to 20,000 Hz. At lower power outputs the distortion was even less, typically measuring between 0.002 and 0.003 per cent over most of the frequency range. At 1,000 Hz, the 8-ohm harmonic distortion rose from about 0.001 per cent at 1 watt to 0.015 per cent at 80 watts. The distortion at 4 ohms was slightly higher, increasing from 0.003 per cent at 1 watt to 0.016 per cent at 70 watts. Even 2-ohm loads, for which the amplifier is not

(Continued on page 46)

“Listening tests confirmed what the excellent measurements implied: the Eumig FL-1000 is a superb performer.”

JULIAN HIRSCH—STEREO REVIEW, APRIL 1980

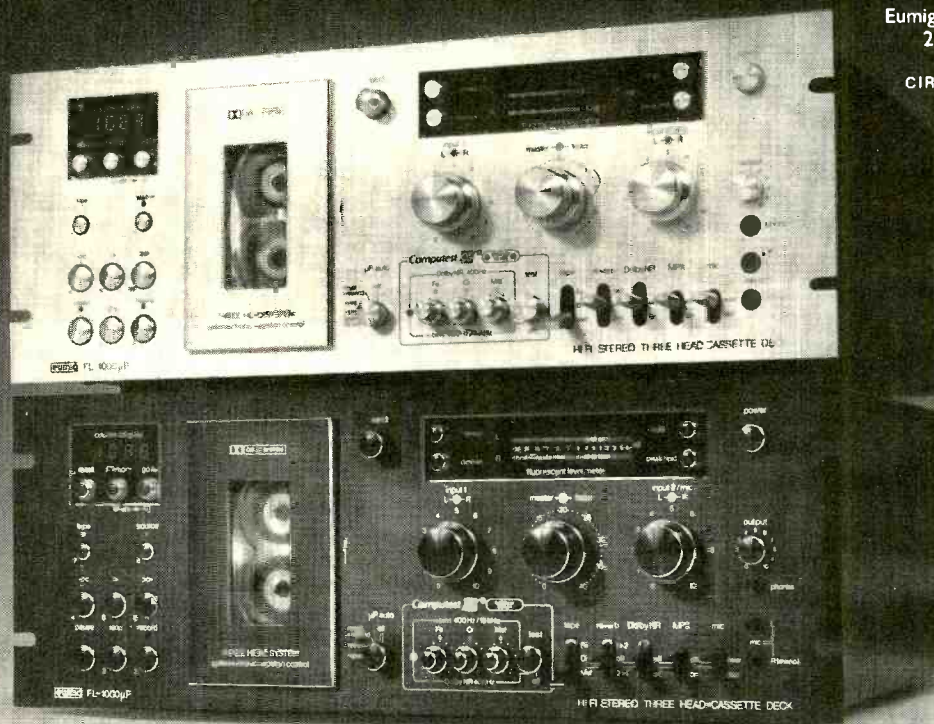
What you are about to read is Julian Hirsch's unedited conclusion in his review of the Eumig FL-1000.

“Listening tests confirmed what the excellent measurements implied: the Eumig FL-1000 is a superb performer. Dubbing from FM or phono discs revealed no audible differences between the original and the copy, and even FM interstation noise—our most severe test—could be recorded and played flawlessly up to levels of approximately -5 dB. The Computest adjustment for different brands of tape was not only accurate but contains a built-in rewind mechanism that returns the tape to the precise point where you began your adjustment. The counter was the most accurate we have ever used. And for people who are “into” computers, the one-of-a-kind (so far) Eumig FL-1000 cassette deck opens up endless possibilities.”

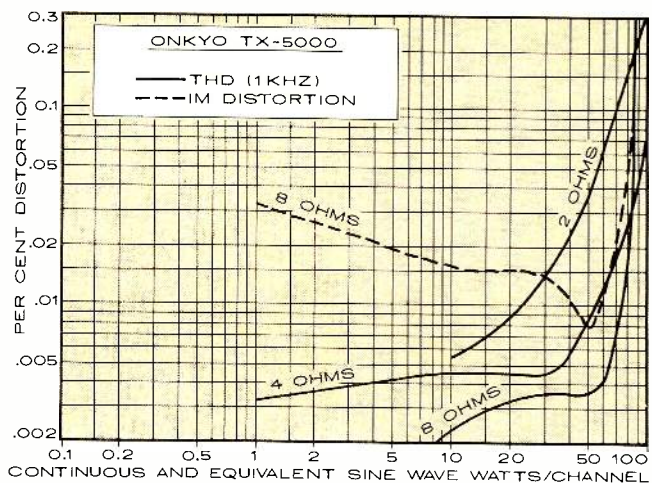
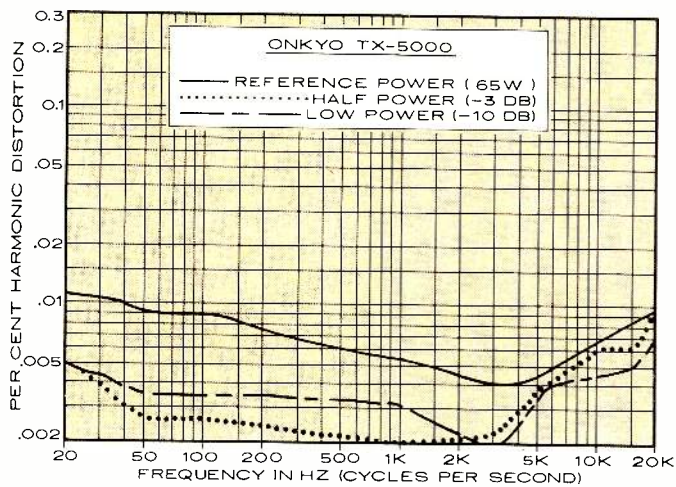
We couldn't have said it better. We wouldn't even try. For the complete text of the review, write to us. Or, better yet, visit your nearest Eumig dealer and find out for yourself what it takes to make a reviewer rave.

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rated, produced distortion readings of 0.0056 per cent at 10 watts (the distortion was masked by inaudible noise at lower power outputs), and it increased linearly to 0.1 per cent at 70 watts and 0.3 per cent at 90 watts. The intermodulation distortion (8 ohms) dropped from 0.032 per cent at 1 watt to a minimum of 0.008 per cent at 50 watts before rising to 0.1 per cent at 85 watts.

The sensitivity of the amplifier through a high-level input (TAPE) was 19 millivolts (mV) for a reference output of 1 watt, and the phono sensitivity was 0.27 mV for 1 watt. The respective A-weighted signal-to-noise ratios referred to 1 watt were almost identical at 75 dB. The phono preamplifier overloaded at 230 mV at 1,000 Hz, 222 mV at 20 Hz, and a very high 356 mV at 20,000 Hz (the last two figures are equivalent 1,000-Hz values).

The amplifier rise time was 5 microseconds, and the slew rate was 11 volts per microsecond. The high-frequency response was rolled off above the audio range, resulting in an IHF slew factor greater than our measurement limit of 25. The phono-input impedance was 51,000 ohms in parallel with 90 picofarads. The power-output meter calibration was adequate for its purpose, with errors of from 10 to 30 per cent.

The tone-control curves had the familiar Baxandall characteristics of a sliding bass-turnover frequency and a treble response

hinged at 2,000 Hz. The infrasonic filter reduced the response at 20 Hz by 3 dB, and we did not make measurements below that frequency. The high filter had its -3-dB point at 5,200 Hz, with a 12-dB-per-octave slope above that frequency. The loudness contours were conventional, with both low and high frequencies being boosted at low volume settings. The maximum bass boost was 8.5 dB, which avoided the unnaturally heavy bass of most loudness circuits.

The RIAA-equalization error was less than 0.5 dB from 25 to 20,000 Hz. The phono response rose very slightly at high frequencies, when measured through the inductance of a phono cartridge, to a maximum of about 1.5 dB at 20,000 Hz.

The FM-tuner section had an IHF usable sensitivity (mono) of 11 dBf (1.9 microvolts, or μV). In stereo, the usable sensitivity was set by the switching threshold of 17.3 dBf (4 μV). The mono and stereo 50-dB quieting sensitivities were, respectively, 12 dBf (2.2 μV) and 34 dBf (28 μV). The ultimate signal-to-noise ratio at a 65-dBf (1,000- μV) input was 75 dB in mono and 71 dB in stereo. The distortion was 0.29 per cent in mono and 0.18 per cent in stereo. These measurements were made with the quartz-lock circuitry operative at all signal levels above its threshold of 18.8 dBf.

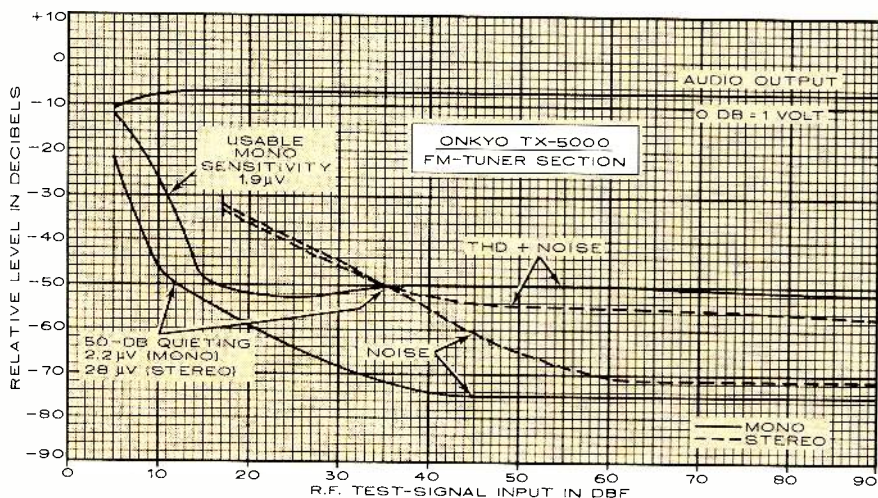
The FM frequency response was flat within ± 0.5 dB from 50 to 15,000 Hz. The stereo channel separation was remarkable

for its uniformity over a wide frequency range. It increased almost linearly from 40 dB at 30 Hz to slightly over 45 dB at 15,000 Hz. Other FM-tuner ratings included a capture ratio of 1.28 dB and AM rejection of 60 dB at 45 dBf (100 μV) input, excellent image rejection of about 99 dB, alternate-channel selectivity of 78 dB, and adjacent-channel selectivity of 9 dB. The 19-kHz pilot carrier in the tuner output was at a barely detectable -85-dB level, and the tuner hum was -62 dB. The frequency response of the AM tuner section was down 6 dB at 45 and 4,000 Hz.

Comment. Both the audio and FM performance of the Onkyo TX-5000 are typical of the best of today's hi-fi components. We were quite impressed with the excellent effective sensitivity of the FM tuner. Apart from the measurements, which were very good, we found that a quiet, fully listenable program could be received from very weak signals owing to the tuner's very rapid limiting curve. Also, the image rejection was unusually high—for that matter, every other aspect of the tuner section's performance ranked with the finest.

The quartz-lock system is, as we have found with previous Onkyo receivers having this feature, one of the easiest and most foolproof tuning aids available. The user sees a completely conventional, familiar tuning dial, and the digital readout removes the last vestige of uncertainty about the actual received frequency. Once the LOCKED light comes on, releasing the knob guarantees "on the nose" tuning. With this comes a perfect muting system, as free of noise bursts and thumps as the most refined digitally synthesized tuners.

The performance of the audio section speaks for itself, and, except for higher power or some special features, it is not likely that one can buy better amplification. Not only is it quiet, with silently operating controls, but it is very effectively protected against any kind of damage from improper external loads or overdriving. It is also one of the few receiver amplifiers capable of driving 2-ohm loads without distress, although Onkyo does not make any claims for it in that regard. All in all, the TX-5000 is a topnotch AM/FM receiver selling at a most attractive price.



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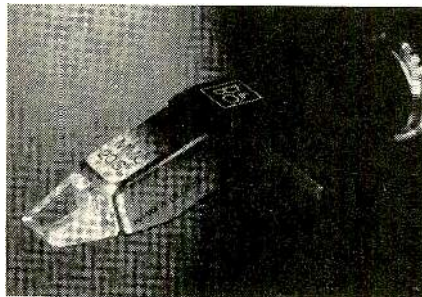
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Preview for Buyers: NEW AUDIO PRODUCTS SHOWN AT CES-80



Larry Klein

THOSE who have followed STEREO REVIEW's Consumer Electronics Show articles over the years will notice at least two differences in this current CES report. We have split the show up "component-wise" among several specializing contributors for a more concentrated, evaluative account of what was seen and heard, and we have devoted a full section to a new category: video.

Our extended video coverage needs no justification to anyone who attended the show: video was simply where the action was, and it is now abundantly clear that the audio industry is heading toward a marriage of hi-fi sound with high-clarity picture. Advent was the first hi-fi company to espouse the inevitability of a merger of video and hi-fi, and their current perception of what our audio/video future will be like is worth quoting:

"Audio will continue to be very important, but audio will find its place as part of a component industry that includes audio amps, speakers, turntables, videodiscs, headsets, videocassettes, projection televisions, and all the other components we know now. It will be as impossible for a component dealer to succeed in 1984 without projection TV as it would have been in 1974 without turntables and receivers. There will be no 'video' business. There will be no

'audio' business. There will be a component industry for home entertainment—and both audio and video components will be a part of it."

I have only one small quibble with Advent's analysis. It is likely that the videodisc and/or videotape will ultimately be as "mass-market" as TV itself now is. Once that happens, picture and sound quality are likely to be sacrificed. Quality adds cost, and in most areas consumers are quite prepared to settle for inferior products if the cost is lower. If you think audio/video products will be an exception, just listen to the sound produced by the average TV set; if enough people really cared about improving its quality, it would have been improved long ago. I wonder also how many people would be prepared to pay what it would cost to upgrade their home picture quality anywhere close to the level of studio monitors.

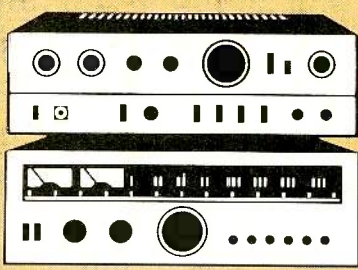
What I'm suggesting is that video equipment will ultimately divide into low-price, low-quality, mass-market merchandise and high-price, high-quality, "videophile" components, just as audio products are divided today. At the moment there are no clear demarcations between low- and hi-fi video products, except in the components that directly provide the picture. Today's TV sets and projection systems vary enor-

mously in picture clarity, and, like inadequate loudspeakers hooked up to an expensive audio system, they can prevent the inherent quality of the signal sources from coming through.

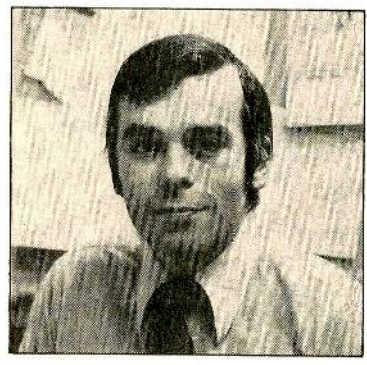
OVERALL, this year's show could not help but reflect the currently depressed state of the U.S. economy. There were fewer new-product introductions and fewer dealers who came to view them. But the main store personnel were there (I'm told) putting in their orders, so it is likely that most of the equipment discussed will be showing up on the shelves of dealers (those who are still in business) by at least late fall.

Since our new style of coverage concentrates on the brand-new products, many significant items introduced earlier this year may not appear in the following pages. And, too, we did not attempt the impossible—mentioning every item shown. There is also the possibility that some worthwhile products were lost in the paper storm that inevitably accompanies any Consumer Electronics Show (we ship and hand-carry back to the office enough press kits and sales literature to form a stack over three feet high). In any case products we haven't covered in the Show Report beginning overleaf will be appearing in our "New Products" columns in the months to come. —Larry Klein

CES-80



RECEIVERS AMPLIFIERS TUNERS



A report by
Ralph Hodges

THE receiver, which remains the first choice of the average hi-fi buyer if not of the more advanced audiophile, reassumed its role as the practical workhorse of the home system at this year's summer Consumer Electronics Show. There were no extravaganzas, nor did any of the new models strain to exceed the 200-watts-per-channel mark. Even such an industry giant as Pioneer held itself to comparatively modest introductions: the \$175 SX-3400 and the \$225 SX-3500, at 15 and 20 watts per channel, respectively.

Of technological trends, two showed especial strength in the new receiver offerings: frequency-synthesizing tuner sections and quasi-class-A amplifier sections. Synthesizer tuners, exotic and expensive only a few years ago, became comparatively widespread with the recent development of specialized chips that not only save space but more than maintain the performance of the better conventional designs in most areas.

● **Receivers**

The new Aiwa AX-S50U minireceiver, which has 20 watts per channel and ten AM or FM tuner presets, is a recent example of synthesizer design. And the synthesizer principle is also found in some new full-size receivers. The Sansui 3900Z, rated at 40 watts per channel and incorporating a synthesizing tuner with six station presets and both a digital tuning indicator and a tuning dial, costs \$390. Two other Z-series models, culminating in the 5900Z (\$580), afford increases in power output (up to 75 watts per channel) and extra operating features.

As applied to the latest receivers, such terms as "class-A," "non-switching," and so forth denote amplifiers that operate with near-class-A biasing under low-signal conditions (thus providing low distortion at the point where the waveform "crosses over" from positive to negative and vice versa), but switch or slide to more efficient class-AB biasing at other times. Much of the inefficiency and heat generation of class-A operation is thereby avoided. The way the critical transition between classes is handled differs from manufacturer to manufacturer, but the principle is the same.

One of the largest new receivers at the show, the Technics Model SA-818 (110 watts, \$800), is a quasi-class-A design, as is its smaller brother, the SA-616 (80 watts, \$650). In addition, both have synthesizer tuners (based on frequencies derived from quartz crystals) and the ubiquitous station presets and digital-tuning indicators. JVC's name for its quasi-class-A configuration is "Super A," found in the 60-watt R-S77 (\$530) and the 40-watt R-S33 (\$330). Both, together with the new 40-watt R-S55 (\$400), have synthesized tuning. They also have a five-band graphic equalizer.

Fisher's new quasi-class-A entry, the RS-270 (\$550), is a direct-coupled design affording 50 watts per channel and the sophistication of quartz-crystal synthesizer tuning. For its part, Lux prefers to stand

pat with its "Duo-Beta" amplification approach, of which there were three new receiver exemplars at the show ranging in price from \$395 to \$595. Kenwood also holds fast to proprietary technology, extending its "Hi-Speed" wide-band amplifier circuitry into the receiver area with five new models, from the KR-770 to the KR-710. But an even more important introduction, from this manufacturer's viewpoint, is the new "Slimline" series of low-silhouette components. The group contains one receiver (the 27-watt KR-80, \$379) with virtually all the front-panel features of the show's other highlighted receivers in a sleek, well-integrated layout.

Equally embellished with features were four new receivers from Harman Kardon, with the 60-watt top model, the hk680i (\$599), boasting a synthesizing tuner as well. Onkyo introduced a "cassette-tuner-amplifier," the CX-70, combining a metal-capable cassette deck with Dolby noise-reduction circuitry and a 20-watt AM/FM stereo receiver on one low-profile chassis (\$399.95). Toshiba had new 50-, 30-, and 20-watt receivers (\$380 to \$250), all with slimline styling and wood-grain ends.

Minireceivers have already been mentioned, and while they are by no means a well-established trend, some manufacturers do find them a logical extension of existing product lines. H. H. Scott, for example, showed an attractive minireceiver prototype, the 35R, on which there is yet little information. Ultimately this should join four other new Scott receivers of comparatively conventional design. Noteworthy for another reason—their previous non-existence as a product category for this manufacturer—are three Mitsubishi receivers, the DA-R20 (\$560), DA-R10 (\$390), and DA-R7 (\$290).

● **Preamplifiers and Amplifiers**

Of late, what with black front panels, low-silhouette chassis, and spartan control layouts, some component preamplifiers have projected an austere image, a no-frills dedication to audio-signal integrity. Control features beyond the most basic are regarded skeptically by some preamp designers, who seem inclined to pare away rather than elaborate on their products. So it's interesting to note the appearance this year of a rather new feature: two stereo preamplifiers in one, so to speak.

The MXR System Preamp (\$460) has input-selector switches for two different stereo sources, permitting both of them (except for two simultaneous phono sources; there is only one phono-preamplifier section) to be routed through the preamplifier independently or to be blended or faded up or down at the whim of the operator. A microphone input accepts signals from a mike or directly from musical-instrument pickups and treats them as any other signal source. And, naturally, there are complete monitor facilities for two tape decks. Otherwise, performance is essentially identical to that of the new MXR Linear Preamp (\$350) with its somewhat simpler control facilities.

If the MXR System Preamp is geared to provide some input-mixing facilities for the creative audio hobbyist, the KM Laborato-

ries SP-100 (\$699) has something different in mind: providing four independent preamplifier *outputs*, two of which can be acted upon by an optional choice of signal processing. The processing, which will be performed by modules that plug into an internal slot in the preamplifier, is envisioned as either a circuit for enhanced stereo and reduced distortion, a quadraphonic decoder of some kind, or a delay line for rear channels. There is also a fifth output that will drive a subwoofer power amplifier at frequencies below 115 Hz, plus space for an additional phono preamplifier module (moving-coil or moving-magnet).

Another recent preamplifier trend is built-in parametric equalization. SAE seems to have begun it with the introduction of a two-band system not long ago. Now Phase Linear carries it on with a three-band equalizer built into the new Model 3500 (about \$600). Each of the bands can be adjusted for a center frequency anywhere over a range of a bit more than three octaves. A pushbutton switch determines whether the effect of the midrange control spans one or two octaves.

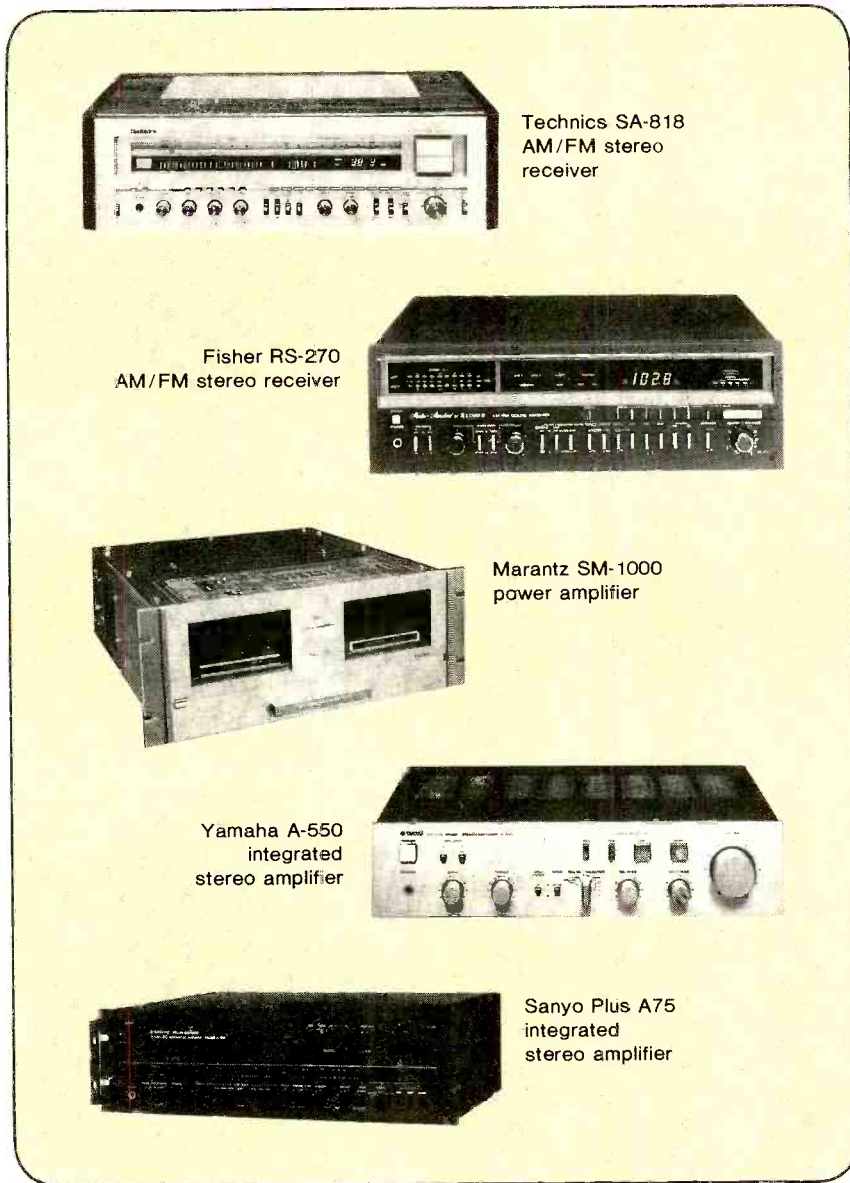
New power-amplifier trends were about as diverse as ever at the show, but one of the newest, just beginning to gather steam, is the use of feed-forward to reduce distortion. A short while back Threshold Corporation brought out its first practical feed-forward design, the very-high-end Stasis 1; it was joined at this show by the 200-watt Stasis 2 (\$2,450) and the 100-watt Stasis 3 (\$1,675), both being stereo units in contrast to the Stasis 1's mono-only format. Now Sansui has produced a variation on the theme with the AU-D9 integrated amplifier, a 95-watt-per-channel unit priced at \$650. The Harman Kardon Citation XX amplifier is waiting in the wings, but in the meantime the company has available a new integrated amplifier, part of the successful 700 series, at 45 watts per channel (\$329).

And now, back to quasi-class-A and in particular to the SAE X25A, a 250-watt-per-channel power amplifier that, although seen before in prototype, is at last reportedly ready to ship at \$1,500 each. Of special interest is the LED output-power display, said to respond to both voltage *and* current and therefore to represent the true output power in watts. Other new quasi-class-A amplifiers at the show came, like the receivers mentioned earlier, from JVC and Technics. The JVC entries were three integrated models: the 60-watt A-X4 (\$400), 55-watt A-X3 (\$350), and 40-watt A-X2 (\$200). The outside two have JVC's five-band graphic equalizer. As for Technics, there were four new integrateds, the SU-V2, SU-V4, SU-V6, and SU-V8, with prices from \$200 to \$550 and power outputs from 40 to 110 watts per channel.

In addition to the above, there were a pair of *true* class-A amplifiers (if you switched them to that operating mode) at the show, both of them belonging to Marantz's new Esotec line. The Sm-6 is a stereo power amplifier that provides 120 watts per channel in class AB and 30 watts per channel in class A; the Ma-5 does the same, but only for one channel. The flagship of the Esotec line (the Model Sm-1000 power

amp), at 400 watts per channel and \$5,500, will not operate in class A, however. Companion preamplifiers, the Sc-6 and the somewhat more elaborate Sc-9, are also available. Presumably to throw off the heat of class-A operation more effectively, the Sm-6 employs a heat-pipe radiator, a fluid-filled tube with power transistors attached to one end and cooling fins to the other. Convection in the fluid carries the heat from transistors to fins. An innovation from

watts per channel, \$509.95), Yamaha (Model A-550, 40 watts per channel, \$250), Sony (four models; 22, 40, 50, and 65 watts per channel, \$165 to 400), and Onkyo (Model A-15, 30 watts per channel, \$169.95). Kenwood's Slimline series gained 48- and 30-watt-per-channel amplifiers. Tandberg's new separates, the 3002 preamplifier and the 3003 power amplifier, were distinguished both by their good looks and by the admirably extensive specifications



Sony just a short time ago, the heat pipe now seems to have been adopted by Sansui and Sanyo, as well as Marantz, for certain models.

Another way to keep power transistors from overheating is to distribute the heat over lots of them, as Denon has done in the new POA-3000 power amplifier (180 watts, \$2,300) with ten output devices per channel. Denon also showed a new preamplifier and integrated amplifier. Others showing new amplifiers were Sanyo (Model A75, 75

and descriptive literature that accompanied their introduction.

Both NAD and Toshiba showed integrated amplifiers claimed to reduce the effects of speaker cables on amplifier and speaker performance. NAD's Model 3040 amplifier is rated at 40 watts per channel, Toshiba's (\$399.95) SB-66 "Clean Drive" unit at 55 watts.

There is good news from Dynaco in the forms of the PAT-10 preamplifier and the ST-420 power amplifier. The similarity of

product designations to those of previous Dyna models will be heartening to the company's long-time fans, as will the news that some electronic kits are being planned for next year. Unfortunately, final specifications and prices were not available.

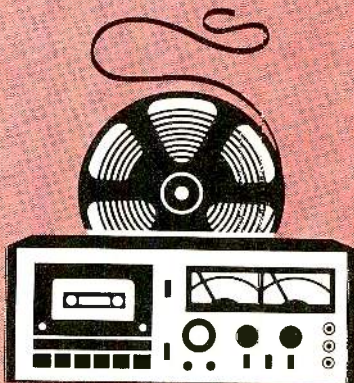
● **Tuners**

At this show it was next to impossible to find a new tuner above \$200 that was not long, low, and set up for—or at least adaptable to—rack mounting. And above the same price point it's becoming a bit of a surprise to find tuners that don't feature frequency synthesizing and the inevitable digital station-frequency readout that goes with it. An exception, at least in the latter respect, was the Tandberg Model 3001 "programmable" FM-only tuner, which does not stint on automatic tuning functions, station presets, and other memory features, but which in its basic circuitry is pure analog; it also had many of those good old fast-disappearing features such as tuning meters and variable i.f. bandwidth. But best of all are some of the specifications, such as a signal-to-noise ratio in stereo of 92 dB even under less than optimal conditions.

As for other new tuner offerings, frequency-synthesizing designs did not quite run away with the show, but they held the analog types at least to a draw. Technics introduced what was billed as the first DC synthesizing tuner (Model ST-S7; \$350) with a claimed improvement in distortion and stereo separation at lower frequencies. The same manufacturer also introduced two more synthesizing tuners, including one minituner, the \$330 ST-CO3. On the other hand, in its Slimline series Kenwood kept to what is basically analog operation, with the KT-80 featuring the company's estimable pulse-count detection and the lesser KT-60 featuring only its attractive self. Hitachi split between the digital (and presumably frequency-synthesizing) FT-4400 at \$250 and the analog FT-3400 (\$160). So did Nikko, with the synthesizing Gamma 20 (\$380) accompanied by the analog Gamma 40 (\$450), made attractive by the company's circuitry that tracks and locks onto signals. JVC eschewed frequency synthesizing to stick with its proven "Phase Tracking Loop" circuitry, showcasing it in the very long and lean T-X3 (\$220). Sansui's TU-S7S synthesizing tuner (\$320) has twelve station presets, while the TU-S9 (\$380) has ten. If something seems backward to you here, it is because the more expensive TU-S9 has a keyboard that lets you punch in the station frequency directly without having to scan the band to get to it. (Of course, with either tuner, once a station is entered in memory it can be returned to instantly at the touch of a single pushbutton.) Philips showed their synthesizing tuner, the AH180, at \$560.

And that should give you some idea of how the tuner market stands. But what, you may ask, of stereo AM? Very little, it would seem, at least among home equipment at the show. Conversation in the show corridors leaned toward a consensus that equipment for receiving AM stereo might come early or late, but that it would certainly not come much before the broadcasts themselves were readily available. □

CES-80



TAPE AND TAPE DECKS



A report by
Craig Stark

INNOVATIONS in recorders and tape have come so rapidly in the last couple of years that the industry was due for a pause in the pace of new-product introductions at this year's CES. There were, of course, a certain number of exciting new developments that will be detailed below. But, for the most part, tape-oriented people with whom I spoke seemed to be taking a long, deep breath and asking themselves, "Just where *do* we go from here?"

You can now buy "metal-tape compatible" decks that range in price all the way from the \$129.95 Sharp RT-10BK to the \$3,800 Nakamichi 1000ZXL. "Microprocessor control" (in varying degrees of sophistication) has become commonplace in mid- to high-price decks. Metal tape itself is now increasingly available in the popular C-90 length, and brand-to-brand differences in bias requirements appear to have narrowed sharply. In the context of these developments the realization is growing that there simply isn't a great deal of room left for major technological development of the cassette medium as such.

Certainly it's hard to imagine performance much more sophisticated than that provided by the new Nakamichi 1000ZXL. It automatically adjusts the record-head azimuth to compensate for differences between cassette shells and then, under microprocessor control, automatically adjusts bias, record equalization, and Dolby sensitivity, rewinds itself, and records a subsonic code for future reference—following which it rewinds itself again for action! Further codes identify up to fifteen selections per cassette side, which can be played in any desired sequence, up to thirty in all. Stated response is ± 0.5 dB from 20 to 20,000 Hz (± 3 dB from 10 to 25,000 Hz) with all premium-grade tapes. And, along with other features too numerous to detail here, the 1000ZXL permits use of an external Nakamichi/Telefunken-developed High-Com II dual-band noise-reduction system that can provide 20 dB of noise reduction.

For \$1,000 less, but still in the high-price ballpark, Tandberg presented its \$2,800 Model 3004, as exquisitely engineered as it is styled. Separate reel motors (a total of four motors are used in all) permit variable-speed rewind and fast-forward with cueing in either direction. The 3004 also incorporates Tandberg's "Dyneq" circuitry; it automatically adjusts the record equalization to prevent treble saturation.

Microprocessor adjustment of bias, equalization, and Dolby-level sensitivity has been introduced into the Aiwa line in the form of its three-head, two-motor Model AD-M800U (\$770); the system seems to be similar to that used in JVC's two-head KD-A66 (\$499.95).

From some little evidence at last year's CES, it appeared probable that a number of manufacturers would produce two-speed cassette decks this year, joining B.I.C. and Marantz (1 $\frac{7}{8}$ and 3 $\frac{3}{4}$) and Nakamichi (1 $\frac{5}{16}$ and 1 $\frac{7}{8}$). Such did not prove to be the case, though the Marantz two-speed line has

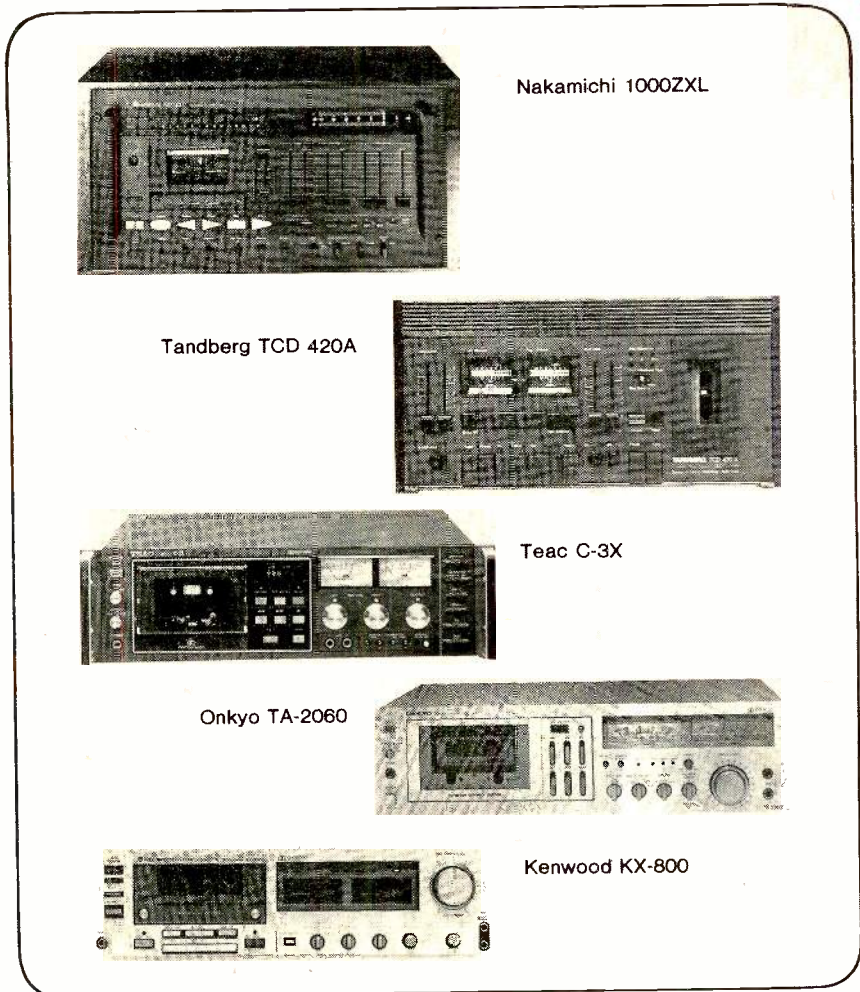
been joined by the company's \$250 SD 1020 and \$325 SD 3020, and B.I.C. has upgraded its mid-price T-2M (\$349.95) to the point that it claims 20- to 20,000-Hz response (using metal tape at the higher speed) at full Dolby level—a level 20 dB higher than that customarily used in making response measurements. The one new 3 3/4- and 1 7/8-ips entry I encountered was the Teac C-3X (\$650) described below.

Introduced last year, the Dolby HX system, which can significantly extend the high-frequency capabilities of any Dolby-B equipped deck, is beginning to make its impact felt in the cassette market. The first HX-equipped deck, the Harman Kardon hk 705 (\$449, reviewed in our May 1980 issue), has been joined by three more of that manufacturer's new models, the hk200XM, 300XM, and 400XM (the last a three-head deck), at prices from \$349 to \$649. The Teac C-3X, at the top of their line, is a three-head unit that provides not only two-speed operation and Dolby HX, but an optional dbx-II interface as well. Additional decks incorporating the HX system were the Onkyo TA2060 and the Lux K-15, as well as models from NAD, Neal, Blaupunkt, Cybernet, Nissho, and the minicomponent Fisher CR-M500. Since the Dolby HX circuitry is fully compatible with all Dolby-B equipped recorders, it adds little to manufacturing costs but provides substantial benefits; it's a good bet that next year even more decks will incorporate it.

Metal-tape capability has become nearly universal, excepting only a few "entry-level" decks and older designs still in the product lines. Similarly, the trend toward substituting fluorescent (or LED-string) level-indicating displays for mechanical meters also continues. One of the new Technics entries, the RS-M51 (\$400), adds a second, diagonally slanted fluorescent display equipped with a circuit that scans the music for seven seconds, remembers the peak level, and then automatically adjusts the record level of the deck. JVC's extensive new line includes the \$499.95 KD-A7, which supplements regular VU meters with a fluorescent spectrum display that separately registers peak signal strength in seven different frequency bands.

AT the show I also seemed to discern a significant move toward the introduction of somewhat lower-price models. The three new Kenwood decks (the KX-400, -600, and -800) range from \$189 to \$369; similarly, the three new Hitachi models (D-22, D-33, D-45) run from \$169.95 to \$249.95. Dual's new twin-belt-driven Model 812 is priced at \$299.95, and Akai introduced bidirectional decks (the CS-M40R and GX-F60R) at \$349.95 and \$499.95. Highest priced among Sony's ambitious eight new offerings is the three-head, dual-capstan TCK-81 at \$530; the entry-level TCK-22 is only \$190. Yamaha introduced models ranging from the \$240 K-350 to the \$490 K-950.

In open-reel, two new entries caught my eye, not only for their design and features but for their comparatively low prices. The new Teac X-3 is a 7-inch, two-speed (7 1/2 and 3 3/4 ips) deck that lists at \$550, and the \$749.95 Akai GX-625 offers 10 1/2-inch-reel



Nakamichi 1000ZXL

Tandberg TCD 420A

Teac C-3X

Onkyo TA-2060

Kenwood KX-800

capability and a real-time tape counter. These join a distinguished company of previously introduced units from Tandberg, Revox, Pioneer, and others.

I noted only one major new tape introduction at the CES, that of TDK's SA-X, a dual-coated high-bias formulation claimed to offer very nearly the performance of metal-particle cassettes at a substantially reduced price. Upgradings of existing products—a new, more precise shell from BASF, improved packaging from Ampex, etc.—were rife, reflecting a positive trend toward quality in the tape industry.

I began this report by noting that there appears to be a slight slow-down this year in the pace of technological development in the traditional cassette medium. What *does* the future hold? At a technical conference with some top engineering personnel, the general manager of Sony's Deck/Player Division sounded a theme that was echoed many times by others at the show: the Eighties will become the digital decade for audio—PCM audio discs and recorders—with significant introductions coming by 1983. A long period of coexistence between digital and analog media is foreseen before digital finally becomes dominant, of course; no one need fear that a deck bought today or in the next several years will suddenly become obsolete.

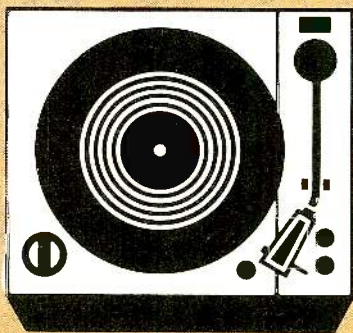
At present, the biggest problem is cost. Sony's own PCM-10 digital encoder/decod-

er sells for \$5,500, not including the additional \$1,000 or thereabouts for a videotape recorder needed to use it. Toshiba showed off a complete, self-contained digital home recorder, Model PCM-DI, whose price is not yet fixed. The only other PCM-adaptor prototypes I have seen and heard are made by Technics and Pioneer, but it is safe to say that all the major companies have drilled at least exploratory wells in the home digital-recording field. To date, the assumption has been that a helical-scan video recorder will be used for digital recording because of the wide bandwidth requirements, and an EIAJ (Electronic Industries Association of Japan) standard has actually been adopted for this use. This, however, will tend to keep prices rather high even if the cost of digital electronics can be substantially reduced by large-scale integrated circuits and larger production volumes. Digital is coming, all right, but between now and its arrival analog cassettes will gain a lot of features at various price points even if the basic cassette we know today undergoes no further technological improvement. And even with the advent of digital we may not be finally locked in to the video recorder. Sony's response when I asked whether they had any plans for a stationary-head home digital-recording system was to say, "We won't deny we've been working on it." □

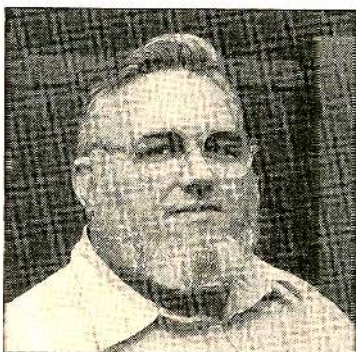
(Continued overleaf)

CES-80

A PHONO CARTRIDGE responds to and resolves groove-wall modulations smaller than a wavelength of visible light, and a typical phono-preamplifier circuit amplifies the pickup's output voltage by a factor of about one hundred at midrange frequencies and by nearly one thousand at low-bass frequencies. The conventional record-playing system can therefore be considered a rather effective seismic detector, exquisitely sensitive not only to nearby volcanoes and earthquakes but also to floor vibrations, air-conditioner compressors, elevator motors, passing trucks and buses, and, of course, the sonic vibrations produced by your loudspeakers. One way of preventing these vibrations from reaching the stylus and muddying the sound is to use a massive turntable platter and base, and manufacturers are increasingly turning to this solution to an old problem.



TURNTABLES CARTRIDGES SPEAKERS



A report by
Peter Mitchell

● Turntables

The ultimate expression of the heavy-weight trend is a turntable with a *half-ton* seismic platform. Kenwood has exhibited this monster at hi-fi shows in Japan, obviously not as a commercial product but as a reference standard by which to judge the immunity of more practicable turntable designs to vibrational disturbances. The consumer version is the Kenwood L-07D direct-drive unit; it weighs a mere 72.6 pounds and retails for \$1,700. It has a die-cast aluminum frame embedded in a resin-concrete base bonded to a layer of mahogany. Micro-Seiki's new RX-5000 belt-drive weighs a total of 120 pounds, including a 35-pound, finely machined gunmetal copper platter, a 49-pound zinc base, and a separate 26-pound motor unit in a zinc housing connected to the platter via a thin belt woven of 134 fine aramid-fiber threads. Its suggested retail price is \$3,500. The economy version, the RX-3000, weighs and costs about a third less. To each of these you add the tone arm of your choice.

With the \$15,000 Thorens Reference Turntable, however, you get *three* tone arms (one each from Thorens, SME, and EMT). This 200-pound unit has a 14½-pound, belt-driven, electronically controlled platter, and 33⅓-, 45-, and 78-rpm speeds with a ±6 per cent speed control. The turntable rests on four gold-plated support devices that can be adjusted to give the whole assembly a resonance frequency between 1 and 5 Hz. Thorens also introduced the much less expensive TD-160 Super armless turntable, again with belt drive but with only two speeds. This model has a new resonance-damping turntable mat and a free-floating sub-chassis construction.

These are extreme examples, but the days are gone when the base of a turntable was merely a decorative ¼-inch-plywood box. Indeed, wood is becoming conspicuous by its total absence from many new turntable designs. Yamaha's PX-2 linear-tracking turntable (\$950) has a massive, monolithic diecast aluminum base, Pioneer's PL-630

has a one-piece resin base, Marantz is featuring a turntable constructed entirely in alternating layers of brass and glass in its new Esotec prestige line of components, and Sony has a series of new turntables whose bases are formed of a "bulk molding compound" containing calcium carbonate, fiber glass, and a polyester binder. The \$795 Janorhurst JBE Series 3 turntable from England has a base that is hand-sculpted from a solid block of Welsh slate, plus a black acrylic platter topped with an array of circular aluminum discs.

As an alternative to high mass, a turntable can be isolated from external mechanical vibration sources by means of very compliant springs acting as an efficient mechanical filter. A new exemplar of this approach is the \$850 Oracle belt-drive turntable made in Sherbrooke, Quebec; its platter and arm are suspended on a sub-chassis floating on springs that filter out all vibrations at frequencies higher than 3.5 Hz. To suppress any remaining vibrations in the record itself, a clamp is used to press the disc into close, uniform contact with a porous soft-rubber platter mat. A new \$3,000 turntable from Lux, the Model PD-555, takes this approach one step further by employing a vacuum pump to suck records (even warped ones) into flat, intimate contact with its platter.

The several-years-old marketing battle between direct-drive and belt-drive has ended in a draw. Including the new models introduced at this year's CES, many turntable manufacturers (among them Technics, Toshiba, Dual, and Kenwood) are now offering both a full line of direct-drive units and a line of belt-drive models as well. With its newest models Garrard now offers four direct-drive single-play turntables, including the quartz-locked DDQ650, in addition to its series of seven belt-drive single-play and multi-play record players. Kenwood's new entries include the fully automatic \$349 KD-5100 (with a quartz-crystal-referenced phase-locked-loop servo circuit governing a d.c. direct-drive motor and a microprocessor-controlled automatic tone arm with optical position sensing) and the semi-automatic \$135 KD-1600 (with a synchronous motor, belt drive, and a separate geared motor to operate the auto-return tone arm). The KD-5100, as well as Sony's new line of six direct-drive models ranging from \$150 to \$500 in price, all feature "slotless" motors with, it is claimed, much reduced levels of "cogging," a primary cause of infrasonic rumble.

SONY's semi-automatic PS-T22 (\$150) and fully automatic PS-T33 exemplify another rapidly spreading trend effectively promulgated by Dual: straight tone arms with reduced effective mass. The traditional S-shaped polished aluminum or chrome-plated steel arm is gradually disappearing in favor of slimmer designs, some made of resonance-absorbing carbon fiber, others similar in appearance but made of black-anodized aluminum alloys. Toshiba's new series of turntables, for example, includes the Model SR-F200 with a straight aluminum arm (\$180) and the SR-Q300 with a carbon-fiber arm (\$300). Onkyo introduced two new automatic turntables, the CP-

1130F with a straight black-anodized aluminum arm and the "step-up" Model CP-1150F with a carbon-fiber arm. In both cases the arm is operated by a separate motor under microprocessor control; remote control is optional.

With their increasingly elaborate circuitry and the adoption of the popular low-profile look, most turntables are now too wide and deep to fit a crowded bookshelf. But a few manufacturers are bucking the trend for the benefit of listeners who are space-limited: B.I.C., for instance, introduced three belt-drive "microchangers" priced from \$100 to \$130, Models 150, 250, and 350. They are a bit smaller all around than B.I.C.'s regular line of automatic turntables and so are well suited to, say, a student's space-shy dorm room. Aiwa's new \$350 Model AP-D50U is designed to be stacked on a shelf with a set of minicomponents, and there is no need to plan extra space to lift its dust cover: it's a "front-loading" turntable whose platter glides out from beneath the dust cover to receive a record and then retracts back in to play it. Easily the most eye-catching new turntable at the CES was the Mitsubishi LT-5V (\$450), a fully automatic belt-drive unit designed to stand *vertically* (see July's "New Products" section). It can be wall-mounted or placed on a shelf, and it has a straight-line-tracking tone arm operating under integrated-circuit (IC) logic control.

Which brings us to a trend that is likely to become much more widespread in the next year or two: the so-called linear (that is, straight-line-tracking) tone arm that rides on a straight rail instead of pivoting in an arc from one corner of the turntable.

With the vertical Mitsubishi LT-5V and Yamaha's new top-of-the-line PX-2 joining the previously introduced SLT models from Technics (the SL-10), Aiwa, Revox, Harman Kardon, B&O, and Phase Linear, the stage is set for mass production of SLTs. And with inexpensive IC logic circuits and photo-optical sensors replacing the delicate mechanical arrangements in earlier designs, it is becoming practical to mass-produce the once-exotic SLT with improved long-term reliability as well as lower cost.

● **Phono Cartridges**

This year's improvements in cartridges are generally evolutionary rather than revolutionary: refinements in previously introduced designs, the use of more exotic materials, and the broadening of product lines. For example, Empire has taken the technology of their top-of-the-line EDR.9 and applied it to a new series of six "dynamic-interface" cartridges weighing about 20 per cent less than earlier Empire pickups. They employ samarium-cobalt magnets for higher output, exhibit better tracking of heavily modulated grooves, and have less inductance (so that their frequency response is less sensitive to cable capacitance). The top two models, the 600LAC and 500ID, employ a tapered stylus cantilever of aluminum alloy treated with vaporized boron, plus "inertial damping" (a tiny, compliant internal counterweight) that largely cancels the high-frequency resonance.

Higher output (up to 5 millivolts), lower inductance, and better tracking are also the themes in Audio-Technica's new series of "vector-aligned" dual-magnet cartridges ranging from the AT120E (\$90) to the

AT155LC (\$225). They achieve improved magnetic efficiency by using "para-toroidal" (quasi-doughnut-shaped) coils wound directly on the magnetic pole pieces.

Astatic has entered the high-performance cartridge market with a series of four "moving-flux" models claimed to combine the convenience and high output of moving-magnet designs with the transparent sound of moving coils. The moving-flux design is basically a variant on the moving-magnet principle in which the magnets pivot about the cantilever fulcrum and the coils are placed unusually close to the magnets, eliminating the need for pole pieces to conduct the magnet flux to the coils. The new Astatic models range from the MF100 (\$268) to the MF400 (\$80).

Ortofon, whose low-mass Concorde plug-in cartridge and ULM cartridges (pre-installed in Dual turntables) have proved successful, is continuing to develop other variations. These now include a Concorde 30H pre-installed in an SME Series III plug-in tone-arm shank and the TM-30 (\$175) designed to plug directly into the straight-line-tracking arm of the Technics SL-10 automatic turntable.

ADC's new Astrion cartridge (\$185) employs a laser-etched, solid-sapphire cantilever shaft for maximum stiffness. Each cartridge is said to be hand-assembled and tested by a single technician rather than being produced on an assembly line.

Another entry in the exotic-materials sweepstakes is the System II series of electret cartridges from Micro-Acoustics, each employing a beryllium cantilever and an iridium-platinum axial damper to stabilize the cantilever's motion, the whole housed in a carbon-fiber cartridge body. They use direct-coupled electret transducers rather than magnetic circuits and so are less sensitive to induced hum as well as being unaffected by cable capacitance.

Sony showed two moving-magnet models and four moving-coil designs. Three of the latter come integrated with head shells. Acutex introduced seven Lowest Possible Mass (LPM) models: by loosening a screw on the cartridge, the normal mounting bracket on these units can be replaced with the Acutex Saturn V head shell, thus creating a low-mass integrated unit.

For an interesting twist on the moving-coil/moving-magnet controversy, Stanton and Pickering have introduced a low-inductance, low-output moving-magnet design that requires a pre-preamp or transformer. Tip mass has been reduced and high-frequency response has been extended in this configuration: it is available from Stanton as the 980LZS and from Pickering as the XLZ/7500S (\$250).

● **Loudspeakers**

The design trends in this year's new loudspeakers can be quickly summed up: more diversity in forms and sizes, more use of exotic materials, more output potential at very low and very high frequencies, greater power handling, and refined stereo imaging.

Not too many years ago, nearly all loudspeaker systems (with the exception of a few exotic designs such as electrostatics) were rectangular boxes, and the major debate was whether a big-box (5 cubic feet)



Turntables, clockwise from top left: Garrard DDQ650, Onkyo CP-1130F, Thorens "Reference," B.I.C. Micro 350, and Yamaha PX-2.



Loudspeaker systems, clockwise from top left: Infinite Reference Standard (two sections per channel), KEF Model 105.4, Wharfedale E-20, Sony SS-U80, and Altec Lansing Model 8 (sizes not relative, of course).

speaker was better than a little-box (2 cubic feet) speaker. Today's loudspeakers range from minis small enough to fit into a backpack up to 7-foot towers weighing hundreds of pounds. And you can take your pick of rectangular boxes, spheres, cylinders, flattened cylinders, full pyramids, truncated pyramids, rhomboids, eggs, splayed panels, and other odd shapes.

The new loudspeaker that drew the most attention for sheer extravagance (as well as for an impressive demonstration involving excellent analog and digital master tapes) was the Infinity Reference System (IRS), pegged to retail for a smart \$20,000 per pair. Each channel includes a curved, sand-filled cabinet 7½ feet tall. It contains vertical arrays of thirty-six planar magnetic-dipole tweeters and twelve planar magnetic-dipole midrange drivers—plus a *second* 7½-foot-tall cabinet containing six 12-inch polypropylene-cone woofers and an accelerometer feeding distortion-correcting feedback signals to an included 1,500-watt bass amplifier. The system reproduces the cannon shots in Telarc's *1812 Overture* recording with precise stereo imaging and absolutely no sense of strain at full blast.

And that is precisely the stated design goal of many of the new speakers shown at this year's CES: to cope with the extra-wide dynamics and massive bass found in many digitally mastered and dbx-encoded recordings. Cerwin-Vega's entry, a six-foot tower speaker, is the SUFT-FET 2 (\$4,000 per pair): it contains a vertical line array of seventy-two planar magnetic-dipole midrange/tweeter elements on top of a woofer cabinet containing 15-inch and 8-inch drivers.

With the slogan "performance for the digital decade," ADS introduced a new se-

ries of floor-standing speaker systems: the top-of-the-line Model L2030 (\$3,800 per pair) has dual 14-inch woofers and a compartment for installing the new ADS B-2000 biamplification system (\$2,500) that includes electronic crossovers and switching power supplies—and 1,000 watts per channel rated power.

Among the highly esteemed British speakers introduced at the show were Wharfedale's new E-20, a very efficient, wide-range, compact system selling for \$600 per pair, and a new group of Laser Series systems. B&W showed their latest developments, the Model 802 (a scaled-down version of the top-of-the-line 801) and their first minispeaker, the DM 12, capable of producing a 106-dB sound-pressure level. And KEF showed a new second-in-the-line unit, the Model 105.4. Resembling the 105 but somewhat smaller, it employs most of the same design techniques.

JBL's new top-of-the-line bookshelf model, the L112 (\$450 each), employs a 1-inch dome tweeter, a 5-inch midrange, and a 12-inch woofer utilizing a "symmetrical-field geometry" magnetic structure expected to yield substantially reduced distortion when reproducing low-frequency bass signals at high levels. Cambridge Physics, an experienced supplier of speaker components to other manufacturers, has introduced a line of bookshelf speakers under its own name, together with a floor-standing tower speaker (Model 612, \$1,500 each) exhibiting exceptionally strong deep-bass output.

EPI's new models consist of the \$475 truncated-pyramid Epicure 3.0 Series II rated at 32 to 20,000 Hz ± 3 dB and the similarly rated \$300 passive-radiator Epicure 2.0. And ESS announced a Transar II

system consisting of a midrange/high-frequency unit with a separate subwoofer component employing an electronic crossover at 1,000 Hz.

Subwoofers continue to proliferate, both with associated "mini" satellites and without. Polk Audio's Reference Monitor Low Frequency system (under \$300) resembles the Polk Models 10 and 12 full-range speaker systems in employing a pair of 6-inch driven cones operating together with a 12-inch passive radiator (having a very low free-air resonance) to reproduce the lowest octaves. ADC demonstrated a Designer Series system, consisting of Model B300 subwoofers (\$600 each) with B410 satellites (\$185 each), that absorbs the full output of a 600-watt amplifier and produces clean sound at literally wall-shaking volume levels. The Type 8 subwoofer from Nestorovic Labs contains two woofers in an unusual but effective configuration: over their operating range from 200 down to 16 Hz they function as a passive-radiator system for increased efficiency, but below 16 Hz electrodynamic braking is applied to the passive cone.

THE original minispeakers from ADS have often been used with other people's subwoofers, so ADS has now introduced a subwoofer module of its own—plus larger minisatellites with higher power-handling ability to accompany it. The PB-1500 bass module (\$1,200) contains two 10-inch low-mass woofers, each driven by a built-in 100-watt amplifier; an outboard electronic crossover is provided. With the addition of a pair of ADS 400 satellites it becomes the SubSat 2300 system, retailing for \$1,500.

The crisp clarity of digital recordings makes any veiling or coloration of the sound because of diaphragm resonances (cone breakup) much more obvious, so designers are continuing to focus attention on refining their drivers to make them behave as nearly as possible like ideal pistons vibrating back and forth uniformly without flexing and without storing kinetic energy in the material of the diaphragm itself. One result of this effort is a profusion of exotic materials: polypropylene, polycarbonate domes, cresolformaldehyde resin, polyamide fiber, tri-laminate polymer, mineral-filled homopolymer, isotropic polyvinyl fluoride, etc. Meanwhile, other designers have continued to improve the stiffness/weight ratio of the traditional cellulose-fiber (paper) cone. Kenwood, for instance, aided by laser holography of cone-breakup patterns, has produced a "thermal-shock" treatment for cones which links the pulp fibers and optimizes stiffness; the new cones are used in the three-way Kenwood LS-1200.

Technics, for its R&B series of speakers, developed a radially symmetric honeycomb diaphragm that is flat rather than conical. In addition to the honeycomb disc woofer and midrange, their Model SB-10 uses a "leaf" tweeter, a variant on the older ribbon design.

Ribbon tweeters, like electrostatic drivers, have a natural advantage in that the driving force is applied uniformly over the diaphragm surface, preventing any flexure or breakup. But they have also tended to be costly, delicate, and relatively low in output.

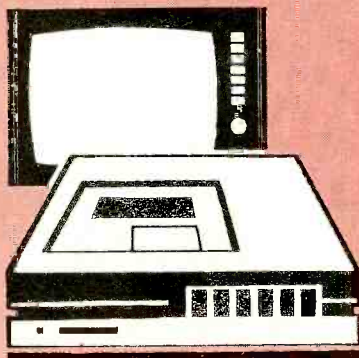
Improvements have lately been made in all three of these areas, and both ribbons and electrostatics are becoming more competitive with conventional drivers. JVC features a ribbon tweeter in its Zero series of speakers, as does Sony in a range of four models. The Jumetite CR610 speaker, made in Vancouver, B.C., employs a ribbon driver and an efficiency-raising horn to handle not only the tweeter range but also the mid-range down to 600 Hz. ACR Industries has a Model R-T ribbon module (\$100) which can be used as an add-on supertweeter with existing speakers. And Pyramid Loudspeaker Company has developed the sweet-sounding HF-1 ribbon-tweeter module, which, at a suggested price of \$300, is just half the cost of the same manufacturer's highly regarded T-1 ribbon tweeter.

Among the classic difficulties of electrostatic full-range loudspeakers has been the tricky reactive load they present to amplifiers. For several years Acoustat Corp. has made electrostatics with special built-in tube amplifiers to drive them; now they have developed a lower-cost series of full-range electrostatic speakers with an "interface" module (containing two transformers with overlapping ranges) that is said to enable users to drive the speakers satisfactorily with a conventional 50-watt solid-state amplifier. The Acoustat Monitor Three will retail for only \$825 each, including the interface module.

One of the strongest impressions gained from listening to the new crop of loudspeakers at this year's CES was that they have generally excellent stereo imaging. Much attention is being paid to the design of drivers with uniformly wide dispersion, vertical alignment of drivers, correct crossover phasing, and smooth-front cabinets to eliminate image-disturbing reflections. For instance, Altec's Model 8 three-way system features the Mantaray horn, which has constant dispersion over its frequency range, together with a lead-zirconate-titanate compression driver that uses neither a magnet nor a voice coil.

ADVENT has replaced its existing line of speakers with a new series of four models ranging from the 2002 (\$100) to the 5002 (\$200). The top three employ a new "Direct Report" tweeter with a parabolic dome and a molded "phase plate" that is said to produce an unusually uniform and broad high-frequency-dispersion pattern. Scheiber Sonics displayed the Controlled Arrival loudspeakers designed by acoustics expert Daniel Queen. They have a precisely uniform 360-degree radiation pattern over the entire audio spectrum. B.I.C. added the TPR 100 (\$130) to its SoundSpan-series speakers that use vertically aimed drivers and conical reflectors to achieve 360-degree dispersion. Cosmos Industries demonstrated the Cosmomatic Omnidirectional with a hemispherical array of eleven electrostatic drivers and a dynamic woofer. And finally, the most startling demonstration of stereo imagery was provided by the IAR Lab Monitor sideways-firing speakers developed by Peter Moncrieff. Without employing any electronic processing, they produced a convincingly "holographic" effect with precisely localized images. □

CES-80



VIDEO



A report by
Ellen Milhan Klein

THE picture is becoming ever clearer: We are in the early stages of a development that will revolutionize the hi-fi industry and forever change the way both sound and pictures are brought into the American home. It is likely that a videodisc/tape player will be as common a part of a home-entertainment system in the middle to late Eighties as a stereo receiver is today. And so the leading video-hardware contenders are jockeying for position, signing up potential providers of the software that will provide the sounds and the moving pictures, and improving—at least to some degree—the television sets that will deliver them to the home listener/viewer.

Unlike the situation in hi-fi electronics, where it is becoming increasingly difficult for a manufacturer to make audible improvements or to build in features that are both novel and worthwhile, the video industry is still in a period of rapid technological evolution spurred on by its commercial growth. Each new generation of players and associated products can therefore be expected to incorporate innovative features and functions for some time to come.

The vast expanse of Chicago's McCormick Place exhibition hall provided the arena in which the video-hardware giants fought for the attention and the dollars of the audio/video merchants attending this summer's Consumer Electronics Show. Featherweight VHS portable and home decks vied with their Beta equivalents, all touting their special effects, high-speed scans, remote controls, electronic solenoid pushbuttons, and companion light-weight and light-sensitive color cameras. Simultaneously, three infant, incompatible videodisc formats grappled for their share of the action. In well-trafficked hospitality suites, large-screen, one-piece, rear-projection TV sets challenged their front-projection rivals for the reward of teaming up with a disc or cassette unit—or both. The only clear victors were the software merchants, poised with over 16,000 (!) titles to satisfy just about any taste.

● VCRs and Cameras

Last year JVC stole the show with their new VHS models; this year Beta struck back. Sony's new Betamax SL-5800 features a variable Betascan that permits cue or review at any speed from five to twenty times normal using its Remote Commander Control. Toshiba's Super Scan V-8000 cues up to forty times normal with a still-recognizable picture, and Sanyo's Model 5050 can scan at fifteen times normal speed.

The new table-model VHS-format machines fall into two categories. Some, with list-price tags under \$1,000, have been stripped of their complicated (and frequently unused) programmable timers. Sharp's prototype 2- or 6-hour VC-7400 with a one-event timer is promised for under \$800, and

Quasar also promises basic models at lower prices. The RCA VET250, priced at \$995, has the standard 2-, 4-, or 6-hour speeds and one-event timer *plus* a Picture Search feature with cue-and-review at nine times normal speed in LP and SLP modes. Its remote control offers Picture Search, channel-changing, and pause controls. Other VHS units featured stepped-up programmable timer capabilities, basic scan-type special effects, and full-function remote controls—for example, GE's VCR 1012W (\$1,060), which (in the unit we saw) has excellent picture reproduction even at the slowest speed and offers remote-controlled, ten-times-normal scanning plus several special playback effects.

Along with the improvements in home VCRs there is a growing number of two-piece portables in both formats that incorporate table-model features. These VCR "separates" include a compact, lightweight, battery-operated recorder with shoulder strap and a stay-at-home matching tuner/timer/battery charger. Akai, the self-proclaimed "Rolls Royce of video," unveiled its \$1,595 VP-7350 ActiVideo VHS system. Besides having remote control, double- and variable-speed (from still-frame to four

times normal) playbacks, the Akai machine is the first in the U.S. able to record *stereo* with Dolby noise reduction.

JVC claims to have the lightest portable of all, the \$1,250 HR2200U: weight about 11½ pounds with battery pack. Its Shuttle Search cues and reviews at ten times normal speed. The Panasonic PV-3200 portable ensemble offers a choice between a one-event/24-hour tuner/timer and an eight-event/14-day one. New models with some of the above-mentioned features were also introduced by Hitachi, Magnavox, Philco, Sylvania, Zenith, and others.

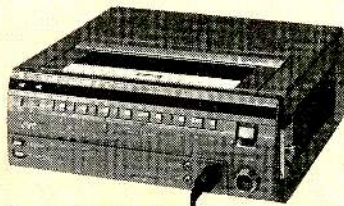
Some of the latest color cameras on display were tripod-mounted to invite passers-by to practice on such subjects as JVC's live-action miniaturized space-station scene or two comely backgammon players posed against a background of real sand and a painted sea. Most of the new cameras were lighter (under 5 pounds), closer to picture-perfect, and, alas, pricier than before. Last year's power zooms, electronic viewfinders, and macro (super-closeup) settings were commonplace, but other performance features made news.

Toshiba's low-light IK-1850 AF has an automatic vidicon shut-off to prevent dam-

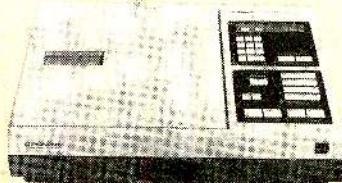
aging burn-ins and an optional auto-focus accessory. The top-of-the-line Sony Beta HVC2000 offers automatic audio and video fade-in/fade-out and remote-control capability for \$1,250. At \$950, Hitachi's VKC-770 features a camera tube that uses separate sensors for each of the primary video colors to produce greater color clarity. And several units have lower power drain for extended recording time during portable use.

Also shown were improved tapes and tape accessories to make the most of the high-ticket, high-technology VCR hardware. TDK's HG and Maxell's HG videocassettes employ smaller, more densely packed oxide particles to improve the signal-to-noise ratio and frequency response, particularly at the 6-hour speed. Fuji's similar Beridox-formulation fine-grain cassettes will replace all their previous tapes.

Sony gets more mileage—if not footage—from Beta tapes with the Betastack AG-300 accessory, which automatically ejects and loads up to four cassettes. When teamed with Sony's top Betamax, it enables the user to record four separate programs on separate cassettes over a two-week period. Fuji, 3M, and TDK added to the number of head-cleaner cassettes available to clean up your tape machine's act.



JVC HR-2200U VCR



Pioneer VP-1000 videodisc player

A SHORT VIDEO GLOSSARY

Beta—One of two incompatible video tape-recorder formats. Developed by Sony and sold under perhaps five different brand names.

Operating Speed—The record/playback speed of a VCR (Video Cassette Recorder). At the moment, VHS (Video Home System) machines have three possible speeds: (1) Standard Play (SP), 2 hours with a T-120 tape; (2) Long Play (LP), 4 hours with T-120 tape; and (3) Super Long Play (SLP) or Extended Play (EP), 6 hours with T-120 tape. Beta machines offer two speeds: (1) B-II, 185 minutes with an L-750 tape; and (2) B-III, 275 minutes with an L-750 tape.

Programmable Timer—A feature that makes it possible to preset a machine to record several television programs automatically on different days and channels, as opposed to a one-event/one-day timer.

Remote Control—A hand-held module usually connected by a thin cable to the videotape recorder. It permits changing channels and operating record/playback modes from a distance. Some offer full control functions, others are more limited.

Special effects—Viewing options other than normal playback mode, including:

still or freeze-frame—picture motionless on the screen;

frame-by-frame advance—user-controlled series of still frames;

slow motion—viewing at some fraction of normal speed;

cue-and-review—analogous to cue-and-review modes in audio recorders, permitting forward and reverse viewing at a faster than normal speed with or without sound (sometimes called "Betascan" features because Sony was first to offer them);

high-speed scan—cueing or reviewing at speeds up to forty times normal to locate a particular segment on the tape.

VCR—Video Cassette Recorder, a type of home video tape recorder.

VHS—Video Home System, one of the two popular and incompatible home-recorder formats. Developed by JVC and sold under about a dozen brand names.

Videodisc—This format is to a standard LP record as a videotape is to a standard audio cassette. A videodisc only plays back "pre-recorded" pictures and sound, and each of the three types presently being promoted are incompatible and require different players. Unlike the videocassette, it cannot be used for recording, but both the hardware and software are inherently less expensive than for the video tape formats. Videodisc machines play through a television set.

● Tape Software

As for the preprogrammed tape picture Although still relegated to the lower floors of McCormick Place, X-rated titles continue to grow in number. There are two reasons: the battle-scarred censors have all but given up the fight, and the video voyeur apparently buys them as fast as they roll off the duplicators and onto the dealers' shelves. Depending on whose figures you believe, porn sales account for a 45 to 70 per cent share of the prerecorded tape market. Given the fact that the Hollywood giants are now heavily involved in the videocassette business, G, PG, and R-rated movies are becoming available on tape shortly after they've reached the movie houses. Action/adventure, classics, nostalgia, sports, and horror themes sell, but special-interest "mid-vid" tapes—somewhere, say, between *Jaws* and *Throat*—will probably be strong sellers as the market expands. Several technical improvements are being emphasized: high-quality duplication, 150-minute cassettes that eliminate the need to edit or continue on a second tape, and a time-compression recording process that can undetectably (we are told) squeeze an hour-plus film onto a 1-hour cassette.

● Videodisc

Videodisc players drew SRO crowds of curious browsers, most of them unwilling to predict, even in a straw vote, the winner among the three competing and, of course, incompatible formats. Only the MCA/Philips laser-optical system adopted by Magnavox (VH8000, \$775) and Pioneer (VP-1000, \$749) has reached the market as yet; RCA's Selectavision and JVC's VHD system are both promised for 1981.

The laser-optical system, the current frontrunner, offers stereo sound and special effects (including freeze-frame) except in the extended play mode. It is considered to

(Continued on page 61)



0.00% switching distortion. 0.00% FM drift.
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be technologically more advanced and certainly better suited to playing musical videodiscs than RCA's projected mono system (stereo units are promised later.)

The RCA prototype SelectaVision is a capacitance system employing a grooved disc tracked by a diamond stylus. It has high-speed cue-and-review plus a rapid-access feature with a digital time indicator. Targeted at the mass market, the first player is designed to retail for under \$500, but it will lack stereo sound and freeze-frame capability. JVC, Panasonic, and GE, on the other hand, promise a VHD (Video High Density) capacitance player whose grooveless disc will provide laser-optical quality and special features for about \$500.

● Big-picture TV

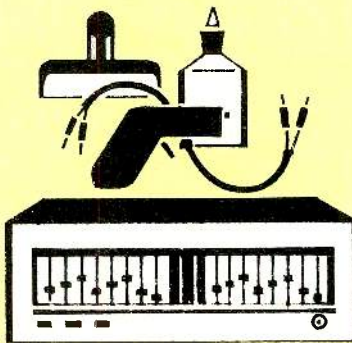
Projection TV is generally thought of as the natural home companion for video players. Such large-screen sets are being marketed or proposed by every major television manufacturer. The two-piece front-projection systems are now encountering some competition from the less unwieldy one-piece rear-projection units. The latter take less space and relieve the owner of some physical alignment problems. Advent, believing in the practicability of both formats, has retained its two-piece units while introducing a rear-projection model, the VB125. The \$3,500 GE Widescreen 3000 is representative of the new rear-projection models, which boast brighter pictures and a wider viewing angle. Equipped with dual two-way speaker systems and stereo amplifiers, the 45-inch Quasar (\$4,000) and Panasonic CT-4500 (\$3,299) were the first of the new "stereo-ready" one-piece projection units. The original two-piece Kloss Nova-beam One still projected the brightest picture we saw—and for the lowest price: \$2,495.

THE only thing that's clear at the moment is that none of the contending forces in the video marketplace are either able to claim victory or willing to concede defeat. The battle of the videodisc formats will continue until the marketplace—meaning you and me and what we buy—decides which format provides the best combination of hardware and software.

As far as the videocassette is concerned, since most users employ VCRs as "time shifters" to record TV programs for later viewing rather than as a means for playing commercially prerecorded material, the Beta and VHS formats will probably continue to coexist far into the foreseeable future. In a sense, the consumer actually benefits from the format conflict since the companies concerned will each be driven by competitive pressures to extend the technical potential of the respective formats to their absolute limits.

In any case, it seems safe to predict that the STEREO REVIEW reader's future hi-fi home-entertainment audio/video system will include a videodisc player that will also provide digital audio plus a stereo videocassette recorder for off-the-air taping of stereo-sound TV. Our crystal ball is clear on the general nature of the equipment, but it remains foggy on the brand specifics. □

CES-80



AUDIO ACCESSORIES



A report by Ivan Berger

IF the world—and our stereo systems—were perfect, hi-fi accessory makers would be out of business. But as long as records get dirty, tapes break, and other real-world imperfections intrude on our sound enjoyment, accessory makers will be weeping in sympathy all the way to the bank. There's hardly a problem, real or imagined, for which someone (usually several someones) hasn't a solution for sale.

● Record Care

Since the phonograph is still the commonest and most problem-ridden music source, phono accessories vastly outnumber all the others. Dirty discs are the most obvious difficulty, and disc cleaners are therefore the most common and most visible accessories, nowhere more so than at this summer's CES. One rapidly multiplying cleaner is the damp/dry type which first moistens the record, then dries it again. The Discwasher brush, for example, which is rocked from its hand-moistened leading edge to its dry trailing one, is now available in a new "d4" version along with a new one-way-pile fabric covering and a faster-drying fluid. Calibrón's "Protek-I" has four independent cleaning sections: one to apply antistatic cleaning fluid, one to break up embedded dirt, one to remove smaller particles, and one to wipe up remaining particles and residual fluid. Falcon's "Groove Tube" is a velvet preening pad wrapped around a fluid-applicator bottle . . . and so on.

Since handling and use generally build up static electricity on records, there are many conductive, carbon-fiber brushes to drain off static charges. The most notable new one is probably Nagaoka's, with a miniature "turntable" that rotates the disc against the brush while static is grounded through the user's finger (there's also a grounding wire for use in dry conditions). Falcon has joined the antistatic club too with its "Stat-Off" adaptor which snaps over the chrome nozzle of their 14-ounce "Dust-Off" compressed-gas cleaner can. The Stat-Off ionizes the gas stream, improving its ability to blow dust away.

And then there are the ultimate cleaning devices—the cleaning machines. Keith Monks is finally delivering his home record-cleaning machine at a lower price (\$850) and in a more compact, more attractive cabinet than his larger model made for record stores and audio salons. Even more compact (and, at \$700, less expensive), is the TMA record-cleaning machine, which cleans both sides of the disc at once. Both the TMA and Keith Monks units apply a cleaning solution, brush the disc, then vacuum the dirt and fluid off.

Styli, as well as records, pick up dirt, so there are devices to clean them, too. Among the new entries are those by Pickering and Discwasher (the SC-2, using the same brush as the SC-1, but with a special stylus-cleaning fluid).

Another approach to record care is to lubricate and de-staticize the disc with a preservative. Sound Guard's lubricant has been reformulated to stay on the record longer,

And 3M's new Scotch Record Care System includes a device that applies a precise amount of fluid to the disc and spreads it evenly.

If a tone arm and cartridge aren't aligned properly there's sure to be distortion. In the past year, a host of alignment devices have appeared: flat, protractor-type gauges from ADC, Cart-Align (not seen at the CES), and DB Systems; the three-dimensional aluminum "Soundtracktor" by Dennesen; and two new protractor systems (one designed to fit in place of a phono cartridge, the other designed to plug in like a "universal" head shell) from Elite Electronic Improvements, Ltd. The EEI system also lets the user choose just where on the disc radius the tracking will be optimized.

Stabilizing and damping records against vibration is another field where accessories are multiplying. Among the latest dampers are the new Roundel and Platter Matter record mats (both imported from Canada). Another damping technique is placing a weight over the record's center (this is also claimed to flatten some record warps temporarily). About half a dozen companies showed them, though only the VPI models (available in two different weights) seemed new. For those turntables that won't work well with heavy loads, Eon (another Canadian firm) showed its three-legged "Pod," which clamps down over the turntable's center spindle; the Pod has new feet that are claimed to improve its damping.

Not all resonances are mechanical. To deal with the electrical ones that sometimes affect phono-cartridge response, DB Systems offers two ways of altering phono-input capacitance: an \$80 box with switch-selectable loading for two cartridges, and a \$28 "phono equalization kit" that allows individual capacitor modules to be plugged in with the cartridge. England's QED Audio Products has a "Variable Cartridge Equalizer" that plugs in between the turntable and the phono input, with eight switch-selectable capacitance values and four values of resistance for a total of thirty-two different combinations.

● **Tape**

There are fewer accessories for tape fans than for record listeners, but just as much originality has been lavished on them. Ingenious head demagnetizers include Calibron's illuminated version, which beams a spot of light onto the heads with no glare reflected into the user's eyes, and TDK's battery-operated one, which automatically fades out its field so you needn't withdraw it slowly before turning it off (it indicates with a LED just when it's done). Nagaoka has a unit built into a cassette shell that both demagnetizes and cleans the heads. And both Allsop and Osawa now have cassette-shaped cleaners that take care of the pinch rollers and capstans as well as the heads. Also new from Osawa are both battery-powered and manual cassette winders—handy if you want to play one tape while rewinding another or if your car's cassette player has no rewind function. This year also saw the introduction of at least one accessory for *micro*-cassette tapes: a table-top eraser from Nortronics. Of course, any bulk eraser will work as well.



From top: Nagaoka's Kilavolt static remover; Keith Monks' CR-500 record cleaner; Discwasher's SC-2 stylus cleaner; Scotch record-care system; Jeweltone's cassette-head cleaner; and Osawa's pocket cassette winder.

● **Antennas**

FM listeners need only one accessory, a good antenna, and even that might better be considered a basic system part and not an accessory at all. Some interesting new antennas made their debuts at CES. Aiwa has a sleek, compact rabbit-ears unit with a dark, weighted base and telescoping chrome

poles. Winegard's FM-4400 is a compact, amplified dipole with an easily rotated head, and Harada's new Clearchannel CC-400 (\$60) incorporates TV and FM antennas *plus* a digital clock/timer to turn the audio system (or TV set) on and off at preset times (also available, as the \$10 CC-200, without the clock). B.I.C. has a lower-price version of its "Beam Box" antenna.

Perhaps the most unusual, though, is Technics' new SH-F20 "Wing Antenna." The same width as the Technics tuners, the Wing uses a printed-circuit dipole with a tuning network in its base to make it more selective in tuning out undesired frequencies. That much, while uncommon, is hardly new; what *is* new is that three Technics tuners (so far)—the ST-S3, ST-S7, and ST-K808—can supply a voltage to adjust the Wing's tuning circuit automatically, matching it to the station being received.

● **Cables**

Any system needs connecting cables, and one of the latest accessory trends is toward special wires and cables that are claimed to improve sound everywhere from the tone-arm head shell to the speaker. Discwasher's "Gold-ens" now come in a short 1/2-meter length, and Fulton has a 28-foot cable. Gold-ens are also available with DIN plugs at one end and RCA plugs at the other. In speaker cables, there was a definite trend toward heavy cables of simple design, including Esoteric Audio's "King Snake" (12-gauge) and Mountain Cable's 11.8-gauge Litz wire, Russound's SC-20, Hartley's "Reference Cable," and Esoteric's "Ultra-I" (all 10-gauge); there were also 8-gauge wires from Esoteric and DB Systems (the smaller the gauge number, the thicker the conductor).

● **Signal Processors**

The purpose of special wires and cables is to avoid changing the signal in any way, but there is also a host of signal processors specifically designed to alter it. Equalizers, the most common signal processor, were abundant at this summer's CES. Most interesting—and most expensive—was dbx's automated equalizer/analyzer. To be priced at about \$1,300, it automatically measures the sound level in each of ten frequency bands, then raises or lowers the level in each band until all are equalized. Up to ten different curves can be stored in separate memories and recalled at will, permitting separate curves to be constructed for each listening position in the room or to match separate sound sources.

Technics showed a new equalizer too. The SH-8020 has two unique features: it can be switched to cover either the usual ± 12 -dB range or a ± 3 -dB range for more precise control of minor response irregularities; and it can be switched to produce the inverse of the indicated response curve so that you can use it to set up matching recording and playback equalization curves optimized to the response of your particular tape deck, or you can use it for noise reduction. The LEDs on each of the twenty-four sliders (twelve per channel) make the equalization curve visible even in dim light; other LEDs illuminate whichever decibel
(Continued on page 65)



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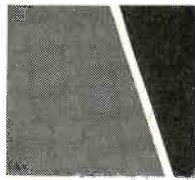
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scale (± 12 or ± 3 dB) happens to be in use.

Audio Control showed three new equalizers: the D-10 is a ten-band model, conventional except for its switchable infrasonic filter and its \$169 price. For \$230 you can get the D-11 with all the D-10's features plus a swept, pink-noise source, a lighted decibel meter, and a calibrated microphone to let you flatten your room's or system's response as effectively (if not as quickly or as entertainingly) as you can with the older, higher-price C-101 equalizer with its spectrum-analyzer display. Soundcraftsmen showed a new version of their "Scan-Alyzer," introduced last year, which uses LED indicators for a one-band-at-a-time equalization-analysis system.

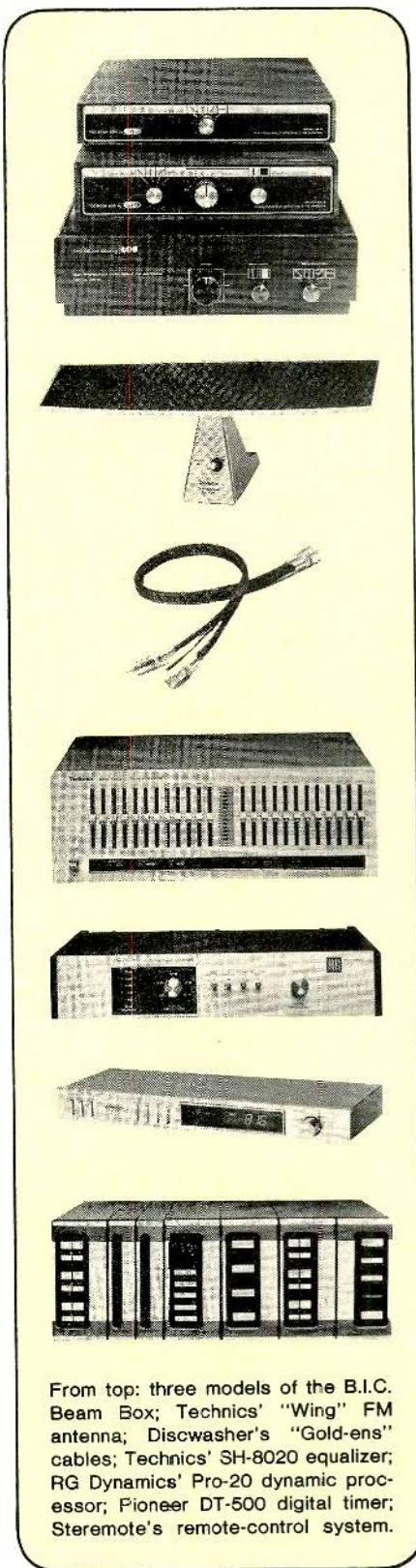
Audio Control's third new product is a bass-only equalizer, its five bands positioned at half-octaves from 31.5 to 125 Hz, with an additional infrasonic filter and a bass boost operating in the 35-Hz region. This new unit, dubbed "The Richter Scale," also incorporates an electronic crossover with settings from 100 to 1,000 Hz; suggested retail price is \$189.

EQUALIZERS were hardly the only signal processors at CES. Aiwa introduced a mini-component-size High-Com noise reducer, and RG Dynamics showed two new dynamic processors: the revised Pro-20 (\$399), now with "programmed attack circuitry" said to match compression curves used in the recording industry more closely, and the lower-price (\$255) X-15.

The "Sonic Hologram" circuit in the Carver C-4000 preamp has inspired a host of other image-processing devices. Among the new arrivals (they don't necessarily do the same things in the same way as the Carver circuit—or as each other, for that matter) are the Sound Concepts IR-2100 Image Restoration Control (with a handy remote-control panel), the Omnisonic Imager, Dynaco's SIE-1 Stereo Image Enhancer (possibly to be available in kit form, but not too soon), Russound's IH-1 Stereo Image Enhancer, and the A.I.R.S. 3 processor from KM Laboratories.

Meanwhile, the Carver Company will be introducing an accessory box containing both a delay unit and an improved version of the Sonic Hologram that will cast the effect over a wider seating area (the improvement will soon be incorporated into the Carver preamp and will be retrofitable to existing preamps). The new circuit is also said to deal with standing-wave problems, which can affect the hologram in some rooms. Also coming from Carver is a processor box with an "autocorrelator" noise reducer and a "peak unlimiter." Phase Linear (Carver's former company) introduced an autocorrelator box at CES too. Not exactly a processor, Carver's new Z-coupler ("in the \$20 range") will allow owners of good but low-power receivers to drive the Carver M-400 magnetic amplifier (and, presumably, other high-power amps).

Still another new processor was Phasar's Linear Phasing Computer, designed to "tighten" response by reducing speaker overshoot (using feedback to control speaker impedance), an approach that sounds quite similar to the Dynamic Compliance circuit in Concord car-stereo equipment.



From top: three models of the B.I.C. Beam Box; Technics' "Wing" FM antenna; Discwasher's "Gold-ens" cables; Technics' SH-8020 equalizer; RG Dynamics' Pro-20 dynamic processor; Pioneer DT-500 digital timer; Steremote's remote-control system.

● Switching

The more processors you have, of course, the more difficult it gets to plug them all in. Some preamps offer as many as four suitable circuits (two tape monitors and two external-processor loops), and it's possible to daisy-chain processors and tape decks using the tape-monitor jacks most processors al-

ready have. But there's a less awkward route—using accessories, of course. Tape-deck switchers are available from a number of sources to handle varying numbers of tape decks or processors: for two decks (QED), for three (QED and Russound/FMP), for four (QED and Superex), and five (Russound/FMP). Superex even makes a switcher for video decks.

There are also devices to switch power, either remotely or at preselected times. Timers were shown by Philips, Onkyo, Pioneer, Copal, and Audio Innovations. The Audio Innovations model, called the Digital Power Switch, has seven power outlets in back and can switch up to 25 amperes.

Among remote controls, there are some that just switch power on and off, such as Universal Control's four-channel remote system (an outgrowth of their earlier "Whistleswitch") and BSR's X-10 system. BSR has just added a timed controller to the latter system and has improved some of the controlled modules; several computers (including the Ohio Scientific system shown at CES) can be interfaced with the X-10 system also.

But there are others that do a bit more. Audiomation, for example, has a "remoteless remote" called the Audio Follower: at the cessation of a signal from either phono cartridge or tape deck (depending on the model you choose), the system automatically switches to the tuner input so there need be no moments of unwanted silence. Sound-Mate has its SM-4 system with as many as four remote-control boxes wired to a central controller. Each remote box lets the user control bass and treble, volume, and balance, switch in an audio mute, or start a sleep timer to shut the system off in an hour. Sound-Mate also offers a device that will automatically mute the system when the phone rings—a feature that I, at least, have long desired.

Even more elaborate is the Steremote system with modules for input selection, FM tuning (including five presets), tape-deck operation (with audio or video tape decks that allow remote control), multiple-room operation (in up to nine rooms), and simultaneous use of more speakers than the amplifier can normally handle safely. Other multifunction remote-control systems were shown by Gimex and Selectra.

THE more accessories (or components, for that matter) you get, the more hardpressed you'll be to find a place to put them all. Cabinets and racks abounded at this CES, as usual, in various finishes from wood veneers to vinyl simulations, but two in particular stood out: Dynasound's thirty-two-cassette storage file, which is unusually elegant and original in its design, holding the cassettes flat, for easy label-reading, in elegantly beveled drawers; and Audiowright's "Superstructure," a modular shelf rack with sides of fabric stretched over frames for complete ventilation of the components as well as for a quite distinctive look.

Counting those accessories that time and space forbid mentioning here, there's hardly a problem that the industry leaves long unsolved save one: if you buy all these wonderful devices to enhance your system, how will you pay for them? □

ANDRÉ PREVIN

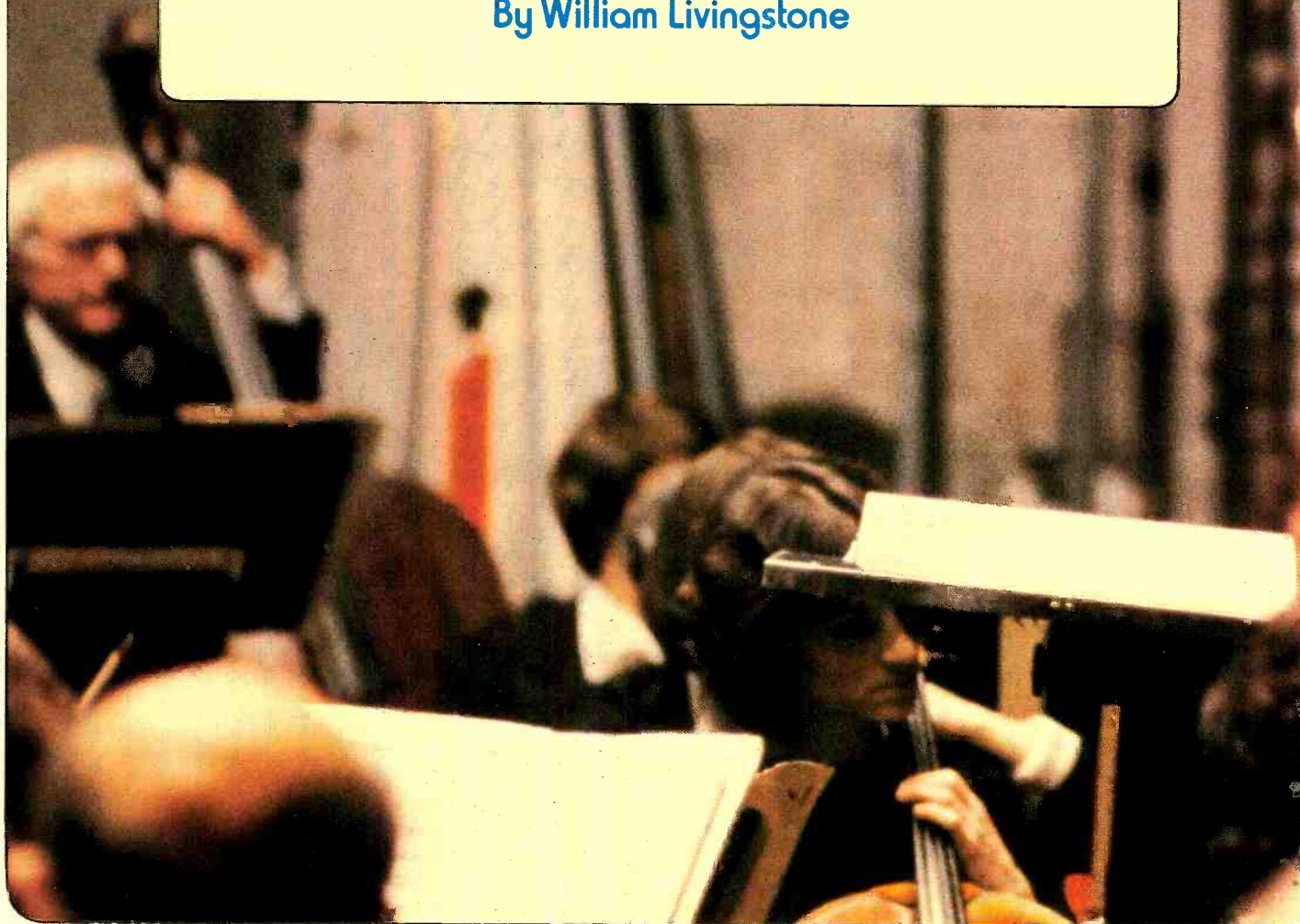
How does a man keep inspiration fresh over a career that may last half a century or more?

CAREERS in show business and the performing arts vary greatly in length. Rock musicians traditionally become untrustworthy at the age of thirty. A ballet dancer's knees are generally played out by forty, and most opera singers have lost some of their best notes by fifty. The longevity prize goes to sym-

phony-orchestra conductors, who can continue to work as long as they can reach the podium unaided and manage to wave a stick.

Conductor André Previn, who just turned fifty last year, is therefore a long way from having to choose a retirement home. In his profession it is not unusual

By William Livingstone





that Eugene Ormandy, for example, is still conducting performances and making recordings at the age of eighty. When Leopold Stokowski died in 1977, he was ninety-five and had recording contracts that would have taken him past his hundredth birthday. Although Previn has twenty years of conducting the world's most prestigious orchestras behind him, one might consider that he is only now entering his prime.

He is in his fourth season as music director of the Pittsburgh Symphony, and when he was in New York recently with his orchestra, he stopped by my office and we chatted for an hour over morning coffee. I asked him why he had taken on an orchestra in a provincial American city when he could have stayed amply busy in the world's most glamorous international music centers.

"For both personal and artistic reasons," he answered. "I went to Pittsburgh for two weeks as guest conductor about six years ago and had a lovely time and got on with the orchestra wonderfully well—which is always unpredictable. When I was about to return to Lon-

ANDRÉ PREVIN...

don, Seymour Rosen, the manager, asked very circumspectly and without committing himself to anything whether I would ever be interested in having the orchestra. It was utterly unexpected. I was still with the London Symphony Orchestra then. But I began to think about it, and I realized that I had been almost totally European for about ten years. Most of my annual commitments were in London, Vienna, Berlin, and Paris, with only an occasional guest shot here. I wanted that ratio changed. I wanted to work in America more, and this was a perfect way to do it. That's the personal part.

"The artistic part has to do with the high quality of the orchestra. I knew its very illustrious history with [Fritz] Reiner and [Otto] Klemperer and [William] Steinberg, and I had admired it since I was a kid and first started collecting records. To me it was always a very European-sounding orchestra, with that dark string tone. It's really a very, very fine orchestra, and there are few of my colleagues who would not be flattered by the offer of the Pittsburgh because it is an orchestra to reckon with. I was happy to receive the offer, and it came at just the right time."

He also speaks well of Pittsburgh, where he spends four months out of the year, describing it as a wonderful city—very clean, very safe, very pretty. "There is a thing about the championship sports teams, which is fine but tiring. If you come in for a flying visit, walk down the street, and go into a few shops, you might think it's relentlessly football, baseball, and steel, but in fact there is a great deal of interest in the orchestra. It's important to the people and they support it financially and emotionally. That's very nice. Both the orchestra and the public have been very responsive. I love being there."

PREVIN was born in Berlin and began his musical training there. He was brought to this country when his family left Germany in 1938, and he grew up in Los Angeles. He was a phenomenally successful musician in Hollywood from the time he was in his mid-teens. He was musical director for about fifty films and composed the scores for more than thirty. He won four Academy Awards for his adaptations of the musicals *Gigi*, *Porgy and Bess*, *Irma La Douce*, and *My Fair Lady*. He also made a name as a jazz pianist, recording numerous albums for both RCA and Columbia.

In the preface to the book *Orchestra* (Doubleday, 1980), which he edited, Previn wrote of his years in Los Angeles. "I met some brilliantly talented people, made good friends, and garnered valuable experience. But I have never looked back with fond nostalgia. The film business, for a musician, is a quicksand. The comforts are too easily acquired, the work, although long in hours, is short of challenge, and the atmosphere deadly. The Los Angeles climate is seductive, and the orange juice the best in the world, but as for the rest—no thanks."

In the early 1960s Previn began conducting symphony orchestras wherever

"I have a blind spot about rock. I used to fall for what I'd read on record liners about how it was the key to the absolute and the greatest thing since the twelve-tone system, and I'd take the records home and find it the same old nonsense except for one more chord added."

he could get engagements. In his early years as a conductor his movie background was held against him. The St. Louis Symphony was the first to take him seriously, and the Houston Symphony gave him his first appointment as chief conductor. For a while in the mid-Sixties he divided his time between Houston and London, where he was principal conductor for the London Symphony Orchestra, but he eventually gave up Texas in order to live and work in England.

His marriages to jazz singer Betty Bennett, lyricist Dory (Langan) Previn, and actress Mia Farrow ended in divorce and a certain amount of scandal. As a result Previn became something of a pop celebrity, and he is still recognized in public even by people who care nothing for the kind of music to which he has now given his life.

"My interest in films is now nonexistent because the only films I have seen in the last five years are the ones they show on airplanes, and they tend to be

not very good. My interest in theater music is just that of a member of the audience. The same goes for jazz. This is not because of any mistaken disdain—I think it's all valid and important—but because I no longer have the interest and I don't have the time."

Although he may have given up jazz, Previn has not given up the piano, and he thinks it is important for conductors not to abandon their original instruments. He advises young conductors that it is dangerous to stand on the podium constantly demanding high levels of playing from orchestra members without reminding themselves regularly of "how damned difficult it is to play and to physically produce a musical sound."

AT a time when every pianist seems to be turning to conducting, Previn, who has done little besides conduct for twenty years, now finds himself playing more and more. "I have always played chamber music incessantly," he says, "and I still do that. I ran a chamber-music festival in England for three years. In Pittsburgh I have a permanent trio with two principals from the orchestra, Herbert Greenberg and Anne Williams, and in London I play all the time. In Vienna I'm scheduled for a whole string of Mozart concertos to play and conduct from the piano, which is the way most people do it now. I've even had the temerity to agree to a two-piano recital at Carnegie Hall next season with Vladimir Ashkenazy."

Previn says he selects soloists in the same way as other music directors. "Anyone who has been conducting for a couple of decades has unalterable pets and friends, and he wants to spend time with them. When I am in Pittsburgh, I selfishly want to be surrounded by people I not only admire but with whom I feel friendly. I get in touch with certain people—Ashkenazy, Alicia de Larrocha, André Watts, Horacio Gutierrez, Pinky Zuckerman, Itzhak Perlman, and a number of others—to see when they are available. I give them first choice and work others in around them—artists who have not yet played in the city, new people I think deserve to be heard, or somebody who's got a piece in the repertoire that nobody else plays. If you program the Michael Tippett concerto, there's not that long a list of pianists to choose from."

For a long time Previn has been an exclusive Angel/EMI recording artist, but his contract has permitted him a few guest performances on other labels. He has just renewed his EMI contract, but he also has a new agreement with Philips for a couple of albums a year with the Pittsburgh Symphony, and his

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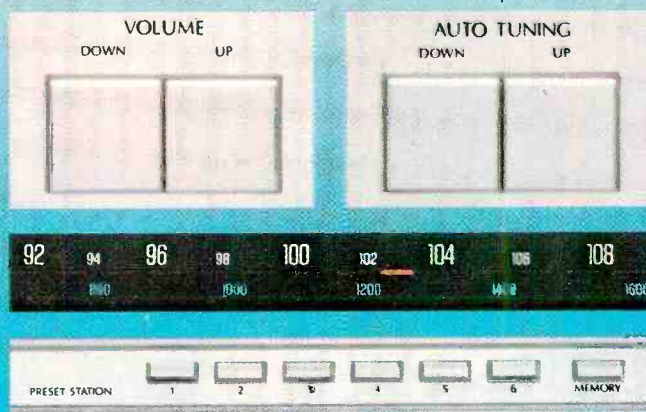
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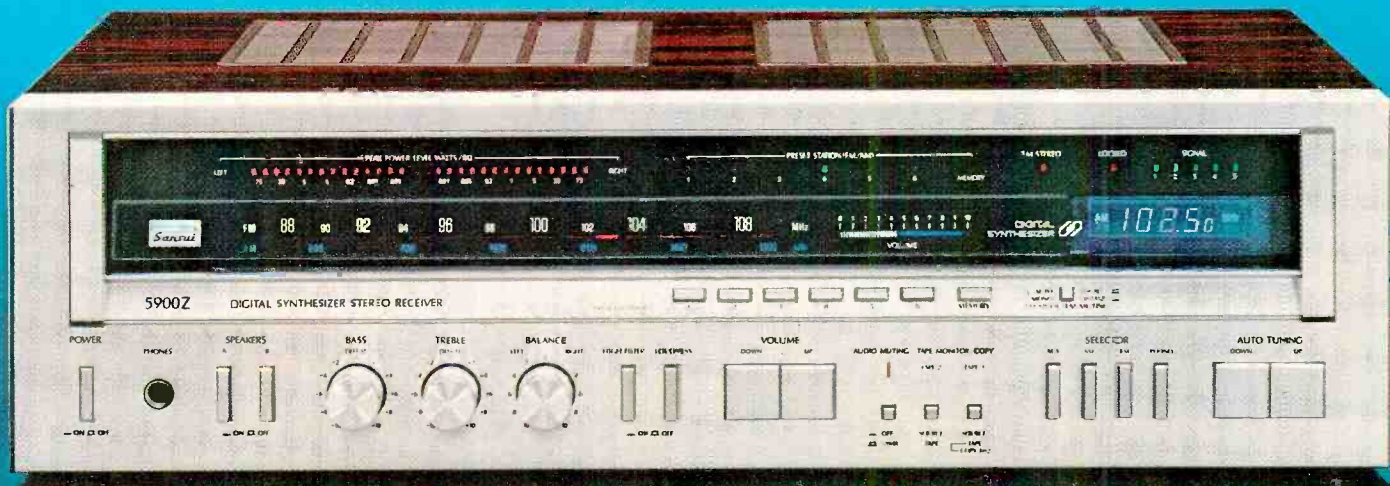
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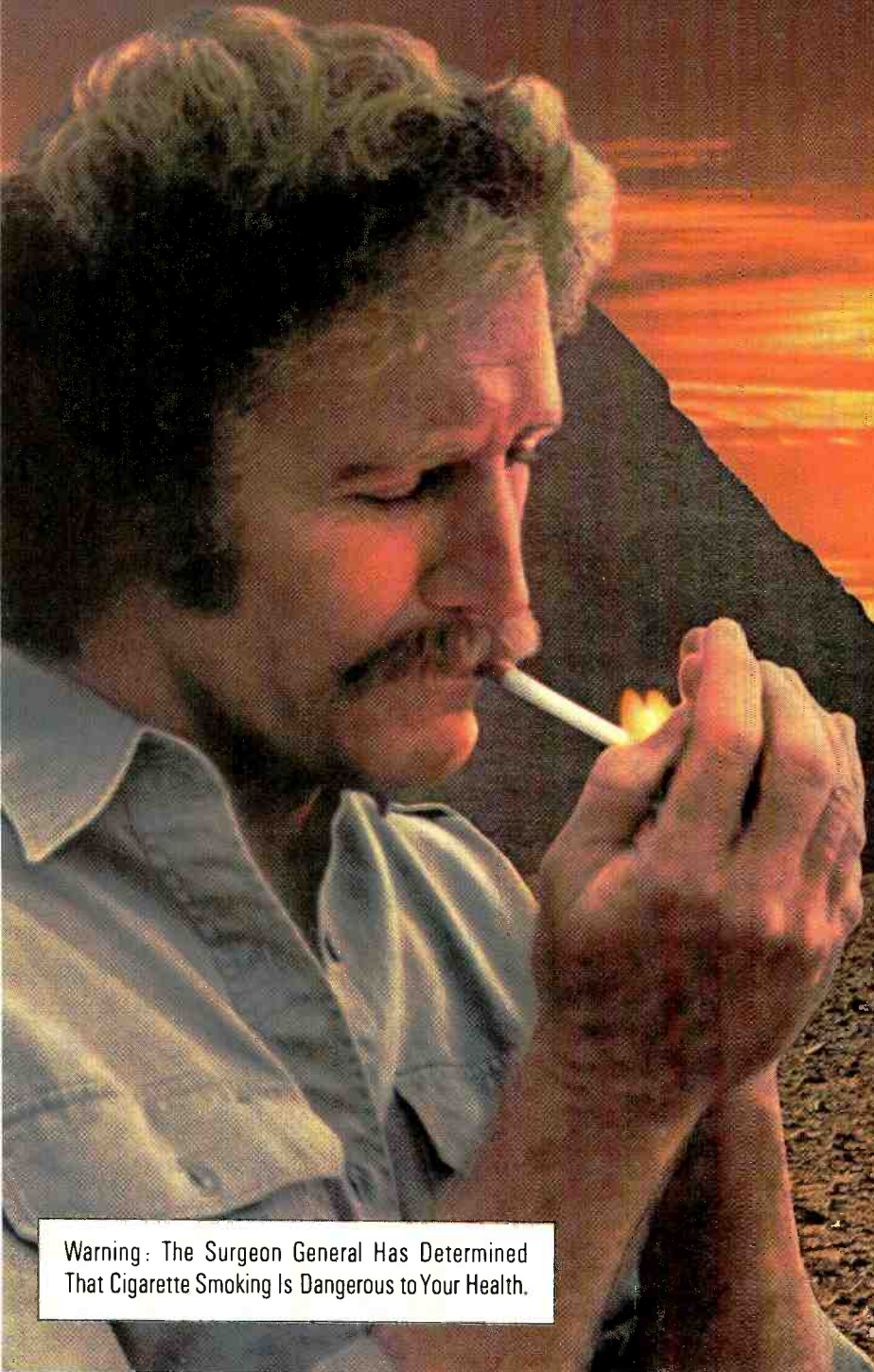
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first Philips sessions are scheduled for this month in the orchestra's home auditorium, Heinz Hall.

In choosing repertoire for records he tries to cooperate with the companies in terms of their marketing needs. "What's the point of another Beethoven cycle when the shops already have the Beethoven symphonies by every conductor since Nikisch? If they ask me for Ravel's *Boléro* or Dvořák's *New World*, I agree, and then ask to do Messiaen's *Turangalila* Symphony or Brahms' *German Requiem*—and they agree. They've been very generous about that kind of trade."

PREVIN is very proud of his first digital recording, Debussy's *Images pour Orchestre* and *Prélude à l'Après-midi d'un Faune* with the LSO (Angel DS 37674). It was reviewed in this magazine in May by James Goodfriend, who described it as "a splendid record, brilliantly performed and magnificently recorded, and in its combination of musical and technical qualities, unquestionably a landmark in the history of recorded music."

Previn himself says, "You have to make up your own mind about the performance, but in terms of engineering I think it's the most amazing orchestral recording I've ever heard. I'm absolutely enamored of it. You can't deny that it aids the performance to have the sound so startlingly lifelike. It helps a lot. To my ear it's as different as the first stereo record was from mono. As an artist I like it that editing is still difficult on digital recordings. There isn't a single intercut in any of the movements of *Images*. Each is a complete performance, and I love that. I wish the system could stay technically inept enough that we'd always have to do it that way!"

When he took over the Pittsburgh Symphony the orchestra had not recorded for ten years. In Previn's view it is foolish to try to ignore the mass media. He thinks it is still important for an orchestra to be on national radio, and he sees recordings as vital. "An orchestra that does not record may be brilliant, but it will remain parochial. Any orchestra with ambitions to be considered among world-class orchestras has to record. It doesn't exist otherwise."

Television viewers in this country and in England have seen a good bit of Previn in both straightforward televised concerts with a minimum of talk and discussion shows in which he may explain musical points or interview other players between selections. He has no ready solution for the problem of what to do with the camera during long symphonic works. "It's understandable that

the more the directors know about music the better their shows are visually. When the director calls through the intercom and asks you which are the oboes, you're in serious trouble.

"To me the point of music on TV is to make it accessible to people who for reasons of geography, upbringing, schooling, or environment are not used to going to concerts. I get an awful lot of mail because of my television work. I always appreciate a letter from someone who says he thought the second subject of the third movement was really very nice, but I appreciate much more the letters from people who say they never used to listen to classical



music and now they do. To me the idea that somewhere there is someone who had never been exposed to classical music but is now hooked on it because of television is a wonderful thought."

The breakdown in the clothing code for concerts appeals to Previn because it has proved that concert halls are not alien territory for young people, and he is happy to note the number of twenty-year-olds in his audiences. He is not aware of any snobbishness that excludes people from the world of classical music. "There is much more rampant snobbishness in the pop field," he says.

AFTER TWO decades in symphonic music Previn's interpretations of certain works have changed since he first conducted them or recorded them. When he came to the end of his tenure as music director of the LSO, he was told that in twelve years he had recorded 137 albums with that orchestra alone. He listens to old records only to

see how his ideas about a particular composition may have changed.

"I find that if I have not changed my mind about a major piece in five or ten years, I think I'm in desperate trouble. Technically you can devise much simpler methods of achieving a certain result. I used to overconduct shamefully and leap about a lot. I was criticized for it badly, and now it amuses me that critics sometimes complain that I seem to understate everything—I think they mean visually—but I've found out that if you leap six feet in the air with arms flailing, it doesn't really make the orchestra play any louder. At the risk of sounding pompous, I think that as you get older your whole point of view about everything changes."

For a conductor, Previn is far from old. He is still heavily committed to the London Symphony although he and the orchestra agreed that after twelve years there should be a different music director. (Claudio Abbado succeeded him.) He points out that Eugene Ormandy's lengthy service with the Philadelphia Orchestra is exceptional and that for most conductors ten years is the maximum any one of them can spend with a given orchestra. It is too soon for Previn to be talking about what comes after Pittsburgh, but we can speculate that he is still capable of giving a decade each to perhaps three major orchestras in, say, Los Angeles, Chicago, and New York.

No one knows what makes conductors last so long. Is it the exercise of the upper torso? Working up a sweat at every rehearsal and performance? The satisfaction of working with a group of people toward a common goal? The mental concentration required by complex musical scores?

I THINK what is likely to keep Previn working for long and productive years to come is his attitude toward his work and the art he serves. In *Orchestra* he says: "I have been without a holiday for many years. That statement has no self-pity in it. It is just a statement of fact. In the past month I have conducted in Philadelphia, New York, Vienna, London, and Chicago. In two weeks I will return to my Pittsburgh Orchestra, and a month later to the LSO. It's quite a schedule. I share that kind of schedule with all my colleagues; mine is not unique. But at the end of every tiring day, of every grueling trip, there is the reward of the music. Great music, greater than any interpretation of it can ever be. It keeps the word 'boredom' away from our vocabulary, and it makes future efforts sound inviting. What other profession can make such a claim? I am a very fortunate man." □



Katia Ricciarelli as Luisa Miller
(Photo by J. Heffernan)

STEREO REVIEW'S SELECTION OF RECORDINGS OF SPECIAL MERIT

BEST OF THE MONTH



● Ricciarelli and Domingo Star in a New *Luisa Miller* ●

EVEN for those who know their Verdi well, *Luisa Miller* is truly a discovery. It is a work of the composer's full maturity, filled with all the freshness of Romantic inspiration and not yet spoiled for listeners by overfamiliarity, by generations of uninspired stage production and routine vocal hackwork. And that freshness, that inspiration are captured completely by an excellent new Deutsche Grammophon recording starring soprano Katia Ricciarelli and tenor Placido Domingo.

Luisa Miller was written by Verdi in 1849 for the San Carlo Theater in Naples. It is based, more or less, on Schiller's *Kabale und Liebe*, one of those Romantic tales about love, family, honor, trust, politics—and evil. It has all the necessary elements: the nobleman who pursues his love in disguise; the doting father whose only daughter is doomed to die for love; the jealous, spurned mezzo-soprano; the count whose perfidy is repaid by the death of his only son. In short, the works. But *Luisa Miller*, far from being a mere trial run for *Rigoletto* or *Il Trovatore*, is a highly effective opera in its own right. It is surprisingly a rather intimate work in dramatic terms, and Verdi gave it one of his most grateful and humanistic scores, avoiding grand-opera bombast and focusing in on the lyric expression of passion and the conflict between desire and duty. The score positively vibrates with melodic invention—not in any abstractly brilliant way, but always closely tied dramatically to situation and to character. The long-received notion that Verdi's mature period really begins with *Rigoletto* and the great operas that fol-

lowed ought to be revised. (New York *Herald Tribune* critic Lawrence Gilman, writing of *Luisa Miller*'s first Metropolitan Opera performance on December 21, 1929, observed with an evident condescension that “[The] music . . . is, on the whole, what one might expect in an opera written by Verdi in 1847 [sic].”)

Luisa Miller was, in fact, a success in its own day and was early recognized as something new in the musical theater. It now shows signs of regaining some of its former reputation, and this recording should certainly do a lot to

for the unjustified neglect of this beautiful opera.”)

The present recording is apparently a Covent Garden production, and it is most notable for the completely captivating singing of its two leads. Both Katia Ricciarelli and Placido Domingo are living proofs that intelligence, musicality, and character development are not outside the range of possibility for beautiful Italianate singing. I find Ricciarelli's trademark pianissimos, her pure, floated high tones absolutely ravishing. And I would as soon hear Domingo sing and interpret one of these roles as any other living tenor.

The rest of the cast is quite satisfactory. Elena Obraztsova sounds more like the Landowner's Widow from some Russian play than an Amneris or an Eboli—but let it pass. The other principals, the two fathers and the evil courtier Wurm, are all low male voices. Gwynne Howell, although a bit less Italianate than the others, is perhaps the most impressive vocally. But all are good, the level of singing consistently high.

Lorin Maazel's direction is energetic, somewhat inconsistent, and occasionally a bit hurried or rough. But this is not familiar territory for him, and the freshness and vitality of approach that are the results of responding to the challenge are much preferable to the spit and polish a more practiced Italian baton might have applied. The recording and production are impeccable, the sound vivid, the orchestral/vocal perspectives perfectly arranged, and the record surfaces quiet, so blissfully quiet.

—Eric Salzman

VERDI: *Luisa Miller*. Katia Ricciarelli (soprano), Luisa; Placido Domingo (tenor), Rodolfo; Renato Bruson (baritone), Miller; Gwynne Howell (bass), Count Walter; Elena Obraztsova (mezzo-soprano), Federica; Wladimiro Ganzarolli (baritone), Wurm; Audrey Michael (soprano), Laura. Chorus and Orchestra of the Royal Opera House, Covent Garden, Lorin Maazel cond. DEUTSCHE GRAMMOPHON 2709 096 three discs \$29.94, © 3370 035 \$19.96.

help. (Its last incarnation at the Met was in the 1978-1979 season. Renata Scotto, who starred in the house itself as well as in the PBS “Live from the Met” TV broadcast, later observed, without any condescension at all, “I am glad that I could . . . help make up

“The notion that Verdi's mature period begins with *Rigoletto* ought to be revised. . . .”

Carole King's Vintage "Pearls": Not Only a Classy Album, But a Timely One

THEY posed Carole King with a white piano on the cover of her new "Pearls" album, only one of several elegantly formal touches that combine to give the thing the aura of a recital. It would perhaps have been just as appropriate and effective to present a King/Goffin retrospective as a beer bash, for their songs have been recorded by quite a few rompers and stompers (all the cover versions—so far—for each song are listed, a nice little touch for pop-trivia scholars). In any case, throughout most of these songs it's no great tragedy if the ambiance happens to cover up the words. And even though you might think that *Locomotion* and *Chains* and suchlike would be as uncomfortable in these Tiffany arrangements as the Seven Dwarfs would be in tuxedos, King pulls it off. She makes of it not only a classy album but a timely one.

And she does it mostly with sound, as she and former husband Gerry Goffin have usually done it, as songwriters, more with tunes than with words. There does seem to be some kind of commitment to street language in their lyrics, and the words are strung together with some craftsmanship, but there is also in most of their songs the holdover imprint of Tin Pan Alley influence—which is to say that the songs are seldom about anything that isn't perfectly obvious. This retrospective, however, provides a few examples that show Goffin and King are growing out of that: *Snow Queen*, *Hi De Ho* (written for Blood, Sweat and Tears, a sketchy song but an adult one), *Wasn't Born to Follow*, and *Goin' Back* (the last two sounding as if they were written by members of the Byrds—which may be why the Byrds recorded them).

The performance of *Wasn't Born to Follow* is oddly lackadaisical (making it a semi-banjo tune doesn't work, I guess), but the performances of everything else bring out the easy, natural catchiness of the melodies. Through just about all of it King, who is more stylist than singer, works where her voice can do the most good; her taste is right up there with that of the instrumentalists—nothing overdone, nothing overdressed.

The sound engineering, I am happy to report, is appropriately classy. The master is nondigital, apparently, but it

is exceptionally clear—and recorded in Austin, maybe a sign of things to come. Perhaps the music is some such sign too, even though it's ostensibly about things past.

—Noel Coppage

CAROLE KING: *Pearls*. Carole King (vocals, piano); instrumental accompaniment. *Dancin' with Tears in My Eyes; Locomotion; One Fine Day; Hey Girl; Snow Queen; Chains; Oh No, Not My Baby; Hi De Ho; Wasn't Born to Follow; Goin' Back.* CAPITOL SOO-12073 \$8.98, © 8XOO 12073 \$8.98, © 4XOO-12073 \$8.98.

The Canadian Brass and Don Gillis: Happy Musical Surprises Stunningly Recorded

WITH a trio of sensationally accomplished soloists to help put over a program that moves with uncommon ease between the contemporary and the classical, the Canadian Brass Quintet once again lives up to its reputation for versatility and virtuosity. The adventuresome group that has delighted audiences at Carnegie Hall, in China, and even aboard a *bateau mouche* on the Seine has now made a perfectly thrilling record.

Credit Don Gillis, a skillful composer

and clever arranger, for much of the canny programming that makes "Unexplored Territory" up to the minute without being trendy. Mr. Gillis himself composed two of the songs in this new Moss Music Group release: *The Joust* and *En Sueño*, whose sensuous Iberian effects enable guitarist Liona Boyd to shine as soloist. Even those purists who deplore any tampering with the classics whatever the occasion are likely to find themselves caught off guard by the treatment of Erik Satie's *Gymnopédie* No. 1, which features molten glissandos on Erica Goodman's harp and makes bold to introduce an intriguing piano interlude with Gillis at the keyboard. Equally irresistible is the tuba solo by Charles Daellenbach on *Amazing Grace* (a remarkably resilient tune—remember when it hit the charts in a novelty bagpipe version by the band of the Royal Scots Dragoon Guards back in 1972?); the splendid Dixieland treatment of the *Bourbon Street Medley*; the far from vulgar adaptation of the Bach Magnificat in D Major in *The Cathedral*; and *A Royal Firework*, in which a singular little fragment of Handel's glossy score is decked out in jazzy dress that proves altogether becoming. It took a lot of technology and a lot of musical tricks to put this one together, but the tricks work for once and the whole experience is a series of happy surprises—stunningly recorded too.

—Paul Kresh

THE CANADIAN BRASS AND FRIENDS: *Unexplored Territory*. Gillis: *The Joust; En Sueño.* Satie: *Gymnopédie*

CAROLE KING: never overdressed



Richard E. Aaron/Thunder Thumbs

No. 1. Trad. (arr. Gillis): *Amazing Grace*; *Bourbon Street Medley*. J. S. Bach (arr. Gillis): *The Cathedral* (from *Magnificat in D Major*). Handel (arr. Gillis): *A Royal Firework* (from *Music for the Royal Fireworks*). Liona Boyd (guitar); Erica Goodman (harp); Don Gillis (piano); the Canadian Brass. MOSS MUSIC GROUP MMG 1119 \$7.98, © CMG 1119 \$7.98.

The Beatles Transmogrified Again: A Two-piano Concerto For Our Time

AMONG the imperishable creations brought to us by the year 1966 was a record by Joshua Rifkin called "The Baroque Beatles Book" (who can ever forget the "Epstein Variations"?). It was a wonderful record not only because it was witty and well done, but also because it seemed to say something a little bit important about the Beatles, about Baroque music, and about 1966. Now, in 1980, the Moss Music Group brings us another Beatles-inspired album, a lush, sweeping, virtuosic musical gesture called "The Beatles Concerto." In 1966 the Beatles were Baroque. In 1980 they are late-Romantic. If you don't think that says something about the Beatles, about us, about

1980, and about the radical effects of a relatively short span of time on the way we hear music, you are living in another world.

The Beatles Concerto, recorded by EMI in England and just released here by MMG, is a composition by John Rutter for two pianos and orchestra; it is played by Peter Rostal and Paul Schaefer with the Royal Liverpool (how appropriate!) Philharmonic under the direction of Ron Goodwin. It incorporates nine Beatles tunes: *She Loves You*, *Eleanor Rigby*, *Yesterday*, *All My Loving*, *Hey Jude*, *Here, There and Everywhere*, *Something*, *Can't Buy Me Love*, and *The Long and Winding Road*. It also incorporates, sometimes straightforwardly, sometimes by indirection, bits of piano concertos by Grieg, Rachmaninoff, Tchaikovsky, Gershwin, Prokofiev, Addinsell, Liszt, and Lord only knows who else. But this is not really a spoof. The concerto (it isn't one in the Classical sense, although it is in both the Baroque and the late-Romantic senses) actually begins like 1940s-extravaganza film music, and only gradually does the awareness creep over us (as it apparently did over the composer) that there is room here for some wit.

The first movement closes with the patented dum-da-da-dum of the Rachmaninoff Third, after passing through some other familiar bits. The slow movement is filled with Grieg and Chopin, some of it literal. Each little introduction leads us to anticipate a familiar theme of the Norwegian or the Pole, but instead we get a Beatles melody—

Columbia Artists Festival Corp.



Pianists Rostal (top) and Schaefer

and it doesn't seem out of place. A lot of people thought "The Baroque Beatles Book" wasn't funny because it all sounded so perfectly right. *The Beatles Concerto* sounds right too, and that is exactly what is so funny and touching about it. Ten years from now it will very likely be a panic, but who will we be then, and who will the Beatles be?

Side two of the record delivers *Six Beatles Impressions* by the same forces that played the concerto. Surely, given the circumstances, they should have been called *Konzertstücke*, for if a concerto could be in nine movements they would all fit in. The Beatles tunes used are *Fool on the Hill*, *Lucy in the Sky with Diamonds*, *Michelle*, *Maxwell's Silver Hammer*, *Here Comes the Sun*, and *A Hard Day's Night*, and they are treated as respectfully as those mounted in the concerto.

In all the performances, Rostal and Schaefer are (as Dizzy Dean might have observed) all over their respectable keyboards. The Liverpool Philharmonic plays with perfect seriousness and considerable *élan*, and the recording, while no digital display piece, is perfectly adequate. I long to know what shape this music will take the next time around
—James Goodfriend

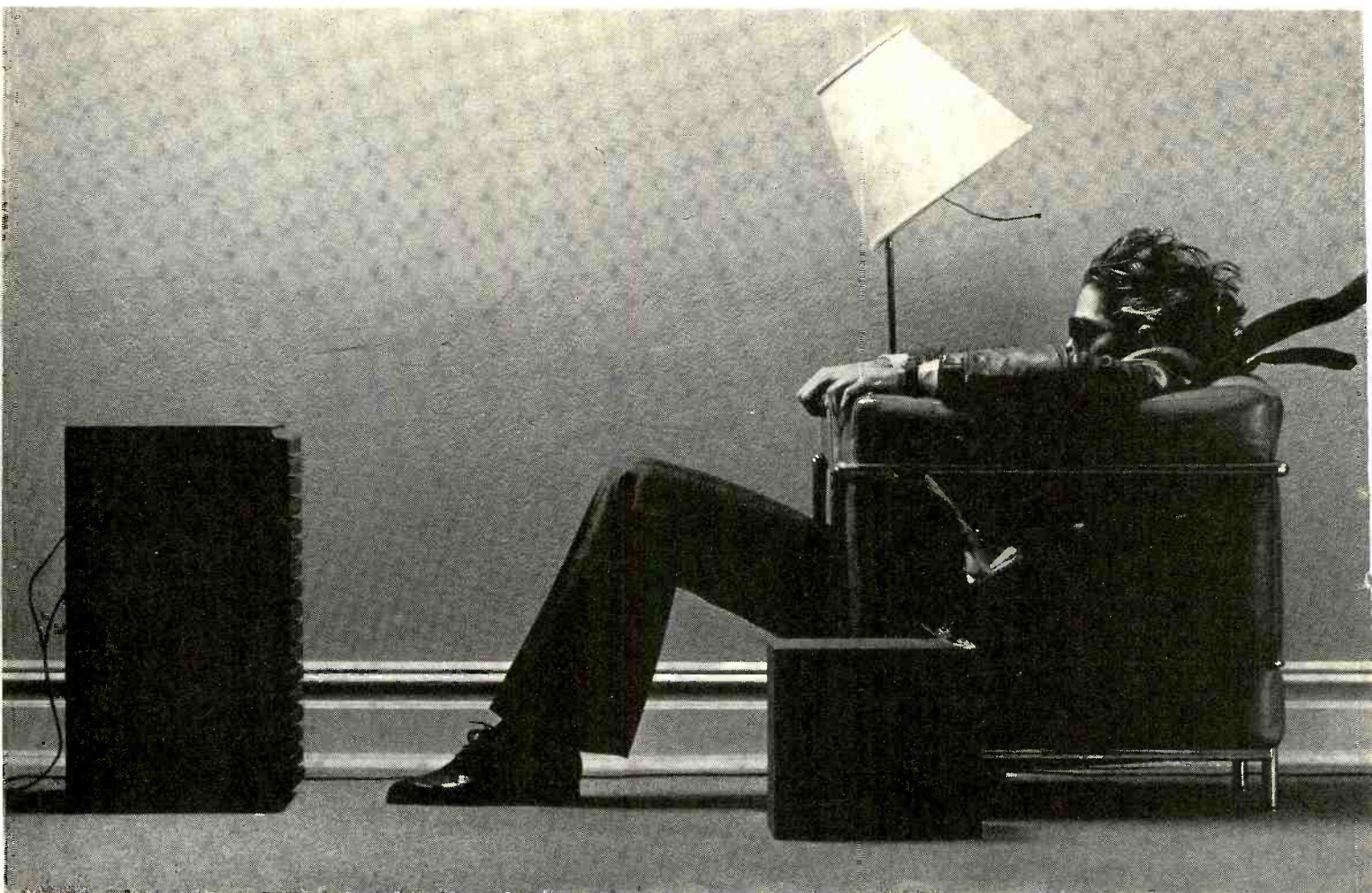
THE CANADIAN BRASS: versatile and virtuosic



Moss Music Group

RUTTER: *The Beatles Concerto*. RUTTER/GOODWIN: *Six Beatles Impressions*. Peter Rostal and Paul Schaefer (pianos); Royal Liverpool Philharmonic Orchestra, Ron Goodwin cond. MOSS MUSIC GROUP MMG 1121 \$7.98, © CMG 1121 \$7.98.

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Classical Discs and Tapes



Reviewed by RICHARD FREED • DAVID HALL • GEORGE JELLINEK • PAUL KRESH
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BARBER: *Sonata for Cello and Piano, Op. 6.* **KODÁLY:** *Sonata for Cello and Piano, Op. 4.* **DELLO JOIO:** *Duo Concertato for Cello and Piano.* Jeffrey Solow (cello); Albert Dominguez (piano). PELICAN LP 2010 \$7.98.

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

Recordings of Samuel Barber's early Cello Sonata seem to turn up now only on smaller labels and from mail-order sources. Of the four current versions, this newest one is by all odds the smoothest and most persuasive—surely the most fetching account of the work on records since the old Concert Hall recording by Raya Garbousova and Erich Itor Kahn. In the Kodály sonata (a most agreeable work, if less imposing than that composer's big Sonata for Unaccompanied Cello) the current competition is a bit stronger, and László Varga and György Sándor bring out a bit more of the music's specifically Magyar character. But Solow and Dominguez are quite convincing in their own right, and anyone attracted by the Barber or by Norman Dello Joio's concise and intriguing *Duo Concertato* will surely find the Kodály more than acceptable. Solow and Dominguez are fine players, and they seem both serious and delighted about the give-and-take required to bring these pieces off. The sound is good too. *R.F.*

Explanation of symbols:

- Ⓜ = open-reel stereo tape
- Ⓢ = eight-track stereo cartridge
- ⓐ = stereo cassette
- Ⓚ = quadraphonic disc
- Ⓛ = digital-master recording
- Ⓣ = direct-to-disc

Monophonic recordings are indicated by the symbol Ⓜ

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

BEETHOVEN: *Concerto Movement in C Major for Violin and Orchestra (WoO 5); Romance in G Major, Op. 40.* **SCHUBERT:** *Polonaise in B-flat Major for Violin and Small Orchestra (D. 580); Konzertstück in D Major (D. 345); Rondo in A Major for Violin and Strings (D. 438).* Gidon Kremer (violin); London Symphony Orchestra, Emil Tchakarov cond. DEUTSCHE GRAMMOPHON 2531 193 \$9.98, © 3301 193 \$9.98.

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

The only familiar parts of this program are the Beethoven romance and the Schubert rondo, both of which Gidon Kremer plays with lambent tone and great style. The concerto movement Beethoven wrote when he was about twenty is virtually unknown and has not been recorded before as far as I know. Played here in a reconstruction—or, in any event, a completed version—by Wilfried Fischer, it proves to be a well-crafted piece but, despite a brief passage just after the cadenza that does seem to prefigure the Op. 61 concerto, not particularly memorable. The most absorbing portion of this quarter-hour is the expansive, Kreislerish cadenza itself, which was composed by Takaya Urakawa (the Japanese violinist, now living in Munich, who recently recorded all the Beethoven sonatas with Franz Rupp).

The Schubert B-flat Major Polonaise and *Konzertstück* may also be of more interest to the encyclopedist than the general listener. All three Schubert works here were recorded recently for Turnabout by Susanne Lautenbacher with Jörg Faerber and the Württemberg Chamber Orchestra, and the two lesser-known ones may be just a shade more enjoyable in her hands than in Kremer's; she seems a bit more attuned to their Biedermeier spirit and in general gives the impression of having lived with them a while before committing them to tape and disc. But there is little point in such comparisons because there is really little in the music. Emil Tchakarov's accompaniments are adequate (there is not a lot for him to do), and the recording is quite good. *R.F.*

RECORDING OF SPECIAL MERIT

BRAHMS: *Variations and Fugue on a Theme by Handel, Op. 24; Four Piano Pieces, Op. 119.* Rudolf Serkin (piano). CBS M 35177 \$8.98, © MT 35177 \$8.98.

Performance: **Outstanding**
Recording: **Big as life**

If Serkin's way with Schubert's Op. 142 impromptu (CBS M 35178, reviewed here in June) seemed too dreamy and underanimated, there is nothing of the sort in these sterling Brahms performances. That of the Handel Variations is vigorous, enlivening, and wholly fascinating, with all the zest of the youthful urge that gave birth to the piece in the composer's twenty-ninth year. The close-up sound adds to the impact and the impression of robust exuberance. That is not to suggest any lack of poetry in the quieter variations, and that quality is as abundant as the vigor in Serkin's masterly realizations of the three intermezzos and the one rhapsody that constitute Brahms' valedictory work for his own instrument. There is really no need to go on: this is simply an outstanding addition to the Brahms discography, as well as to Serkin's, the sort of thing that draws the listener back again and again with ever deepening affection to music he might have thought he merely admired. *R.F.*

CHÁVEZ: *Sinfonia India* (see Collections—Music from Mexico)

DELIBES: *Coppélia (complete)*. Rotterdam Philharmonic Orchestra, David Zinman cond. PHILIPS 6769 035 two discs \$19.96.

Performance: **Light as an air de ballet**
Recording: **Perfect**

Coppélia, based on an E. T. A. Hoffmann story about a young man in a Galician village who loses his heart to a clockwork doll and deserts his true love (who has to dress up in her rival's costume to win him back), was scored by Leo Delibes in 1867 and has been a popular ballet ever since. Countless

THERE are, at the moment, approximately thirty different complete recordings of Bach's Brandenburg Concertos available. Almost all of them have their points—some have very many points indeed—but such a plethora seems to lead not to satisfaction but to a vague feeling of discontent with all of them. Were the others not around, any one of half a dozen (at least) might provide pleasure enough, but the others *are* around and one wishes, ungratefully, for some new recording that will combine, in one set, all the advantages of all of them. Two new recordings (Gerard Schwarz, Herbert von Karajan) and two not quite so new ones (Jean-François Paillard, Jerzy Maksymiuk), plus a single disc by Trevor Pinnock with the Concerto No. 5, do not resolve the problem, but they do, perhaps, make it a little more intriguing.

One might make out a score sheet for Brandenburg performances to include the following categories: (1) sensible and appropriate tempos, (2) proper size of the performing ensemble, (3) effective musical and recorded balancing of the unusual groups of soloists, (4) skillful and beautiful instrumental playing, (5) enough familiarity with the style to be able to insert what is missing in the printed score, (6) use of the actual solo instruments specified by Bach, (7) avoidance of anachronistic expressive devices, (8) use of old pitch and old instruments, and (9) a special *feel* for the music, especially for the rhythms.

Of the four recordings here, it is the Angel set by Gerard Schwarz and the Los Angeles Chamber Orchestra that puts together the highest score. Tempos are sometimes a little pushed, but generally they seem just; the ensemble is fine, although the instrumental playing (with the exception of Schwarz himself on the trumpet) is competent rather than elegant. The balance is faithful to the score and the recording a model of clarity (you really do hear it all), but there is sometimes a feeling of artificiality about it; given the nature of the instrumentation, this may be inevitable. Schwarz adds the missing trills and ornamentation where needed, he uses rubato sparingly and effectively, but he doesn't *always* manage to escape sewing-machine regularity in the rhythm. His players use modern pitch and modern instruments and play transverse flutes rather than recorders. (Shame! Surely there must be two competent recorder players in Los Angeles.) Schwarz does not fall into the trap of inserting a foreign slow movement between the two allegros of the Third Concerto. The particular advantage of the 45-rpm issue, which is available through the Ambassador Foundation and may not be available through regular Angel channels, is the lack of sound degradation at the ends of the sides. It *does* make a difference.

Herbert von Karajan's rendition is a lot more convincing than one might expect; he is not, after all, associated with this sort of repertoire. It is anachronistic Bach, far more so than Schwarz's. The rhythms are motoric, the line and phrasings are long, vibrato is ever-present, orchestral crescendos

and diminuendos abound, trills are sometimes missing or incorrectly played. It is not quite Romantic Bach, but it is Bach played with the musical devices of a later day and without many of those of *his* day. That noted, one must still marvel at the elegance and musicality of the performances and the incredibly beautiful sounds the Berlin Philharmonic players produce. Those violas and cellos in No. 6 are just about the *grand vin* of music. Karajan also does not miss the joke of No. 3 by inserting a slow movement.



Portrait of Bach by J. J. Hile

How to Listen to J. S. Bach's Brandenburg Concertos



Basically, he goes by the score, rather than by any sense of style, and he makes the most of what is written. He gets a warm and clear recording from Deutsche Grammophon, though it is a different sort of thing entirely from Angel's digitally mastered one.

The Jean-François Paillard recording, newly released on Musical Heritage Society, has been around for some years on a variety of labels. It has always been considered one of the preferred recordings of the Brandenburgs and it *has* got Jean-Pierre Rampal and Pierre Pierlot and Maurice André and the rest of that admirable group of French soloists. It's a comfortable set (nothing really untoward happens in it), but it is beginning to sound a bit thick and "peasantry" and the recording is no longer up to contemporary standards.

The Angel set by the Polish Chamber Orchestra offers a number of surprises. In the first place, they too have come up with a trumpet player who can handle the high tessitura in the Second Concerto (not many years ago it was either played an octave lower or handed over to a saxophonist, so far was it beyond the abilities of most symphonic trumpet players). Second, the Polish group is the only one of the four considered here to employ recorders instead of flutes in the Fourth Concerto. (I had never before considered Poland such a hotbed of musicology!) The problem with the set is that the tempos are frenetic and the music therefore just too often falls completely apart. There are other deficiencies—though, considering the unexpected source, the set represents quite an accomplishment—but that one is major. Some of these performances might be thrilling in concert, but on records they grate.

This brings us to the single Archiv disc of the Brandenburg No. 5, coupled with the Orchestral Suite No. 3, by Trevor Pinnock as both harpsichordist and director and the English Concert. It would be no exaggeration to say that here virtually all the criteria have been met, including those of period instruments and eighteenth-century pitch and performing style. These are authentic performances (as we understand authenticity in 1980), but they are also highly musical and effective performances. One wonders what Pinnock would (or will) do with the other five Brandenburgs if and when. Until such time, this disc seems to be a required supplement to whatever complete set of the Brandenburgs you choose.

—James Goodfriend

J. S. BACH: *Brandenburg Concertos* (BWV 1046-1051). Los Angeles Chamber Orchestra, Gerard Schwarz cond. ANGEL DSB-3901 two discs \$21.96, © 4Z2S-3901 \$17.96. 45-rpm DSSC-4504 three discs \$28.98 (plus \$2.50 postage and handling from the Ambassador Foundation, 300 West Green Street, Pasadena, Calif. 91129; DSB-3901 also available from the Foundation, but not ©).

J. S. BACH: *Brandenburg Concertos* (BWV 1046-1051). Berlin Philharmonic, Herbert von Karajan cond. DEUTSCHE GRAMMOPHON 2707 112 two discs \$19.96, © 3370 030 \$19.96.

J. S. BACH: *Brandenburg Concertos* (BWV 1046-1051). Jean-François Paillard Chamber Orchestra, Jean-François Paillard cond. MUSICAL HERITAGE SOCIETY MHS 4019/20 two discs \$13.90 (plus \$1.25 postage and handling from Musical Heritage Society, 14 Park Road, Tinton Falls, N.J. 07724).

J. S. BACH: *Brandenburg Concertos* (BWV 1046-1051). Polish Chamber Orchestra, Jerzy Maksymiuk cond. ANGEL SZB-3873 two discs \$17.96.

J. S. BACH: *Brandenburg Concerto No. 5* (BWV 1050); *Orchestral Suite No. 3* (BWV 1069). The English Concert, Trevor Pinnock cond. ARCHIV 2533 440 \$9.98, © 3310 440 \$9.98.

recordings of suites drawn from the music have been broadcast so often that the most charming moments have hardened into hopeless clichés, but those who like ballet scores whole and unabridged will find much to beguile them in the full experience. Air after air unfolds in sprightly passages; a whole collection of ingratiating mazurkas, waltzes, marches, boleros, gigue, and galops dance by to delight the ear. Few could invent a dance melody more easily or toy with it more inventively than Delibes; the whole score is constructed as magically—and sturdily—as an enchanted palace. There are several excellent recordings of the full ballet, but David Zinman's reading with the Rotterdam Philharmonic is so graceful and delicate, the strings sound so transparent and glowing, the flavor of the piece is so fully captured, and the Philips surfaces are so silent that this one outdances all its rivals. P.K.

DELLO JOIO: *Duo Concertato for Cello and Piano* (see BARBER)

RECORDING OF SPECIAL MERIT

HANDEL: *Water Music*. Academy of St. Martin-in-the-Fields, Neville Marriner cond. PHILIPS 9500 691 \$9.98, © 7300 779 \$9.98.

Performance: **Tops**
Recording: **Brilliant**

Everything about this recording—the music, the performance, the sound—is top-notch. Neville Marriner's reading fits Handel's music perfectly: his brisk tempos bring out its vigor, the dances really dance, and the master's sensuously lyrical lines are lovingly caressed. The application here of Baroque performance practices to the modern orchestra is stunningly effective. Double dotting and rhythmic alterations are judiciously used, and ornamentation is employed wisely but fearlessly.

The members of the orchestra also deserve special congratulations for their brilliant playing. The horns give us their finest hunting calls and the trumpets bring militancy to their tattoos. The oboe and bassoon playing is especially supple, and the solo recorder playing in the G Major Suite is lucid. The winds and brass are beautifully balanced with the strings, adding a golden sheen to the overall sonority. This is not just another *Water Music*; it is a virtually definitive recorded performance. S.L.

HAYDN: *Symphony No. 94, in G Major* ("Surprise"); *Symphony No. 104, in D Major* ("London"). Pittsburgh Symphony Orchestra, André Previn cond. ANGEL SZ-37575 \$8.98.

Performance: **Genial**
Recording: **First-rate**

This particular coupling appears to be unique at the moment, and anyone attracted to this combination of titles will find a great deal to enjoy here. André Previn succeeds in combining the geniality and charm of the old Beecham/Koussevitzky approach to Haydn with the vigor and scholarship that distinguish the best of the more recent performances, and the Pittsburgh orchestra has never sounded better. The *Symphony No. 94*, perhaps the most

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frequently recorded of all Haydn's symphonies, is given a near-ideal reading, every witty aside making its full effect without upsetting either the balance or the flow. The finale comes off especially well (and it is neither hectic nor cut, as the erroneous printed timing might suggest). All that keeps me from affixing a "Special Merit" tag is a certain unevenness in the slow movement of No. 104: the flow from one episode to the next is a little choppy and the phrasing at times just a tad breathless. Otherwise, this is a first-rate production all around, with splendid sound and exceptional surfaces. *R.F.*

KODÁLY: Sonata for Cello and Piano, Op. 4 (see BARBER)

RECORDING OF SPECIAL MERIT

LEHÁR: The Land of Smiles. Anneliese Rothenberger (soprano), Lisa; Nicolai Gedda (tenor), Prince Sou-Chong; Renate Holm (soprano), Mi; Harry Friedauer (tenor), Gustl von Pottenstein; Jobst Miller (bass), Tchang. Bavarian Radio Chorus; Bavarian Symphony Orchestra, Willy Mattes cond. ARABESQUE 8055-2 two discs \$13.96.

Performance: **Expert and authentic**
Recording: **Good**

The Land of Smiles is late-middle-period Lehár, one of those operettas with bitter-sweet stories. Happy endings are rare in these works—lovers are separated by con-

flicting obligations, racial differences, or other complications—and the music generally lacks the carefree buoyancy of the earlier *Merry Widow* and *Count of Luxembourg*. But these scores nevertheless abound in romantic love melodies, and in *The Land of Smiles* (my favorite Lehár operetta) these are seldom less than irresistible.

Another distinction of this operetta is the special element of *chinoiserie* in the doomed romance between a Viennese lady and a Chinese prince who may be modern in his outlook but is nonetheless hopelessly bound by his Oriental traditions. How authentic these elements are I leave for ethno-musicologists to ponder; I find Lehár's use of them skillful and lovable.

This Arabesque release makes available for general domestic distribution a set that has been around as a German import since 1967. Anneliese Rothenberger and Nicolai Gedda sing the leading roles—which are unceasing in their demand for vocal virtuosity—in a manner no one else could approach today, and Renate Holm is enchanting in the touching role of Mi. Though Harry Friedauer is nowhere near their vocal class, he still knows how to bring character to the sympathetic role of Pottenstein.

I have some reservations, however. First, for all its merits, this recording does not surpass, or even equal, the (most unfortunately) now-deleted Angel mono set produced by Walter Legge. Superbly conducted by Otto Ackermann, it featured the younger Elisabeth Schwarzkopf and Nicolai Gedda as well as Erich Kunz as Pottenstein—per-

fection itself. Second, although Arabesque's stereo sound should be a notable advantage, it fails to match the original German pressings of the same recording in clarity and impact. The surfaces, too, are far from ideal, and the set does not include a libretto. R. D. Darrell's notes, however, are helpful and informative. With the Angel set deleted, this is now the only *Land of Smiles* to be had, and, despite my reservations, I promise that if you like Viennese operetta at all, it will enchant you. *G.J.*

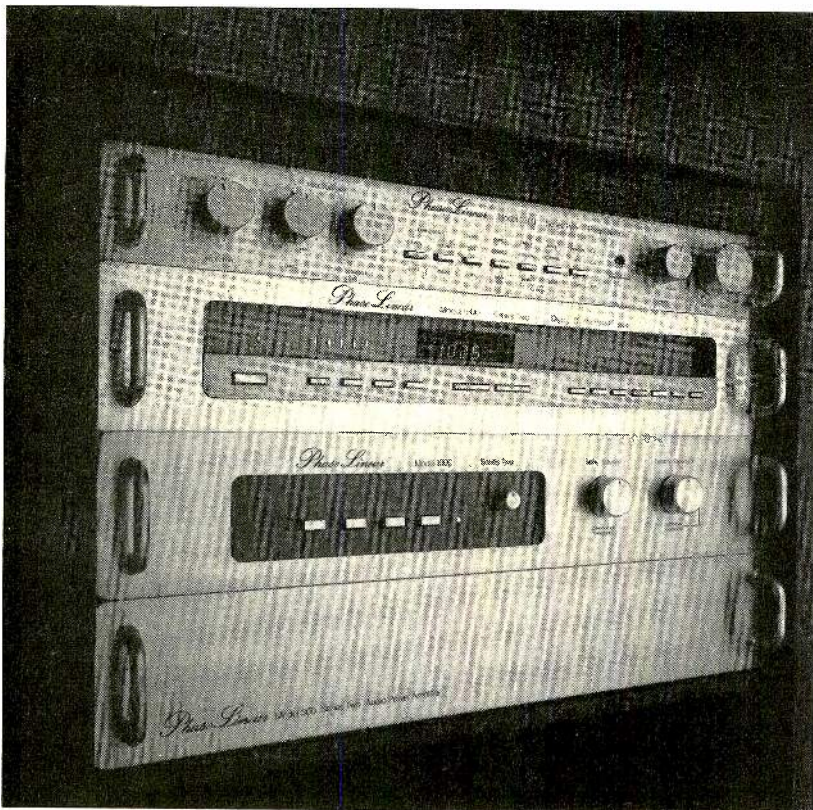
LEONCAVALLO: I Pagliacci (see MAS-CAGNI)

MASCAGNI: Cavalleria Rusticana. Montserrat Caballé (soprano), Santuzza; José Carreras (tenor), Turiddu; Matteo Manuguerra (baritone), Alfio; Julia Hamari (mezzo-soprano), Lola; Astrid Varnay (mezzo-soprano), Mamma Lucia. Ambrosian Opera Chorus; Philharmonia Orchestra, Riccardo Muti cond. **LEONCAVALLO: I Pagliacci.** Renata Scotto (soprano), Nedda; José Carreras (tenor), Canio; Kari Nurmela (baritone), Tonio; Ugo Benelli (tenor), Beppe; Thomas Allen (baritone), Silvio. Southend Boy's Choir; Ambrosian Opera Chorus; Philharmonia Orchestra, Riccardo Muti cond. ANGEL SZCX-3895 three discs \$27.94, © 4Z3X-3895 \$27.94.

Performance: **Uneven**
Recording: **Good**

There are some good things in this latest coupling of the *verismo* twins, but overall

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the set leaves me with a negative impression. The overriding characteristic of the new Angel pair is fussiness. This applies to the conducting, some of the singing, and the technical production as well. The exaggerated dynamic contrasts favored by the engineers here are the kind we have heretofore associated only with Herbert von Karajan's productions. Mascagni's opening *Siciliana* offers a good example. Placing Turiddu far off stage in pursuit of aural "realism" would have caused no serious problem for a Corelli or Del Monaco, but José Carreras creates insufficient sound for the audible effort he expends, and he has trouble staying on pitch to boot.

Montserrat Caballé seems more happily cast, being a Santuzza who lacks neither passion nor poignancy. She is in good voice, untroubled by the tessitura, though she needs some engineering assistance with the high B-natural to soar freely above the chorus in the "Ingegiamo." Matteo Manuguer, a sonorous and secure Alfio, misreads one of his lines in "Il cavallo scalpita." Julia Hamari is a good Lola, but Astrid Varnay is past the stage where her vocal efforts should be perpetuated on records.

Riccardo Muti conducts *Cavalleria* unevenly. His overall pacing is slow—a predilection he shares with most other conductors on records except Gavazzeni and Levine. On the other hand, he rushes the Santuzza-Alfio duet and his usually strong rhythmic control abandons him in the "Gli aranci olezzano" chorus. There are some powerful moments, however, in his reading, which promises to develop into an effective, unified view—some day.

Muti will no doubt that day achieve a fully satisfactory *Pagliacci* as well. The annotations here make much of the conductor's adherence to the autograph score as against the printed one. The difference is dramatically emphasized at the end of the Prologue, which is delivered minus the familiar closing high G. This, we learn from the annotations, has been "tolerated" in the past to please "vocally ostentatious" performers. At the risk of being labeled a philistine by upholders of the *Urtext*, I should point out that the outstanding recordings of the work made in Leoncavallo's lifetime by Titta Ruffo (1908 and 1912), Battistini and Amato (1911), and Stracciari (1917)—which served as models for the Tibbetts, Warrens, and other "ostentatious performers" of the past—all have Prologues in which we hear splendidly resonant A-flats on "pari di voi" before the final G on "Incominciate!" If composers had disregarded the constructive influences of their exceptional interpreters through the ages and had stuck to their autographs with the tenacity of certain scholars, many operas would have become as undervalued in performance as the Prologue of *Pagliacci* sounds here.

Muti is on more secure ground in the opera's finale, when the concluding "La commedia è finita" is uttered by the baritone (as, indeed, it was by Victor Maurel in 1892). The baritone here, Kari Nurmela, a little-known Finnish singer, delivers the line with an appropriately bitter cynicism. He is, in fact, excellent throughout this recording, which appears to be his first major one. As for Carreras, he finds Canio even more troublesome than Turiddu. Renata Scotto's Nedda is above average, though perhaps too

analytical; with all the attention given to stresses and nuances, spontaneity is lost. Thomas Allen is a fresh-voiced Silvio whose bright tones make an effective contrast with the dark timbre of Nurmela. Ugo Benelli brings uncommon grace and rhythmic precision, but also some dubious intonation, to Beppe's Serenade.

As he does in *Cavalleria*, Muti draws marvelous sonorities from the orchestra, as well as clarifying instrumental textures. But here, too, there are questionable details, such as the rushed introductory chorus. All in all, considering the available alternatives, I cannot recommend this new set. G.J.

MOZART: Clarinet Quintet in A Major (K. 581). George Silfies (clarinet); Giovanni String Quartet. **Quintet for Piano and Winds in E-flat Major (K. 452).** Walter Klien (piano); Peter Bowman (oboe); George Silfies (clarinet); George Berry (bassoon); Roland Pandolfi (horn). **TURNABOUT TVC 37013 \$4.98, © CT 70013 \$4.98.**

Performance: **Fluent**
Recording: **Outstanding**

This Turnabout recording by members of the St. Louis Symphony Orchestra and pianist Walter Klien is a singularly attractive bargain. Only the Tashi ensemble offers the same coupling, and their disc is on RCA at \$7.98. The performances here are very fine, the recorded sound beautiful.

George Silfies, first-desk clarinetist of the St. Louis Symphony, is among the top players on his instrument, and his handling of Mozart's elegant, effortless music is as fluent as anyone could wish. The Giovanni String Quartet players provide excellent teamwork, and the Clarinet Quintet performance as a whole is marked by sensible tempos and sensitive musicianship. The same can be said for the Piano Quintet performance, in which the individual instrumental lines get special attention. Oboist Peter Bowman shows himself to be an outstanding player, and Klien is the dependable and sensible interpreter we have come to know over the years on Vox/Turnabout. His piano here sounds a mite thin in the upper middle register, but this may be the nature of the instrument, for the overall sound of the ensemble is altogether lovely. D.H.

RECORDING OF SPECIAL MERIT

MOZART: Piano Concerto No. 12, in A Major (K. 414); Piano Concerto No. 27, in B-flat Major (K. 595). Murray Perahia (piano); English Chamber Orchestra, Murray Perahia cond. **CBS M 35828 \$8.98, © MT 35828 \$8.98.**

Performance: **Elegant pianism**
Recording: **Mellow but veiled**

Murray Perahia's playing of the solo parts in the first and last of the concertos Mozart wrote for himself in Vienna is all one could ask, a model of rightness perhaps surpassing even his own earlier achievements in what has already come to be regarded as a most distinguished series. Tempos are everywhere ideal, every phrase is elegantly articulated, the feeling for the spirit as well as the structure of both works is altogether exceptional. Several of Perahia's earlier recordings of Mozart concertos conducted

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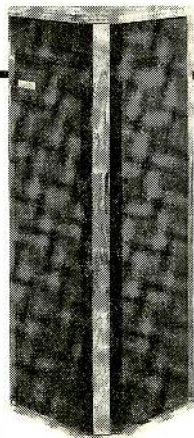
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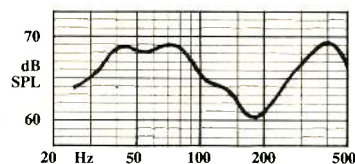
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Von Stade: Recital

THE contents of Frederica von Stade's new Philips recital album are drawn from four complete operas that lie outside the standard repertoire. If your collection lacks complete versions of these Rossini, Haydn, and Mozart operas, you'll want to snap up these aria renditions for the simple reason that nowhere will you find them better sung. The fact is that there are few artists before the microphone today who are capable of sustaining, release after release, such a level of musically satisfying and tonally ear-caressing singing.

In *Otello*, Von Stade handles Desdemona's music with florid grace, fluency, and total accuracy, and she gets a more suitable tempo and a better orchestral ac-

companiment than in her previous recital disc (Philips 9500 098). My only reservation has to do with the exaggerated languor with which she endows Desdemona's character: there *is* expressiveness in her singing, but it is of a generalized sort. Her vague enunciation and swallowing of word endings do not always make for the most meaningful phrases.

She portrays livelier characters in the Amanta and the Lisetta of the two Haydn operas. While Amanta's first aria is such a trifle that it barely qualifies for a recital, all five Haydn excerpts are ravishingly sung, ably accompanied by the assisting singers, and smartly conducted by Antal Dorati. As for the two arias of Annio, the relatively small role Von Stade sings in the complete *La Clemenza di Tito* (Philips), the music is exquisite and the performances are done to perfection.

In an age when too many singers seem to be afflicted with various identity crises, Frederica von Stade stands out by invariably singing roles that fit her and bring out the very best of her substantial gifts. This recital is a good example, and it ought to please the vocal connoisseur no end.

—George Jellinek

FREDERICA VON STADE: *Aria Recital*.

Rossini: *Otello: Quanto son fieri i palpiti; Che smania . . . Oimè! che affanno!; Assisa a piè d'un salice; Deh calma, o Ciel, nel sonno.* **Haydn:** *La Fidelta Premiata: Per te m'accese amore; Vanne . . . fuggi . . . traditore!; Barbaro conte . . . Dell'amor mio fedele. Il Mondo della Luna: Una donna come me; Se lo comando, ci venirà.* **Mozart:** *La Clemenza di Tito: Torna di Tito a lato; Tu fosti tradito.* Frederica von Stade (mezzo-soprano); Philharmonia Orchestra, Jesús López Cobos cond. (in Rossini); Lausanne Chamber Orchestra, Antal Dorati cond. (in Haydn); Orchestra of the Royal Opera House, Covent Garden, Colin Davis cond. (in Mozart). PHILIPS 9500 716 \$9.98, © 7300 807 \$9.98.

from the keyboard left me with the feeling that so fine a pianist deserved a sharper conductor; here again, in the little A Major, the orchestra's contribution is a mite squarish, especially as contrasted with the supple and stylish pianism. This means rather less than it might in K. 595, perhaps, but it does tend to make the performance seem episodic. Things actually go much better in the more symphonically proportioned B-flat concerto, with fuller integration between the two elements and some especially alert orchestral playing. I can, in fact, think of no more thoroughly satisfying account of this masterwork available at present. R.F.

RUTTER: *The Beatles Concerto* (see Best of the Month, page 75)

SCHUBERT: *Polonaise in B-flat Major for Violin and Small Orchestra; Konzertstück in D Major; Rondo in A Major for Violin and Strings* (see BEETHOVEN)

RECORDING OF SPECIAL MERIT

TCHAIKOVSKY: *Symphony No. 4, in F Minor, Op. 36.* Philharmonia Orchestra, Riccardo Muti cond. ANGEL □ SZ-37624 \$8.98.

Performance: **Very fine**
Recording: **High-power**

TCHAIKOVSKY: *Symphony No. 5, in E Minor, Op. 64.* Philharmonia Orchestra, Riccardo Muti cond. ANGEL □ SZ-37625 \$8.98.

Performance: **Idiosyncratic**
Recording: **High-power**

Of the half-dozen or so recordings by Riccardo Muti I have heard over the past two years, these of the Tchaikovsky Fourth and Fifth Symphonies come closest, I think, to showing his distinctive conductorial profile. Of his Italian predecessors, I would be most inclined to compare him with Victor de Sa-

bata, particularly in terms of dramatic flair and a remarkable ability to shape a beautifully controlled expressive phrase.

Dramatic flair certainly comes to the fore in the opening of this Tchaikovsky Fourth, where the horns are (as I like them) fiercely brazen. There is a sweeping and most effective urgency to the elaborate main body of the movement, though I would have liked a little more breathing space between phrases. Muti does particularly well with the slow movement; his tempo is very steady indeed, but he shapes the line with infinite care. The famous pizzicato scherzo goes as light as a feather, and steady, brisk tempos combined with ultra-crisp violin articulation mark the finale. It is refreshing to hear the *Birch Tree* folk tune done at a pace comparable to the way it is sung, rather than as a lugubrious lamentation.

I find Muti's Fifth Symphony less sure-handed than his Fourth, with almost too much effort expended to give the reading poise when the music needs to surge forward. The lyrical elements are effectively communicated in the first movement, with much of the essential nervousness soft-pedaled. The slow movement is superb in its capturing of Tchaikovsky's lyricism, but the very *pesante* treatment of the motto theme in its two menacing entrances is unconvincing. The waltz movement is done with great elegance, and the finale gets the kind of taut interpretation it needs to prevent its seeming hopelessly episodic.

As with Muti's recent Mendelssohn/Schumann coupling on Angel, the sound on both these discs is strong, rich, and a trifle coarse-grained in the climaxes. Four-channel playback definitely helps. *D.H.*

VERDI: *Luisa Miller* (see *Best of the Month*, page 72)

VIVALDI: *Opera Arias* (see *Collections—Montserrat Caballé*)

WEBER: *Songs. Meine Lieder, Meine Sänge; Klage; Der Kleine Fritz; Was Zieht zu Deinem Zauberkreise; Ich Sah ein Röschen am Wege Stehn; Er an Sie; Wiedersehen; Es Sturmt auf der Flur; Unbefangenheit; Minnelied; Reigen; Sind Es Freuden;* and thirteen others. Martyn Hill (tenor); Christopher Hogwood (fortepiano). L'OISEAU-LYRE DSLO 523 \$9.98.

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

More than a quarter of Carl Maria von Weber's song output is contained in this collection. The songs are all brief and to the point. Profundity was a quality Weber did not seek in his songs; in fact (according to annotator John Warrack, who wrote a biography of the composer), he took pains to avoid setting poems by Goethe and other major German poets. Musically, too, the songs are uncomplicated: frequently strophic in construction, with accompaniments ranging from guitar-like figurations to pianistic patterns that are sometimes ornate but never intrude on or compete with the vocal line. Twenty-five such songs in uninterrupted sequence is not my idea of a well-planned song recital, but listening to them produced neither boredom nor a feeling of monotony. There are, actually, several little gems to be encountered here, including an entertaining

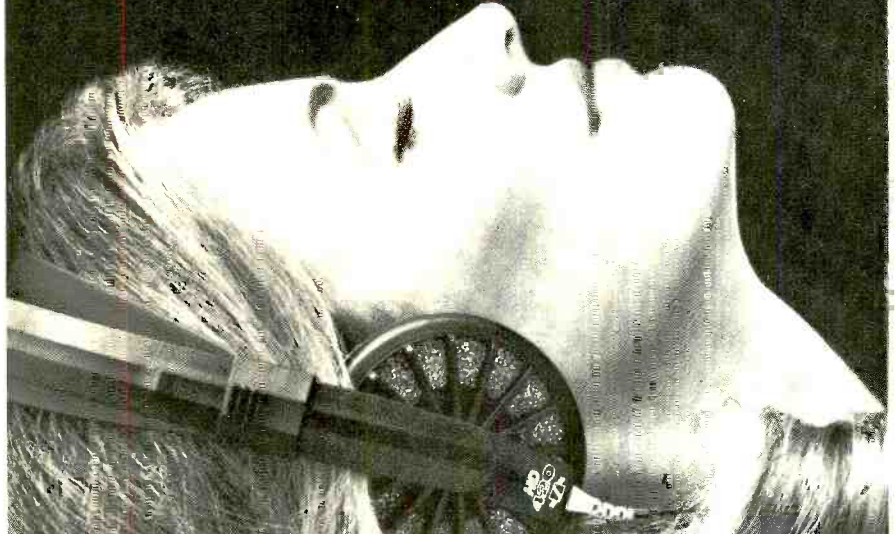
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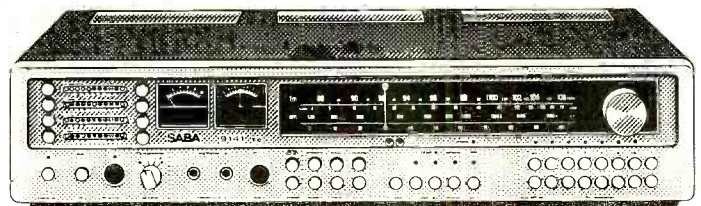
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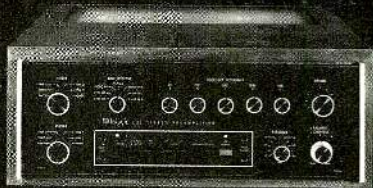
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and clever four-way mirror of an amorous break-up, *Four Temperaments at the Loss of Love*, and a lively rustic clog dance called *Reigen*.

Martyn Hill's slender tenor voice is rather short in range but pleasant and malleable. Fortunately, the songs lie comfortably for him (never extending above a G), and he meets their technical demands with grace and considerable skill. Christopher Hogwood's lively accompaniments on an 1825 fortepiano are a perfect complement to a tasteful and admirable enterprise. The sound is close-in, with noticeable but not really unpleasant resonance. *G.J.*

WEISGALL: *The Golden Peacock, Seven Popular Songs from the Yiddish; Translations, Songs to Texts by Women Poets.* Judith Raskin (soprano); Morey Ritt (piano). CRI SK 417 \$7.95.

Performance: **Effective**

Recording: **Excellent**

Hugo Weisgall is one of those composer's composers who seem to have cut themselves off from the rewards of popularity. Born in Czechoslovakia in 1912 and long an American citizen, Weisgall has written most of his music—including a number of operas well regarded by his admirers—for the voice. These two song cycles are revealing examples of the talent for which he is highly regarded as well as the handicaps that impede popular appreciation of his work. *The Golden Peacock* is based on Yiddish popular songs that have been transformed from simple, rather sentimental ditties into musically labyrinthine statements that seem to this listener rather at war with the original intentions of the material. They are all too elegant, too consciously nuanced.

Weisgall's austere style is better suited to the 1971-1972 *Translations*, settings of poetical texts by women—three translated from the works of the Yiddish poets Celia Dropkin and Anna Margolin, the rest by Nikki Giovanni, Adrienne Rich, Deborah Trustman, and Mari E. Evans. They range in tone from the joyous childhood memories of Giovanni (*Knoxville, Tennessee*) to the sexual longings for a young man described by Rich (*Song*) and the blurred, nostalgic memory of an early affair in Margolin's *A City by the Sea*. Here words and music merge in a bittersweet mood that is sustained throughout the cycle. Although soprano Judith Raskin's voice is not the starting instrument it was in her operatic heyday, her strong, insightful singing of both cycles is quite effective, and she is ably supported by Morey Ritt, who copes adroitly with the complex accompaniments.

WILDER: *Sextet for Marimba and Wind Quartet; Suite for Trumpet and Marimba; Suite for Flute and Marimba.* Gordon Stout (marimba); Virginia Nanzetta (flute); Robert Levy (trumpet); Clarion Wind Quintet. GOLDEN CREST CRS4190 \$7.98.

Performance: **Very good**

Recording: **Very good**

Alec Wilder, now in his seventies, has through most of his adult life been writing chamber music of considerable charm for every sort of woodwind and brass instrument, from the flute and piccolo to the English horn, tuba, trumpet, and trombone.

Dozens of his pieces are represented in Schwann, and, if they are not exceptionally memorable, they are certainly attractive to the ear. In recent years, according to Gordon Stout's annotation here, Wilder has become "captivated" by the marimba and has written a number of works for it in his own quiet, introspective style, combining elements of jazz with others drawn from the Romantic tradition. In the Sextet for Marimba and Wind Quintet the marimba, once associated mainly with Latin-American dance music, plays a serious role, sometimes by itself, sometimes in duets with other members of the ensemble. The suites for trumpet and marimba and for flute and marimba are not quite as intriguing as the sextet, since the simplicity that is Wilder's hallmark sometimes turns into monotony. Still, these are sturdily fashioned pieces that even at their drowsiest speak in Wilder's own rather special voice. Gordon Stout presides skillfully at the marimba, and the rest of the performers handle their exacting assignments in a first-rate way. *P.K.*

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Performance: **Excellent**

Recording: **Very good**

This is a fine anthology of rare Viennese Baroque music. Except in the Biber violin sonata, the viola da gamba dominates the selections, with a sonata expressly for it, a trio that includes it, and two arias that use its mellow tones for obbligatos. Oberlin College's Baroque Performance Institute specializes in authentic performances on early instruments. All of the artists on this disc were faculty members of the Institute in 1979, and all of them are excellent musicians who handle their instruments superbly. Their music making is characterized by ease and gentleness. Each musician seems at home in all the various combinations used; singers and instrumentalists are on an equal footing, their sole purpose being to join with their peers to make beautiful music. And this they do very well indeed. *S.L.*

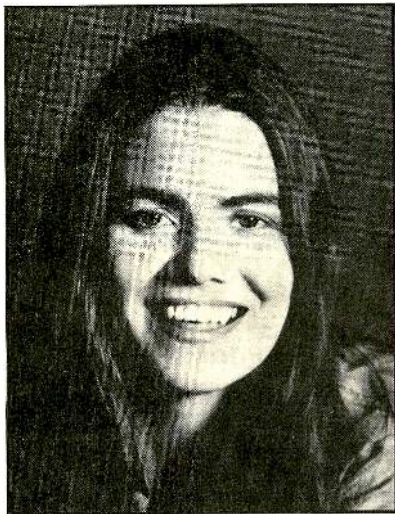
RECORDING OF SPECIAL MERIT

MONTSERRAT CABALLÉ: *Arie Antiche.* **Vivaldi: *Ottone in Villa: Vieni, vieni, o mio diletto. Ercole sul Termodonte: Chiare onde; Da due venti. L'Alteneide: Un certo non so che. Bajazet: Sposa son disprezzata. La Griselda: Agitata da due venti.*** **Lotti: *Pur Dicesi.*** **Paisiello: *Nel Cor Più Non Mi Sento.*** **Marcello: *Quella Fiamma Che M'Accende.*** **Pergolesi: *Se Tu M'Ami.*** **Cos-tanzi: *Eupatra: Lusinga la speme.*** **Giordani: *Caro mio ben.*** Montserrat Caballé (so-

prano); Miguel Zanetti (piano). LONDON OS 26618 \$8.98.

Performance: **Striking**
Recording: **Bright**

Renowned singers who present collections of old Italian songs and arias usually select all-too-well-known repertoire and perform it in a style more becoming to the German lied than to the Italian Baroque. Not so with Montserrat Caballé. True, some of the old favorites are included here, but in fresh clothing, and the Vivaldi operatic arias contradict the "scholarly" cliché that his instrumental music is far better than his vocal music. The smoldering drama of "*Sposa son disprezzata*" from *Bajazet* raises it to the level of Handel's finest arias, and the other five reveal Vivaldi's mastery of every mood and vocal technique.



David Gahr/Finnadar

DORIS HAYS
Homage to the tone cluster

Especially interesting is Caballé's lavish ornamentation of the familiar airs. Paisiello's *Nel Cor Più Non Mi Sento* is transformed into a theme with two delightful variations. Perhaps the fioriture interpolated in Marcello's *Quella Fiamma Che M'Accende* verge on nineteenth-century practice, but the effect is stunning. Caballé also knows when to stop: Giordani's "*Caro mio ben*" is left unadorned in its natural simplicity. She is, moreover, in excellent voice here. Each phrase is lovingly shaped and spun out to its full length. One revels in her high *pianissimo* singing and rejoices in her lightly tossed-off coloratura. She does indeed bring something new and fresh to this repertoire. Miguel Zanetti's piano accompaniments are tastefully conceived and discreetly played. S.L.

THE CANADIAN BRASS AND FRIENDS: *Unexplored Territory* (see Best of the Month, page 74)

RECORDING OF SPECIAL MERIT

DORIS HAYS: *Adoration of the Clash*. Hays: *Sunday Nights*. Cowell: *Piece for Piano Paris 1924*. Peck: *Suspended Sentence*. Mimaroglu: *Rosa*. Feldman: *Vertical Thoughts IV*; *Piano Piece (To Philip Guston)*. Ornstein: *Impressions de Notre-*

Dame. Doris Hays (piano). FINNADAR SR 2-720 two discs \$7.98.

Performance: **Excellent**
Recording: **Well done**

No, this record is not in honor of that well-known English punk group. The "clash" in this case is the tone cluster, that wonderful concatenation of massed sound originally invented by Henry Cowell that has come into common usage in recent years. "Homage to the Tone Cluster" is what is meant by the title of Doris Hays' collection.

And an impressive homage this is. The pioneers are here: Cowell himself, whose *Piece for Piano Paris 1924* (previously unknown to me) is almost an anthology of new ways of playing the piano, and Leo Ornstein, whose mystical, clusterish piano writing dates back in this instance to 1914. Ilhan Mimaroglu (whose very dramatic *Rosa*, dedicated to Rosa Luxemburg, was written for Doris Hays) and Morton Feldman (whose soft cluster music dates from 1963) represent the middle generation. Russell Peck and Doris Hays herself belong to a younger generation. Hays' *Sunday Nights* is a wonderful musical recollection of the McFarland Memorial Methodist Church in Rossville, Georgia, where she grew up.

Doris Hays is not only a good composer, she is an excellent pianist, and this record is a worthy follow-up to her recent Cowell album for Finnadar. Incidentally, what normally would be considered one record's worth of music has been spread out over two discs because of the tough sonic problems presented by the music. It works; the piano sound is consistently good. E.S.

RECORDING OF SPECIAL MERIT

JEWISH BAROQUE MUSIC. **Saladin:** *Canticum Hebraicum*. **Grossi:** *Cantata Ebraica in Dialogo*. **Rossi:** *Les Cantiques de Salomon*. Boston Camerata, Joel Cohen cond. HARMONIA MUNDI HM 1021 \$8.98 (from Brilly Imports, 155 North San Vicente, Beverly Hills, Calif. 90211).

Performance: **Delightful**
Recording: **Fine**

The music of Salamone de Rossi Ebreo, an associate of Monteverdi in Mantua, will come as no surprise to those who have followed the recordings of the New York Pro Musica. The works of Louis Saladin and Carlo Grossi, however, are a new and welcome addition to the small but impressive repertoire of Baroque settings of Hebrew texts. Both Saladin and Grossi were gentiles who were commissioned by wealthy Jewish families to supply musical settings for festive occasions. Saladin's settings are purely French in the style of Lully: charming airs, duos, and choruses are interspersed with light French dances. Grossi's music resembles that of Cavalli as florid recitative alternates with syllabic choral settings.

The Boston Camerata consists of sixteen fine singers supported by Baroque strings, flutes, oboes, lute, and harpsichord. Their sound is light and clear, their style highly articulate in the now-accepted Baroque manner, and the solo tenor singing in the Grossi cantata is very fine indeed. S.L.

(Continued on page 87)

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Fritz Kreisler at thirty-seven

Quartets: Kreisler & Paganini

SMALL record companies frequently earn our thanks by picking up interesting discards from the giant labels and restoring them to currency, but it is not often that one of the "majors" reissues material from the catalog of a defunct "independent," as Columbia has done in making the Stuyvesant Quartet's coupling of the Kreisler and Paganini string quartets newly available on its Odyssey label. These performances originally appeared on the short-lived Philharmonia label some twenty-five years ago; while the same source was tapped by Nonesuch in its brief pre-Sterne period, these little-known works were passed by, and neither seems to have been listed in Schwann for well over two decades. (The Paganini quartet had an earlier recording or two on microgroove as well as 78s; Kreisler recorded his with his own ensemble on Victor 78s in the Thirties.)

Fritz Kreisler, one of the most beloved musicians of his time, composed little besides his charming miniatures (many of which he passed off for years as works of earlier composers). In 1919 he produced the operetta *Apple Blossoms* and in the same year introduced his solitary string quartet, which he described as his "acknowledgment" of his native Vienna. The same sort of sentiment we know from the most characteristic of his Viennese-flavored miniatures informs the first movement, "Fantasy," and the third, "Prelude and Romance," while the intervening scherzo seems about to break into the *Tambourin Chinois* at any

moment and the gently melancholy finale could have been drawn from *Apple Blossoms*. This is not an important work, but it is a lovable one, surely worth preserving on record.

Paganini, of course, wrote a great deal in large forms, but virtually all his chamber music involved the guitar, an instrument he himself played and which figures in all his quartets but this one. It figures even here, indirectly, for the pizzicato writing for the cello in the second-movement menuetto seems clearly contrived to imitate the guitar. The entire work, which is somewhat more substantial than the Kreisler, suggests more than a little (as does so much of Paganini's music) the spirit of Rossini; the buoyant final rondo in particular evokes the flavor of Rossini's youthful string sonatas.

THE Stuyvesant recordings always gave us an image of four musicians not only in total accord with each other but crazy about the music they chose to play. It is good to have these two virtually unknown works available again in such loving and expert performances, and this reissue needn't be regarded as a mere stopgap sonically; the vibrant sound so belies its age that the word "mono" on the labels looks like a mistake.

—Richard Freed

KREISLER: *String Quartet in A Minor.*
PAGANINI: *String Quartet in E Minor.*
Stuyvesant Quartet. ODYSSEY ® Y 35933 \$4.98, © YT 35933 \$4.98.

MUSIC FROM MEXICO. **Chávez:** *Sinfonia India*. **Galindo:** *Sones de Mariachi*. **Moncayo:** *Huapango*. **R. Halffter:** *Don Lindo de Almería*. Orquesta Sinfónica Nacional de México, Kenneth Klein cond. UNICORN RHS 365 \$10.98 (from Euroclass Distributors, Inc., 155 Avenue of the Americas, New York, N.Y. 10013).

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

Los Angeles-born Kenneth Klein was music director of the Guadalajara Symphony Orchestra for more than a decade, so he comes to the works in this album with more than ample credentials. His performance of Carlos Chávez's *Sinfonia India*, a masterpiece of its kind, will not displace the composer's own in the Columbia Special Products set of his complete symphonies nor even the still very decent-sounding 1959 Everest disc, but the reading is solid and spirited, and the excellent recorded sound highlights the coloristic percussion detail supplied by ancient Mexican Indian instruments. Blas Galindo's lively *Sones de Mariachi* (in its full-orchestra version) and José Pablo Moncayo's *Huapango* here receive their first stereo recordings to be made generally available in the U.S. *Huapango* comes off very well, but the mariachi music, with its more transparent textures, suffers somewhat from the long reverberation time characteristic of the recording locale.

New to discs is the ballet suite by Spanish-born, Mexico-resident Rodolfo Halffter (b. 1900), who, like his younger brother Er-

nesto, has been one of the major figures in Hispanic music of the post-Falla generation. The music is entertaining, if rather slight in substance, and the piece is elegantly scored for string orchestra liberally spiced with percussion. Altogether, a welcome release. *D.H.*

NARCISO YEPES: *Guitar Music*. **Kühnel:** *Suite in A Major*. **Robinson:** *Four Religious Songs*. **Conge:** *La Mort de Berenguer*. **Anon.:** *Irish March*. **Carulli:** *Divertimento per il Decacordo*. **Sor:** *Fantaisie Villageoise*. **Brouwer:** *Tarantos*. Narciso Yepes (guitar). DEUTSCHE GRAMMOPHON 2531 113 \$9.98, © 3301 113 \$9.98.

Performance: **Fine**
Recording: **Good**

JEFFREY VAN: *Twentieth Century Guitar Music*. **Rodrigo:** *Tres Pequena Piezas*. **Van:** *Elegy (Homage to Falla)*. **Brindle:** *El Polifemo de Oro*. **Brouwer:** *Danza Característica; Elogio de la Danza; Canticum*. **Villa-Lobos:** *Etude No. 11, in E Minor; Etude No. 12, in A Minor*. Jeffrey Van (guitar). CAVATA CV5011 \$8.98 (plus \$1 shipping and handling charge from Cavata Music Publishers, Inc., 941 Delaware Avenue, Mendota Heights, Minn. 55118).

Performance: **Fine**
Recording: **Good**

Here we have early and late guitar, one might say, or perhaps pre-guitar and (almost) post-guitar. Side one of the Narciso Yepes disc contains some genuine early ob-

scurities. The German early-Baroque suite and the Elizabethan arrangements of religious songs taken from an instructional book were intended originally for the lute; the somewhat spurious evocations of medieval music come from Ireland and the border between Catalonia and France. Fernando Carulli, a Neapolitan guitar virtuoso of the Romantic period, must have written his silly divertimento for a ten-stringer. With Fernando Sor—of the same early-nineteenth-century period as Carulli—we finally arrive in the land of the Spanish guitar and hear some genuinely beautiful and original guitar music. The last work in the collection takes us to the New World. Yepes plays all this music with the mastery we expect from him.

Leo Brouwer is a living Cuban guitarist and composer whose music is in a contemporary idiom but is also fully idiomatic to the guitar. He only brings up the tail end of Yepes' hodgepodge record, but his music is at the center of Jeffrey Van's more focused twentieth-century album. Brouwer's *Elogio de la Danza* is a clever and brilliant modern homage to the Hispanic dance tradition; his *Canticum* is a somewhat more introspective tribute to the age-old association of guitar and song. The *Danza Característica* is an early work, effective in a traditional way. The Brouwer *Elogio* and *Canticum* and two Villa-Lobos etudes make up side two of this record, which is much more interesting and effective than side one. Jeffrey Van is a talented young player whose somewhat mixed program improves as it goes along. *E.S.*

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Reviewed by CHRIS ALBERTSON • IRV COHN • NOEL COPPAGE • PHYL GARLAND
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ALICE COOPER: *Flush the Fashion*. Alice Cooper (vocals); instrumental accompaniment. *Talk Talk; Clones (We're All); Pain; Leather Boots; Aspirin Damage; Nuclear Infected*; and four others. WARNER BROS. BSK 3436 \$7.98, © M8 3436 \$7.98, © M5 3436 \$7.98.

Performance: **Grim and glib**
Recording: **Good**

The title of this is apparently Alice Cooper's way of saying he'll continue doing his own thing, and so he does, sketching in the darker side of this 'n' that. Which thing isn't too different from what various uppers and comers are trying, but let it pass. The larger question is (still) whether Alice *really* has this negative view of the world as a fit place to live or is merely catering to his adolescent audience's need to complain. Certainly one could make a case that the world is as rotten as he says, but Cooper still seems to be singing around an in-cheek placement of the tongue. Well, what the hey, it's decent rock and once in a while it's clever. N.C.

THE BEATLES: *The Beatles Concerto* (see **Best of the Month, page 75**)

GLEN CAMPBELL: *Somethin' 'Bout You Baby I Like*. Glen Campbell (vocals, guitar); instrumental accompaniment.

Explanation of symbols:

- Ⓢ = open-reel stereo tape
- Ⓢ = eight-track stereo cartridge
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- = quadrasonic disc
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Monophonic recordings are indicated by the symbol Ⓢ

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

Through My Eyes; That Kind; Part Time Love; Hollywood Smiles; Hooked on Love; Late Night; and four others. CAPITOL SOO-12075 \$8.98, © 8XOO-12075 \$8.98, © 4XOO-12075 \$8.98.

Performance: **Voice edges strings**
Recording: **Very good**

Even though Glen Campbell was once almost a Beach Boy, his career has been basically that of an outsider. Seemingly too country to go pop, and vice versa, and certainly no rocker, he managed to make an impression in all those fields with the string of Jimmy Webb songs that launched him. He's been sporadically impressive ever since, always singing well but not often finding a song the caliber of *Phoenix* or *Galveston*. Lately his voice has sounded to me slightly harder and more believable, as if he's finally rich enough or secure enough to try to please himself instead of everyone else. But, as this album shows, his surroundings haven't moved with him. The instrumentation and production here—except in the excellent but misleading first cut, a rocking duet with Rita Coolidge—belong to the realm of MOR pop. This, I think, is the main reason why it seems that there's less going on in a Glen Campbell album than there could be: the listener perceives a wash of violins as one unit, and the big sweeping space that unit requires blots out a lot of area where other instruments could be exploring melodic tributaries, let us say.

The spartan quality of Campbell's Webb songs worked because those songs had the body to sound best almost naked. There aren't any on that level here, of course, but these are all pleasant. The two duets with Coolidge are especially nice; a boy who sings high and a girl who sings low make a good combination. Campbell is singing well enough to carry his backing right now, but it would be better if he didn't have to. N.C.

RECORDING OF SPECIAL MERIT

RANDY CRAWFORD: *Now We May Begin*. Randy Crawford (vocals); instrumental

accompaniment. *When Your Life Was Low; Tender Falls the Rain; Now We May Begin; Same Old Story (Same Old Song); One Day I'll Fly Away*; and three others. WARNER BROS. BSK 3421 \$7.98, © M8 3421 \$7.98, © M5 3421 \$7.98.

Performance: **New directions**
Recording: **Good**

When Randy Crawford made her disc debut five years ago with a fiery rendition of *Gonna Give Lovin' a Try* (in the late Cannonball Adderley's folk opera *Big Man*), I thought she might be this generation's Dinah Washington, a singer who could interpret women's emotions with searing intensity. A broad vibrato, similar to Dinah's, edged Crawford's voice like a halo. There was a touch of Esther Phillips in it too. It was a sound that haunted the memory. After that auspicious beginning, she veered toward more predictable pop fare for a while, then made another sharp turn last year with her superb album "Raw Silk," a cornucopia of black musical classics.

On this new album, Crawford explores yet another direction. Here she has collaborated with pianist Joe Sample (who wrote most of the songs with Will Jennings) and other members of the Crusaders, with whom she made a guest appearance on "Street Life." Once this trio was known as the Jazz Crusaders, but they were wise to change their name, for jazz is not what their music is. It has elements of middle-of-the-road soul, soft rock, neo-folk, and standard pop, but not of jazz. The selections here are pleasant, rolling over the ears with ease and occasionally triggering a deeper response through clever lyrics that address the shifting moods of contemporary life. They are most appealing when they include a touch of the blues, which gives Crawford a chance to work out, but she is equally ingratiating on *Now We May Begin* and on her own composition *Tender Falls the Rain*.

This is not a heavy album, but Randy Crawford demonstrates her talent by treating this light material with respect and thereby raising it to a higher level. P.G.

RECORDING OF SPECIAL MERIT

THE FABULOUS THUNDERBIRDS: *What's the Word.* The Fabulous Thunderbirds (vocals and instrumentals). *Runnin' Shoes; You Ain't Nothin' But Fine; The Crawl; Learn to Treat Me Right; Sugar-coated Love; Dirty Work;* and seven others. CHRYSALIS CHR 1287 \$7.98, © 8CH 1287 \$7.98, © CCH 1287 \$7.98.

Performance: **Wow!**
Recording: **Good**

Ohhhh, *boy!* Few things do my heart as much good as a stomp-off bar combo. What makes the Fabulous Thunderbirds so much fun to hear is that they write and play in the style of the black Chicago bluesmen of the Fifties (Jimmy Reed, Howlin' Wolf, Magic Sam, and others) and that they have the same effect their models had—they make people *dance*. Urban blues isn't usually thought of as dancing music, but that's exactly what it was at the start; if you didn't get the customers out of their seats your band wasn't booked again. There's no such disappointment here; there are thirteen jumpin' cuts on "What's the Word," and you can swear by any of them.

Runnin' Shoes, the opener, is a good example of the 'Birds' own special synthesis. (The album jacket credits the tune to Weldon "Juke Boy" Bonner, but it's actually Willie Dixon's *Down in the Bottom*, which was recorded by Howlin' Wolf.) The 'Birds' arrangement overlays some wonderfully sloppy Tex-Mex, Buddy Holly-style guitar. The group's vocalist, Kim Wilson, wrote most of the material here, and it's so true to the spirit of urban blues that . . . well, it could pass for black.

The Fabulous Thunderbirds are based in Texas, though they've toured cross-country and in Europe. I hope the whole world hears them and gets happy. J.V.

RECORDING OF SPECIAL MERIT

SUZANNE FELLINI. Suzanne Fellini (vocals); vocal and instrumental accompaniment. *Double Take; First Kiss; Bad Influence; Love on the Phone; Crazy; Permanent Damage;* and four others. CASABLANCA NBLP 7205 \$7.98, © NBL8 7205 \$7.98, © NBL5 7205 \$7.98.

Performance: **Exuberant**
Recording: **Good**

Suzanne Fellini is an all-stops-out New York rock-and-roller who thrives on the energy of the city. In this debut album, all original material, she plunges deep into the New Wave, backed by a gleefully red-hot band. Sid McGinnis, the dominant guitarist, knows his stuff and likes to roar, and keyboardist Jeff Waxman's arrangements are full of dash and sass on the rocking numbers and ingratiating on the ballads. The arrangements and the go-get-'em vocals give the album a satisfying dramatic and emotional variety.

Fellini wrote many of the songs in collaboration with Waxman, so the arrangements are locked into the performances. Her lyrics may not win her a Rhodes scholarship, but they are direct and conversational, and they move freely and easily with the momentum of her singing and her back-up. She has gone back to Fifties rock for many of her

BACK in the fifties, when Rosemary Clooney was a reigning pop star with a string of boisterous hits such as *Come On 'a My House, Hey There,* and *This Old House*, who would have expected her ever to record an album as warmly moving, intelligent, and musically elegant as her latest Concord Jazz release, "Rosemary Clooney Sings the Lyrics of Ira Gershwin"? No, back then everyone expected her—a big, golden-haired, cheerful, good-time girl who smiled and smiled through everything—to become a big movie-musical star. Hadn't old Adolph Zukor himself declared, on signing her, that she was the biggest thing to hit Paramount since Bing Crosby? Of course, it didn't quite work out that way;

the change from super-pro pop belter to genuine singing actress.

Clooney triumphs here with the kind of modern classics that strike fear into the heart of any reasonably perceptive singer, such songs as *But Not for Me, They All Laughed, Long Ago and Far Away,* and *Fascinating Rhythm.* It's not so much that she's changed her vocal quality or singing style (although the intense performing character is totally, thankfully gone) as that she's replaced her old breezy, almost absent-minded way with words with a new and scrupulous attentiveness to them. She no longer takes those long, on-beat phrases but carefully acts out her material. The line "Good riddance, goodbye" from *The Man*

Rosemary Clooney



Concord Records

movie musicals were going out just as Rosemary Clooney was coming in. But her TV show was a big success, and week after week she belted out the latest hits, seeming as vivacious and friendly and hearty as one could wish, yet somehow rather distant too.

Clooney's reluctance to let audiences get close, her tendency to stay firmly on her own side of the proscenium, was probably owing more to her early years as a protégée of Mitch Miller than to her own preferences. Miller, who produced her early hit records, is a firm believer in the Theatrical Tradition in recording, in the singer's *projecting* as if to a whole concert hall, instead of aiming at the solitary listener or small group in front of the phonograph or TV set. Small wonder that under his influence Clooney often sounded like a pushbutton Little Mary Sunshine.

After weathering some heavy personal problems and an emotional crack-up several years ago, Rosemary Clooney has returned to the business. On her TV paper-towel commercials she seems like the same old up-beat, slap-'em-on-the-back Rosemary we used to see, so I wasn't prepared for the transformation that has occurred in her personal performance and recording style. When I caught her act at Ted Hook's On-stage Club in Manhattan, she was superb, but I was afraid it was a fluke. The Gershwin album is proof that she has really made

That Got Away doesn't pour out in one breathy gush; rather, it becomes a bitter, three-word adieu. Perhaps what is most striking about Clooney's work here is her newly found (or newly awakened) ability to communicate to the listener the immediate, direct impact of both musical and lyric phrases, instead of merely "interpreting" an emotion stored in memory.

By any measure this is the finest album Rosemary Clooney has ever made. She seems to have achieved with it an artistic goal to match the personal goal she reached only after a lot of years of trying. "I tell people exactly who and what I am these days," she told me recently, "not what I think they want me to be." And that's exactly what she does on this album. The results are smashing. —Peter Reilly

ROSEMARY CLOONEY: *Sings the Lyrics of Ira Gershwin.* Rosemary Clooney (vocals); Scott Hamilton (tenor saxophone); Warren Vaché (cornet, flugelhorn); Roger Glenn (flute); Cal Collins (guitar); Nat Pierce (piano); Chris Amberger (bass); Jeff Hamilton (drums). *But Not for Me; Nice Work If You Can Get It; How Long Has This Been Going On; Fascinating Rhythm; Love Is Here to Stay; Strike Up the Band; Long Ago and Far Away; They All Laughed; The Man That Got Away; They Can't Take That Away from Me.* CONCORD JAZZ CJ-112 \$7.98.

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plots; *Bad Influence*, for instance, is a modern version of *He's a Rebel*. Her hit single, *Love on the Phone*, is a wonderfully zany performance complete with satiric disco sound effects.

Suzanne Fellini takes life as it is and doesn't worry too much about the bumps. She celebrates sexuality with gusto and humor, and she sings with no obvious reference to other New Wave women singers I've heard, although she has the kind of propulsiveness and emotional depth Ellen Foley has. The fair Fellini unquestionably has the talent and energy for the Big Time. *J.V.*

GENESIS: Duke. Genesis (vocals and instrumentals). *Behind the Lines; Misunderstanding; Please Don't Ask; Duchess; Turn It On Again*; and seven others. ATLANTIC SD 16014 \$8.98, © TP 16014 \$8.98, © CS 16014 \$8.98.

Performance: **Better than I expected**
Recording: **Good**

Here I was, all prepared by their previous albums to dismiss Genesis' latest, and they had to go and do something good. The good stuff here includes *Misunderstanding*, a straight-ahead song about a guy who's stood up on a date; *Duchess*, detailing the rise and fall of a so-so singer with delusions of grandeur; *Turn It On Again*, where a lonely viewer uses TV personalities to make up for the lack of real people in his life; and *Please Don't Ask*, an accurate, uncomfortable song about a divorced couple. I don't know what happened to Genesis to make them suddenly start writing and recording songs that *communicate*, but I welcome the change. There is still too much pretentiousness on this album, especially the indulgent instrumental crud that closes the second side, but the ratio between nonsense and common sense is about 50/50, and that's at least a 100 per cent improvement over their past bombast. Keep it up, gents. Now you've got me interested. *J.V.*

RECORDING OF SPECIAL MERIT

GRATEFUL DEAD: Go to Heaven. Grateful Dead (vocals and instrumentals). *Alabama Getaway; Far from Me; Althea; Feel Like a Stranger; Easy to Love You*; and four others. ARISTA AL 9508 \$8.98, © AT8 9508 \$8.98, © ATC 9508 \$8.98.

Performance: **Quality head rock**
Recording: **Very good**

If you ever liked the Grateful Dead at any stage of its development, you'll probably like something in this album. Yet it is not a retrospective, not a showcase of ways they played then but of the ways they play now. The continuity becomes almost palpable in *Alabama Getaway* and *Althea*, quintessential Dead songs in an evolutionary sort of way. The album, as they say, grows on you. I know, the vocals aren't much, but it seems to me Jerry Garcia's voice is all the voice you need on, say, *Althea*, the way they've got it set up. There's a whole ambiance to the Dead, and only a small part of it is verbal. Indeed, Garcia and Robert Hunter seem to design songs so that only certain lines come out at you clearly and distinctly. The one that jumped out and made the biggest impression on me here was, "Nobody's

(Continued on page 93)

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EVEN in this clammy era of self-congratulatory non-judgmentalism, of waiting until *all* the facts are in before daring to venture even the slightest opinion about someone you've just met (even though that person may be dropping cigarette ashes on your suit, exploring his nasal spiracles at table, or shouting obscenities at a blameless waiter), I still stubbornly claim that first impressions are (sometimes) correct. Take

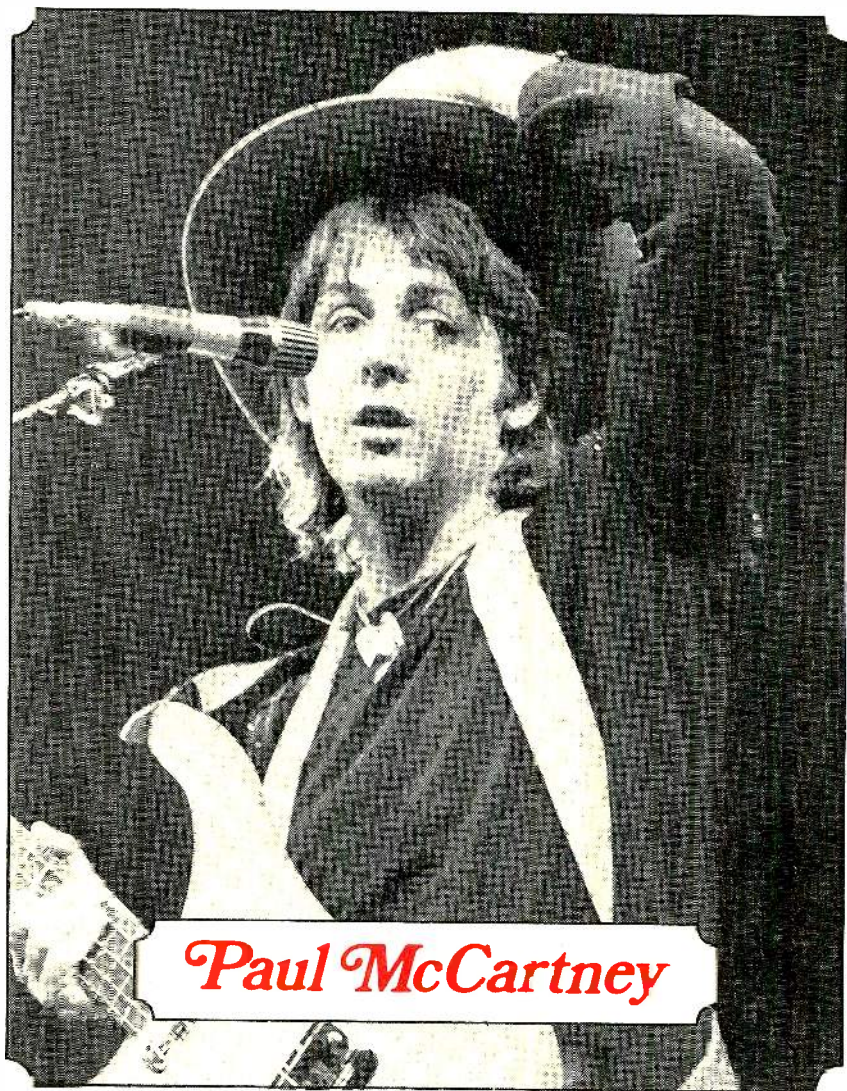
that McCartney has done in quite a while, and I'd like to leave the minutiae of performances, of Beatles past, and of musical development to others. The album has already been the subject of a media barrage that would have flattened ten less sturdy efforts. Because it is obviously such an intensely personal effort on McCartney's part, I'd like to reflect on some of my personal reactions to it.

McCartney, no matter what he meant at one time to the youth of the world, has clearly been for some time now something of an anomaly in the helter-skelter world that he helped (probably through no conscious intention of his own) build. He's very, very English, no matter how international the past fifteen years have been for him; he's contentedly middle-class, no matter what vast sums of money have been dumped at his feet. And as a middle-class, middle-brow Englishman he doesn't seem to feel the least uncomfortable with shamelessly loving his wife and his child, enjoying domestic life, or experiencing remorse over his recent pot bust in Japan rather than the angry defiance most of his peers would have expressed.

And so he kicks up his heels in a mild way, for his own amusement and that of his family, in his new album. I'm sure there are at least a hundred private, inside jokes scattered about through it, and that most of them will remain mysteries to you and to me unless their author decides to explain them some day. I have a suspicion that he's doing some sort of parody of a Britisher's idea of an American accent in *Temporary Secretary* and that there is a certain ambiguity about *Frozen Jap* and *Summer's Day Song*, but not being privy to the whole joke didn't detract one iota from my enjoyment. Mum McCartney makes a few modest appearances on the recording too, in much the same way any playful wife might in her husband's home-movie epic, but the show is unquestionably Paul's, and to his obvious complete delight.

THERE are few people working in pop today who have the ease, the style, or the nonchalance to make an album such as "McCartney II." To take it too seriously would be to spoil its intent, which is to entertain. To dismiss it as merely cute would be to regress to the pretentious, patronizing past when we had to taste blood (*blood*, I tell you!) before we would deign to accept anything as "real." There's an echo of that attitude in the silly story going the rounds that McCartney was so infuriated by his record company's fumbling the last expensive Wings release that he retired to his own studio in a fit of pique to show them what he could do, strictly on his own, for peanuts. I doubt this story, principally on the evidence of "McCartney II." It is an album made for the pleasure and edification of a family, their friends, and their well-wishers, not to "show" anybody anything. After listening to it, I feel that I have actually gotten to know them—gotten to know them a whole lot better—and that my first impressions about them were entirely correct. Good show, McCartney! —Peter Reilly

PAUL MCCARTNEY: *McCartney II*. Paul and Linda McCartney (vocals and instrumentals). *Coming Up*; *Temporary Secretary*; *On the Way*; *Waterfalls*; *Nobody Knows*; *Front Parlour*; *Summer's Day Song*; *Frozen Jap*; *Bogey Music*; *Darkroom*; *One of These Days*. COLUMBIA FC 36511 \$8.98, © FCA 36511 \$8.98, © FCT 36511 \$8.98.



Paul McCartney

Paul McCartney, for instance. From the beginning I've felt that he was probably the *niciest* of the four Beatles. I also felt that his songs and performances had the true popular romantic touch of an unpretentious man. Nothing that has happened since has changed my mind about these two perceptions. As a matter of fact, his new solo album "McCartney II" on Columbia only reinforces them.

By now, of course, you already own the album if you are any kind of fan at all. Almost certainly you've heard the hit single from it, *Coming Up*, either in the original version or in the cover version by Wings. It's the most successful album commercially

My first impression (there I go again) was that I was listening to the aural equivalent of a scrapbook compiled by the father of a pleasantly prosperous middle-class English family. Pa McCartney, like any other proper Englishman, has his hobby; in his case, it's pottering about the recording studio instead of the garden. That out of this pottering should come an internationally best-selling hit record shouldn't be any more of a surprise than that, say, a retiring country minister should decide to write some little stories to amuse one of his young friends and they should turn out to be the imperishable classic the whole world knows as *Alice in Wonderland*.

polished to a fine sheen. The back-up musicians, a first-rate crew anchored by Valerie Simpson herself plunking out fleshy chords on piano, include Eric Gale on guitar and the ubiquitous Ralph MacDonald on percussion. Boosted by this rhythmic thrust, Gladys Knight and the Pips lofted this listener upward on a high-flying, fast-moving musical magic carpet.

I do find the songs here just a bit *too* trendy and up-beat, like those on Ashford and Simpson's own last album, which was hardly their best. This kind of instant-hit pop-soul song provides little opportunity to use this group's most valuable asset, namely, the marvelously rich blues quality of Gladys Knight's voice. There is nothing here solid enough for her to bite into, nothing with staying power. This is a slicker, more superficial Gladys Knight. Still, I'm glad she's back with the Pips. *P.G.*

WILLIE NELSON AND RAY PRICE: *San Antonio Rose.* Willie Nelson (vocals, guitar); Ray Price (vocals); instrumental accompaniment. *San Antonio Rose; I Fall to Pieces; Crazy Arms; Release Me; Funny How Time Slips Away; Night Life;* and five others. COLUMBIA JC 36476 \$7.98, © JCT 36476 \$7.98, © JCT 36476 \$7.98.

Performance: **Good, but . . .**
Recording: **Good**

One of Willie Nelson's very first jobs in Nashville was playing bass in Ray Price's band. He didn't know *how* to play the bass when he applied, but he knew the tuning was the same as the bottom four strings of the guitar and proceeded from there. With that background, this is still another special-projects album rather than the bona fide Willie Nelson album some of us have been hankering for. It has some old songs identified with Nelson and some old songs identified with Price, plus a couple that virtually everybody in the Southwest identifies with, *San Antonio Rose* and *Faded Love*. We have in Price a tremendous voice that's not very imaginatively used and in Nelson just the opposite, a fairly ordinary voice used with canny verve. While it's interesting to hear Nelson sing harmony, at which he's as unorthodox as he is at keeping track of the beat, the two voices don't make all that great a blend. Nelson sounds better harmonizing with Waylon Jennings.

That still leaves a lot of A-B comparisons you can make as they trade vocal leads back and forth, but eventually you come back to the fact that Willie keeps recording a lot of the same songs over and over in these special-projects guises. What seems to hover over the whole thing is the fact that Willie isn't writing anything new. This disc is pretty well produced and has some attractive singing and picking, but I feel I've heard it before. I'm still hankering for a *real* Willie Nelson album. *N.C.*

NERVUS REX. Nervus Rex (vocals and instrumentals). *There She Goes; Go Go Girl; Spies; Real Life; The God Sheila;* and five others. DREAMLAND DL-1-5002 \$7.98, © 8T-1-5002 \$7.98, © CT-1-5002 \$7.98.

Performance: **Yesterday's papers**
Recording: **Okay**

In an earlier incarnation, Nervus Rex guitarist Lauren Agnelli wrote some excellent

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THE CONTINENTALS: *loud and fast*

Epic's Nu Disk

WELL, here it is 1980, and rock-and-roll, as some of us knew and loved it, is at a crossroads. There's more good stuff available than at any time since I started writing about it (1971), and yet radio is now irretrievably in the hands of computer-directed "Superstar"-format programming firms. This ensures a steady, limited diet of arena-rock, be it good or (mostly) bad. Meanwhile, the rock audience itself seems utterly fossilized and reactionary. What's worse is that, despite the facile pronouncements of certain New Wave theorists, there are no easy villains in this scenario. It's all very well to rail about how the music business is corrupt or how most record buyers want no more than some heavy-metal behemoths celebrating the size of their genital appendages, but the fact remains that we're faced with a real chicken-and-egg puzzle: which came first, a rock audience living in a time warp or a record industry pandering to the lowest common denominator?

The problem (at least in part) for those not totally committed to the existing order of things lies in how to market new artists located somewhere outside the musical mainstream. At CBS/Epic, the latest solution is the Nu Disk, a 10-inch record containing four tunes and selling at a reduced price. It's an old idea, of course, going back to the beginning of the LP era, but it still makes a fair amount of sense. Singles, where in terms of creativity much of the action is these days, are not terribly economical (especially the imports), and it stands to reason that in these inflationary times the average kid would rather plunk his money down on a safe, known commodity—Billy Joel, say, or Foreigner. With the Nu Disk he can hedge his bets and experiment a little. CBS, for its part, has also hedged its bet by including one "superstar" in the initial release along with three unknowns, and this will be the pattern for Nu Disk releases in the future.

The music in the first batch is generally quite good; there's nothing really radical (say, along the lines of Public Image Ltd.), but compared with the glop that dominates the airwaves and the charts it's all eminently listenable. For me, anyway, the least interesting of the four records is Cheap Trick's "Found All the Parts," but since

this is designed for the hard-core Cheap Trick fan, that's hardly surprising. Two of the cuts are previously unreleased studio efforts that come off as uninspired Beatles tributes; two are recent live jobs, including an adequate version of the Fab Four's *Day Tripper*. As a bonus, the package includes a conventional (45-rpm) single that unites the Tricksters with Beatles producer George Martin and pushes the band's Beatles obsession into unintentional parody. I find it all underwhelming, but obviously the faithful will lap it up.

The remaining three releases are much better. New Musik's entry ranges from dance-rock similar to that of M (*Straight Lines*) to Sixties-flavored stuff that suggests what the Hollies might be doing today if they hadn't sold out to the housewife market. Propaganda's "Calling On Moscow" is the work of a promising post-punk band that mixes Clash-like political musings with an eclectic, appealing blend of hard-core punk and vintage English (Kinks, Who) musical styles. And the Continentals' "Fizz Pop (Modern Rock)" is highly agreeable pop punk (loud and fast, but melodic) that suggests the Ramones without being obviously derivative. All three of these efforts sound as if their creators are just catching their stride, which is heartening indeed.

THE sound quality of the Nu Disks is comparable to that of the average pop LP; Epic says that the only difference between their regular albums and these 10-inch upstarts is in durability, and so far all my copies sound fine. I could grouse some about the packaging—the uniformity of the cover designs does the bands a disservice—but I won't, since this is obviously a factor in the low pricing. The bottom line, of course, is that CBS is to be commended for starting the series, and one can only hope that the concept catches on at other labels. If we're ever going to convince a head-in-the-sand public that this new-fangled rock-and-roll has more to do with the essential spirit of the music than the current crop of multi-platinum snooze merchants has, it will be risk-taking ventures like this one that turn the trick.

—Steve Simels

CHEAP TRICK: *Found All the Parts*. Cheap Trick (vocals and instrumentals). *Day Tripper; Can't Hold On; Such a Good Girl; Take Me I'm Yours*. EPIC 4E 36453 \$4.98.

NEW MUSIK: *Straight Lines*. New Musik (vocals and instrumentals). *Straight Lines; On Islands; Living by Numbers; Sad Films*. EPIC 3E 36450 \$3.98.

PROPAGANDA: *Calling On Moscow*. Propaganda (vocals and instrumentals). *Two Lovers; Cowboys Alone; Calling On Moscow; Something About You (I Don't Like)*. EPIC 3E 36451 \$3.98.

THE CONTINENTALS: *Fizz Pop (Modern Rock)*. The Continentals (vocals and instrumentals). *Fizz Pop (Modern Rock); Walking Tall; Housewives Delight; Two Lips from Amsterdam*. EPIC 3E 36452 \$3.98.

rock journalism under the alias Trixie A. Balm, but I'm not particularly enthusiastic about her band. The songs are fairly airy little Sixties pastiches, and their basic sound is not unpleasant, but hearing ersatz-Zombie tunes backed by a drummer who studied under Maureen Tucker is not the novelty it was two years ago, and Nervus Rex's approach is fairly effete even as these things go. A modest little band overall, which, to borrow a phrase from Winston Churchill, has much to be modest about.

S.S.

GRAHAM PARKER: *Up the Escalator*. Graham Parker (vocals); other musicians. *No Holding Back; Devil's Sidewalk; Stupefaction; Love Without Greed; Jolie Jolie*; and five others. ARISTA AL 9517 \$7.98, © A&T 9517 \$7.98, © ACT 9517 \$7.98.

Performance: **Summer rerun**

Recording: **Excellent**

This is supposed to be Graham Parker's commercial-breakthrough record, and I don't doubt that the money Arista is spending on "Up the Escalator" will help it find countless homes, but it's really something of a shame: to be blunt, this is mediocre stuff. Despite the presence of sorely missed session legend Nicky Hopkins on keyboards and the redoubtable Bruce Springsteen on back-up vocals (for a song called *Endless Night*, the title of which is enough to alert one that it's secondhand goods), and despite a production job by Jimmy Iovine that puts Parker in as flattering a sonic setting as possible, the whole thing resolutely refuses to catch fire. I'm terribly disappointed, but I'm not really surprised. Clearly, the man was under pressure to crank out a hit, and in any case he has a history of blowing hot and cold.

So here's Graham Parker with little or nothing to say and an album due, and the result is a self-parody that is not particularly pleasant to listen to, especially since every note on it is a musical and lyrical rehash of "Sparks." It's depressing, really, to hear Parker so obviously acting; somehow it cheapens the really moving stuff he's given us in the past. "Up the Escalator" isn't bad enough to stop me from being a fan, and I would still pay money to see Parker in person. But another record as dishonest as this one and I may write a song for him called *Arista Poisoning*.

S.S.

RECORDING OF SPECIAL MERIT

DOLLY PARTON: *Dolly Dolly Dolly*. Dolly Parton (vocals); vocal and instrumental accompaniment. *Same Old Fool; Say Goodnight; Sweet Agony; Packin' It Up; Food for Your Love*; and five others. RCA AHL1-3546 \$7.98, © AHS1-3546 \$7.98, © AHK1-3546 \$7.98.

Performance: **Splendiferous**

Recording: **Excellent**

The splendiferous Dolly Parton, the girl who makes Mae West look understated, busts out in an equally splendiferous album. While Miz Dolly's looks and getups might suggest that she's, well, frivolous, just take a listen to any track here and you'll know that she's still the deep-feelin', hard-breathin' country girl she always was even before she got her first ankle bracelet. *Sweet Ago-*

ny is easily the best thing here in that it collects all the Parton talents in one big bundle: the throbbing projection, the wise-little-girl lyric readings, the innate good humor, the easy, natural musicianship. Most of all, it vibrates with a spontaneous joy in life, a joy that will out no matter how dismal things seem to be at the moment. Not that there aren't several other goodies, such as *Same Old Fool*, *Fool for Your Love*, and *Even a Fool Would Let Go* (Miz Dolly can bring more shades of meaning and drama to the word "fool" than anyone since Judith Anderson with the word "go"). This is a delightful album by a delightful lady whose future in all the media looks as bright as her platinum curls. P.R.

NEIL SEDAKA: *In the Pocket*. Neil Sedaka (vocals, piano); vocal and instrumental accompaniment. *Junkie for Your Love; My Friend; You; Letting Go; You're So Good for Me*; and five others. ELEKTRA 6E-259 \$7.98, © ET8-259 \$7.98, © TC5-259 \$7.98.

Performance: **Hugely entertaining**
Recording: **Good**

Neil Sedaka, declared a Relic of the Tacky Past by trendy fiat only a few years ago, emerges unscathed here in another hugely entertaining album. Like Eddie Cantor, the original Bubbling Bubela, Sedaka has been called corny, hokey, saccharinely unreal, and out of date for years, but you can still relax and enjoy his songs, such as the mindless but engaging *Junkie for Your Love*, the

syrupey *My Friend*, and the supposedly menacing *You Better Leave That Girl Alone*, in which Sedaka's lyrics promise missing teeth and black-and-blue eyes to his competitor but Howard Greenfield's music is jaunty enough to do the Madison to. The surprise is Sedaka's duet with his daughter Dara in *Should've Never Let You Go*. Not only is the song one of the sharpest, sleekest, most sophisticated things he's ever done, but his performance is the kind of high-power dramatic reading probably even his admirers didn't think he was capable of. Dara Sedaka is poised, surprisingly womanly sounding, and obviously quite ready for a career of her own. Look, you won't win any status points by casually leaving the cover of this near the turntable, but I can promise that you'll have a hell of a good time listening to the record. P.R.

SOUTHSIDE JOHNNY AND THE ASBURY JUKES: *Love Is a Sacrifice*. Southside Johnny and the Asbury Jukes (vocals and instrumentals); other musicians. *Why; Love When It's Strong; Goodbye Love; Murder; Keep Our Love Simple; Restless Heart*; and four others. MERCURY SRM-1-3836 \$7.98, © MCR8-1-3836 \$7.98, © MCR4-1-3836 \$7.98.

Performance: **Depressing**
Recording: **Excellent**

The operative word here is "misguided." The Jukes, not content with being the greatest white r-&-b band currently working, seem to have set out to make a main-

stream rock album, whether as a sales ploy (they've never gone platinum) or out of frustration with their old format I wouldn't venture to guess. In any case, the result—a concept album about love, no less—is pretty dismal, which is no particular surprise; thinking deep thoughts about the vagaries of romance is hardly their strong suit. With the exception of *On the Beach*, a wonderful New Wave-ish summer song that might be the hit single they've always deserved, this is turgid, cliché, all-but-unlistenable stuff.

The Jukes' soul, spontaneity, and humor have been replaced here with bombast and arena-rock excess, and I can only hope this does not presage a new direction for their heretofore sublime stage show. I can't believe the Jukes really care about any of these songs; I certainly don't, and as a Jukes fan of long standing I feel thoroughly betrayed. It's all immaculately performed and recorded, but a Jukes album you can't play at parties is a waste. S.S.

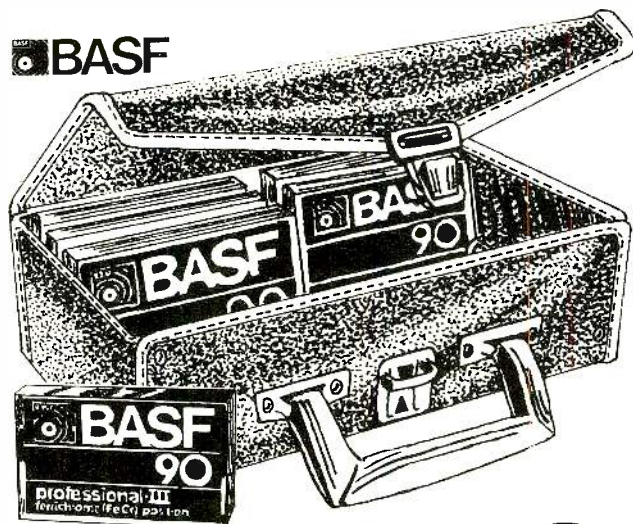
RECORDING OF SPECIAL MERIT

SQUEEZE: *Argybargy*. Squeeze (vocals and instrumentals). *Pulling Mussels (from the Shell); Separate Beds; Vicky Verky; Misadventure; Here Comes That Feeling*; and seven others. A&M SP-4802 \$7.98.

Performance: **Excellent**
Recording: **Good**

I'm a sucker for off-the-wall British humor, so I was crazy about Squeeze's last album, (Continued on page 99)

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The Still-Rolling Stones



Charlyn Zlotnik

EMOTIONAL RESCUE," the first Rolling Stones album of the Eighties, proves a number of things, not the least of which is that "Some Girls" was not a fluke: clearly, the middle-aged Rolling Stones still define the form, making rock-and-roll as exciting, kinetic, and relevant as bands twenty years their junior. More interestingly, though, it proves that the long arid stretch between "Exile" and "Some Girls" really had little to do with jet-set excess, aging, or any of the other charges the more self-righteous punk theorists like to bandy about. Because what revitalized the Stones was, simply, competition. They've *always* been a reactive band; what made them interesting was how they adapted to whatever were the trends of the day while still retaining the basic elements of their original style. But in the mid-Seventies there was no single focus for the music (short of glitter banalities and arena-rock bombast), and the Stones were as much at sea as everyone else. When punk happened, suddenly there was some fresh rock energy, and the Stones responded to it with as much raw vitality as in their glory days.

"Emotional Rescue," however, is not quite the overwhelming experience that "Some Girls" was because 1980 is not 1978; what matters now is dance music of all kinds, and dance music's appeal is not primarily to the heart. Consequently, nothing here has the moving impact of *Just My Imagination* or Keith's *Before They Make Me Run*. But it is a ferociously physical exploration of a territory bounded by funk, blues, reggae, and rock-and-roll, which is to say that it includes what's best in today's musical non-mainstream, and it's one of the Stones' best efforts as well.

It's also quite funny, as a listen to *Let Me Go*, a debauched swagger featuring Keith's latest guitar sound (a trebly, metallic neo-rockabilly adaptation) will prove. "Out the

door, baby," Mick remarks offhandedly to the tiresome young lady the song is dedicated to, and it's impossible not to grin at the cartoonishness of the macho sentiment. The hard rockers in particular are really excellent this time. *She's So Cold*, for example, is precisely the kind of loose-limbed, passionate performance that makes this band unduplicable and great: Mick gives it one of his most spectacular vocal workouts—there's absolutely no doubt that he really wants this girl!—and the band does something that approaches the miraculous, rocking out paradoxically with simultaneous fury and restraint. It's an astonishing number, ripe raunch of an almost Olympian purity.

But almost everything here is noteworthy. *Dance* is an atmospheric, sweaty slice of razor-sharp downtown funk; *Send It to Me* finds Mick writing home for money (!) over an irresistibly loping Caribbean rhythm; *Where the Boys Go* is a fairly explicit tip of the hat to punk with an addictive hook and a terrific Cockney vocal (it will probably be a single); *Down in the Hole* is a stunning, anguished blues that makes me long for the Stones' long-promised album of Chicago classics; and Keith's *All About You* is a gorgeous bar-room weeper that suggests *Wild Horses* perceived through a boozy haze.

The title tune, which would have been controversial two years ago, is also something of a masterpiece, a wonderful extension of the idiom *Miss You* suggested, mated with production by way of the wilder neopsychedelic-dub reggae, and it will doubtless be as omnipresent on the radio and the dance floor as that earlier song. Hard-rock purists will probably be offended by the falsetto, but to me it smacks less of the Bee Gees than of black soul groups like the Chi-lites. In any case, when Mick final-

ly comes in with his normal register, the song suddenly opens up and the effect is breathtaking.

Summer Romance and *Indian Girl* are just about the only duds in the package: the former is an energized, likable rocker, but rather formulaic, while the latter is an unrealized stab at topicality (the girl in question is a Cuban peasant whose husband is off in Angola fighting for Mr. Castro) that seems vaguely unfinished. Neither of these, however, is disastrous enough to sink the album, and, in any case, inconsistency has always been part of the group's charm.

IT'S no secret that I've rooted for these guys through thick and thin (once a Stones fan, always a Stones fan, I guess), but I have lately been heard to admit that I grossly overrated their mid-Seventies records (actually, there are enough good things scattered about those efforts to make one listenable album, and I plan to collect them on a cassette one of these days). There's no question in my mind now, however, that the magic is back, at least in the studio. Unless you're a totally doctrinaire New Waver, I can't imagine your wanting to miss this one if you care anything at all about rock-and-roll. There's not a hint of slickness or complacency about it; it's committed, risk-taking, exhilarating music, as vital a piece of work as anything released so far in the new decade.

—Steve Simels

THE ROLLING STONES: *Emotional Rescue*. The Rolling Stones (vocals and instrumentals); other musicians. *Dance*; *Summer Romance*; *Send It to Me*; *Let Me Go*; *Indian Girl*; *Where the Boys Go*; *Down in the Hole*; *Emotional Rescue*; *She's So Cold*; *All About You*. ROLLING STONES COC 16015 \$7.98, © TP 16015 \$7.98, © CS 16015 \$7.98.

"Cool for Cats." Their new "Argybargy" is also very funny, but the humor is somewhat restrained—well, maybe "channeled" is a better word. This time out they sound as if they're serious, as though they said to one another: "Look, mates, it's been a great lark but we've got to shape up and sell some records."

The two best songs deal with courtship. *Separate Beds* is a tale of prospective in-laws; neither mother likes her child's intended, but the fathers do. *Vicky Verky* is a compact story of the hard times of a lower-class teenage couple. What makes it top-notch is the economy of the lyrics—the whole story is told very quickly but with precise descriptions—and a full-speed-ahead performance that is bona fide rock-and-roll. This stuff may remind you of the Kinks in the late Sixties, and I don't think it's stretching the comparison to say that as musical satirists these guys are the Kinks' children. And they're funnier. J.V.

RECORDING OF SPECIAL MERIT

SYREETA. Syreeta (vocals); vocal and instrumental accompaniment. *Blame It on the Sun*; *Let Me Be the One*; *You Bring Out the Love in Me*; *Please Stay*; *He's Gone*; *Love Fire*; and four others TAMLA T7-372R1 \$7.98, © T7-372HT \$7.98, © T7-372HC \$7.98.

Performance: **Very Impressive**
Recording: **Good**

Syreeta Wright began to move out on her own last year, when she recorded the hit single *With You I'm Born Again* with Billy Preston. And now what she calls her "real self" has emerged in her fine new Tamla album with selections that demonstrate her versatility. Though Steve Wonder seems no longer to be an active partner, his shadowy presence is felt here through the inclusion of two soul standards Syreeta wrote with him some time ago: *Signed, Sealed, Delivered (I'm Yours)* and *Blame It on the Sun*. I've always considered Wonder the best interpreter of his own songs, but Syreeta offers him a formidable challenge with her versions of these two—especially the latter, which she begins casually, playfully, and then builds to a rapturous climax.



But this is Syreeta's own album, as she proves by her lyrical, tender handling of Bill Withers and Skip Scarborough's *Let Me Be the One* and her outright doo-wop hollering fest on the Shirelles' oldie *He's Gone*. Billy Preston joins her on vocals and keyboards on a couple of tracks, but he never moves into the spotlight or seems to be trying to call the shots. Their duo on *One More Time for Love*, a first-rate ballad, caps off the album in fine style.

Steve Wonder deserves credit for helping to instill a taste for quality in this artist whose destiny he has helped shape, but Syreeta is on her own now. This release shows that she is one of the few female soul singers of recent years to have formed an individual style as subtle as it is compelling. Syreeta is really something to hear. P.G.

RECORDING OF SPECIAL MERIT

BERNIE TAUPIN: He Who Rides the Tiger. Bernie Taupin (vocals); instrumental accompaniment. *Monkey on My Back (The*

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Last Run); *Born on the 4th of July*; *Venezuela*; *Approaching Armageddon*; *Lover's Cross*; and four others. ASYLUM 6E-263 \$7.98, © ET8-263 \$7.98, © TC5-263 \$7.98.

Performance: **English spoken here!**
Recording: **Good**

A typical young person came in the other night when I was watching *M*A*S*H* and asked, "Is that, like, *M*A*S*H*?" I resisted the urge to say it was so much like *M*A*S*H* that not even Alan Alda could tell the difference. In an era such as this, when 85 per cent of our citizens start every third (run-on) sentence by misusing "hopefully," one can overreact to a lyricist who is

halfway articulate; but I still think Bernie Taupin has done a pretty good job here. He used to sound pretentious when he was working with Elton John, but here he is fairly authoritative on all kinds of subjects and only occasionally gets carried away by his language. Of course, Dennis Tufano is no Elton John at writing tunes to go with Taupin's lines, which is a problem if you like real melodies. And the back-up flavor is sort of L.A.-styleless, though clean and sympathetic. But Taupin's vocals are more than passable, and his *writing* voices—like Randy Newman, he speaks from various other men's shoes—are all tuned up. At least one of those is likely to provoke you.

N.C.

DISCO



RECORDING OF SPECIAL MERIT

B. T. EXPRESS: 1980. B. T. Express (vocals and instrumentals); instrumental accompaniment. *Takin' Off*; *Heart of Fire*; *Closer*; *Better Late Than Never*; and four others. COLUMBIA JC 36333 \$7.98, © JCA 36333 \$7.98, © JCT 36333 \$7.98.

Performance: **Wonderful fun**
Recording: **Very good**

B. T. Express has never achieved the superstar status of such groups as Odyssey or the Whispers, although the basics have long been there: six personable men putting out the popular soul/funk/disco sound with taste and energy. This may well be their year, for "1980" is a wonderful pop album. It has dance cuts aplenty and immense listenability as well.

Does It Feel Good is the album's best up-tempo number. The electronic glockenspiel effect it opens with is fun, but when the cut settles into a swaying rhythm, watch out! This one's for close, serious dancing. The beat boogies up for *Heart of Fire*, a driving disco production with more than a touch of funk. Neatly balancing all the dancing stuff are a couple of ballads. One, *Closer*, may well be a new soul classic.

Everything here is competent or better. The engineering sometimes stresses the percussion too much, but otherwise it situates the vocals perfectly and captures the big sound. B. T. Express is making wonderful music.

I.C.

RECORDING OF SPECIAL MERIT

JIMMY MAELEN: *Beats Workin'*. Jimmy Maelen (vocals and percussion); vocal and instrumental accompaniment. *Spirit in the Flesh*; *If It Wasn't for You*; *Sympathy for the Devil*; *Turn the Music Up*; and three others. PAVILLION JZ 36319 \$7.98, © JZT 36319 \$7.98.

Performance: **High-spirited debut**
Recording: **Terrific**

Jimmy Maelen here steps out from behind the busiest set of percussion instruments in the business and introduces himself as an interesting singer/songwriter. After years of backing up everyone from the Village People (*Ready for the '80's*) and Odyssey (*Native New Yorker*) to Alice Cooper (*Whisky and Lace*), Maelen's put his beats to work for himself. The album ranges widely through the spectrum of contemporary dance music. *I'm Gonna Getcha* is a big, funky strut, a good opener. *Spirit in the Flesh* is faster, a straight disco number that hits its considerable stride in the percussive last instrumental section. *Turn the Music Up* is positively manic: very fast, but pro-

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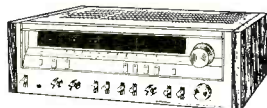
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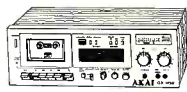
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pelled with such joy that it makes you want to keep up—even when you think you can't.

Maelen is a powerful singer, too. In *Two Good Reasons*, for example, he sounds free and easy within the disco beat and makes his presence felt even in the complex arrangement. That same confident power makes his cover of the Stones' *Sympathy for the Devil* surprisingly successful. Happily, he can also sing ballads. He does more crooning in *If It Wasn't for You* than I like, but it's sung convincingly. Jimmy Maelen's singing debut is recommended listening.

I.C.

BORIS MIDNEY: *Music from "The Empire Strikes Back."* Boris Midney (instrumentals); vocal and instrumental accompaniment. *Yoda's Theme; The Imperial March (Darth Vader's Theme); Han Solo and the Princess (Love Theme); Star Wars.* RSO RS-1-3079 \$7.98, © 8T-1-3079 \$7.98, © CT-1-3079 \$7.98.

Performance: **Overblown**

Recording: **Oh, wow!**

Don't cry for Boris Midney. Dance for him instead. The man responsible for turning most of the songs from the musical *Evita* into some of the best and most durable dance music of the past year has now tried his hand with the music accompanying the further adventures of C3-PO and R2-D2. It doesn't work, but it is not Boris Midney's fault. His hand is as sure as ever. Unfortunately, John Williams' movie music provides a weak base on which to build. Without strong tunes like those in *Evita*, songs with some identity, Midney has had to substitute flash for substance. And boy, is there a lot of flash here. Full symphonic instrument sections are pitted against space-age effects (many created with voices this time), Latin rhythms, and synthesizers in forty-eight overdubbed tracks. The result is lots of fun, and certainly danceable, but also preposterous.

The most successful of these productions is the love theme, *Han Solo and the Princess*, the only slow cut on the album and also the only arrangement relatively free of the excess that mars everything else. For a graphic demonstration of what's wrong with the rest of the album, compare Midney's treatment of the main *Star Wars* theme with Mecco's version of two years ago. There's an important lesson there in making less do much, much more.

I.C.

RECORDING OF SPECIAL MERIT

THE TEMPTATIONS: *Power.* The Temptations (vocals); instrumental accompaniment. *Power; Struck by Lightning Twice; Isn't the Night Fantastic; How Can I Resist Your Love;* and four others. GORDY G8-994M1 \$8.98, © 994KT \$8.98, © 994KC \$8.98.

Performance: **Power-full**

Recording: **Good**

Despite all the svelte black-male singing groups that have emerged during the past fifteen years, the Temptations have remained the quintessential soul balladeers, skillfully combining the close harmonizing of old-time gospel ensembles with the clever choreography and vocal stylings developed

by earlier rhythm-'n'-blues groups. They've had changes in personnel and some slumps, but they remain the pride of Motown, and Berry Gordy has reaffirmed his faith in them by producing this thoroughly enjoyable album. The opener, *Power*, features some bass and baritone pyrotechnics of volcanic proportions, and the group's sweeter side is displayed on a wonderful song called *Isn't the Night Fantastic*. Even on first hearing, it has the quality of an old friend, and it is one of the more hummable items to come along in months. Another standout is *Can't You See Sweet Thing*, though every groove here vibrates with the mellow sound of a classic soul group performing at its peak.

P.G.

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(List compiled by John Harrison)

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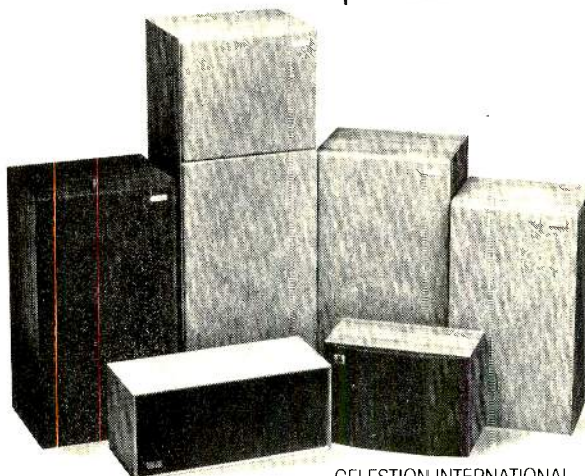
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JAZZ



RECORDING OF SPECIAL MERIT

ART ENSEMBLE OF CHICAGO: *Full Force*. Art Ensemble of Chicago (instrumentals). *Magg Zelma*; *Care Free*; *Old Time Southern Street Dance*; and two others. ECM-1-1167 \$8.98, © M5-1167 \$8.98.

Performance: **Full force indeed**
Recording: **Excellent**

I have on several occasions been severe in my criticism of the Art Ensemble of Chicago and some of its individual members, so I am particularly pleased to be able to do an about-face and give my highest recommendation to "Full Force," the group's latest release on ECM.

This is a wonderful survey of Afro-American music's fairly short history; it digs deep into the soil for its roots and reaches high into space for what may well be its future. The entire offering is, however, relevant to

the present. At first the effects that launch the album seem a bit precious, but we soon learn that these strangely alluring sounds, which form a prelude to the relatively orthodox body of Malachi Favors' *Magg Zelma*, are very appropriate. Trumpeter Lester Bowie, a player for whose musicianship I have had little respect in the past, is simply superb here, whether spewing fire on Roscoe Mitchell's *Care Free* or growling down a beaten Rex Stewart path on *Charlie M*, a track that is also enhanced by the easy, bouncy gait of Favors' bass.

There is much more on this album to delight in, but I shall leave you to discover its pleasures for yourself. Make no mistake about it, the Art Ensemble of Chicago is bursting with talent. C.A.

RECORDING OF SPECIAL MERIT

CHU BERRY: *A Giant of the Tenor Sax*. Chu Berry (tenor saxophone); Roy Eldridge, Oran "Hot Lips" Page (trumpet); other musicians. *Sittin' In* (two takes); *Gee, Baby Ain't I Good to You* (two takes); *Monday at Minton's* (two takes); *On the Sunny Side of the Street* (two takes); *Forty-six West Fifty-two* (two takes); and four others. COMMODORE ® XFL 15353 \$7.98 (from Commodore Records, P.O. Box 912, Terre Haute, Ind. 47805).

Performance: **Old gold**
Recording: **Good transfers**

When nineteen-year-old Leon Berry joined Sammy Stewart's band in 1929, his goatee

and moustache prompted a fellow musician to give him the nickname "Chu-Chin-Chow," which was soon shortened to Chu and stuck with him until his untimely death in an automobile accident in 1941.

It was after hearing Coleman Hawkins with the Fletcher Henderson orchestra that Chu Berry decided to play the saxophone, and—like his nickname—the inspiration of Hawkins remained with him until the end. It is evident on "A Giant of the Tenor Sax," which consists of the last two sessions recorded under Chu Berry's leadership—in formal small-group dates featuring some of the finest players of the Swing Era. Like most Commodore material, these sessions have been reissued numerous times by various labels, most recently by Atlantic in 1973 ("The Tenor Sax: Lester Young, Chu Berry, and Ben Webster," SD2-307), but the current reissue—a Columbia Special Products project—is the most thorough, for it includes a number of alternative takes that never appeared on 78s.

Another interesting, but lamentable, difference between the Atlantic reissue and this one is that Commodore owner/producer Milt Gabler seems suddenly to have remembered either writing or co-writing all the tunes that originated at these sessions! This disturbing ethical irregularity considerably dampens my enthusiasm for this reissue, but it cannot alter the fact that these performances are superb examples not only of the artistry of Chu Berry but of jazz itself. Berry's torrid tone and relaxed, flowing swing perfectly complement the

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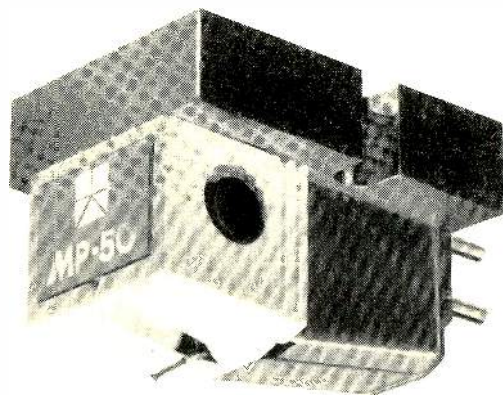
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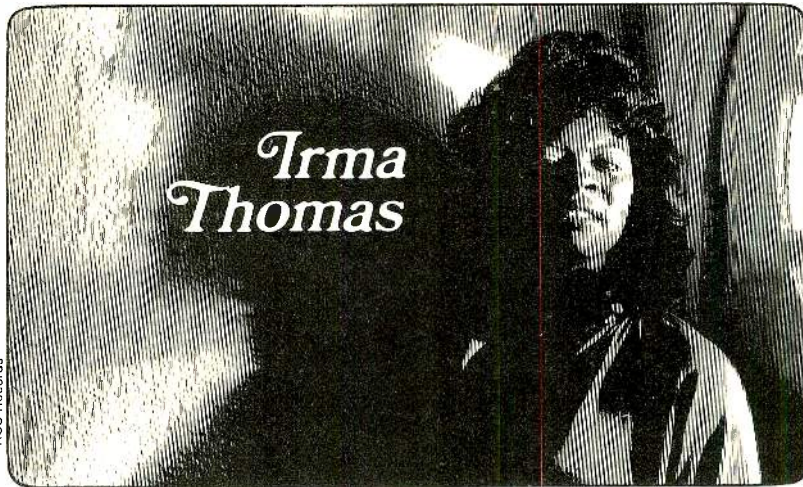


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RCS Records

THE way the story goes, Irma Thomas' career began one evening in the early Sixties when she spotted local music power Tommy Ridgley in a New Orleans club where she was working as a waitress. She got permission to do a song on stage and so moved Ridgley with it that he took her to Ron Records, under whose banner she soon made her disc debut. More records followed, on the Minit label, and the discs—and the regional rumble they caused—caught the ears and imagination of someone in power at the more widely distributed Imperial label. Recording for Imperial in 1964, Thomas made the national charts more than once, even getting into the top twenty with *Wish Someone Would Care*. And though her recording of *My Side* was not a big seller, it caught the fancy of the Rolling Stones and became *their* first American hit.

But Irma Thomas' early successes are less remarkable than her surviving the period of neglect that followed. After her Imperial ball was over, she was heard by a relative few on the Fungus label, but if she dropped a slipper at any point in the late Sixties or the Seventies, Prince Disco didn't seem interested in picking it up. However, now that many of the dazzling disco divas are quietly disappearing back into the woodwork, Irma Thomas is easing onto the scene again with a fine, soulful album on yet another unfamiliar little label.

"Safe with Me" is from RCS (short for the Record Company of the South), a label

that appears to believe in spending money where it shows: in the recording. Various parts of this album, for instance, were recorded in Alabama, Georgia, Louisiana, and Tennessee. Will its rumble shake the rafters above the Mason-Dixon Line? Well, that will depend largely on how it is promoted and distributed; if the music alone were the determining factor, we could all prepare ourselves to hear a lot of Irma Thomas. She has matured to the point where she is able to deliver a varied program with that combination of polish and involvement that comes only with experience. At times this album reminds me of Candi Staton's *Victim*, but only in the sense that it captures the essence of the South's rich blues tradition and dresses it in garb that will never go out of style. One of my favorite tracks here is *Princess La-La*, which is pure Louisiana, and I would not be surprised if we heard *Woman Left Lonely* easing its persuasive way out of a lot of portable radios in upcoming months.

—Chris Albertson

IRMA THOMAS: *Safe with Me*. Irma Thomas (vocals); instrumental accompaniment. *Safe with Me; Woman Left Lonely; What's the Matter Baby; Zero Willpower; Dance Me Down Easy; Take What You Find; Princess La-La; Sugar Pie Honey Bunch (Can't Help Myself); Don't Stop; Looking Back.* RCS RCS-A-1004 \$6.98 (from RCS Records, Inc., 5220 Essen Lane, Baton Rouge, La. 70808).

fiery, buoyant horns of his trumpet companions, Roy Eldridge and Oran "Hot Lips" Page, each of whom shares a side of this album with him; the rhythm sections, both headed by pianist Clyde Hart, are models of the period's feathery-light propulsion units.

There can be no question that these remarkable sides have enriched the art of jazz since they were made, and they will continue to stand out as long as there are jazz listeners around. It's great to see these recordings reappear in such an agreeable and sensible form, and I hope the albums

keep coming . . . but *please*, Mr. Gabler, how about giving credit where credit is due? C.A.

CHICK COREA: *Tap Step*. Chick Corea (Moog minimoog, Moog 55, Moog Vocorder, Oberheim OBX 8, Rhodes 88, acoustic piano, woodblocks); Hubert Laws (flute, piccolo); Stanley Clarke (piccolo bass, talk box); Airto Moreira, Don Alias (percussion); other musicians. *Samba L.A.; Grandpa Blues; Magic Carpet; Flamenco*; and three others. WARNER BROS. BSK 3425 (Continued overleaf)

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Performance: **Well-mixed bag**
Recording: **Excellent**

Two of my least-favorite vocalists, Flora Purim and Gayle Moran, are members of the vocal quartet that dominates *Samba L.A.*, the lively, highly rhythmic track that opens "Tap Step," but they are perfect for the task. I have less enthusiasm for Moran's work on *The Embrace*, where she sounds a bit like Snow White in the Disney film, but she is probably only delivering what Chick Corea wants to hear.

The title tune of this multifaceted album is a brisk snare-drum-and-synthesizer opus that is quite engaging in a premeditated sort of way, and *Magic Carpet*, with Corea at a nine-foot Bösendorfer concert grand, reflects a more artistic side of his talent. I care least of all for *Grandpa Blues*, on which bassist Stanley Clarke uses a so-called "talk box" to create some totally ineffective sounds that drag this set down a few notches. All ends well, however, with *Flamenco*, another catchy exercise that will set your body in motion. An agreeable but not very thought-provoking album. *C.A.*

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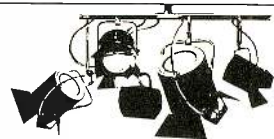
PAUL QUINICHETTE: *The Kid from Denver*. Paul Quinichette (tenor saxophone); Joe Newman, Thad Jones, Reunald Jones (trumpets); Henry Coker (trombone); Nat Pierce (piano); other musicians. *Pardon the Blues, Please; Honeysuckle Rose; Big Deal; Happy Feeling*; and four others. BIOGRAPH © BLP-12066 \$7.98.

Performance: **À la Basie**
Recording: **Fair mono**

Tenor saxophonist Paul Quinichette developed an interest in jazz after hearing clarinetist Mezz Mezzrow play at the 1933 Chicago World's Fair. Fortunately, he did not model his style after Mezzrow's but aimed his reed at the very top: Lester Young. He so mastered his idol's style that it took a keen ear to tell them apart, which made Quinichette a shoo-in for the open tenor seat he took over in the Count Basie band in 1951.

"The Kid from Denver," a new Biograph reissue of a 1958 Dawn release, presents Paul Quinichette in a Basie setting with both a stomping, swinging ten-piece band and a quintet modeled after the celebrated Kansas City Five. Since all the players are men who either were then or had been associated with Basie, that highly distinctive sound is no accident. To make the similarity even more striking, the pianist is Nat Pierce, a player who has so assimilated the great bandleader's style that he has been called on to substitute in Basie's absence.

I have always considered the feathery swing of Basie's music to be one of the most satisfying of all jazz listening experiences, and it is so well captured here that even the Count's presence would not have made this particular set any more enjoyable. We even get some Ernie Wilkins and Manny Albam charts. What more could one ask? To point out all the good solos would be far too exhausting a task; there are simply too many of them. But I think you get the picture: I don't just *like* this album, I *love* it. *C.A.*



THEATER • FILMS

URBAN COWBOY. Original-soundtrack recording. Jimmy Buffett, Charlie Daniels Band, the Eagles, Dan Fogelberg, Mickey Gilley, Johnny Lee, Anne Murray, Bonnie Raitt, Kenny Rogers, Linda Ronstadt, J. D. Souther, Boz Scaggs, Bob Seger, Joe Walsh (vocals and instrumentals); instrumental accompaniment. FULL MOON/ASYLUM DP-90002 two discs \$15.98, © D8-90002 \$15.98, © D5-90002 \$15.98.

Performance: **Good collection**
Recording: **Good**

BRONCO BILLY. Original-soundtrack recording. Ronnie Milsap, Merle Haggard, Penny DeHaven, Clint Eastwood (vocals); instrumental accompaniment. ELEKTRA 5E-512 \$8.98, © 5T8-512 \$8.98, © 5C5-512 \$8.98.

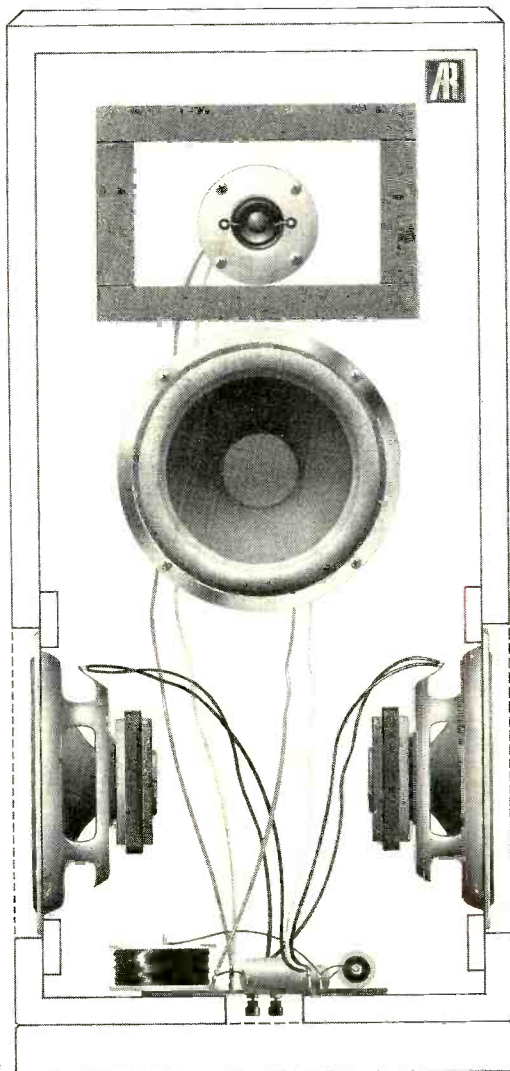
Performance: **Not enough Haggard**
Recording: **Good**

Like that of *Easy Rider* and *The Last Picture Show*, the soundtrack music of *Urban Cowboy* purports to be the kind of stuff the characters in the movie listen to, but, unlike theirs, not all of *UC*'s music was previously recorded. Several of the performances were got up specifically for the movie, although the *songs* already existed. The soundtrack has a good, strong regional identity and works well as an all-star anthology.

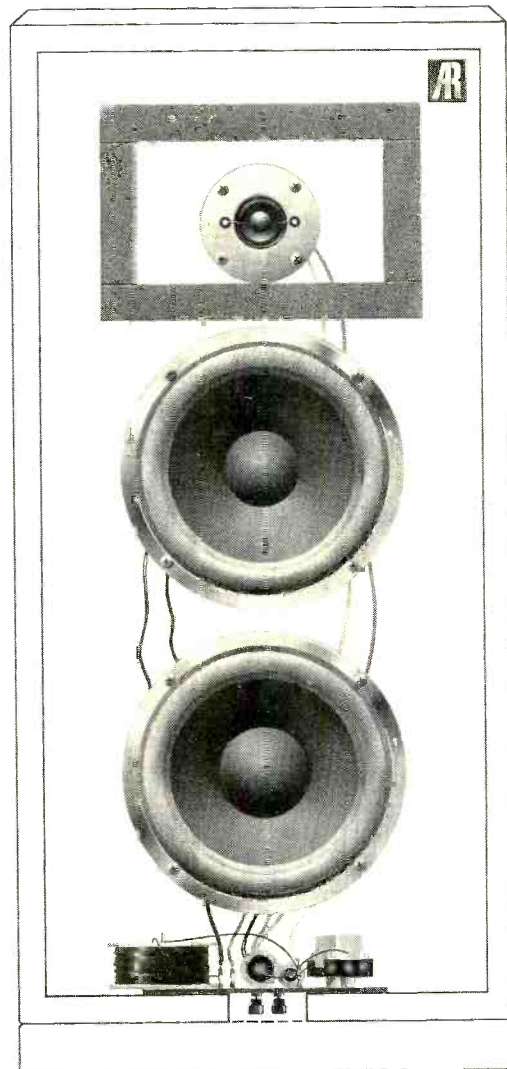
The album contains maybe a couple of overexposed numbers, but only one chestnut, the Eagles' *Lyin' Eyes*. Bob Seger's contribution (*Nine Tonight*) is definitely one of his lesser works, and the band behind Bonnie Raitt, though containing some good musicians, is weak—but the great Raitt voice rises above it. The set is well balanced, and most of the performances are good enough to keep you listening—Mickey Gilley doing a Leiber-Stoller tune (*Stand by Me*) is one of the nice surprises—and it does give you a sense of time and place without being slavishly specific about it.

Bronco Billy, now as this is written, is about cowboy show-biz. Old Clint takes a turn singing a duet with Merle Haggard, Ronnie Milsap does his thing a couple of times, Hag has one solo number and Penny DeHaven has one in which she sounds vaguely reminiscent of Sylvia Fricker, and the rest is mostly instrumentals. It would have been better, of course, if they could have talked Haggard into taking over the whole project. Out of context—that is, as an album—some of this stuff is lackadaisical and inane, as disjointed overtures and brass-band flourishes usually are, and Milsap sounds like a dilettante at this sort of thing anyway. I'm not an Eastwood hater; I think he handles both of his facial expressions very well. But I wouldn't look up his movies in *TV Guide* just for the music. *N.C.*

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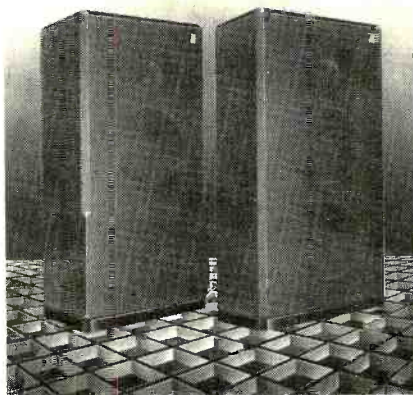
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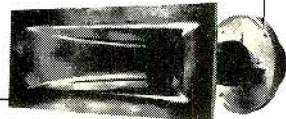
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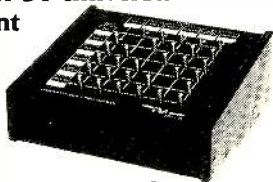
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