

JANUARY 1981 • \$1.25

Stereo Review

VIDEO FOR AUDIOPHILES

A BUYER'S GUIDE: VIDEOCASSETTE RECORDERS AND THEIR CAMERAS

EQUIPMENT TEST REPORTS:

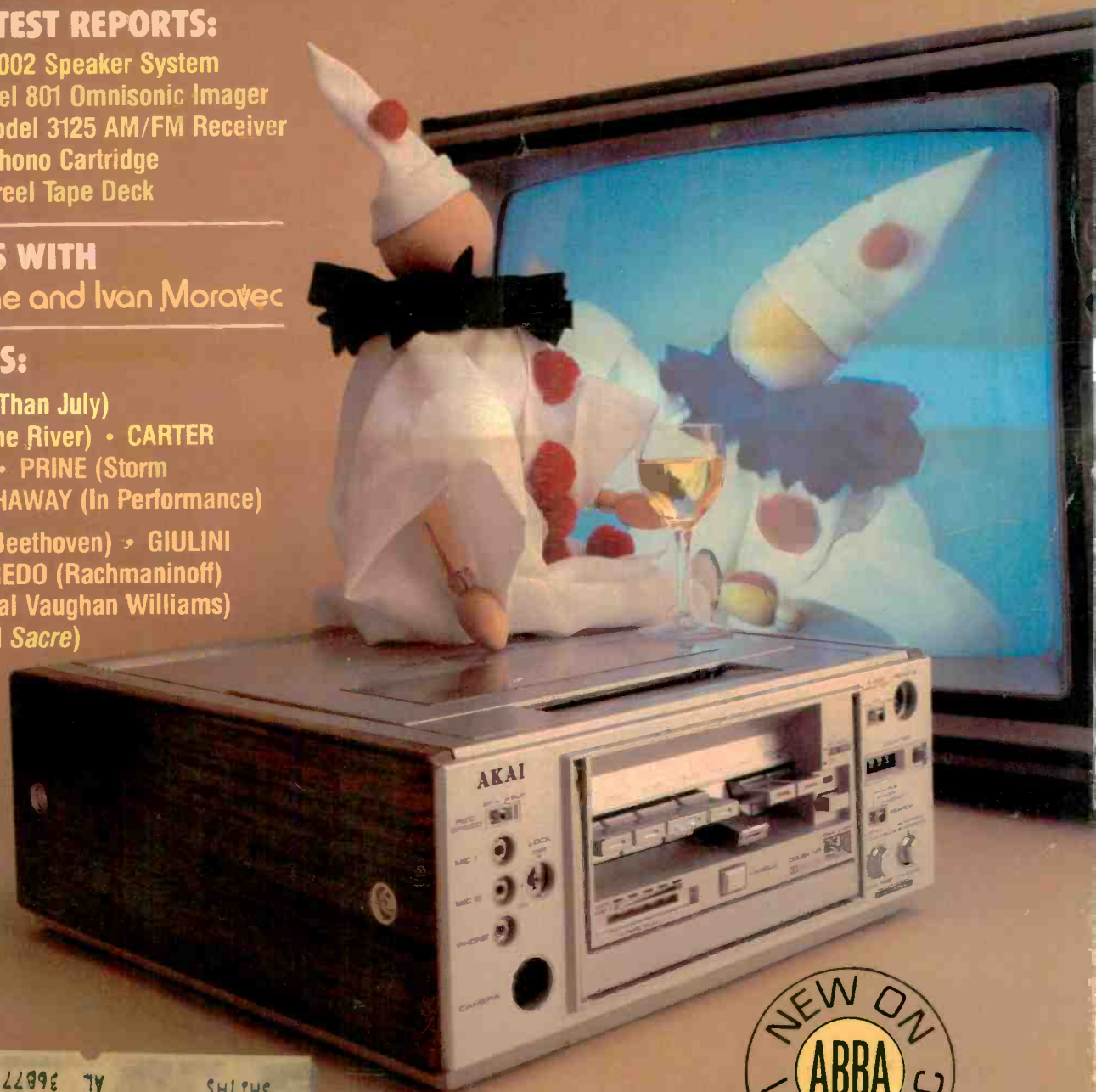
- Advent Model 5002 Speaker System
- Omnisonix Model 801 Omnisonic Imager
- J. C. Penney Model 3125 AM/FM Receiver
- Shure M97HE Phono Cartridge
- Teac X-3 Open-reel Tape Deck

INTERVIEWS WITH

Carmen McRae and Ivan Moravec

DISC SPECIALS:

- WONDER (Hotter Than July)
- SPRINGSTEEN (The River) • CARTER (New York Slick) • PRINE (Storm Windows) • HATHAWAY (In Performance)
- MICHELANGELI (Beethoven) • GIULINI (*Rigoletto*) • LAREDO (Rachmaninoff)
- FENNELL (a digital Vaughan Williams)
- MAAZEL (a digital *Sacre*)



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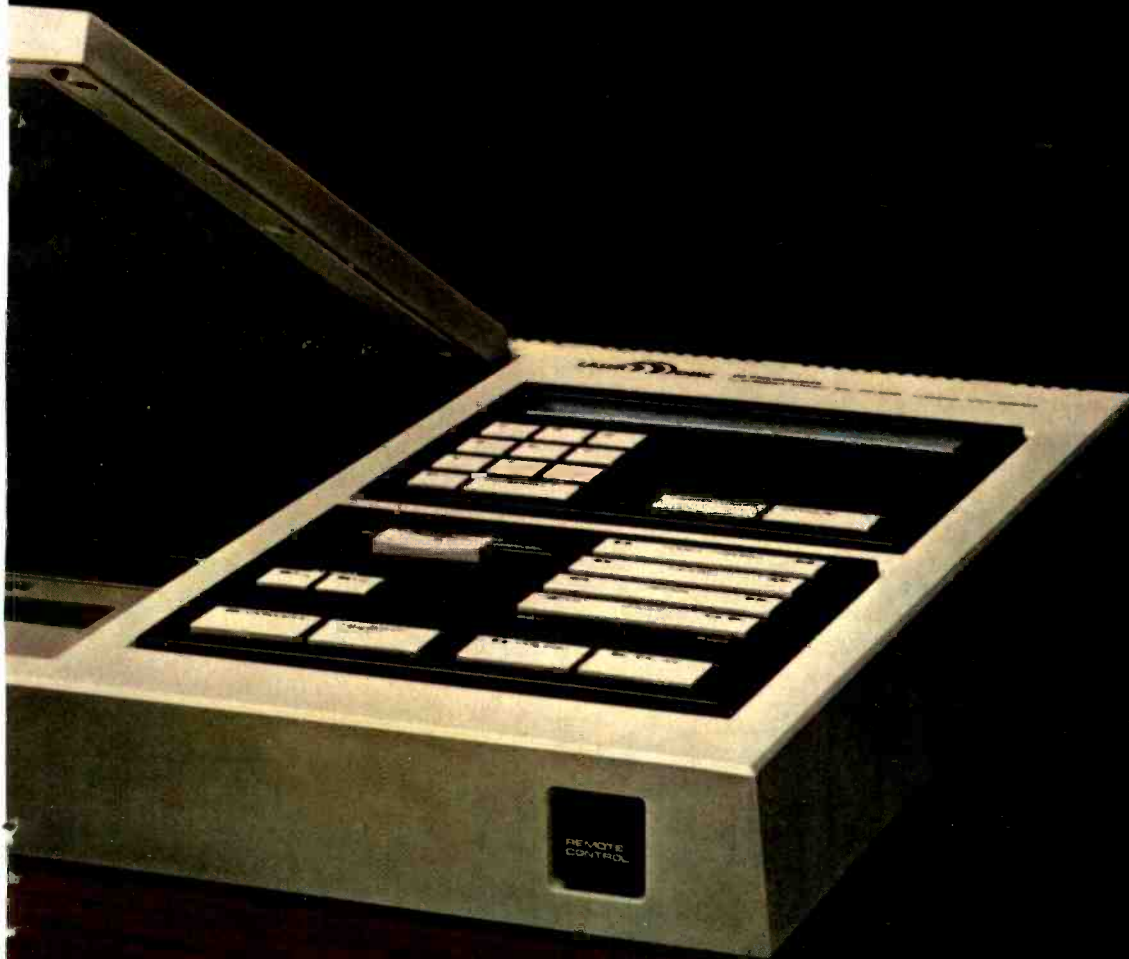
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FORMERLY HI FI/STEREO REVIEW (ISSN 0039-1220)

Stereo Review®

JANUARY 1981 • VOLUME 46 • NUMBER 1

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COVER: Design, Borys Patchowsky; photo, Bruce Pendleton. The TV image is, of course, from an actual videocassette recording.

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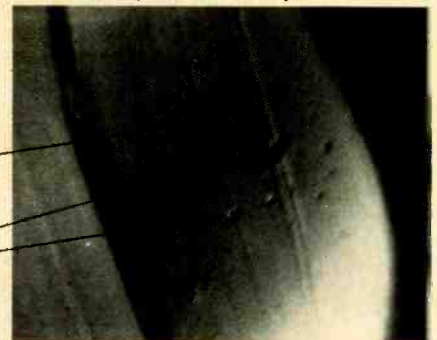
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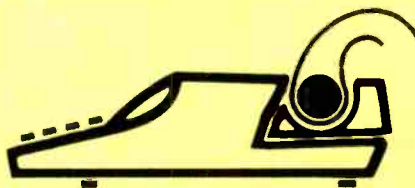
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Stereo Review

BULLETIN

Edited by William Livingstone

- STEREO TELEVISION MOVES A BIT CLOSER: U.S. tests are about to start on three systems capable of broadcasting stereo or bilingual sound with video signals. The systems were developed by Zenith, Telesonics, and the EIAJ (Electronic Industries Association of Japan). The tests, being conducted by Matsushita Industrial Company in Franklin Park, Illinois, are broadcast in Chicago over WTTW (Channel 11). Separate tests are being made with three noise-reduction systems (CBS, Dolby, dbx) to improve the quality of TV sound. The costs of the tests are shared by the ABC, CBS, NBC, and PBS networks, the National Association of Broadcasters, and the Association of Maximum Service Telecasters. The EIAJ system has been used successfully in Japan for the last two years.
- NEW SERIES ON NATIONAL PUBLIC RADIO starting this month include weekly concerts by the Indianapolis Symphony and the Los Angeles Philharmonic under their respective music directors, John Nelson and Carlo Maria Giulini. "Grand Piano" features young artists as well as keyboard stars in master classes, performances, and interviews, and "International Concert Hall" begins on January 6 with a concert of the winning compositions in the third Kennedy Center/Friedheim Awards. For dates check NPR stations.
- PRO ARTE, A NEW CLASSICAL LABEL, HAS been launched with a release of twenty albums by Pickwick International. The line's analog recordings list for \$8.98, and those mastered digitally are tentatively priced at \$12.98 each. The 120 Pro Arte albums scheduled for release this year are drawn from the German Seon catalog and co-productions with the German Pro Arte company. The repertoire includes such things as Busoni's one-act opera Arlecchino, Donizetti's Il Campanello, concertos by Mozart, chamber music by Brahms, Dvořák, and Schubert, and early music played by Gustav Leonhardt and Frans Brüggen. Seon recordings previously available here on ABC will be deleted to reappear on Pro Arte.
- JOHN DENVER MUZZLES MONTY PYTHON! The English version of the Python's new "Contractual Obligation Album" is being repressed because of legal steps taken by Denver. The album contains a seventeen-second version of his hit Annie's Song with rewritten lyrics which Denver's lawyers have described as "unacceptable parody" and which we decline to quote. That track will be replaced in the U.K. by the new Short but Perverted Message.
- CLASS ACTS ON MAG VIDEO'S NEW LINE. The first release in Magnetic Video's new Video Playhouse line of cassettes is made up of fourteen plays drawn from the distinguished American Film Theatre series. Now available for the first time in home video are Chekhov's Three Sisters with Joan Plowright and Sir Laurence Olivier, Simon Gray's Butley with Alan Bates, Jean Genet's The Maids with Glenda Jackson and Susannah York, Edward Albee's A Delicate Balance with Paul Scofield and Katharine Hepburn, and ten others. Price: \$80 for those on one cassette, \$100 for the plays that require two. According to Magnetic Video president André Blay, "this is just the first step towards opening a new treasure house of cultural programming."
- A 20-DB IMPROVEMENT IN DYNAMIC RANGE is claimed for a disc noise-reduction system developed by CBS for use with both analog and digital recording masters. CBS claims that in addition to enhancing dynamic range the process completely eliminates surface noise. An add-on adapter is expected to cost about \$50. According to CBS, played without the adapter "the new disc will produce the same sonic quality as that of today's conventional recordings."
- MCA BRINGS 3-D TO HOME VIDEO SCREENS! With its videocassette releases of It Came from Outer Space and Creature from the Black Lagoon, MCA claims to be the first to bring the thrills of 3-D to home video viewers. Each film is packaged with four pairs of the special glasses necessary to get the 3-D effect. In both Beta and VHS, \$65.

Speaking of Music...

By William Anderson



RENAISSANCE BOYS

PIANIST Glenn Gould, who celebrated his twenty-fifth anniversary as a recording star last year, is quoted in this issue to the effect that he is baffled by rock music: "I can't understand things that are that uncomplicated." An odd way of putting it, but one knows what he means: for many listeners, there simply isn't enough content in most contemporary pop music to engage the mind, and they *want* their minds engaged.

Providing simple entertainment and making money at it are the prime goals of any self-respecting popular music, but they do not *necessarily* rule out the inclusion of a little intellectual sustenance as a bonus for those who need it—think, say, of Thirties jazz or Forties musical comedy. The pertinacious avoidance of such content during the quarter-century of the Elvis Era, howev-

er, is proof that it *can* be ruled out successfully—if you happen to have at your disposal the uncritical mass market created by the introduction of the long-playing phonograph disc. All you need do to cater to (or, indeed, create) such a market is pare down to the essentials—simple forms, ordinary raw materials, interchangeable parts—and rev up the engines of publicity. Once the recording industry had gotten all this squared away, they must have decided they were no longer in the business of making music, for they began to refer to their handiwork as "product."

It is hardly surprising that this little industrial revolution required some radical changes in the working force as well as in the delivery system. Time was when the making of our vernacular music rested in a

number of capable hands: a composer wrote the music, a lyricist wrote the words, and a singer performed them both. The result was often a gratifyingly hand-tooled craftsmanship (and, yes, intellectual content) of a very high order, respectfully presented to its consumers in theaters, small clubs, and on the parlor radio. These days, however, we are addressed mostly by a haughty bunch of generalists, self-anointed Renaissance Boys, jacks of all trades who compose, write, and perform with equal lack of distinction, who fill our sports arenas, roller rinks, public parks—and a perfect flood of phonograph discs—with a jolly undifferentiated racket. Given the enormous number of people who have been persuaded to consume this kind of entertainment and the enormous amount of it that must be ground out as a consequence, how could it be otherwise? As things stand now, the mass market created by the phonograph disc can be satisfied only by a lowest-common-denominator music that studiously avoids making any untoward demands on its audience.

BUT if technology has created this monster of mediocrity, technology can tame it too. The key is *size of audience*, and the home-entertainment revolution embodied in the imminent videodisc means that audiences will soon be shrinking to family size. When they do, much of our entertainment will be subject to the hypercritical scrutiny of the living room, and many Renaissance Boys will not measure up. We have had only one universal genius—Leonardo da Vinci—but any number of sublimely gifted specialists. Once into the Video Age, we will want them back—composers as good as Jerome Kern, lyricists as literate as Lorenz Hart, singers with real voices and dramatic skill. In short, I am predicting the Return of the Grownups, the Rebirth of the Great American Musical. You read it here. □

Stereo Review

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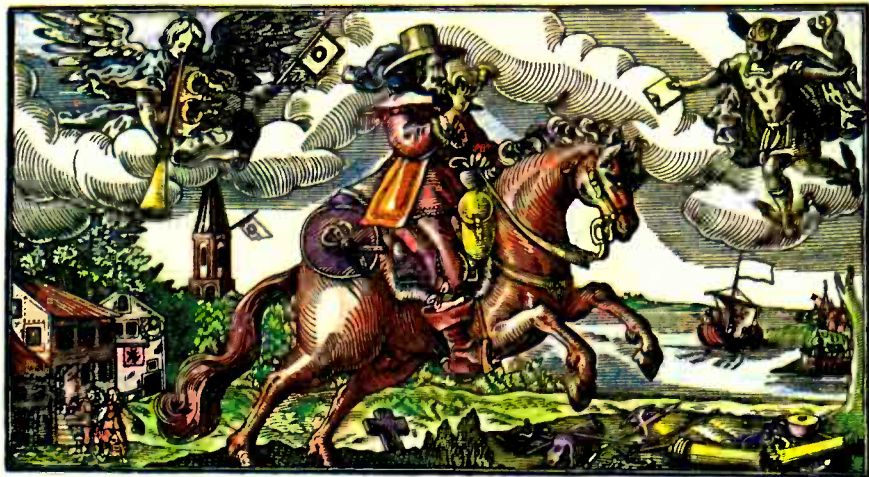
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LETTERS TO THE EDITOR

Name Games

● "What's in a Name" (November "Audio Basics") was extremely informative. Many thanks to Robert Greene for clearing up many mysteries in the audio field.

JOHN JESSE CARO
San Gabriel, Calif.

● Robert Greene erred in his "What's in a Name" column when he claimed that the letters k, e, and f form a real word only in Dutch. In fact, there is an English word "kef" that refers to the odd euphoria often associated with smoking hemp—or perhaps induced by listening to music played through KEF 105 speakers!

STUART T. BAIRD
King of Prussia, Pa.

It's also spelled "kief" or "kif" and comes from the Arabic word "kaif," meaning pleasure and a couple of other things.

Jackson Browne

● Plaudits to Noel Coppage for his sensitive review of Jackson Browne's "Hold Out" in the November issue. The only thing he missed on completely was the interpretation of the song *Of Missing Persons* (which, by the way, hardly "rocks out"). The song is not addressed to Browne's son but to a daughter of the late (but immortal) Lowell George of Little Feat.

MALCOLM MCGOWAN
Baltimore, Md.

Larry Gatlin

● Noel Coppage's "Best of the Month" review of Larry Gatlin's "The Pilgrim" in November calls it "his new album." This album (every song exactly the same) was issued in 1974 by Monument as KZ 32571, and I've had it for five years. How can a reissue be a "best of the month"?

MICHAEL J. MURPHY
East Brunswick, N.J.

Larry Gatlin's Columbia album "The Pilgrim" is indeed a reissue of the 1974 Mon-

ument album. It slipped by in the mass of new albums we received for review in the November issue. We offer apologies for the error, although Noel Coppage still firmly believes it is the best work Gatlin has done in years. And, yes, a reissue can be "Best of Month" if that month's first-time-out competition is lacking in distinction.

Nighthawks

● I agree with Joel Vance's November review of the Nighthawks' new album, and it's good to see them get the national recognition they deserve. But why does he say that they are "the only redeeming feature of the nation's capital"? If this was intended as a criticism of the political situation, I agree with that also, but not at the expense of D.C.-area music. We have other excellent bands—the Slickey Boys, Black Pearl, Root Boy Slim—as well as the National Symphony and many other diversions.

BRAD McDONALD
Alexandria, Va.

Trifling Regulations

● In November "Audio Q. and A." there is a question about a manufacturer's rating an amplifier at "201 watts per channel," and Larry Klein's reply explains that this is a result of FTC rulings. Does he actually mean to say that our hard-earned tax dollars, which if saved could add to our music collections, are going to some raving lunatics to create such trifling regulations? I'm all for consumer protection, but let's be serious. A manufacturer should have the right to call his product whatever he desires!

W. ROFFA
Poway, Calif.

Technical Director Larry Klein replies: We couldn't agree more. If reader Roffa cares to research back issues of this magazine he'll find chronicled therein my efforts from late 1974 through 1975 to inject some technical sense into the FTC's rule making. While I won some points, I also lost a few.

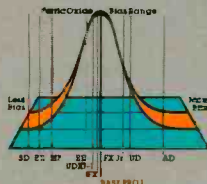
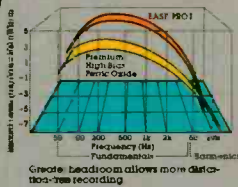
(Continued on page 10)

The Tape Guide

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Premium ferric oxide tapes have more headroom which allows higher maximum recording levels (MRL). Among all premium ferric oxides PRO I has the best MRL for loud recordings. Uniform magnetite particles provide increased headroom for very accurate and loud recordings with virtually no distortion. In the fundamental music range (20Hz-5kHz), PRO I can be



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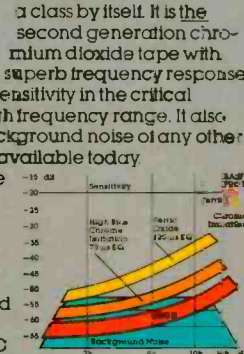
Professional-II.
The world's quietest tape puts nothing between you and your music.



High bias tapes consistently provide wider frequency response and less tape noise (hiss or background noise) than any other tape type. Among premium high bias tapes PRO II is in a class by itself. It is the second generation chromium dioxide tape with superb frequency response and outstanding sensitivity in the critical (10kHz-20kHz) high frequency range. It also has the lowest background noise of any other competitive tape available today. PRO II will capture the many subtle harmonics of the most demanding recordings and play them back with the reality and presence of a live performance. PRO II is the tape for the Type II/chrome/high bias position that comes closest to Metal tape performance for half the price.



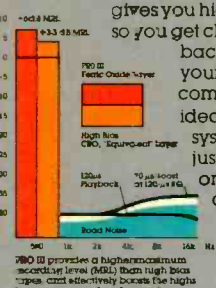
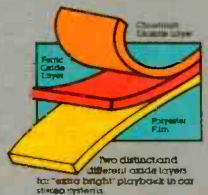
The pure chromium dioxide particles in the PRO II unlike ferric oxide particles are homogeneously shaped and uniformly sized to provide superior performance.



Professional-III.
The only car tape that eliminates the car.



Ferrichrome tapes combine the benefits of chromium dioxide and ferric oxide tapes for superior performance in car stereos. The top layer is pure chromium dioxide for unsurpassed highs and low background noise. The bottom layer is ferric oxide for superior lows and great middle frequencies. And it also gives you higher recording levels, so you get clearer louder playback without cranking up your volume control to compensate. PRO III is the ideal tape for car stereo systems and performs just as well in the home on the Type III/ferrichrome position.



GUARANTEE OF A LIFETIME

"The guarantee of a lifetime." All BASF tape cassettes come with a lifetime guarantee that covers everything. Should any BASF cassette ever fail — for any reason — simply return it to BASF for a free replacement.



Patented "Jam-Proof" Security Mechanism (SM)™
All BASF tape cassettes come with our exclusive SM — Security Mechanism. Two precision arms actually "guide" the tape in a smooth, exact and consistent track, so that winding is always even, no matter how often the cassette is played. SM puts an end to tape jamming.



BASF

Crosby Drive, Bedford, Massachusetts 01730

CIRCLE NO. 9 ON READER SERVICE CARD

and in truth I was too busy battling the pre-conditioning part of the rule to want to deal with the comparatively innocuous zinger relating to permissible model numbers.

his own actions, and that he is just as sinful as a nonbeliever. Christians aren't perfect, just forgiven.

ALAN PARRIS
Lexington Park, Md.

covered 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" are both frank and perspicacious.

MELVIN T. MURAKAMI
Stony Brook, N.Y.

Music and Religion

● I tend to agree with James Goodfriend ("Going on Record," October) that a person not at peace with himself is more likely to be artistically creative. However, I am disturbed that when an artist such as Bob Dylan becomes a devout Christian he is blasted by Steve Simels as "self-righteous" (reply in September "Letters"). A Christian realizes that he is saved by grace, not

Journalistic Courage

● I feel that I speak for a countless number of audiophiles who appreciate the journalistic courage shown by Julian Hirsch in his September column, "Hi-Fi Is Getting Better." His statements that "many amplifier manufacturers have set up straw men to be knocked down by their latest creations" and that "most of the obscure or newly dis-

Squeeze

● I was more than satisfied with Joel Vance's September review of Squeeze's "Argybargy," since I have been a great fan of the group's "off-the-wall British humor" for some time now and had been quite convinced that absolutely no one else in this country was aware of their existence. After spending a year in Britain, I realized that they are years ahead of us musically.

LYNN MANAK
Walnut, Ill.

Vinyl Eaters

● Greetings from sunny Puerto Rico. Would you please tell the record manufacturers to eliminate the plastic sleeve linings from their product and use only paper? In the tropics the plastic "bleeds" and sticks to the record surface, and colonies of vinyl eaters spawn betwixt and between. I have more than five hundred pitted LPs as a result.

JAMES GREEN
Cabo Rojo, P.R.

Annoying Ads

● Maybe you could do two favors at once. One for me. And one for your advertisers. Could you remind them that their ads are appearing in STEREO REVIEW? And not *The Amazing Spider-Man*? I for one am sick to death of having every sentence in an advertisement chopped up. Into little bite-size segments. That imply I can't keep a thought in my head if it's longer than two lines. Especially when the results aren't even complete sentences. Just fragments. It's annoying. As hell.

JAN S. STRNAD
Wichita, Kan.

Critical Exercise

● At present I receive two copies of STEREO REVIEW each month due to some error in the subscription department. This works out perfectly for me, however, because after reading a few of Steve Simels' reviews—he is by far the most reaction-provoking reviewer on the staff—I inevitably wind up tearing the magazine to shreds. This leaves me with the second copy for reading the excellent equipment reviews and technical articles. Tell Steve to keep up the "good work"; this is the only real exercise I get each month. It would be a pity if anyone were actually taking him seriously, though.

RIP
New Orleans, La.

Tearing up a copy of STEREO REVIEW is not serious?

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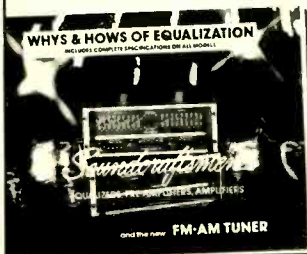


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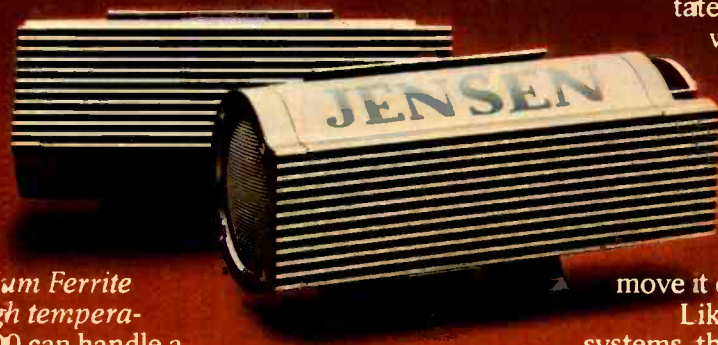
“Curious. Now that I have the 2 acoustically optimized cylinders of a Jensen J-2000, I don’t feel the need for the 8 high compression cylinders of a Ferrari GTB-308.”

The Jensen J-2000 mini speaker system.

Sleek, bronze and beautiful, the design of the J-2000 is like no other car stereo speaker you’ve ever seen. And, more importantly, it sounds like those fine mini-speaker systems you used to hear only at home.

Housed in an acoustically optimized cylinder is a 4½" long throw woofer, a ¾" high frequency dome radiator tweeter, and a totally unique 4½" passive radiator. It’s a planar sheet of compressed hollow glass spheres, so lightweight and compliant it effectively doubles the bass response of the J-2000.

With a 20 oz. Barium Ferrite magnet and Nomex® high temperature voice coil, the J-2000 can handle a substantial 55 watts of power. It has a sensitivity level of 93dB SPL, and brings in a truly accurate frequency response of 40-16kHz.



The J-2000 extruded aluminum housing is elegance with a purpose. The solid extrusion is not only durable, but guarantees a perfect acoustic seal. And the grille of injected Noryl® serves not only as a striking design element, but as protection for the high frequency driver.

And the J-2000 has a swivel mount that can rotate ± 30° to direct the sound where you want it. From the rear deck of a car, the wall of a van, or a shelf in a living room. Because the J-2000 has spring loaded connections for speaker leads and large knurled mounting knobs, you can move it quickly and easily.

Like all Jensen car speaker systems, the J-2000 was innovated with one purpose: Sound performance. So if that’s what moves you, come hear it soon.

JENSEN
SOUND LABORATORIES
AN ESMARK COMPANY

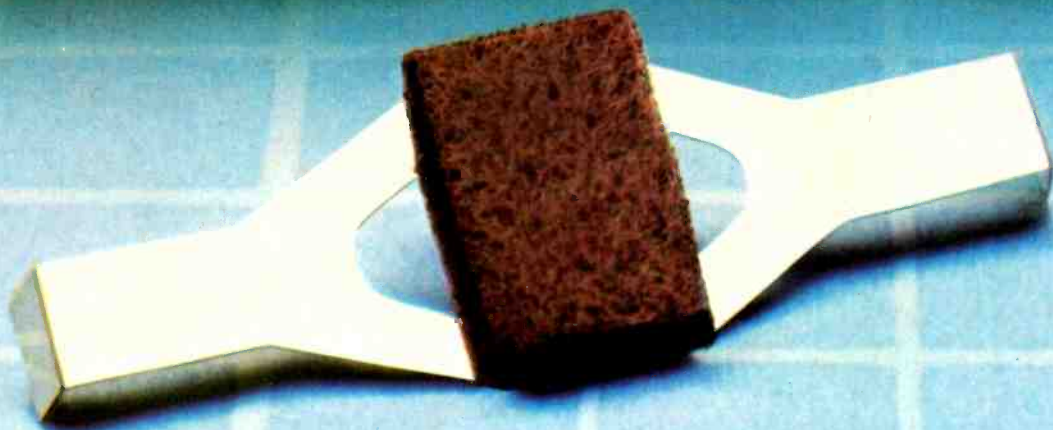
When it’s the sound that moves you.

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CIRCLE NO. 22 ON READER SERVICE CARD

The continuing story of TDK sound achievement.

Part Seven.



You are looking at the moment of truth. If every other part in a TDK cassette has played its role perfectly, the tape will move between the pressure pad and the recording head with remarkable precision. There will be no fluctuation. High frequencies won't be lost. Hiss and distortion won't enter in. Music will be reproduced unfaithfully.

Part Seven, the TDK dual spring pressure pad, is an innovation. Its double "Y" structure distributes pressure evenly on the total pad surface, allowing full tape-to-head contact. Total sound. In designing it, TDK engineers used a metal alloy of nickel, copper, and zinc which has a perfect balance of resiliency and strength. Then they searched for the perfect pad. They found urethane has a tendency to stick, slip and tilt in the direction of tape travel. Tape loses contact at the dead center of the head core. Sound is lost. Felt also has its problems. It often causes rough

output in the high frequencies. The TDK pad is made from a special mix of organic fiber, cut to exact dimensions. Tape contact is always at an optimum, preventing high frequency dropouts and excess friction.

Having gone to such lengths for perfection, our engineers avoided one last slip up. The anchor. The TDK dual spring pressure pad is precisely positioned in an interlocking pin system. It can spring back and forth but never move laterally. The last threat to sound at that point was stray magnetism. TDK stopped that by placing an extra-thick metal shield behind the pad assembly. Now nothing can stand in the way of perfectly recorded music. You can see Part Seven and the other TDK parts perform through the shell of the classic TDK MA-R cassette. It set new standards in reliability and metal sound.

TDK continues to set the standards with every cassette. In high, normal, and metal bias. In every type of machine. And it's all based on a simple philosophy. Perfection is the outcome of many elements interacting perfectly. TDK achieves a higher standard of musical performance for one unvarying reason. Music is the sum of its parts.



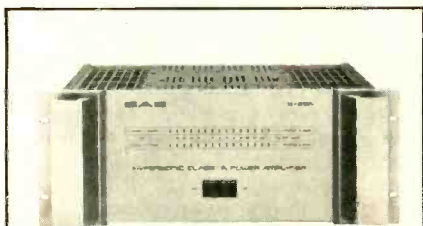
TDK dual spring pressure pad and tape in cassette.



 **TDK**

The Amazing Music Machine.

CIRCLE NO. 45 ON READER SERVICE CARD



SAE's Low-distortion "Class-A" Power Amplifier

□ Scientific Audio Electronics' X25A Hypersonic "class-A" power amplifier is rated at 250 watts per channel continuous into 8-ohm loads with no more than 0.02 per cent total harmonic distortion from 20 to 20,000 Hz. Special circuitry allows the amplifier to realize the low-distortion characteristics of conventional class-A designs while generating only a fraction of the heat usually resulting from such a design. Each channel of the X25A has two independent amplifiers; one handles the positive portion of the waveform, the other the negative side. The unit has separate fifteen-LED output-power level displays for each channel. They sense both voltage and current and show true power output. Finish on the rack-mountable unit is grey-anodized aluminum. Price \$1,500.

Circle 120 on reader service card



Denon Turntable Has Interchangeable Arm Shafts

□ The Denon DP-60L direct-drive auto-lift turntable incorporates a tone arm supplied with both straight low-mass and "S"-shaped mid-mass arm shafts, plus appropriate counterweights, for use with various cartridges having differing stylus compliances. Also featured is Denon's magnetic

speed-control system. It is based on a magnetic sensor that compares magnetic-pulse "markings" on the underside of the turntable platter with a quartz-derived reference; speed deviations are corrected by a servo system. Controls are solenoid activated, and the unit stands on compliant feet for acoustic-feedback isolation.

The unit's rumble is stated to be -78 dB (DIN-B weighting) with wow and flutter of 0.015 per cent (wrms). The DP-60L measures 19 x 7 x 16 inches and weighs 29 pounds. Price: \$585.

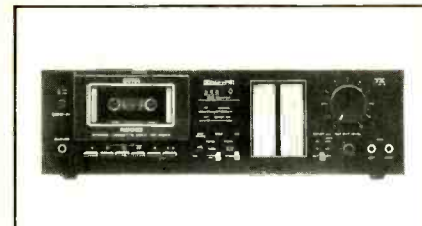
Circle 121 on reader service card



Four-way Wharfedale Speaker System From Rank Hi Fi

□ The Wharfedale "Total Sound Recall" TSR-112 speaker system from Rank Hi Fi incorporates four drivers: two 10-inch paper-cone bass units, an 8-inch polypropylene upper-bass/midrange driver, and a 1-inch dome tweeter. The two bass drivers operate together in an acoustic-suspension enclosure up to 100 Hz; between 100 and 600 Hz the signal to one of the 10-inch units is attenuated. At 600 Hz there is a 12-dB-per-octave crossover to the 8-inch unit, and at 3,500 Hz there is an 18-dB-per-octave crossover to the tweeter. The hookup of the bass drivers is said to ensure a stable and uniform dispersion throughout their operating range. The sloping front baffle and the crossover design are said to guarantee phase accuracy throughout the audible range. High- and mid-frequency contour controls are available to compensate for variations in room acoustics. Stated frequency response is 30 to 25,000 Hz. Recommended power range is 12 to 190 watts, and sensitivity is 90 dB sound-pressure level at 1 meter with a 1-watt input. Dimensions are 43 x 15 x 15 1/2 inches. Price: \$950.

Circle 122 on reader service card



Inexpensive Nikko Tape Deck Has Metal Capability

□ The Nikko ND-590 metal-tape-compatible cassette deck has large VU meters and a record-mute switch. There are separate bias and equalization switches for metal, chromium-dioxide, and ferrichrome tapes. The unit's Dolby circuits have a switchable FM-multiplex filter. There are separate record and output-level controls. A headphone output is available, as are two microphone inputs. Frequency response is given as 30 to 18,000 Hz with metal tape; signal-to-noise ratio is 63 dB (Dolby circuits on). Wow-and-flutter rating is 0.055 per cent (weighted-rms). Fast-winding time for a C-60 cassette is 80 seconds. Input sensitivity is 50 millivolts for the line input and 0.25 millivolt for the microphone inputs. Dimensions are 16 1/2 x 5 1/8 x 10 3/4 inches. Price: \$210.

Circle 123 on reader service card



Fujitsu Ten's Car Receiver / Cassette With Preset Tuning

□ Fujitsu Ten has introduced an AM/FM stereo receiver/cassette-player with DIN specifications. Features of the GP-1010 include five-pushbutton preset tuning in addition to a tuning dial mounted in the cassette door, FM interstation noise muting, local/distance and stereo/mono switches, rear-speaker fader control, and separate LED indicators for various functions. The cassette-player section has a locking fast-forward mode and pushbutton eject.

The FM section has a rated 50-dB quieting sensitivity of 23 dBf and selectivity of 50 dB. Frequency response is 30 to 10,000

FREE

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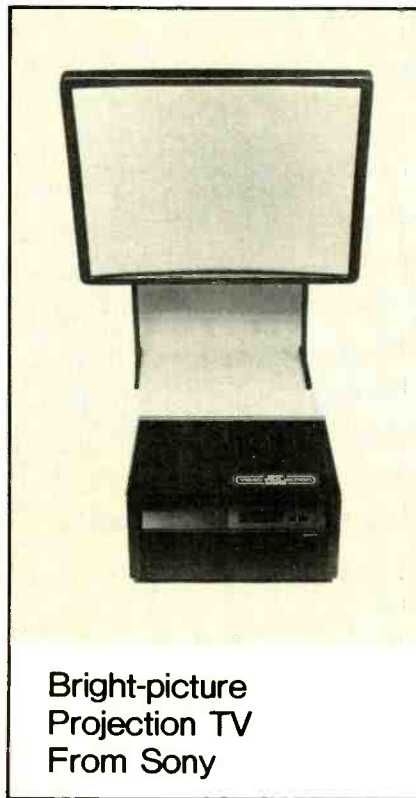
CIRCLE NO. 13 ON READER SERVICE CARD

New Products

latest audio equipment and accessories

Hz ± 3 dB, stereo separation is 35 dB, and image rejection is 60 dB. Wow-and-flutter for the tape section is rated at 0.15 per cent, with a signal-to-noise ratio of 50 dB, stereo separation of 40 dB, and frequency response of 100 to 8,000 Hz ± 3 dB. The GP-1010 can produce 5 watts per channel into 4 ohms from 30 to 20,000 Hz with harmonic distortion of 10 per cent. Dimensions are 6 $\frac{1}{2}$ /₁₆ x 1 $\frac{1}{16}$ x 4 $\frac{3}{4}$ inches. Price: \$189.95.

Circle 124 on reader service card



Bright-picture
Projection TV
From Sony

□ The two-piece Videoscope color-projection system from Sony comes in two versions: Model KP-5020, with a 50-inch (diagonal) screen, and Model KP-7220, with a 72-inch screen. Both feature triple 5.5-inch self-cooling picture-projection tubes with aspherical lenses said to ensure high picture resolution. On their supplied stands, the washable picture screens are at the optimal height for viewing from a seated position. A wall-mount bracket for the screen is available as an option. The projector unit is designed to be used as a table and permits operation of the TV controls directly from the viewer's seat. It has a smoked-glass top and pecan-veneer side paneling for a "coffee table" appearance.

The TV receiver has a semi-automatic program-search system which selects from up to fourteen preset VHF or UHF TV

channels or other sources such as cable TV or a VCR. The "Econoquick" quick-turn-on feature provides a picture a few seconds after the set is switched on but consumes no power when the set is off. The set's automatic fine-tuning circuitry is switchable, and a built-in test-pattern generator helps in system setup. The projector unit includes dual 4-inch speakers along with two phono-jack audio outputs.

Viewing distance is a minimum of 10 feet and a maximum of 60 feet with the KP-5020, 12 and 80 feet with the KP-7220. The optimal seating arrangement is within a 45-degree angle from the central axis of the screen. Distance between projector and screen is about 6 feet for the KP-5020, 8 feet for the KP-7220. Projector dimensions are 32 $\frac{3}{4}$ x 16 $\frac{3}{4}$ x 25 $\frac{5}{8}$ inches and projector weight is 29 pounds. Weight of the 50-inch screen is 20 pounds; of the 72-inch screen, 38 pounds. Prices: KP-5020, \$2,495; KP-7220, \$2,995.

Circle 125 on reader service card



Pre-amplifiers
For Moving-coil
Phono Cartridges

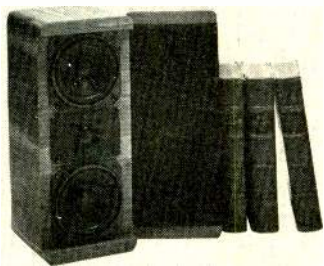
□ Marcof Electronics has introduced two pre-amplifiers for use with moving-coil phono cartridges. Powered by a pair of 9-volt batteries with a 300- to 400-hour average life, the units' class-A non-feedback circuitry is said to produce no transient-intermodulation or slew-induced distortion. The PPA-1 (shown) has an input impedance of 26 ohms and 27.5 dB of gain; the PPA-1h has 10 ohms input impedance and a gain of 34 dB. Both are rated at 0.005 per cent total harmonic distortion at a 100-milivolt output. Frequency response is 20 to 20,000 Hz ± 0.05 dB. Noise level is -85 dB, channel separation 95 dB. Both models measure 5 x 2 $\frac{3}{8}$ x 6 inches and weigh less than 3 pounds. Price for either model: \$129.95. Marcof Electronics, Dept. SR, 7509 Big Bend Boulevard, Webster Groves, Mo. 63119

Circle 126 on reader service card



**SOTA Industries'
Moving-Coil
Cartridge Pre-amp**

□ The SOTA moving-coil cartridge pre-amplifier features complementary class-A circuitry. The amplifier employs specially produced semiconductors and a high-speed, low-output-impedance power supply. Powered by two D cells, the unit comes in an all-steel cylinder designed to reduce the effects of magnetically induced hum and noise. A three-way impedance selector adjusts for cartridge loading, and a gain switch compensates for high- and low-output moving-coil cartridges. Frequency response is given as 6 Hz to 160 kHz +0, -3 dB. Harmonic distortion at 20,000 Hz is less than 0.02 per cent. Channel balance is within 0.1 dB; maximum output is 0.25 volt. Input impedance is 5, 30, or 100 ohms, and gain is either +27 or +18 dB. Price: \$250. SOTA Industries, Dept. SR, P.O. Box 7075, Berkeley, Calif. 94707.



**Three-driver
Koss Minispeaker**

□ The Koss Dyna*Mite M/80 speaker measures 12¾ x 5¼ x 5¼ inches. The hand-rubbed walnut-veneer cabinet contains two 4½-inch woofers and a 1-inch dome tweeter. Frequency range is given as 50 to 30,000 Hz. Crossover frequency is 2,500 Hz; sensitivity is 87 dB sound-pressure level measured at 1 meter with a 1-watt input. Minimum power requirement is 10 watts. Suggested uses: as ambience or secondary speakers, as primary speakers where space is at a premium, and as rear-deck car speakers. Price: \$259.90 per pair.

Circle 127 on reader service card

(Continued overleaf)

**This is what
Audio Pro
set out to do:**

Design Memorandum

Re: B2-50 Subwoofer Project.

The goal of the B2-50 project is to make a self-contained subwoofer system with genuine 20Hz low-frequency response practical for home use.

The B2-50 should be compact enough to be used in any listening room and as visually attractive as the best of contemporary furniture. In order to obtain a 20Hz low-end with a system of reasonable size, we will use Audio Pro's proprietary ACE BASS principle. The subwoofer, therefore, will require its own optimally matched, rugged and accurate power amplifier.

B2-50 must successfully integrate with the widest variety of satellite loudspeakers. This will require a continuously variable crossover to control the response of the satellites as well as of the B2-50.

In order to reproduce deep bass information at concert hall listening levels, the subwoofer's output should be substantial (100db SPL minimum without clipping at 20Hz).

In short, despite its reasonable size and price, the B2-50 subwoofer should represent the reference standard for the subwoofer category.



For more information and your nearest dealer worldwide Call Toll Free: 800-638-0228. Maryland: C-459-3292 Collect. Metro D.C.: 459-3292, or write: Intersearch, 4720-Q Boston Way, Lanham Md. 20801.

**This is what
the critics
said we did:**

"... amazing output, quite incredible for its size, and it gets right down to 20Hz, too.

"... it beats anything of the kind I have yet heard."

HI-FI NEWS & RECORD REVIEW
DEC. 1979, ENGLAND

"... The B2-50 produces amazing levels of low, low bass — right down to 20Hz and very accurately. We teamed the B2-50 with a number of different speakers and never failed to be stunned by the extra sound we have been missing out on before.

"This is the finest — indeed it might be the *only* subwoofer I have ever heard!"

RALPHE NEILL
ELECTRONICS TODAY INT'L,
SYDNEY, AUSTRALIA

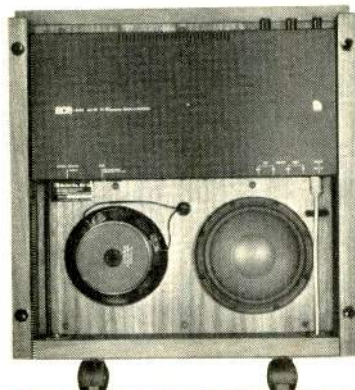
"... greater adaptability than in any other subwoofer we've tested to date ... clean and ultra deep bass, and enough of it to match just about any speaker you want to use the subwoofer with ... its performance can't be bettered by any subwoofer we know of. We recommend it without reservation."

HIGH FIDELITY
OCT. 1980, U.S.A.
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"... The sound of the subwoofer is magnificent. It just keeps going down and down with absolutely no doubling or audible distortion. We used the subwoofer with more than ten different systems, including ones that had quite good bass response to begin with and, without exception, the sound improved.

"Be warned! If you listen to this speaker you will probably buy it."

STEREO BUYER'S GUIDE
AUSTRALIAN HI-FI,
SPEAKERS NO. 9



"When the lights were turned out we could almost have sworn that we were in the presence of a real live orchestra."

Hal Rodgers, Popular Electronics.

"The effect strains credibility—had I not experienced it, I probably would not believe it...the 'miracle' is that it uses only the two normal front speakers..."

Julian Hirsch, Hirsch-Houck Labs.

"...it brings the listener substantially closer to that elusive sonic illusion of being in the presence of a live performance."

Larry Klein, Stereo Review.

"...seems to open a curtain and reveal a deployment of musical forces extending behind, between and beyond the speakers...terrific."

High Fidelity.



C-4000 Control Console

They're all raving about Sonic Holography.®

Sonic Holography is only the most spectacular achievement of the Carver C-4000. The others are merely extraordinary.

Consider what you actually have in the C-4000:

- A full function stereo preamplifier
- A time-delay system with controllable reverberation mix
- A built-in 50 watt (total) power amplifier for time delay speakers
- The Autocorrelator system that reduces noise up to 8 dB with any source material
- A peak limiter/downward expander that nearly doubles dynamic range
- And the Sonic Hologram system that aroused the quotes above.

Please write for the complete test reports, brochures and list of authorized Carver dealers.

Then you can rave all you want about your own C-4000.

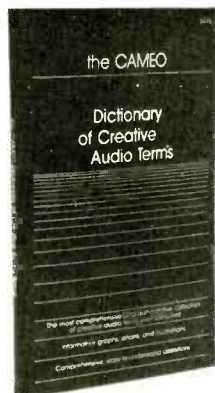
CARVER

CORPORATION

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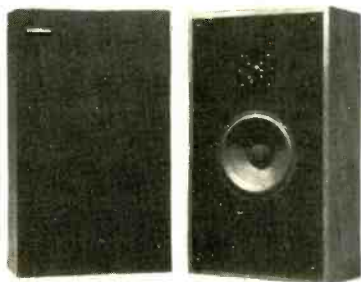
New Products

latest audio equipment and accessories



Audio Dictionary From CAMEO

□ The CAMEO Dictionary of Creative Audio Terms is a one-hundred-page paperback book containing more than a thousand definitions. While primarily intended for professionals in recording and related fields, it contains much of interest to audiophiles in general. In addition to definitions, there are a number of charts and illustrations. Price: \$4.95 plus \$1 postage and handling charge. Creative Audio & Music Electronics Organization, Dept. SR, 10 Delmar Avenue, Framingham, Mass. 01701.



Boston Acoustics' Smallest Speaker

□ The Boston Acoustics A70 speaker system employs an 8-inch woofer having a low-mass, low-resonance, vacuum-formed cone with a smooth, uncolored, peak-free response. A 1-inch soft-dome tweeter has fer-

rofluid cooling and damping. The tweeter is flush-mounted on the large, smooth front panel to preserve its wide radiation angle and stereo-imaging characteristics. Crossover frequency is 2,000 Hz. Sensitivity is such that a sound-pressure level of 89 dB measured at 1 meter is achieved with a 1-watt input. System impedance is nominally 6 ohms, 4 ohms minimum. System resonance is 49 Hz. Dimensions are 24 x 14 x 7 3/4 inches. Weight is 26 pounds. Price: \$130. Boston Acoustics, Inc., Dept. SR, 130 Condor Street, Boston, Mass. 02128.



New Discwasher Stylus-cleaning Kit

□ The Discwasher SC-2 Stylus Care System consists of the separately available SC-1 stylus brush plus the new SC-2 stylus-cleaning fluid. Also included are a walnut storage case and a built-in magnifying mirror. The brush is said to be of the specific density and pliability that provide optimal cleaning; the fluid is designed to clean stylus surfaces without damage to the stylus adhesives, cantilever materials, or rubber polymers. Price: \$8.50; fluid refills, \$1.25 each.

Circle 128 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.

The Polks "At their price, they are simply a steal!"

Audiogram



Incredible Sound / Affordable Price "Our advice is not to buy speakers until you've heard the Polks." Musician Magazine

Polk Tri-Laminate Polymer Driver For Life-Like Clarity and Detail



Reviewers and Critics Agree Polk speakers will give you the highest sound quality and the most listening pleasure for your money. They will deliver amazingly life-like, boxless, three dimensional sound with breathtaking clarity and detail in your listening room from your hifi system.

"Polk Speakers (are) so vastly superior to the competition... a remarkably well integrated and coherent sound that adapts itself ideally to all kinds of music... the kind of

open, uncolored, perfectly imaged sound we thought began at twice the price... **Sound quite magnificent** with a good mid-powered popular brand receiver... They make the popular speakers in their price range seem dim, colored, boxy and just plain insufficient." Musician Magazine

"Exceptionally pleasing sonic balance... Polk's key design goals have definitely been realized... transient response is absolutely first rate... hemispherical dispersion is superb... **Open, boxless, three dimensional quality...** frequency response covers the entire audible range with commendable flatness... sensitivity is adequate for use with a 10 watt amplifier, yet it could absorb the full output of a 200 watt amplifier without damage... certainly a very fine speaker." Stereo Review

Better sound in your home Polk Audio loudspeakers will give you more listening pleasure and greater long term satisfaction from your music, your records and your hifi system. They offer the best sound for the money available on the market and are affordably priced from less than \$125 each to less than \$400 each.

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Monitor Series Loudspeakers

Incredible Sound / Affordable Price
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Interface: C Series II

It sounds like music.

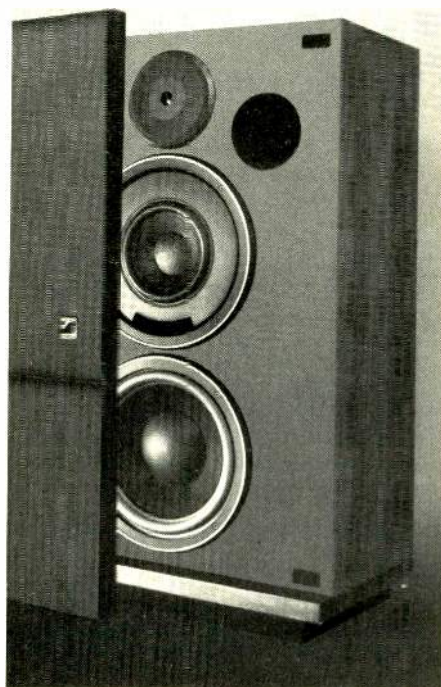
Interface: C Series II is the fulfillment of our six-year association with optimally vented speakers based on the theories of A.N. Thiele—speaker designs first introduced by Electro-Voice in 1973. The Interface: C offers you a unique combination of high efficiency and high power capacity—the only way 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 seeks kindred spirits on a business trip to Nashville.

Hearing and Believing

Q. *I don't understand your attitude about subjective equipment evaluation as expressed in your columns. Are you saying that subjective response is of no value and we should rely totally on instrument tests?*

SIMON GOLDBERG
New York, N.Y.

A. Absolutely not! Instrument testing tells you what a component is "doing" in the specific areas covered by the test procedure, but there is nothing in a test procedure that necessarily relates the numbers or curves to what the human ear can hear. I'm not referring here to the accuracy of a measurement, just its relevance. For example, the optical reflectivity—the albedo—of the front panel of a component can be measured with a high degree of precision. But it's safe to say that even the most outer-limits audiophile would agree that however precise the albedo measurement might be, it has no relevance to the sound of the equipment. What is my point? Simply that everything that can be measured in hi-fi equipment does not necessarily have audible consequences.

There are two reasons why measured phenomena can't always be heard: (1) that which is being measured simply has no audible consequences, as in my example of front-panel reflectivity; (2) although the factor being measured is audio-related, it occurs outside the range of human hearing in respect to threshold, frequency, or both. Although there are ongoing arguments among audiophiles and manufacturers as to the precise limits of audible perception, we can all agree that there are some thresholds in human hearing, so there must be frequencies too high, distortions too low, and effects too minute to be heard. And, to repeat, their measurability has no necessary bearing on their audibility.

The other side of the coin—"I can hear it, but you don't, and you can't measure it either"—is a more complex matter. If some golden-eared type claims that he can regularly hear some component produce an effect or aberration that others can't measure and can't hear, then the scientific approach is to subject those golden ears to

double-blind testing. This will determine if they can indeed consistently pick out the component with the "different" sound when they don't know which of several components they are listening to. Numerous rigorously controlled studies have failed to reveal any mysterious differences in sonic performance that could not be accounted for using conventional measurements. And the studies have also pretty much shown that those subtle differences golden ears hear so clearly when they know which equipment is playing become impossible to detect reliably when the study is conducted according to the rules of scientific investigation.

A Satisfactory Response

Q. *I find that I get a more satisfactory response from my recorded tapes through headphones than when I listen to my 60-watt amplifier and AR-2a speakers. Will a larger amplifier—say, 100 watts—or an equalizer help?*

WILLIAM H. HSIA
Flushing, N.Y.

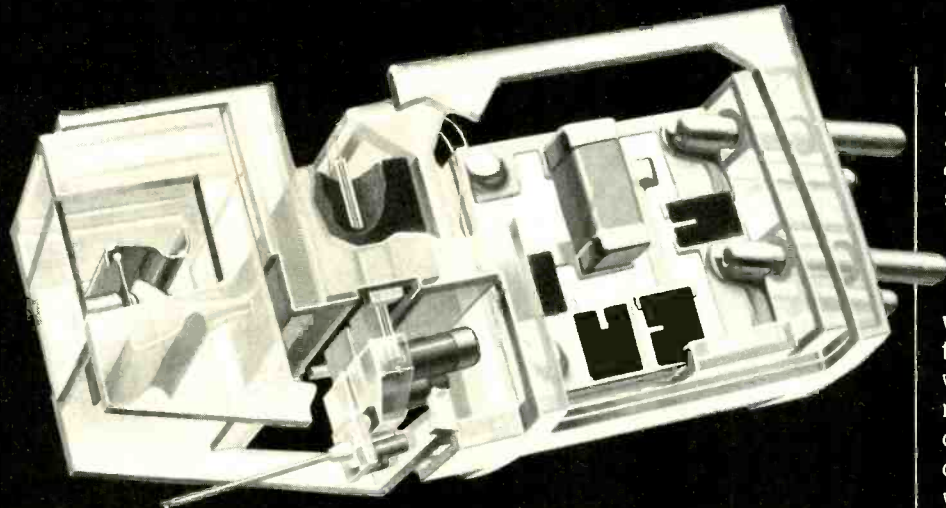
A. A "more satisfactory response" to my ears is a response that most closely corresponds to the sound of live music, but I've found that everyone—even some self-confessed audiophiles—does not share my preference. But anyway . . .

I'm going to go out on a limb and assume that Mr. Hsia's headphones provide better sound because they have a "hot" high end which provides a flatter response given the high-frequency losses in his tape playback. Upgrading the amplifier will certainly do nothing to solve that problem. And from the perspective of rated power alone, the audible difference between a 60- and a 100-watt amplifier is not significant.

An equalizer will almost certainly help; I found years ago that the high-frequency response of the AR-2a (and 3a) becomes a lot flatter when it is operated with its tweeter control full up and with a 5- to 10-dB boost at 10,000 Hz (10 kHz) added by an equalizer. Alternatively (and preferably), the high-frequency response—and dispersion—of the AR-2a and other older acoustic-suspension designs can be up-

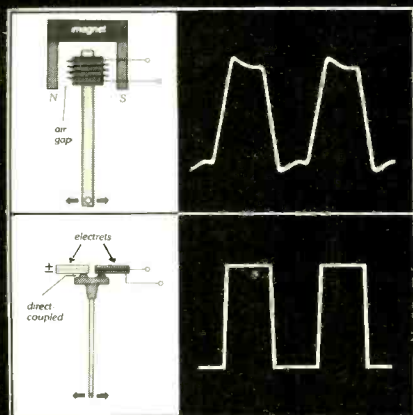
(Continued on page 20)

Micro-Acoustics System II: The Stereo Cartridge. Reinvented.



Direct-to-disc. Digital. Dolby.TM

While record-making has made quantum jumps over the last few years, one thing has remained essentially the same: the phono cartridge. Because, whatever their price, all are essentially the same—a coil and magnet interacting across an air gap. With built-in electromagnetic delays that degrade musical transients. And a



Transient ability of high-priced moving coil magnetic cartridge (top) vs. new MA System II. Note how magnetic cartridge air gap and hysteresis delay distort the square wave.

single damper that trades off tracking and transient ability.

Pushed to their limits by clever engineering, some still offer remarkable (if costly) performance.

But now there's something better. More than a new cartridge design... a new cartridge technology. Its name: Micro-Acoustics System II.

Transient response up to 10X faster than magnetic cartridges. Like the best amplifiers, System II is direct-coupled. Eliminating

the air gap delay by uniting a microscopic stylus and ultra-light-weight cantilever with a patented* *ecret* transducing system.

The only cartridges with a brain. Unlike magnetic cartridges, which require critical matching of tonearm cable capacitance and preamp inputs—something that's virtually impossible to achieve—MA System II cartridges are "intelligent." A built-in microcircuit automatically matches the cartridge to the rest of the system, eliminating the transient and high-frequency response problems of magnetic cartridge designs.

Independent suspension and damping. Instead of the single damper magnetic cartridges use to

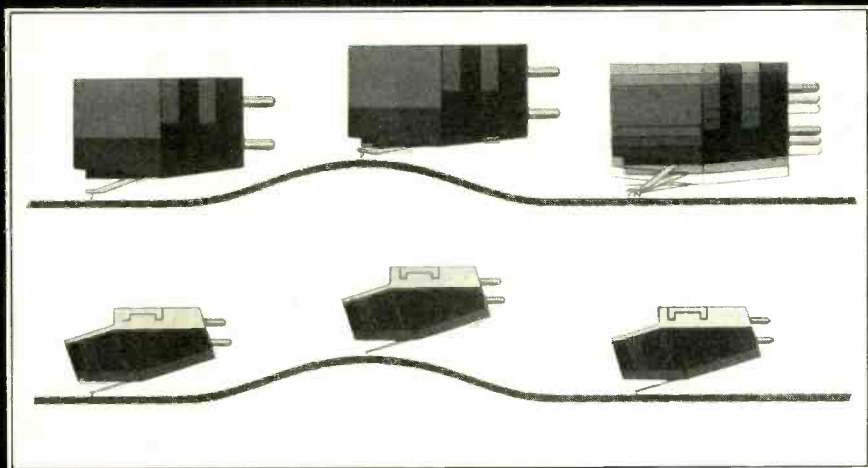
achieve compliance (for tracking ability) and damping (for transient ability), System II utilizes *independent* suspension and damping systems. The result is performance that's optimized—not compromised.

The ultimate answer to record warp. The laws of physics prove that the problems of playing warped records are best eliminated by dynamic damping in the cartridge. But only MA System II cartridges have a special internal warp damping system. Magnetic cartridges have no such provisions.

Optimum performance in any tonearm. With their carbon-fiber housings and lightweight transducers, MA System II cartridges are the lightest ever, for lowest cartridge/tonearm mass. And therefore, the best performance. System II's exclusive Vari-BalanceTM system, with removable weights, allows a cartridge to be optimized for any tonearm.

All this, as the diagrams reveal, is just the beginning. But impressive as System II's technology is, it only hints at the *audible* difference it can make in your music.

To experience that, we invite you to visit your Micro-Acoustics dealer.



Record-warp tracking of magnetic cartridge (top) vs. MA System II. Note how magnetic cartridge's single-bearing design *oscillates* from record warp, producing distortion, while MA's warp-damping system prevents oscillation.

*U.S. Pat. No. 3952171. Dolby is a registered trademark of Dolby Laboratories, Inc.

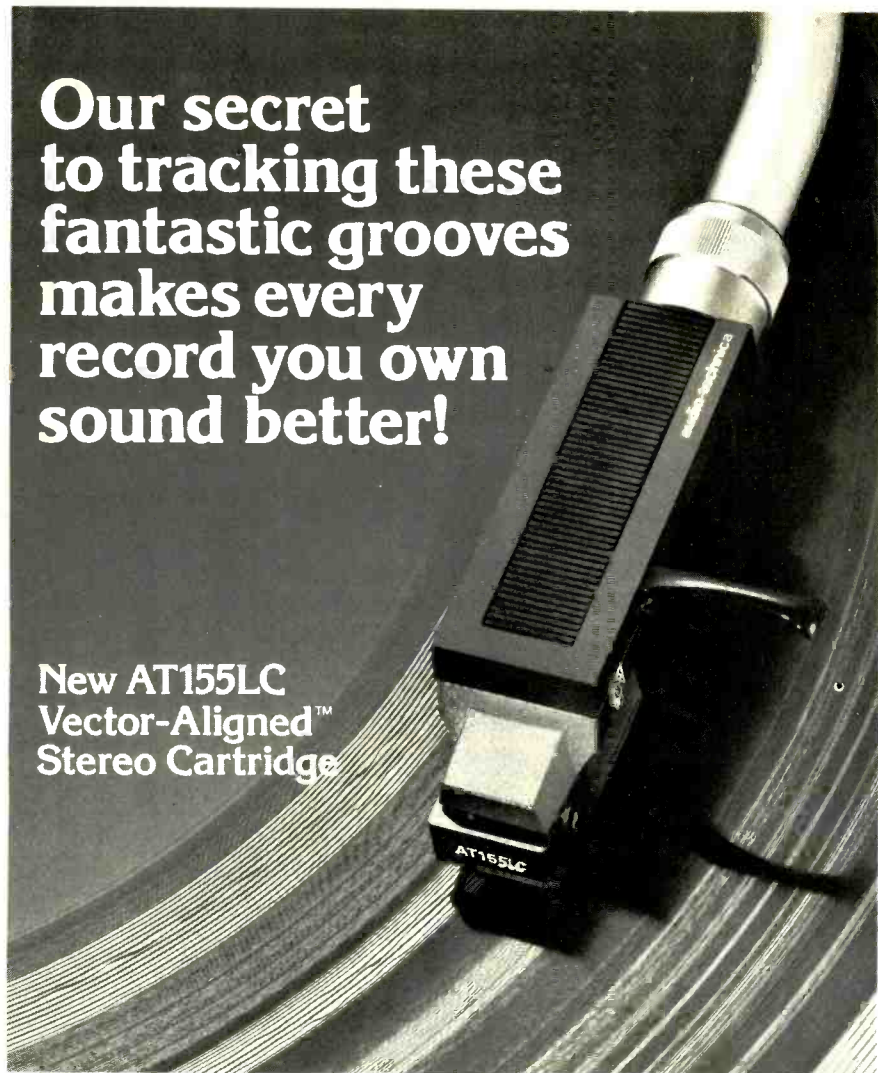
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CIRCLE NO. 29 ON READER SERVICE CARD

**Our secret
to tracking these
fantastic grooves
makes every
record you own
sound better!**

**New AT155LC
Vector-Aligned™
Stereo Cartridge**



Ⓐ There are perhaps a dozen reasons why the new AT155LC does so well tracking even the most explosive new digital records. An advanced new Line Contact stylus, our exclusive Vector-Aligned™ magnetic system, and new high-efficiency coil and core designs to mention just a few.

But it's our *sound*, not the construction that is important. And our capability to track even the tough records which benefits you every time you listen. Because even slight mis-tracking can quickly destroy any record, shortening both disc and stylus life dramatically.

Of course it's easy to claim "good tracking"... everybody says it. *Proving* it is something else. *Well, we guarantee that every new AT155LC will pass an objective test which easily exceeds the limits of most commercial pressings.* Specifically, at 1.2 grams the AT155LC cleanly tracks the 80-micron band of a standard

DIN 45 549 or AT6607 equivalent test record. And at 1.6 grams it even tracks the severe 90-micron band without visible distortion.

Of course tracking is not the only virtue of the new AT155LC. Response is uniform from 5 to 35,000 Hz, separation is great, and efficiency is uncommonly high*. All claims we back up with specific tests any lab can duplicate.

But the most important test is a visit to your Audio-Technica dealer. Ask to hear the new AT155LC with your favorite records and with the new digital blockbusters. We promise a remarkable sonic experience. And audible proof that the new AT155LC can unlock the full potential of every other hifi component you own.

*Performance specifications available on request.

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Dept. 11F.

CIRCLE NO. 4 ON READER SERVICE CARD

graded significantly and relatively inexpensively by adding a pair of Micro-Acoustic MS-1 accessory tweeters. These units, which connect right across the speaker terminals of existing systems, were given a very positive review by Hirsch-Houck Labs way back in the June 1971 STEREO REVIEW. The MS-1 is still being manufactured, but if you can't find it on sale locally, it can be ordered directly from Micro-Acoustics (8 Westchester Plaza, Elmsford, N.Y. 10523) for \$140 a pair, postpaid.

Absolute Phase Polarity

Q I just bought Dave Grusin's "Discovered Again" album and there is an "Audiophile Note" inside that says: "For optimum transient response and spatial clarity, we recommend that the polarity of both channels be reversed at the speaker terminals (+ output terminal on power amplifier to - terminal on speaker and vice versa); however, this procedure is not necessary for perfectly satisfactory playback." I'm sure it's okay to do that if it says so, but why is it better? And wouldn't it be better just to leave the channels reversed? Would that hurt anything? I don't want to damage my \$2,000 system!

KURT SHAFFER
Cleveland, Ohio

A You won't cause any damage by following the album's advice, but I don't think you'll achieve anything either. I suspect that the album's producers are trying for "absolute phase correctness" in response to the discovery that the human ear is sensitive to the absolute (rather than relative) phase of certain special test signals heard with headphones under laboratory conditions.

If "absolute phase" could be brought to your listening room, it would mean that the same positive and negative pressures in the acoustic wave produced during the original live performance would be reproduced by your speakers. In other words, a sound impulse that originally pushed a microphone's diaphragm inward would cause a speaker cone to move outward in reproduction, thus "passing on" the pressure wave. But even assuming that such a situation were especially desirable (I don't), there is no way in the world you could know the original polarity of the waveform since it will be electrically inverted almost every time it goes through an amplifying stage. At best, there's a 50/50 chance that the signal at the output of your amplifier has the same phase as the signal that originally impinged on the recording-studio microphone. Given that situation, it seems nonsensical for a record producer to suggest that you reverse the connections to—and hence the phase of—both speakers as though that would magically achieve correspondence with the phase of the original musical waveform.

Having said all that, I now expect a flood (or at least a couple) of letters from readers telling me that they've inverted the polarity of both their speakers as recommended and everything sounds better, cleaner, more open, and so forth. Or perhaps it will only work if the moon is also in the proper phase. □

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The new Celestion ULTRA Tweeter,™ vibrating at 3kHz in perfect piston motion. Frozen in time by Celestion's unique laser interferometer.



Perfection.

The sight, and more important, the sound of it.

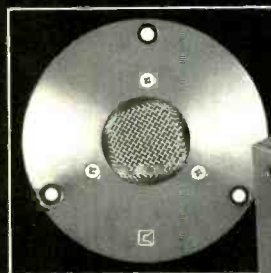
A perfect-piston tweeter, frozen in time. Developed with the help of ULTRA™—our exclusive Ultra-accurate Laser Topographic Response Analysis. Its three-dimensional 36,000-point laser-interferometry scan lets our engineers replace traditional trial-and-error speaker design techniques with the incredible advantage of seeing what changes in critical characteristics and materials will do. And observing them in the actual environment of an operating loudspeaker system.

But as different as ULTRA looks from other measurement techniques, it is only the smallest hint of the differences you will hear in our new ULTRA Tweeter.™

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H. White, Bradenton, Fla.
Audio Recording Engineer/
Consultant

"... A more lively and spacious sound which overcame the acoustical limitations of the room."

M. Conroy
B.C., Canada

"I Would you recommend an 801 to a friend?]Yes and no. Yes, because it is a really amazing thing that such a small piece of equipment can do to a system. The acoustics are a new dimension. No, because I get a little selfish about those people whose super-expensive systems now seem to be outdone by mine. Let'em eat their hearts out!!"

S., Conlon
Ames, Iowa

"... there isn't anything I've heard that improves the sound quality as much as the 801 does. Especially for such an economical cost."

J. Hagen, Milwaukee, WI

"On the basis of subjective experience, I can attest that the Omnisonic product works quite well. It seems to remove virtual sound sources from the plane of the loudspeakers and distribute them at various positions in the listening space, adding a sense of front-to-back dimension at the same time. At times, some sounds appear to come from in back of the listener, which is a startling effect, given that sound is being radiated only from the front. Another effect the device produces is a greatly increased sense of ambience or 'spaciousness.'"

Harold A. Rodgers
Executive Editor
POPULAR ELECTRONICS
July 1980

What better Holiday gift for yourself or your friend(s) than the 801 OMNISONIX IMAGER! Call or write today! (See opposite page.)

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Tape Talk

By Craig Stark

Contributing Editor Stark goes to the source to check out VCRs made by Japan Victor (JVC).



Motors, Belts, Capstans

Q. Is there any real advantage in using more than one motor in a cassette deck—"dual capstans" and "direct" instead of "belt" drive—or is it all hype?

ANTHONY CLARKE
Lewiston, Me.

A. Most top-quality cassette decks employ more than one motor; some use two, a few three, and at least one uses four. My ideal would be five: one each for dual capstans; one each for the reel hubs; and one to handle the tape gate, pinch-roller, and brakes. However, let's get back to reality!

A properly engineered deck with one motor will outperform a poorly engineered deck with two or three. If both decks are well designed, the two-motor unit will handle the tape better, for when a given motor has more than one job the drive system becomes more complicated, and the varying demands of the second job may interfere with the performance of the first. In theory, the motor that turns the capstan driving the tape should not be the same motor that winds up the tape on the take-up reel. The reason is that the "load" of the take-up reel changes with the amount of tape on it, and this can reflect back on the capstan motion.

A dual-capstan drive has a theoretical advantage over a single capstan, for the tape is isolated from disturbances at either reel hub during the critical period when it passes across the tape heads. On the other hand, most dual-capstan drives use capstans of similar diameter, so if they turn at a similar rate any imperfections may reinforce each other, thus partly defeating the advantage that dual capstans offer. Contrary to most people's instinctive impression, most dual capstans use the same motor (belt-driven) for both.

The fact that belts age and slip (and they're never quite perfect anyway) has led to the direct-drive capstan in tape decks just as it did to the direct-drive platter in phono turntables. Direct drive requires that the motor turn very slowly, however, which means complicated electronic "error-correction" circuitry—and the possibility that some of the motor-vibration frequencies

that otherwise would have been damped out by an elastic belt will be transmitted directly to the tape by the motor shaft. And so, once again, good engineering, not the number of motors or the type of drive system, is likely to be the key to good performance.

Makes It Shine

Q. I recently cleaned the heads on a friend's cassette deck using 91 per cent isopropyl alcohol as you have recommended. When I cleaned the see-through plastic window on the cassette well, however, a slight "haze" appeared. A little Windex cleaned the window completely, and I wonder if it wouldn't do a better job on heads and rubber pinch-rollers too?

S. POND
Somerset, N.J.

A. Exactly what goes into Windex is a secret between its maker and his Maker, but according to a recent issue of *Consumer Reports* most window-cleaning fluids are a combination of alcohol, ammonia, water, and detergent. While this is fine for glass, I do not recommend it for application to tape heads and pressure rollers. Alcohol is safe, but some of the other ingredients might attack the rubber (natural or synthetic) of the pinch-roller, and a detergent, most of which are rather "slippery," might impregnate the roller, interfering with its intended function.

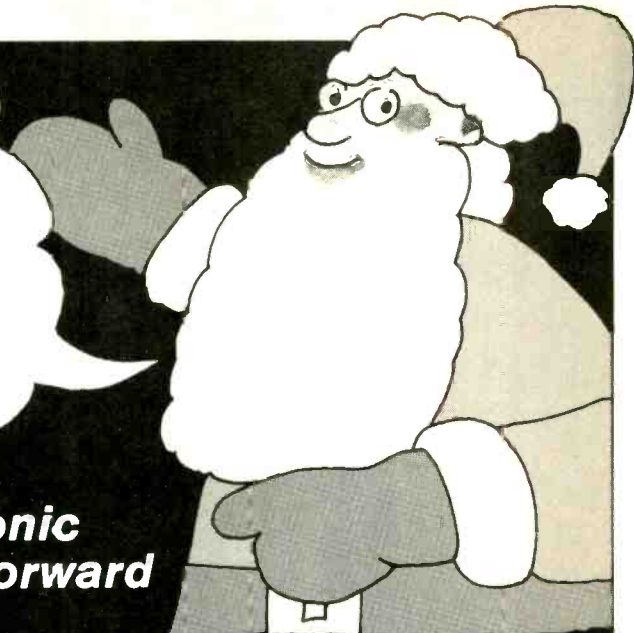
Demagnetizing Dilemma

Q. The owner's manual for my two-head cassette deck gives instructions for cleaning the heads (every 12 hours) but doesn't mention anything about demagnetizing them. When asked, my dealer said these heads don't need it. Is he right?

RICHARD EVANS
Ann Arbor, Mich.

A. Probably, but I wouldn't take a chance on it. A low level of "permanent" (until it is removed) magnetism builds up on playback heads in normal use, and on record heads also if the bias waveform is not
(Continued on page 24)

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OMNISONIC IMAGERY™ IS HERE!

Our innovative state-of-the-art electronics restore the acoustical time-field characteristics and angular sonic positioning of the original recorded signal. The 801 analyzes the input signal and determines relative positions of instruments and vocals on the original source. They are then placed about the listening space creating the physiological sensation of three-dimensional sound – what we call omnisonic imagery™ – using only two speakers!*

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You get a lifetime warranty on the active circuitry and one year on all other components (case and line cord excluded) provided your 801 is used as specified.

Now that you've read all about our 801 Omnisonic Imager™, don't you think it's time to hear one? If we have stimulated your interest in seeking the finest sound reproduction in the purest sense, please ask your dealer for a live demonstration. If you have any questions, or need to know the name of the dealer nearest you, call or write to:

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NEW DIMENSIONS IN STEREO AND MONO!

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From mono, the 801 creates omnisonic dimensional sound.™ You can input an AM or TV source (from the earphone jack on your set) via the 801 and into your stereo system. The result is a "live" sound with depth and clarity, as well as separation. Television sound is vastly improved with the 801!

RETROFITS TO MOST STEREO SYSTEMS!

Any system with an internal tape loop can connect to the 801. Component systems can insert the 801 between pre-amp, other accessories, and the amplifier. There's a built-in tape monitor button on the 801, so you don't lose your existing tape monitor facility. The 801 works on any stereo or mono source – FM, tapes, records, AM, TV. You can record selections via the 801 and replay them on conventional home-use stereo equipment.



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With The
801-A Auto Unit
Coming Soon!**

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If the sound image from your loudspeaker leaves you flat, consider this:

Dahlquist DQ-10 Phased Array™ loudspeakers reclaim the missing third dimension — DEPTH. They give music back its substance and form and let you explore its inner spaces. Subtlety, power, contrast, shading — perhaps even emotion and intent — stand revealed. So nothing stands between you and the music.

It's all made possible by our patented Phased Array™ principle: a system of mounting and aligning each driver to minimize diffraction and eliminate time delay distortion. The result is a five-way system that blends into a single coherent and musically accurate sound source.

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CIRCLE NO. 11 ON READER SERVICE CARD

perfectly pure or if the bias is turned on and off too suddenly. The level of bias current used in an erase head is high enough that it "demagnetizes" (degausses) that head in normal use. Similarly, in a deck that uses the same head for both recording and playback, the bias level *may* be sufficient to "self-degauss" the head, assuming that turn-on and turn-off are gradual (they are in some decks) and that there is no d.c. leakage or even-order harmonic distortion in the bias waveform. I'm an extra-cautious kind of guy, however, so on general principles I'd suggest that you degauss the heads when you clean them.

VU vs. Peak Indicators

Q. *What are the relative advantages of "VU" meters vs. the "peak-reading" indicators used in so many recent cassette machines?*

PAUL SARKOVSKY
San Diego, Calif.

A. A peak-reading meter registers the instantaneous maximum input signals during recording, whereas a VU meter ignores brief signal peaks or transients and indicates a kind of average value. Genuine VU meters have tightly specified ballistic characteristics—that is, the speed with which the needle responds and the amount of allowable "overshoot" or "undershoot." Because of their cost, few consumer decks incorporate genuine VU meters.

Since distortion is a function of the *maximum* recorded level and not of its average, a peak-reading meter has an inherent advantage, particularly with cassette decks that don't have a generous margin ("head-room") between 0 dB and the onset of serious distortion. On the other hand, professionals are used to the standardized VU indicators and (should) know exactly how to interpret the meter wiggles.

Muted Praise

Q. *What is the point of the "record mute" feature now found on almost all cassette decks? If you hold it down long enough to edit out FM commercials, doesn't that mean you'll have very long silent spaces between recorded selections?*

SIDNEY GREENBERG
Passaic, N.J.

A. A number of decks today have micro-processor "memories" that allow you to play the selections recorded on one side of a cassette in a different sequence than that in which they were recorded. These multiple-memory features normally operate by detecting blank spaces (usually two or three seconds long, at a minimum) between musical selections, and a record-mute button is useful in inserting the required "zero signal" pauses. When dubbing a disc, it can also be helpful in preventing a recorded "click" as the phono stylus sets down.

I agree with you that it is silly to record a long, permanent silent space you'll have to listen through each time you play the tape just to eliminate commercials or voice announcements. Better a fast finger on the pause button!



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INTRODUCING THE DBX RECORDING TECHNOLOGY SERIES MODEL 224.

THE BEST PERFORMANCE YOU CAN BUY FOR UNDER \$50,000.

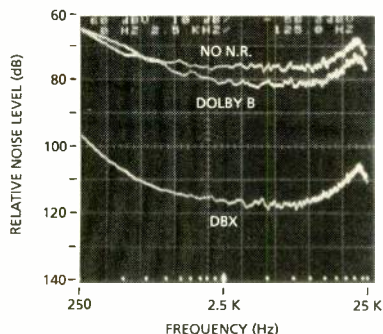
Digital recording means two things. No noise, and a full dynamic range of 90dB.

But until now, only recording engineers have been able to enjoy that incredible sound using studio recording systems costing \$50,000 or more.

Now, however, there's the new dbx Recording Technology Series Model 224, the state-of-the-art in home recording. It hooks right into your present tape system. And it lets you do almost everything you could do with a digital system, but for a whole lot less.

THE QUIETEST SOUND ON TAPE.

As for noise reduction, nothing on the market comes close to the Model 224.



Dolby reduces noise by only 10dB at best, and only in the high frequency range. dbx virtually eliminates tape hiss, reducing it by more than 30dB across the entire frequency range. (Unretouched laboratory photograph. Data from "The Importance of Dynamic Range," Audio Magazine, January, 1980. For a copy of the article, write dbx.)

The Dolby[®]** system you've been putting up with certainly doesn't. It only reduces tape noise by 10dB at the most, and only in the high frequency range.

Compare that with the dbx Model 224, which reduces tape noise by more than 30dB across the whole frequency range. It virtually eliminates tape noise, without adding any audible distortion or changing the tonal character of the sound.



The result is a difference you can easily hear. In fact, you'll be able to record quiet music passages that would be lost in tape noise with any other system.

Conventional tape recorders limit dynamic range. With the dbx Model 224, you can get the dynamic range approaching that of a live performance.

DYNAMIC RANGE APPROACHING DIGITAL.

The Model 224 also gives you something else you've never heard before from a tape recorder: full dynamic range.

Dynamic range is the difference in volume between the loudest and quietest passages in a piece of music. It's just as important to the realism of music reproduction as flat frequency response, or accurate spatial perspective.

And although live performances – and digital master tapes – go up to 90dB of dynamic range, even the best home recordings have been limited to only about 50dB. So no matter how good your recorder is, you've been missing at least one third of your music's dynamic range.

Well, the Model 224 gives you the capability to record an unprecedented 85dB on open reel and 80dB on cassette.

So for the first time, you can make live recordings that capture virtually all the dynamic range of the original music.

In addition, the Model 224 is the only system that lets you tape fine audiophile records without losing any of their dynamic range.

And you can use the extra head room provided by the 224 to dramatically extend frequency response and minimize distortion during recording.

As if all that weren't enough, you can use the 224 to play dbx Discs, the Full Dynamic Range Recordings that deliver up to 90dB of music dynamics with negligible surface noise. Because the 224 includes the decoding system that makes your present stereo compatible with these phenomenal new discs.

HEAR IT TODAY.

The sound of digital recording really is here. Dynamic range approaching a live performance. Music heard against a background of virtual silence. And a purity of sound that's never been possible before in home tape recording.

Visit your authorized dbx retailer today for a demonstration of the dbx Model 224.

We think you'll agree with us. For \$299, you'd be crazy to pass it up. dbx, Incorporated, 71 Chapel Street, Newton, MA 02195.

*Manufacturer's U.S. suggested retail price; actual price set by dealers.

**Dolby is a registered trademark of Dolby Laboratories Inc.

dbx[®]

MAKING GOOD SOUND BETTER

CIRCLE NO. 12 ON READER SERVICE CARD

Understanding Audio

By Robert
Greene



OF CONES AND COILS AND CARTRIDGES

ONCE upon a time I “reinvented” the acoustic phonograph. As many other children have undoubtedly done, I found that records could be played (after a fashion) with a straight pin stuck through the small end of a cone made of stiff typing paper (the pin was, of course, then held in the groove of a spinning record). This experiment may or may not have been the start of my interest in audio, but it did serve to illustrate how the phonograph works—and how marvelously simple it actually is. Despite a hundred-odd years of evolution, including electrification and many mechanical refinements, the basic principle of the phonograph remains unchanged. The phono cartridge, however, though it still performs essentially the same function as my pin-and-paper-cone toy, remains something of a mystery to many of those who use it.

Cartridges, like loudspeakers, are *transducers*, devices that convert one kind of energy into another. A speaker converts electrical energy into mechanical motion; a cartridge does just the reverse, converting the undulating motion of a stylus through a record groove into minute amounts of electricity, which are then fed to the first stage of a preamplifier, integrated amplifier, or receiver—the point where the amplification (or *gain*) is greatest. In old-fashioned *piezoelectric* cartridges, a type now relegated to only the most inexpensive phonographs, there are crystal or ceramic elements attached to the stylus that produce a voltage when they are twisted or strained by its motion. In the *strain-gauge* type, now uncommon, the conversion from stylus motion to electrical energy involves modifying a d.c. signal fed to the cartridge. In the *electret* type, small capacitive elements (called “electrets”) are stressed by the stylus motion. Other than these special cases, phono cartridges today are generally *magnetic*—electrically speaking they can be considered tiny *generators*.

A generator produces current when a conductive coil and a magnet are moved relative to one another (see December “Audio Basics”), and that’s exactly what happens in a magnetic phono cartridge. There are three basic types: *moving-magnet*, *moving-iron*, and *moving-coil*. All use variations in

the strength of a magnetic field impinging on a coil of wire to generate the output voltage. Moving-magnet designs have a tiny magnet mounted on the cartridge shaft, or *cantilever*, at the other end of which is mounted the diamond stylus tip. As the stylus is moved by the record groove, its vibrations are transmitted by the cantilever to the magnet, which in turn moves between a fixed set of coils. This motion induces a voltage in the coils that is an electrical analog of the audio signal impressed in the grooves.

A variation of the moving-magnet system is the *moving-iron* (or *variable-reluctance*) cartridge type. Here the magnet(s) is (are) more powerful and fixed to the cartridge body; what the stylus moves is a piece of iron alloy (a magnetic material, but *not* a magnet), and that motion varies the distribution of magnetic flux among the coils, which are also fixed. An advantage of both these designs is that they almost always permit having a user-replaceable stylus assembly. Such cartridges also have a relatively

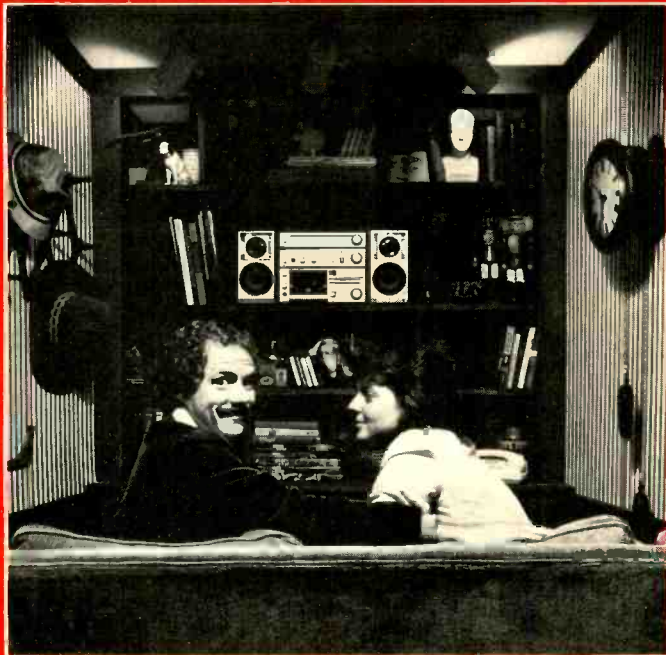
high output level—generally on the order of 2.5 to 5 millivolts (thousandths of a volt)—enough to feed into a standard high-gain magnetic phono input without any preliminary amplification.

In contrast to units employing fixed coils, there is a somewhat smaller group of designs in which the coils move relative to fixed magnets. These *moving-coil* cartridges are generally more expensive than the other types, but many audiophiles are willing to pay the price because they believe they sound better. In such cartridges, ultra-miniature coils of wire are attached to the stylus cantilever so that the stylus motion changes their position within the field of the cartridge’s magnet(s). To keep the effective mass of the stylus assembly as low as possible, these coils must have fewer turns of wire than fixed coils do, and in consequence only a very low output voltage is generated. This usually necessitates using a transformer or *pre-preamplifier* (*head amplifier*) between the cartridge output and the normal phono input in order to boost that low voltage to a usable level. A few moving-coil cartridges have outputs that can feed a standard phono input directly, but even these tend to be rather lower in output level than moving-magnet or moving-iron types. Furthermore, only a few moving-coil cartridges have stylus assemblies that can be replaced by the user; the entire cartridge must usually be returned to the factory (or the importing company) for this.

If you’re wondering whether these various “standard” (analog) cartridge types can play the digitally recorded discs now being released, the answer is yes. These discs differ from previous LPs only in the way the original recordings were made (a digital rather than a conventional analog tape recorder is used); the records themselves are playable on any modern phonograph (although, of course, they will produce better results with superior equipment). And despite the industry’s move into the “Digital Decade,” you can rest assured that discs playable on current equipment will be available for many years to come. □



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

defeat switches and more.

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

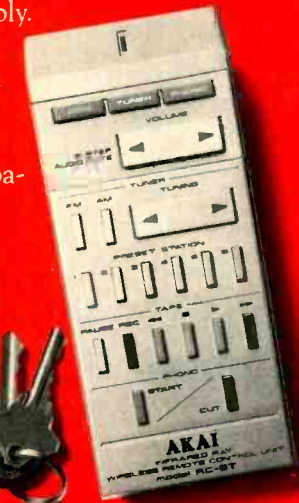
Next up, a DC power amp including fluorescent power meters, clipping indicator, subsonic filter and pulsed power supply.

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 10⁷/₈" wide. Incredible.

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

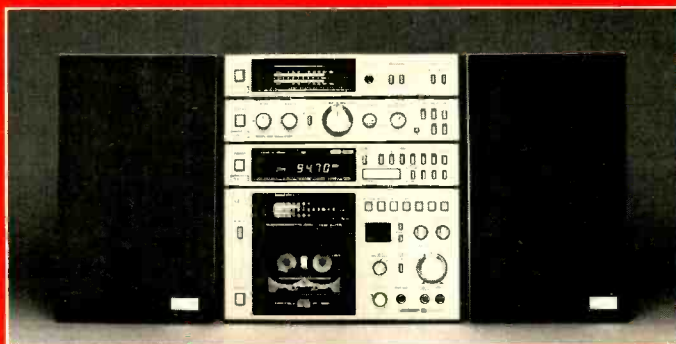


Our optional infrared remote control unit allows operation from across the room.

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.

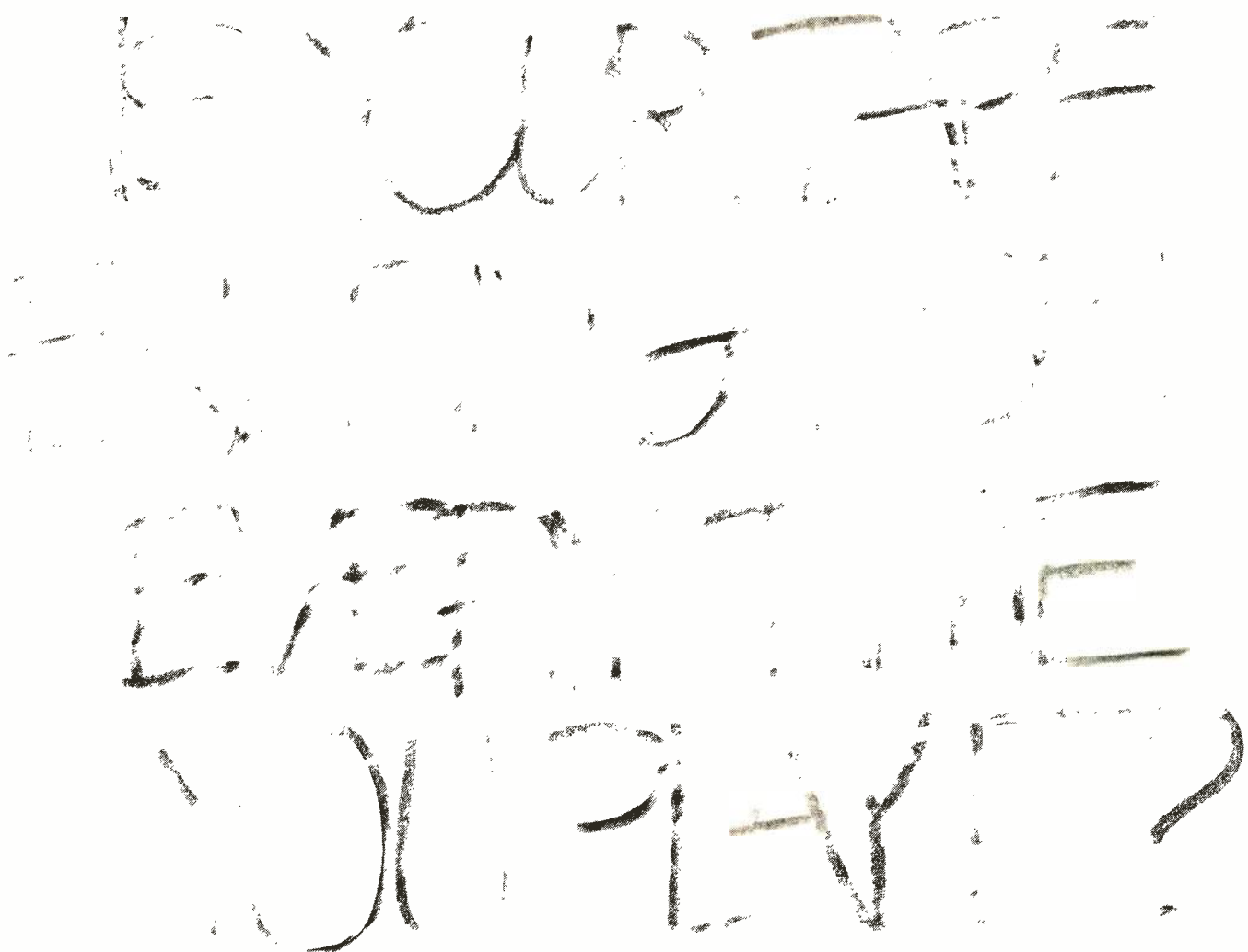
Write to AKAI, P.O. Box 6010, Compton, CA 90224.



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

A K A I

YOU NEVER HEARD IT SO GOOD



If lately your favorite recordings sound like they're gradually unrecording, it could be the tape they're on.

You see the oxide particles on some tapes just aren't bound on very well. And when the oxide particles come off, your music could come off sounding faded and weak.

Maxell, however, has developed a unique binding process that helps stop those oxide particles from taking a hike. We also polish our tape to a mirror finish to reduce friction, the major cause of oxide shedding.

So with Maxell, even if you play a tape over and over, the music won't disappear before your very ears.



IT'S WORTH IT.

Maxell Corporation of America, 60 Oxford Drive, Menasha, N.J. 07074
CIRCLE NO. 27 ON READER SERVICE CARD

Technical Talk

By Julian D. Hirsch



• The Critic Criticized •

MANY years ago, I discovered that there is no place in this world for a thin-skinned critic. Any public or printed comment, whether on a product or on an aesthetic experience, makes one a target for those who hold different views, and that is as it should be (just so long as "personalities" are not injected into the exchange).

Sometimes the negative comments directed at me resemble the practice, so widespread in politics and advertising, of setting up a "straw man" which is then demolished to "prove" a point. And, all too often, the "dialogue" takes the form of two independent, unrelated monologues in which neither party pays any real attention to the statements made by the other but merely resorts to repetition of accusations on the order of "When did you stop beating your wife?"

I was not surprised to be on the receiving end of some flak following the publication of the report on the Carver M-400 amplifier in the October 1980 issue of *STEREO REVIEW*. In fact, I would have been disappointed if it had not materialized. One impassioned letter from a design engineer deserves to be answered in these pages, since it illustrates so nicely what I have been saying and also raises some technical points that deserve clarification and/or reiteration.

For example, my engineer correspondent questions my description of the Carver amplifier as "uniquely simple and efficient." My opinion was based on the amplifier's obviously low component density, which was reflected in its low price. Almost any competent engineer can make a very good am-

plifier using dozens of output transistors, elaborate protective circuits, and huge power supplies (although not all amplifiers meeting that description are necessarily either good or foolproof). But it is not so easy to make a very good tiny, light, inexpensive unit; hence my use of the adjective "simple" to describe something which is actually quite complex in some of its operating principles. Anything that small and cheap *has* to be simple, at least in respect to parts usage; if it were not, it could not be sold for a comparatively low price.

"Efficient" can mean almost anything one wishes it to, depending on the context of the statement. In engineering terms, it refers to the ratio of the output to the input power of a device or system. It would seem self-evident that a 200-watt-per-channel amplifier that weighs 9 pounds and runs cold under any reasonable operating conditions in a home system must be "efficient." My correspondent refers to the "enormous amount of heat" generated by the amplifier, but this happens *only* under the very artificial test condition requiring both channels to operate with large sine-wave input signals. Such heating is unlikely with music-program signals even played at high levels.

Also, he challenges my use of the term "unique," since there are several other amplifiers on the market with signal-controlled power supplies. However, comparing them in size, weight, and cost with the Carver M-400 will reveal the basic differences among them, so I will stand by my use of the adjective "unique."

Next, my correspondent chooses to ignore my clear statement in the "Technical Talk" description of the M-400 that the large primary line currents drawn during high-power operation are largely in quadrature phase with the line voltage and therefore do not imply an unduly large power consumption from the line under such conditions. He suggests that an ability to blow 15-ampere fuses so readily is not consistent with a high-efficiency amplifier. Surely he knows better!

AFTER analyzing my test-bench results, I described the Carver amplifier as having the ability to "drive almost any load impedance without damage to itself and without significant waveform distortion." My correspondent asks, "Is it within *STEREO REVIEW*'s boundaries to determine which waveform distortions are significant? And, if so, are these judgments applied evenhandedly to all products reviewed?"

These are crucial questions, it seems to me. Yes, it certainly is within *my* province as a critic and reviewer (and, through extension, within *STEREO REVIEW*'s province as my publisher) to determine which factors, of any nature, are significant and which are not. That is the ultimate purpose of all my test reports. My views are not capricious, and even those who do not agree with me usually concede me the right to hold them! This is especially important since there are absolutely *no* established standards or other criteria that tell us how much of what kind of distortion is "accept-

Tested This Month

Shure M97HE Phono Cartridge • Advent Model 5002 Speaker System
J. C. Penney Model 3125 AM/FM Stereo Receiver • Teac X-3 Open-reel Tape Deck
Omnisonix Model 801 Omnisonic Imager

able." There *are* measurement standards, and I have been involved in helping to formulate them for more than twenty years as a member of IEEE (IRE) and IHF technical committees. The writer of the letter (who has evidently been reading me for years) must know that I do not play favorites. I apply essentially the same criteria to evaluating products from every manufacturer, adjusting as best I can to the constant flow of new designs and features.

I do admit to inexactness of language at one point: by "any load impedance" I obviously did not mean to encompass an *infinite* range of complex impedances. I meant any load likely to be encountered from loudspeakers used in the home. My tests involve loads from 2 ohms to none at all (open circuit), with and without capacitance loads of 3 microfarads, over the full audio-frequency range and at all power levels up to rated maximum and beyond. This may not be "any" load, but it is surely a lot of them! I do *not* evaluate professional or laboratory amplifiers that may have to handle unusual non-musical signals or that will be driving loads other than loudspeakers.

By "significant distortion" I mean distortion that is likely to be heard by a careful listener, with high-quality associated equipment, playing musical material. Of course, there are different (and vehemently expressed) views as to what constitutes "significance." Luckily, no one is *compelled* to select a high-fidelity component solely on the basis of my views (or anyone else's). It is usually possible to listen for one's self—a policy I heartily endorse. Still, I would be remiss if I did *not* offer my considered views on the significance and performance of the products I review. The alternative would be a mere parroting of the manufacturer's claims, and I am not much good as an advertising copywriter.

Finally, I plead guilty to the sin of ambiguity in the wording of one passage of the report, a lapse I particularly regret since it apparently triggered a paranoid response. I described the harmonic distortion of the Carver M-400 as reaching a maximum of 0.067 per cent at 15,000 Hz but failed to state the distortion at 20,000 Hz. My letter writer felt that I was trying to conceal some damaging fact by not giving the distortion

at 20,000 Hz, especially in view of the fact that the M-400 is already slightly out of spec at 15,000 Hz. Actually, what I wrote was the literal truth: *maximum* distortion was measured at 15,000 Hz. Unfortunately, I neglected to spell out the fact that it went *down* slightly at higher frequencies. Sorry about that!

NORMALLY I would not devote so much space to a postscript on any report about a specific product, but I make an exception in this case because (1) the product in question *is*, in my estimation, unique and represents a genuine advance in audio technology, and (2) I feel very strongly that my role as a reviewer and critic goes far beyond a mere recital of dry specifications. If my reports—and the other material in this magazine—are to have special value, it must derive from placing "new" developments promptly in proper relation to the rest of the industry and trying, while doing so, to preserve as much objective reason and common sense as possible in a field whose purpose, when all is said and done, is totally subjective in its nature. □

Equipment Test Reports

By Hirsch-Houck Laboratories



Shure M97HE Phono Cartridge

Photos by Roy Schneider

by plugging in an appropriate new stylus.)

The hyperelliptical stylus contacts the groove wall over a larger area than the usual elliptical tip, minimizing both record and stylus wear. It also has a very small radius for tracking the high-frequency groove modulation and is claimed to result in lower distortion, especially at the higher frequencies, than either elliptical or spherical stylus tips.

The dynamic stabilizer resembles a small hinged brush that rides on the record just ahead of the stylus. Its pivots are viscous-damped, however, which dramatically smooths out the low-frequency arm-and-cartridge resonance and improves the tracking of warped records. The brush is formed of some 10,000 extremely fine carbon fibers that actually fit within the grooves and drain off electrostatic charges that accumulate on the record surface during play. (The electrically conductive fibers are connected to the system ground through the cartridge connections.)

The stabilizer absorbs a force of 0.5 gram, and the vertical tracking force must be increased by that amount to compensate for its presence. The stabilizer can be locked in its "up" position if its use is not desired, and when swung fully down it serves as a stylus guard. The M97HE stylus also has a telescoped cantilever, formed of aluminum-tubing segments of different diameters, to provide high stiffness and low mass; this improves tracking at high frequencies. Price: \$112.50.

(Continued on page 32)

THE Shure M97 series of phono cartridges brings some of the unique features of the company's top-ranking V15 Type IV to the low and middle price ranges. The five M97 models share a common body, and their replaceable stylus assemblies include an integral hinged "dynamic stabilizer" that gives them an exceptional ability to track warped records (this was one of the major innovations of the V15 Type IV). The styli of the M97 cartridges also feature Side-Guard, a safety feature that Shure originally introduced in their professional-series cartridges. The Side-Guard design causes the stylus shank and tip to withdraw into the plastic stylus housing if the pickup is scrubbed laterally across a record. Care-

less handling that could damage most cartridges is unlikely to harm the stylus assembly of an M97.

The Shure M97 series includes a pair of spherical- and elliptical-tip models that track at forces between 1.5 and 3 grams and another pair fitted with nude-mounted styli that track between 0.75 and 1.5 grams. Heading the line is the M97HE, featuring the "hyperelliptical" stylus shape that is used on the V15 Type IV and a few other Shure cartridges. It is rated to track at forces between 0.75 and 1.5 grams. There is also an accessory elliptical-tip stylus for playing 78-rpm records; it can be plugged into any M97 body. (Any of the lower-price M97 cartridges can be upgraded later



Technics New Class A receivers give you so much because they give you so little. 0.00% switching distortion. 0.00% FM drift.

Technics SA-616 and SA-818 (shown). Two uncommon receivers because of the two things they have in common: Technics synchro-bias circuitry and quartz-synthesized tuning. Together they give you that special something you've come to expect from Technics: sonic excellence.

Synchro-bias. What it does may seem complicated, but it sounds simply beautiful. With conventional amplifier designs, the output transistors constantly switch on and off as the input waveform goes from positive to negative. Technics synchro-bias eliminates switching distortion because it constantly sends minute amounts of current to the transistor not in use. And since the transistors don't switch on or off, distortion is eliminated.

So is FM drift because both receivers include our quartz-synthesized tuning system. With its quartz-crystal oscillator

both the frequencies broadcast and those received are quartz-synthesized so tuner drift is completely eliminated. So is the hassle of tuning because both models can be preset to receive eight AM and eight FM stations.

MODEL	SUGGESTED PRICE*	RMS POWER PER CHANNEL (RATED BANDWIDTH)	RATED THD MAX.
SA-616	\$680	80 watts, 20 Hz - 20 kHz	0.005%
SA-818	\$850	110 watts, 20 Hz - 20 kHz	0.005%

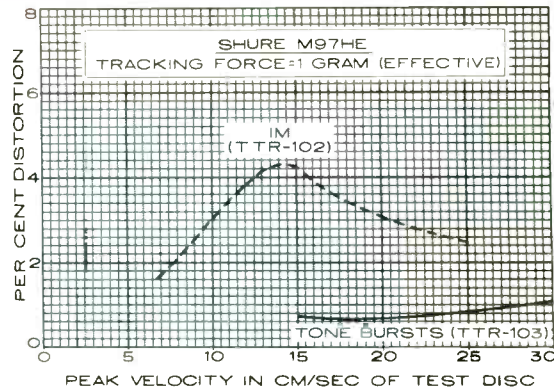
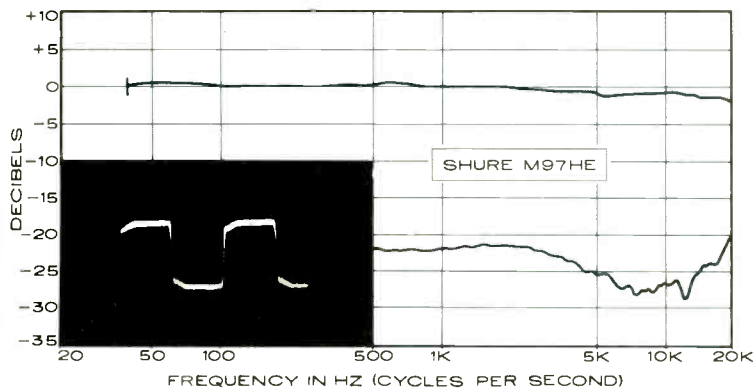
*Technics recommended prices, but actual prices will be set by dealers.

You'll also like Technics acoustic control because its high and low range boost and filter switches can attenuate or boost two different frequency ranges.

Technics New Class A receivers. They give you more of what you want and less of what you don't. Cabinetry is simulated wood grain.

Technics
The science of sound

CIRCLE NO. 46 ON READER SERVICE CARD



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

ities provide a severe test of a phono cartridge's performance. The intermodulation-distortion (IM) readings for any given cartridge can vary widely, depending on the particular IM test record used. The actual distortion figure measured is not as important as the maximum recorded-signal groove velocity 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 recorded groove velocities are much higher than about 15 centimeters per second.

● **Laboratory Measurements.** We tested the Shure M97HE in a tone arm having the relatively low mass of 11 grams. The recommended cartridge load is 47,000 ohms in parallel with 200 to 300 picofarads (pF). Frequency-response measurements with several values of load capacitance showed little difference between 250 and 340 pF, but a 475-pF load (which would have been ideal for older Shure cartridges such as the V15 Type III) resulted in excessive loss of output above 10,000 Hz. We used 340 pF for our other tests.

The response to a CBS STR 100 test record was smooth and peak-free, with a slight drop in output at the 20,000-Hz limit. From

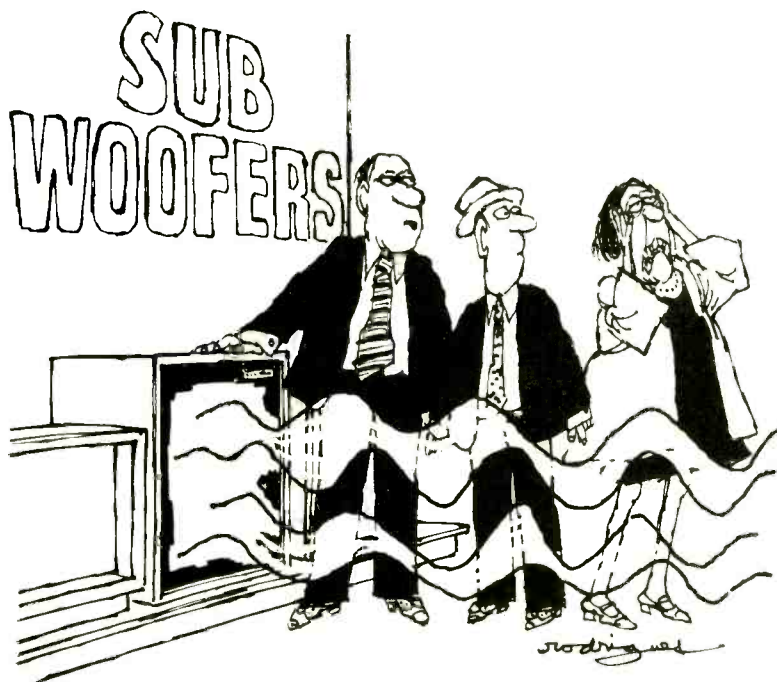
40 to 20,000 Hz, the response was within ± 1 dB on one channel and ± 2 dB on the other. The 1,000-Hz square wave of the CBS STR 112 record was reproduced with no overshoot or ringing, a slightly rounded upper leading edge, and a flat top—about as good a square wave as one is likely to obtain from a phono cartridge. The channel outputs were approximately 4 millivolts at a 3.54-cm/sec velocity, with a relatively large unbalance of 1.4 dB (though still within the 2-dB rating).

The channel separation was well matched between channels. It was about 20 dB at middle frequencies and 25 dB or more between 10,000 and 15,000 Hz. The verti-

cal angle of the stylus was a relatively high 26 degrees. Our tracking measurements indicated that the M97HE could play high-level test records very well at 1 gram, including the 70-micrometer level of the German Hi Fi Institute test record (a total downward force of 1.5 grams was used to compensate for the force of the stabilizer brush). Tracking-distortion measurements were made with Shure's "Audio Obstacle Course" records. At 1 gram, the cartridge tracked almost everything on the ERA III record (there was a slight rattle on the maximum level of the drum section). It was less successful with the ERA IV record, where we heard the "hardness" that signals the imminence of mistracking on the maximum levels of most bands and a definite mistracking on level 5 of the harp and harp/flute sections. However, when we increased the force to the rated maximum of 1.5 grams, the M97HE was able to play everything on both records without audible mistracking. Since the hyperelliptical stylus exerts less pressure on each unit of area of the groove wall than an elliptical stylus at the same force, we strongly recommend using 1.5 grams with this cartridge (because of the stabilizer, the tone arm's downward force should be set at 2 grams).

We also measured the low-frequency arm/cartridge resonance of the M97HE in the 11-gram arm, with and without the stabilizer in use. The results dramatically demonstrated the value of this deceptively simple device. When the stabilizer was raised from the record, there was a "double-humped" resonance centered at about 10 Hz, with each peak having a 3-dB amplitude and with the total effect of the two spanning the frequency range from 5 to 20 Hz. With the stabilizer lowered there was a single resonance at 10 Hz with a barely measurable amplitude of about 1 dB. Its effect was also limited to the range below 15 Hz. For all practical purposes, the stabilizer eliminates the effects of the low-frequency arm resonance, producing a flat bass re-

(Continued on page 36)



"... I see what you mean, sir. Have you considered divorce?"

We've Made Our Match

Enhance the performance of your system with the addition of a full performance & feature-packed cassette deck from NIKKO AUDIO, each designed in our recognized tradition of the highest quality performance at a reasonable price.

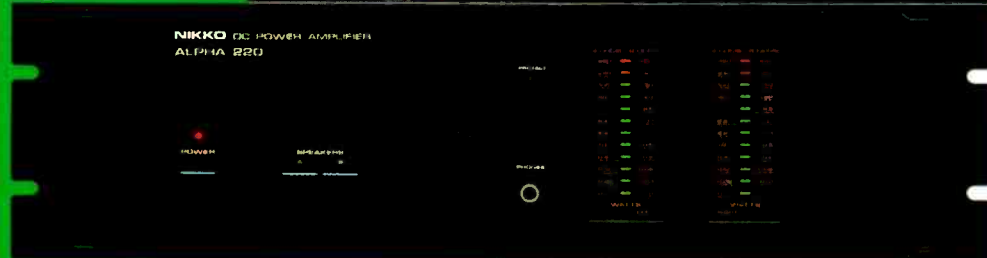
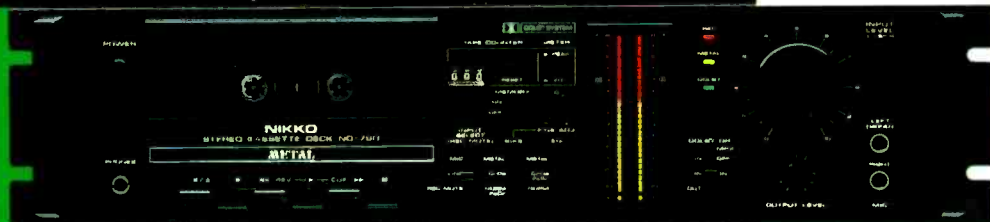
The inexpensive ND-590II offers metal capability and many features not usually found in its price range, plus a choice of matte black or silver front panel. The ND-790 matches metal capability with bias fine tuning for optimum performance with any tape formulation, Sendust hyperbolic record/playback head and an improved 4-section erase head (rather than a conventional 2-section) for optimum performance with metal tape, switchable peak/VU LED readout, plus optional rack mount handles (shown).

The ND-990 matches this with complete IC logic illuminated soft-touch solenoid controls, optional remote capability, two-motor direct drive transport, optional rack mount handles (shown), plus many more features—in matte black or silver.

Step up to NIKKO AUDIO quality without stepping up in price.

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Available in Canada.



NIKKO AUDIO

CIRCLE NO. 32 ON READER SERVICE CARD

The Sansui Super Feedforward System: The End of Distortion Disputes.

Super FF

For years, arguments over the causes, and even the significance, of distortion have been raging among engineers and audiophiles the world over: Is the low distortion class-A amp the only practical alternative to the class-B amp even though it is costly and woefully inefficient? Are the new crop of "non-switching" quasi-class-A amps the answer to the class struggle between A and B? Is TIM a legitimate, audible threat to musical accuracy and is this distortion as harmful as har-

monic distortion? Do high-speed devices really take care of switching distortion? And on and on.

At Sansui, with one bold engineering move, we've simply made all of these arguments academic. We've virtually eliminated all distortions. Not just TIM or switching distortion (the goals of many so-called "breakthrough" designs from other companies.) The method we have used is the Sansui Super Feedforward System. And the results are truly uncanny.

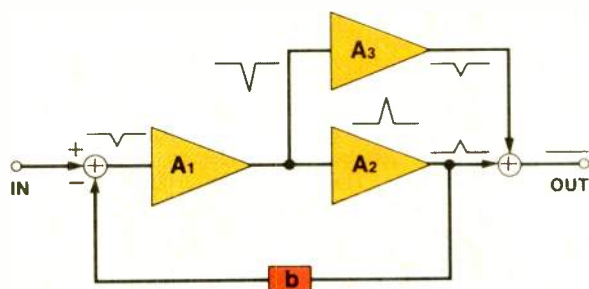
Sansui's revolutionary Super Feedforward System virtually eliminates all types of distortion.

The Sansui Super Feedforward System has eradicated all types of distortion. Gone are harmonic, intermodulation, crossover, switching, TIM (Transient Intermodulation) and envelope distortions. With them are gone other, unknown and not yet quantifiable types of distortion (TIM at one time was considered to be of this type). Switching and crossover distortion generated by the in-out switching operation of the power transistors is suppressed the moment it is generated. TIM distortion is not produced since the Super Feedforward System responds faithfully to the never-repeating, rapidly changing waveforms of real music. And the Super Feedforward System totally eliminates distortion at *all* frequencies, not just selected frequencies as a negative feedback circuit does. It suffers no instability or oscillation. But most importantly, it eliminates all distortion of both a static and transient nature.

Super Feedforward System: How does it work?

The feedforward circuit theory is not new. In fact it predates the negative feedback circuit that is found in nearly all audio amplifiers on the market today including direct-coupled and "non-switching" types. But feedforward had never been practically applied to an audio amplifier until now.

Fig. 1 Sansui Super Feedforward System



Sansui's Super Feedforward System is actually a hybrid of both negative feedback and feedforward, as conceptualized in Fig. 1. Distortion, generated by power amp stage A_2 , is returned to the input through the NFB loop (b) and added, out of phase, to amp stage A_1 . The out-of-phase distortion is

amplified by A_1 and added to A_2 . This effectively cancels most distortion. This is where the feedforward circuit comes into play. Like the NFB circuit, the feedforward circuit also uses out-of-phase distortion as an error-correction signal, but it bypasses power amp stage A_2 and sends the distortion component to error correction amp A_3 from which it is routed to the *output* of A_2 to cancel any distortion that may have been generated in A_2 and any distortion overlooked by the NFB loop.

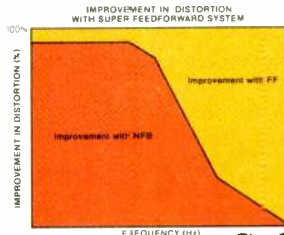
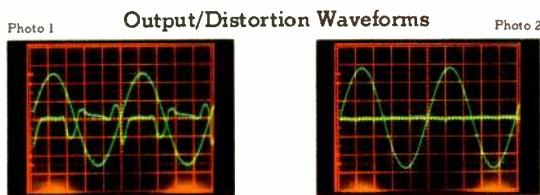


Fig. 2

The concept is simple but effectiveness is 100%, as Fig. 2 shows. In fact, the Super Feedforward System is so effective that it even eliminates artificially-injected distortion completely (Photo 2).



Even artificially-injected distortion (center trace in Photo 1) is eliminated; no distortion appears at output (Photo 2).

The AU-D11 and AU-D9 – the most perfect amps around

When presented at the Audio Engineering Society Conventions in Los Angeles and London, the logic of Sansui's Super Feedforward System was quickly perceived by the engineers in attendance.

And now the theory has become reality. In the AU-D11 and AU-D9, Sansui has added the Super Feedforward System to Sansui's highly acclaimed DD/DC design to create amplifiers that are virtually free of any kinds of distortion. Stated simply, whether you're a firm believer in the advantages of "non-switching" over "high-speed" amp technology, or vice-versa, you get all the advantages of both, with Sansui's new Super Feedforward System. You just can't go wrong.

Sansui continues to be the industry pacesetter in advanced technology. The name to remember is Sansui and the amps to hear are the AU-D11 and the AU-D9.



SANSUI ELECTRIC CO., LTD. 14-1 Izumi 2-chrome, Suginami-ku Tokyo 168, Japan
 SANSUI ELECTRONICS CORP. 1250 Valley Brook Avenue, Lyndhurst, N.J. 07071

sponse as well as effortless tracking of even severely warped records.

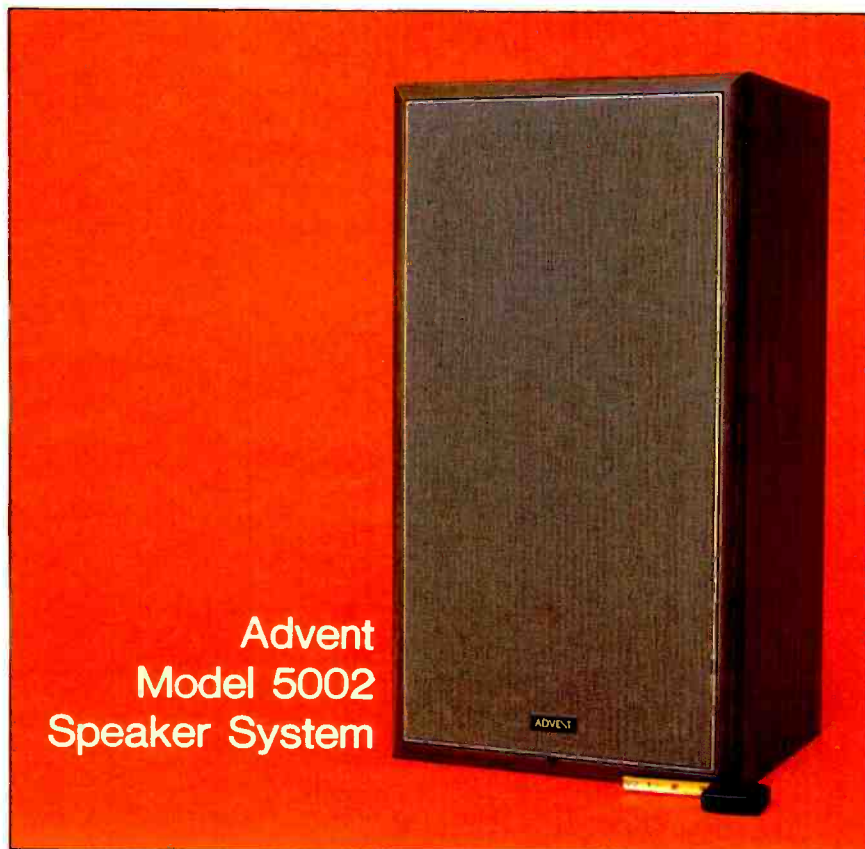
● **Comment.** The Shure M97-series cartridges make it possible to enjoy the most important advantages of the V15 Type IV at a fraction of its price. Although we did not test the lower-price M97 models, we would expect them to offer performance very similar to that of the M97HE, at least

in respect to their ability to track record warps and in their general frequency-response characteristics.

The M97HE, by any standard one might wish to apply, is a very fine cartridge. It cannot be faulted in respect to flatness of frequency response, frequency coverage, tracking ability, or low distortion, whether judged by measurement or listening. Probably the major difference between it and the

V15 Type IV is the required tracking force; the Type IV will track higher levels at 0.75 gram than the M97HE will at 1.5 grams. We doubt that most people would be able to hear any difference between them; the price difference, however, is large enough to permit the M97HE to appeal to a much wider group of audiophiles.

Circle 140 on reader service card



Advent
Model 5002
Speaker System

ADVENT CORPORATION's new series of loudspeakers consists of four models headed by the Advent 5002. Like the company's previous models, they are all two-way acoustic-suspension systems featuring newly designed tweeters that have improved high-frequency response and dispersion.

The woofer of the 5002 resembles the one used in Advent's earlier speakers. The nominally 10-inch-diameter paper cone (which has an actual radiating diameter of just under 8 inches) is driven by a 1½-inch voice coil whose nominal impedance is 8 ohms. The woofer operates in a sealed cabinet made of walnut-grain vinyl-clad particle board; the smoothly rounded front edges give it the appearance of a wood-veneered cabinet. The speaker can be mounted either horizontally or vertically, against a wall or on the floor. Advent encourages experimentation to find the sonically best location.

The Advent "Direct Report" tweeter is a totally new design with a 1-inch parabolic-dome radiator surrounded by a specially tapered and shaped "phase plate" that is

largely responsible for its exceptional dispersion qualities. (Even the mounting screws are recessed to minimize unwanted diffraction that could affect the polar pattern of the tweeter.) The crossover between the tweeter and the woofer takes place at 1,800 Hz, with a three-pole, high-pass filter section that attenuates the signal to the tweeter at an 18-dB-per-octave rate below that frequency. According to Advent, the output of the tweeter is reduced by 21 dB at 900 Hz compared to the level in its flat-response region. This crossover design allows each driver to operate with full effectiveness in its frequency range with a minimum of distortion or risk of damage.

A novel feature of the Advent 5002 is a toggle switch recessed into the rear of the cabinet near the input connectors and protective-fuse holder. In the switch's NORMAL position the speaker response is nominally "flat." Moving the switch to BACKGROUND reduces the output in the two-octave range centered at 2,000 Hz. Advent states that this response characteristic allows back-

ground music to be played with less sonic masking of conversation.

The sensitivity of the Advent 5002 is typical of acoustic-suspension systems of its size, with a rated sound-pressure level of 87 dB measured at a 1-meter distance when driven by 1 watt. The cabinet is 26 inches high, 14¼ inches wide, and 11½ inches deep, and the speaker weighs about 40 pounds. The neutral cloth grille (which has a molded plastic frame) unsnaps readily for access to the drivers. Price: \$200.

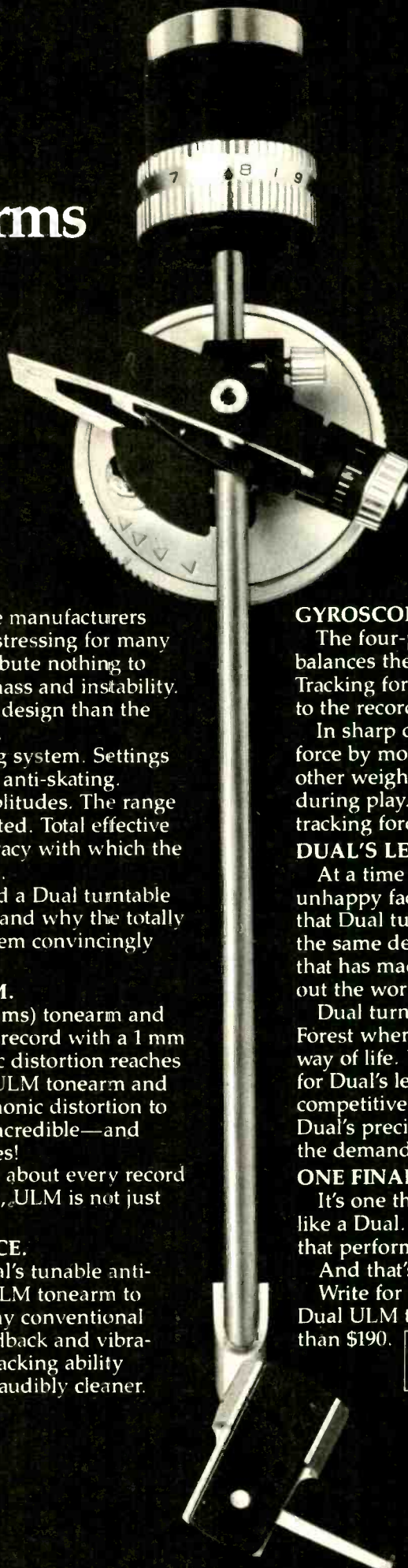
● **Laboratory Measurements.** The composite frequency-response curve, derived from splicing a reverberant-field mid- and high-frequency response measurement to a close-miked low-frequency measurement, showed a flat, smooth response over most of the audio range, with a small but distinct dip centered at 1,800 Hz (the crossover frequency). The BACKGROUND position of the switch in the rear of the speaker accentuated this dip by about 2 dB; in either switch position the affected frequency range was from 1,000 to 4,000 Hz. The woofer output was greatest at 60 Hz. Overall, the composite response of the speaker was ± 4 dB from 35 to beyond 20,000 Hz.

The dispersion of the Advent Direct Report tweeter was virtually perfect over the normal listening area, and there was no measurable difference between the response measured from the left speaker (on the microphone axis) and the right speaker (about 30 degrees off-axis) up to about 16,000 Hz. Only a slight divergence could be seen from 16,000 to 20,000 Hz. We cannot recall ever having measured a front-radiating dome tweeter whose dispersion equaled that of the new Advent design.

The woofer distortion, at a nominal 1-watt input level, was unusually low. It measured between 0.32 and 0.58 per cent from 100 down to 50 Hz and only 2.2 per cent at 40 Hz. Increasing the drive level to 10 watts resulted in 1.4 per cent distortion down to 80 Hz, 2 per cent at 50 Hz, and 6.3 per cent at 40 Hz. The speaker impedance reached about 25 ohms at the bass resonance of 46 Hz and 20 ohms at 1,250 Hz. Its minimum value was about 5 ohms between 100 and 150 Hz, and it was about 8 ohms at most frequencies above 2,000 Hz. In the BACKGROUND mode, the impedance was somewhat higher—between 70 and 10,000 Hz. The speaker sensitivity was slightly higher than rated, and we measured a sound-pressure level of 89 dB at 1 meter with a 1-watt input of random noise in the octave centered at 1,000 Hz.

(Continued on page 38)

Now that other tonearms are finally going straight...



It's evident that other turntable manufacturers are learning what we've been stressing for many years. Curved tonearms contribute nothing to record playback except more mass and instability.

But there's more to tonearm design than the shape of the tube. Much more.

There's the pivot and bearing system. Settings for balance, tracking force and anti-skating. Resonant frequencies and amplitudes. The range of cartridges to be accommodated. Total effective mass. All these affect the accuracy with which the stylus tracks the record groove.

Anyone who has ever owned a Dual turntable knows exactly what we mean, and why the totally engineered Dual tonearm system convincingly outperforms all others.

ULTRA LOW MASS SYSTEM.

When a conventional (18 grams) tonearm and cartridge combination tracks a record with a 1 mm warp (barely visible), harmonic distortion reaches 1.5 percent. Dual's exclusive ULM tonearm and cartridge system reduces harmonic distortion to only 0.012 percent. That's an incredible—and audible—reduction of 958 times!

When you consider that just about every record manufactured today is warped, ULM is not just desirable—it's essential.

TUNABLE ANTI-RESONANCE.

Another Dual exclusive. Dual's tunable anti-resonance filter matches the ULM tonearm to the mass and compliance of any conventional 1/2-inch cartridge. Acoustic feedback and vibration sensitivity are reduced, tracking ability improved... and the sound is audibly cleaner.

GYROSCOPIC GIMBAL SUSPENSION.

The four-point gyroscopic gimbal centers and balances the tonearm exactly where it pivots. Tracking force remains constant and perpendicular to the record even if the turntable is not level.

In sharp contrast, tonearms that apply tracking force by moving the counterbalance—or some other weight—forward are actually unbalanced during play. Under typical playback conditions, tracking force cannot be precisely maintained.

DUAL'S LEGENDARY RELIABILITY.

At a time when "planned obsolescence" is an unhappy fact of life, it may be reassuring to know that Dual turntables continue to be produced with the same dedication and manufacturing precision that has made Dual so highly respected throughout the world.

Dual turntables are made in the legendary Black Forest where meticulous craftsmanship remains a way of life. But more than tradition is responsible for Dual's leading position in a lineup of some fifty competitive brands. The performance provided by Dual's precision engineering has always exceeded the demands of either the record or cartridge.

ONE FINAL THOUGHT.

It's one thing to make a tonearm that's shaped like a Dual. But that's a long way from a tonearm that performs like a Dual.

And that's telling it as straight as we can.

Write for our brochure describing all nine Dual ULM turntables. Prices start at less than \$190.



United Audio
120 So. Columbus Ave.
Mt. Vernon, NY 10553

● **Comment.** Our listening tests were conducted with the Advent 5002 speakers in two different locations: against the wall with their bases about 30 inches above the floor (vertical orientation) and also about 2 feet from the wall, raised 7 inches above the floor on stands. The sonic differences between the two placements were minor (the measurements were made in the second position, but a set of curves made with wall placement proved to be identical).

The sound of the Advent 5002 was audibly smooth and very well balanced. The low-bass output of the 5002 was powerful when the program called for it, but readers should be aware that on much program material there will be little audible bass difference between this speaker and some other systems that were measurably inferior to it

in that range. If there is no really low bass in the program, the advantage of the Advent over some less competent speaker will not be heard. However, when there is strong low bass available, the 5002 delivers it cleanly and in full measure.

The measured midrange dip was not distinctly audible as such (it amounted to only a few decibels, no more than could be contributed by the listening-room configuration or other external variables). In fact, the effect of the NORMAL/BACKGROUND switch was also difficult to discern on most program material, and therefore we did not attempt to judge the subjective interaction of music and conversation for each of the switch positions.

In its price range, the Advent 5002 faces considerable competition (some of it was on

hand for comparison during our tests). While it would be difficult to say that it definitely outclasses its competitors, or vice versa, it undoubtedly ranks with the best of them. The 5002 is a handsome speaker with substantially better deep-bass response and lower bass distortion than most other speakers at its price or, indeed, than many speakers selling for considerably more. This is combined with an extended and smooth high-frequency response, plus the best dispersion we have measured and heard so far from a direct-radiator tweeter. It must have been difficult for Advent to improve their excellent earlier speaker designs significantly without a substantial cost increase, but they appear to have done the job.

Circle 141 on reader service card



J. C. Penney Model 3125 AM/FM Stereo Receiver

Two years ago (January 1979) we reported on the new J. C. Penney stereo receiver that marked the company's entrance into the marketing of true high-fidelity components. The Penney audio line, called the MCS ("Modular Component Systems") series, is now headed by a more powerful receiver, the Model 3125. It closely resembles the earlier 3275 in styling and size. The most obvious specification improvement in the 3125 is its audio power rating: 125 watts per channel into 8 ohms from 20 to 20,000 Hz with no more than 0.05 per cent total harmonic distortion (the 3275 was rated at 75 watts with 0.25 per cent distortion). The integral five-band graphic equalizer, in lieu of tone controls, has been retained (with separate knobs for the two channels, making ten in all). The center frequencies of the equalizer sections are 60, 240, 1,000, 4,000, and 16,000 Hz. Each control has a nominal range of ± 15 dB. Compared to the older model, the number of LEDs that show the equalizer settings has been doubled, so that each de-

tented control setting has a corresponding and unambiguous light indication. Defeat buttons bypass the equalizer circuits.

Most of the other control functions of the Penney 3125 are conventional, except that LEDs are used for all the indications once handled by meters (including audio power output). The FM-tuning indicator of the 3125 is unusual and effective. In the upper right corner of the front panel, next to the dial scale, there is a compact array of pale white indicators. Two horizontal parallel lines are marked TUNE and SIG. As a station frequency is approached, a double arrow appears above the TUNE line, indicating the direction in which the dial pointer should be moved for correct tuning. As the channel center is approached, the display changes to a single arrow, and at the center the arrows disappear (they reappear in the reverse sequence, pointing in the opposite direction, if the tuning continues through the channel center). When they are extinguished, the large tuning knob is released and a moment later a bright red LOCKED light appears near

the tuning knob. This shows that the receiver's AFC system has accurately tuned it to the received frequency. The AFC is automatically disabled when the tuning knob is touched for ease in acquiring a weak signal close in frequency to a stronger one that might tend to "pull" the AFC circuits. To the left of the dial scales is a large digital frequency readout that operates only during FM reception.

Simultaneously with the tuning action, lighted bar segments appear below the SIG line, progressively extending from left to right in proportion to signal strength. If the received signal contains a stereo pilot carrier, a small "ST" appears to the right of the TUNE line. When tuning AM stations, only the SIG indicator is functional. At the lower center of the panel are two parallel rows of red LEDs that show the approximate power output into 8-ohm loads over a range of more than 50 dB from 5 milliwatts to more than 125 watts.

The FUNCTION (input) selector has set-
(Continued on page 40)

"...an outstanding product on any absolute scale of measurement without regard to price." -STEREO REVIEW



Read more of what Stereo Review magazine had to say about the Yamaha CR-840 receiver:

"The harmonic distortion of the CR-840 was so low that without the most advanced test instruments it would have been impossible to measure it."

When speaking of the OTS (Optimum Tuning System), an easy-to-use Yamaha feature that automatically locks in the exact center of the tuned channel—for the lowest possible distortion, Stereo Review said, "The muting and OTS systems operated flawlessly."

Among Yamaha's most significant features is the continuously variable loudness control. By using this control, the frequency balance and volume are adjusted simultaneously to compensate for the ear's insensitivity to high and low frequency sound at low volume settings. Thus, you can retain a natural-sounding balance regardless of listening level. As Stereo Review states, "...another uncommon Yamaha feature."

And there's more. Like the REC OUT/INPUT SELECT feature. These separate controls allow you to record from one program source while listening to another program source. All without disturbing the recording process. Stereo Review's comment was, "...the tape-recording functions of the CR-840 are virtually independent of its receiving functions." One could not ask for greater flexibility.

In summing up their reaction to the CR-840, Stereo Review said, "Suffice it to say that they [Yamaha] make it possible for a

moderate-price receiver to provide performance that would have been unimaginable only a short time ago."

And the CR-840 is only one example in Yamaha's fine line of receivers. For instance, High Fidelity magazine's comment about the Yamaha CR-640 receiver: "From what we've seen, the Yamaha CR-640 is unique in its price range."

And Audio magazine has remarks on the Yamaha CR-2040 receiver: "Without a doubt, the Yamaha CR-2040 is the most intelligently engineered receiver that the company has yet produced, and that's no small feat, since Yamaha products have, over the last few years, shown a degree of sophistication, human engineering, and audio engineering expertise which has set them apart from run-of-the-mill receivers."

Now that you've listened to what the three leading audio magazines had to say about Yamaha receivers, why not listen for yourself? Your Yamaha Audio Specialty Dealer is listed in the Yellow Pages.

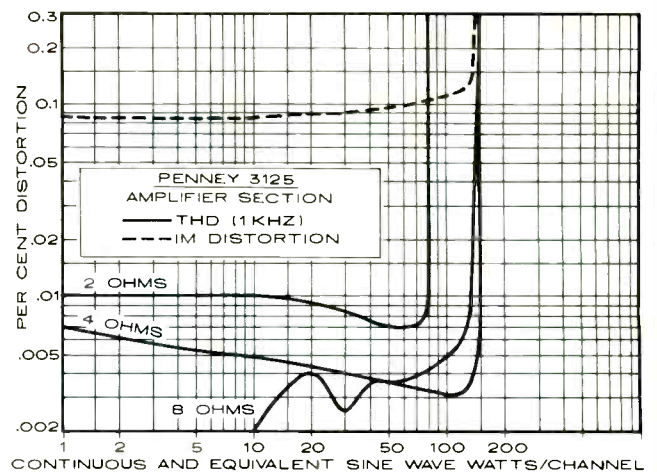
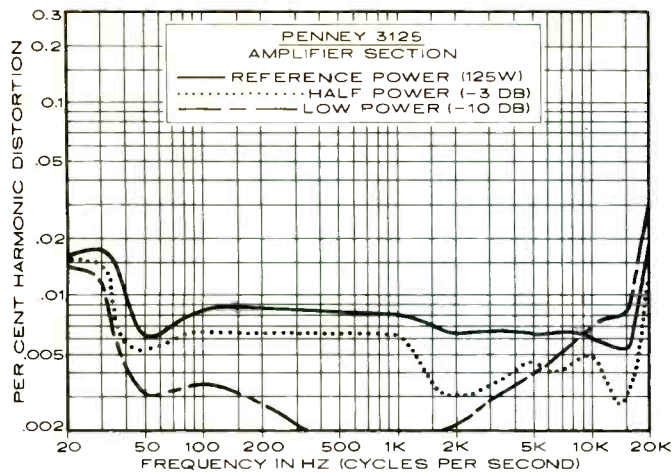


To obtain the complete test report on each of these receivers, write: Yamaha International Corp., Audio Division, P.O. Box 6600, Buena Park, CA 90622.

Quotes excerpted from June 1979 issues of Stereo Review, High Fidelity and Audio magazines. All rights reserved.



CIRCLE NO. 51 ON READER SERVICE CARD



tings for FM, AM, two PHONO inputs, AUX, and REC LEVEL CHECK (this replaces the audio program with a 400-Hz tone whose level is equivalent to 50 per cent FM modulation and is used to set tape-recorder gain in advance of recording FM broadcasts). The Penney 3125 has switchable FM-multiplex filtering, FM muting, and loudness compensation, plus facilities for controlling two tape decks, including monitoring from either one or cross-connecting two for dubbing from either machine to the other. Either or both of two pairs of speakers can be driven, and the front-panel headphone jack is always active. There is also a front-panel microphone jack (mono) with a separate gain control that operates independently of the main volume control.

A display panel to the right of the graphic equalizer readout contains a vertical row of ten LEDs. They show the selected program source and which speaker outputs are being driven. If the output load impedance is too low (or is short-circuited), the outputs are cut off by a relay and a PROTECTOR light comes on. The remaining light is labeled CLIPPING, and it flashes when the output stages are driven to the clipping point. This light operates in conjunction with a front-panel switch marked IMPEDANCE and is associated with the adjacent speaker selector. It is marked for 8 and 4 ohms, but the instruction manual makes no mention of its function. It does not seem to affect the amplifier operation, but merely changes the sensitivity of the CLIPPING light to suit either 8- or 4-ohm loads.

The rear panel of the Penney 3125 contains, in addition to all the regular signal and antenna connectors, a hinged ferrite-rod AM antenna and separate PRE OUT and MAIN IN jacks, normally joined by removable jumpers. A second set of input and output jacks marked DOLBY NR ADAPTER operates in conjunction with a front-panel DOLBY NR pushbutton, which can insert an external Dolby-B decoder into the signal path for reception of Dolbyized FM transmissions. The instruction book does not indicate whether this action simultaneously changes the 75-microsecond FM de-emphasis to the 25 microseconds required with the Dolby system. Two of the three a.c. convenience outlets are switched.

The Penney 3125 measures 19¾ inches

wide, 17⅞ inches deep, and 8⅛ inches high and weighs 55 pounds. Price: \$899.95.

● **Laboratory Measurements.** Preconditioning the receiver's power amplifiers by operating them for an hour at one-third of rated power followed by 5 minutes at full power left the top and sides of the cabinet around the amplifier section quite warm, but the rest of the receiver was comfortable to the touch. The clipping power output into 8 ohms at 1,000 Hz was 145 watts per channel. Into 4- and 2-ohm loads, the clipping power was 159 and 80 watts, respectively. The CLIPPING indicator light gave valid indications with either 4- or 8-ohm loads if the front-panel IMPEDANCE switch was set appropriately. The measured IHF clipping headroom (8 ohms) was 0.6 dB.

Using the standard IHF tone-burst test signal, we measured the maximum dynamic power output of the receiver into 8-, 4-, and 2-ohm loads as 184, 151, and 79 watts. The IHF dynamic headroom (8 ohms) was 1.68 dB. The overload recovery time was too short to measure (less than 2 microseconds). The amplifier's slew factor was greater than our measurement limit of 25, and its rise time was about 10 microseconds. Paralleling a 3-microfarad capacitor across a 4-ohm resistive load produced moderate ringing on a 10,000-Hz square wave but no signs of instability.

For a reference output of 1 watt, the AUX input was 14 millivolts at maximum gain, and the A-weighted noise level was 85 dB below 1 watt with IHF-standard gain settings. The PHONO sensitivity was 0.2 millivolt with a noise level of -83.7 dB. The microphone input sensitivity was 0.4 millivolt, and its noise level was -83.2 dB. The minimum phono-overload input level between 20 and 20,000 Hz was 209 millivolts (at 20,000 Hz, converted to the equivalent 1,000-Hz level). The microphone input overloaded at a very high 275 millivolts. The measured phono-input impedance was 50,000 ohms in parallel with a capacitance of 175 picofarads.

The graphic equalizer had the indicated effect on the frequency response, and in spite of having considerable interaction between adjacent controls it was able to create a nearly infinite—and generally useful and effective—variety of response curves. The

RIAA phono equalization was within ± 0.5 dB of the ideal response from 30 to 20,000 Hz and was boosted by no more than 1 dB between 5,000 and 20,000 Hz when measured through the inductance of a typical phono cartridge. The microphone frequency response was down 3 dB at 130 and 3,500 Hz and fell at a 6-dB-per-octave rate beyond those limits.

One major change in the specifications of the Model 3125, compared with the earlier Model 3275, is its much lower audio distortion. The improvement was dramatically confirmed by our measurements. At 1,000 Hz the distortion was less than 0.002 per cent below 10 watts output, reaching 0.01 per cent at about 135 watts into 8 ohms. The 4-ohm distortion was slightly higher, falling from 0.007 to 0.003 per cent as the output rose from 1 to 100 watts and reaching 0.01 per cent at 150 watts. Even a 2-ohm load, for which the amplifier is not rated, yielded distortion readings of 0.01 per cent up to 10 watts, falling to 0.007 per cent just before clipping occurred at 80 watts. The intermodulation distortion was less than 0.1 per cent at almost all power outputs up to the rated 125 watts.

At the rated power level into 8-ohm loads the distortion of the amplifier was typically between 0.006 and 0.01 per cent from 40 to nearly 20,000 Hz. It reached a maximum of 0.016 per cent at 20 and 20,000 Hz. At reduced power outputs the distortion was even lower. The IHF IM distortion was measured with equal-amplitude input signals—at 19,000 and 20,000 Hz—whose equivalent sine-wave peak output was 125 watts. Referred to that power level, the third-order distortion at 18,000 Hz was -66 dB (0.05 per cent) and the second-order component at 1,000 Hz was -88 dB (0.004 per cent).

The FM-tuner section had a usable sensitivity of 11 dBf (2 microvolts, or μV) in mono and 17 dBf (4 μV) in stereo. The respective 50-dB quieting sensitivities for mono and stereo were 14 dBf (2.7 μV) and 38 dBf (43 μV). At 65 dBf (1,000 μV) input the distortion was 0.6 per cent in mono and 0.2 per cent in stereo, and the respective noise levels were -72 and -67.5 dB. The stereo frequency response was essentially flat up to nearly 7,000 Hz and rose at higher frequencies to +1 dB at 10,000 Hz and

(Continued on page 42)

The new FISHER



The micro processor controlled turntable that automatically selects and plays the tracks you want to hear.

Push the wireless remote control button and select track 1, track 3, track 6 or any other. The micro processor automatically moves the arm to play the selected track. You can repeat the same track, select another or play the entire record over again all by wireless remote control. And there's an LED readout to indicate the track being played.



Since you can select the music you want to record, making tapes from



your record collection becomes easier and more convenient than ever before.

The MT6360 Linear Drive turntable is not only great for really enjoying the music you like, but it's a sophisticated audio component with some extraordinary design features.

Fisher's exclusive Linear Drive. With Linear Drive, the only moving part is the platter itself. So, there's virtually nothing to go wrong. And, no inherent turntable noise. (For you audiophiles, wow and flutter is just 0.035% and rumble is a low -70dB).

There's a lot more. There's a servo circuit that continuously monitors and locks in record speed.

Plus a strobe light and fine speed control so you can monitor the accuracy of speed and alter pitch.

The MT6360 has a viscous-damped "floating" tonearm with a specially designed integral stereo magnetic cartridge. And there's even a muting circuit to eliminate that annoying "pop" you hear when the tonearm touches down.

It's what you'd expect from the new Fisher. We invented high fidelity over 40 years ago. And never stopped innovating. So check out the new MT6360 at your Fisher dealer. One demonstration of the automatic track selector will change, forever, the way you listen to records.

Fisher Corporation, 21314 Lassen Street, Chatsworth, CA 91311

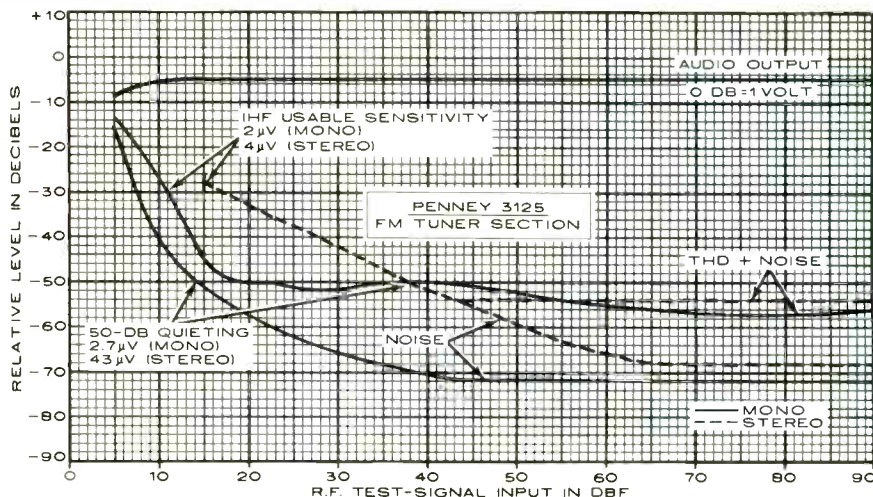
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 **FISHER**
The first name in high fidelity.®

+1.6 dB at 15,000 Hz. The channel separation was very uniform at 34 dB throughout most of the audible range, and it was 9 dB at the extremes of 30 and 15,000 Hz.

The capture ratio of the FM tuner was 1.4 dB, and its AM rejection was a rather low 47 dB at 45 dBf (100 μ V) input. Increasing the input-signal level made a considerable improvement in AM rejection, which measured a very good 67 dB at 65 dBf. The selectivity characteristics of the tuner were very good, particularly its 97-dB image rejection. The alternate- and adjacent-channel selectivities were 73.5 and 5.5 dB, respectively. The various operating thresholds of the FM tuner (muting, LOCK, and stereo switching) were all about 13.5 dBf (2.5 μ V). The 19-kHz pilot carrier leakage was -66 dB. The IHF IM distortion of the tuner was measured with a modulating signal of two equal-amplitude tones—at 1,000 and 15,000 Hz—whose combined peak corresponded to 100 per cent FM modulation. The third-order IM products at 13,000 and 16,000 Hz were at -45 dB relative to the modulating tones, and the second-order distortion at 1,000 Hz was -47 dB referred to 100 per cent modulation at that frequency. The only measurement made on the AM tuner section was of its frequency response, which was extremely restricted. The response was down 6 dB at 1,700 Hz.

● **Comment.** When we compared the results of our test of the new Penney 3125 with those from the earlier 3275, it was apparent that most of our earlier criticisms no longer apply. The Penney 3125 has an absolutely first-rate audio section, very powerful and with extremely low distortion, yet thoroughly protected (we shorted the outputs



accidentally and the protective system shut the amplifier off with no damage).

The FM tuning system is very unambiguous and easy to use. Unfortunately, however, one must be directly in front of the receiver and on a level with the panel to see the tuning indications, which are deeply recessed behind the front panel. The LOCK (or AFC) system worked very well, always tuning the receiver accurately for minimum distortion. The digital frequency readout on our test sample had a systematic calibration error, reading 0.1 MHz lower than the station frequency.

The AM quality was so bad that we cannot understand the rationale for its inclusion. This is the first AM section of a high-fidelity receiver we have used whose bandwidth was so narrow that intelligibility of

human voices was very seriously impaired.

In spite of these criticisms, some of which are probably due to the fact that the unit tested was a very early production unit, we continue to be favorably impressed with Penney's approach to hi-fi component design. The styling is still very different from that of most of the products one might find in a typical audio showroom, but perhaps it will have greater appeal to a mass market that associates technological sophistication with a plethora of lights and controls (the front-panel displays employ a total of 153 LEDs by our count!). Nevertheless, it is important to realize that this is a *real* "hi-fi" receiver whose performance is light years beyond that of mass-market "stereos."

Circle 142 on reader service card



Omnisonix Model 801 Omnisonic Imager

THE Model 801 Omnisonic Imager is a signal-processing accessory that expands the apparent width of the stereo stage beyond the limits normally determined by the spacing of the speakers. Though it is claimed that the device achieves much the same effect as the Carver Sonic Hologram and the Sound Concepts Image Restorer, it

functions somewhat differently from those two devices. Unlike the others, the Model 801 does not employ time delay to permit canceling the sound reaching each ear from the opposite speaker, thus increasing the apparent image width. It operates only on the difference (L - R) component of the stereo program, cross-feeding some of the

signal from each channel, after a phase reversal, to the other channel.

The Omnisonic Imager is meant to be connected into the tape-monitor loop of an amplifier, and its only controls are a bypass pushbutton (cryptically labeled "HBX" with no further explanation) and a tape-

(Continued on page 44)

High technology takes a low profile.



Feast your eyes on our new Slimline™ separates. We took our high technology and gave it a sleek, low profile. This is high performance with a well developed sense of style.

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The KA-80 integrated DC amplifier features our unique Hi-Speed™ circuitry, which allows the amplifier to react faster to the musical input signal. The result is super-clean sound reproduction with superior depth, definition and stereo imaging. And an incredible frequency response of DC-450,000 Hz (-3dB).

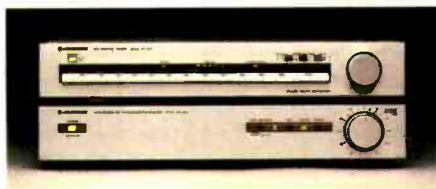
But don't let its slim profile fool you. The KA-80 has plenty of power. 48 watts per channel minimum RMS, both channels driven, at 8 ohms from 20 Hz to

20,000 Hz with less than 0.02% total harmonic distortion.

Look behind its stylish tilt-down front panel and you'll find an array of sophisticated controls including a DC coupled/tone switch that provides either laboratory-flat response or subsonic filtering with complete bass and treble control.

PULSE COUNT DETECTOR

Its matched companion is the KT-80 FM Stereo Tuner, which uses Kenwood's exclusive Pulse Count Detector circuitry to digitally reproduce a linear FM signal



that is virtually identical to the original broadcast signal. The KT-80 also reduces FM distortion by half, and at the same time, improves signal-to-noise ratio by 6 to 12dB.

To tune the KT-80, you use its five LED tuning indicators to determine signal strength. Then Kenwood's servo-lock takes over to tune precisely to mid-channel and eliminate signal drift.

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monitor button that replaces the one on the amplifier. In its rear are the input and output phono jacks as well as a pair of tape inputs and outputs. A red LED on the front panel of the Model 801 glows when the HBX button is engaged, although it does not control the power to the unit (which draws only 6 watts and has no power switch). The 801 Omnisonic Imager is 10 inches wide, 6 inches deep, and 4¼ inches high, and it weighs about 2 pounds. The black metal case has wooden side panels. Price: \$199.

● **Laboratory Measurements.** Measurements on a signal-processing device such as the Model 801 Omnisonic Imager are rarely able to reveal much about how well it works, since that is usually a totally subjective matter, but they sometimes show what operating principles are employed. Since those principles are not described in the manufacturer's literature, we used our instruments for that purpose.

The test data supplied for the sample unit concerned only frequency response, distortion, and noise levels, none of which had much relation to what one hears from the unit. Frequency response is specified only for the "mono," or L + R, condition in which the Imager does little or nothing to the program. However, when the two channels are not driven by the same signal, things are very different.

Our measurements showed that, in its bypassed condition, the 801 is a unity-gain device with a flat frequency response. When it is switched on (with only one channel driven) the gain increases by 6.5 dB at mid and high frequencies, and there is a shelved boost below 1,000 Hz that gives an additional 2 dB of gain at frequencies below 300 Hz (thus boosting them by 8.5 dB relative to the bypassed condition).

The signal output of the undriven channel (whose input was loaded with 1,000

ohms for this measurement) was basically at the level of the input signal for frequencies above 1,000 Hz, but the response showed a shelved boost at lower frequencies amounting to 4.5 dB at 100 Hz and below. Even more significant, the signal in the undriven channel output is out of phase with the input signal, whereas the driven channel does not invert the phase.

The maximum output level of the 801, for purposes of noise level and distortion ratings, is specified as 8.5 volts. This seems, at first, to be unreasonably high for a device meant to be driven from a tape output at a typical amplitude of a volt or less, but the 801's gain and bass boost might make the output reach several volts under "worst-case" conditions. At any rate, the distortion was entirely negligible at any audio frequency and at any level up to about 6 volts output. Depending on frequency and amplitude, the measured distortion varied from less than 0.001 per cent to slightly higher than 0.02 per cent. The output noise level, referred to 8.5 volts, was -90 dB unweighted and lower than -100 dB with A-weighting. These measurements told us little more than the audibly obvious fact that the 801 would not degrade the noise and distortion characteristics of a system. For the remainder of the test we listened to it for extended periods with a variety of amplifiers, speakers, and program material.

The installation and operation instructions supplied with the Model 801, though brief to the point of being skimpy, are accurate and valid when interpreted properly. We were able to make A-B-C comparisons of the 801 against the other current systems under all our test conditions and thus form some useful opinions about their relative strengths and weaknesses.

Omnisonix claims that the effect of the Model 801 can be enjoyed over a wide area of the room, although it improves when one is close to the center line between the speak-

ers. Actually, listening on a single, critically determined axis is vital for a full appreciation of any image-enhancement device, including the 801. However, the most noticeable effect of inserting the 801 into the signal path is the volume increase, accompanied by a rather bass-heavy quality. The two other image-enhancement units we have tested (from Carver and Sound Concepts) also increase the gain and bass response, but their effects in that regard are slight compared with those of the 801.

Omnisonix indicates that almost any normal speaker placement is satisfactory, as are a few less conventional locations (such as in corners, or close together). This is in sharp contrast to the Carver and Sound Concepts systems, which virtually demand that the speakers be placed well away from any walls. After having compared the systems, we can say that *all* the manufacturers are correct in their recommendations.

The Carver Sonic Hologram (and, to some extent, the Sound Concepts IR-2100) is capable of an almost unbelievable expansion of the sound stage, but only with suitable speakers correctly placed and with the listener located *exactly* on a line that bisects the line between the speakers. Any departure from these conditions can greatly diminish the spatial-enhancement effect, although some improvement can still be heard over a wide area.

In contrast, the Omnisonic 801 (at least in our tests) was never able to create the *degree* of enhancement we have heard from the other two systems under similarly rigorous setup conditions. On the other hand, the 801 seemed to do its job with almost any speaker placement and over a wide range of listening positions.

Omnisonix also suggests a rather interesting application of the 801. A mono program driving only one input of the 801 provides a two-channel output that is distinctly different from either mono or stereo but perhaps closer to the latter in its spatial spread. We found it interesting and listenable, and it might produce some worthwhile effects with mono sources such as TV sound.

There is yet another mode of operation that seems to be unique to the Omnisonic system. Omnisonic suggests that placing the two speakers next to each other can "produce something really different" (their words). Quite true! With the speakers abutting each other and only a few feet from the listening position, the apparent sound sources were well to the right and rear of the speakers (which were about 3 feet from the wall in our test). In many ways, the sound spread was more "stereo-like" than what we heard from the speakers in a more normal listening setup. The speakers formed an angle of about 30 degrees with the listener, but the apparent sonic angle between them was at least 90 degrees.

● **Comment.** Implicit in any discussion of these image-enhancing devices is an understanding that they are extremely dependent on outside conditions, not only speaker type and placement, listener location, and room acoustics, but also—perhaps most of all—on the program itself. The more channel

(Continued on page 46)



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separation in the program, the more dramatic the effect. True stereo, such as can be (but rarely is) recorded with two or three microphones, usually comes through these devices with little enhancement. When listening to the 801 Omnisonic Imager, we were sometimes aware of an "out-of phase" sound sensation, but this occurred principally in the single-channel mono-enhancement mode or when we were very close to the speakers.

The rather remarkable effects we heard

with very closely spaced speakers suggest that the 801 Omnisonic Imager can bring a new stereo dimension to very small listening rooms. With speakers no more than a foot or so apart and perhaps 2 or 3 feet from the listener, even a large closet becomes a possible listening room, and the size of the stereo stage must be heard to be believed.

In addition to its lower price, the uncritical nature of the Omnisonix 801 is one of its strongest advantages over its competitors; however, it never (in our opinion) fully

matched them in the degree of its image enhancement. We were almost constantly aware of its bass boost, although that might be correctable with some tone controls. Nevertheless, the 801 does a very creditable job and is well worth hearing. When everything is set up correctly, the Omnisonix 801 can impart a sense of spaciousness to FM and recorded material that is not easily realized in a home listening environment.

Circle 143 on reader service card



Teac X-3 Open-reel Tape Deck

THE Teac X-3 is a two-speed, quarter-track stereo open-reel deck with three motors, three heads, and a solenoid-controlled transport. Designed to operate at $7\frac{1}{2}$ and $3\frac{3}{4}$ ips, it accepts reel sizes up to 7 inches in diameter and permits mic/line mixing, external timer activation, and "punch-in" recording—that is, going directly from play into record mode to replace old material with new.

The capstan of the X-3 is belt-driven by a d.c. servomotor, and a pair of induction motors are used to turn the reel hubs. Two tape lifters hold the tape away from the heads during fast winding in either direction. Spring-loaded arms on either side of the head block, each equipped with a rotating tape guide, take up the tape slack during start and stop operations, and a third rotating bearing to the left of the heads helps reduce wow and flutter.

Positive-locking (except for STOP) push-

buttons with relatively long travel ($\frac{3}{16}$ inch) control the REWIND, FAST FORWARD, PLAY, RECORD, and PAUSE functions as well as tape-speed selection and power on/off. Other buttons select either SOURCE (input) or TAPE (playback) monitoring, a momentary-contact RECORD MUTE function, and one of two alternative settings for EQUALIZATION and BIAS. Concentric (left- and right-channel) rotary controls adjust microphone and line-level inputs and the line-level output (which also affects the volume level at the front-panel headphone jack). Front-panel phone jacks are also provided for a pair of microphones with a rated impedance of 200 ohms or higher.

The record/playback indicators are VU-type meters calibrated from -20 to $+3$ VU. A four-digit counter, driven by the take-up reel, indicates tape position, and the head-block cover is easily removable for access to the heads for cleaning, demagnetiz-

ing, and editing. The X-3 has mounting feet that permit either vertical or horizontal operation.

The rear panel of the X-3 contains the usual input and output phono jacks. Overall, the unit measures $16\frac{1}{8} \times 12\frac{1}{16} \times 7\frac{1}{4}$ inches (width, height, depth) and weighs a little less than 31 lbs. Retail price: \$550.

● **Laboratory Measurements.** Teac did not supply us either with test data or with the specific tape types for which our sample of the X-3 was adjusted. Playback frequency response, shown in the accompanying graph, was checked with our new MRL (Magnetic Reference Laboratory) calibrated tapes, which we believe are the most accurate available. The slight high-end roll-off (3 dB at 20 kHz and $7\frac{1}{2}$ ips) was not repeated in overall record-playback tests. This, together with the fact that the 0-VU

(Continued on page 48)

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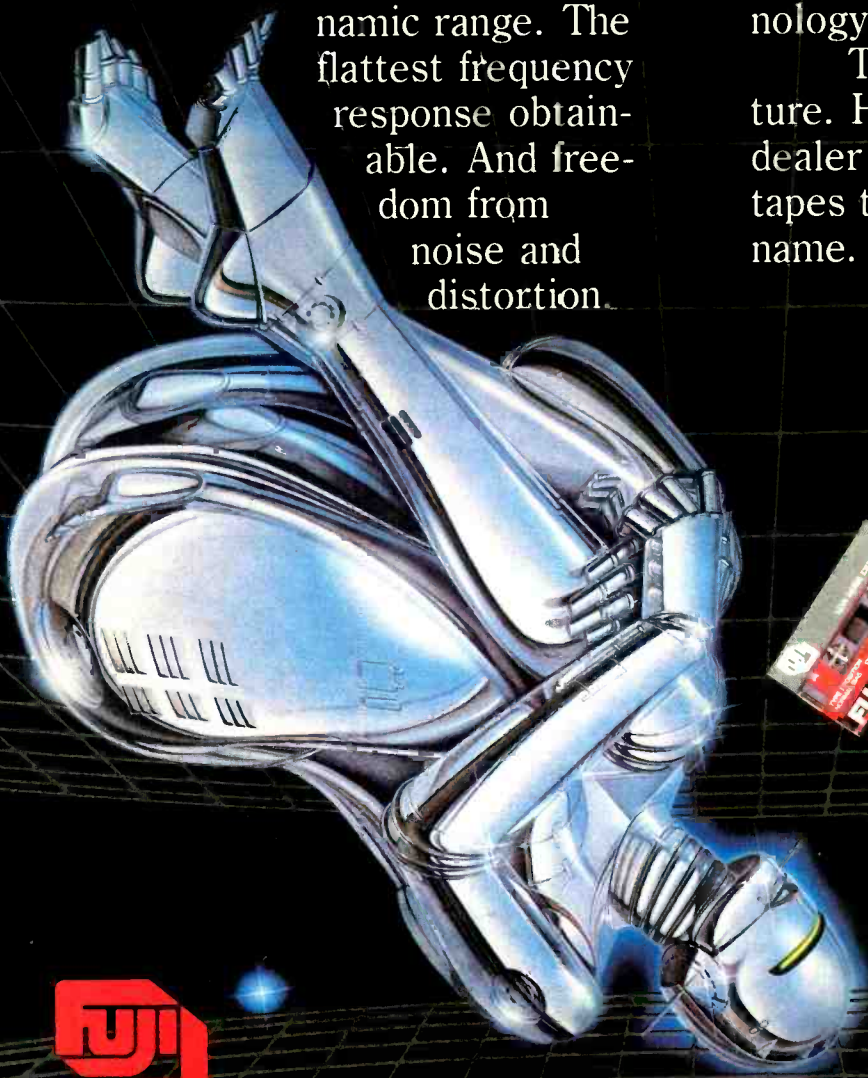
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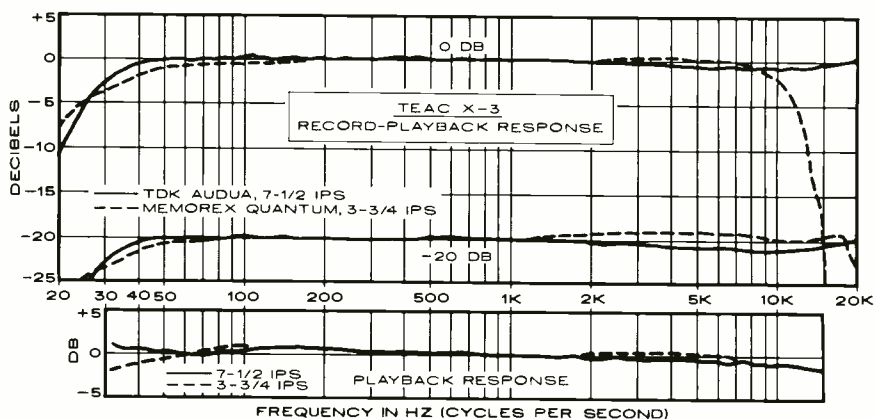


point on the meters corresponded exactly to the Ampex operating level of 185 nanowbers/meter, leads us to suspect that Teac probably used Ampex alignment tapes (which have a slightly hotter high end) in setting up the X-3. In any event, we could discern no audible degradation in high-frequency response with prerecorded tapes.

While checking overall record-playback frequency response, we found that switching from position No. 1 to position No. 2 on the equalization selector raised the response approximately 2 dB at 20 kHz—a very slight difference. The reduction in bias current caused by changing the bias switch from position No. 1 to position No. 2 had a much more profound effect on 20-kHz response, increasing it by 3.5 dB at the 7½-ips speed and by 10 dB at 3¾ ips. When using premium tapes, however, distortion increased severely in bias position No. 2; it is clearly intended for older or "second-line" tape formulations that require less bias.

Both TDK Audua and Memorex Quantum gave outstanding record-playback performance at both tape speeds. The Audua was marginally flatter at 7½ ips and the Quantum (using equalization No. 2) slightly flatter at 3¾ ips, so we used these for the graph and for signal-to-noise-ratio (S/N) measurements. (The Memorex Quantum had a slightly better S/N at both speeds.) As the graph shows, at 7½ ips there was absolutely no difference in frequency response between the 0-VU and the -20-VU curves: both were flat out to 20 kHz, and at the latter level we did not reach the -3-dB point until 28 kHz, well above the upper limit of our chart paper. Response was down 3 dB at 30 Hz, precisely confirming Teac's specification. At the slower speed, response was again impressively flat, with 30 Hz and 20 kHz marking the -3-dB points at a -20-VU input. Interestingly, with a 0-VU input level, high-end response held up very well to slightly above 10 kHz, which is slightly better than we normally obtain when using metal-particle tape on top-quality cassette decks.

Distortion at a 0-VU input level, using a



1,000-Hz tone, measured 0.42 per cent with the TDK Audua (7½ ips) and 0.2 per cent with Memorex Quantum (3¾ ips). To reach the customary 3 per cent third-harmonic distortion level it was necessary to raise the levels by 7.6 and 10.2 dB, respectively. Referred to the 3 per cent distortion point, the unweighted signal-to-noise ratios were 56.8 dB (7½ ips, TDK Audua) and 57.6 dB (3¾ ips, Memorex Quantum). On an IEC A-weighted basis they registered 62.1 and 63.1 dB, respectively.

On an overall record-rewind-playback basis, the wow and flutter of the X-3 measured 0.04 and 0.07 per cent using the DIN peak-weighted standard and 0.035 and 0.06 per cent weighted rms at the higher and lower speeds, respectively. A 0-VU meter indication required a line-level input of 0.059 volt (59 millivolts) or a microphone input level of 0.22 millivolt. Microphone input overload level was 66 millivolts. The microphone input impedance is rated for 200-ohm (or higher) pickups. A 0-VU meter indication produced an output level of 0.84 volt.

Fast-forward and rewind times for a 1,800-foot reel were each 102 seconds, and the resulting tape pack was admirably smooth. VU-meter ballistics were slightly slower than the ASA standard (0-VU level

pulses of 300 milliseconds read -4 VU instead of 0 VU). The headphone jacks produced more than adequate volume both with our 600-ohm and nominal 8-ohm phones.

● **Comment.** As its excellent measurements would imply, the performance of the Teac X-3 in our listening tests was first-rate. Even when using high-level FM interstation noise—an extremely severe test—we could detect no frequency-response losses between the original and the taped copy. Using very wide-range material we could detect a very small amount of added hiss at 7½ ips (and a little more at 3¾ ips), but for anyone to whom this is a problem an external Dolby-B processor—desirable in any case if you wish to listen to prerecorded tapes—would be a completely effective answer. Tapes were handled smoothly, and the controls and pushbuttons had a positive feel. More expensive machines might bring with them additional features of interest to the semi-professional recordist (10½-inch reel capacity, a "dump-edit" mode, etc.), but for the average home user the low price and excellent performance of the Teac X-3 would be very hard to beat.

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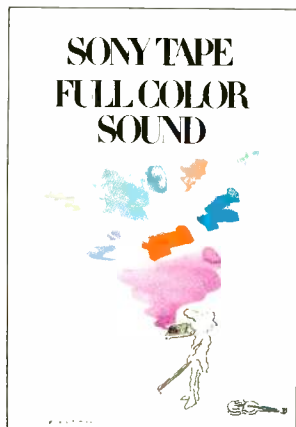
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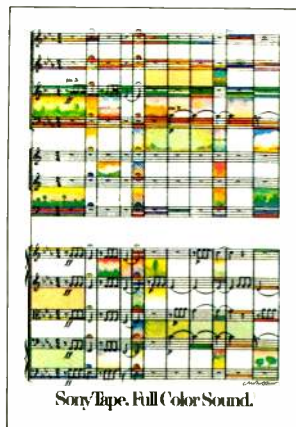


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Videopinion By Ken Winslow

VIDEO DISC SOFTWARE: WHAT'S THE HOLDUP?

IT looks as if it is finally going to happen! This year three different (and incompatible) videodisc players are going to be available in stores across the U.S. The Philips/MCA laser optical system first introduced in December 1978 is now said to be within physical, if not financial, reach of well over 60 per cent of the U.S. population. The groove-guided capacitance system developed by RCA is firmly promised for national introduction this March. And finally, we are told to expect the VHD (video high-density) grooveless signal-guided capacitance system developed by JVC to appear about the end of this year.

Although any or all of these videodisc technologies may ultimately fail in the marketplace because of competition among themselves and with the other video technologies (videotape cassette, cable television, pay television), the disc technology they introduce will radically affect audio as well. Philips and Sony have already demonstrated a laser-read audio-only 4 3/4-inch-diameter Compact Disc and player which they say will be available in 1982 regardless of the fortunes of the videodisc version. Management of the Philips UK Audio Blackburn plant now producing videodiscs for introduction into the United Kingdom this coming May says that their facility will handle digital audio discs in the Philips/Sony format as well. The Victor VHD videodisc too was developed with a companion AHD (audio high-density) capability in mind. Contrary to the Philips thinking, which sees *separate* video and audio players, Victor (with the strong encouragement of its partner-parent Matsushita) feels that future digital-disc players should be able to handle *both* video and digital audio discs.

In my view, the success of the video formats will strongly influence, for better or worse, the future of the audio-only digital disc system. Fulfillment of the promise of the videodisc systems—lots of high-quality, inexpensive, prerecorded programs—is essential to their individual successes, for, unlike the videotape machines, they cannot record. I have seen virtually perfect pictures and heard excellent sound quality from all three systems. At the moment, however, as the review of the videodisc debuts of Olivia Newton-John and Loretta Lynn in November 1980 STEREO REVIEW indicated, the videodisc can do no more than faithfully pass along—for better or worse—the quality of the program material encoded in it.

Just as is the case for audio tapes and discs, videotape has been designed for recording and subsequent playback, while the videodisc has been designed for playback only. Prerecorded feature films, musical concerts, and other programming on Beta and VHS videotape cassettes cost \$50 and up; the same titles on videodisc are promised at \$15 to \$25. One example: the list

price for *Saturday Night Fever* on videotape from Paramount and Fotomat is about \$55. However, it sells for \$24.95 on an MCA DiscoVision label—when you can find it. The lack of availability for many titles is a problem which is only now being (slowly) corrected.

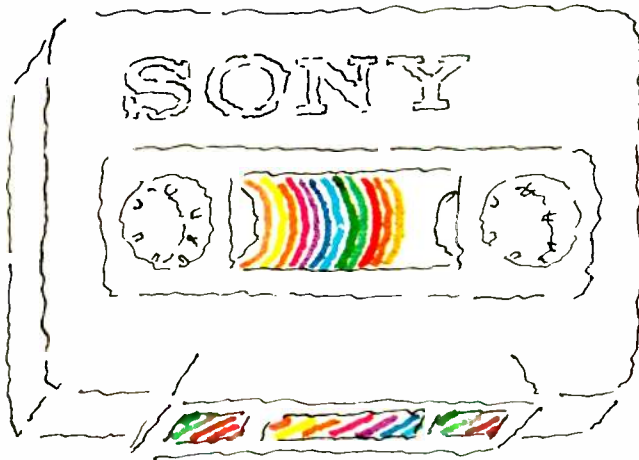
Early owners of a Magnavox Magnavision or a Pioneer LaserDisc optical player know that there is a dearth of videodiscs to play on them. Apparently Philips has found it difficult to manufacture flaw-free videodiscs in regular high-volume production. This quality/quantity requirement is described as "usable yield" or just simply "yield," and the early yields for the laser-optical discs were reported as being at about disaster level. There were, in other words, too many rejects in the factory for every videodisc album that reached the shops. This meant that the real manufacturing cost of each album sold during the 1979-1980 period considerably exceeded the retail selling price of the discs. Little wonder that the originally announced retail price of \$15.95 for a feature movie jumped to \$24.95 just six months after introduction.

Makers of the Philips/MCA optical system say they have now largely solved software manufacturing problems. In a recent check of retailers selling videodiscs, I found increasing stocks on hand of popular items that were once all but unobtainable. And so it may be that in the near future the top-price discs will be down to \$15.95 where they should be.

THE optical-disc manufacturing process followed by California-based DiscoVision Associates involves pressing heated material and then cooling it. This is also reportedly the method which will be used by both of the yet to be introduced capacitance systems. A second, "photopolymerization" (or 2P) process used by N.V. Philips at its European plants and by 3M at its St. Paul plant is described as a cold-stamping process which employs ultraviolet light to harden the material and thus avoid problematic dimensional changes when cooling is involved. Both processes produce rigid discs.

A third process, developed by Sony for its videodisc player, is compatible with the Philips/MCA/Pioneer systems but uses a clear, flexible PVC (polyvinyl chloride) material covered with vapor-deposited aluminum which is in turn protected by a layer of clear vinyl. The interesting thing about the Sony replication process is that it is the first to produce a *flexible* optical videodisc, something which naturally has great appeal to magazine publishers, among others. Just imagine, if you will, one day opening up your copy of STEREO REVIEW to find bound inside a flexible videodisc "illustrating" a performance reviewed in the issue. Suddenly, I think, we'd have to admit that it was all worth waiting over ten years for. □

Inside Full Color Sound.



There's more to Full Color Sound than meets the ear.

There is the story of technical achievement and experience that has made Sony a leader in its field. Fact: Sony produces both high fidelity audio and video tape and the high quality equipment that plays it. In fact, Sony pioneered magnetic tape recording, and has been producing tape and tape equipment for over 30 years.

Because of this vast and unique experience, we believe Sony knows more about producing high quality recording tape than anyone else. Sony know-how goes beyond exclusive magnetic particles and binders, or our exceptionally smooth SP transport system, or superb MOL and frequency response.

What Sony does in its own unique way has to do with *balance*. The fine-tuning of all the elements that go into making a tape, so that each complements the other, and together—in balance—deliver the finest recording that is humanly and technically possible to achieve.

It is this balance that is the secret of Full Color Sound. It isn't really difficult to make one particular element extraordinarily superb. So when some tapes boast about a particular feature,

we are not impressed. And neither should you be.

The true test of a tape is to balance these superb elements, some of which actually work against each other. For example, high sensitivity (so vital for MOL and S/N ratio) can produce print-through. Another example: increasing the volume of magnetic particles on the tape improves sensitivity. However, this would decrease tape durability.

Some of the factors that we consider important to tape performance are: MOL, frequency response, S/N ratio, sensitivity, uniformity of output level, print-through, erasability, and such physical attributes as runability, shedding, head wear, resistance to temperature and humidity.

This is where the genius of Sony comes in. To take all these elements and balance them so they work with, instead of against each other.

Balance. It's why Sony audiotapes are so superb. The fact is, the more expensive your audio equipment, the more you'll appreciate Full Color Sound. Listen to Sony SHF (normal bias), EHF (high bias), FeCr or Metallic tape yourself. Listen to the balance. It's the secret of Full Color Sound.

SONY.

CIRCLE NO. 39 ON READER SERVICE CARD

AN AUDIOPHILE'S GUIDE TO VIDEOCASSETTE RECORDERS

By Ellen Milhan Klein

If you've been looking over the videocassette-recorder marketplace as a video neophyte you've learned at least one thing: the profusion of VCR formats, brands, and models makes for a very difficult buying decision. Choosing a VCR is, in fact, at least as complicated as choosing a hi-fi system. But, unlike the situation with hi-fi, there is seldom a videophile friend or neighbor available to provide helpful advice.

Since the capabilities of the video formats are still evolving, the features and functions vary widely from one brand and model to the next. VCRs are difficult to evaluate by spec sheets alone simply because no fund of general knowledge has been built

up yet, nor is there a handy library of up-to-the-minute guides to help the beginning buyer sort out demonstrable fact from competitive fiction or tell him which features are important, which are marginal, and which are common to all. The market survey that follows, as up to date as press schedules will permit, focuses on the two principal videocassette formats—Beta and VHS—now on the market, examining their operating capabilities and their special features from a user's point of view. It covers as well the increasingly popular "accessory" of the VCR—the video color camera—for those moving out beyond TV dubbing to live taping.

—Larry Klein



A choice to be made: VHS or Beta format?

WHAT do most owners of video-cassette recorders (VCRs) use their machines for? All the surveys seem to agree: the current million and a half owners use their machines mostly for unattended automatic recording of TV programs. The next most popular uses are recording of one program while watching another, recording the program being watched for later re-viewing, and playing commercially prerecorded tapes. And, according to the surveys, the least popular use for VCRs up to now has been "home movies," probably because one of today's video color cameras costs about as much as the recorder itself.

Which Format?

As a preliminary to getting into the various VCR performance options and their significances, it would be best to take a close look at the advantages and disadvantages of each of the two major U.S. consumer-video formats: Beta, invented by Sony, and VHS (Video Home System) by JVC. After you weigh them, you may decide that the choice of most buyers—VHS—is not the one for you. However, the bottom line of *my* experience is that you won't go wrong with either format.

As usual, it's easier to understand differences if you understand similarities first. Both Beta and VHS machines use cassettes that contain 1/2-inch-wide magnetic tape which is extracted and wrapped halfway around a head drum so that only one of two rotating heads is sweeping the tape at any one moment. Further, both formats get more mileage from a foot of tape in the same way—by rotating the heads at an angle to the tape path. This "helical-scan" system creates more "writing area" (recording space) on the 1/2-inch wide tape [see Figure 1(a)] than would otherwise be possible without using multiple heads or shifting them. All machines achieve the required 4-MHz or so video frequency response not by zipping the tape past a stationary head but by moving it slowly while a pair of alternating tape heads spin at high speed.

The two formats differ in the size of their cassettes and in the way the tape is extracted and wrapped around the head drum. These engineering differences have implications for the maximum record/play time as well as some of the features that can be offered. For example, in Beta's "omega-wrap" system [Figure 1(b)] a single arm extracts the tape from the cassette and wraps it in a—*you guessed it*—Greek-omega-shaped path halfway around the head drum and past the audio, control, and erase heads. This circuitous path mini-

mizes tape twist as it moves past the heads. The VHS format uses two arms to remove and position the tape. Its system is dubbed "M-load" because the tape traces an M-shaped path past the several heads [Figure 1(c)].

When a cassette is loaded into a deck, the tape is totally enclosed within the plastic cassette case. Beta machines take longer to extract and thread the tape, but they leave the tape wrapped during FAST FORWARD and REWIND. VHS machines, on the other hand, take a few seconds to unload the tape before each FAST FORWARD or REWIND. Of course, there are arguments between the advocates of each format as to which procedure causes more tape and/or head wear. But what you'll notice more than possible wear is that the VHS machine's loading and unloading process often backspaces the tape two or three counter-digits' worth. This makes it quite difficult to cue a tape precisely and may result in several seconds' worth of action being taped over by a subsequent recording. (I have learned to dovetail segments by monitoring the playback of the recorded portion, pressing PAUSE at its end and then pressing RECORD.)

There are other engineering differences between the formats. Since they use a slightly larger head drum, Beta

models can achieve a faster writing speed (690 cm/sec versus 580 cm/sec) for the same 1,800-rpm head speed. And because the tape-end sensors of the Beta machines trigger an automatic-eject mechanism, Sony's newest units can use an automatic cassette-changer accessory that holds four cassettes.

Many readers may already know that the size of the cassette and the maximum record/play time vary with the recorder's format. Beta cassettes are slightly smaller, and their size is designated by the tape length in feet. As of this writing, Beta cassettes range from L-125 to L-830. Of course, since VCRs offer you a choice of operating speeds, the available play/record time depends both on the speed selected and on the tape length. The first Betamax had only one speed, dubbed Beta-I, which recorded for one hour with the tape running at 4 cm/sec. For those who wanted to tape TV movies, this left something to be desired—like half a feature film, say—so the next machines slowed the tape to 2 cm/sec. This Beta-II (or X2) became the new standard speed. More recently, a third speed known as Beta-III (and also as X3 or LP) has appeared in most new machines. (Incidentally, current Sonys can play Beta-I tapes, but no new consumer machine will record at that speed.)

VHS machines and tapes use a simpler, though sometimes misleading, nomenclature. Tapes are designated by "T" for time (instead of Beta's "L" for length), followed by the number of record/play minutes available at standard playing (SP) speed. They range from T-30 to T-120. The first VHS machines (which offered only SP) transported the tape at 3.335 cm/sec. Later, some manufacturers added Long Play (LP), half the speed of SP, and/or a Super Long Play (SLP), also known as Extended Play (EP), running at one-third the SP speed. Thus, when product literature describes a unit as a 2/4/6-hour machine, the time is based on using a T-120 cassette.

How do tape length and operating speed affect performance? First, to fit a longer tape into a Beta cassette case, the tape itself had to be made thinner. Longer VHS tape lengths could be accommodated simply by changing the diameters of the supply and take-up reels. And, as with any type of tape recording, the slower the speed the more critical the head-gap size. The gap was 58 microns originally on both Beta-I and VHS SP-only machines. To achieve reasonable response at slower speeds, the head gaps of both Beta and VHS machines were narrowed to 29 microns. The result has been a slight

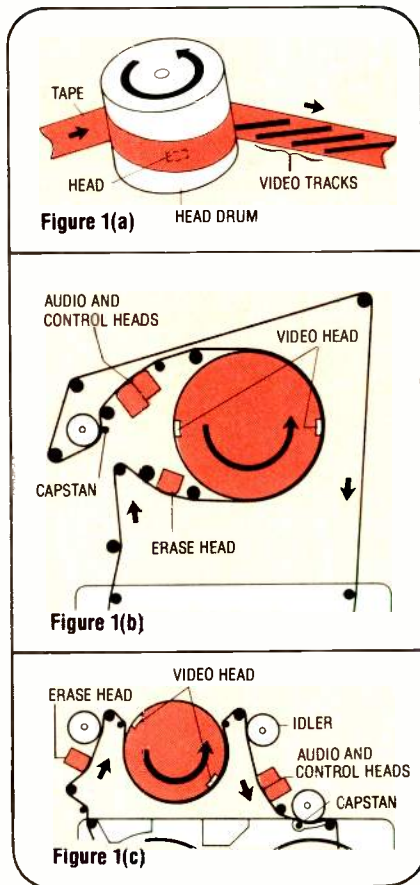


Figure 1(a)

Figure 1(b)

Figure 1(c)

loss of recording quality at the fastest speed because, for technical reasons, the narrower head gaps cannot put as much video information on the tape. This is the reason that JVC and, recently, other manufacturers are using separate sets of heads for the SP and SLP modes. This allows optimizing the gaps for two of the three speeds, and it is also probably responsible for a noticeable improvement of quality in the latest SLP machines.

You'll find if you test view the lineup on your VCR dealer's shelf that no machine's recording/playback picture quality will match that of the original broadcast, although SP and Beta-II tapes will come *very* close. There will be some deterioration in picture clarity as

you step down from the fastest speed to Beta-III or LP/SLP. But I've found more variation in performance among the various VHS *models* I've checked (even those made by the same manufacturer) than between Beta and VHS machines per se.

That may seem like fence straddling, but it brings me back full circle to my original advice: I think you *can* be happy with either format. Evaluate each machine and pick the one that offers the combination of features you want at a price that suits you. For example, Model X's performance is great at its fastest speed and much poorer at its slowest. But it offers the special effects you want (see "Features" on page 56) only at the slowest playback speed.

Meanwhile, two-speed Model Y performs about the same at both speeds, not as good as X at its faster speed, but noticeably better than at its slower one; furthermore, it comes with a remote control that permits special effects and fast searches at either speed. Which one should you choose? Either choose Model Y or keep looking.

A few last words about format: don't forget that Beta and VHS tapes are *in-compatible*. You cannot play a friend's VHS tapes on your Betamax, although you can dub from one machine to another with no problem (unless, of course, you're breaking the law by trying to duplicate a copyrighted tape). If you choose VHS, you will probably be satisfied with a 2/6-hour machine,

SELECTED VIDEOCASSETTE RECORDERS — TABLE MODELS

Model	Price	Speeds	Timer		Playback			Picture search	Remote				Special features	
			Events	Days	Freeze	Frame advance	Slow motion		Fast	Speed × normal	Pause/freeze	Special effects		Search
BETA FORMAT														
Sanyo	VCR 5050	\$1,245	B-II, III	1	1	•	•		15 ²	•	•	•	a, b, c, d, e, g, h, k	
Sony	SL-5800	1,400	B-II, III	4	14	•	•	•	3x	5-20	•	•	a, c, f, h, j	
Toshiba	V-8000	1,245	B-II, III	1	7	• ²			2x ²	17 ² , 40 ²	•	•	d	
Zenith	VR9700J	1,300	B-II, III	4	14	•			3x ²	7 ¹ , 10 ²	•	•	a, h, l	
VHS FORMAT														
GE	1VCR-1012W	1,060	SP, LP, EP	5	7	•	• ⁵	• ⁵	3x ⁵	10 ⁵	•	•	•	a
Hitachi	VT-8500	1,295	SP, LP, EP	5	7	• ⁵	• ⁵	• ⁵	3x ⁵	10 ⁵	•	•	•	a, b, c, d, e
JVC	HR-6700U	1,350	SP, EP	6	7	•			2x ³ , 3x ⁵		•	•		a, b, d, q
Magnavox	8340	n.a.	SP, LP, SLP	8	14	• ^{3.5}	• ^{3.5}	• ^{3.5}	2x ^{3.5}	9	•	•	•	b, c, f, q
Mitsubishi	HS-300U	1,300 100 remote	SP, EP	6	7	• ⁵	• ⁵	• ⁵		15 ⁵	•	•	•	c, e, m
Panasonic	PV-1750	1,450	SP, LP, SLP	8	14	• ^{3.5}	• ^{3.5}	• ^{3.5}	2x ^{3.5}	9	•	•	•	b, c, d, e, f, l, q
Philco	V1550	1,395	SP, LP, SLP	8	14					9 ^{4.5}	•		•	b, c, d, e, f, l
Quasar	5160	1,500	SP, LP, SLP	8	14	• ^{3.5}	• ^{3.5}	• ^{3.5}	2x ^{3.5}	9	•	•	•	b, c, d, e, f, l, q
RCA	VET650	1,350	SP, LP, SLP	8	14	• ^{3.5}	• ^{3.5}	• ^{3.5}		9	•	•	•	b, c, q
	VET250	995	SP, LP, SLP	1	1					9 ^{4.5}	•		•	b, c, e
Sharp	VC-6800	1,095	SP, EP	7	7						•			a, f, g, n, o, p
	VC-7400	895	SP, EP	1	1						•			d, o, p
Sylvania	VC3100	1,395	SP, LP, SLP	8	14					9 ^{4.5}	•	•	•	b, c, d, e, f, l

¹Beta-II only ²Beta-III only ³SP only ⁴LP only ⁵SLP/EP only ⁶cue only

SPEED CODES:

Beta machines

- B-I = Beta-I
- B-II = Beta-II
- B-III = Beta-III

VHS machines

- SP = standard speed
- LP = long play
- SLP/EP = super long play, also called extended play

- a - program indexing
- b - transition editing
- c - auto rewind
- d - auto stop
- e - panel/channel lock
- f - memory back-up
- g - sleep timer
- h - takes PCM adaptor
- i - stereo with Dolby
- j - Beta-I playback
- k - mechanical tuning
- l - a.c. outlet
- m - 24-hour clock
- n - LCD clock display
- o - front-loading cassette compartment
- p - tape-remaining indicator
- q - four videotape heads
- r - a.c. adaptor included
- s - key lock
- t - one-event/one-day timer available

which offers the best compromise between optimum fidelity and economy. A 4-hour mode is really necessary only to play tapes recorded at that speed, and only a few commercially available ones are. (Incidentally, all new machines automatically adjust their playback to the speed at which the tape was recorded by reading the sync signal put on the tape during recording. This means you won't have to remember what recording speed you've used.)

Tuners and Timers

Taping television means that your VCR has to have a tuner section. Every console VCR has one built in, but for TV taping the portable battery-pow-

ered recorders must be paired with a separate tuner/timer/battery-charger module. (You'll need only the recorder module when you play roving camera-person.) Antenna connections to either type of machine are simple and are usually well explained in the VCR manuals. The 75-ohm coaxial and/or 300-ohm flat cables leading from your normal TV antenna connect to the VHF and UHF inputs at the rear of the VCR (or tuner module). Other coaxial and flat cables lead from the VCR's outputs to the VHF and UHF antenna terminals of any television set (see Figure 2, page 57). All necessary cables and matching transformers are usually packaged with the VCR equipment.

In the latest-model VCRs, the old-

fashioned rotary channel selectors have been replaced by twelve to fourteen electronic channel-selector pushbuttons. Each pushbutton (they can be pressed in any order) has an associated fine-tuning control hidden in a separate compartment, and you can tune the pushbuttons to correspond to any available VHF or UHF channel (see Figure 3, page 57). Besides the one or two mechanical rotary-dial tuners still out there, there's another type: Sharp's VC-6800 requires that you use its calculator-style keyboard in a complex sequence to assign a channel number to each set of fine-tuning controls initially—and to switch channels later. Every VCR has an automatic fine-tuning (AFT) circuit that locks the signal

SELECTED VIDEOCASSETTE RECORDERS — PORTABLES

(Second model number is separately priced companion tuner/timer; otherwise, both units come as a package)

	Model	Price	Speeds	Timer		Playback				Picture search	Remote				Weight (lb.)	Special features	
				Events	Days	Freeze	Frame advance	Slow motion	Fast	Speed × normal	Pause/freeze	Special effects	Search	Channel			
BETA FORMAT																	
Sony	SL-3000	\$1,300	B-II													20.2	b, j
	TT-3000	500		1	7							•				16.6	l
Toshiba	V-8035	1,345	B-II, B-III							17 ²						19.8	d
	"			1	1											9.9	k
VHS FORMAT																	
Akai	VP-7350	1,200	SP, SLP			•	•	•	2x	4 ⁶	•	•	•			15.0	a, i, s
	VU-7350	395		6	7											11.0	d
Hitachi	VT-7500A	1,150	SP, LP, EP						3x ⁵		•					15.4	b
	VT-TU75A	400		5	7											13.2	f
JVC	HR-2200U	1,200	SP			•	•	•		10	•	•	•			11.4	b, e, r
	TU-22U	1,350 combined		1	10											9.6	
Magnavox	8372	1,500	SP, LP, SLP			• ⁵	• ⁵	• ⁵			•	•				13.2	b, d
	"			8	14											10.3	e, f, t
Panasonic	PV-3000	1,150	SP, LP, SLP			• ⁵	• ⁵	• ⁵			•	•				13.2	b, d, r
	PV-A32P	350		8	14											9.9	e, f, t
Philco	V1715	1,500	SP, LP, SLP			• ⁵	• ⁵	• ⁵			•	•				14.0	b, d, r
	"			8	14											10.0	e, f
Quasar	VH5300SE	1,000	SP, LP, SLP			• ⁵	• ⁵	• ⁵			•	•				13.5	b, d
	VA520SE	350		8	14											10.0	e, f, t
RCA	VEP150	1,075	SP, LP, SLP								•					15.0	b, d
	TEP1400	350		5	7											17.6	
Sylvania	VC4515	1,500	SP, LP, SLP			• ⁵	• ⁵	• ⁵			•	•				14.0	b, d, r
	"			8	14											10.0	e, f
OTHER																	
Technicolor	212 (tuner pending other brands can be used)	995	1 speed			•	•									7.0	d, r

in after you've fine-tuned it (sometimes activated by closing the door of the tuning compartment).

The r.f. converter built into almost all VCRs is actually a very low-powered TV transmitter that "broadcasts" the video signal from the VCR via a coaxial cable to the antenna input of your TV set. The r.f. converter can be adjusted to work on TV channels 3 or 4, whichever is unused in your locality. A few new TV sets have inputs that will accept video and audio signals directly from the VCR; this eliminates the need for the converter and gives slightly improved performance. Incidentally, all recorders have a TV/VCR switch that allows either the normal antenna signal or the VCR's r.f. output signal to be fed to the TV set's antenna terminals.

Features, Plain and Fancy

All of the features you could possibly want in a VCR are available somewhere. Trouble is, they're not all to be had in one unit. You'll have to look for the machine that offers the most of what you want, whether it's a programmable timer, high-speed picture search, special effects during playback, full-function remote control, or get-up-and-go portability. Following is a rundown on what features are available together with my views (based on extensive

home and field use) on their significance and usefulness.

● **Timers.** A year and a half ago, I was happy to have a machine that could record one show in my absence. But no more—not since multi-event programmable timers found their way into my home. Working in conjunction with the built-in digital clock display, they can be set to tape five to eight programs over a one- or two-week period. And most of them are easily programmed using the VCR's special set of timer-control buttons to enter the day (and week, if necessary), the start and stop times or just the start time, the recording time, and the channel for each program desired (see Figure 4). The deluxe timers will signal when two programs overlap, they have NiCad-battery back-ups to protect your entries in the event of a short power failure (or need to unplug the unit), and they let you lock the channel number or control panel so your settings can't be accidentally disturbed.

Before you get carried away by the possibilities, remember that you're still limited to (at most) 5 or 6 hours of recording on a single cassette. (Sony's BetaStack cassette changer, mentioned earlier, holds four cassettes and attaches to the newer Betamax; it extends your unattended recording time to 20 hours.) It's been my experience that a simple one-day/one-event timer is not quite enough, but eight events over two weeks are more than I've ever needed. As of this writing I'm at least 20 hours behind in my video viewing, so it's apparent that one has to learn to use the feature selectively or bear the guilty burden of a huge

backlog of unviewed tapes. If you have a multi-event timer, however, you can use it as a TV-addict friend does: he programs his timer whenever he gets a new *TV Guide* and leaves his machine in the timer-record mode all the time just in case he forgets to watch.

● **Picture Search.** Sony certainly knew what it was doing when it introduced BetaScan picture search, which is analogous to the "cue and review" function of audio-cassette decks. After I once used picture search, it became a necessity. It enables me to breeze through commercials and to quickly locate a sequence I want to watch again. The original BetaScans allowed tape review at three times normal speed, but the newer Beta machines are far faster. Sony's SL-5800 has a variable five to twenty times normal, while Toshiba's V-8000 offers search speeds of seventeen or forty times normal. VHS units now offer picture search too, though they are not as fast: cue-and-review of nine to fifteen times normal speed is available. Two caveats: the very-high-speed searches seem more gimmicky than useful, so I wouldn't choose a unit solely on the basis of its having one. And some of the search functions are limited to one or two of the slower recording/playback speeds or work only in the forward direction, so make certain you get one that will meet your particular requirements.

● **Indexing.** A few machines have indexing features in addition to picture searches. They're known by different names—for example, Akai's is the Instant Program Locating Search and Sony calls its the Tab Marker. They all stop at the beginning of a recorded segment in FAST FORWARD and (sometimes) REWIND. Some VCRs sense the breaks between segments, others insert—and can respond to—an electronic cue signal after every stop or pause. Sharp's VC-6800 even lets you locate a specific sequence without stopping at the start of each intervening one, provided you tell it the number of cue signals there are between where you are and where you wish to FAST FORWARD or REWIND to. Like audio-cassette decks, every VCR lets you use its digital counter as a memory that stops at 0000 in REWIND and sometimes in FAST FORWARD. With the Sharp, you can go directly to any spot on the tape if you know its four-digit location and program that into its microprocessor. But a little thought will tell you that this means rewinding the tape completely, so that 0000 equals the beginning, and it assumes that you've noted the desired location to start with.

● **Special Playback Effects.** Special effects are receiving more than their fair share of attention these days. It's hard to find a unit without freeze-frame, perhaps frame-by-frame advance, and some slow-motion (*slo-mo* in video jargon) capability. Some units even let you vary the slow motion from freeze to one-third of normal speed. (Freeze frame is not likely to be *totally* frozen; it may look more like Jell-O than ice.) These features may appeal to the user who wants to review his golf swing or the final skirmish in the Super Bowl, but I'm more interested in the possibilities of

The CATV Connection

As you probably know, cable television takes the TV broadcast signals (VHF, UHF) together with the cable-only channels and pipes them into Channel 3 or some other unused frequency. If you're a cable subscriber, you might be wondering how your cable service will be affected if you add a VCR to your system. It all depends on how you hook up the equipment. There will be no problem if the cable service does *not* include a converter box or descrambler, for in such cases the cable will be connected to the VCR just as a normal antenna would be. Here are the other possibilities:

In one setup, the CATV converter box is connected to the VHF antenna inputs of the VCR and the VCR-to-TV hookup is done in the usual manner. Both the TV and the VCR are then essentially monitors, receiving (over, say, Channel 3) whichever channel is selected at the box. This arrangement precludes making unattended recordings on different channels as well as recording one channel while watching another.

Another option is to wire the cable through the VCR to the converter which connects to the television. While

you can then *watch* any broadcast, selecting the TV channel at the box, your VCR will not *record* CATV stations since its tuner cannot be tuned to them. On the other hand, you can apply the timer capability to any combination of regular VHF or UHF broadcasts you want.

If the VCR is "cable-ready" (that is, if it can be tuned to mid-band or super-band CATV channels as well as to Channels 2 to 83), then the converter box can be eliminated and full advantage can be taken of the VCR's programmability. But unless your TV set is also cable-ready, the converter box must be connected to it if you want to watch one CATV channel while recording another.

If you get *two* converters and a switch box, you can view any channel while recording any other, but you must make your selections manually. Alternatively, there are accessories available to convert the cable's output frequencies to the UHF band: this not only permits you to use your TV's remote tuning control (if it has one) but, more important, maintains the VCR's programmability.

faster playback; JVC's HR-6700U, for example, lets me zip through a 2-hour tape in 1 hour with sound.

● **Remote Controls.** There are remote controls and then there are *remote controls*. Some are limited to providing pauses—handy for interrupting recording during commercials or taking a phone call during playback. On the other hand, there are full-function remotes that permit the armchair viewer to do everything but load the cassette into the machine. Every machine with a picture search or special playback effects lets you command it from afar; in fact, you cannot operate these functions of the Sony SL-5800 or the GE from the machine itself. Except for the Mitsubishi, which has a full-function infrared wireless remote, all remotes come with a thin 15- to 20-foot cable that plugs into the unit. Those remotes with channel-changing buttons (which sequence forward and perhaps in reverse through the channels you've fine-tuned the VCR to receive) will come in handy if you also want to use the VCR as a tuner for normal viewing. It does help if you can see the VCR's channel numbers from across the room (you can't with all of them) since you won't necessarily know by what's on the screen what channel you're tuned to.

● **Audio Features.** Although there are many like it in Japan, Akai's ActiVideo unit (shown on this month's cover) is at the moment the only VCR in the U.S. with stereo-sound-recording capability and Dolby noise reduction. As VCR fans know, all recorders permit subsequent audio dubbing of a narrative or music onto a previously recorded tape using a microphone or other program source. And most Beta machines are set up to work with a (very expensive) PCM digital-audio recording adaptor.

● **Auto-stop, Auto-rewind.** Video tapes, like audio ones, should be disengaged (unwrapped from the head drum) during long pauses between recordings. For this reason, many new machines have an auto-stop provision which unloads the tape after any pause exceeding 5 minutes or so. Other models revert (whether you like it or not) to the record or play mode, whichever they were in, after a long pause. And some, like the Mitsubishi, Panasonic, and Sony models, automatically rewind the tape when it reaches the end.

● **Locks.** There's nothing as frustrating as coming home and finding that somebody has disturbed a recording you left in progress or, worse, defeated your carefully programmed timer. Several units therefore have channel locks or panel locks that help prevent this. (The Akai is the only one that has a key lock, perhaps just in case your kids are tempted to check out your off-limits tape library.)

● **Memory Back-up.** A battery back-up will preserve the clock and any timer settings in the event of short power outages. Of the machines that offer this feature, all use built-in NiCad batteries except for the Sharp VC-6800, which takes several pen-light cells.

● **Transition Editing.** Owners of older VCRs are familiar with the annoying jitters

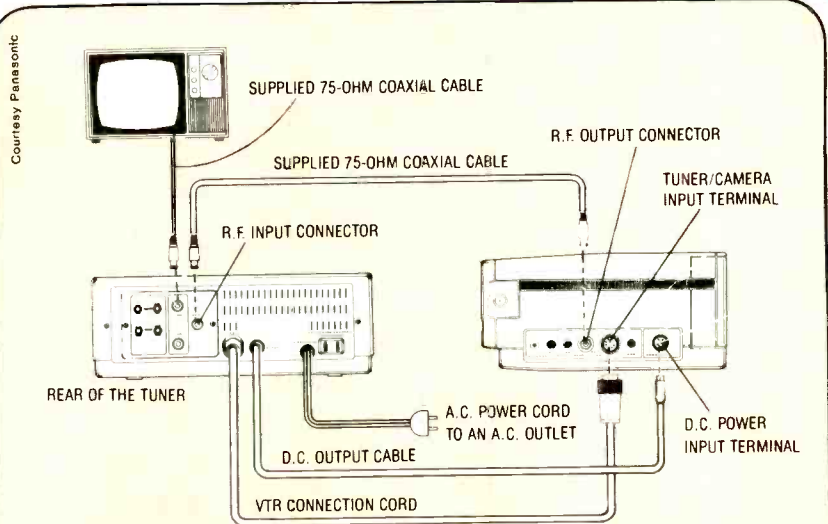


Figure 2. Typical in-home hookup of a two-piece portable system. For portable use, the camera plugs into the multi-pin socket at the side of the recorder, which works with the tuner component in the home. The tuner also serves as a power supply and battery charger.

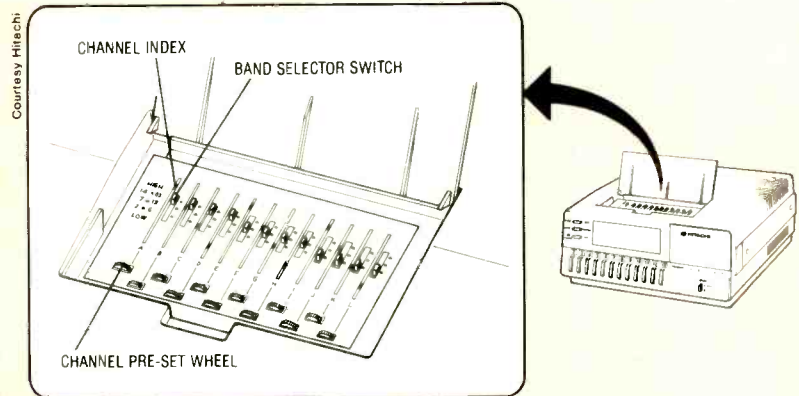


Figure 3. The fine-tuning controls are usually concealed in a separate compartment in those units that employ electronic pushbutton tuning. In general, any channel can be assigned to any pushbutton, including UHF and, sometimes, cable channels.

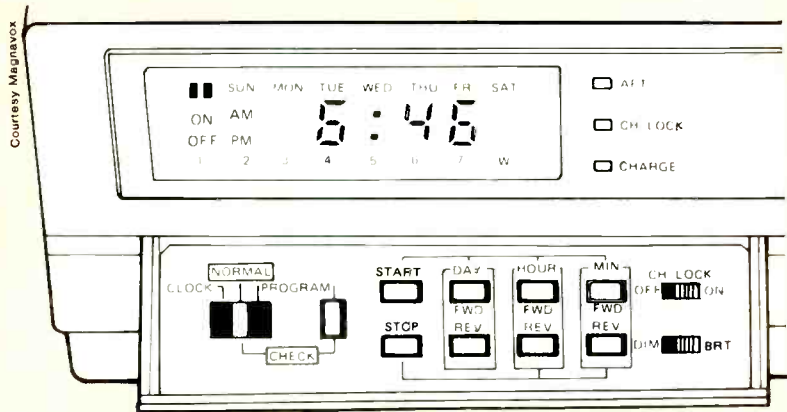


Figure 4. The flexibility of the programming available on different VCRs varies tremendously from model to model, but all have at least a one-day/one-event timer that makes unattended recording possible.

and glitches that show up between recorded segments during playback. The latest machines, particularly the portables, now have circuits that back up the tape so as to dovetail the start of one passage with the end of the one before it, provided only that you pause—not stop—between them. This so-called “transition editing” feature is still not perfect—some breaks will be cleaner than others and, depending on the machine, you may erase 2 to 12 seconds of the end of the last sequence. But it’s a step in the right direction.

Portables

One manufacturer puts it nicely: “A portable can work at home, but a home deck isn’t portable.” Because today’s portable recorders combine features of the 30- to 40-pound a.c.-powered stay-at-home models with the ability to record on-the-go, they are the (almost) perfect choice for consumers who aren’t willing (or able) to buy two units. Until recently portables have lagged behind in offering some of the niceties common to home decks—such as two or three speeds, programmable timers, special effects, and picture searches—but they are catching up fast.

A portable system essentially consists of two basic pieces: a battery-operated recorder and a TV tuner/timer/power-supply/charger module (see Figure 5). There is also a separate a.c. adaptor available that can serve as a power supply/recharger if the tuner/timer function isn’t also required. The recorder modules are somewhat less than a foot square across the top, are about 5 inches thick, and weigh from 11 to 15 pounds including their built-in rechargeable battery packs. They come with handles or shoulder straps and have optional carrying cases. All will operate (and recharge) on household current when connected to their tuner/timer or a.c. adaptor. And in field use, their battery packs are rated to supply a nominal 1 hour of continuous recording time. In actual practice, somewhat less time is available because of the starts and stops of real use. Most battery packs take 6 to 8 hours (or overnight) to recharge, which makes it necessary to tote a spare along if you intend to do extensive taping. The third power option, a 12-volt d.c. source, usually employs an accessory cable that plugs into your car’s cigarette-lighter socket.

Most, but not all, portable recorders offer the same two or three speeds that are available on console models. The transition editing and special effects may be included as well. But picture search, which I wouldn’t want to do without, is missing on most of today’s VHS and Beta portables. Among the exceptions to this rule are the JVC por-

table that cues and reviews at ten times normal (a step up from the JVC home unit) and the Hitachi and Akai models that feature three and four times normal playback. I expect that the next generation of portables from most manufacturers will be more feature-competitive with home decks and will not only provide search function but longer-life batteries with shorter recharge times as well.

The companion tuner/timer modules for portables are about the same size as the recorder units and can be placed beneath or beside them on a shelf or table. In general, these timers are just as programmable as those in the console models. In case you’re wondering, either the tuner/timer or the a.c. adaptor can be used to power the recorder for use with a camera and to recharge a depleted battery pack. Some a.c. adaptors can

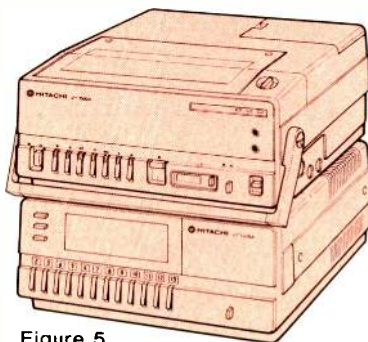


Figure 5

recharge two batteries at once, the one inside the VCR plus another plugged directly into the adaptor.

I don’t want to overlook the new 7-pound portable recorder from Funai Electric of Japan, sold in the U.S. as the Model 212 under the Technicolor label. Using a different and incompatible format (the micro-helical system), it has one speed and records for a maximum of 30 minutes on its special small-size cassette. At present, the Model 212 must be paired with other brands of tuner/timers and cameras, although Technicolor plans to market its own this year.

The Camera Angle

Judging by the price tags one sees in the marketplace, manufacturers must have determined that the 10 or 15 percent or so of VCR owners who want a video camera are willing to pay top dollar for it. There are color cameras galore, but few black-and-white ones. Optical viewfinders are still available, of course, but most manufacturers have stepped up to electronic viewfinders on their top models, and there are usually other useful features that aren’t available on less expensive models.

Video-camera technology is highly complex; only the lens system will be familiar to photo-equipment buffs. Suffice it to say that, compared with older color models, today’s video cameras weigh less, require less light, and draw less power. The quality of the picture they deliver is not quite up to broadcast-TV standards, but we are talking about \$1,000 cameras for home use as opposed to \$30,000 studio models.

Lenses? Here’s a tight shot of the major variables. Maximum apertures range from $f/1.4$ to $f/2$ —one reason why today’s cameras can make do with very low light intensities. Neophytes will welcome the increasing number of units with automatic irises which adjust the lens aperture for optimum exposure. It’s usually possible to override an automatic iris, though in some cases this means merely opening or closing the aperture one stop in order to shoot a subject against a particularly light or dark background. A lens shutter, a practical safety feature, protects the sensitive and expensive vidicon pickup tube from damage by the sun or other overbright light source. Some cameras require that the aperture be closed manually; others do it automatically.

Every top camera comes with a 6:1 zoom lens, perfect for those who can’t resist zooming in and out to add variety to home movies of less than professional quality. Most of these zooms are motor driven and are operated by pressing the switch located more or less handily on the grip or on one side of the camera. Or you can use the manual zoom ring on the lens instead; in fact, you’ll have to use it to reach the “macro” (or super closeup) setting if there is one.

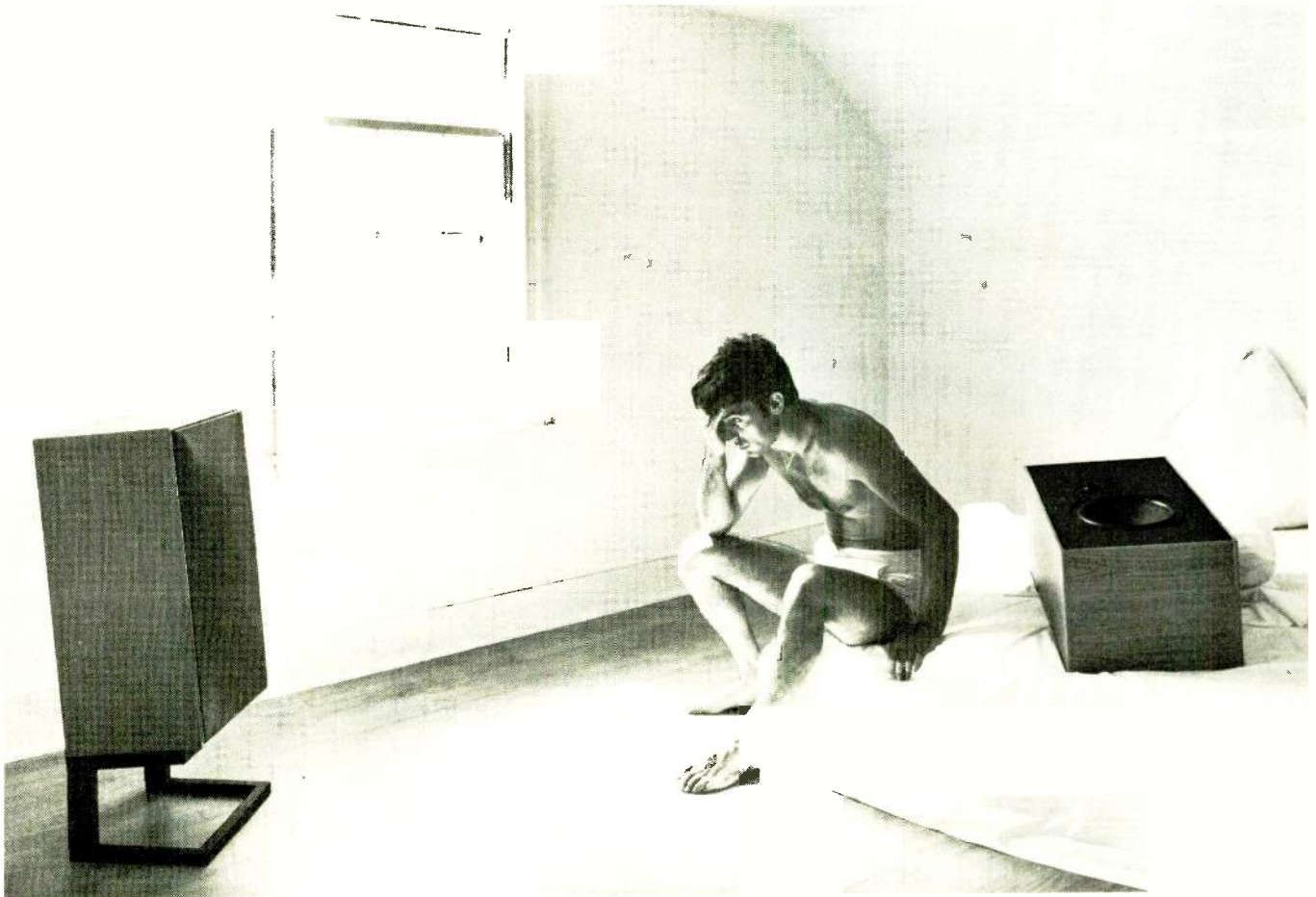
Except for one Toshiba model with an auto-focus option, all cameras must be focused manually by turning the lens’ focusing ring while referring to the electronic-viewfinder image or the TV set you are using as a monitor.

Most lenses are standard “C-mount” types that allow you to substitute other special lenses. Panasonic lenses are fixed, but an adaptor kit of add-ons provides wide angle, telephoto, and special optical effects.

Through the Looking Glass

The electronic viewfinders (EVFs) included on all top-of-the-line cameras make framing and focusing easy. At the viewing end there’s a black-and-white $1\frac{1}{2}$ -inch “TV” screen displaying what the lens is seeing and forwarding to the VCR. The miniature picture tube also permits viewing an instant replay of what you’ve shot so you don’t need an external TV monitor. Every camera has some sort of exposure indicator in

Will you still respect your speakers in the morning?



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Some speakers are impressive when played loudly. But a truly great speaker is equally, if not more, impressive at low listening levels. "Loud" is desirable at times, but a speaker to be lived with must do much more.

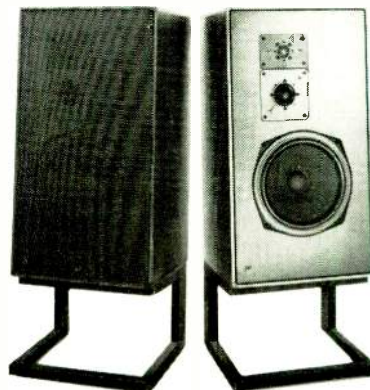
For years, and without fanfare, ADS has been building monitor speaker systems for some of the most demanding sound engineers in the music industry. ADS technology is uniquely able to accommodate their diverse and challenging re-

quirements. This same technology, not surprisingly, produces some of the finest speaker systems available for home use.

The new ADS L730, for example, is a direct outgrowth of ADS' continuing involvement in digital recording technology. An unusual combination of extended fre-

quency range, uncanny sonic accuracy, razor-sharp stereo imaging and true-to-life dynamic range, the L730 delivers untiring musical performance. Although the system is capable of shaking walls with clean, undistorted sound, you'll appreciate it most on those mornings when quality counts more than quantity.

The L730 is only one of many ADS speakers, all meticulously engineered and superbly crafted. Your ADS dealer will be happy to help you select the model which best suits your purposes. For more information and the name of the ADS dealer nearest you, please write ADS, Dept. SR20, or call 1-800-824-7888 (California 1-800-852-7777) toll free and ask for Operator 483.



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Only Custom-Tailored Sound meets your taping needs.

If tape is the only sound that's right for you, to maximize your taping requirements, an ADC Sound Shaper® Two MK III frequency equalizer is a must.

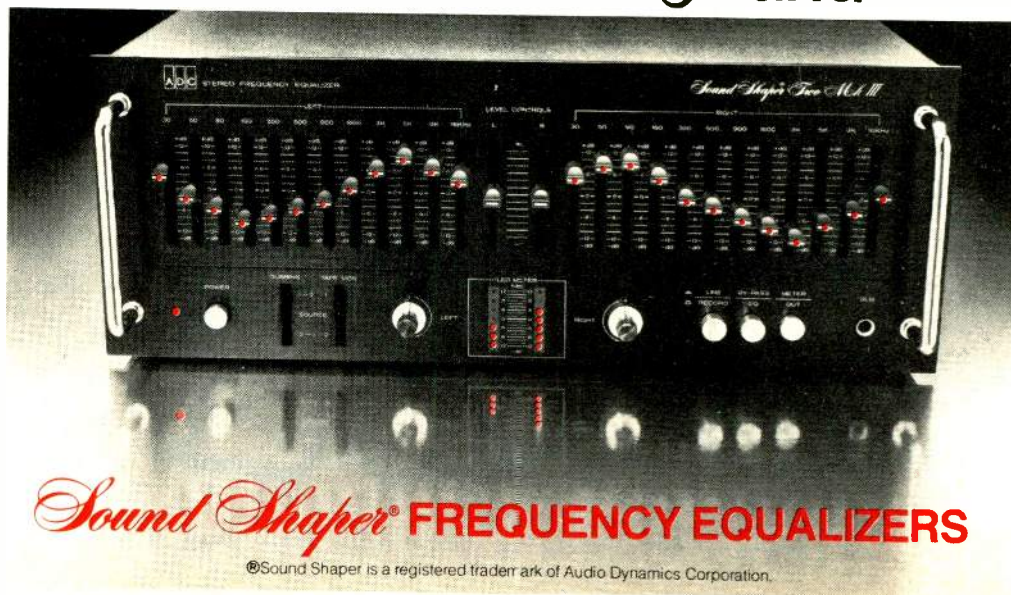
When they designed the Sound Shaper Two, they had you in mind. Because, aside from being a superb all-around equalizer, it lets you work with tape the way you want. For example, now you have two-way tape-dubbing capability, a feature many receivers don't offer. You can "custom-tailor" a record and then record it the way you would have engineered it. And that includes your golden oldies because, with the Sound Shaper Two, you can virtually eliminate the surface noise which has accumulated

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The entire ADC Sound Shaper line is impressive. The basic Sound Shaper One is a great introduction to frequency equalizers. And the top-of-the-line Sound Shaper Three, the *Paragraphic*™ equalizer, combines the ease and control of a graphic equalizer with the precision and versatility of a parametric. And, all Sound Shaper equalizers, except the Sound Shaper One, feature LED-lit slide controls, allowing for visual plotting of the equalization curve.

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CIRCLE NO. 1 ON READER SERVICE CARD

the viewfinder. Most only alert you to underexposure (not enough light) but some, like the Magnavox, also indicate normal exposures and overexposures—information you may want if you're setting the iris manually. Every viewfinder will also provide some indication that the camera's remote pause control has stopped or started the recorder. A few EVFs will also alert you to a low power level in your battery, helpful if you forget to keep an eye on the recorder's own battery-status indicator.

The EVF/camera configuration varies from camera to camera. Fixed-mounted EVFs will be centered, with the eyepiece positioned at the rear of the camera body. A side-mounted EVF must be attached and its power cable plugged into a jack on the camera body. Some of these are designed for left or right mounting, making it possible to hold the camera in whichever hand is most comfortable; they also permit you to tilt the EVF up and down for easier viewing.

Buyers who opt for the second- or third-best model in a line can save \$100 to \$150 and may find the very same indicators in its optical "through-the-lens" (TTL) viewfinder. Such "reflex" viewers let you know what the lens is seeing, but they lack playback monitoring facilities. You may also have to settle for a lens with 3× or 5× zoom ratios or forgo the macro setting. On the other hand, such units will be lighter and less power-hungry in the field.

The camera's physical configuration is not simply a matter of aesthetics. Once you've tried taping a friend's 20-minute wedding ceremony with a 5-pound camera supported only by your right hand and the suborbital ridge of your right eye socket, you'll particularly appreciate the virtues of those cameras that include a shoulder rest. Any camera can be tripod mounted, of course, but a tripod doesn't work too well when you're right in there with the action you're trying to tape.

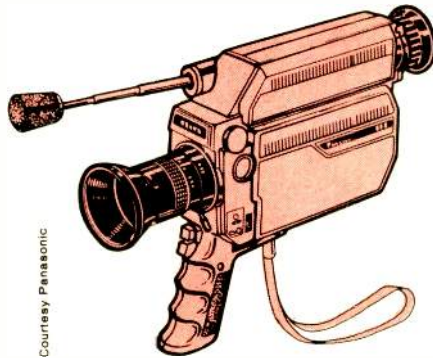
Sound Considerations

Today's cameras come with built-in electret condenser microphones either housed directly in the camera body or handle or protruding from the camera on a short extensible boom (its extension out to 7 inches or so may or may not be useful). Judging by those I've sampled, there's little difference in microphone sensitivity, but a unidirectional mike may help somewhat when there is background noise such as the clatter of dishes at a wedding reception or horns and sirens providing an inappropriate accompaniment to baby's first steps on the lawn. Unfortunately, foam

windcreens don't eliminate outdoor wind noise entirely. Even more annoying (because it could have been avoided) is the fact that some zoom motors are especially loud and will be picked up. If the mike is housed in the handgrip, it will also capture the normally inaudible noises of your hand as it moves along the grip. For all these reasons, you'll be happy to know that all cameras have a plug for an external microphone; using it defeats the built-in one.

Camera Controls

Every camera has an assortment of knobs, dials, meters, and switches that can make live videotaping easier, more foolproof, and even possibly more fun. The controls that adjust for color temperature are the most difficult to under-



Courtesy Panasonic

stand, but you must understand them (often with little or no help from the instruction manual) in order to use them. As photography buffs already know, the human eye has an uncanny ability to perceive colors accurately in different types of light. Cameras, including the video kind, don't. Outdoor scenes may take on a bluish cast, and whites may appear orangeish indoors. Most new color cameras have two or sometimes three controls to compensate for these discrepancies.

A gross adjustment is usually made first with a color-temperature-correction switch. This will have two to four labeled positions such as daylight, indoors/fluorescent, and indoors/tungsten or halogen. If a further adjustment is needed, there's a white-balance control that adds red or blue to make whites whiter (think of adding bluing to a wash). On most cameras this control is manual: you merely rotate the knob from its detented normal position in the direction needed. But, unless the camera has a built-in check system like those in the RCA, Sanyo, or Hitachi cameras, you'll need either a color monitor or a sixth sense to check the setting. A few cameras will correct the white balance automatically, but only when

you ask them to by moving the control to its "adjust" position.

All cameras have a VCR-remote control, normally a trigger-like switch in the camera's handgrip. It works similarly to the VCR's own remote pause control, letting the user stop and start recording from the camera itself. Some cameras have added a standby switch, which is useful for long pauses; the VCR remains in the record-pause mode set to go, but the viewfinder picture is killed and the camera's power consumption is reduced considerably. Some late-model cameras have fade-in/fade-out buttons that add a professional touch to scene transitions.

A few cameras also have jacks for their own remote-control accessories. When the camera is mounted on a tripod, the record mode and perhaps the zoom or fade functions can be controlled from a distance.

Camera/VCR Matching

Theoretically, any camera can be mated with any recorder, whatever its format, provided both conform to the NTSC standard. You can assume that equipment sold in the U.S. does—unless it is specified otherwise. Practically speaking, however, it is easier to team up some cameras with some recorders than with others. Naturally you'll have no problem if you're buying both at the same time and choose the same brand of camera as the VCR. But suppose you want a camera for your two-year-old deck? Or perhaps, as an aspiring videophile, you've decided to mix brands to get the combination you like best. A video camera needs a power source, of course; portable decks have these built in, but as of this writing only one table model (the JVC HR-6700U) has the telltale multi-pin jack that takes the camera's cable. (This single cable, by the way, conducts the camera's power, video, audio, and remote-control signals to and from the VCR. While there's no such thing as a VHS or Beta camera per se, it happens that cables with ten-pin connectors are standard on cameras made by VHS manufacturers, while fourteen-pin connectors are found on Sony, Toshiba, and other Beta decks.

If your VCR does not have a power-supply socket, you'll need a separate a.c.-operated power-supply module for the camera (don't confuse this with the a.c. adaptor for a portable VCR). This will be connected up between the VCR and the camera.

Fade Out

There is obviously lots of activity in the VCR marketplace, and it shows no

sign of slowing down. There are almost daily new entries of competing formats despite the jitters of an unsure economy and the very real potential competition of the videodisc. Indications are that VCR manufacturers intend to produce cheaper VCRs (at, say, \$695 list price) in the coming year or two to offset the competitive threat of the videodisc. They also plan to introduce more expensive—and higher-quality—units to

appeal to the growing videophile audience. It's safe to predict that the upcoming high-end VCRs will pay increased attention to *audio* performance, with such sonic imperatives as noise reduction and stereo becoming commonplace. Ready for export in Japan are a variety of videophile components, including some very high-resolution picture monitors, and at least two U.S. audio companies (Advent and

NAD) are also hard at work on high-end video products. The picture is clear in respect to home entertainment: the Eighties *will* be the video decade. □

Ellen Klein is a home economist who tests and writes about consumer-electronics products. She evaluates VCRs for Video-play magazine and covered video products for STEREO REVIEW's 1980 CES roundup.

SELECTED VIDEO COLOR CAMERAS

	Model	Price	Zoom	Macro	Iris			Color temperature controls			Viewfinder		Power consumption (watts)	Weight (lb.)	Shoulder rest	Indicators				Special features
					Manual	Automatic	Backlight	Color temp.	White balance	Check system	TTL*	EVF				Overexposure	Underexposure	VCR start	Low battery	
Akai	VC-30	\$800	3x			•		•			•	7	3.2				•			
	VC-65	1,000	6x	•		•		•		•		7.5	4.8				•	•	•	
Hitachi	VK-C750	700	2.8x		•	•	•		•	•	•	8	4.9				•	•	•	
	VK-C770	950	6x	•	•	•		•		•	•	8	4.9				•	•	•	
JVC	GX-77U	1,050	5x power		•	•		•		•	•	4.5	3.7				•	•	•	
	GX-88U	n.a.	6x power	•	•	•	•	•		•	•	5.9	4.3		•		•	•	•	
Magnavox	8244	995	5x power	•	•	•	•	•		•	•	4.5	4.0				•	•	•	
	8245	1,100	6x power	•	•	•	•	•		•	•	6.5	5.0		•		•	•	•	
NEC	VC1-2100E	1,395	6x					•			•	13	4.8					•		
Panasonic	PK-700	1,000	6x power			•	•	•	•		•	7.2	4.8				•	•		
	PK-800	1,250	6x power			•	•	•	•		•	7.2	5.3	•			•	•		
	PK-530	775	3x			•	•	•	•	•	•	5.4	3.7				•	•		
Philco	SC2113	1,095	6x power			•		•			•	n.a.	6.4							
Quasar	VK715RQ	850	6x			•	•	•	•	•	•	7.2	5.3				•	•		
	VK730SE	1,000	6x power			•	•	•	•		•	7.2	4.7				•	•		
RCA	CC005	750	3x			•	•	•	•		•	7.0	3.3	•			•	•		
	CC007	995	6x power	•		•	•	•	•		•	7.6	5.5	•			•	•		
Sanyo	VCC542P	950	fixed		•				•	•		7.0	5.7	•	•	•	•	•		
	VCC545P	1,340	6x		•				•		•	7.0	7.7	•	•	•	•	•		
Sharp	QC-35	1,095	6x		•	•		•	•		•	n.a.	7.7	•	•	•	•	•		
Sony	HVC-2010	800	2:1 wide tele		•	•		•	•	•	•	6.5	4.4	•						
	HVC-2000	1,250	6x power		•	•	•	•	•		•	8.3	5.8	•			•	•	•	
Toshiba	IK-1650	1,345	6x			•		•	•		•	11.4	4.8	•	•	•	•	•		
	IK-1850	1,045	6x		•	•		•	•		•	10.0	3.7	•	•	•	•	•		
Zenith	KC1000	995	fixed			•		•		•		8.5	4.9				•	•		
	KC1250	1,395	6x			•		•		•	•	10.8	6.2				•	•		

Note: all data furnished by manufacturers

*through the lens, or optical

- a - optional electronic viewfinder (EVF)
- b - adjustable EVF
- c - optional remote control
- d - mike in grip

- e - a.c. power supply provided
- f - handle
- g - sharpness selector
- h - audio playback

- i - standby mode
- j - shutter switch
- k - auto-focus option (\$350)
- l - fade feature


Blaupunkt Innovations in Automotive Sound

Only the new Blaupunkt 3001 has Remote Control Station Scanning and Illuminated Controls

Here is a sophisticated AM/FM Stereo Cassette that incorporates two of the latest Blaupunkt advances in car stereo.

Blaupunkt engineers have found a way to minimize the aggravation of searching out a station while you drive. The 3001 has a built in microprocessor that, among other things, relieves you of twiddling with knobs and fine tuning dials to isolate the station you want to enjoy.

Scan manually or by remote control



When you want to scan the AM or FM spectrum, you simply press a knob and the microprocessor orders an automatic signal scanner to do the rest. It will lock in each station, crystal clear and with no interference, for five seconds. Then it automatically advances to the next frequency, station by station, until you hear what you like. Just press the knob once more to lock in the station of your choice.

To carry convenience a step further, Blaupunkt furnishes you with a remote

control device which you can mount on your dash or your steering column. This device lets you perform the above scanning operation without even touching the radio.

Illumination for night driving

Convenience is not the only concern of Blaupunkt engineers. To improve the margin of safety during night driving, the essential controls on the face of the 3001 are fully illuminated. You can expect other



The essential controls are fully illuminated. car stereos to incorporate this feature sooner or later. At Blaupunkt we're used to that.

The 3001 sells for \$630* and is part of a complete line of AM/FM stereo cassettes priced from \$250.

Because of its compact chassis plus adjustable shafts it will fit easily into the dash of just about any car, domestic or import.

Blaupunkt 3001 Features

- 4 x 15W (4 separate channels)
- 12 Electronic Station Presets
- Electronic Station Scan
- Remote Control Scanner
- Illuminated Station Controls
- Digital Frequency/Clock Display
- Local/Distance Switch
- Stereo/Mono Switch
- ASU (Automatic FM Noise Suppression)
- **Dolby Noise Reduction Circuit
- Autoreverse Cassette
- Pushbutton Locking Fast Forward and Rewind
- Sendust Head
- Separate Bass and Treble
- Separate Fader and Balance
- Tape Bias Compensation Switch
- Power OFF Eject

**Dolby is a registered trademark of Dolby Laboratories.

To see and hear the remarkable Blaupunkt 3001, consult the Yellow Pages under Automobile Radios for your nearest Blaupunkt Dealer. He'll be glad to give you a free demonstration.

*Suggested retail price exclusive of installation and speakers.

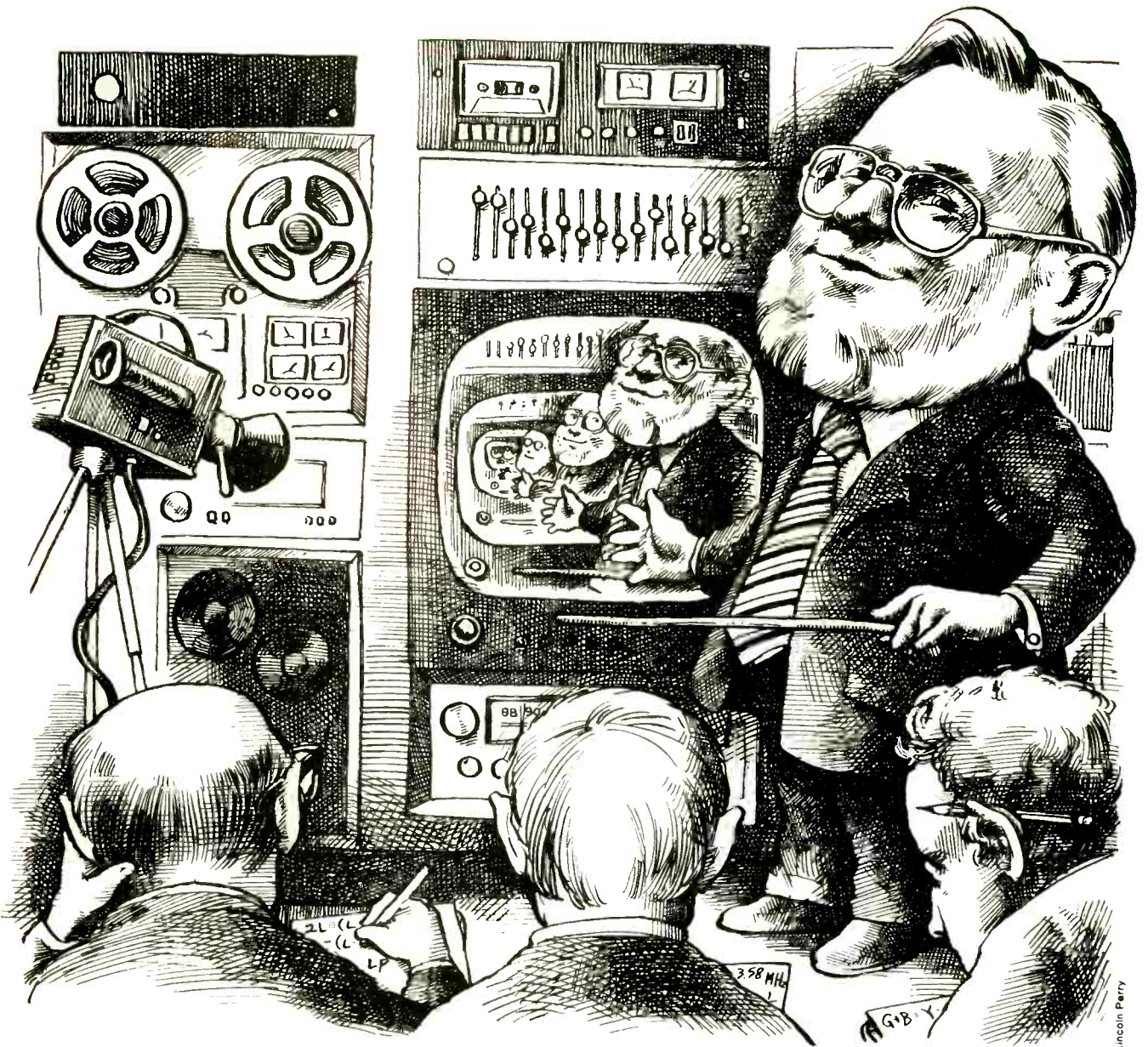
BLAUPUNKT

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VIDEO FOR AUDIOPHILES

By Peter Mitchell



DURING the past quarter-century the all-in-one console "hi-fi" has been replaced in many homes by a system of separate high-performance audio components with two or three musical program sources (turntable, tuner, tape deck). A similar process is beginning to occur with video: the old "television" set which existed only to receive over-the-air TV broadcasts is slowly evolving into a

"video monitor" to display movies and other fare from videotapes, videodiscs, cable systems, and video games. And the manufacturers in Japan have already split up the TV set itself into separate parts optimized for greater flexibility and higher performance: a TV tuner, a preamp/control unit, and a display screen which may be either an enclosed picture tube or a projection screen.

SOME videodiscs already have wide-range stereo sound, the first videocassette recorders with stereo sound and Dolby noise-reduction circuits are now coming to market, and within a few years the Federal Communications Commission (FCC) is expected to authorize stereo-sound TV broadcasting in the U.S. (as the Japanese government has already done for that country's videophiles). So, as time goes by, you'll have increasing incentive either to connect these TV-audio sources into the auxiliary input of your present stereo system or to add another stereo amplifier plus speakers on either side of your TV screen.

Video, like audio, has a specialized technical jargon and a set of specifications that describe the performance of video components. If you are interested in "high-fidelity video" you'll want to learn the language. And if you are already familiar with the jargon of hi-fi audio you've got a head start, because video is based on many of the same physical and electronic principles. To begin, let's examine how a television picture is created.

When a TV camera is pointed at a scene, its lens focuses an optical image on a thin metal plate which then emits electrons (the "photoelectric effect" that Einstein explained in 1905; he won the Nobel Prize for this in 1921). At each spot on the plate, electrons are produced at a rate proportional to the intensity of the light hitting that spot. These electrons are picked up by a detector scanning back and forth over the plate. The varying current it detects is amplified, and this "video" signal (along with a lot of other information needed to reconstruct a TV picture) is then used to modulate a very-high-frequency (VHF) or ultra-high-frequency (UHF) radio transmitter, which then broadcasts the signal.

These VHF and UHF TV signals are broadcast in channels that are 6 megahertz wide as assigned by the FCC (see Figure 1, page 67). For example, Channel 2 uses frequencies from 54 to 60 MHz and Channel 3 those from 60 to 66 MHz. To answer the obvious question: yes, there originally was a Chan-

nel 1 (from 48 to 54 MHz), but before it got much use the FCC decided to reassign those frequencies to police-radio and public-service broadcasts.

There is a break in the sequence between Channels 4 and 5, and above Channel 6 there is another break to accommodate FM-radio broadcasting (which runs from 88 to 108 MHz) and more public-service bands. The series of VHF channels resumes with Channel 7 (174 to 180 MHz) and continues to Channel 13 (210 to 216 MHz). The UHF channels are still higher in frequency, beginning with Channel 14 (470 to 476 MHz) and continuing at 6-MHz intervals to Channel 81 (872 to 878 MHz).

While the TV camera is producing the video signal, microphones pick up the audio. After suitable processing, the audio signal is broadcast via frequency modulation as a separate radio signal at a frequency 0.25 MHz below the upper edge of the specific TV channel in use. Thus the sound of TV Channel 6 is broadcast at 87.75 MHz and can be picked up by some FM tuners.

Your TV set is, first of all, a radio-frequency receiver that tunes to and amplifies the signals of the selected channel. A standard FM-radio-type circuit demodulates the sound signal, and the subsequently amplified audio is fed to the TV set's loudspeaker, while the video signal is demodulated by a wide-band amplitude-modulation detector circuit and fed to the picture tube.

AT the rear end of the picture tube is a metal "cathode" which is electrically heated red-hot; it boils off electrons, which are then focused into a narrow pencil-like beam or ray (which is why the picture tube is often referred to as a "cathode-ray tube," or CRT). The front of the CRT is connected to a high-voltage source (30,000 volts or so), creating there a strong electrostatic charge which pulls the electron beam toward it at high velocity. The inner surface of the tube's face is coated with a metallic phosphor which glows when the speeding electrons hit it.

The tube is surrounded by an electro-

magnetic coil whose purpose is to steer the electron beam back and forth, causing it to scan from left to right across the phosphor face (as viewed from the front), step down slightly, and then scan across again until the electron beam has produced a complete "field" of horizontal lines spanning the tube from top to bottom. The beam then jumps back to the top of the tube and "paints" another set of parallel horizontal scans which are *interlaced* (see Figure 2, page 67) with those of the first field. These two interlaced fields make up a complete television "frame."

Finally, there is a grid of wires in the back of the picture tube near the cathode. When the voltage on this grid is varied, it varies the strength of the electron beam and thus varies the brightness of the phosphor where the beam hits. The grid voltage is controlled by the demodulated video signal received from the TV station; its voltage levels follow the levels picked up by the detector scanning back and forth in the TV camera. So, as the electron ray sweeps across the phosphor in the TV picture tube, its varying strength draws the picture as a varying pattern of brightness identical to that in the image picked up by the TV camera's lens—regardless of whether that camera is in your back yard, in Hollywood, or on the moon.

So far we've discussed only the production of a black-and-white picture. A typical *color* TV camera uses a system of mirrors and filters to split the incoming light three ways so that the scene is detected simultaneously in TV's three "primary" colors (red, green, and blue) by three camera tubes. The three resulting picture signals are encoded into a composite video signal for broadcast (see box on page 66). In your TV set the composite signal is unscrambled to recover the three primary-color signals, which in turn control the strength of three separate electron beams aimed to strike red, green, and blue phosphors arranged in groups of narrow stripes or tiny dots on the inner face of the tube.

Now let's look at the waveform of a typical video signal. The electron beam paints a "field" of about 260 horizontal

lines every 1/60th of a second, scanning from left to right and stepping from top to bottom the way your eyes read this column of print. When the beam reaches the bottom of the screen, it returns to the top and paints a similar field whose lines are interleaved with those of the first field, thus producing a complete 525-line picture "frame" every 1/30th of a second. A few lines are missing because when the scan reaches the bottom, a "blanking" pulse shuts the electron beam off briefly while it resets to the top of the picture. This produces the black bar you can see at the top or bottom of the picture if you slightly misadjust your TV's vertical-hold control. This blanking pulse synchronizes the vertical positioning of your TV's electron beam with that of the scanning detector in the TV camera at the studio. (If you *listen* to the video signal—by connecting the video "line output" from a videocassette recorder to the auxiliary input of your stereo system—the main thing you will hear is the loud "sync" buzz produced by the approximately 60-Hz vertical blanking pulse plus its harmonics.)

The electron beam must scan horizontally across the screen at a rate fast enough to produce a 525-line picture in 1/30th of a second ($525 \times 30 = 15,750$ lines per second). The video signal, in addition to the blanking pulse, includes a horizontal "sync" pulse

which terminates each horizontal scan and returns the beam to the left edge of the screen to start the next line. (With some TV sets, people with sufficiently good high-frequency hearing can hear the 15,750-Hz horizontal-sync pulse as it vibrates certain parts in the set.)

If the picture were uniformly grey, the video signal would consist mainly of the vertical (60-Hz) and horizontal (15.75-kHz) synchronizing pulses plus a d.c. voltage level representing the overall brightness or darkness of the picture. But since the overall brightness of the picture varies from moment to moment and from scene to scene, there are low-frequency modulations in the video signal. And during each horizontal sweep the electron beam must be varied rapidly in intensity by high-frequency modulations in order to reproduce details in the picture. Just to paint a pattern of ten vertical bars in the picture, the electron beam must be modulated in strength at a rate of $10 \times 15,750 = 157,500$ Hz.

The finer the detail in the picture, the higher the frequency of the video signal's modulation. The practical upper limit is set by the fact that the video and audio signals are broadcast on carrier frequencies 4.5 MHz apart in the 6-MHz-wide TV channel. So, in order to prevent the sound from producing interference in the picture, the bandwidth of the video circuits must be less than

4.5 MHz. In fact, while the finest sets have a video-frequency response extending to a little over 4 MHz, many TV sets have a video bandwidth of 3 MHz or less.

Some TV sets have a "detail" or "sharpness" control which boosts or cuts the frequency response of the video circuits at high video frequencies (from about 1 MHz up to the set's upper limit of 3 or 4 MHz). It is exactly analogous to the treble control of an audio amplifier; boosting makes for crisper reproduction of fine details. But just as a treble boost may increase the audibility of any tape hiss or record-surface noise, boosting the video high-frequency response with a detail control also tends to increase the visibility of any video noise ("snow" or graininess in the TV picture).

THERE is a direct relationship between the frequency response of video equipment and the resolution of fine detail in the resulting picture. Thus the picture produced by a videocassette recorder of the Beta or VHS type (whose response typically rolls off rapidly above 1.5 to 2 MHz) is theoretically less sharp than the picture possible from an optical videodisc player whose output remains strong to beyond 3.5 MHz. The wider the bandwidth of the circuitry in your TV set, the more visible this difference is likely to be. □

MULTIPLEXING FOR COLOR

THE encoding of color signals involves a multiplexing process similar to that used for stereo-FM broadcasts. As audiophiles know, in order for a single FM transmitter to broadcast the two channels of stereo sound, the left and right channels are summed together to produce a monophonic (L + R) "baseband" signal with a frequency range from 30 to 15,000 Hz. Simultaneously, a signal representing the *difference* between the two channels (L - R) is used to modulate a 38-kHz subcarrier that is broadcast together with the baseband signal. In your stereo-FM tuner the subcarrier is demodulated to extract the L - R component, and the circuit recovers the separate left and right channels by simple addition and subtraction: $(L + R) + (L - R) = 2L$; $(L + R) - (L - R) = 2R$.

Multiplex encoding for color TV is a little more complex, but the principle is exactly the same. The three color signals—R (red), G (green), and B (blue)—are combined and become the black-and-white "luminance" signal (designated Y) representing the instantaneous strength of a black-and-white



TV receiver's electron beams and thus the brightness of the picture: $R + G + B = Y$.

By selective addition of the color signals, two "difference" signals (Y - R) and (Y - B) are formed: $G + B = Y - R$; $R + G = Y - B$. The luminance signal Y is transmitted as the "baseband" video signal similar to the mono (L + R) signal in FM. Both the Y - R and Y - B color-difference signals modulate a 3.58-MHz subcarrier with the two modulations 90 degrees out of phase.

In your color TV set, the 3.58-MHz subcarrier (or chroma signal) is separated from the luminance signal and phase-locked circuits recover the Y - R and Y - B difference components. Finally, the three primary-color signals are obtained by addition and subtraction circuits: $Y - (Y - R) = R$; $Y - (Y - B) = B$; $Y - R - B = G$. These R, G, and B signals are used to vary the brightness of the three electron beams in a color set's picture tube.

The purpose of this roundabout approach is to make color broadcasting compatible with black-and-white TV sets. A black-and-white TV set ignores the color subcarrier and simply displays the luminance signal (Y).

Incidentally, in Beta- and in VHS-format videocassette recorders the video signal is not recorded directly on the tape in chroma + luminance + audio form. Instead, it is internally converted to yet another encoding system, one which uses a *low-frequency* subcarrier for color, giving up some picture resolution in favor of excellent color stability. Audio is recorded on separate tracks just as in an audio-cassette recorder.

THE VIDEO VOCABULARY

As manufacturers introduce hi-fi video products, they will start using standard video terminology in advertisements and product descriptions. It's best to learn them now because the following words will probably be appearing almost immediately in ads for TVs, VCRs, monitors, and projection TVs.

● **Chroma.** The encoded color signal (see accompanying box on "Multiplexing for Color"). A complete video waveform consists of *luminance*, *chroma*, and *sync* signals.

● **Comb filter.** Figure 1 shows the frequency spectrum of one entire color-television signal as broadcast, using Channel 3 as an example. As you can see, the highest frequencies in the *luminance* signal (between 3 and 4 MHz, representing the finest picture details) straddle the *chroma* signal at 3.58 MHz. As a result, conventional TV circuits don't completely succeed in separating the luminance and chroma signals. (A common symptom of this is a false color shimmer superimposed on fine black-and-white stripes, such as a sport referee's shirt.) A comb filter is a circuit element used to provide complete separation of the luminance and chroma signals, yielding more accurate reproduction of fine picture details.

● **Convergence.** A color-TV image is formed by three scanning electron beams producing images in TV's three "primary" colors (red, green, blue); these must be precisely aligned with each other on the screen to form a sharp composite image. If the three beams don't converge at the same spot on the screen, the result is colored fringes at the edges of objects in the scene as well as a less crisp image.

● **Copyguard, Stop-copy.** Trademarked names for processing applied to a prerecorded videotape to prevent unauthorized copying of the recording. Typically, the 60-Hz vertical-sync pulses are weakened, with the expectation that when they are further weakened in copy-

ing the tape, the image will "roll" vertically in playback.

● **DC restoration.** The overall brightness or darkness of the television image is represented by the d.c. level of the video signal. In many older or inexpensive sets without d.c. response, the screen fades to medium grey (rather than black) between scenes and exhibits poor contrast in night scenes. Many new TV sets have special circuits that ensure accurate restoration of the d.c. levels in the video signal as it is fed to the picture tube.

As an incidental side effect, DC restoration circuits alter the behavior of the brightness and contrast controls. Back in the old days, the brightness control set the average brilliance of the picture while the contrast control quite literally adjusted the contrast between the light and dark areas of the picture. In a set with 100 per cent DC restoration, the contrast control sets the "black level" (the darkness of the black areas) while the brightness control ("picture" in many newer sets) adjusts the "white level" (the brilliance of the highlights).

● **Interlace.** TV frames are made up of pairs of successive 260-line fields whose scan lines are supposed to be evenly interlaced (see Figure 2a). But imperfect interlacing of the scan lines in alternate fields is a common problem in TV sets. In severe cases, the pairs of lines drift together, forming a visibly coarse picture (see Figure 2b).

● **Luminance.** That portion of the NTSC color-television signal which contains the picture's brightness information. Black-and-white TVs use only luminance information, ignoring *chroma* signals.

● **NTSC.** The system of encoding color signals for broadcast, using a 3.58-MHz subcarrier for color information (see box "Multiplexing for Color"), selected as the U.S. standard in 1953 by the National Television Standards Committee. Critics of the system claim that the initials stand for "Never Twice the Same

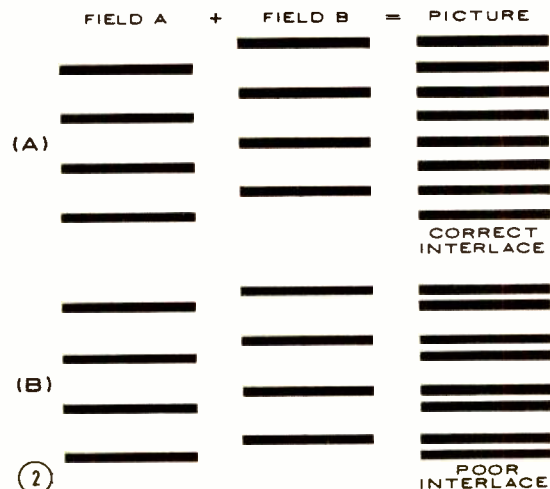
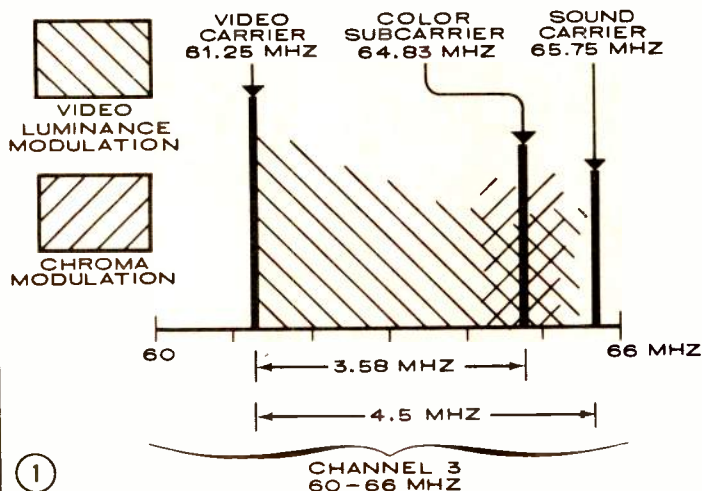
Color." (Other techniques for color broadcasting, used in Europe and South America, are PAL and SECAM).

● **Resolution.** The resolution (the amount of distinct, fine detail) across the width of the screen is basically limited by the frequency response (bandwidth) of the video circuits and by the *convergence*. The resolution in the vertical direction depends on accurate *interlace* and also on the convergence. Sometimes the resolution is expressed numerically as the number of "lines" (alternating black and white stripes in a test pattern) that can be squeezed into a picture without their blending together into a grey video mush. A figure of 350 lines for both horizontal and vertical resolution is considered excellent for home video equipment.

● **RF modulator.** A very-low-power radio transmitter which accepts video and audio signals and transmits them via a cable to the antenna terminals of your TV, usually Channel 3 or 4. An r.f. modulator is included within videodisc players, videocassette recorders, video games, and in some home computers to permit displaying their signals on the TV set's screen. A few TV sets are equipped with direct video and audio inputs, avoiding the need (as well as the potential signal degradation) to convert the video and audio signals to radio frequencies and subsequently demodulate them in the TV-receiver circuits.

● **Signal-to-noise ratio or S/N.** Video noise, which is analogous to tape hiss in an audio recording, appears as "snow," colored "confetti," or (at low noise levels) a grainy texture in the picture. A video signal-to-noise ratio of 40 dB is good; 45 dB is very good.

● **Sync, Synchronization signals.** The synchronization signals or timing pulses that lock the electron beams of the picture tube in horizontal and vertical step with the scanning detector of the originating TV camera. The *chroma* signal requires a special sync signal called a "color burst."



STEREO REVIEW'S SELECTION OF RECORDINGS OF SPECIAL MERIT

BEST OF THE MONTH



● Michelangeli Plays Beethoven's First Piano Concerto ●

ARTURO BENEDETTI MICHELANGELI, sixty-one years old on January 5, has been "a legend in his own time" since he was half his present age. Indeed, it would almost seem that the special reverence the great Italian pianist enjoys among colleagues and connoisseurs would have to be based on legend, since he appears in public so infrequently and makes so few recordings. But his new recording of the Beethoven C Major Concerto, with the Vienna Symphony Orchestra under Carlo Maria Giulini, is very much the stuff from which legends grow.

This is, first of all, a very large-scale interpretation of a work that is often deliberately miniaturized as a cute little trumpet-and-drum concerto—and almost as often inflated to self-consciously heroic proportions which tend toward the burlesque. Michelangeli doesn't seek to inflate its dimensions: his approach has nothing of the "monumental" about it, and it is certainly not the least bit earthbound. He presents no eccentricities, no interpretive overlay, only a magnificent illumination from within. Huge technical and intellectual resources are brought to bear—one can hardly be unaware of them—and yet they seem to serve an instinctive response to the Beethoven essence. The mood is at once expansive and vigorous. Tempos are fleet but unrushed, as if pianist and conductor were aware that with this work Beethoven was eager to leave the eighteenth century behind him—but confident enough not to run from it. This music is far more forward-looking than imitative, after all: "pure Beethoven from start to finish," as Denis Matthews puts it in his brief but

pointed annotation, and this performance, perhaps more successfully than any other on records, is living validation of that remark.

"Living," indeed, is a key word for this performance. Like so many other outstanding ones among Deutsche Grammophon's recent releases, it was taped live, in this case during a television concert in September 1979. One can only speculate as to whether the presence of the audience made a difference, but the advantage of the momentum that comes only with an uninterrupted "for real" presentation is beyond question. Here the momentum is set in the supple opening *tutti* (which also prepares us for some exquisite orchestral playing) and never falters.

In the first movement Michelangeli plays the last of Beethoven's own three cadenzas, still somewhat controversial but especially well suited, I think, to

viction by maintaining the same noble poise that distinguishes the opening section. The solo clarinet, by the way, is quite exceptionally eloquent in the lovely episodes Beethoven provided for it. The finale is as pungent and witty as one could hope, again without being the least bit labored: one might think this was Beethoven himself, but Michelangeli's high spirits show none of the "freakishness" Ferdinand Ries reported in the composer's performance of this movement.

And what a complete, exalted partnership this is! Naturally, it is no mere "accompaniment" that Giulini provides, but a superb symphonic realization, thoroughly and totally in accord with Michelangeli's own vision, ideally proportioned but essentially *big*. The feeling of complete mutuality, of total integration, that one senses here—rare enough in any case—may well be another benefit of the "live" recording. The sound is as good as Deutsche Grammophon's current studio standard, which is to say excellent; the balance between the piano and the orchestra is superior to many studio images, and the disc surfaces are incredibly quiet. The audience is quiet, too, its coughs and throat-clearings restricted mostly to the break between movements. But I do wish the applause could have been cut out at the end; it is a bit of an intrusion, and seems more so with repeated hearings—and this, of all recordings, is one that will be heard repeatedly. Perhaps it couldn't be done without undue abruptness; in any event, the work has not been better served in its many recordings, nor its true character more fully realized. —Richard Freed

BEETHOVEN: Piano Concerto No. 1, in C Major, Op. 15. Arturo Benedetti Michelangeli (piano); Vienna Symphony Orchestra, Carlo Maria Giulini cond. DEUTSCHE GRAMMOPHON 2531 302 \$9.98, © 3301 302 \$9.98.

this inspired performance. The cantabile line of the slow movement is particularly affecting in the patrician simplicity with which it is set forth here, and Michelangeli's remarkable sense of proportion allows him to bring off the dramatic moments with unusual con-

"eager to leave the eighteenth century behind but confident enough not to run from it."



Arturo Benedetti Michelangeli
(Photo by Lauterwasser, courtesy Deutsche Grammophon)



**BEST OF MONTH:
RECENT SELECTIONS
YOU MAY HAVE MISSED**

CLASSICAL

- American Brass Quintet: *Music of the Mid-1800's*. TITANIC TI-81. "Invigorating music, strikingly performed." (December)
- Brahms: *Piano Sonatas Nos. 1 and 2*. DEUTSCHE GRAMMOPHON 2531 252. "An elemental romantic impulse." (December)
- Martínu: *Symphony No. 2; Symphony No. 6 (Fantasies Symphoniques)*. SUPRAPHON 4 10 2096. "One of the most welcome orchestral releases of the year." (October)
- Mozart: *The Magic Flute*. DEUTSCHE GRAMMOPHON 2741 001. "A wonderful achievement... a beauty." (November)
- Mozart: *Piano Concertos Nos. 8 and 22*. CBS M 35869. "Nothing less than a model of how this music should sound." (November)
- Ruggles: *The Complete Music*. CBS M2 34591. "Material of the highest interest vividly presented." (October)
- Schumann: *Liederkreis, Op. 39; Liederalbum für die Jugend, Op. 79*. PHILIPS 6769 037. "Rare interpretations by Ely Ameling." (December)
- Verdi: *Luisa Miller*. DEUTSCHE GRAMMOPHON 2709 096. "Excellent, with completely captivating singing by the two leads." (September)

POPULAR

- George Benson: *Give Me the Night*. WARNER BROS. HS 3453. "Eloquent, expressive pop music from a master of jazz." (December)
- The Canadian Brass and Friends: *Unexplored Territory*. MOSS MUSIC GROUP MMG 1119. "Happy musical surprises, stunningly recorded." (September)
- Cornelia Street: *The Songwriters Exchange*. STASH ST-301. "Beautiful little album; the best and brightest of the troubadours." (December)
- Al Di Meola: *Splendido Hotel*. COLUMBIA C2X 36270. "Awesomely exciting tapestry of sound." (October)
- Larry Gatlin: *The Pilgrim*. COLUMBIA PC 36541. "Full of warm, goodhearted, tuneful surprises." (November)
- Carole King: *Pearls*. CAPITOL SOO-12073. "Not only a classy album, but a timely one." (September)
- The Records: *Crashes*. VIRGIN VA 13140. "Sixties-inspired humor, refreshingly benign and therapeutic." (November)
- Carly Simon: *Come Upstairs*. WARNER BROS. BSK 3443. "Enormous musical vitality combined with a fierce intelligence." (October)
- Paul Simon: *One-Trick Pony*. WARNER BROS. HS 3472. "As good as anything he's ever done." (December)

**Donny Hathaway's
"In Performance":
A Posthumous Addition
To a Treasurable Legacy**

As the opening song on the posthumously released album "In Performance" suggests, Donny Hathaway truly was young, gifted, and black. And the fact that his career was so short (ending when he either jumped or fell from a hotel window on New York's Central Park South in 1979) should make us appreciate all the more the small but choice legacy of recordings he left behind.

His performing and recording career was in eclipse at the time of his death while he struggled with his personal demons. His earliest work—his first two albums were recorded in 1970 and 1971—had perhaps been his best. Those who heard him then were immediately struck by the heavy gospel influence in his style—like so many black artists, he had started out singing and playing in church. But Hathaway stood out from others who had been similarly shaped, for he built a remarkable intensity into his music using only the quality of his voice and the originality of his piano style; he didn't have to shout or grunt to convey passionate feelings.

Several of his recordings dating from those years sound remarkable even today—among them *The Ghetto*, *Tryin' Times*, *Little Girl*, and *He Ain't Heavy, He's My Brother*—and his collaboration with Roberta Flack on a 1972 album featuring the hit *Where Is the Love* was a highlight in both of their careers.

Since his best recordings were some years behind him when he died, and since an album released last year (featuring him on a few tracks with Flack) was hardly representative, this new album is particularly welcome. Here is the Donny Hathaway we should remember and treasure, featured in live performances at New York's Bitter End and the Troubadour in Los Angeles. (No information is supplied on the recording date, but it can be assumed that the time was about 1972 since another live Hathaway album dates from then and it, too, was recorded at the Bitter End.) Hathaway is in an easy, relaxed mood, moving with the songs as though they were natural extensions of his own psyche, transforming Leon Russell's *A Song for You* and Al Kooper's *I Love You More Than You'll Ever Know* into neo-gospel art songs. Two of the singer's own compositions, *Nu-Po* and *We Need You Right Now*, provide ample space for him to display his keyboard facility. The rapturously beautiful *Sack Full of Dreams*, which was written by the late

DONNY HATHAWAY: remarkable built-in intensity



Lynn Goldsmith



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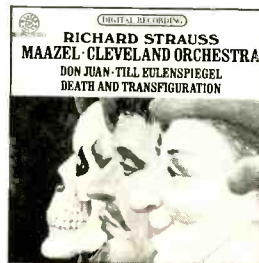
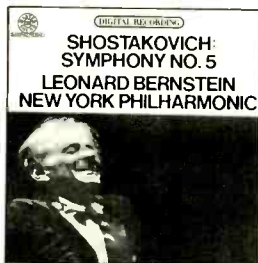
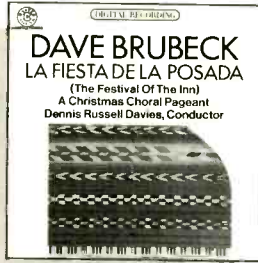
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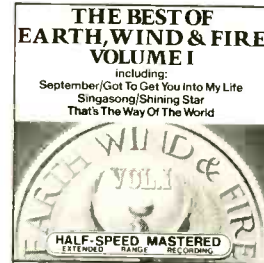
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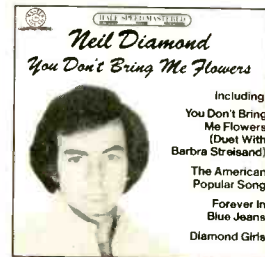
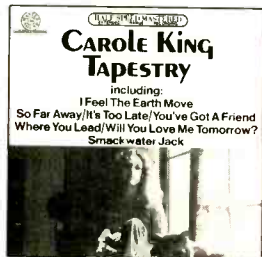
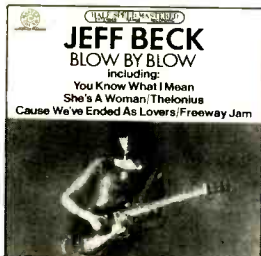
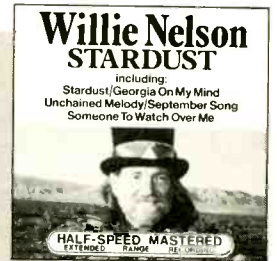
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Gary McFarland and Lou Savary, is treated with the delicacy it deserves.

A special element of this recording is the audience; they are noisy, they talk back, they shout approval, but somehow, for all that, they are part of the performance too—as they are with all gospel music, even when it hides under the trappings of r-&b. With the release of this album, the historical record can now be set a bit straighter about what this young artist contributed in his few productive years. Perhaps it is too much to hope that there might still be a little more in the vaults, but hope we will. —Phyl Garland

DONNY HATHAWAY: *In Performance.* Donny Hathaway (vocals and keyboards); Phil Upchurch, Mike Howard (guitars); Fred White (drums); Willie Weeks (bass); Earl Derouen (congas); Cornell Dupree (guitar); Richard Tee (organ). *To Be Young, Gifted and Black; A Song for You; Nu-Po; I Love You More Than You'll Ever Know; We Need You Right Now; Sack Full of Dreams.* ATLANTIC SD 19278 \$7.98, © CS 19278 \$7.98, © TP 19278 \$7.98.

Bassist Ron Carter's Formidable Sextet: For Those Who Know Real Jazz from Polyester

A STAUNCH defender of acoustic jazz, bassist Ron Carter has pulled flutist Hubert Laws and drummer Billy Cobham away from their frilly electronic environments and given them important roles in a formidable sextet assembled for a new album called "New York Slick." Carter himself, however, is the slick one here. Quite apart from containing some of the most delightful jazz recorded in recent years, the album proves a few points: (1) it is a fallacy to believe that one of our favorite musics has nowhere to go but into the nearest electric socket, (2) it is a frightful waste of talent for Cobham and Laws not to play within this kind of acoustic framework at least occasionally, and (3) we have not heard nearly enough of Art Farmer and J. J. Johnson since the Fifties and early Sixties when their music was as ubiquitous as it ought to be now.

The sextet, completed by the vital presence of pianist Kenny Barron, is augmented by guitarist Jay Berliner and percussionist Ralph McDonald on



RON CARTER: providing an alternative musical route

one selection, *Tierra Española*, Carter's now almost ritual bow to Spanish music. Although the additional personnel sound fine, this sextet really needs no help. I don't know if Ron Carter had anything in mind other than making another fine album, but I think some record companies—especially those that profess to care for jazz—might learn a lesson from his work. Carter can not only distinguish real jazz from the polyester kind, but he also knows how to utilize a vast talent resource that goes largely to waste these days. Carter himself produced "New York Slick," and there is no reason why he could not act as producer for somebody else.

All this is to say that Ron Carter has come up with yet another outstanding album, one that differs in personnel as well as in sound from anything he has done before. I guess you've gotten the idea by now; I think a great deal of Mr. Carter's ability to produce good jazz—whether it be from behind his bass or the glass of the control-room window—and I think "New York Slick" is a model from which much knowledge and enjoyment are to be gained. One of Carter's five compositions here contains a wonderful brassy nod to early jazz. It is called *Alternate Route*, and I recommend that you play it for any friend who's tired of boogying down that fusion road. —Chris Albertson

RON CARTER: *New York Slick.* Ron Carter (bass); Art Farmer (flugelhorn); J. J. Johnson (trombone); Hubert Laws (flute); Kenny Barron (piano); Billy Cobham (drums); other musicians. *A Slight Smile; NY Slick; Tierra Española; Aromatic; Alternate Route.* MILESTONE M-9096 \$7.98.

The Best Yet: Giulini's Somber, Lyrical *Rigoletto* for Deutsche Grammophon

WITH his new *Rigoletto* for Deutsche Grammophon, conductor Carlo Maria Giulini has returned to recorded opera after a self-imposed exile of ten years, and it is obvious that he has been absent too long. This is a performance that bears the imprint of his immense authority in the music of Verdi, and though it may perhaps be too austere for some, it is very convincing to me. Giulini presents the music in somber colors, and, while the tempos are deliberate, they never drag. There are many remarkable details that indicate painstaking rehearsals (the cruel laughter in the violins as the courtiers mock Monterone, or the incisive orchestral statement in "*Ella mi fu rapita*"), but this is an interpretation that manages to remain faithful to the printed score (Verdi's written cadenzas are followed and virtually all interpolations are excluded) while avoiding undue rigidity. *Rigoletto* is a milestone in the Verdi canon; it deserves the care Giulini has lavished on it.

The entire cast benefits from this kind of leadership. Piero Cappuccilli has always been at his best with an inspiring conductor (for example, his Simon Boccanegra for Abbado, his Posa for Karajan), but he has never been a sensuous-toned singer. Do not, there-



CARLO MARIA GIULINI:
too long absent from
recorded opera

fore, look for overwhelming vocal thrills in his performance; admire instead his humanity, his conscientious way with Verdi's markings, his sensitive handling of the text, and his reassuringly secure vocalization.

Ileana Cotrubas seems to have realized Giulini's view of Gilda (as set forth in the accompanying notes by Richard Osborne) as well. Since she is not, in this view, a *soprano leggiero* but a girl who is "matured by love," coloratura exhibitions are accordingly not stressed (there are, in fact, some precarious high B-flats in the Garden Scene), but the singing is always affecting, the portrayal always believable.

Once again, the full vocal impact of Placido Domingo has not been captured in recording; here the tone has a "pressed" quality uncharacteristic of the tenor's freely produced sound. Nonetheless, he brings elegance and true lyricism to his three arias (I would have liked an even more modulated tone in "*Ella mi fu rapita!*"), and he is outstanding in the Quartet, in which his three colleagues also shine.

Happily, the supporting cast is solid all the way. Nicolai Ghiaurov is a real "presence" as Sparafucile; so is Elena Obraztsova as Maddalena, though her heavy vibrato spoils the vocal effect. Kurt Moll's doomsday sound underlines Monterone's significance in the plot, while the talents of Hanna Schwarz, an outstanding German mezzo, are lavished on the few phrases of Giovanna, Gilda's deceitful companion.

There are some imperfections of pitch and a few small imprecisions in

stage-vs.-pit coordination—which is to say merely that Giulini is not a drill master. But his somberly lyrical view of this music is a welcome contrast to the snappy, soulless, and basically superficial conducting we sometimes get in Italian opera, and for me it places this new set above all other recordings of *Rigoletto*. —George Jellinek

VERDI: *Rigoletto*. Placido Domingo (tenor), the Duke of Mantua; Piero Cappuccilli (baritone), *Rigoletto*; Ileana Cotrubas (soprano), Gilda; Nicolai Ghiaurov (bass), Sparafucile; Elena Obraztsova (mezzo-soprano), Maddalena; Hanna Schwarz (mezzo-soprano), Giovanna; Kurt Moll (bass), Monterone; Luigi de Corato (baritone), Marullo; Walter Gullino (tenor), Borsa; Dirk Sagemüller (baritone), Ceprano; others, Vienna Philharmonic Orchestra, Carlo Maria Giulini cond. DEUTSCHE GRAMMOPHON 2740 225 three discs \$29.94, ©3371 054 \$29.94.

A Triumphant Final Volume: Ruth Laredo's Survey of Rachmaninoff's Music for Solo Piano

WITH her seventh (and concluding) volume of Sergei Rachmaninoff's solo piano music for CBS, Ruth Laredo has scored a resounding inter-

pretive triumph, and for the first time—at least in my experience of the discs in this series—she has received recorded sound worthy of her efforts. Her interpretation certainly bears comparison with the unique Horowitz reading of Sonata No. 2 (also issued on CBS) as well as the formidable and superbly recorded version of the same music by Jean-Philippe Collard for Connoisseur Society (still available in the InSync cassette series, C 4024). And not the least advantage that Laredo's version enjoys vis-à-vis the competition is that of having *both* the sonatas on a single disc, as was the case with the 1968 RCA issue by the English pianist John Ogdon.

In any event, Miss Laredo's interpretation of the D Minor Sonata—a work contemporaneous with the Second Symphony and, like it, long and densely textured—is the first I have heard that extracts the last iota of detail, in both structure and content, from the piece and does so with a true sense of the grand line. She makes the most of the contrast between the stormy first movement and the achingly lovely slow movement, bringing the sonata to a shattering culmination in the thirteen-minute finale; her fingers are of steel, and it is finely tempered.

When it comes to comparison with Horowitz, Laredo's splendid account of the musically more complex but texturally less overloaded Second Sonata is revelatory. In the finale, like Collard, she steadfastly maintains the human dimension; Horowitz (for me, at least), almost with that amazing velocity



Gurtman & Murtha

RUTH LAREDO: *the human dimension*

alone, seems to enter into the (other) world of Scriabin.

Laredo completes the disc and the series with the 1911 *Polka on a Theme by V. R.* (Vassili Rachmaninoff), a touching but virtuosically challenging tribute by Rachmaninoff to his father. As already noted, the piano sound, though a bit "hot" and close-up, does these performances ample musical justice.

—David Hall

RACHMANINOFF: *Piano Sonata No. 1, in D Minor, Op. 28; Piano Sonata No. 2, in B-flat Minor, Op. 36; Polka on a Theme by V. R.* Ruth Laredo (piano). CBS M 35881 \$8.98, © MT 35881 \$8.98.

Amazing Rhythm Aces: Never Far from the Black and White Origins of Rock

A RECORD that really works drives all errant thoughts out of your mind and makes you listen. The Amazing Rhythm Aces' "How the Hell Do You Spell Rythum?" does that for me. Many of the reasons are subjective, of course, but not all. The objective ones relate to how well this band—surely one of the best around now—has mastered what are, for me, the fundamentals. You might think any band good enough to be recorded several times must have the fundamentals down—but then you might think the same of any team competing in the National Football League, where the Pittsburgh Steelers, like the Green Bay Packers before them, beat up *everyone* for years simply by being better at the basics. In the case of "How Do You Spell . . .," your body notes the difference between merely good timing and *excellent* timing even if you don't form conscious thoughts about it, and timing is the most fundamental of the fundamentals. Studying Van Morrison's *Wild Night*, in which timing is virtually everything, will show you the Aces were on top of it during these sessions.

Their whole approach is fundamental to start with, in the sense of sticking close to the main sources of rock: basic black and basic white, commonly called blues or r-&-b and country, the two kinds of music that Elvis Presley

started with. A Muscle Shoals product, this album never strays far from either and ends with a probe back into each with gospel overtones: *I Got the Feeling*, written by Eddie Hinton and Dan Penn, is r-&-b with black-gospel feelings tugging at it, and *Give Me Flowers While I'm Living*, by Louise Certain, Elvin Bigger, and Gladys Stacey, is both bluegrass and white gospel.

The Aces get a soaring slide solo from Duncan Cameron on Taj Mahal's *Farther On Down the Road* and some high-profile moments from sax player Al Garth, guesting from the Dirt Band, but generally they feature a modest sneakiness among the instrumentalists rather than big showy displays. If anyone is spotlighted, it is—as it should be—vocalist Russell Smith, who just keeps getting better and better. He has grown by leaps and bounds technically, but he hasn't lost anything of the odd combination of boyish and worldly attitudes he brings to a song.

Behind him the band leaves the optimal amount of air and plays some fills that will roll your socks up and down while generally making everything seem simple and easy. It may be simple, but albums of this stature are rare enough to prove it isn't easy.

—Noel Coppage

THE AMAZING RHYTHM ACES: *How the Hell Do You Spell Rythum?* The Amazing Rhythm Aces (vocals and instrumentals). *What Kind of Love Is This?; Object of My Affection; You Left the Water Running; I Musta Died and Gone to Texas; Living on Borrowed Time; Wild Night; Big Ole Brew; Further On Down the Road; I Got the Feeling; Give Me Flowers While I'm Living.* WARNER BROS. BSK 3467 \$7.98, © M5 3467 \$7.98, © M8 3467 \$7.98.



AMAZING RHYTHM ACES:
left to right, James
Hooker, Russell
Smith, Jeff "Stick"
Davis, Duncan Cameron,
Butch McDade, and
Billy Earheart

Norman Seeff/Warner Bros.

Classical Music Briefs



ICM Artists, Ltd.

THE Russian government has decided it can do without a couple more of its first-ranking artists. Latvian-born violin virtuoso **Gidon Kremer** and his pianist wife **Elena** last August asked for permission to establish a second residence in West Germany where his parents now live—and where critics have called him the world's finest violinist. Permission was denied, and various freedoms the couple had previously enjoyed were withdrawn, so they left the Soviet Union.

An extensive fall tour of the U.S. and Europe included a Carnegie Hall recital (their third) with an unconventional program: a piece by the contemporary Estonian Arvo Pärt, Brahms' G Major Sonata, the Bach *Chaconne*, the Ravel *Sonate Posthume* (published only last year), Satie's only work for violin and piano, and Milhaud's "cinema fantasy" from *Le Boeuf sur le Toit*. Among the encores was Charlie Chaplin's *Smiles*. Kremer's playing on the

occasion was technically astonishing, tonally beautiful, and interpretively so imaginative as to make most other violinists seem like mere purveyors of proficiency.

"I do not understand," says Kremer, "why people refer to me as an 'intellectual violinist.' When I am standing on stage playing, I am the least intellectual being in the world." His puzzlement is unquestionably honest, but Kremer exists on a level of musical sophistication that is almost awesome, and he generously tends to believe that other people operate there too.

Although he prefers concert performance, he has made about forty LPs and has just signed a contract with Philips for seven more. The repertoire will include Bach's Sonatas and Partitas for Unaccompanied Violin, the Schubert Fantasy, Prokofiev's Sonata for Unaccompanied Violin, the Stravinsky *Duo Concertante*, Chausson's *Poème*, Vieuxtemps' *Fan-*

tasia Appassionata, a sonata by F. X. Mozart, some early Beethoven variations, and the Satie, Ravel, and Milhaud pieces the Kremers played at Carnegie. Also expected are an already recorded Tchaikovsky concerto and Vivaldi's *Seasons* from Deutsche Grammophon plus an EMI recital record that includes the Hindemith Sonata, Op. 11, No. 1, with pianist Andrei Gavrilov.

Kremer says that he is in the West to stay, though adjustment is far from complete. "I have that," he told me, referring to a score, "at home—no, not at home; in Riga. Some day we will have a home, but now I am never at home. I am always in between." —J.G.

IT was a great day for the Italians—Columbus Day 1980, that is—when tenor **Luciano Pavarotti**, suitably costumed, led the traditional parade up

Fifth Avenue in New York. It was probably the only opportunity Pavarotti will ever get to play the role of Columbus, since the one opera we know of on the subject, Darius Milhaud's *Christophe Colomb*, calls for a baritone.

Italy's best-known cultural ambassador to the U.S. since Enrico Caruso, Pavarotti is finishing his autobiography, which is due in the spring from Doubleday, and will spend the summer starring in an MGM movie, *Yes, Giorgio*. But such extracurricular activities will not affect the steady flow of his records onto the market. In addition to his recital of verismo arias and the complete *William Tell* issued in November, London Records is holding for future release Pavarotti recordings of *La Traviata* and *La Sonnambula*, both with **Dame Joan Sutherland**, as well as *Mefistofele* and *La Gioconda* with **Montserrat Caballé**. □



It took **Marla Callas** to displace tenor **Luciano Pavarotti** at the top of *Record World's* classical charts. "Pavarotti's Greatest Hits," a two-disc London set, held the number-one spot as best-selling classic of the week for twenty uninterrupted weeks until Angel's new complete recording of Verdi's *La Traviata* with Callas edged Pavarotti out in September. Since then the two albums have alternated as number one with Philips' recording of Verdi's *Stiffelio* and Deutsche Grammophon's digital set of Mozart's *Magic Flute*.

Three years after her death Callas also continues to be in the news in other ways. A new biography, *Maria, Beyond the Callas Legend*, by Adrianna Stassinopoulos, has been published in England, and another by a cousin of Callas is said to be forthcoming. And baritone **Tito Gobbi**, who frequently sang and recorded with Callas, speaks of her with affection and admiration in his autobiography *My Life*, just published by Doubleday. In part, Gobbi says: "Her musical and dramatic instincts were faultless, and her dedication to her art was total. . . . She shone for all too brief a while in the world of opera, like a vivid flame attracting the attention of the whole world. I always thought she was immortal—and she is." So it would seem. □

CBS Masterworks recorded the Verdi Requiem with the same artists who performed it in Exxon's Live from Lincoln Center telecast last October 22: the **New York Philharmonic** conducted by **Zubin Mehta** with soloists **Montserrat Caballé**, **Blanca Berini**, **Plácido Domingo**, and **Paul Plishka**. Scheduled for release in the CBS Mastersound series in the spring, it will be the first recording of the Requiem for Mehta and for the Philharmonic as well as the first digital recording of the work. □

This past fall CBS Masterworks began marking Canadian pianist **Glenn Gould's** twenty-fifth anniversary on that label with monthly Gould releases. The "25th Anniversary Album," a two-record set issued in November, contains works by Scarlatti, C. P. E. Bach, and Scriabin as well as Strauss lieder with Elisabeth Schwarzkopf and Gould's satire *So You Want to Write a Fugue* (originally released on a 7-inch record bound into these pages

in April 1964). Also in the album is an interview in which Gould is questioned by "illustrious music critics"—all portrayed by Gould himself.

Interviewed by Elyse Mach for her book *Great Pianists Speak for Themselves* (Dodd Mead, 1980), Gould explained why he conducted his career primarily through records: "By the time I was in my late teens I had decided that there was something just a little bit degrading about giving concerts. The process was essentially distasteful. I did realize, however, that it was a most convenient way to make some money. . . . By the time I was in my early twenties, I thought I'd give concerts for a decade and by that time I'd be thirty and retire. Well, at least I came close! I retired at thirty-two. Retired, that is, from giving concerts."

Gould told Ms. Mach that the only pianist who influenced him in interpreting Bach was Rosalyn Tureck. The singers who have most impressed him are Schwarzkopf and Barbra Streisand, and he thinks he is the only person who reviewed Streisand's "Classical Barbra" favorably. Other records to get high marks from Gould are Alfred Brendel's Mozart concertos and Alexis Weissenberg's Rachmaninoff Second with Herbert von Karajan. He finds today's ubiquitous rock music offensive. "It's so simpleminded, I



AWARDS beget awards. Every time a member of the American Society of Composers, Authors and Publishers wins the Pulitzer Prize in Music, ASCAP gives him a special medallion for having won the prize. Here ASCAP president Hal David (left) lays the medallion on **David Del Tredici**, the twentieth ASCAP member to win the Pulitzer. "I don't know what the fuss is about," said Del Tredici. "There's nothing to composing, really, you just sit down at the

piano and open a vein." After thanking his publisher Boosey & Hawkes for having had faith in him and ASCAP for giving him the medallion and a luncheon, Del Tredici, who has written a number of works based on *Alice in Wonderland*, thanked his collaborator Lewis Carrol for some good compositional advice: "'Begin at the beginning,' the King of Hearts said to the White Rabbit very gravely, 'and go on till you come to the end. Then stop.'" □

can't understand things that are that uncomplicated."

Gould's first recording for CBS, Bach's *Goldberg Variations*, has been rechanneled for

stereo and is still available on disc (M 31820) and cassette (MT 31820). Over the last twenty-five years it has sold more than 150,000 copies. □



Left to right, Galbraith, Jaron, Steber, Norskog, and Karoussatos

AERICAN soprano **Eleanor Steber** is celebrating the fortieth anniversary of her Metropolitan Opera debut (December 7, 1940) as Sophie in *Der Rosenkavalier*. A versatile singer with a large repertoire, Miss Steber performed thirty-three roles in her twenty-six years at the Met. She sang the first performance of Samuel Barber's

Knoxville, Summer of 1915 with the Boston Symphony Orchestra in 1948 and recorded it for Columbia (Odyssey 32 16 0320). At the Met in 1958 she created the title role in Barber's *Vanessa* (RCA ARL2-2094).

Among her anniversary honors is a certificate of appreciation from the mayor of New York presented to her at Town

Hall on December 8 at a joint recital by the winners of this year's vocal competition sponsored by the Eleanor Steber Foundation. The four winners are sopranos Shirley Jaron and Lani Norskog and baritones Robert Galbraith and Nicholas Karoussatos, young singers whom the record companies will just have to fight over. □

Disc and Tape Reviews

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

BEACH: Theme and Variations, Op. 80.
HOOVER: Divertimento. FOOTE: A Night Piece. Diane Gold (flute); Alard Quartet.
LEONARDA LPI 105 \$8.98.

Performance: **Excellent**
Recording: **Good**

Amy Marcy Cheney Beach was born in Boston in 1867 and lived until 1944, making her mark as a concert pianist and a composer. Both she and Arthur Foote (1853-1937) belonged to a group of Boston composers (also including John Knowles Paine and George Chadwick) who worked within the European Romantic tradition but gave their music a kind of lean muscularity that distinguished it as American. Their work has been too much neglected and well merits preservation on discs. Beach's Theme and Variations, for flute and string quartet, is a persuasive, superbly structured work that reaches particular nobility in its penultimate fifth movement, a largo that may owe something to Impressionism, something to

Franck, and something to the German Romantics yet still manages to sing in its own voice.

Arthur Foote was born in Salem, Massachusetts, and, like Mrs. Beach, got all his musical training on this side of the Atlantic. He contributed a number of striking pieces to the repertoire, notably his Suite for Strings. His *A Night Piece* is the shortest but also the darkest and deepest of the works recorded here. Katherine Hoover, born in West Virginia in 1937, writes in a later idiom, and her divertimento is a far lighter affair in which the flute substitutes for the first violin in a string quartet. The four musicians toss about a series of airy themes, sometimes with a French or Russian accent, sometimes in the language of jazz or a hint of Bartók.

The performances by flutist Diane Gold and the Alard Quartet are all excellent, highly polished and exceptionally expressive. The sound is quite good too, and the disc surfaces are unusually quiet. *P.K.*

BEETHOVEN: Piano Concerto No. 1, in C Major, Op. 15 (see Best of the Month, page 68)

BRAHMS: Concerto in A Minor for Violin, Cello, and Orchestra, Op. 102. Itzhak Perlman (violin); Mstislav Rostropovich (cello); Concertgebouw Orchestra of Amsterdam, Bernard Haitink cond. ANGEL SZ-37680 \$8.98, © 4ZS-37680 \$8.98.

Performance: **Lusclous**
Recording: **Spacious**

Itzhak Perlman and Mstislav Rostropovich make an intriguing combination in this recording, particularly in view of the luxurious expansiveness with which the Russian tackles his solo role. Perlman, for his part, gives as good as he gets in terms of sweetness and tonal intensity, while Bernard Haitink's masterly orchestra provides a singularly rich accompaniment—and with a considerably more reverberant ambience than that in most of Philips' Concertgebouw recordings. I appreciate the apparent desire of all concerned here to minimize the sometimes gnarly aspects of this last of Brahms' concerto masterpieces—and the meltingly lovely slow movement helps do that in any performance—but I must confess a preference for the rhythmic discipline so clearly evident in the earlier Stern/Rose/Walter and Oistrakh/Rostropovich/Szell recordings. Though the new recording is marginally faster than the Oistrakh/Rostropovich/Szell, the latter actually *sounds* faster. I also prefer the slightly tighter ambience of Cleveland's Severance Hall in this music, though normally it is not one of my favorite recording locales. *D.H.*

DVOŘÁK: Symphony No. 8, in G Major, Op. 88. Sydney Symphony Orchestra, José Serebrier cond. RCA ARL1-3550 \$8.98, © ARK1-3550 \$8.98.

Performance: **Spirited**
Recording: **Good location job**

DVOŘÁK: Symphony No. 8, in G Major, Op. 88; Slavonic Dance in G Minor, Op. 46, No. 8. Berlin Philharmonic Orchestra, Her-
(Continued on page 80)



Rivergate

Pianist Lee Luvisi

WE have become so accustomed by now to the convenience of encyclopedic couplings of Schumann with Schumann, Schubert with Schubert, Brahms with Brahms, and so on, as well as to dealing with only the most stellar names among the performers identified with this or that com-

poser's music, that we are liable to pass over an extremely satisfying presentation merely because it conforms to neither of these criteria. Pianist Lee Luvisi is not a superstar. His name has been more or less familiar for several years, but I have never heard him in person and don't recall hearing any of his recordings until his new one on the Rivergate label was assigned to me for review. This album of Schumann and Schubert may not catapult Luvisi into talk-show eminence, but it is a listening experience I would regret having missed.

There are levels of music making at which comparative evaluation becomes pointless, and Luvisi seems so idiomatically attuned to the material on both sides of this realistically recorded disc that hearing it can be described only in terms of the most direct and intimate communion. To suggest that his *Carnaval* is "better than" Arrau's or his Schubert "better than" Brendel's would be meaningless. The point is that his performances are enormously enjoyable and fulfilling, that they convey uncommon understanding and conviction—the sort of thing that can make one look forward not only to further recordings from this pianist, but simply to further happy hours with Schumann and Schubert. In short, this release is a gem, with unusually thorough notes, too, by producer Gerhard Herz.

—Richard Freed

SCHUMANN: Carnaval, Op. 9. SCHUBERT: Moments Musicaux, Op. 94 (D. 780). Lee Luvisi (piano). RIVERGATE LP-1004 \$6.98.

Explanation of symbols:

- Ⓚ = open-reel stereo tape
- Ⓛ = eight-track stereo cartridge
- Ⓢ = stereo cassette
- Ⓜ = quadraphonic disc
- Ⓣ = digital-master recording
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Monophonic recordings are indicated by the symbol Ⓛ

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

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Performance: **Glossy**

Recording: **Lacks string presence**

It is hard to find a major nineteenth-century symphony that has had such consistently first-rate recorded performances as Dvořák's delectable G Major masterpiece. If these two latest don't quite make the top of the list, both still have points of excellence. The RCA disc appears to be the young Uruguayan-born José Serebrier's first recorded venture into the standard repertoire: Ives and the twentieth-century Americans have heretofore been his bailiwick. This concert performance, recorded in

the famous Opera House in Sydney, Australia, is both spirited and well thought out, being based on Serebrier's study of the orchestral parts used by Dvořák himself for the performances he conducted in England in 1891. The quiet reprise in the third movement, also adopted by Serebrier's mentor, the late George Szell, is one result of this research. Serebrier does especially well with the slow movement, which is full of lovely details. The Sydney Symphony as a whole is no match for the Berlin Philharmonic, but the first-desk wind players are tops. The recording is fairly close-up, but the balances are good, with lots of string presence and effective stereo localization. (I could do without all the applause at the end, however.)

Herbert von Karajan's second recording of the G Major is notable for the high gloss of the orchestral playing, but it lacks the vitality of his 1965 London taping. The slow movement here seems refined to the point of blandness. On the other hand, it is rather hard to resist the ravishing sound produced in the allegretto, especially when the woodwinds have their turn in the trio. The most popular of the Slavonic Dances serves as filler on side two (couldn't we have had something less familiar, the *Scherzo Capriccioso*, for example?). Compared with Kubelik or Szell, Karajan makes heavy going of it. The overall sound is rich and spacious, but the strings seem oddly far back relative to the rest of the ensemble, thereby losing the characteristic Dvořák "bite."

D.H.

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RECORDING OF SPECIAL MERIT

ELGAR: *Sonata for Violin and Piano, Op. 82*. MESSIAEN: *Theme and Variations*. WALTON: *Two Pieces for Violin and Piano*. Michael Davis (violin); Rosemary Platt (piano). ORION ORS 79360 \$7.98.

Performance: **Wholehearted**

Recording: **Good**

Two or three years ago Orion released these same performers' recording of the Walton Violin Sonata, Lennox Berkeley's Violin Sonata, and Wilfred Josephs' *Chacony* (ORS 78292), an interesting program presented with authority and conviction. The English portions of this new record seem a natural follow-up, not only because the Elgar sonata is so well matched with Walton's (improbable as that may seem, even without considering the separation of more than three decades between the two works), but because the second of Walton's *Two Pieces*, a scherzetto, was originally intended to serve as a movement of his sonata. That the other component of this little 1949 set, a canzonetta, bears a dedication to "Vivien and Larry" seems appropriate enough, since it is rather in the style of his *Henry V* film music; it is based on an old troubadour song attributed to a king of Navarre. Messiaen's brief *Theme and Variations* sounds very typically French, if hardly typical of its composer; it was composed in 1931, the year of *Les Offrandes Oubliées*, and I don't remember seeing it on a domestically issued disc before. The Elgar sonata, a sturdy, post-Edwardian work (1918), free of bloat and pointedly expressive, is the point of this release, of course, and Michael Davis and Rosemary Platt seem every bit as enthusiastic and authoritative in it as in their earlier all-British collection. This is wholehearted music making of the sort one cannot take for granted, no matter how familiar the names of the performers. A first-rate release in every way, including the sound and the quiet surfaces, and I recommend it to anyone interested in this repertoire. R.F.

FOOTE: *A Night Piece* (see BEACH)

RECORDING OF SPECIAL MERIT

GLINKA: *A Life for the Tsar: Three Dances*. Prince Kholmsky: *Overture and Entr'actes*. *Souvenir of a Summer Night in Madrid*. Bamberg Symphony Orchestra.
(Continued on page 84)

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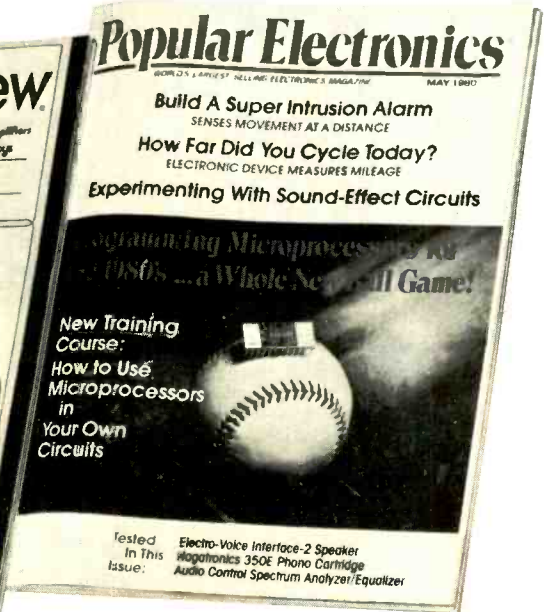
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Aldo Ceccato cond. ARABESQUE AR 8072 \$6.98.

Performance: **Spirited**
Recording: **Bright and clean**

Arabesque gives us cause for rejoicing with a significant addition to the sparse recorded representation of Mikhail Glinka. As Tchaikovsky put it, the whole of Russian music is to be found in Glinka, just as the oak is present in the acorn. The delightful proto-Tchaikovskian dances from the Polish ballet in *A Life for the Tsar* have been in and out of the catalog fairly frequently, but the equally delightful *Summer Night in Madrid*—a companion piece to the better-known *Jota Aragonesa*—remains a relative rarity. And even more welcome here is the *Prince Kholmsky* incidental music, which dates from the period that also saw the creation of *Ruslan and Ludmilla*. Nestor Kukolnik's drama of conspiracy and dirty work in fifteenth-century Russia was an abject failure, but Glinka's music for it is marvelously colorful and imaginative. I regret that the German Pro Arte company, which originated this recording, did not see fit to include as well the three songs Glinka wrote for the play. One of these, *Ilinisha's Song*, can be found on the specialty label O.A.S.I. as recorded in the Twenties by contralto Anna Meichik, and another, *Hebrew Song*, is included in imported Soviet recordings of Glinka's cycle *Farewell to Petersburg*.

On the present disc, Aldo Ceccato and the Bamberg Symphony come through with spirited, neatly honed performances. The

recorded sound is bright and clean throughout, though the Arabesque mastering seems to me a mite overbright. That is of small moment, however. Do not pass this disc by if you are among those who take special pleasure in minor masterpieces. *D.H.*

RECORDINGS OF SPECIAL MERIT

HAYDN: Keyboard Sonatas, Volume 1. *Sonata in F Major (Hob. XVI:23); Sonata in C Minor (Hob. XVI:20); Sonata in A-flat Major (Hob. XVI:43); Sonata in B Minor (Hob. XVI:32).* Malcolm Bilson (fortepiano). TITANIC Ti-51 \$8.

HAYDN: Keyboard Sonatas, Volume 2. *Sonata in A Major (Hob. XVI:26); Sonata in E Minor (Hob. XVI:34); Sonata in A-flat Major (Hob. XVI:46).* Malcolm Bilson (fortepiano). TITANIC Ti-52 \$8.

Performances: **Crystalline**
Recordings: **Faithful**

Now that Haydn's piano sonatas have finally come into their own, several record companies have had the good taste to present or project the entire series featuring such artists as John McCabe, Gilbert Kalish, and Martin Galling, to mention a few. The latest company to present this magnificent repertoire is Titanic, which recently issued two impressive volumes by Malcolm Bilson. Bilson is an excellent pianist steeped in the Viennese Classical style who has specialized in playing the Viennese Classical fortepiano. The instrument's clarity of tone and

somewhat snap-crackle-pop quality is exactly what Haydn wrote his sonatas for, and only when they are played on the fortepiano can one hear all the subtle textures he intended. Haydn was admittedly not a great player like Mozart or Beethoven, but he knew how to write effectively for the fortepiano and made full use of its sonorities, range, and special effects.

Bilson, too, knows his fortepiano well, and he uses it to set forth and underline the structural elements of the sonatas. His basic touch is crisp, and he favors a slight *détaché* for his normal playing. As in the opening of the A-flat Major Sonata (Hob. XVI:46) and the slow movement of the E Minor, Haydn's melodic line can be ornate, almost fussy. Bilson articulates the lines beautifully, combining the temporal expression of a harpsichordist with the dynamic expression of a pianist. He is equally at home in the master's more brusque, masculine style. The austerity of the B Minor and the prickliness of the E Minor are both beautifully captured, and Haydn's unquenchable wit fairly sparkles.

One of the glories of the Viennese piano was the *sustenuito* pedal, use of which eventually made the crucial distinction between harpsichord and piano technique. In striving for clarity and crispness, Bilson almost ignores the pedal's possibilities. Many of the wide-ranging arpeggiated figures, for example, need to be bound together by use of the pedal so that the entire instrument can resonate. Bilson rarely allows this to happen, and as a result many of Haydn's

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lush textures evaporate into thin wisps. But there are so many excellent features to these performances that this relative dryness can be overlooked. I hope that Bilson's Haydn series on Titanic will be completed, for it is off to a good start. *S.L.*

RECORDING OF SPECIAL MERIT

HAYDN: *Symphony No. 101, in D Major ("Clock"); Symphony No. 102, in B-flat Major.* Concertgebouw Orchestra, Amsterdam, Colin Davis cond. PHILIPS 9500 679 \$9.98, © 7300 774 \$9.98.

Performance **Elegant yet full-bodied**
Recording **First-rate**

Colin Davis' interpretive approach and the Concertgebouw players' glorious form here produce a wonderful amalgam of vitality and elegance. I enjoyed the somewhat faster than usual pacing of the "Clock" movement of Symphony No. 101 and was delighted with the felicitous inner details brought out in the elaborate finale. In No. 102—one of the most brilliant of the London series and a great favorite of Koussevitsky and Bernstein—Davis takes a taut approach to the end movements, with the opening again profiting from expert detail work. The lovely slow movement gets an unusually warm and expansive treatment, but without a trace of exaggeration or mannerism. As with virtually all of Davis' Concertgebouw recordings, the sonics are a joy from start to finish, particularly the highly effective give and take between the high and low strings in the dialogue episodes. *D.H.*

HOOVER: *Divertimento* (see **BEACH**)

RECORDING OF SPECIAL MERIT

JANÁČEK: *The Diary of One Who Disappeared.* Vilém Přibyl (tenor); Libuše Márová (mezzo-soprano); Kühn Female Choir; Josef Páleníček (piano). SUPRAPHON 1112 2414 \$9.98 (from Qualiton Records, Ltd., 39-28 Crescent Street, Long Island City, N.Y. 11101).

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

This remarkable song cycle, composed to lyrics by an unknown poet in 1919, was first recorded at the 1954 Holland Festival with Ernst Haefliger as the admirable tenor soloist. I was commissioned to do the English translation for that recording (Epic LC 3121, long deleted), so I got to know the work well, albeit with German lyrics. Not surprisingly, the harsher, more angular sounds of the Czech language fit the music even better. Use of the original language is particularly important in the case of a composer such as Janáček, for whom musical speech patterns were all-important. With the original lyrics, moreover, the folkloric element of the work is emphasized, enhancing the persuasiveness of this romantic tale.

The music—atmospheric, folk-like, passionately romantic, and frequently haunting—is highly original, in part more operatic than song-like. Tenor Vilém Přibyl is in full command of the many changes in mood and manages the punishing tessitura (with two merciless high Cs in the final measures) very well. He is briefly but memorably supported by a lusty mezzo and benefits from a

topnotch piano partnership. Přibyl is a bit too closely miked, but otherwise this is a very fine recording of a compelling and inspired creation. *G.J.*

RECORDING OF SPECIAL MERIT

LISZT: *Duo-Sonata for Violin and Piano; Grand Duo Concertant; Romance Oubliée; Epithalame.* Jean-Jacques Kantorow (violin); Henri Barda (piano). MUSICAL HERITAGE SOCIETY MHS 4211 \$6.95 (plus \$1.25 shipping and handling from the Musical Heritage Society, 14 Park Road, Tinton Falls, N.J. 07724).

Performance **Elegant**
Recording **Very good**

Jean-Jacques Kantorow has heretofore identified himself most closely with the music of Mozart, but it should probably be no more surprising to find him taking up these barely known works of Liszt than it would be for any other violinist, and in any event the surprise is an entirely happy one. Four years ago Orion issued a disc on which Endré Granat and Françoise Regnat play all four of the works here plus Liszt's two *Élégies* for violin and piano (ORS 76210); they brought to their performances a bit more of the *Tzigane* feeling many of us, rightly or wrongly, expect in this composer's music, but there were substantial cuts in the most ambitious piece, the Duo-Sonata, which is based entirely on Chopin's Mazurka in C-sharp Minor, Op. 6, No. 2. (The *Grand Duo* is, similarly, a series of variations on a theme by Charles-Philippe Lafont.) Kantorow and Barda are a little cooler in their approach, but their innate elegance serves the music well, calling attention to its substance rather than its arguable exoticism. Alfredo Campoli and Valerie Tryon, in their 1968 Pye recording, remain incomparably convincing in the sonata, but since that English recording has yet to make its appearance on our shores, since the Kantorow/Barda package is not only a convenient assortment but so extremely well played, and since the sound (from a European Orion recording) is so very good, the MHS disc must be warmly recommended. Joël-Marie Fauquet's notes cover three of the four works in heartening detail but, curiously, tell us nothing about the *Epithalamium*, which was composed for the wedding of the Hungarian violinist Eduard Reményi in 1872. *R.F.*

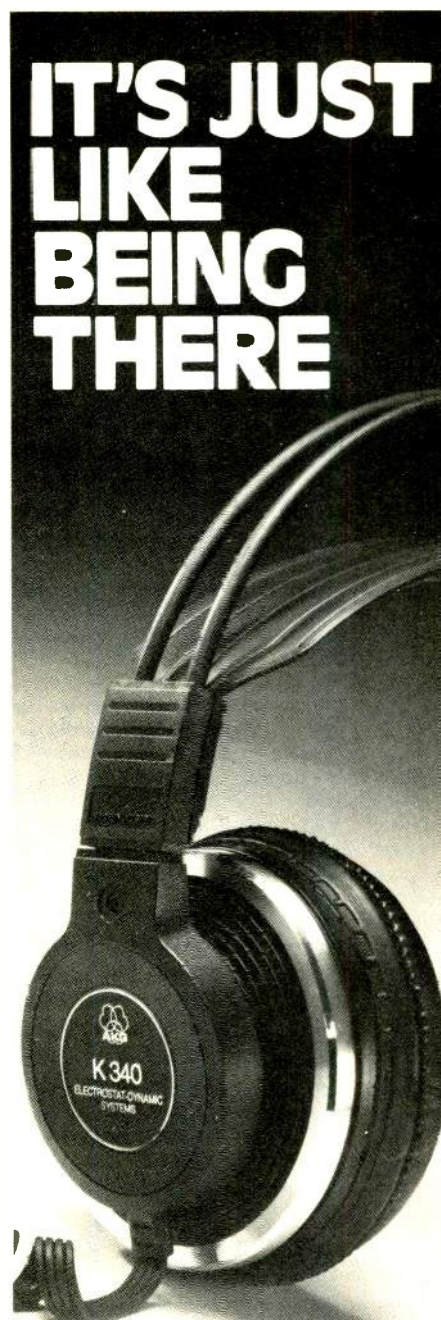
MESSIAEN: *Theme and Variations* (see **ELGAR**)

RECORDING OF SPECIAL MERIT

MOZART: *The Abduction from the Seraglio (K. 384).* Christiane Eda-Pierre (soprano), Konstanze; Stuart Burrows (tenor), Belmonte; Norma Burrowes (soprano), Blonde; Robert Tear (tenor), Pedrillo; Robert Lloyd (bass), Osmin; Curt Jürgens (speaker), Pasha Selim. John Alldis Choir; Academy of St. Martin-in-the-Fields, Colin Davis cond. PHILIPS 6769 026 three discs \$29.94, © 7699 111 \$29.94.

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

For all its inherent dramatic shortcomings, *The Abduction from the Seraglio* is an ex-



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Wendy Hanson

Maazel: A Digital "Sacre"

STRAVINSKY'S *Le Sacre du Printemps* has long been used as a musical/audio decahlon, a grueling test of the abilities of conductors, orchestras, record producers, and engineers. It's only natural, then, to find the work chosen to show off the still infant digital-audio technology in a new Telarc recording with the Cleveland Orchestra led by Lorin Maazel. What's surprising is that the limited multi-track capability of the Soundstream digital system used has captured the power and complex color of Stravinsky's large orchestra so well.

To me, this is the best-sounding commercial recording the work has ever received. The natural balances between orchestral choirs, their presentation in a consistent and unchanging sonic perspective, and the very wide dynamic range make this recording more representative of what one actually hears in a live performance than any other I've heard.

The minimalist microphone technique employed by producer Robert Woods and engineer Jack Renner does let a few musical details slip by, but they are the same details that tend to get swamped in a live performance. However, a great amount of detail is captured, and very well too, without the use of an array of spotlight microphones or a heavy hand on the mixer knobs. The bass-drum triplets starting the *Dance to the Earth*, the voluptuously astringent woodwind whirring at the beginning of the first half, the desiccated harmonics of the start of the second, and conductor Maazel's use of the first edition's alternating *pizzicato* and *arco* string chords near the end of the *Ritual Dance of the Chosen One*—all make their impressions with a rare, natural clarity. This lucidity is aided by the appropriately dry ambience of Cleveland's Severance Hall. As is typical of Telarc recordings, the bass drum is well served by the engineering, not only in the loud (here *very* loud) passages but also in the soft thuds in the *Ritual of the Ancestors* and *Spring Rounds*.

I have some reservations about the mu-

sical interpretation, although, truth to tell, it is a tremendous improvement over Maazel's earlier, lugubrious effort for London. The conductor still makes numerous attempts to turn Stravinsky's mechanistic and fragmented music into a kind of Debussy-with-a-beat by introducing all sorts of dynamic and agogic nuances. These tend to give the music an *espressivo*, free-flowing feeling alien to much of the ritualistically violent score. And the portion of the work that *does* resemble Debussy's music (the beginning of the second half) is here played too quickly (as seems to be customary today), too loudly, and with a misjudgment of the rhythmic function performed by the eleven heavy string-and-drum chords just before the *Glorification of the Chosen One*. Maazel takes these poundings at about half the marked tempo, and, though they sound impressive, one of the few—and most effective—rhythmic transitions in this crystalline music is thereby vitiated.

STILL, the recording, abetted by the excellent sound and pressing, makes a tremendous effect. This disc is a must-hear for those who know this work only through earlier recordings and who have no access to live performances. It is also a worthy companion and sonic antidote to the other good but less well recorded performances by Claudio Abbado (Deutsche Grammophon), Riccardo Muti (Angel), and Colin Davis (Philips)—but get a recent pressing without the two extra bars in the final dance left in the original master by a tape editor), as well as to the excellent older recordings by Michael Tilson Thomas (DG), Pierre Monteux (London), and Stravinsky himself (Columbia). What's needed now is a *videodisc* production of the ballet, resurrecting the original Nijinsky choreography and the Roerich scenery and costumes used in *Le Sacre's* notorious première.

—David Ranada

STRAVINSKY: *Le Sacre du Printemps*. Cleveland Orchestra, Lorin Maazel cond. TELARC ◉ DG-10054 \$17.95.

quisite opera, nearly overwhelming in its musical felicities. But the vocal demands are no less overwhelming, and it is wise for the public (and the critic) to settle for less than perfection in this area. With that in mind I welcome this new Philips release as a highly polished and very enjoyable version, in many ways the best in the current catalog. Unquestionably it is the musical leadership of Colin Davis that raises it to such a level: this is a fine overall performance with plenty of momentum, with brisk tempos (particularly in the overture) that do not sacrifice articulation, and with meticulous orchestral textures and delicious revelations of woodwind detail. The Academy of St. Martin-in-the-Fields here sounds like a dream Mozart ensemble, and the conductor rates special praise for adjusting its dynamics to the limitations of his singers.

Stuart Burrows is the most consistently admirable vocal performer in this cast of expert Mozartians; he is a gracious singer with a solid enough technique to dispose of the treacherous "*Ich baue ganz auf deine Stärke*" with unperturbed smoothness. In the even more fearsome music of Konstanze, Christiane Eda-Pierre exhibits an equally fluent technique and praiseworthy musicianship. Her tone is slender, a bit breathy, and her range is more secure in the upper extension than in the lower one, but that is the usual case with Konstanzes.

Norma Burrowes, the delightful Blonden in the Metropolitan's recent revival of this opera, gives a good recorded replica of her likable and lively characterization, and although I have doubts about Robert Tear's tonal appeal, I have only praise for his style and musicianship. Robert Lloyd manages to be menacing and amusing at the same time, as a good Osmin ought to be; his character portrayal is more impressive than his tonal beauty, but he is perfectly competent in the role. Curd Jürgens (remembered as *Curt Jürgens* from the movies) portrays a sympathetic Selim. As is often done, actors are employed for the spoken dialogue. They are all good, though their tone qualities differ somewhat from those of the singers.

The problem of what to do with the sixth record side has been ingeniously solved here by the inclusion of five alternative or insert arias, including a fragment originally intended for *The Abduction*. Four of these, left in various states of incompleteness, were finished and orchestrated by Philips producer Erik Smith. The results, performed with distinction, are a tribute to Mr. Smith's scholarship and pleasurable additions to the Mozart discography. G.J.

RACHMANINOFF: *Piano Sonatas Nos. 1 and 2; Polka on a Theme by V. R.* (see *Best of the Month*, page 74)

SCHUBERT: *Rosamunde, Incidental Music, Op. 26 (D. 797); Alfonso and Estrella, Overture (D. 732); Die Zauberharfe, Overture (D. 644)*. Ileana Cotrubas (soprano); Leipzig Radio Chorus; Dresden State Orchestra, Willi Boskovsky cond. SERAPHIM S-60338 \$5.98.

Performance: **Delectable**
Recording: **Good**

Willi Boskovsky's impressive Schubertian credentials were earned over the years in his recordings, as violinist and leader of the

Vienna Octet, of some of the chamber-music masterworks. None of his previous conducting assignments has been happier than this one, and it was generous of Capitol/EMI to offer this 1978 recording on the economical Seraphim label instead of as a full-price Angel release. A further generosity is the inclusion of both the overtures associated with *Rosamunde*—the one from the opera *Alfonso und Estrella* that was actually used to introduce the two performances of Helmina von Chézy's lamentable drama in 1823 and the one from *Die Zauberharfe* that somehow came to be published with the ten pieces of incidental music as Op. 26 and thus to be known as the *Rosamunde* Overture. Everything about these performances is delectable in the most thoroughly Schubertian vein. The great Dresden orchestra is at its best, the chorus is splendid, and the more than dependable Ileana Cotrubas makes more of her one solo number (the romance "*Der Vollmond strahlt*") than any other singer I have heard in the piece. The sound is good, if a little boxy, and there is exceptional annotation by John Reed in addition to bilingual texts for the four vocal numbers. R.F.

RECORDING OF SPECIAL MERIT

SCHUMANN: Vocal Duets. *Ländliches Lied; Liebesgarten; Liebhabers Ständchen; Unterm Fenster; Familien-Gemälde; Schön Ist das Fest des Lenzes; So Wahr die Sonne Scheinet; Wenn Ich ein Vöglein Wär; Herbstlied; Schön Blümelein; Intermezzo; Liebesgram; In der Nacht; Tanzlied; Er und Sie; Ich Denke Dein; Wiegenlied am Lager eines Kranken Kindes; Mäilied; Das Glück; Frühlinglied; Die Schwalben; Ich Bin Dein Baum; Die Tausend Grüße; Bedeckt Mich mit Blumen; Blaue Augen Hat das Mädchen; Sommerruh; Die Lotosblume.* Julia Varady (soprano); Peter Schreier (tenor); Dietrich Fischer-Dieskau (baritone); Christoph Eschenbach (piano). DEUTSCHE GRAMMOPHON 2531 204 \$9.98.

Performance **Highly polished**
Recording: **Excellent**

Virtually all of Schumann's vocal duets are included in this generous collection, among them those contained in such diversified cycles as his Op. 79 (*Liederalbum für die Jugend*), Op. 74 (*Spanisches Liederspiel*), and Op. 138 (*Spanische Liebeslieder*). Schumann's cultivation of this type of vocal chamber music, in which the homogeneous vocal blend is enriched by subtle piano intertwining, began in his year of courtship (the famous "song year" of 1840), and we can easily imagine him and Clara immersed in such intimate music making. For the most part, the duets are brief, and their poetic content and emotional range are not nearly as diversified as in Schumann's solo songs. In the present collection the baritone's low voice is always present, but with three vocal colors available tonal variety is assured. Tenor and baritone are coupled in fourteen songs, soprano and baritone in thirteen.

There are some very charming songs here, ranging from nature-inspired folkslike tunes to the highly sophisticated construction of *Liebhabers Ständchen* (adapted from Robert Burns), which is executed with breathlessly virtuosic *élan* by Julia Varady

and Dietrich Fischer-Dieskau. The litting *Tanzlied* is irresistible, as is the touching *Wiegenlied*, performed in a hushed pianissimo. Varady's purely spun tones are ideally suited for a perfect blend; Peter Schreier achieves the same result through artistic restraint. Fischer-Dieskau cannot avoid occasional overstress, but the overall ensemble is nearly always superb, and it is extremely well balanced with Christoph Eschenbach's assertive and elegant pianism. G.J.

RECORDING OF SPECIAL MERIT

THOMSON: Ten Etudes; Nine Etudes; Cantabile; Catalan Waltz; Bugles and Birds; An Old Song; In a Bird Cage; Alternations. Arthur Tollefson (piano). FINNADAR SR 9027 \$7.98.

Performance **Very good**
Recording **Okay**

Virgil Thomson's piano music is a surprisingly large, little-known repertoire. Thomson, the original and still ardent advocate of simplicity in modern music, used the piano the way an artist uses a sketch pad. A large portion of his piano music consists of actual musical portraits—that is, Thomson would have his subjects sit while he made his musical sketches on a pad! The six named pieces here are all portraits of friends and colleagues—most notably *Bugles and Birds*, which is Thomson's neat neo-Classical/cubist/disonant musical likeness of Pablo Picasso—and two of the etudes also double as portraits.

The etudes and portraits alike have the qualities of terseness and wit that characterize Thomson's music—his writing and personality as well. Most of the pieces were written between 1940 and 1951 and are scarcely a minute or two long; they are always elegant and to the point without a moment's lingering or a bit of fat. Arthur Tollefson plays these pieces well, and they are reasonably well recorded. An enjoyable record. E.S.

VERDI: Rigoletto (see Best of the Month, page 73)

WALTON: Two Pieces for Violin and Piano (see ELGAR)

COLLECTIONS

RECORDING OF SPECIAL MERIT

BAROQUE BRASS FESTIVAL. G. Gabrieli: *Canzon No. 28, La La Sol La Fa Mi; Canzon Septimi Toni; Canzon No. 1, La Spiritata; Canzon No. 2; Canzon Primi Toni.* Locke: *Music for His Majesty's Sackbut and Cornetts.* Biber: *Sonata Sancti Polycarpi.* Scheidt: *Canzon Cornetto a 4.* Speer: *Sonata for Four Trombones.* Guami: *Canzon No. 25.* Lappi: *Canzon No 26, La Negrona.* Edward Tarr Brass Ensemble, Edward Tarr cond. NONESUCH H-71385 \$8.98.

Performance **Handsome**
Recording **Brilliant**

This is a fascinating program of works for brass ensemble, quite naturally focused on the music of Giovanni Gabrieli and his Italian contemporaries but including intriguing compositions by the Germans Biber,

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Scheidt, and Speer and a rarely heard suite in the French style by Matthew Locke. The sonorities are also varied, ranging from the power of four trumpets together with four trombones to smaller groupings of two each, three and one, four of a kind, and so on. The performances are strong; the rhythm is precise, the passage work clear, the intonation excellent. The recording is good too, making this a most worthwhile release. S.L.

A NIGHT IN THE GARDEN COURT. Gabriel-Marie: *La Cinquantaine*. Haydn: *Quartet in F Major, Op. 3, No. 5* ("The Serenade"): *Andante Cantabile*. Purcell: *Chacony in G Minor*. Kreisler: *Schön Rosmarin*. Monti: *Csardas*. Pachelbel: *Canon in D Major*. Schubert: *Moment Musical No. 3*. Tchaikovsky: *Quartet in D Major, Op. 11, No. 1: Andante Cantabile*. Dvořák: *Humoresque*. Dinicu (arr. Heifetz): *Hora Staccato*. Satie: *Gymnopédie No. 1*. San Francisco String Quartet. 1750 ARCH S-1783 \$7.98.

Performance: **Delightful dinner music**
Recording: **Excellent**

The old masters, we are told, never minded much if people ate or talked while certain music of theirs was being played. Telemann wrote what he called *Table Music*; Mozart and Handel wrote works to be played in the salon, in the dining room, or on the back porch. Musical wallpaper, if you will, but what wallpaper! Since 1975, the San Francisco String Quartet has been assembling under the crystal roof of the Garden Court in the city's Sheraton-Palace Hotel to supplement their regular concerts with music to eat by. Now they have put some of it on a record you can talk right through with a clear conscience in your own dining room. Here are familiar and not so familiar miniatures, together with a sprinkling of gypsy music and six sweet minutes of Tchaikovsky. All eleven pieces, every one of which will reward your full attention, are performed exquisitely. P.K.

MICHALA PETRI: Concertos for Recorder, Strings, and Continuo. Vivaldi: *Concerto in C Major for Soprano Recorder (RV 443)*. Sammartini: *Concerto in F Major for Descant Recorder*. Telemann: *Concerto in C Major for Treble Recorder*. Handel: *Concerto in F Major for Treble Recorder*. Michala Petri (recorders); Academy of St. Martin-in-the-Fields, Iona Brown cond. PHILIPS 9500 714 \$9.98, © 7300 808 \$9.98.

Performance: **Agile**
Recording: **Superb**

BERNARD KRAINIS: The Virtuoso Recorder. Handel: *Concerto in G Major for Soprano Recorder, Strings, and Continuo*; *Concerto in F Major for Recorder, Strings, and Continuo*. Telemann: *Concerto in C Major for Alto Recorder, Strings, and Continuo*. Vivaldi: *Concerto in A Minor for Soprano Recorder, Strings, and Continuo*. Bernard Krainis (recorders); London Strings, Neville Marriner cond. QUINTESSENCE PMC-7146 \$5.98.

Performance: **Great**
Recording: **Fairly good**

Michala Petri is first and foremost a virtuoso. She plays the recorder as though it were a modern flute and can outstrip any-

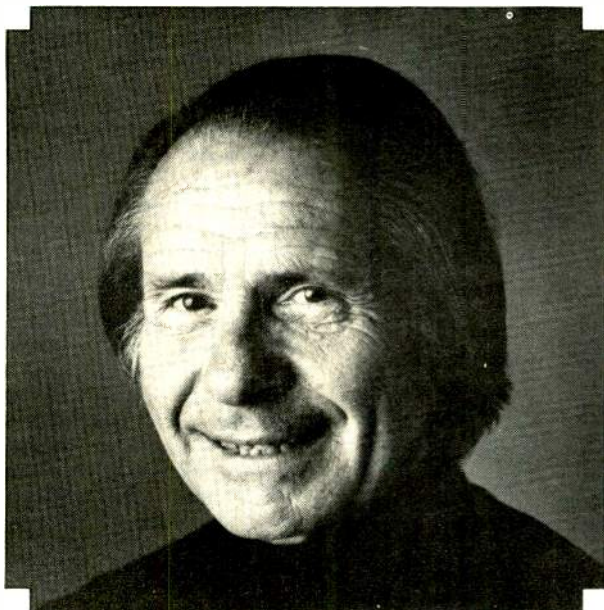
one when it comes to speed. Her Philips disc is anything but Baroque, but her technique will stand your hair on end. Bernard Krainis, on the other hand, is a fine musician who plays the recorder very well and evokes a truly Baroque spirit in doing so. His ornamentation is a delight, always fresh and ingenious. His Quintessence disc is a welcome reissue of an excellent album that originally appeared on Mercury about fifteen years ago. All of the slow movements on it are enchanting, and though the fast movements might seem slow compared with Petri's, Krainis gives them a contagious bounce and lilt nonetheless. The orchestral accompaniments are excellent on both records, and the balances between solo and tutti sections are effective—no mean trick when accompanying the fragile sounds of the recorder. S.L.

WESTERN ARTS TRIO. Turina: *Trio No. 2, in B Minor, Op. 76*. A. Tchernin: *Trio in D Major, Op. 34*. Copland: *Vitebsk*. Manziarly: *Trilogue for Violin, Cello, and Piano*. Western Arts Trio. LAUREL LR-109 \$7.98.

Performance: **Extremely sympathetic**
Recording: **Very good**

The earlier of Turnia's two piano trios (Op. 35, composed in 1926) is a fairly well-known work; the one here, composed in 1933, does not turn up very often, and it is especially welcome in the Western Arts Trio's extremely sympathetic performance. It is more concise than its predecessor, less voluptuously appealing, perhaps, but more interesting rhythmically. The second movement recalls (in spirit, not by actual quotation) *La Oración del Torero*, for string quartet, which Turina composed the same year he wrote the Trio No. 1. The late Alexander Tchernin's brief trio is even less familiar and still more concise, its three powerful movements together running a bit under nine minutes in this performance. There are more than a few passages that seem to echo the chamber-music style of Shostakovich—that of his 1940 piano quintet in particular—but Tchernin composed this trio in 1925, when Shostakovich was not quite nineteen years old. The performance is no less sympathetic than that of the Turina, and the same can be said of the other two works here. *Vitebsk* is taken just a mite more broadly than in Copland's own recording with Earl Carlyss and Claus Adam, but it is just as persuasive; the string tone, in fact, is warmer and more enticing in the new version. The *Trilogue* composed for the Western Arts Trio by Copland's French contemporary Marcelle de Manziarly is a little study in sonorities that doesn't go any place in particular, but it is agreeable enough and knowingly exploits the three instruments.

The well-balanced recording does justice to the fine performances, but the documentation leaves a bit to be desired. While the liner offers authoritative statements from Copland and Manziarly on their works, there is no real information on the Turina or Tchernin. The disc label must be consulted to learn how many movements the works contain; we are not even told when Turina composed his, and its opus number is given erroneously as 74 instead of 76. Nonetheless, what is in the grooves makes this a very worthwhile issue. R.F.



Telarc Records

FREDERICK FENNEL: another digital triumph

Wind-band Music

Two recent discs of wind-band music on Telarc and Nonesuch include several masterpieces of the genre by Ralph Vaughan Williams, Gustav Holst, and Percy Grainger, and the Telarc at least is also a masterpiece of the recording art. It is the company's third digitally mastered release featuring the Cleveland Symphonic Winds led by Frederick Fennell; like the first (Telarc 5038, reviewed here in January 1979), it consists mainly of pieces that Fennell previously recorded with the Eastman Winds for Mercury in the Fifties. The sound of those old recordings (still available as Mercury Golden Imports, though with somewhat toned-down Philips remasterings) was tops for their day, and that of the new Telarc discs is tops for ours. The differences between them make the advances at the outer limits of recording technology most happily evident.

The sound of Fennell's newest Telarc recording is simply glorious in its richness, brilliance, and impact. The microphone set-up seems a little less close-in than on his earlier record featuring the Holst band suites; in comparison, the lower transients seem a little less vulgarly emphatic, the upper partials more refined. The best performance here is of Vaughan Williams' *Toccata Marziale*—a real toughie in terms of achieving a proper balance and ensemble precision among the various wind choirs. The magnificent set of Grainger folk-song arrangements titled *Lincolnshire Posy* is played with far greater refinement and tonal burnish than on the 1958 Eastman Winds record, but the student ensemble did bring a fierce pizzazz to some of the pieces (especially *Lord Melbourne*) that is not approached in the remake. The same comment applies to the performance of the always-delightful English Folk Song Suite by

Vaughan Williams, and in general I find Fennell's endings a mite mannered in the new recordings.

The disc is filled out with three fanfares by film composer Leo Arnaud. I find them empty virtuosic if sonically impressive; they would have gone better on Fennell's second Telarc disc, "Macho Marches." But that aside, I can wholeheartedly recommend the album to audiophiles, band buffs, and lovers of euphonious, folk-oriented music put together by two great masters of the idiom.

THE same Vaughan Williams pieces appear on the new Nonesuch album along with Holst's band suites and *Hammer-smith*, which Fennell also recorded for Mercury. Quite frankly, comparing these new recordings by the London Wind Orchestra conducted by Denis Wick with either of Fennell's versions is like comparing a Volkswagen Rabbit with a Mercedes Benz. Neither the conscientious performances nor the sonics measure up to the competition, though if Nonesuch had priced the disc at \$5.98 instead of its new \$8.98 level it would have been a better bargain.

—David Hall

VAUGHAN WILLIAMS: *Toccata Marziale; English Folk Song Suite*. **GRAINGER:** *Lincolnshire Posy; Shepherd's Hey*. **ARNAUD:** *Three Fanfares*. Cleveland Symphonic Winds, Frederick Fennell cond. TELARC ◉ DG-10050 \$17.98.

VAUGHAN WILLIAMS: *Toccata Marziale; English Folk Song Suite*. **HOLST:** *Suites for Band, Op. 28, Nos. 1 and 2; Hammer-smith—Prelude and Scherzo*. London Wind Orchestra, Denis Wick cond. NONESUCH N-78002 \$8.98.

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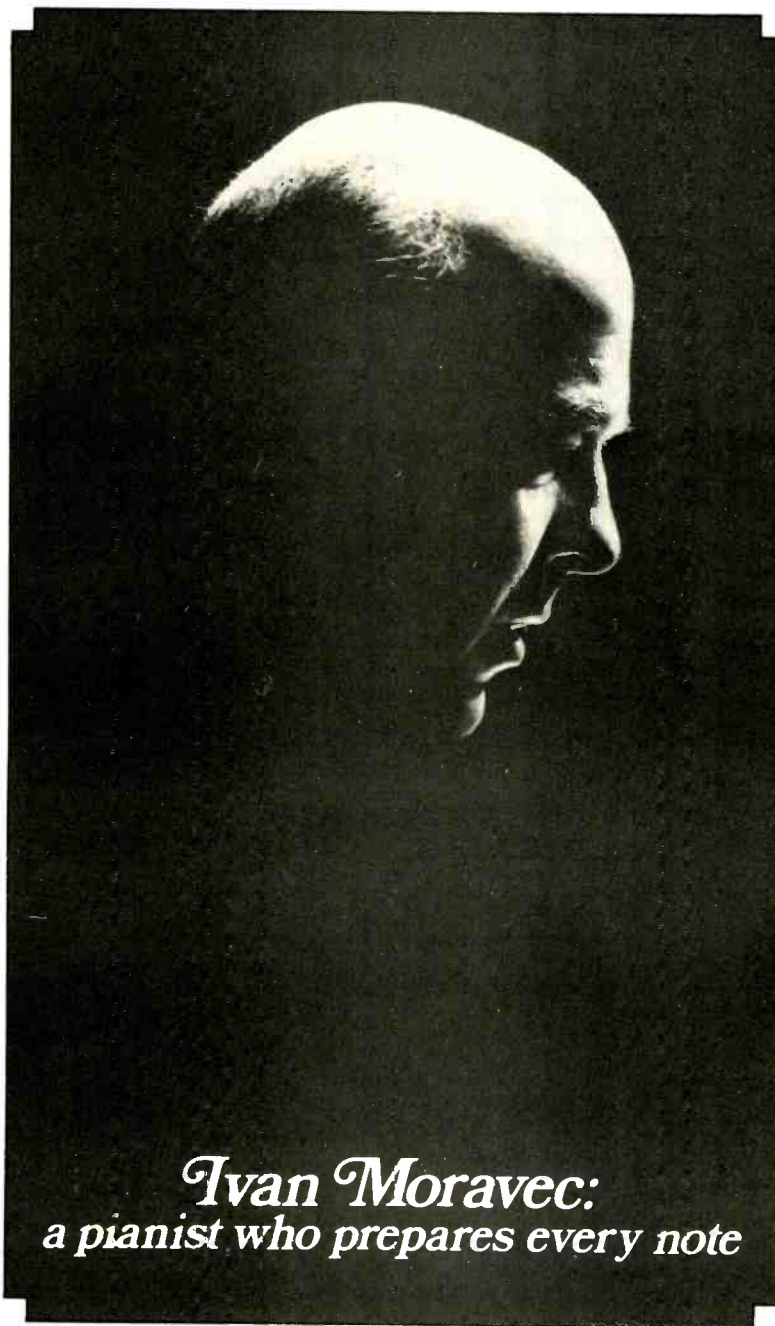
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JACQUES LEISER

Ivan Moravec: a pianist who prepares every note

THE Czech pianist Ivan Moravec, who has gradually come to be regarded as one of the outstanding musical artists in the world today, is one of a handful of such artists whose careers in the West were launched through the medium of recordings. The correct way for *any* musical career to be launched is with a simultaneous combination of recordings, concert appearances, and proper publicity—timing is all—but that happens far less frequently than one might think. Moravec's concert career in the West has not yet caught up with his recordings. His publicity is still largely word of mouth: people hear him, or hear of him, by accident and buy his records; own-

ing the records, they learn of the concerts and go to them. This is the reverse of the normal procedure, and it has its problems.

"It is really painful," says Moravec, "when I know that people have my records and they come to hear me in recital with a miserable piano that I don't have the possibility of changing. When you study piano you strain your hand with five uneven fingers trying to make them even, and then you come and play a piano and every key has another weight. And that makes me really sad, because my ideal is always to play as well in concert as on records. But the experience I have had with many different pianos has taught me how to play even bad

instruments. Ten years ago I was more desperate than I am today, but I still carry my own tools so I can improve the condition of the pianos I encounter on tour."

Moravec is in New York this month to perform the Dvořák Piano Concerto, a new work for him and an addition to what some feel is a rather small repertoire. "I consider my repertoire small," he says, "if it is compared with Claudio Arrau's or Sviatoslav Richter's. But I don't consider it small if it is compared with Lipatti's or Michelangeli's. It takes me a tremendous amount of time before I get rid of all the technical and sound-touch problems of a piece, before I can play it with real freedom. I think that the nicest moments when I study a new piece are at the very beginning, when no one expects me to play it well and I just enjoy the piece. And often the deepest impressions come when I touch the piece as a new one. But then comes the torture of preparing every note, and only after mastering everything does the original enchantment and charm of the piece come to me again and I can start to play it with some conviction and some impact."

MORAVEC is a perfectionist kind of player when it comes to the technique of a piece, "preparing," as he says, "every note." But, as his recordings attest, his interpretations are invariably warm and poetic, even instinctive. "I think I have a good feeling for the tension of music. The *details* of interpretation come through learning the piece, but the most important thing one can catch is the feeling of the piece as a whole and where it goes and how fast it goes."

Moravec will have a new manager next year: Jacques Leiser, who also handles Lazar Berman and Bella Davidovich. He may also have a new record company, for several companies are presently considering reissuing the classic recordings made for Connoisseur Society as well as recording new material. In the meantime there are sporadic recordings from Supraphon (the Schumann Piano Concerto, for example, which received honorable mention in STEREO REVIEW's Best of the Year awards last February), and virtually all the Connoisseur Society discs are being issued on InSync cassettes.

IN the March 1980 issue of STEREO REVIEW, tape expert Craig Stark referred to InSync as "the purveyor of commercially recorded cassettes for the critical" because of their real-time duplication procedure, high-quality tape, and careful quality control. Truthfully, if Moravec has had difficulty in making his recital pianos sound like his records, he will have even more trouble making them sound like these cassettes. The sound is just incredibly rich and detailed, free of distortion, and *on pitch*, the tape hiss being occasionally there (these are, after all, not new recordings) but well below the level of mattering. The playing, of course, is still splendid: Chopin nocturnes and preludes probably still unmatched by any other recording, Beethoven even more powerful than it seemed on the records, De-

bussy with amazing dynamic and coloristic range and real backbone. Some of these are already candidates for a "great recordings of the century" designation.

The Chopin nocturnes are probably as good a place as any to begin to understand the kind of musical mind at work here. There are two primary characteristics of these performances: first, a feeling for the overall arch of each piece; and second, incredible richness of detail. The whole of each work is taken seriously (not just parts of it), certain relative values are assigned, and nothing is thrown away. The performances are at once analytic and dramatic/lyrical, large-scale and many-faceted, minutely controlled and improvisatory in feeling. They are complex performances rather than simple and direct ones because the music is complex rather than simple and direct. And what you hear is not merely the skeletal outline of the piece, fleshed out here and there with an attractive detail, but the living musical organism and all its wealth of function and interrelationship.

MORAVEC, however, has his own view of his recordings. "I like the *Barcarolle* and Op. 90, and I like *some* of the nocturnes," he says. "I don't like the D-flat Major Nocturne. Very sensitive performance, but it's too slow. If I recorded it again now I could achieve a similar expression with better timing. In general I find in my records occasional excessive rubatos, not enough simple line, and perhaps a few too-sudden accents. I would like to give my playing a smoother line while maintaining a similar intensity. But this is maturing and experience." Such self-critical analysis is rare in our time. So also is such piano playing.

—James Goodfriend

BEETHOVEN: *Sonata No. 8, in C Minor, Op. 13 ("Pathétique"); Sonata No. 14, in C-sharp Minor, Op. 27, No. 2 ("Moonlight"); Sonata No. 23, in F Minor, Op. 57 ("Appassionata")*. Ivan Moravec (piano). INSYNC © C 4047.

CHOPIN: *Barcarolle; Ballade No. 1, in G Minor; Etude, Op. 25, No. 7; Five Mazurkas*. Ivan Moravec (piano). INSYNC © C 4007.

CHOPIN: *Nocturnes (complete)*. Ivan Moravec (piano). INSYNC © C 4025 and C 4026.

CHOPIN: *Preludes, Op. 28 (complete)*. Ivan Moravec (piano). INSYNC © C 4051.

DEBUSSY: *Children's Corner Suite; Clair de Lune; Five Preludes*. Ivan Moravec (piano). INSYNC © C 4049.

DEBUSSY: *Pour le Piano; Jardins sous la Pluie; La Puerta del Vino; Ondine; Feuilles Mortes*. **RAVEL:** *Sonatine*. Ivan Moravec (piano). INSYNC © C 4013.

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Popular Music Briefs



Howard Bloom

Looks like **Anne Murray** needn't worry about ever having to teach gym again. Her recent stint at Toronto's O'Keefe Centre sold out faster than any shows in the theater's history, and on opening night she was presented with the Female Artist of the Decade

award by the Canadian Academy of Recording Arts and Sciences (the organization that gives out the Juno, Canada's equivalent of the Grammy—she's already got a ton of *those*). Anne's newest release is "Anne Murray's Greatest Hits" (Capitol SOO-12110). □

A THEATRICALY released concert film by the **Grateful Dead** has joined the Rolling Stones' 1969 documentary film *Gimme Shelter* as one of the items available on RCA's new SelectaVision videodiscs. The fly in the ointment for fans of both groups: the sound is mono only for the immediate future, a bit of a letdown for anyone who has already seen the films in theaters. The Dead recently played New York's less than cavernous Radio City Music Hall, but the concert was sent over closed-circuit television to the twenty-thousand-seat Nassau Coliseum, just like a championship fight. You can bet that the show was preserved with an eye to possible disc and tape release. □

MCA's new **Loretta Lynn** videodisc, reviewed in our November issue, has been remastered. Seems MCA discovered that the disc, billed as stereo, was (as we pointed out in our review) quite clearly mono. MCA expects to have the stereo version in stores as we go to press. Country fans curious about the package's audio/visual contents can check out snippets of the performance in an ad for "Hey Loretta," a greatest-hits audio-only disc currently being hawked on late-night television. □

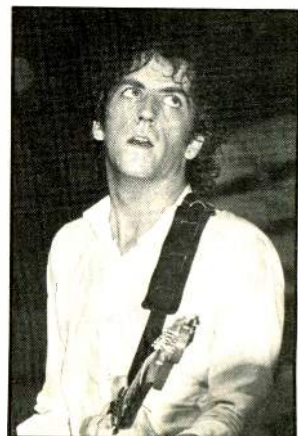
THE **Cars** are the first New Wave band to appear on an "audiophile" disc, Nautilus Recordings having released the

band's double-platinum 1978 debut "The Cars" as a sonic showpiece in its half-speed-mastered Superdisc series. List price is \$14.98. Traditionalists and rockabilly fans will be pleased to hear that Creedence Clearwater Revival's 1970 classic "Cosmo's Factory" has been reissued in a similar format in Mobile Fidelity Sound Labs' Original Master Recordings series. □

CANADIANS **Kate and Anna McGarrigle**, the sister act with three critically acclaimed albums on Warner Brothers in the late Seventies (one of them won a STEREO REVIEW Record of the Year award in 1977) are no longer "between labels." The pair's newest, "French Record," will be part of the initial release by the new independent label Hannibal Records (distributed in this country by Island), the brain child of English producer Joe Boyd, whose work includes albums by Fairport Convention and Maria Muldaur (*Midnight at the Oasis*), among others. The McGarrigles, who contributed *Heart Like a Wheel* to Linda Ronstadt's repertoire, have up to now been considered, like the rest of their new labelmates, something of a cult item. The first Hannibal release includes: "Purity of Essence" by the Rumour (Graham Parker's back-up band, with new songs by Nick Lowe and Elvis Costello); "I Ain't Drunk" by Geoff Muldaur and the Niteletes (bluesman Muldaur is, of course, Maria's ex); the debut of "Joe 'King' Carrasco," the Tex-Mex sensation who wants

to make the world safe for Sam the Sham; "Defunkt," by the New York punk/jazz fusion band of the same name and featuring avant-garde trombonist Lester Bowie; and "James Booker," the first major release in several years by the New Orleans piano man who is one of the last remaining exponents of the style originated by the late Professor Longhair. Both the Rumour and Carrasco albums have been previously released in Europe (on Stiff); the rest are brand new. □

FOLK-ROCKER **Willie Nile**, back from his nation-wide tour with the Who (Pete Townshend is a BIG Willie Nile fan), recently played an unannounced midnight set at Kenny's Castaways, the Greenwich Village club where he was discovered by Arista's Clive Davis. At the show's conclusion, he was joined for a medley of moldy classics (including Them's *Gloria*) by Dire Straits' guitar



Gary Garahoff

hero Mark Knopfler. The Straits, by the way, are now down to a trio: Knopfler's rhythm-guitarist brother Dave exited during the recording of the band's third album. The trio will be augmented by as-yet-unannounced hired hands on guitar and keyboards for a scheduled new tour. □



Lynn Goldsmith

SINGER **Dusty Springfield**, who enlivened the Sixties British invasion with such memo-

orable hits as *Wishin' and Hopin'* and *I Only Wanna Be with You* and who has been a critical touchstone since the release of her classic "Dusty in Memphis" album in 1970, made her first New York appearance in almost eight years recently at the swank Grand Finale. The local reviewers were only lukewarm, but the audiences, including the celebrity fan pictured at left, were notably just a bit more enthusiastic about it. □

THE **Association**, a squeaky-clean pop group in the Sixties whose hits included *Along Comes Mary*, *Windy*, and the wedding-reception classic *Cherish*, have gotten together again after an eight-year hiatus. Six of the original members have signed with Elektra/Asylum and are currently recording with producer Bones Howe. The reformation was sparked by a one-shot reunion on a 1978 Home Box Office special and by the group's dismay over a bogus Association that has been touring the country for several years.

Those with long memories will recall that Leonard Bernstein, in a 1966 CBS television special about the then-new rock music, announced to the world that *Along Comes Mary* was actually a song about—of all things!—marijuana. □

FOOTNOTED **Dolly Parton's** CB handle is Booby Trap. . . . **Tonio K.**'s real name is Steve Krikorian, and his earliest work can be heard on an album by the surviving members of Buddy Holly's Crickets ("Remnants," issued in 1973 on Vertigo). . . . **Glen Matlock**, the original bass player and songwriter for the infamous Sex Pistols (and allegedly booted from the band for liking the Beatles), and **Danny Kustow**, the guitarist who powered the Tom Robinson Band, popped up at a Halloween gig in New York City in a band aptly named the Spectres. . . . **Bruce Langhorne**, who for a while seemed to be the *only* electric guitarist on the early Sixties folk scene (he appeared on albums by

Bob Dylan, Judy Collins, and Tom Rush, among others), composed the score for *Melvin and Howard*, Jonathan Demme's movie about the Las Vegas gas-station attendant who may (or may not) have received top billing in Howard Hughes' will after picking him up in the Nevada desert. . . . Former Kiss drummer **Peter Criss** decided to go out on his own after receiving moral support from Kiss guitarist Gene Simmons' girl friend. **Diana Ross** told Criss in a phone conversation: "When I got ready to leave the Supremes, I began to doubt my abilities and wondered if I could make it on my own without the Supremes for support. Could I sing? Was I any good? I had to decide for myself and follow what was in my heart." . . . **Gary Numan**, the English pop star whose synthesizer laments have given new meaning to the words "Excedrin headache," has announced his positive retirement from live performance. Positively. Just like Frank Sinatra, Elton John, David Bowie. . . . □

Disc and Tape Reviews

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

AMAZING RHYTHM ACES: *How the Hell Do You Spell Rhythm?* (see *Best of the Month*, page 75)

BLACK ROSE. Black Rose (vocals and instrumentals). *Never Should've Started*; *Julie*; *Take It from the Boys*; *We All Fly Home*; and four others. CASABLANCA NBLP 7234 \$7.98, © NBL5 7234 \$7.98, © NBL8 7234 \$7.98.

Performance: **Not bad**
Recording: **Good**

Cher is a showbiz pro, and to stay in business she must adapt to the times. It wasn't so long ago that she leapt into the disco arena, but disco is fading and she has now moved into vaguely New Wave rock. Black Rose is an attempt to emulate Blondie and other outfits with feisty-mama lead singers. Many of these groups are produced by Mike Chapman or his associates, and, sure enough, Chapman is listed under the "Special Thanks" heading in the credits here. But the question remains: how long will the fad for foxy-chick neo-punk commercial groups last? Can Cher—Our Lady of the Charts—find true happiness and an occasional Las Vegas booking on this route? No one can say, but—much to my surprise—I find myself rooting for her. I suffered through Cher's monotone braying during the Sixties, but during the Seventies she got

a little better, and today she is no longer awful but actually capable. Well, we all have to earn a living as best we can. *J.V.*

DAVID BOWIE: *Scary Monsters*. David Bowie (vocals); other musicians. *It's No Game (Part 1)*; *Up the Hill Backwards*; *Scary Monsters (and Super Creeps)*; *Ashes to Ashes*; *Fashion*; *Teenage Wildlife*; and four others. RCA AQL1-3647 \$8.98, © AQK1-3647 \$8.98, © AQSI-3647 \$8.98.

Performance: **Melodramatic**
Recording: **Good**

I think what bothers me most about David Bowie is not his "I am a *serious artist!*"

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.

routine; lots of other folks (John Lennon, for example) pull that number without annoying me. Nor is it his well-documented habit of (let's be charitable) "appropriating" the work of his artistic betters and taking the credit for himself; great composers steal, said Stravinsky, while mediocre ones borrow. It's not even his relentless avant-garde stance. That's insufferable, to be sure, but sooner or later the relentlessly avant-garde gets dated and people begin to catch on, which is why even Bowie apologists don't like to talk about his Sixties stuff; it's so ridiculous in retrospect it makes Donovan sound like Dostoyevsky. No, what galls me about the guy is that he is absolutely incapable of laughing at himself. He strikes pose after pose, and then when he attempts to drop the mask the gesture is so melodramatic it's hilarious.

In any case, "Scary Monsters" is musically an extension of the slightly more accessible approach of Bowie's last record ("more accessible" compared with his preceding trilogy with Brian Eno). The songs are murky, ponderous, and tricked up with instrumental work by guests Robert Fripp (no bundle of laughs either, come to think of it) and Pete Townshend (who should know better); their contributions do nothing to disguise the mediocrity of the material or the self-absorption of its creator. For really sublime (if unintentional) humor, Bowie

even offers here an update on Major Tom (the hero of *Space Oddity*, his 1969 Moody Blues in Outer Space laugh riot), as if anybody over the age of twelve actually cared. If you're getting the impression that "Scary Monsters" strikes me as one of the less consequential artifacts of the new decade, you're getting close. S.S.

RECORDING OF SPECIAL MERIT

BUS BOYS: *Minimum Wage Rock & Roll*. Bus Boys (vocals and instrumentals). *Dr. Doctor; Minimum Wage; Did You See Me?; There Goes the Neighborhood; Johnny Soul'd Out; KKK; Angie*; and four others. ARISTA AB 4280 \$7.98, © ACT 4280 \$7.98, © A&T 4280 \$7.98.

Performance: **Sharp**
Recording: **Good**

The Bus Boys are a bright, funny little rock band on the fringes of the New Wave all but one of whose members just happen to be black. The irony of this situation is not lost on them, and their songs have a wise-guy edge that is particularly winning. They sing about whites moving into their neighborhood, about soul singers who've abandoned the calling for rock, about wanting to join the KKK, and they do it all with verve, lyricism, and tongues pressed firmly into cheeks. Whether this particular stance can sustain a career I have no idea. I do know, though, that "Minimum Wage Rock & Roll" is as likable and intelligent a debut album as has crossed my desk this year. As they say on almost every street corner these days, check it out. S.S.

THE CARS: *Panorama*. The Cars (vocals and instrumentals). *Panorama; Touch and Go; Gimme Some Slack; Don't Tell Me No; Getting Through; Misfit Kid*; and four others. ELEKTRA 5E-514 \$7.98, © TC5-514 \$7.98, © ET8-514 \$7.98.

Performance: **Running on empty**
Recording: **Well engineered**

The Cars' first album suggested they actually had something—maybe not anything earth-shaking, but at least a tough new approach to bubblegum. They've been coasting ever since, though, and this third album can't make it over the next hill. Here the Cars sound as stiff and flat and lifeless as they've been looking in person and on the tube. I suppose they—or rather, Ric Ocasek, who writes all their material—ran out of songs. The ones on "Panorama" have no tunes to speak of, and their lyrics are mish-mashes of sophomoric cuteness ("You do the pogo without the bounce/You got the name I can't pronounce") that, as nearly as I can make out, aim at saying nothing. David Robinson's drumming, which seemed so simple and crisp at first, now seems simplistic and boring. Greg Hawkes' keyboards have become just another synthesizer trip. Ocasek's vocals seem increasingly coy. And so on. It all comes down to energy. The Cars burn up a lot of calories trying to appear to have it, but their mixture is too lean and their spark is weak. N.C.

CHEAP TRICK: *All Shook Up*. Cheap Trick (vocals and instrumentals). *Stop This Game; Just Got Back; Baby Loves to Rock; Can't Stop It but I'm Gonna Try; World's*

Greatest Lover; and five others. EPIC FE 36498 \$8.98, © FET 36498 \$8.98.

Performance: **Good of its type**
Recording: **Likewise**

Cheap Trick, I should confess, is a band I admire all out of proportion to their actual aesthetic accomplishments. Maybe it's their look, maybe it's leader Rick Nielsen's obvious smarts, maybe it's the two or three really wonderful dumb singles they've come up with. I don't know. But I'm invariably disappointed in their albums, and "All Shook Up" is no exception. Despite George Martin's production, it's no more Beatles-influenced than any of their earlier work, for which I suppose we should be grateful. It's not much more than warmed-over arena rock either, and I hear nothing as memorable here as *Surrender*, which I'm beginning to suspect will remain their finest moment. As a teenybop ensemble, they're undoubtedly better than they need to be, but by normal criteria this remains an average heavy-metal band trapped by a concept only slightly less limiting than that of Kiss. I'll take another dumb single, please. S.S.

RECORDING OF SPECIAL MERIT

THE CLASH: *Black Market Clash*. The Clash (vocals and instrumentals). *Capital*

Radio One; The Prisoner; Pressure Drop; and six others. EPIC 4E 36846 \$4.98.

Performance: **Interesting oddities**
Recording: **Okay**

This latest entry in Epic's Nu Disk series is quite a bargain, being a collection of various English B-sides and oddities from different periods of the Clash's still brief career; they would cost considerably more than \$4.98 if one chased them down individually. None of them is earth-shaking aesthetically, but they hang together with remarkable cohesiveness given the varying musical and production styles, which range from low-budget punk (*Capital Radio One*) to metallic r-&-b (the instrumental *Time Is Tight*). What the package really demonstrates, though, is the Clash's maturation as a band. It may be critical heresy to say it, but they have grown by leaps and bounds. They play better now, and if their early efforts remain compelling in an anarchic way, their newer stuff is clearly more impressive and assured. Especially recommended here: the atmospheric white-boy reggae on side two. Kudos to Epic. Now, how about raiding the vaults for a little historical material? Out-of-print Yardbirds stuff, for example? S.S.

JOHN COUGAR: *Nothin' Matters and What If It Did*. John Cougar (vocals); vocal



Andrew Pultzer/Retna

Etta James

SINGER Etta James is almost a cult figure. She scored in the Fifties with some hit singles on the old Chess label in Chicago (*At Last* was one), then ran into some personal problems. In the early Seventies she again recorded for Chess, but by then the company was having troubles and her album didn't move. She did a fine album, "Deep in the Night," for Warner Bros. two years ago, but that didn't bring her into the

pop mainstream either. Now Allen Toussaint has produced and done the basic arrangements for her latest "comeback" album, "Changes," which is on MCA's T-Electric label. I sincerely hope that this one makes the breakthrough for her, because Etta James is a knockout.

ADAMIRERS of Millie Jackson's rasping, sexy vocals should listen to Ms. James, who mastered that style some time ago; she renews her grasp of it here with *Mean Mother*. Carole King should be impressed by James' cover of her *Changes*, for its anemic sentiments get a transfusion of hot and healthy blood. Willie Hutch provided most of the tough-cookie numbers here, but Toussaint has also contributed from his bulging portfolio. James' sly reading of Toussaint's *Night People* mines all the humor in the song, especially in the wonderful line "If everybody went to sleep at the same time the whole world would die." James demonstrates her versatility and experience on Toussaint's ballad *With You in Mind* and his sprightly *Don't Stop*; evidently this tough cookie can also be a softie. In any case, she's absolutely wonderful and deserves to be much more widely heard.

—Joel Vance

ETTA JAMES: *Changes*. Etta James (vocals); vocal and instrumental accompaniment. *Mean Mother; Donkey; Changes; Don't Stop; Who's Getting Your Love; Night by Night; It Takes Love to Keep a Woman; Wheel of Fire; Night People; With You in Mind*. MCA/T-ELECTRIC MCA-3244 \$7.98, © MCA-3244 \$7.98, © MCAC-3244 \$7.98.

and instrumental accompaniment. *Hot Night in a Cold Town*; *This Time*; *Cheap Shot*; *Wild Angel*; *To M.G. (Wherever She May Be)*; and six others. RIVA RVL 7403 \$7.98, © RVC4 7403 \$7.98, © RV8 7403 \$7.98.

Performance **Good**
Recording **Good**

This is the third U.S. release from John "Cougar" Mellencamp, whose vocals are reminiscent of Alex Chilton's when Chilton was with the Box Tops, a white group of the late Sixties. Cougar's lyrics are better than average, but he's young and still being a tough guy, and we've all heard hardboiled stories like these before. The two best cuts are *Hot Night in a Cold Town*, a vignette about dope addicts (which he didn't write) and *Cheap Shot* (which he did). Cougar has too much affected swagger, but his energy—and some of his sentiments—are genuine. An okay album. J.V.

STEVE FORBERT: *Little Stevie Orbit*. Steve Forbert (vocals, guitar, harmonica); instrumental accompaniment. *Get Well Soon*; *Cellophane City*; *Song for Carmelita*; *Laughter Lou (Who Needs You?)*; *Song for Katrina*; *One More Glass of Beer*; *Rain*; and five others. NEMPEROR JZ 36595 \$7.98, © JZT 36595 \$7.98, © JZA 36595 \$7.98.

Performance **Snazzy surface**
Recording **Very good**

This is catchy and pleasant and I appreciate its tunefulness, but it seems to me Steve Forbert has set us up to expect a little more depth. I suppose it's tough, coming up now with no particular cause to get behind, which Bob Dylan had, ready-made, at a similar stage—although *The Bomb* is still there, isn't it, and the politicians in charge of it are still as crazy as ever, aren't they? Not that Forbert has to be political in that narrow sense, but we do have reason to expect more of his talent than "You sure look fine/And you blow my mind" and a little skittering, badly played harmonica and a hardly disguised yen to get back on the radio as soon as possible.

Well, two songs in the album, *One More Glass of Beer* and *A Visitor*, do suggest that, in his mind, Forbert has cruised the universe as well as the local drive-in. The former, which builds in volume and instrumentation to a full-blown orchestral take-over, hints at reincarnation, and both songs glance at what Fritzjof Capra called the "Tao of physics" (in his book of that title), as in these lines from *A Visitor*: "All I am is energy/And now I have this form/I came shooting down the universe at birth." The backing, generally a little fuller than in Forbert's second album, "Jackrabbit Slim," is fairly sympathetic and often inventive—especially Hugh McDonald's bass, which is alternately spectacular and laconic and generally surprising. In other sets of hands, these songs could have turned out cute and cuddly; Forbert and his backers manage to make them more than that, but I wish he hadn't let his mind alone so much. N.C.

CRYSTAL GAYLE: *These Days*. Crystal Gayle (vocals); instrumental accompaniment. *Too Many Lovers*; *If You Ever Change Your Mind*; *Ain't No Love in the*

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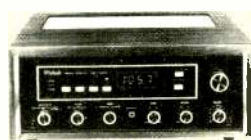
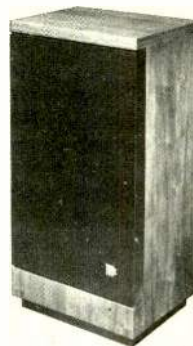


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Heart of the City; Take It Easy; Lover Man; What a Little Moonlight Can Do; and four others. COLUMBIA JC 36512 \$7.98, © JCT 36512 \$7.98, © JCA 36512 \$7.98.

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

Well, maybe the album gets a bit carried away with the Thirties and Forties at the end, but Crystal Gayle still has the touch. Not much of this is terribly important music, you understand, but many of the pieces are neat or quirky little things that suit her program, and as she borrows time from one note to extend another, squeezing out pathos (it's the sense of what's still in her, behind all that, that gets you), she makes them seem fresher than they are. The engineering is almost as clear as her name, although Charles Cochran's piano—just about the most sympathetic instrument behind her this time—sounds as if its mike placement is a little funky. Gayle is now singing with enormous confidence, which is justified, and she takes some new chances in such tunes as Delbert McClinton's *Take It Easy* and a couple of near-cabaret things by Joe Sample and Will Jennings. This new power does not seem to do much for *Lover Man* and *What a Little Moonlight Can Do*, however; maybe she's too respectful of these standards. Anyway, most of this disc suggests Gayle's on a growth spurt, and she and Allen Reynolds continue to uncover evidence that there is still some intelligent songwriting on this planet. N.C.

RECORDING OF SPECIAL MERIT

STEVE GIBBONS BAND: *Street Parade*. Steve Gibbons Band (vocals and instrumentals). *British Rock 'n' Roll; New Romance; Give It Back; Graffiti Man; Street Parade; Abracadabra*; and five others. POLYDOR PD-1-6293 \$7.98, © CT-1-6293 \$7.98, © 8T-1-6293 \$7.98.

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

Steve Gibbons' last album, "No Spitting on the Bus," was a delight, and I am happy to report that he and his merry band still refuse to take themselves or rock-and-roll too seriously. *Give It Back*, for instance, is a superb multilevel satire about a fantasized "Elvis Presley Competition of 1959." Other highlights on the album are *British Rock 'n' Roll*, which gives a perfect description of a second-rate band, and *New Romance*, a witty and blunt rejection of cavalier courtship in pursuit of a quickie. Steve Gibbons is deliciously vicious and hilarious and a good thing altogether. Try him. J.V.

RECORDING OF SPECIAL MERIT

JIMMY HALL: *Touch You*. Jimmy Hall (vocals, harmonica, saxophones, percussion); vocal and instrumental accompaniment. *634-5789; Private Number; Midnight to Daylight; Eazy Street; Bad News*; and five others. EPIC JE 36516 \$7.98, © JET 36516 \$7.98.

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

Jimmy Hall, former lead singer of Wet Willie, is a Southern rocker with a fine brawl-

ing voice that is very comfortably settled in the down-home-raunch style, and he has an excellent backing band. On "Touch You" they romp through a collection of originals and older gems. J. D. Loudermilk's *Bad News* gets a no-frills treatment, and there are all-out versions of two numbers from the Stax/Volt catalog, *634-5789* by Steve Cropper and Eddie Floyd and *Private Number* (with some splendid vocal work by Bonnie Bramlett) by William Bell and Booker T. Jones. Hall's own high-caliber material, including the ballad *Midnight to Daylight* and the comedic *Eazy Street*, rounds out a thoroughly enjoyable album. J.V.

DONNY HATHAWAY: *In Performance* (see Best of the Month, page 70)

RECORDING OF SPECIAL MERIT

HIGH INERGY: *Hold On*. High Inergy (vocals); instrumental accompaniment. *I Just Can't Help Myself; Make Me Yours; Boomerang Love; It Was You Babe*; and four others. GORDY G8-996M1 \$8.98, © G8-996KC \$8.98, © G8-996KT \$8.98.

Performance: **A lot of fun**
Recording: **Excellent**

If you want to guarantee the spice of life in an LP, get some good producers, arrangers, and engineers who know how to let a song develop according to its own dictates, then get three good female vocalists and give each of them a turn at singing lead. That seems, anyway, to be how High Inergy made their new "Hold On" such an uncommonly delightful pop record. From the fruity, romantic sound of Narada Michael Waldon's pop ballad *I'm a Believer* to the slow reggae shuffle of *Hold On to My Love* to a disarmingly Supremes-like *Make Me Yours*, the album delivers cheerful, varied, and very musical pop. Best of all is *Sweet Man*, a happy dance cut that cries out for release to disco hungry for material. I.C.

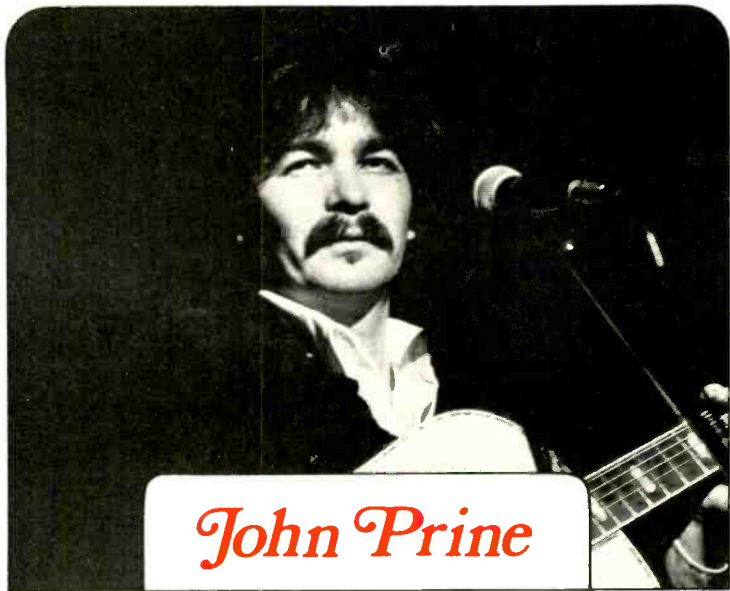
RECORDING OF SPECIAL MERIT

LOLEATTA HOLLOWAY: *Love Sensation*. Loleatta Holloway (vocals); vocal and instrumental accompaniment. *Love Sensation; Dance What 'Cha Wanna; I'll Be Standing There; I've Been Loving You Too Long; My Way*; and three others. GOLD MIND GA 9506 \$7.98, © GC 9506 \$7.98, © G8 9506 \$7.98.

Performance: **Remarkably versatile**
Recording: **Satisfactory**

Loleatta Holloway is known mainly as a high-energy disco singer, but each succeeding album has illuminated her often overlooked versatility. She was probably pegged in disco simply because that was the dominant style when she emerged from the underbrush where talented but unrecognized singers scratch out a living. Had she begun her ascent ten years ago, she might have been heralded as a new soul diva, and two or three decades ago she might have followed the lead of Dinah Washington, combining blues, r-&-b, jazz, and pop. It would have been quite a feat, but Holloway's talent is broad enough to encompass these genres.

Holloway's new set should live up to the (Continued on page 98)



Cheryl Zornik

"OUTSIDE my window a bird once flew," John Prine says. "Now I don't even care what kind of gum I chew." John Prine writes great throwaway lines, and in the last couple of years he has tended to write an increasing number of throwaway songs. (For him, that is. You have to keep this in perspective; what's a throwaway for Prine could be a monumental, brain-boiling effort for some other songwriters.) This tendency culminated a year ago in a throwaway *album* called "Pink Cadillac." Now Prine is back with "Storm Windows," in which we catch him trying to find some center between the part of him that wants to boogie and the part that wants to contemplate.

Prine boogies well, and he has a good sense of the beat and a gruff, whiskeyed voice that's well suited to spewing out rapid-fire one-liners over a raucous backing. But of course it's a loss when a reasonable amount of contemplation isn't included, as he is one of our most alert observers and has a gift for making a few seemingly simple words express a lot. Contemplating is obviously more difficult than boogying, and so a couple of the songs here—one written in 1978, about the time of "Bruised Orange," when his stepped-up throwaway activity started, and one written in 1980—use the imagery of a well drying up. Indeed, two of the main reasons why this album contemplates nearly as well as it boogies—and two of the main reasons why it is a decent album—are songs written, or at least started, in 1978: *Living in the Future* and *Sleepy Eyed Boy*. The former is a vignette of the actual sleaze of present-day life, the chorus obliquely reminding us of the clean, gleaming 1980 the futurists predicted back in 1965. *Sleepy Eyed Boy* is a marvel of economy, has an incredible ratio of poignancy to number of words, and has a tune that further defines its mood. It uses the refrain, "Where, oh where is the sleepy-eyed boy" to mean, "Where is my innocence? Where is my optimism? Where is my youth?"

But the most impressive song in the new

album, a centerpiece smartly placed as the second cut on the second side, is *Storm Windows*, and it's a new one. It too is about feeling old and alone, but it's also about battling oneself and—such is Prine's way with ambiguous words—even more. It has a lovely, two-tiered melody and leaves little doubt that the writer has been there.

On the other hand, *It's Happening to You*, although a "songy" song with an understanding of professional distance written into it, is a very pleasant example of that kind of thing. Most of the rest is given over to boogying and one-liners. Prine can still express some pretty subtle things even at this speed, and he can still be tantalizingly ambiguous. I suppose these cuts may be aiming at Dadaism, but part of Prine wants to make sense of the world even as another part of him wants to make nonsense of it.

So, compared with Prine's last outing, this one shows he's centering. The sound behind him is too, being sometimes rocking and sometimes akin to the country-folk strains of his early album. To record "Pink Cadillac" he went to Sam Phillips' studio in Memphis, apparently not for rockabilly overtones but for simplicity. He hired a bare-bones rock combo and a great piano player, Howard Levy, and got a muddy sound. For "Storm Windows" he went to Muscle Shoals, apparently not just for any very acute Muscle Shoals sound, but the engineering is better. The sound pretty well follows Prine and the songs around, maybe not moving to the center much, but circling it, centering by averaging. Don't worry about the center being empty. That space is reserved for John Prine. —Noel Coppage

JOHN PRINE: *Storm Windows*. John Prine (vocals, guitar); other musicians. *Shop Talk; Living in the Future; It's Happening to You; Sleepy Eyed Boy; All Night Blue; Just Wanna Be with You; Storm Windows; Baby Ruth; One Red Rose; I Had a Dream.* ASYLUM 6E-286 \$7.98, © CT5-286 \$7.98, © ET8-286 \$7.98.



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expectations of existing fans while attracting new ones with a taste for lustily rousing and emotionally gratifying singing. She struts and shouts her way magnificently through such disco items as *Love Sensation* and *Dance What 'Cha Wanna*, displaying the fervor and keen rhythmic sense of disco at its best. But she also undulates through the Otis Redding/Jerry Butler evergreen *I've Been Loving You Too Long* as though it had been written especially for her, extracting every bit of passion from the lyrics. She is just as effective on *Two Became a Crowd*, relaxing into a light rap that elevates it from the maudlin to believable song story. "Love Sensation" is a disco album for people who don't like disco. P.G.

JOE JACKSON BAND: Beat Crazy. Joe Jackson Band (vocals and instrumentals). *Beat Crazy; One to One; In Every Dream Home; The Evil Eye; Mad at You; Crime Don't Pay; Someone Up There*; and four others. A&M SP-4837 \$7.98, © AAM-4837 \$7.98, © AAM-4837 \$7.98.

Performance **A letdown**
Recording **Good**

As with life, there's more than one way of looking at Joe Jackson's new album. If you're feeling charitable, for example, you might decide that Joe's melodic gifts and energy have for some reason deserted him this time out and then adopt a wait-till-next-year stance. If you're even more charitable, you might easily assume that Joe has had his ears opened by some of the more experimental stuff happening in England and so chalk up "Beat Crazy" as an interesting but failed attempt at something a little different. And if you're really cynical, you might even argue that Joe, who is a fairly canny businessman, is aware that in critical circles nothing is less hip these days than an actual tune and therefore figure this new album as an attempt to maintain his status by aping the dour, jaggedly rhythmic approach of the neo-psychedelic bands.

My own, admittedly prejudiced view is that all of the above is true, at least in part. Joe's not really an opportunist, but he's been knocked for being one in the press, and my gut feeling is that to some degree "Beat Crazy" is his reaction to unfair accusations that he's just a lightweight tunesmith with a fake social conscience. And so, instead of the marvelously kinetic, genuinely felt rousers and pop confections that made up the bulk of his first two albums, what we get here are perceptive, slightly more explicit political lyrics coupled with music that derives from reggae in all the wrong, trendy ways. It is all needlessly monochromatic, static, and in general very little fun. Which seems to be the point. But Joe (not to mention Elvis and the Clash, among others) has already proved that brains and melodic charm are not mutually exclusive, and I can't figure out why someone as thick-skinned as he is would care what his friends from the old neighborhood think. S.S.

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Me Sing; Down River; Nightfall; If I Had a Lover; Time and Time; In My Mind; and six others. KICKING MULE KM 309 \$7.98.

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

Will America go for something this quiet and civilized? Probably not, but *you* might. English folkie Bert Jansch, formerly of Pentangle, has put together a trio that trades on nuance and creative hole-leaving, making for a soft-acoustic, slightly faded jangle that goes with the new songs he's written. As a kind of music, it's hard to describe; the art-song kinship to some English folk music is suggested, and so are a Continental flavor and, sometimes, an approach to a quiet kind of jazz. And I do believe Jansch's voice has taken on more character with age, although an appealing nasality is still the most obvious thing about it. Another former Pentangle member, Jacqui McShee, is given a guest vocal in *If I Had a Lover* and stays lost in falsetto the whole time, which makes Jansch's vocals seem even better. You might want more of his unadorned guitar work than you get here, but you'll like the way he works with the other instruments. This album won't incite anyone to riot, or even to boogy, but there *are* other things in life.

N.C.

JETHRO TULL: A. Jethro Tull (vocals and instrumentals). *Crossfire; Flyingdale Flyer; Working John, Working Joe; Black Sunday; Protect and Survive; Batteries Not Included;* and four others. CHRYSALIS CHE 1301 \$7.98, © CE 1301 \$7.98, © CH 1301 \$7.98.

Performance **Still relevant**
 Recording: **Adequate**

Jethro Tull has survived a *long* time, partly because leader Ian Anderson realizes that a rock band must have a distinctive sound of its own and partly because he realizes that people never tire of hearing modern times exoriated. Despite some recent personnel changes, here we have the familiar muddysounding, slightly ponderous Jethro Tull band accented with Anderson's slightly zany flute plus his lyrical updatings of various excoriations, the subjects including urban violence, UFOs we pretend not to see, the working man's ulcers and toys, and some kind of apocalypse, no doubt man-made. There's not a cracker-jack jukebox tune in the batch, but Anderson's updatings—stylistically influenced here just a tad by New Wave and/or Punk—still seem to me to come from a fairly interesting mind. The sound is not so much old hat as old shoe, and you know how comfortable those are.

N.C.

MICHAEL JOHNSON: You Can Call Me Blue. Michael Johnson (vocals, guitar); vocal and instrumental accompaniment. *You Can Call Me Blue; After You; Savin' It Up; You, You, You; Blame It on the Rain;* and five others. EMI/AMERICA SW-17035 \$7.98, © 4XW-17035 \$7.98, © 8XW-17035 \$7.98.

Performance **Romantic**
 Recording: **Good**

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(Continued on page 103)

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"THE RIVER" comes at a crucial juncture in Bruce Springsteen's career. Now indisputably—in terms of both public perception and critical acclaim—the pre-eminent American rocker of his generation, Springsteen carries the weight of twenty-five years of dreams and history on his skinny shoulders, and the question is, will he stumble? And so "The River" is an Event, in the media sense, and the pressure for it to be a masterwork is heightened almost beyond any reasonable possibility. On the one hand, it has to be a significant stylistic breakthrough or its author trivializes all he's accomplished up to now; on the other, it has to be nothing less than the summation of everything vital and important rock itself has ever meant or represented.

This is clearly an impossible task, and it therefore takes nothing away from Springsteen's considerable accomplishment to say that "The River" falls short in some areas. In its claustrophobic, obsessive way, it is a remarkable album, light years beyond the reach of all but a handful of mainstream rockers. But it is certainly not the definitive statement it sets out to be, and it is not, overall, even its creator's best work, although its finest moments, at least, are worthy of comparison with his earlier peaks.

In a purely technical sense the album can hardly be faulted. While the basic instrumental approach remains the same (over-familiar or not, the sound of the E Street Band, with its echoes of middle Dylan, Van Morrison, and urban r-&-b, is still one of the most compelling noises in rock-and-roll), there is a pronounced Sixties English flavor to the arrangements and production here, and the combination works. *The Ties That Bind*, for example, is a great trebly roar of jangly guitars, and the hard rockers in particular have a metallic punch that none of Springsteen's earlier efforts have really approached. What does it not the Spectorish Wall of Sound of the guitar songs on "Born to Run" but something a bit more down to earth: gloriously raucous frat-party music out of a roadhouse Texas Farsa band. Overall, the instrumental layering and the extremely compressed dynamic range here remind me more than a little of Nick Lowe's revisionist work on Elvis Costello's "Armed Forces." There's an edgy drive to the sound of the album that serves the tunes and the performances well and also gives the proceedings an ambiance that is both timeless and modern.

OF course, as Noel Coppage is rightly fond of pointing out, production is not music, and when we get to the songs on "The River" there are some inescapable, unpleasant conclusions to be drawn. The biggest should have been obvious after "Darkness": on records, at least, the element of surprise has gone out of Springsteen's music. On stage this has yet to happen (it's one of the reasons his live show remains the most electrifying in rock history), but in his records he's now dealing strictly in secondhand goods. One can't explain this any more by saying that he's a genre writer; fact is, there's not a melody here that isn't in some way recycled, and the stories, for the most

part, are not so much overfamiliar as uninteresting. It's a question of focus; Springsteen has narrowed his vision to the point that all the larger-than-life quality has gone out of his work. The song *Jungleland* from "Born to Run," for example, dealt with a particular urban landscape, but the treatment had an idealized, generalized romanticism that was cinematic, literary, or operatic, depending on how you wanted to look at it. The new songs on "The River," with

tightrope act. For "The River," however, he used a net: many of the songs are deliberately monochromatic and predictable; two verses into them and you've heard all you need to hear—there's no sense of urgency, they don't go anywhere.

With all that said, the odd thing is that "The River" still packs quite a wallop. There are, of course, some unfettered delights strewn among the twenty songs in the package; Springsteen may be playing down his pop gifts, but he hasn't deserted them altogether. The single, *Hungry Heart*, for example, is an addictive, affectionate tribute to Jackson Browne (if you can imitate me, Bruce seems to be saying, I can return the favor), and several of the rockers, which don't aspire to be more than funny, good-natured swaggers, are simply wonderful. It's hard to resist the energy and humor in *Sherry Darling*, *Cadillac Ranch*, *Two Hearts*, and, especially, *I'm a Rocker*. Then there are a few songs with grander ambitions that rise above the various weaknesses I've detailed. *Independence Day* is as moving an account of a father-son relationship as you're ever likely to encounter, and *Point Blank* and the title song are both, in their rather different ways, top-drawer Springsteen: taut, insinuating, compassionate.

BUT the best things here, the album's centerpieces, together have a cumulative effect all out of proportion to their merits as individual songs, and the reason is that, whatever his failures of imagination in writing them, Springsteen still believes every single word he sings. In the end, the sincerity and heart he projects disarm criticism. In anyone else's hands a song like *Drive All Night* would be a disaster: mawkish, bloated, even faintly ridiculous. Here, however, it gets the kind of performance that makes one forgive Springsteen almost anything, such a tour de force of passion and drama and love that it seems superhuman. When people who've seen him perform talk about his being a "soul singer" in the old sense, this is the kind of thing they mean, and it's good finally to have it on record. If for nothing more than this one transcendent moment, "The River" has to be judged at least a qualified success. The question, of course, is how long Springsteen can continue his Poet of the Lower Classes act without degenerating into overripe self-parody. If his working habits remain constant, the answer should be forthcoming sometime around September 1982. I, for one, am willing to wait.

—Steve Simels

BRUCE SPRINGSTEEN: *The River*. Bruce Springsteen (vocals, guitar); the E Street Band (vocals and instrumentals); other musicians. *The Ties That Bind*; *Sherry Darling*; *Jackson Cage*; *Two Hearts*; *Independence Day*; *Hungry Heart*; *Out in the Street*; *Crush on You*; *You Can Look (But You Better Not Touch)*; *I Wanna Marry You*; *The River*; *Point Blank*; *Cadillac Ranch*; *I'm a Rocker*; *Fade Away*; *Stolen Car*; *Ramrod*; *The Price You Pay*; *Drive All Night*; *Wreck on the Highway*. COLUMBIA PC2 36854 two discs \$15.96, © P2T 36854 \$15.96, © P2A 36854 \$15.96.



James Shive

their detailed depictions of coming of age on the street, are more like journalism, and Springsteen is simply not a good enough reporter to give us the fresh insight that might make the songs and characters come alive, that would make us care about them.

There has been a similar decline musically. What made Springsteen's early songs hit so hard was his flair for melody and structural surprise, his uncanny ear for the sound and spirit of our collective jukebox past. His tunes were wildly unpredictable, crammed to overflowing with glorious hooks and half-remembered fragments of sublime old songs, a dazzling patchwork of rock, soul, folk, jazz, and honky tonk that was tender, vulgar, majestic, and sleazy all at once. A Springsteen album used to be a daring

voice has a warmly plaintive quality that perfectly suits the highly romantic *Don't Ask Why*, the title song, and the moving *Empty Hearts*. (On the last, by the way, he plays some very fine classical guitar.) Johnson is the first male singer in a long time who not only has the nerve to come on as an unabashed romantic but who also has the talent and charm to pull it off. *P.R.*

JACK JONES: *Don't Stop Now*. Jack Jones (vocals); vocal and instrumental accompaniment. *This Is It; Don't Stop Now; Love Is a Game; Don't Wish Too Hard; Here to Love You*; and five others. MGM MG-1-5024 \$7.98, © 8T-1-5024 \$7.98, © CT-1-5024 \$7.98.

Performance: **Super-pro**
Recording: **Good**

Dropping Jack Jones' name in or around any of the trendier pop/rock enclaves would probably elicit the same looks of unbelieving astonishment as would an announcement that Mick Jagger is a closet celibate. Square, square, square is the rock-media pronouncement on Jack Jones. This attitude has not, however, interfered in the slightest with the super-professional Mr. Jones' popularity or his long-established ability to coax warmth and feeling out of almost any material. He's in top form here, particularly in *This Is It* and *Don't Stop Now*, both of which are duets with Maureen McGovern. He also delivers a really fine, intense performance of Peter Allen's *Don't Wish Too Hard*, a song that can easily lapse into

melodrama. Jones may never make it with the patrons of the classier discos, but I'm sure he couldn't care less. He's had it made, on his own terms, for years. *P.R.*

LAUGHING DOGS: *The Laughing Dogs Meet Their Makers*. Laughing Dogs (vocals and instrumentals). *Zombies; Don't Bring Me Down; Not What I Used to Be; Don't Push It; Formal Letter; Take My Chances*; and six others. COLUMBIA NJC 36429 \$5.98, © NCT 36429 \$5.98.

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

The Laughing Dogs have been around a while, performing mostly in the New York area, and it shows to their advantage. On "Meet Their Makers," their second Columbia album, the vocals are strong, the arrangements are interesting and lively, the ensemble sound is very tight, and the lyrics make you listen. Still, the group has some more growing to do; they need to escape the influences of Billy Joel on their lyrics and Steely Dan on chord structure, or at least translate those influences into their own terms. The Laughing Dogs got their experience as a bar/club/touring band, and they have yet to shake off the effects of that, but a few more albums from now they just might do it. Good luck, boys. *J.V.*

L.T.D.: *Shine On*. L.T.D. (vocals and instrumentals). *You Gave Me Love; Where Did We Go Wrong; Getaway; Will Love Grow; Love Is What You Need*; and four

others. A&M SP-4819 \$7.98, © AAM-4819 \$7.98, © AAM-4819 \$7.98.

Performance: **Upbeat**
Recording: **Good**

Although L.T.D. has been around for a while, the group seems to have gotten lost in the soul swarms of the last twenty years. Most of what L.T.D. does is derivative of such better-known predecessors as the Temptations and the Spinners, but they perform with a precision and controlled funkiness that grab at the spirit. The songs here are mainly lighthearted stompers, but *Where Did We Go Wrong* is a skillfully wrought ballad that ingratiatingly addresses matters of the heart. *P.G.*

MELISSA MANCHESTER: *For the Working Girl*. Melissa Manchester (vocals); vocal and instrumental accompaniment. *If This Is Love; Any Kind of Fool; Working Girl; Without You; You and Me*; and six others. ARISTA AL 9533 \$7.98.

Performance: **No laughs**
Recording: **Excellent**

Melissa Manchester has her own gutsy charm, some of which can't help but remind you of Bette Midler, whose back-up warbler she used to be. But one of Midler's qualities that never rubbed off on Manchester was her low-down sense of humor. This is a three-handkerchief album involving a good many tears and no laughs at all. "Guess I'm feelin' too happy to smile/And I just have to cry for a while" is the message of *Tears of*

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Richard E. Aaron/Thunder Thumbs

Wonder

STEVIE WONDER's new release, "Hotter Than July," should reassure those who were puzzled by his daringly innovative "Journey Through the Secret Life of Plants" last year. When that soundtrack for a still-unreleased Paramount movie appeared, there was considerable squirming in critical circles; many thought we had forever lost the composer of such catchy chart climbers as *Sunshine of My Life*. "Hotter Than July" proves that the fear was groundless. Four or five cuts from it are already getting frequent air play, and the album has the kind of delicate balance between energetic, up-tempo tunes and soul-stroking ballads that we had come to expect from Stevie Wonder.

Did I Hear You Say You Love Me, the opener, is a sassy nugget of funky melody that segues so smoothly into the beautiful ballad *All I Do* that the second seems a continuation of and answer to the first. *All I Do* is in the best tradition of Stevie Wonder hits. His alternately growling and pleading vocals dominate this bouncy, playful track in which he sets aside his sometimes overpowering electronic instrumentation to deliver a straightforward rock-and-roll tune with a brief alto-sax solo and a doo-wah girl chorus that sounds a bit like Ray Charles' Raylettes. This track—and much of the first side of the new album—recalls one of Wonder's 1972 releases, "Music of My Mind," with its tight tunes and delightfully energetic pulsation.

Rocket Love, however, is more reminiscent of "Journey." It has the same dense, lush orchestration—swirling strings and plenty of electronics—but it is infinitely more commercial. What makes it stand out is not just the curious lyrics (a man declaring that his love could "blow Picasso's mind") but also the raw edge of Wonder's expressive voice, an instrument that gives his songs an emotional shading and depth

they often lack when other artists perform them.

Ain't Gonna Stand for It, a witty surprise, is one of two songs on the album that venture into totally new territory for Stevie Wonder. It is a wonderful take-off on country music with a naughty *double-entendre* lyric that plays havoc with the rigid musical structure typical of the form: "Don't wanna cause nobody no bodily harm/But somebody's been rubbin' my good luck charm/And I ain't gonna stand for it." Side one ends on a lower level with *As If*, a throwaway love song similar in conception to the far superior *As* on "Songs in the Key of Life."

Side two is rather uneven. It opens well with the driving, jagged reggae rhythms of *Master Blaster*, the other "new territory" cut on the album. It's something of a wink at Wonder's friend Bob Marley, but it's also another of his attempts to break down the barriers between musical traditions and to confound those who want to force him into some convenient pigeonhole. *Master Blaster* isn't altogether reggae, and it isn't exactly r-&-b; it's a little bit of both, displaying Wonder's sense of where their common ground lies.

Three of the tunes on side two come close to . . . well . . . mediocrity. *Do Like You* is merely cute, a family-scrapbook kind of song with little notes about the kids' progress in school (Aisha and Kieta can be heard playing in the background) and glimpses of the Wonders at home. *Cash In Your Face* and *Happy Birthday* are attempts to deliver political messages through tight, pulsating r-&-b rhythms—which ain't easy. The second song, which demands that Dr. Martin Luther King's birthday be made a national holiday, comes closer to success. The best track on side two is *Lately*, a tune so fluid it seems destined for a huge string arrangement à la Mantovani. Here it has only Wonder's deep, throaty wail and a slight piano accompaniment, but they manage to sketch a picture of human longing with bold, spare strokes.

"HOTTER THAN JULY" is really the first Wonder album entirely of the Eighties. It is, typically, a prodigious (almost) one-man show, with Steve composing, arranging, and performing all the songs (with a little help from his friends). We'll have to wait to see whether Wonder will dominate the Grammy awards in this decade as he did in the last, but this rewarding release should at least satisfy those doubting Thomases who were afraid Stevie Wonder had lost his touch. With "Hotter Than July," the wonder is definitely back.

—Zita Allen

STEVIE WONDER: *Hotter Than July*. Stevie Wonder (vocals, keyboards, synthesizers, guitar, percussion, harmonica); vocal and instrumental accompaniment. *Did I Hear You Say You Love Me; All I Do; Rocket Love; I Ain't Gonna Stand for It; As If You Read My Mind; Master Blaster (Jammin'); Do Like You; Cash In Your Face; Lately; Happy Birthday.* TAMLA T8-373M1 \$7.98, © T75-373H \$7.98, © T8-373H \$7.98.

Joy. Tears of self-pity are the substance of *Working Girl*, the saga of a chorus-line cry-baby tired out from doing "three shows a night/Wearing fishnets and feathers/Under blinding white lights." Even Manchester's own song with the cheerful title *Happier Than I've Ever Been* starts out as a sob session, and *A Fool's Affair* could supply the whole sad plot for one of those movies they used to call "a woman's picture." As if the dripping words and dripper tunes were not enough, Manchester's voice, a creditable enough instrument, is fairly drowned in the various instrumental gurglings, buzzings, plunkings, and wailings that wash over this litany of laments.

P.K.

ROGER McGUINN AND CHRIS HILLMAN: *McGuinn/Hillman*. Roger McGuinn (vocals, guitar); Chris Hillman (vocals, guitar, mandolin); instrumental accompaniment. *Mean Streets; Entertainment; Soul Shoes; Between You and Me; Angel; Ain't No Money;* and four others. CAPITOL SOO-12108 \$8.98, © 4XOO-12108 \$8.98, © 8XOO-12108 \$8.98.

Performance **Robust**
Recording: **Good**

If it's Byrds/Burritos nostalgia you want from this record, forget it, but crank up the volume and it will loosen up your ears and clear your sinuses. These two old semi-folkies apparently set out to answer the heavy-metal boomlet, or something, with old-time hard-rock arrangements that are not busy so much as crowded. The album seems to have been recorded like a commercial, with the dynamic range so compressed that just about everything seems loud. But it works pretty well anyway, since some of the songs (especially Graham Parker's *Soul Shoes*) really know how to get up and move under all the weight, and others (notably Robbie Seidman's *Love Me Tonight*) know how to make all the machinery cook. Several do, of course, get buried, and some couldn't hack it with *any* arrangement. Still, this is a pretty good plaster blaster.

N.C.

RECORDING OF SPECIAL MERIT

MONTY PYTHON: *Monty Python's Contractual Obligation Album*. Monty Python (vocals); vocal and instrumental accompaniment. *Farewell to John Denver; String; Never Be Rude to an Arab; I Like Chinese; Henry Kissinger; Medical Love Song; I'm So Worried; I Bet You They Won't Play This Song on the Radio; Decomposing Composers; Here Comes Another One;* and fourteen others. ARISTA AL 9536 \$8.98, © ACT 9536 \$8.98, © A8T 9536 \$8.98.

Performance: **Sick, thank God**
Recording: **Excellent**

The Pythons, taking a break between movie projects, have come up with a new album every bit as tasteless and funny as its predecessors. The emphasis this time is on songs, and a couple here are absolute classics, especially a 19-second John Denver parody and a rousing, Nelson Eddy-ish Mountie number that expresses the sublime sentiment *Sit on My Face*. But a couple of the nonmusical skits are pretty snappy too. *Rock Notes* does to the gossip column of *Rolling Stone* what should have been done years ago, and *Book Shop* rivals the Py-

thons' famous dead-parrot routine for sustained lunacy. By way of a finale, there's a children's choir singing the inspirational hymn *All Things Dull and Ugly*, which should be required listening for all card-carrying members of the Moral Majority. So, come to think of it, should the entire album. This is wonderfully sick stuff, and I heartily recommend it.

S.S.

RECORDING OF SPECIAL MERIT

RAY, GOODMAN & BROWN: II. Ray, Goodman & Brown (vocals); vocal and instrumental accompaniment. *Happy Anniversary; I'll Remember You with Love; Each Time Is Like the First Time; Me; Sweet Sexy Woman*; and four others. POLYDOR PD-1-6299 \$8.98, © CT-1-6299 \$8.98, © 8T-1-6299 \$8.98.

Performance: **Luscious**
Recording: **Excellent**

The sheet of vocal sound created by Harry Ray, Al Goodman, and Billy Brown is so utterly gorgeous that it transcends considerations of artistic originality. Rather than seeking startling new ways of doing things, this trio, once known as the Moments, continues to exemplify the old values that gave male soul groups a certain specialness, setting them apart from all else in the popular-music spectrum. Ray, Goodman & Brown are devout practitioners of an old and dignified art, emphasizing sweetness of sound and an unabashed sentimentality in lyrics. This is most apparent here in their rendition of *My Prayer*, which was a million-seller for the Platters back in the Sixties and, before that, a hit in the Thirties. Filtered through RG&B's carefully cultivated style, it sounds both up to date and nostalgic.

But my favorite here is *Happy Anniversary*, the opener. In this one the trio simply plays with their voices and wallows in the lushness of their *cappella* vocal blend. Their contrived asides attract more than distract, setting the listener up for forty minutes of music so honeyed that it is an absolute delight.

P.G.

YES: Drama. Yes (vocals and instrumentals). *Machine Mechanic; White Car; Into the Lens; Tempus Fugit*; and two others. ATLANTIC SD 16019 \$8.98, © CS 16019 \$8.98, © TP 16019 \$8.98.

Performance: **Tending earthward**
Recording: **Very good**

Personnel changes are forcing Yes to sound slightly more down to earth, slightly less grandiose and humorless than it used to. A couple of songs here almost have actual lyrics where once there was disjointed imagery surrounded by more or less meaningless abstractions. Still, if you listen to what little song there is in a given cut you'll find that the old values still prevail, chief among them being a commitment to the decorations rather than the thing decorated. So there's maybe eight or nine minutes of music here and enough sound effects to fill three whoopee cushions. But there's also a little more white space and an ever-so-slight increase in concrete words—which, if you usually find Yes as annoying as I do, is something.

N.C.

(Continued on page 108)

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Ebel Roberts

Carmen McRae: pure and simple

TIME: Elevenish on a warm fall night. Place: Marty's, a glossy Upper East Side spot with a window-wall facing an illuminated fountain and an entertainment policy that's bringing some of the greatest names in jazz to the New York public. The decor is an uneasy cross between Provisional French and Department Store Model Room. Not your usual jazz lair; there's scarcely a scoobey-doo turtleneck, a pair of onyx-glass shades or Wilson running shoes in sight. Instead, a lot of men in Swiss-banker suits with the requisite display of cuffs, and women who look as if they can tell the difference between Gucci, Pucci, and Hermès at a hundred paces even in this dimmer-manufactured twilight. Event: Second show by Carmen McRae on her opening night.

After the briefest of intros by the accompanying trio, a narrow door to the left of the stage opens and McRae makes her way to the platform. First impression is of an elegant, healthy-looking, tennis-playing matron. But once the lights hit the face, particularly those magnificent eyes, you know that you are In a Presence. She slips into the show with a casual calmness that borders on preoccupation. The voice, however—that throaty, reedy, unforgettable voice—is a lot more involved. It stings and lashes, wheedles and cajoles as if it were an entity separate from the body it inhabits. The set ambles along. McRae fumbles a lyric, introduces her trio, even sneaks a glance at her watch. She acknowledges her applause with a set smile that indicates she's not too wild about you either. Then she glides into

Gershwin's *But Not for Me*. The verse—"Dear Abby, don't you dare/Ever tell me he will care..."—is sung with a playful, admonitory lightness. End of verse, and then a long two-beat silence. With a sudden twist, a thrust of her head and shoulders, she signals that Playtime is over. Throttling down to a slower beat, she sizzles that great song into a heap of glowing embers. At the finish the feeling is rather like that one associates with watching sparks fly into a dark-blue night from a guttering bonfire. Oh, so *that's* Carmen McRae! Took a while, but well worth the wait.

There's no waiting for McRae at all on her wonderful new Concord Jazz recording, "Two for the Road." No lapses, no ambling, no uphill struggle to work up strong feeling for a "show-me" audience. Just Carmen and accompanist George Shearing, ideal audiences for each other, wending their way through ten tracks, any one of which could stand as an object lesson in the how and why of popular song.

To hear Carmen McRae explore such standards as Vernon Duke's *What Is There to Say* or Vincent Youmans' *More Than You Know* is to be at once instructed in and delighted by state-of-the-art jazz-pop singing. McRae has long since transcended being categorized, by some critics and even some of her public, as "Billie Holiday's successor." She's much, much more than that, an artist and a musician in her own right, unique and unchallenged. Which is not to say that there aren't influences; there are. But most of them, like her passing nod to Lady Day in *If I Should Lose You*, are sim-

ply minor chords in McRae's own orchestration. Her style is simple, an apparently effortless act of musical projection—but it's still a steel wire that loops itself around not only the song but your romantic fantasies as well.

Jean Cocteau once said that style is either a very complicated way of saying very simple things or else a very simple way of saying very complicated things. Unfortunately, most of jazz for the last two decades has chosen the complicated way—and then screamed bloody murder about vanishing audiences. It wasn't murder, it was harakiri with a grossly ornate dagger. Carmen McRae has been stripping her work of embellishments, tricks, and gimmicks for some years now. What remains is a pure and simple style, crisp and knowing, that illuminates every song she performs.

George Shearing, on the other hand, is more like an Impressionist painter; he uses large dollops of color in his piano playing, often bringing off the trick of making musical ideas clearer by blurring them somewhat. It's the stone-thrown-in-a-pond effect; once the ripples subside, the reflection seems even clearer than before. He uses this technique brilliantly here in the Burton Lane/Alan Jay Lerner *Too Late Now*—sensational. At McRae's request, Shearing plays and sings by himself on two bands, *Cloudy Morning* and *Two for the Road*.

The recording session was evidently something of a love feast. Although the studio was booked and paid for for the customary two days of sessions, the chemistry between McRae and Shearing was such that the whole album took only three hours and forty-six minutes to record. What the two accomplished in that short span is the fusion of two distinct and highly burnished styles, the creation of something bright and wonderful that gleams and glows in the listener's consciousness.

WHEN I dropped by Carmen McRae's dressing room after the show at Marty's, she was sitting by herself, watching a baseball game and in no great mood to be interviewed. (Who could blame her? The room looked like a set for Sartre's *No Exit*—a small, windowless chamber with dim overhead lights, a couple of air-conditioning vents, and a large TV.) She maintained a careful distance; her answers were brief, but her attention was complete. She began to thaw only when I asked her about musicians she admires. Shearing, of course. But also Bill Henderson, Joe Williams, Al Jarreau. And, of course, Billie Holiday, who recorded Carmen's song *Dream of Life* when Carmen was only eighteen. "Ethel Waters? Oh, I *loved* Ethel Waters. When I was in my early teens I used to go and see her whenever she appeared at the Apollo on 125th Street. She had this wonderful way of coming on stage—very elegant, you know, beautiful gowns. And she had this long handkerchief that she used to wave around sometimes. Especially when she was doing her risqué material. She could almost make that handkerchief talk. And then I saw her

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in *As Thousands Cheer*, where she sang *Supertime*. I never forgot that." A brief pause, and then, surprisingly rather shyly, "I recorded *Supertime* for Decca in 1955." She mentions some other greats in her personal pantheon: Dizzy Gillespie, Charlie Parker, Erroll Garner, Ella Fitzgerald, Sarah Vaughan ("I've always been close to Sarah"), Zoot Sims, and Billy Eckstine.

"Did you have a crush on Billy?"

A fine, relaxed peal of laughter. "Oh, no! Oh, no! I knew him too well. And you can quote me on that!"

THE temperature dropped again (and the air conditioner wasn't connected) when I brought up the subject of playing in New York. "New York clubs are too expensive. And you get an older crowd. When I play in the West I get a lot of young people—eighteen, nineteen years old. They really know me. A lot of them grew up on my music."

How about TV's treatment of jazz artists? "Well, Merv Griffin is the only one who is really fair to us. Johnny Carson doesn't seem to think that we're educated or interesting enough to be allowed to talk. And you can quote me on that too. All he wants us to do is sing and then walk off."

We heard someone climbing the flight of stairs, and suddenly a large young man appeared. "I just came up to apologize," he announced, looking sheepishly at McRae.

"For what?"

"I was the one you asked to blow cigar smoke the other way while you were on."

"Oh. That's okay. It's just that... you know..." She looked embarrassed.

"I'm just in from Australia for a few days and I've always wanted to see you. Umm... thanks so much... you were really great..."

"Well, thank you. I'm glad you enjoyed it."

He disappeared in some confusion down the stairs mumbling. "Thanks so much... goodnight."

Sound of door closing. A three-beat silence.

"Where did he say he was from?"

"Australia."

"Oh."

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Just that.

—Peter Reilly

CARMEN McRAE/GEORGE SHEARING: Two for the Road. Carmen McRae (vocals); George Shearing (vocals, piano). *I Don't Stand a Ghost of a Chance; You're All I Need; Gentleman Friend; More Than You Know; Cloudy Morning; Too Late Now; If I Should Lose You; Ghost of Yesterday; What Is There to Say; Two for the Road.* CONCORD JAZZ CJ-128 \$7.98.

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JAZZ



DAVID AMRAM: *At Home/Around the World*. David Amram (French horn, piano, Pakistani flutes, penny whistles, twin shep-

herd flute, shanai, percussion); Pepper Adams (baritone saxophone); Jerry Dodgion (alto saxophone); Jack Elliot (vocals, guitar); Ray Mantilla, Candido (percussion); Odetta (vocals); other musicians. *Traveling Blues*; *Splendor in the Grass*; *Aya Zehn*; *Birds of Montparnasse*; and six others. FLYING FISH FF-094 \$7.98.

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

Whenever David Amram gets together with a group of musicians, whether on a street corner, in some Greenwich Village haunt, or in a studio, musical magic seems to happen, and the results are totally unpredictable. "At Home/Around the World"

catches him in a studio. The Flying Fish label seems more in tune with Amram's eclectic mind than his former one, RCA. Flying Fish previously reissued some of his deleted RCA recordings, but this new one is a fresh pot, a wonderful ragout of musical styles that made an impression on Amram during his travels around the world. Always fascinated by ethnic music, Amram never misses an opportunity to bring home sounds that delighted him in far corners of the globe.

Side one favors jazz, and with Pepper Adams and Jerry Dodgion—two old Amram sidekicks—on hand, a high-caliber performance is guaranteed and delivered. One selection, *Home on the Range*, offers a particularly striking example of Amram's wide-ranging taste and his ability to fuse disparate ingredients. It has elements ranging from Jack Elliot's Appalachian yodeling to some Afro-Cuban sounds and Pepper Adams' jazz-steeped baritone sax, culminating in a strangely compelling, decidedly off-beat vocal by the shamefully neglected Odetta. This is not an album for people of restricted taste: its boundaries are as wide as Amram's spirit. **C.A.**

RECORDING OF SPECIAL MERIT

JOANNE BRACKEEN: *Ancient Dynasty*. JoAnne Brackeen (piano); Joe Henderson (tenor saxophone); Eddie Gomez (bass); Jack DeJohnette (drums). *Celebration*; *Beagle's Boogie*; *Remembering*; and two others. COLUMBIA/TAPPAN ZEE JC 36593 \$7.98. © JCT 36593 \$7.98. © JCA 36593 \$7.98.

Performance: **Vibrant**
Recording: **Good**

I am still raving about JoAnne Brackeen's first album ("Keyed In," JC 36075) for Bob James' Columbia-distributed, mass-market-oriented Tappan Zee label, but I like this follow-up release even better. That may well be in part because it adds the decisive, devilishly sympathetic tenor of Joe Henderson to an already illustrious line-up (bassist Eddie Gomez and drummer Jack DeJohnette), but I also think Brackeen has outdone herself this time around. It is encouraging to see James continue his label's departure from the heavily synthesized fusion sound. If you know jazz, then you know the players on "Ancient Dynasty," and all I need to add is the assurance that this album presents them in top form. **C.A.**

RON CARTER: *New York Slick* (see Best of the Month, page 73)

RECORDING OF SPECIAL MERIT

CONCORD SUPER BAND: *Concord Super Band II*. Warren Vaché (cornet, flugelhorn); Scott Hamilton (tenor saxophone); Cal Collins (guitar); Dave McKenna (piano); Phil Flanigan (bass); Jake Hanna (drums); Anli Sugano (vocal). *Crazy Rhythm*; *Summertime*; *Drum Boogie*; *Just Friends*; *In a Mellow Tone*; *Out of Nowhere*; *Nancy*; and six others. CONCORD JAZZ CJ-120 two discs \$15.98.

Performance: **Super mainstream jazz**
Recording: **Excellent live take**

This album was recorded at a Tokyo concert just last year, but there isn't a cut on it

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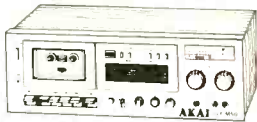
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that I wouldn't play for a jazz fan of my mother's generation. The band is almost the same as the fine Concord Super Band that recorded in Tokyo in 1978 (Concord Jazz CJ-80), the only changes being that Dave McKenna replaces Russ Tompkins and bassist Phil Flanigan replaces Monty Budwig. With either lineup, the Concord Super Band is a superb sextet the likes of which few of us jazzwatchers expected to experience in this decade. Given the youthfulness of its members, we can now, of course, expect to hear their mellifluous swing as we bounce into the next century. In the meantime, without knowing *what* kind of music *Billboard* and *Record World* will be calling "jazz" in the year 2000, look on the smooth sounds of Warren Vaché, Scott Hamilton, and the rest here as a wonderful antidote to the faceless, synthesized meanderings of the hyped-up players who dominate the alleged jazz charts and airwaves today.

Vocalist Anli Sugano must be a Tokyo local. She's not bad, but it would have been better had she understood the English lyrics to the only song she sings, *On the Sunny Side of the Street*. And Jake Hanna's extended solo on *Drug Boogie* is too long, I think. Everything else on this double album is guaranteed to send shivers of joy through all who like jazz with heaps of swing and straight-ahead melodic creativity. C.A.

SARAH VAUGHAN: *Duke Ellington Song Book Two*. Sarah Vaughan (vocals); Eddie "Cleanhead" Vinson (vocals, alto saxophone); Mike Wofford, Jimmy Rowles,



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If there was ever any doubt that Earl Hines is the greatest jazz pianist of all time, the Hines album in Time-Life's retrospective "Giants of Jazz" series ought to settle the matter once and for all. Hines certainly listened to other players during his early years, but his mature work owes nothing significant to anyone else. He played boogie-woogie for fun, and stride with casual abandon, but he never had to bother keeping up with what other musicians were doing since he was sufficient unto himself. The references to other players' styles in his work are affectionate tributes to personal friends—such as Fats Waller and Art Tatum. Yet Hines is a modest titan; he has always played with a professional but warm regard for his audiences.

Hines' playing is instantly recognizable and always has been; no one else plays like him. His technique is, of course, superb despite the limited reach of his hands (he developed his "trumpet style" of playing so as to be heard amidst a band's horns and reeds), but it is his conception and imagination that make him unique. By 1928 he had developed his trademark, which no one since—in any style—has been able to duplicate. He suspends the rhythm until it seems to be in danger of being lost altogether while playing an extended break that contains his own personal reference to the tune—and then miraculously integrates the break cleanly and perfectly into the recovered rhythm. In the hands of any other pianist this device becomes only an indulgent, clinical arpeggio, but in Hines' hands the breaks are completely thematic. What Hines plays in his breaks is what every bop and post-pop pianist of the last thirty years has been trying to play overall. Hines was impressionist, atonal, and avant-garde in 1928, and he remains as adventurous today. To paraphrase a classic comment about his friend Louis Armstrong, you can't play piano today without playing Earl Hines.

The Time-Life collection includes some of Hines' best solo work from 1928 to 1970, selections from his big-band period (1929-1942) with the orchestra at the Grand Terrace Café in Chicago and his monumental collaborations with Louis Armstrong in 1928, some of his recordings with Jimmie Noone's combo earlier that same year, and a few odd dates from the late Forties and early Fifties. Except for Armstrong, Hines never played with a musician who was his equal in concept, daring, and imagination. The Hines/Armstrong sessions are timeless, but in most of the rest, though Hines still stands out, the work of everyone else has a period flavor. This is especially true in the big-band recordings. Although there's solid and sometimes exceptional work by the sidemen, Hines alone is truly memorable. But the selections chosen to represent Hines' work with Jimmie Noone are less interesting than they could be, all three medium-tempo and rather plodding. Noone was a first-rate clarinetist who, together with Frank Teschemacher, formed the basis for Benny Goodman's style. His combo recorded some robust performances with Hines that should have been included here, such as *I Know That You Know* and *A Monday Date*.

The only word for Hines' solo recordings is eternal. The fusing of a musical machine and its operator has seldom been so successful; when you hear Hines play alone you are experiencing, with stunning clarity and completeness, a whole individual world.

WHEN Hines resigned from Armstrong's All-Stars in the Fifties, complaining that the band was playing by rote every night, Satchmo, in a rare moment of petulance, said that he didn't need "Earl Hines and his big ideas." But by then, alas, Louis was a performer instead of an innovator; he no longer presented new ideas. Hines still does. Hines still takes chances, and they work. He has never bothered much, then or now, with speculations about Art. As a full-time musician he simply wants to know what his bookings are, and he still looks to please the audience. He is a practical, professional, working musician, but what he produces can only be called the creations of genius.

—Joel Vance

GIANTS OF JAZZ: Earl Hines. Earl Hines (piano), with Jimmie Noone's Apex Club Orchestra, Louis Armstrong's Hot Five, Savoy Ballroom Orchestra, Cozy Cole All-Stars, and others. *Sweet Sue, Just You; Four or Five Times; Skip the Gutter; A Monday Date; Beau Koo Jack; Weather Bird; Everybody Loves My Baby; Pianology; Father Steps In; Piano Man; Boogie Woogie on St. Louis Blues; Rosetta; Harlem Lament; Maple Leaf Rag; Jelly, Jelly; Thru for the Night; Deed I Do; Life with Fatha; Stowaway; Caution Blues; Fifty-seven Varieties; Down Among the Sheltering Palms; Blues for Tatum;* and seventeen others. TIME-LIFE STL-J11 three discs \$19.95, © STL-J11 \$21.95, © STL-J11 \$21.95 (plus \$1.25 postage and handling from Time-Life Records, 541 North Fairbanks Court, Chicago, Ill. 60611).

Lloyd Glenn (piano); Joe Pass, Bucky Pizzarelli, Peeewe Crayton (guitar); other musicians. *I Ain't Got Nothin' but the Blues; Black Butterfly; Chelsea Bridge; What Am I Here For; Tonight I Shall Sleep; Mood Indigo;* and five others. PABLO TODAY 2312-116 \$8.98, © K12-116 \$8.98.

Performance: **Enthusiastic**

Recording: **Good**

Sarah Vaughan is in good to fine vocal form running through these eleven classic songs by Duke Ellington. It might seem that all of them have been sung so well and/or so often in the past by practically everyone who has had access to a microphone that it would be impossible for Vaughan to bring anything new to them; it's hard to believe that she could strike any fresh, enthusiastic notes in *Mood Indigo*, for instance, or *I Got It Bad and That Ain't Good*. But she can, and she does. They don't call her "Sassy" Vaughan for nothing, y'know.

P.R.

COLLECTION

TENORS ANYONE? Stan Getz: *Skull Buster; Ante Room; Pennies from Heaven; Poop Deck.* **Wardell Gray:** *It's the Talk of the Town; In a Pinch.* **Paul Quinichette:** *These Foolish Things; Along About This Time of the Year.* **Zoot Sims:** *Blues for the Month of May; I Should Care.* BIOGRAPH © BLP-12068 \$7.98.

Performance: **High level**

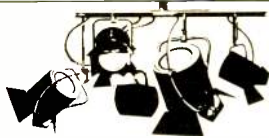
Recording: **Good mono**

Tenors, anyone? *Sure.* Turning down an offer to hear any of the four tenors who share this album, on separate but fairly equal tracks, would be irrational to say the least. What they all have in common is the formative influence of Lester Young, but each took that influence in a different direction.

The four selections with Stan Getz, taken from a 1949 Seeco-Dawn session under the leadership of pianist Al Haig, are good samples of the ultra-cool Getz style that emerged from the smooth Ralph Burns arrangements for the Woody Herman band just two years earlier. Also from an Al Haig date, but about a month earlier, are two selections featuring Wardell Gray, who played in a less frosty, more Lester-ish style and at the age of thirty-three was well on his way to a seat in the bop hierarchy when he was found murdered. These six Haig sides, which take up side one, also feature the superb guitar of Jimmy Raney.

Paul Quinichette stayed the closest to Lester Young, as we can hear on *These Foolish Things* and *Along About This Time of the Year*, two 1956 Dawn cuts that, while certainly worthwhile, are less interesting than any of the tracks on the Quinichette album that Biograph released last year ("The Kid from Denver," BLP-12066). Then there are two sides featuring Zoot Sims leading adequate but not very distinguished quartets. If Sims is the lure that makes this album of interest to you, there are better examples of his work available. But if you are into Sims, chances are that you are into tenors, in which case you ought not to pass up this collection. Here's hoping Biograph will keep the Dawn sessions coming, but more carefully programmed; the ten tracks of this tenor set seem thrown together at random.

C.A.



THEATER • FILMS

CARNY (Robbie Robertson–Alex North). Original-soundtrack recording. Robbie Robertson (vocals, guitar); Gary Busey (drums); Mac Rebennack (organ); other musicians. WARNER BROS. HS 3455 \$8.98, © W5 3455 \$8.98.

Performance: **That's entertainment?**
Recording: **Good**

Carny is Robbie Robertson's first public exposure since the Band shuffled off to that great Progressive Rock Market in the Sky, but you'd have to love the movie even more irrationally than I loved *McCabe and Mrs. Miller* or *Bad Company* before you'd voluntarily play the album. The stuff here also seems highly unoriginal; one of the selections is Fats Domino's *The Fat Man*, which recycled one of the *C. C. Rider* melodies (the one Chuck Willis used, as I recall), and danged if Robertson doesn't give the same theme still another run-through in one of his four "originals." Of course, Robertson is a great transidiomatic guitarist, one of the few who could make an electric guitar seem to fit these evocations of sawdust and Dixieland. But, as if to be sure the album bombs, they've divided it up *Electric Horseman*-style, with Robertson's songs on one side and Alex North's incidental music on the other. Without the pictures the North side is all but unlistenable, though maybe if you could have somebody chew on a cigar and guess your weight while it's playing

N.C.

EVELYN LEAR: Sings Sondheim and Bernstein. Evelyn Lear (soprano); Martin Katz (piano). *Who Am I; I Can Cook Too; Lonely Town; Green Finch and Linnet Bird; Could I Leave You?; Send In the Clowns;* and four others. MERCURY SRI 75136 \$9.98, © MRI 75136 \$9.98.

Performance: **Inappropriate**
Recording: **Excellent**

The idea of an opera singer undertaking a program of popular ballads usually makes me cringe; it conjures up chilling memories of Rosa Ponselle singing *The Dark Town Strutter's Ball* or Grace Moore, of blessed memory, trying to sound low-down and hoochy-coochy. Evelyn Lear does not escape the traditional curse here, though she manages to foul things up, when she does, in a somewhat less predictable way. For example, her attempt to bring a torchy quality to *Lonely Town* from Leonard Bernstein's landmark musical *On the Town* slows that lovely ballad to a halt and distorts its essential wistful simplicity, and in *I Can Cook Too* she is unspeakably cute.

Lear fares better with two charming numbers Bernstein wrote in 1950 for a revival of *Peter Pan* (preceding the much bet-

ter-known Jule Styne score) and far, far better with several songs by Stephen Sondheim. Her flair for dramatic interpretation is given full rein, and in *Could I Leave You?* from *Follies*, one of the cruelest, most searing musical monologues Sondheim has yet devised, she shows a down-to-earth power you have to hear to believe. In *Losing My Mind*, another item from *Follies*, and *Green Finch and Linnet Bird*, that ornate arietta sung by the ingenue in *Sweeney Todd*, Lear is able to make good use of her considerable vocal skill. But she ends, alas, by overdoing *Send In the Clowns* in the most shamelessly self-indulgent fashion. The trouble with this album stems from a basic misunderstanding. Bernstein can write art songs, all right,

and so, no doubt, can Sondheim, but they have *not* written any for their Broadway musicals, and neither a florid nor a reverential treatment can turn these songs into the kind Evelyn Lear sings best. P.K.

THE ROGUE SONG (Clifford Grey–Franz Lehár–Herbert Stothart–Dimitri Tiomkin). Original-soundtrack recording. Lawrence Tibbett, Catherine Dale Owen, others (vocals); MGM Orchestra. PELICAN ™ LP 2019 \$7.98.

Performance: **Interesting**
Recording: **Opaque**

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CIRCLE NO. 30 ON READER SERVICE CARD

Rogue Song (1930) marked the film debut of the great American baritone Lawrence Tibbett, and it was a sensational success for both Tibbett and MGM. The studio gave it a lavish Technicolor production that included an Albertina Rasch ballet with music by Dimitri Tiomkin, direction by Lionel Barrymore, and random appearances by Laurel and Hardy (lest the proceedings be considered too high-toned). In then-standard Hollywood fashion, it was "based" on the operetta *Gypsy Love* by Franz Lehár, which is rather like saying that certain episodes of *I Love Lucy* are based on *Mourning Becomes Electra*. Actually, *Rogue Song* is almost pure early-talkie Hollywood, retaining only two of Lehár's lesser tunes in a score supplied mainly by MGM house composer Herbert Stothart.

Tibbett's early films were great successes, though it's not easy to hear why from this recording. The sonics are sluggish enough to suggest that the soundtrack was made under water. Even Tibbett's performance of the famous title song sounds like it's coming through wax paper and a comb. What his voice did have, both in dialogue (and a lot of that is included here) and in song, was "personality." At times he sounds perilously close to parody (something like Jim Nabors doing "Gems from Romberg"), but at other times his rrrrich, rrrresonant style works very well—especially since his co-star, Catherine Dale Owen, returns his volleys in the same ripe, romantic manner.

What makes this album of historical value is that all prints of *Rogue Song* seem to have disappeared, leaving the soundtrack as the only evidence we have of one of the great early talking-picture successes. But for proof of Tibbett's vocal artistry, I suggest you seek out some of his other, better recordings. P.R.

THEMES FROM THE GENERAL ELECTRIC THEATER (Elmer Bernstein), Orchestra, Elmer Bernstein cond. COLUMBIA SPECIAL PRODUCTS © ACS 8190 \$7.98 (from Columbia Special Products, 51 West 52nd Street, New York, N.Y. 10019).

Performance: **Does it matter?**
Recording: **Good**

Talk about truth in packaging! The cover of this CBS reissue, released last September during the Presidential campaign, carries a twenty-year-old photo of Ronald Reagan and names him in big letters as "Host and Program Supervisor." On the record itself, however, the famous bland Reagan baritone is nowhere to be heard. What we get instead is a lot of bland music written for the series by Elmer Bernstein and played by a studio orchestra under his direction. Now, Elmer Bernstein is a skilled concocter of striking themes and knows as well as anyone in the business how to underscore a dramatic scene, as he did for such films as *The Man with the Golden Arm*, *Sudden Fear*, and *The Ten Commandments*. But the accompaniments he provided for the hour-long General Electric Theater dramas do not make for much musical entertainment on their own. This is mostly typical Hollywood music meant to support the action of a scene without calling undue attention to itself—music to daydream by. P.K.

(Continued on page 116)

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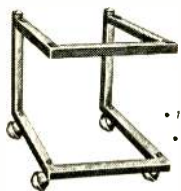
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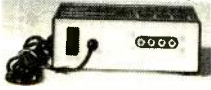
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Video Review



Etty Inman-Goldmark/Retna

If middle-of-the-road pop (as represented by, say, Barry Manilow) is to rock-and-roll what John Anderson is to Angela Davis (admittedly an imprecise and probably endlessly arguable proposition), then ABBA is about as far to the right as most rock people are ever likely to let themselves go. *Everybody* likes ABBA, whether they'll admit it or not, even hard-core punkers, and it's not hard to see why. Apart from the vague kinkiness of their act (sex is clearly being sold, but hardly anybody can figure out what kind), these palindromic Swedes do pop kitsch with rock overtones better than any of their competition, and though some of their stuff may verge on ickiness, their best songs have a kitchen-sink eclecticism that offers something for almost everybody. If we must have disposable music, this is probably as good as it's ever going to get.

ABBA's new MCA videodisc finds the band lip-synching twelve of their better-known numbers (this appears to be a collection of made-for-TV promo films) in a variety of silly settings ranging from fake discos to a snowy Scandinavian wilderness right out of a Woody Allen Bergman parody. None of it is terribly imaginative, but it is endearing in a dopey way. One gets the feeling that the group really can't—or maybe won't—distinguish between a hard day's night and a long day's journey into night; they're true cultural populists.

Technically, the package is a mixed bag; photography and color are fine, but the sound is a trifle boxy. Also, while the effect of real stereo with home video (I played this, naturally, through a high-end hi-fi setup) is impressive in and of itself, a comparison with ABBA's audio records reveals that a slight constriction of dynamic range has occurred somewhere between Stockholm and Los Angeles. Considering that this group ranks as a giant of Swedish commerce (right up there with Volvo), one would think they'd have kept a little closer

watch on this front—there being no reason I can think of why a narrower dynamic range should have been necessary. Withal, however, it's a fun record, a more than reasonable first purchase for those of you with brand-new videodisc players.

For amateur a-&-r persons who may be wondering "Why ABBA?," it should be noted that the major stumbling blocks in the way of getting popular artists onto home video right now are the music-publishing companies, many of whom are playing that old "either I pitch or I take my ball and go home" game with the videodisc producers. Young artists often have to surrender the rights to their own music in exchange for financial support while they try to get established. And so, though many established artists are dying to try videodisc, they can't perform their own stuff without someone else's okay. ABBA, cagey multinational conglomerate that it is, not only owns all its own material but is well able to finance its own flyer into the videodisc future without insisting on Fort Knox as a down payment. Ah, Art! Ah, Commerce!

In my November review of Loretta Lynn's new MCA videodisc I pointed out that although the album was marked "stereo," it was in fact mono. A new stereo version has now been released, so if you want to add the coal-miner's daughter to your video library and plan to feed the sound through your stereo rather than your TV set's little mono speaker, be sure to check before you buy.

—Steve Simels

ABBA. ABBA (vocals and instrumentals). *Gimme, Gimme, Gimme; Knowing Me, Knowing You; Take a Chance on Me; Money, Money, Money; Eagle; Voulez-Vous; Dancing Queen; Chiquitita; Does Your Mother Know; One Man, One Woman; Name of the Game; Thank You for the Music.* MCA DISCOVISION 74-006 \$19.95.

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