JANUARY 1983 • \$1.25 Stereo Review

CAR STEREO ROUNDUP Road and Lab Tests on 10 Car Stereo Units

Equipment Test Reports:
Sherwood S-6000CP Cassette Deck

- Allison: Seven Speaker System
- Pioneer PL88F Record Player
- Ace Audio 4100-X24 Filter

PLUS **Hi-Fi Sound** Comes to TV!

First Lab Tests of Jensen's AVS-1500 Audio/Video Receiver

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Disc Specials: Dianne Reeves • Captain Beefheart Marshall Chapman • Keith Jarrett Glenn Gould's Goldberg Variations Solti's Marriage of Figaro

JEN

HATYOUR EA IS A BRAIN.

This tiny microprocessor is the latest innovation in Pioneer's best components. It can improve the way you listen to your music. And it can also improve your music.

THE SX-8 RECEIVER: DON'T TURN THAT DIAL.

mechanical dials. So all you hear is

crisp, clean music.

Just the way it was

recorded. The brain

also willingly takes

over the chores you

used to do yourself.

Just push a

How smart is smart? For starters, the brain inside the SX-8 allows us to use push button controls, eliminating noise and distortion caused by



All-electronic receiver operation does away with knobs and dials. Volume, station and bass and treble levels can be easily monitored thanks to L.E.D. readouts.

button to raise or lower volume or tone, change stations, even check the time. Push the Scan Tuning button and the receiver automatically scans every station, playing five seconds of each one.

Then, simply touch the Memory button. Your station, volume, and tone settings will

Not that there's anything wrong with the one you've got.

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And when it comes to getting the most music out of your music, smart components have a lot of advantages over dumb ones.



be instantly stored in the memory. Ready to be recalled just as fast.

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If you've ever done even a small amount of

cassette recording, you've gone through the not-so-convenient fast forward/stop/play/reverse/stop/play procedure of trying to find the blank area where your last recording left off and the next one can begin.

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Automatically.

And, as if that weren't enough, the CT-9R also has one of the world's fastest Automatic Bias Level Equalization systems. In plain English, that means that it takes just eight seconds for Auto B.L.E. to analyze the

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THE PL-88F TURNTABLE: IT WON'T PLAY WHAT YOU DON'T LIKE.

In the history of recorded music, there has probably been one, maybe two people who like every cut on a

CIRCLE NO. 38 ON READER SERVICE CARD

record. If you're not one of them, you'll take an immediate liking to the new PL-88F. It's front loading, stackable and, best

of all, it's fully programmable.

Punch in up to eight cuts per side in any order that makes your ears happy. The turntable will automatically skip the ones that don't.

And when you're recording from records to cassettes you'll appreciate the tape deck synchro that automatically



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You just need a little brain.

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Retail price may vary at individual stores and dealers. Five-year limited warranty-see 1983 catalog #354, page 22.

Stereo Review JANUARY 1983 • VOLUME 48 • NUMBER 1

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COVER: Design by Borys Patchowsky; photo by Bruce Pendleton. See page 26 for the Hirsch-Houck Laboratories test report on the Jensen AVS-1500 audio/video receiver.

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Five of the music world's finest instruments are made by TDK



Like any fine musical instrument, **TDK** Professional Reference audio cassettes and open reel tapes are products of genius. In TDK's case, it's the genius of constantly-advancing audio technology. And now, TDK technology has advanced again in the reformulation of our MA-R metal, SA-X high bias, and AD-X normal bias cassettes.

MA-R, SA-X and AD-X are formulated to an incredibly strict, new set of audio tape standards based on measurements and values no audio cassette manufacturer has ever attempted to meet. TDK cassettes deliver clarity, fidelity and quality unmatched by any other cassettes on the market today. MA-R, with its unique unibody metal ©1982 TDK Electronics Corp.

alloy frame and Reference Standard Mech- mastering tape offers a wide dynamic anism is the first metal reference tape in the industry SA-X pushes high bias to its limits. AD-X normal bias is extraordinary in its wider dynamic range and its freedom from saturation at high frequency. SA-X and AD-X both feature TDK's specially engineered Laboratory Standard Mechanism. Each cassette comes with a Lifetime Warranty.

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range, high MOL and low noise. Both SA/EE and GX feature low distortion and extended frequency response.

MA-R, SA-X, AD-X, SA/EE and GX-they're five of the music world's finest instruments for all of the music and instruments you record. One final note. TDK's new Professional Reference Series of audio cassettes now comes in bold, new packaging. So they stand out in sight just as they stand out in sound.





Edited by Christie Barter and Gordon Sell

• VIDEODISC SALES: RCA reports that consumers are buying more Capacitance Electronic Discs, or CED's, and SelectaVision players than had been expected. Combined sales for 1982 should exceed \$200 million, RCA says, when all the figures are in. Some four hundred CED titles are available from RCA, CBS/Fox, and MGM/UA catalogs now, and another three hundred should be available by the end of 1983.

• STYX claims to be the first music act to use solar power in a recording studio. The rock group's latest LP was recorded in Chicago with a 6,000-pound solar gizmo providing the juice. The 20 kilowatts generated by the unit were fed to the recording equipment. Styx's James Young said, "This is our way of showing that our generation can shape its own future."

• MOZART FROM THE MET: The new production of Mozart's <u>Idomeneo</u>, first seen at the Metropolitan Opera this season, will be shown on PBS stations January 26 in Texaco's Live from the Met series. Live on tape, it will be sung by John Alexander, Hildegard Behrens, Ileana Cotrubas, Luciano Pavarotti, and Frederica von Stade. James Levine will be the conductor.

• TECH NOTES: The AM stereo wars continue. Magnavox has gotten the FCC's okay on its broadcast transmitter exciter and expects to begin deliveries in January. Both Kahn and Belar are refusing to participate with Magnavox, Motorola, and Harris in a test sponsored by Delco because they feel it is up to the broadcasters to choose the system and that such cooperation might be a violation of anti-trust laws.... Sansui has developed a digital audio processor that can make up to six hours of digital recordings on a video tape using a VCR in the extended-play mode. Previous digital processors could work with VCR's only at normal speed....Nakamichi has reportedly developed an automatic playback-head azimuth alignment system that compares the phase difference between the two poles of one of the channels

within the head and uses servomotors to correct the azimuth. The system will be used in a new cassette deck called the Dragon, expected to sell for under \$1,900....BASF has developed a two-hour premium-quality cassette that has a refined shell design and is said to operate reliably with a deck of good quality. BASF uses metal tape rather than ferric because metal's preferred coating thickness is less than that of ferric or chrome; this helps make room for 120 minutes of tape on the spool....Harman Kardon dealers will be playing host to a "cassette deck challenge" that will pit an HK CD-401 from the dealers' inventory against any under-\$1,500 deck a consumer owns. The challenger's deck will be cleaned, demagnetized, aligned, and measured for width and flatness of frequency response. Owners of machines that beat the CD-401 will win a case of premium tapes. Six HK teams are now visiting dealers.

• MOSS MUSIC GROUP has been signed to record winners of the annual Avery Fisher Prize awarded by Lincoln Center. Pianist Horacio Gutiérrez, the 1982 winner, will be the first to record in the series....New World Records will record the Scottish baritone Henry Herford, winner of the 1982 International American Music Competition.

• QUAD RIDES AGAIN! Stereo videodiscs and stereo videocassette dubs of films that originally had Dolby surroundsound audio tracks usually retain the encoded surround-sound signals. While decoding will not be perfect, if you have a Hafler-type speaker hookup or an old SQ or QS matrix quad decoder, you might want to experiment with these programs.

• BE A PRODUCER: The Berklee College of Music in Boston is offering what it describes as the first degree program for students interested in becoming record producers and in learning what it is to be creatively and financially responsible for the production of master tapes. Classes in the new program begin January 17.

Speaking My Piece

By William Livingstone



Editor Livingstone (center) presents a Record of the Year Award to conductor Herbert von Karajan as DG's Alison Ames looks on.

PREDICTIONS

RECORDS have contributed enormously to building the career of the glamorous Austrian conductor Herbert von Karajan, and he is known to be a keen student of communications media. Therefore, I jumped at the chance when I was invited to hear him speak informally on digital recording and the Sony/Philips Compact Disc.

In this country to conduct concerts of the Berlin Philharmonic, Karajan had agreed to give a little pep talk on the Compact Disc to PolyGram Classics' six regional sales managers after a Saturday morning rehearsal at Carnegie Hall. The rehearsal of Mahler's Ninth Symphony went extremely well, and Karajan arrived at the meeting in excellent spirits, radiating good will.

"There is no question in my mind about digital recording," he said. "It is definitely superior to any other form of recording we know. I feel certain that it will ultimately prevail, though I don't know how long that will take. In Europe people are a little shy of new technology. They hesitate to buy a new device, waiting for the price to drop."

Most of those present did not care to estimate how long it might take for the Compact Disc to establish itself. But A. J. Menozzi, national marketing manager for Magnavox audio products, was not so shy. He was there to demonstrate Magnavox's CD 100 Compact Disc player, scheduled to be on the U.S. market in the third quarter of 1983. Produced in Belgium, the unit is very compact—about 12³/4 x 3 x 10¹/4 inches.

Menozzi began by reminding us that the Compact Disc is not a Sony invention (Magnavox is a Philips subsidiary). "This industry is run by software," he said. "There will be about three hundred CD recordings available when the system is introduced, and that will speed its acceptance. Audiophiles will adopt it because it offers the best sound, but Magnavox plans to go after a mass market too. 1 predict that this will become the dominant form of recording within three years."

Karajan pointed out that the laserread Compact Disc is the technological little sister of the videodisc, and he predicted that eventually all recordings will be video. For a long time Karajan has been involved in producing, directing, and conducting operas and concerts for television, but not even he has been able to provide consistently interesting video tracks for music.

This leads me to disagree with his forecast and to predict that there will always be a market for some audio-only recordings. PolyGram is promoting the Compact Disc with the slogan "Hear the Light," but will we always want to see the source of the sound?

DOUND remains the principal concern of the editors of this magazine. As highend video develops, there will be more and more products that meet audiophile standards of quality, and we will report on them. Current examples include the Pioneer LaserDiscs with CX noise reduction, which we reviewed last November, and Jensen's audio/video receiver, featured on this month's cover and in the test-report section.

At the PolyGram meeting someone complimented Karajan on his reading of the Mahler Ninth at that morning's rehearsal. "It was the most beautiful orchestral playing I've ever heard," he said. "Thank you," Karajan replied. "It was the same for me." It occurred to me then that Mahler himself had conducted his work at Carnegie Hall and probably never heard it sound so beautiful. Still, there was not much to look at in the hall that morning. The members of the orchestra were not even dressed for a performance. The beauty was all in the sound.

Stereo Review

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Only for those who demand the best. Those who want sound that's pure and distinctive ... who hear subtleties others miss. For those discriminating listeners, the R-851 is well worth the quest.

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Fine tuned for every audio need.

From front end to output jacks, the R-851 offers every feature an audio enthusiast might want. The most commonly used controls are right up front-the more esoteric ones are placed behind a neat flip-down front panel. There's microprocessorcontrolled quartz-locked tuning with 14 station programmable mem-ory (7 AM & 7 FM); automatic station seek; 3-band parametricstyle equalizer; fluorescent display panel; and two-way tape monitoring and dubbing.

If you need some help in finding that one Kyocera dealer in twenty, contact: Cybernet International, Inc., 7 Powder Horn Drive, Warren, NI 07060 (201) 560-0060.



85 watts RMS per channel, both channels driven, at 8 Ohms with no more than 0.015% THD from 20-20,000 Hz. CIRCLE NO. 12 ON READER SERVICE CARD



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Letter/

Tape Tax

• Three cheers for William Livingstone's stand against the proposed tax on blank tape and tape recorders ("Taxes and Axes," November). I have hereto avoided taping records as a substitute for buying them because it seemed to me unethical to do so. If this tax should become law, I would (aside from resenting being presumed guilty of copyright infringement by huge companies that do not know me) be compelled to assume that I was paying for the right to begin that very practice. As a result, I would see myself buying not fewer tapes, but fewer records. Let us hope that Beverly Sills and her partners in the Coalition to Save America's Music realize that if they have their way, they may find they have only traded one problem for another.

> WILLIS TURNER Lynchburg, Va.

• William Livingstone need not be so magnanimous in his offer to allow the "Xeroxing" of his "Taxes and Axes" editorial. The last thing I would do is send that particular viewpoint to my congressman. It seems a trifle lazy of Mr. Livingstone to oppose a fair royalty for copyright claimants just because he can't imagine how this royalty would be administered. This laziness seems deplorable in light of the fact that STEREO REVIEW's existence is to a considerable extent dependent on a healthy music industry, which in turn depends on the continuous infusion of creative product-which cannot exist without fair compensation for the creators.

> JOSEPH A. ANIELLO New York, N.Y.

• I buy many albums and many blank tapes. I tape the albums to protect them from scratches, fingerprints, and dust; I also tape selected passages from different albums. I oppose a tape tax, and I am going to let my congressman know about it!

ROBIN S. COLEMAN Indianapolis, Ind.

Tape-Deck Care

• Compliments to David Ranada for his excellent article, "How to Care for a Tape Deck," in the November issue. It's one of the best technical articles, with excellent pictures, that I have seen in a long time. I save such items and have clippings from STEREO REVIEW going back ten years. Keep up the good work!

> JOHN G. HEGNER Manhattan Beach, Calif.

• Thank you for David Ranada's article on the care of tape decks in the November issue. I'm sure there are lots of dirty or offazimuth cassette players out there simply because people don't realize what kind of maintenance is necessary. Our company (and I'm sure others as well) has received back as defective lots of perfectly good cassettes. This article should help.

> PATTI LAURSEN Producer, Angel Records Los Angeles, Calif.

Not by Cat Stevens

• With regard to November's "Bulletin," the following clarification is in order: while the hymn *Morning Has Broken* was certainly recorded by Cat Stevens, it is incorrect to attribute to him composition of either the words or the music. The text of



Cat Stevens

Morning Has Broken was written by Eleanor Farjeon in 1931; the tune with which it is most commonly associated is *Bunessan*, a traditional Gaelic melody. The hymn has found its way into a number of modern hymnals besides the new Episcopal one mentioned in "Bulletin."

O. FRENCH BALL, JR. Nova, Ohio

Many readers wrote about this error, for which we apologize.

More on High-End Hi-Fi

 I agree with many of Alan Lofft's points in October's "Sense and Nonsense in High-End Hi-Fi." There is snobbishness (an assumption that if a product is rare, expensive, and technologically unusual it must be better), many high-end products have price tags grossly out of proportion with their sonic excellence, and much of what is written in the "underground" audio magazines is nonsense. Yet my own experience has led me to conclude that there are subtle but nevertheless real differences among components and that certain components are more successful in contributing to the illusion of hearing live music. I have also found that, given a high level of overall quality, only



"I restored the outside. Kenwood restored the inside."

A vintage '59 Caddy Coupe De Ville with a re-chromed 390 cubic-inch engine. Seven long months of work.

I thought nothing could top what I'd done to the outside, until I heard what Kenwood Ear Conditioning did for the inside.

When I slipped a cassette into the KRC-1022 quartz PLL-synthesized cassette tuner and heard the combination of a highpower amplifier, rear deck mount speakers, 3-way door mount speakers, and equalizer, I found out the meaning of the words, "transcendental experience."

It was a tough decision, considering all the components Kenwood has to offer,

but it turned out to be the right system for my little masterpiece.

Why get your car sound-equipped when you can get it Ear-Conditioned?

Especially when your car deserves the very best.



If you haven't seen Kenwood's line of Ear Conditioning systems, call toll-free 1 (800) 453-9000 for the dealer nearest you. In Utah call 1 (800) 662-2500.

some of the differences in sound can be accounted for by measurements.

ROBERT DEUTSCH Rexdale, Ontario

• Alan Lofft asserts that A/B tests are both reliable and accurate. Possibly the biggest controversy in high-end audio today is whether an A/B switch can be made inaudible to very critical listeners. You can't prove that no distortions occur; you can only say that no distortions are measurable. Mr. Lofft comments on the low value per dollar of state-of-the-art equipment. Consider, however, that 85 per cent of Americans do not think that the difference between a compact stereo and a modest component

system is worth \$400 to \$600. It isn't, therefore, surprising that most people with modest separates also won't spend an additional \$1,000 to buy high-end equipment or that most people with high-end equipment won't spend \$10,000 to \$40,000 more to get the state of the art. Each improvement is smaller and more difficult to obtain than the last, but those who can hear the differences and pay to get them are no more foolish than someone who buys a Rolls-Royce instead of a Cadillac.

> HOWARD GREWE Lake Stevens, Wis.

• It was interesting to note that while Marvin Hamlisch was identified on page 63 of the October issue as a patron of Lyric HiFi, New York City's "high-end heaven," the full page ad on page 24 of the November issue reveals that he prefers Yamaha's one-brand "rack" system.

CHARLES M. EDWARDS Cherry Hill, N.J.

Nana Mouskouri

• I was happy to see Peter Reilly's favorable review of Nana Mouskouri's latest album, "Song for Liberty," in the November issue. She has been my favorite singer since 1 first saw her on TV in 1965. Incidentally, although the review indicates that the album contains twelve songs, two of them are not included on Mercury's U.S. version of

NO OTHER CARTRIDGE, AT ANY PRICE, GIVES YOU ALL THESE FEATURES...

Exclusive MICROWALL/Be™ **Stylus Shank**

This incredible stylus shank-a Shure exclusive feature-combines the high stiffness and low mass of pure Beryllium. with a revolutionary ultra-thin wall tubular construction, to offer the lowest effective mass of any stylus shank available. The result is highfrequency trackability at an unbelievable 60 cm/sec (peak velocity) for unprecedented reproduction of high frequencies and a truer, more musical sound, with greatly reduced record and stylus tip wear.



Exclusive Dynamic Stabilizer/Destaticizer

This Shure exclusive feature rides record warps (present on all records) like a shock absorber to eliminate audible "wow," distortion, groove skipping and cartridge bottoming, while reducing record wear.

The Destaticizer consists of 10,000 electrically conductive fibers that discharge static electricity while removing microscopic dust particles from the record groove. This eliminates "pops" caused by static and debris.

Exclusive Hyperelliptical MÅSAR™ Polished **Stylus Tip**

The Hyperelliptical (HE) stylus tip has longer, narrower contact areas to provide an audible advantage over spherical and elliptical stylus tips, giving you pure, natural, musical sound without the distortion.

The stylus/groove contact areas are MASARpolished to reduce friction at the interface between record and stylus, for less wear on both.

The end result is the most accurate reproduction, with the least record and tip wear you can get from any phono cartridge.





the album, even though they are listed on the cover. All twelve songs are included in the imported Canadian version on Philips (6399 335).

> PHIL SCHWARTZBERG New York, N.Y.

Corrections

• An error in editing Eric Salzman's December "Best of the Month" review of Berlioz's The Damnation of Faust on London Records made it suggest that the work was first performed only after the composer's death. Berlioz did, in fact, guide his opéra de concert through its first performances at the Opéra-Comique in Paris in 1846, but they were so poorly attended that the work was never revived in France during the composer's lifetime.

 Joel Vance's review of the Nighthawks album "Times Four" on Adelphi Records (December) contains several errors concerning the nature of the recorded performances. First, the album contains no studio out-takes; it does contain material from three unreleased and separate studio sessions recorded between 1977 and 1978. Second, the live disc of the set is not composed of "air checks" but of professionally recorded dates simultaneously broadcast live. GENE ROSENTHAL President, Adelphi Records Silver Spring, Md.

Joel Vance replies: The errors are mine. Apologies to both Mr. Rosenthal and the Nighthawks.

\$50* U.S. Savings Bond Bonus with the purchase of a V15 Type V Phono Cartridge until December 31, 1982.



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Value at Maturity

CIRCLE NO. 47 ON READER SERVICE CARD

Renfect Traing



ONKYO STEREO CASSETTE TAPE DECK

The song you're recording is building to a big finish. Unfortunately, your tape may finish before the band does. The Onkyo TA-2055 takes the guesswork out of making five seconds of blank space between cuts. Onkyo's patented Accubias lets you fine tune to the correct recording bias of the tape. The result is professional recording quality with the

perfect cassette recordings. It features a Real Time Counter that displays the consumed or remaining time on the tape, so you can plan your music selections down to the second. Creating your own tapes takes a lot of effort, and the TA-2055 insures that time is on your side.



There are more outstanding recording benefits to this remarkable deck. Jarring, abrupt song transitions are prevented by our Auto Space control that automatically inserts

place with our other cassettle decks as a superb example of Onkyo technology and value for the dollar. Our perfect timing will make for perfect listening.



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Nobody knows more about audio than Onkyo[®]

CIRCLE NO. 36 ON READER SERVICE CARD

flattest frequency response a tape can produce. Dolby B & C Noise Reduction systems are standard, and a microcomputer controlled direct-drive 3-motor transport guarantees smoothness and reliability, in recording or playback. The TA-2055 takes its



Latest Audio Equipment and Accessories

Shure's Heavy-Duty Cardioid Microphones

□ Shure's 586 series of heavy-duty cardioid (unidirectional) dynamic microphones is an improved version of the 585 series. The microphones are meant for amateur and semi-professional audio or video sound recording, live-performance pickups, publicaddress systems, and institutional sound



reinforcement. Models in the 586 series use standard three-pin professional connectors for the microphone output. The units also have improved anti-pop windscreens and shock mounts to reduce undesirable wind and handling noises. Other features include extended low-frequency response, a lockable on/off switch, and a die-cast handle. Packaged with each mike is a swivel mounting adaptor. The 586 series consists of four models: the 586SA-LC (high-impedance, without cable), \$91.50; the 586SB-LC (low-impedance, without cable), \$91.50; the 586SA-C (high-impedance, 20-foot cable with 1/4-inch phone plug), \$106; and the 586SB-CN (low impedance, 20-foot cable with three-pin XLR connectors), \$112.50.

Circle 120 on reader service card

Teknika Component TV Has Stereo Receiver

□ Teknika's Silver Edition ATV System (ATV-19S) includes a stereo receiver for TV and FM, a 19-inch color monitor, two



columnar speakers, a wireless remote control, and three chrome stands. The central component of the system, the ATV-RS receiver, includes tuners for both stereo FM broadcasts and 105 TV channels (including

mid- and super-band cable frequencies), making possible single-unit reception of stereo simulcasts. Rated at 10 watts per channel into 8-ohm loads with no more than 0.5 per cent total harmonic distortion, the receiver also has a special cable-TV AFT (Automatic Fine Tuning) switch to compensate for off-frequency transmission by a cable system. The circuit is said to eliminate color fading and picture instability. Convenience features include a thirty-twostep electronic volume control with a tenstep LED level display, a stereo/mono switch, and independent bass, treble, and balance controls. Audio inputs are provided for a turntable, a tape deck, and one auxiliary source.

A slotted beam-mask system is used in the picture tube of the ATV-M19S monitor. A newly designed electron gun produces a smaller spot size on the screen for increased resolution. Reflected room light is absorbed by black graphite strips in the screen. Automatic tuning is provided for color, tint, brightness, and contrast levels, though each setting can also be adjusted independently. (Once settings are made, the monitor returns to them every time it is switched on.) The ATV-S2 speaker systems each have two 4-inch woofers, a 2-inch-cone tweeter, and a 4-inch-cone passive radiator. Able to handle up to 20 watts input per channel, the speakers have magnetic shielding to prevent picture distortion when they are placed alongside a monitor.

An infrared remote-control unit can control the entire system. The control has twenty-eight functions, including power, direct access or scan-tuning of TV or FM stations, volume adjustment, and simulcast reception. Source switching and muting is also provided. Price: \$1,499.95 for the complete system. (Every component in the system can also be purchased individually.) Tekni-

New Line of Luxman Receivers

□ Three new receivers from Luxman each incorporate ServoFace, described as a "cosmetic innovation," along with three audio-related features. The first of the latter, Computer Analyzed Tuning (CAT), uses a combination of four separate circuits to adjust the receiver automatically for all reception conditions; included are an r.f. attenuator, wide and narrow i.f. filters, and a high-frequency stereo-blend circuit. Second, each of the receivers uses digital-synthesis tuning for accurate, low-distortion FM reception. Finally, Luxman's Duo-Beta lowdistortion circuitry eliminates transient intermodulation distortion and provides a minimum amount of negative feedback. When the units are switched off, the ServoFace system moves the faceplates out flush with the control knobs; when power is applied, the motor-driven faceplates recede to reveal the full array of controls.

The top-of-the-line RX-103 (shown) is rated to deliver 90 watts per channel into 8-ohm loads from 20 to 20,000 Hz with no more than 0.018 per cent total harmonic distortion (THD). The receiver has a digital frequency readout, a moving-coil-cartridge pre-preamplifier,



er-amplifier inputs. Connections and switching for two tape decks and two pairs of speakers are provided, as are an infrasonic and a high-cut filter. The RX-103 comes with the RC-103 remote-control unit, which regulates volume, input selection, and station selection. It can also control Luxman's PX-101 tangential-tracking turntable and the KX-102 ServoFace cassette deck. Phono signal-to-noise ratio of the RX-103 is 80 dB (A-weighted). Usable FM sensitivity is 10.3 dBf (1.8 microvolts). THD with FM is 0.06 per cent at 1,000 Hz; stereo separation is 48 dB. Dimensions are 18 x 6 x 14 inches.

Other models in the ServoFace receiver line are the RX-102 (60 watts per channel) and the RX-101 (40 watts per channel). Both models have twenty-four station presets, digital frequency readouts, and connections and switching for two tape decks. FM usable sensitivities are also 10.3 dBf. Prices: RX-103, \$999.95; RX-102, \$599.95; RX-101, \$499.95.

Circle 121 on reader service card



ka Electronics Corp., Dept. SR, 1633 Broadway, New York, N.Y. 10019. Circle 122 on reader service card

Thorens Turntable Includes Tone Arm

□ Thorens's new TD 147 is a two-speed, automatic shut-off, single-play turntable using the same chassis, suspension, and platter-drive system as the TD 160 Super turntable and including the company's best tone arm, the TP 16. The suspension system of the TD 147 has a "floating" subchassis that supports the platter and tone arm, completely isolating them from the base,



dust cover, and drive motor. The threepoint suspension system is said to prevent external vibrations from distorting the music signal. Other features said to reduce sonic colorations are a damping compound applied to the underside of the chassis and a massive mahogany base.

The unit's dynamically balanced zinc-alloy platter weighs more than 7 pounds and rotates on a precision-polished steel shaft supported by Teflon-and-bronze bearing surfaces. A sixteen-pole motor synchronized to the power-line frequency drives the platter. Low pivot-bearing friction and low effective mass are featured in the TP 16 tone arm. The arm design also places the audio-signal contacts and tone-arm locking collar close to the arm's pivots, where they do not add significantly to the effective mass. A frictionless magnetic antiskating system aids in cartridge tracking. Other features include a photoelectric velocitysensing end-of-side shut-off trigger and a damped cueing control near the front of the turntable. The dust-cover hinges are springsupported.

Specifications include a wow-and-flutter rating of less than 0.04 per cent (DIN 45507). Rumble is lower than -52 dB unweighted, lower than -72 dB weighted (DIN 45539). Tone-arm length is 230 millimeters; effective mass is 7.5 grams. Lateral tracking error is given as less than 0.18 degree per centimeter of record radius. Cable capacitance is 190 picofarads. Dimensions are $65/8 \times 171/8 \times 141/8$ inches; weight is 24 pounds. Price: \$525.

Circle 123 on reader service card

Marantz Cassette Deck With Dolby-C

□ Along with both Dolby-B and Dolby-C noise-reduction circuitry, the Marantz SD420 cassette deck has light-touch transport controls, gold-plated input and output



jacks, a fine-bias control, LED peak-level meters, and sliding record-level controls. The two-head machine can be operated with the optional RMC-1 remote-control unit and has a built-in program-skipping feature to cue up desired selections quickly. Frequency response at a -20-dB recording level extends from 40 to 16,000 Hz ± 3 dB (with metal tape). Signal-to-noise ratio with Dolby-C is 72 dB. Wow-and-flutter is given as 0.05 per cent (wrms). The microphone input impedance is 10,000 ohms. Dimensions are 16% x 37/8 x 12 inches; weight is 121/8 pounds. Price: \$340.

Circle 124 on reader service card

Low-Impedance Pickering Cartridges

□ Pickering has introduced two low-impedance cartridges, the XLZ/4500S and the XLZ/3500E. The XLZ/4500S (shown) features a long-contact-line Stereohedron



stylus and tracks at 1 gram. The XLZ/3500E has a 0.2 x 0.7-mil elliptical stylus and tracks at the same force. Both models feature a user-replaceable stylus and a Dustamatic brush.

Specifications of the XLZ/4500S include a tracking-force range of $\frac{3}{4}$ to $\frac{1}{2}$ grams, an output level of 0.06 millivolt per cm/sec of groove velocity, and a frequency response of 20 to 40,000 Hz ± 2 dB. Channel balance is within 2 dB; separation is 35 dB. Tracking ability is given as 90 micrometers. Electrical characteristics include an inductance of 1 millihenry, d.c. resistance of 3 ohms, and a recommended load impedance of 100 ohms or more. Dynamic tip mass is 0.3 milligram, and dynamic compliance at 10 Hz is 25 micrometers per millinewton. Cartridge weight is 5.5 grams without the brush. Prices: XLZ/4500S, \$150; XLZ/ 3500E, \$100.

Circle 125 on reader service card

Self-Amplified Speakers From MicroFidelity

□ The MI-FI MFS-6300 amplified speakers from MicroFidelity can convert any personal-stereo unit into a miniature stereo system. The speakers' housing is die-cast



aluminum with a zinc front panel. The single driver is 11/2 inches in diameter and composed of polymer-impregnated long fibers. A 3.5-watt integrated-circuit amplifier powered by a 12-volt d.c. adaptor (supplied) drives each speaker. Special inputprotection devices allow maximum inputs of 20 watts if the internal amplifiers are not used. Two carrying cases are available. The MFB-400 Cordura case holds two MFS-6300 speakers, the power adaptor, and two cassettes; the MFB-700 grey or black guilted-nylon case holds the speakers, adaptor, most personal stereo components, headphones, and three cassettes. The speakers measure 31/2 x 23/4 x 23/4 inches. Prices: MFS-6300, \$109 per pair; MFB-400, \$15; MFB-700, \$30. MicroFidelity, Dept. SR, 205 Liberty Square, Norwalk, Conn. 06855.

Circle 126 on reader service card

NAD Receiver Has High Dynamic Headroom

 \Box The dynamic-headroom specification of NAD's Model 7120 receiver is in excess of 4 dB. Rated at 20 watts per channel into 8 ohms from 20 to 20,000 Hz with no more than 0.05 per cent total harmonic distor-



tion, the amplifier section is said to be stable with speaker impedances of 2 ohms and less. A special bass-equalization circuit,

CONCORD. Anything else is a compromise.

It's quite a claim, we realize. But our goal of constantly perfecting sound has resulted in the first line of car stereos which offers true high fidelity specifications, and therefore true high fidelity sound reproduction.

So for the first time, the uncompromising listener can hear music in the car — and feel truly at home. As an example, let's take a look

at Concord's latest, the HPL-130.

lasting Sen-alloy tape heads in car stereo, and the playback frequency response of the HPL-130 is something you really have to hear to believe (out to 20,000 Hz).

o ensure enough power to take advantage of all these features, there's a superb amplifier which – like all the others in the Concord line – is designed with exactly the same high fidelity specifications as



fader which lets you install a front/ rear speaker system and adjust the

balance without loss of power or frequency response. Quite a list! But then the HPL-130 is quite a machine.

> I all adds up to the first car cassette deck that can accurately reproduce your DBX recorded tapes through its built-in amplifiers, and perform comparably to the high fidelity equipment in

your home.

So as you perhaps suspected, at around \$600 the HPL-130 costs a little more than average.

But as with all Concord equipment, we think you'll find the difference is worth the difference.

SPECIFICATIONS:

Tuner Section	
	20 dB Outation
Sensitivity:	30dB Quieting 1.0 Microvolts 11.2 dBf
Stereo separation:	min. 35dB
Frequency response	30-16.000 Hz
Tape Section	30-10,000112
	±2dB
Frequency response Standard tape:	30-15.000 Hz
Metal tape:	30-20.000 Hz
Wow & flutter:	0.08% WRMS
Amplifier Section	
Maximum power:	25 watts/Ch
High fidelity power:	12 watts min. RMS
	per ch into
4 (ohms, 30-20,000 Hz with
	0.8% THD max

Tarzana California 91356 (213) 344-9335



First and foremost, it features Concord's exclusive signal processor circuitry which (with our plugin HPQ 90 adaptor) lets you enjoy the superb high fidelity of DBX recorded tapes. Alternatively, you can plug in a stereo imager or equalizer for further sound enhancement.

But quite apart from its exclusive DBX capability, the HPL-130's other features take it far beyond the current state of the art.

Take the tuner; it's a quartz digital four gang unit which offers significantly improved selectivity and performance over the three gang tuners used by our competitors, plus automatic scan and a 10station preset memory.

Then there's the HPL-130's unidirectional tape mechanism, continuing Concord's 22- year-old reputation for excellence in this area with outstanding wow & flutter and speed regulation characteristics, along with the convenience of power-off auto eject.

Concord originated the concept of using high performance long-

home amplifiers. That's why we can give you complete specifications: 12 watts per channel into 4 ohms from 30-20,000 Hz with less than 0.8% distortion.

And if you'd like more power than that, just plug in our new HPA-25 amplifier for a 48 -watt system (100 watts maximum power).



Other important HPL-130 features include a built-in bass equalizer for overcoming bass speaker deficiencies, equalizer level, loudness and treble cut/boost controls, Dolby noise reduction, speaker pop muting circuitry, adjustable dual line outputs, and a low level preamplifier front/rear

You are cordially invited to listen to 128 BES speakers in our new demonstration room...



The Hollywood Bowl.

Or, at any of our fine BES dealers.

ARIZONA: ARIZONA CONSTRUCTION SPECIALISTS, Phoenix. CALIFORNIA: UNIVERSITY STEREO, all 16 stores in Hollywood, North Hollywood, Sherman Oaks, Bellillower, Canoga, Park, Costa Mesa, Culver City, Giendale, Long Beach, Marina del Rey, Orange, Pasadena, Santa Monica, Torrance, West Covina, Westminster, CALIFORNIA SOUNDWORKS, Lancaster, KOYAMATSU TV, Canyon Country, MIDWEST STEREO, Miltiner, NEWPORT ALDIO, Newport Beach, NORTHRIDGE ALDIO CENTRE, Northridge, GENESIS AUDIO, ElToro, SOUND GENESIS, San Francisco, COLORADO: U.S. STEREO, all 10 stores in Arbada, Boulder, Colorado Springs, Denvér, Englewood, Ft. Collins, Lakewood, Littleton, Northgienn, SCHAAK ELECTRONICS, Denver, FLORIDAS, COLORADO: U.S. STEREO, all 10 stores in Arbada, Boulder, Colorado Springs, Denvér, Englewood, Ft. Collins, Lakewood, Littleton, Northgienn, SCHAAK ELECTRONICS, Denver, FLORIDAS, CONDESTAR, INC., Palatine, MR, DS, Charleston, SCHAAK ELECTRONICS, SUNDS GREAT STEREO, Mainai and North Miami Beach. INTERNATIONAL PURCHASING, GROUP, INC. Miami, GEORGIA: BACK DOOR STEREO, Atlanta, HAWAII: ADRIAN'S TV AND STEREO, Wailuku, Maui. IDAHO: BOISE CAMERA, Boise, ILLINOIS: FLSONICS, Schaumburg, Veron, Hill, Villa Park, IOWA: ALL STATE ELECTRONICS, Des Moines, GREAT SOUNDS AUDIO, Dubuge, KANSAS: AUDIOTRONICS, Lawrence, MASSACHUSETTS, LECHMERE SALES, all 5 stores in Cambridge, Dedham, Darvers, Framingham, Springlield, MICHIGAN: SCHAAK ELECTRONICS, all 13 stores in Dearborn, Grand Rapids, Grose Pointe Woods, Kalamazou, Lansing, Livonia, Novi, Portage, Royal Oaks, Southfield, Sterling Heights, Troy, MINNESOTA: SCHAAK ELECTRONICS, Bernor, Brandigho, Koring, Bernor, Burnor, Burnor, Bernor, Bernor, Bernor, Brande, Kochester, Roseville, St. Cloud. NEBRASKA: CHANEY MUSIC CENTER, Fall City, STANAL SOUND, Kearney, NEW HAMPSHIRE: LECHMERE SALES, Manchester, NEW STREY: FAD COMPONENTS, Faranonsham, Soundian, Stere, Costa Mesa, Costa Mesa

New Product/

which provides a 6-dB boost at 55 Hz with a "Q" of 0.8, extends the bass response of typical bookshelf speakers by about half an octave without any effect on midrange response. The bass and treble tone controls have also been designed to effect the midrange only minimally. The phono signal-to-noise ratio is 75 dB with a cartridge connected. Ultrasonic and infrasonic filtering is included to reduce the effects of radio-frequency interference and record warps.

The digital-synthesis AM/FM tuner has a stereo signal-to-noise ratio of 76 dB and an FM IHF usable sensitivity of 1.9 microvolts. Capture ratio is 1.4 dB. Dimensions are $161/2 \times 111/4 \times 31/4$ inches. Price: \$298.

Circle 127 on reader service card

"Media Unit" Features Customized Components

□ Furniture designer Ron Seff offers a custom-built porphyry-lacquered "media unit" with polished copper trim and bronzeglass doors for \$18,000. The unit shown



measures $50 \times 22 \times 87$ inches, but it can be built to order in any size. Lacquer finishes available include faux malachite and faux marble.

The equipment in the cabinet was selected or designed by Audio Design Associates (ADA) and includes a Technics auto-reverse open-reel tape deck, an ADA FM 600 tuner, a custom-built digital clock, an ADA SC-10 switching unit to control up to eight pairs of speakers, two BGW-250E amplifiers, a Soundcraftsmen equalizer, a Dual 828 cassette deck, a Phase Linear 8000 turntable with cartridge, a Zenith VR9750 Beta-format VCR, and a 19-inch Zenith color television set. The electronic components have custom-built matching copper plates. Price for the complete package is just over \$40,000. Similar units can be custom designed and fitted out according to any desired specifications. Ron Seff Showroom, Dept. SR, 232 East 59th Street, New York, N.Y. 10022. Audio Design Associates, Dept. SR, 602-610 Mamaroneck Avenue, White Plains, N.Y. 10605.

Circle 128 on reader service card

Mura's Shirt-Pocket Stereo FM Receiver

□ Mura's Hi-Ex "Executive" Hi Stepper portable FM receiver is claimed to be the world's smallest personal stereo. It measures $\frac{3}{8} \times 2^{11/16} \times 3^{7/8}$ inches and weighs $\frac{21/2}{2}$ ounces. Features include a vernier tuning



control, a high/low tone-control switch, an LED stereo indicator, and a 3.5-millimeter stereo headphone jack. The unit comes in a velveteen pouch that can be looped through a belt or carried in a pocket. Also included are Mura's SB-60 Stereo Bud earphones, which fit directly into the car canal. Rated response of the headphones extends from 20 to 20,000 Hz. They use samarium-cobalt magnets and have diaphragms 9 micrometers thick. The headphones weigh 1/2 ounce and have a 4-foot cord that serves as the radio's antenna. Price: \$59.95.

Circle 129 on reader service card

Radio Shack Introduces "Personal" Receiver

□ The new Realistic STA-12 (Radio Shack No. 31-1965) measures only $2\frac{5}{8} \times 10\frac{3}{8} \times 6\frac{3}{4}$ inches and is rated at 5 watts per channel into 8 ohms with no



more than 0.9 per cent total harmonic distortion from 40 to 20,000 Hz. A rear-panel switch boosts output power when the unit is

used in a monophonic background-music system. An "Auto-Magic" circuit fine tunes and locks in FM stations for drift-free reception. Other features include pushbutton controls for power and loudness compensation. LED's serve as stereo and tuning indicators. There are separate volume and balance controls and a headphone output. The input-selector switch controls tape, phono, FM, and AM sources. Price: \$119.95.

Circle 130 on reader service card

Boston Acoustics Revises A100 Speaker

□ Boston Acoustics' A100 Series 11 twoway acoustic-suspension speaker system replaces the company's A100 model. The new system uses two completely new drivers de-



signed and manufactured by Boston Acoustics: a 10-inch low-frequency driver said to provide response to well below 40 Hz and a 1-inch high-frequency driver said to deliver accurate response beyond 25,000 Hz.

The cone of the woofer is formulated from a mixture of wool and cotton fibers (no paper or wood pulp). The tweeter has a hemispherical diaphragm with a contoured faceplate to preserve uniform frequency response over a wide listening angle. For maximum durability at high power levels, the tweeter uses high-temperature voice-coil insulation, flexible-tinsel lead wires, and magnetic-fluid cooling. The grille cloth is supported on a diffraction-corrected support frame to help eliminate early reflections. The wood-grained vinyl-veneer cabinet comes with a black pedestal base.

System frequency response is specified as 38 to 25,000 Hz \pm 3 dB. Crossover frequency is 2,000 Hz. Power-handling ability is 75 watts (measured according to the DIN 45573 standard). Dimensions are $32^{1/2} \times 16$ x $8^{3/8}$ inches. Price: \$185 each. Boston Acoustics, Dept. SR, 130 Condor Street, Boston, Mass. 02128.

Three Subwoofers from M & K Sound Corp.

□ Three new subwoofers from M & K have integral amplifiers with outputs ranging from 400 watts in the Volkswoofer-1B (shown on page 18) to 100 watts in the Volkswoofer-3B. All models use the same basic circuitry, which includes an electronic low-pass filter that rolls off the woofer's re-

New Product*s*

sponse above 100 Hz at 24 dB per octave. (This frequency can be lowered, if desired, by any external electronic crossover.) The



VW-1B's amplifier uses a bridged configuration to power its 12-inch polypropylene driver with its 38-ounce magnet. A highpass filter rolls off the amplifier below 20 Hz at 12 dB per octave, resulting in a lowfrequency rolloff of 24 dB per octave for the subwoofer as a whole. The amplifier circuits in the 200-watt Volkswoofer-2B and in the Volkswoofer-3B do not use a bridged configuration.

All models have a low-level input that can be driven by a preamplifier or electronic crossover and a high-level input driven by a main amplifier or receiver. Input impedance of the low-level input is 15,000 ohms; the high-level input's is 600 ohms. Frequency response of the VW-1B is given as 20 to 100 Hz \pm 3 dB, for the VW-2B and VW-3B 24 to 100 Hz \pm 3 dB. The amplifiers' total harmonic and intermodulation distortion are both below 0.2 per cent. The VW-1B measures 173/4 x 183/4 x 171/4 inches and weighs 50 pounds. The other two models are slightly smaller. Prices: VW-1B, \$650; VW-2B, \$520; VW-3B, \$450. Miller & Kreisel Sound Corp., Dept. SR, 10391 Jefferson Boulevard, Culver City, Calif. 90230.

Circle 131 on reader service card

Proton Car Amplifiers Feature Soft Clipping

□ Proton's new 22-watt-per-channel P222 and 50-watt-per-channel P250 (shown) carstereo power amplifiers both feature Soft



Clipping circuitry. The system is said to protect car speakers by insuring that if the amplifier is overdriven, the output wave-

form is always rounded instead of being flatly "clipped" into a square wave; this reduces the level of high-frequency distortion products and thereby the chances of driver damage. Soft Clipping is also claimed to yield a psychoacoustical volume increase of 3 dB compared with normal amplifiers. Other features of the two units include output stability into 2-ohm loads and high- and low-level inputs. The P250 also has a bridged-output capability as well as current, voltage, and thermal protection. Prices: P222, \$129.95; P250, \$259.95. Proton Corp., Dept. SR, Pacific Tower Plaza, 1431 Ocean Avenue, Suite B, Santa Monica, Calif. 90401.

Circle 132 on reader service card

Telarc's Stereo-System Test and Setup Album

□ The "Omnidisc" from Telarc Records (DG 10073-4, distributed by Audio-Technica) is a boxed set of two discs with an instruction manual. It is intended for "do it yourself stereo makeovers." The first side is



an engraved tone-arm/cartridge-alignment gauge for proper setup of both pivoted and radial-tracking tone arms. The second side contains test signals (sine waves and pinknoise bands) for adjustment and evaluation of other turntable and system characteristics, including phasing, frequency response, noise level, channel identification, and imaging. Third-octave pink-noise bands aid in room and speaker equalization. For testing cartridge tracking ability, side three contains excerpts from five earlier Telarc discs recorded at levels that are increasingly difficult to track. The last side contains specially recorded musical excerpts meant for testing and demonstrating a system's imaging characteristics. All material was digitally recorded, including the test signals. Price: \$29.95.

Circle 133 on reader service card

Canton Car Speaker Frees Rear View

□ The Canton Pullman auto speaker is meant to be installed centrally on the rear deck of a car. A T-bolt in the base of the aluminum case permits fastening the speaker at any point over the length of the case. The unit's ultra-low profile leaves an unobstructed view through the rear window. The speaker has a nominal impedance of 4 ohms and a power rating of 50 watts rms. Frequency response is 45 to 30,000 Hz. The



drivers are two $4^{1/2}$ -inch woofers, one 1-inch midrange, and one 3/4-inch dome tweeter on each side of the stereo array. Dimensions are $37^{1/2} \times 4 \times 5$ inches. Price: \$400. Canton North America, Dept. SR, 254 First Avenue North, Minneapolis, Minn. 55401.

Circle 134 on reader service card

Discwasher's "CareSet" For Cassette Decks

□ Said to combine all one needs for proper tape-deck care in a carry-around storage case, Discwasher's Tape Deck CareSet costs less than its contents would if purchased individually. The Perfect Path cassette head cleaner removes tape residues from heads, and the capstan-pinch-roller cleaner, designed to function in all cassette machines, is said to clean better than any



other method available, including hand cleaning with cotton swabs. A small bottle of special C.P.R. cleaning fluid is also included in the CareSet. The fluid is formulated so as not to harm a recorder's rubber pinch-rollers. Price: \$14.95.

Circle 135 on reader service card

NOTE: All product descriptions and specifications quoted in these columns are based on materials supplied by the manufacturers, who will respond directly to reader requests for further information.

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 therefore subject to change.



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MODEL CS-F 39R AUTO-REVERSE DK. \$244.00 MODEL GXF-31 COMPUTER CONTROL 198.00 IN STOCK ! MODEL GXF-71

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White Bear Lake, MN 55110 CIRCLE NO. 56 ON READER SERVICE CARD Audio Q. and A.

By Larry Klein



Q. I've been thinking of adding an equalizer/booster to my car system. Do you think that's a good idea?

> LARRY WEISS Boston, Mass.

A. It all depends. Long-time readers of this column know that I'm a great partisan of "touch-up" equalization as a means of increasing the realism of reproduced music in the home. In a car, equalization serves the same purpose and can be even more necessary. In addition, an equalizer can help restore bass lost through inadequate speaker mounting. Keep in mind, however, that a heavy bass boost applied to a speaker whose cone suspension and voice coil aren't designed to take it can cause damage. A bass boost of "only" 3 dB (and equalizers usually have a range of 10 dB or more) is equivalent to *doubling* the applied power from the amplifier.

How do you know if you've used excessive equalization? Simple—if the previously clean sound becomes muddy or harsh, or if you hear snapping sounds on peaks, your midranges or woofers are about to be in trouble, if they are not already. Excessive treble boost, however, will give no early warning—your tweeters will just quietly burn out.

Miniplug Mishaps

Q. The headphone miniplug on my Walkman-type cassette player has just broken for the third time. I know it's the plug because wiggling the wire will cause it to work for a moment. Is there some way I can fix it permanently?

SUSAN ALISON Bronxville, N.Y.

A. It isn't that miniplugs (or the wires going to them) are particularly fragile, it's just that the headphones that come with personal portables are given a harder time by some users than anticipated by the designers. Most failures occur because of stress at the point where the wire from the phones enters the rear of the plug. The better plugs have either an inch-long springlike section or a soft-plastic extension coming out of the rear. The purpose is to distribute the strain on the plug wiring when the player is bouncing about in a purse, pocket, or backpack.

Readers can add their own strain relief by wrapping 4 or 5 inches of $\frac{1}{2}$ -inch-wide surgical or plastic tape several times around the body of the plug and then extending the wrapping up along the wire for several more inches, using fewer layers as you go up the cord. The purpose, of course, is to ensure a smooth bend in the phone cord if it is plugged into the player and the headphones are pulled at a right angle to it.

Pulsing Woofers

Q. When my playing volume level is set relatively (but not excessively) high, the woofers in my speaker systems pulsate wildly. I can stop this by using the "low" filter on my receiver, but this adversely affects bass response. I have found that by running the signal through my tape deck and engaging its subsonic filter. I can stop the pulsing without degrading sound quality. Both my speakers and receiver will be replaced shortly. Should that solve the problem?

> WARREN TRIONE Detroit, Mich.

A. You apparently have a bad, but unrecognized, case of acoustic feedback which is what happens when the output of your speaker somehow gets back to and vibrates your turntable. I would suggest that you make sure your turntable is both physically and acoustically isolated from your speakers. Write to the manufacturer of the turntable for suggestions about special isolation techniques for your specific model.

There are various accessory turntable isolators available, and they can work either well or hardly at all depending on how effectively their particular design copes with the frequency of the acoustic feedback in a specific installation. Buy any of them only with a money-back guarantee since there's no way of knowing in advance how well it will work in your setup.

Your cassette deck's filter stops the "pulsations" by reducing the energy at the feedback frequencies. Apparently your receiver's "low" filter does the same thing, but it operates at too high a frequency and hence also reduces the *audible* bass energy. Since replacing your receiver and speakers is not likely to cure the underlying acoustic-feedback problem in your installation, you should attack it at the source by improving the isolation of your turntable.

Garage Listening Room

Q. I am considering modifying a 24 x 18foot garage for use as a stereo listening room. What changes should I make to produce the best possible acoustical environment? Can you recommend any publications on this subject?

LINDY E. BAILEY Dothan, Ala.

Be assured that constructing an acous-A. tically ideal home listening room is no more complicated (!) than constructing an ideal concert hall. In respect to the room itself, there are two major considerations: the reflectivity and absorption ratios of the room surfaces and the room dimensions, which will determine the distribution and frequency of the standing waves within it. In addition, the placement of the speakers and the listener's location relative to adjacent walls will also have significant effects on the sound reaching the listener's ears. Given all these variables, a certain amount of trial and error is necessary to optimize the results in a room-or concert hall.

With respect to room dimensions assuming you have some control over these—James Moir's out-of-print book *High Quality Sound Reproduction* (Macmillan, 1958) quotes some preferred ratios of height to width to length published in the *Journal of the Acoustical Society of America* back in 1942. For a small room, the suggested ratios are 1 to 1.25 to 1.6; for an average room, 1 to 1.6 to 2.5; and for a large room, 1 to 1.25 to 3.2. The purpose of these ratios is to optimize the frequency and spatial distribution of standing waves.

A smallish room—say, $8 \times 10 \times 12$ feet is unable to do full justice to the low bass frequencies, below about 100 Hz. This is not to say that a speaker system cannot deliver low frequencies into a small room, only that the room will not allow a given speaker's *full* bass potential to be realized.

An excellent Tab book by F. Alton Everest, The Master Handbook of Acoustics, explains almost everything you need to know about the practical aspects of acoustics in general as well as what is involved in setting up a home listening room (Tab Books catalog number 1296, \$12.95, postage included, from Tab Books, Blue Ridge Summit, Pa. 17214). The one area in which the book is lacking is a discussion of roomboundary effects and how they influence speaker performance. Speaker designer and manufacturer Roy Allison wrote an article on the subject ("The Speaker and the Listener") for this magazine in August 1976. Reprints of it along with other interesting related material are available free. Send a self-addressed, legal-sized, stamped envelope (40¢ postage) to Allison Acoustics, Dept. SR, 7 Tech Circle, Natick, Mass. 01760

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Tape Talk By Craig Stark

Level Markings

What is—or should be—the relation between Dolby level and the 0-dB level marking on a cassette deck? On some machines they seem to be different while on others they are the same.

JAMES SYRACUSE Los Angeles, Calif.

A. The point marked 0 dB on a meter or—more frequently today—a fluorescent record-level display bears no *neces*sary relationship to the Dolby indication, though there are practical reasons why cassette-deck manufacturers often make them coincide.

The Dolby level—a magnetic flux of 200 nanowebers/meter for cassettes-represents a specific amount of recorded magnetism on the tape and is used as the reference point for the Dolby encode-decode noisereduction process. There are other comparable magnetic reference points. Originally, for example, the Philips cassette (using tape formulations then available) used 165 nWb/m for 0 dB, which is 1.7 dB lower than the Dolby level. Similarly, the DIN (and now IEC) standard uses 250 nWb/m as its reference point, which is 1.9 dB higher than the Dolby level. Tapes today are, of course, rather better than when the original Philips specifications were drawn up, so an upward move from 165 to 200 nWb as a 0-dB record level is certainly not unreasonable. But by the time a cassette is recorded to a 250-nWb/m magnetic level it is usually getting rather close to the maximum tolerable distortion point.

The purpose of a 0-dB marking on a record-level indicator has nothing to do with whether or not the Dolby system is to be used. It exists simply to warn the recordist that he's getting close-within a few decibels-to the maximum undistorted recording level, but how much safety margin a manufacturer should allow is an open question. In the days when most indicators were average-reading (VU-type) meters a greater allowance had to be built into the system because such instruments tended to under-read brief high-level peaks. The widespread adoption of peak-reading indicators eliminates the need for very much leeway, and, consequently, in many recent decks I've tested only 2 or 3 dB have been allowed between what is called 0 dB and the onset of serious distortion. That brings us very close to Dolby's 200 nWb/m, so combining the two markings makes some sense. Further, since the fluorescent displays so popular today have only a limited number of elements and must "gloss over" fractional parts of a decibel, small inaccuracies are likely to go unnoticed anyway.

Cassette Squeal

Q. From time to time when playing a cassette I get an awful screeching from the machine as the tape passes over the heads. Sometimes changing cassettes solves the problem, and sometimes a tape will play well one time and badly the next. The deck manufacturer suggests that the capstans must be dirty and that I may be using the recorder excessively. Before I give up on cassettes, what is your advice?

MIKE WILLIAMS Harleysville, Pa.

A. Don't give up on cassettes—it's happened to me with open-reel too! The deck manufacturer's suggestion of cleaning the capstans—or, rather, the black rubber pinch-rollers that press the tape against the capstans—is the obvious place to start, for if these develop a glaze from oxide ruboff it will obviously lower the frictional force that pulls the tape across the heads. Any slippage at the capstans will be transmitted along the length of tape between the head and the pinch-roller, and that will certainly cause both mechanical and recorded squealing. In time the rubber may lose its resiliency, for which the cure is a new pair of pinchrollers.

There are other possibilities as well. A dual-capstan system might be adjusted so that the rear capstan is supplying slightly too much hold-back tension, undermining the ability of the take-up capstan to pull the tape smoothly. Alternatively, the head "gate" carrying the heads and pinch-rollers in a cassette deck may not be closing tightly enough to press the rollers against their captans properly. Since your problem is intermittent—always the hardest kind to fix—if cleaning or replacing the pinch-rollers doesn't do the trick, I'd take the deck to a manufacturer-authorized service center, where they will have the proper equipment to detect and repair a slightly out-of-tolerance drive-tension condition.

The Right Tape

Q. I've been told that one should use normal ferric-oxide cassettes for rock music and high-bias tapes for classical. Do you agree?

> ALVIN BEAR Pine Ridge, S.D.

A. I would tend to go along with the advice you've been given, with one proviso. When you're making a recording in which you have a scrious interest, it is more important to get a premium grade of either ferric or high-bias tape than it is to distinguish between their respective ultimate theoretical capabilities.

Ferric-oxide cassettes are designed to use 120-microsecond playback equalization; high-bias and metal tapes use 70 microseconds. What this means is that in theory there will be slightly more hiss on a ferric cassette than on a high-bias one, all other things being equal-a rare condition. Since much rock music tends to vary in dynamics from loud to louder to loudest, there is almost always enough program signal on the tape to mask the slightly greater hiss. With classical music, on the other hand, much of the artistic effect is produced by dynamics ranging from very soft to very loud, and in the quietest passages the playback hiss differential may become audible. Similarly, the high-level concentration of high-frequency information tends to be greater with some of today's rock and electronic instruments than it is in most works written for conventional instruments, and here, if anywhere, premium ferric oxides should have a slight advantage. Again, however, the differences are so small I suspect that in a blind test you wouldn't be able to tell whether you were hearing a good ferric tape or a good high-bias tape.

Dubbing Deck

Q. My receiver has full two-way dubbing facilities, and I want to be able to make tape copies, so I need a deck for playback only. Because space is so limited in my system I tried a small battery-operated playback unit, but the sound quality was poor. Does anyone make a componentquality playback-only cassette deck?

JEFF WAYNE Brooklyn, N.Y.

A. There are two solutions to your problem. I did find one playback-only cassette deck, the Sony TC-PB5, in STEREO REVIEW'S 1983 Tape Recording & Buying Guide, and it's possible that there are others. Since space is at such a premium in your setup, however, you might wish to get a "dubbing cassette deck," of which there are quite a few listed. These contain two scparate cassette drives (usually one is for playback only, the other for recording and playback) and are designed for precisely what you have in mind.

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Closing Pandora's Box

LETTERS from readers constantly remind me of the difficulty of expressing complex technical subjects in a fairly rigorous, yet simple and unambiguous manner. Too often, what is intended as a clarification raises more questions than it answers—an equivalent, at least from my standpoint, of opening the legendary Pandora's box. This month I will try once again to incarcerate some of these liberated hi-fi imps and to close the lid of our journalistic box on them.

In our recent test report on the dbx Model 228 noise-reduction system and dynamicrange expander (September 1982), 1 commented on the enormous peak power demands of such wide-dynamic-range program material as a digitally mastered, dbxencoded disc (which is comparable in dynamic range to digital playback of a digital recording, as in the forthcoming Compact Disc system). Several readers wrote in alarm, fearing that their modestly powered music systems would be inadequate for the digital age or that the high peak powers would endanger their speakers.

Part of the confusion derives from a misunderstanding about the terms "average" and "peak" as applied to either sound-pressure or electrical-power levels. In the report, I stated that at an average power output of a watt or two, corresponding to a moderate listening level, short-duration peaks in the musical waveform drove the amplifier to several hundred watts output. These highpower peaks were of very short duration (a few milliseconds in most cases) and would be unlikely to damage any speaker, regardless of its design ratings.

Most speaker damage occurs through thermal burnout, which is caused by a sustained high-power input over a relatively long period. You are far more likely to burn out a speaker with typically compressed rock music from a continuously overloaded 20-watt amplifier than with a good uncompressed digital recording played through a 500-watt amplifier. The former situation clips the amplifier more often and for longer durations than the latter, and a clipped amplifier puts out lots of high-frequency distortion. Amplifiers are even less likely than speakers to be damaged by overdriving, because of their protective circuits as well as the unmistakable warning provided by the distortion from severe clipping.

It is safe to say, then, that no one need fear damage to any hi-fi system component from playing program sources with a dynamic range far in excess of the usual limits of analog-recording media. But what about damage to one's aesthetic sensibilities? If a 500-watt amplifier can be driven to its limits so easily by these programs, won't using a much less powerful amplifier result in excessive distortion?

Well, to quote from *Porgy and Bess*, "it ain't necessarily so." If it were, the future of digital audio would be in grave jeopardy. Fortunately, even severe clipping of a veryshort-duration peak is rarely audible. Even when you are listening carefully in an effort to hear expected clipping, you may not hear it—and in any case it is a very minor contributor to the total program distortion.

Then there is the matter of a person's preferred listening level. This is one of the major unknowns when recommending amplifier power requirements for conventional music systems. It is possible to determine, with reasonable accuracy, how much amplifier power will be needed to produce a given average sound-pressure level in a room of a specified size if the room's acoustic qualities and absorption characteristics are known or assumed. However, individual listening preferences for reproduced sound level differ so widely that, everything else being the same, some people might find a 10-watt amplifier sufficient while others would find 500 watts inadequate.

I suspect that most people tend to play a music system at whatever volume seems comfortable and appropriate. If you hear obvious distortion, it seems (to me) natural to turn the volume down to reduce its irritating effect. If the distortion is in the program itself, you might choose to try to reduce it by bandwidth limiting (with filters or tone controls) or simply to stop listening. Surely the same approach would be used in dealing with occasional peak clipping. If it is audible, a very slight touch of the volume control will probably remove it; a barely audible volume reduction of 3 dB cuts the power level (number of watts required or delivered) in half. In my view, no one need be overly concerned about the possibility that the digital age will make his present audio components obsolete. Digital playback units can be added even to systems with moderate-power amplifiers and lowoutput speakers and still offer very satisfactory, and noticeably cleaner, sound.

(Continued on page 26)

Tested This Month

Jensen AVS-1500 Audio/Video Receiver

Sherwood S-6000CP Cassette Deck Allison:Seven Speaker System

Pioneer PL88F Automatic Record Player Ace Audio Model 4100-X24 Filter

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CIRCLE NO. 20 ON READER SERVICE CARD

On the other hand (and there always seems to be another hand!), a major benefit of true digital playback (not playback of an analog disc made from a digital tape) lies in its capability to give completely natural, un clipped, and essentially unlimited program dynamics. Although this is only one of the many advantages claimed for digital-audio systems, I suspect it may be one of the principal contributors to realistic sound reproduction. But to obtain this quality it is necessary for every part of the recording/reproduction chain, including the playback amplifier and the speakers, to have enough headroom to handle the tremendous dynamic range (more than 90 dB) that sparked this entire discussion. Like all components, speakers have a finite limit to their output. If the speaker's acoustic output does not remain proportional to the amplifier output over the full dynamic range (because of signal compression inherent in the speaker's design or construction), the advantage of a high-power amplifier will be reduced. (I do not propose to reopen Pandora's box with a necessarily brief discussion of the peak-sound-level output limitations of speakers. I have learned that an oversimplified treatment of a complex subject is often worse than useless, and at this time I am more interested in nailing the lid shut than in swinging it wide open once more!)

Opinions vary widely as to the proper place of digital recording in the hi-fi process, and the matter is by no means settled. There will be plenty of time for controversy, but I will say now that a limited exposure to the medium has made me optimistic that it will prove to be the greatest advance in music reproduction in our time. Let's wait and see how it turns out.

A ND now for something completely different. The "Technical Talk" column last September, concerning the question of whether every component necessarily has a sound quality of its own, elicited the expected reader response. This varied from essentially complete agreement with my contention that not all parts of a music system need contribute to its sound to vitriolic condemnation of my lack of discernment. Much of the latter variety was highly emotional and sometimes incoherent (the usual approach being, "If I can hear it and you can't, you must be deaf"). Those who differed with me but chose to deal with the subject in a relatively rational manner usually followed a technically logical line of reasoning up to a point but then leaped to unsupported (and possibly unsupportable) conclusions where I was unable to follow them.

I will admit that one of my hopes in writing that column was to stir up a reaction, somewhat like opening the lid of Pandora's box and beating on the side to agitate the demons resident therein. In that I was successful, but I am not at all sure that they can ever be returned to confinement. No matter—a thorough airing of these charged views is a healthy thing for all of us.

Equipment Test Reports Hirsch-Houck Laboratories: Julian D. Hirsch and Craig Stark



HE components of Jensen Sound Laboratories' novel modular audio/video entertainment system have not only been carefully engineered for compatibility with each other, they have also been "human-engineered" for ease and convenience to the nontechnical consumer. At the heart of the system is the AVS-1500 receiver, combining a high-quality AM/FM-stereo tuner, an integrated amplifier rated to deliver 50 watts per channel into 8-ohm loads from 20 to 20,000 Hz with no more than 0.05 per cent total harmonic distortion, and a 133channel TV tuner. All tuning functions use digital synthesis under microprocessor control, and all control settings are "memorized" so that they are restored when the receiver is next turned on.

The video display of the system is a highdefinition monitor available in either 19- or 25-inch (diagonal) size. The audio outputs are delivered to compact columnar speakers that Jensen designed specifically for this application. They have a very low external magnetic field, permitting them to be placed directly against the video monitor (if that is desired) without distorting either the linearity or the color values of the picture. The speakers are available in two versions, essentially identical except for height, for use with the 25- or 19-inch monitor.

To complete the system, Jensen offers a deluxe VHS videocassette recorder (VCR) that complements the receiver in its flexibility and styling. Separate wireless (infrared) remote-control units are supplied for the receiver and the VCR, permitting their installation for maximum convenience without loss of operating flexibility.

We used the entire Jensen audio/video

system in our subjective evaluation of the AVS-1500 receiver, although laboratory measurements were performed only on its AM, FM, amplifier, and TV-audio sections. The operating features of the complete audio/video system are so numerous that we do not have the space here to list most of them, much less comment on them in any detail (see box on page 32 for Jensen's specs and ratings for the other components in the system). Our specific remarks about the video components or the related control facilities of the receiver will be limited to those features we used sufficiently to form opinions about.

The AVS-1500 receiver is 17 inches wide, 18 inches deep, and 45% inches high, and it weighs 27 pounds. Its entire exterior is finished in satin silver. The top and bottom edges of the front panel are rounded, and no

15 mg. "tar", 1.1 mg. nicotine av. per cigarette, FTC Report DEC. '81.

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knobs are visible in normal operation. All AM and FM tuning, TV-channel selection, input-source selection, and volume adjustment are accomplished by means of flushmounted, flat strip switches that respond to light pressure.

The inputs include FM, AM, TV, VIDEO 1 and VIDEO 2, TAPE, PHONO, and SIMUL (for reception of FM/TV simulcasts). There are six radio-preset channels (P1, P2, etc.), each of which can be used for both an AM and an FM frequency. To the right of these on the front panel of the AVS-1500 are pressure strips for selecting TV channels (the channel number appears in a black window next to the selector), adjusting volume, and tuning (for AM and FM stations). The blackout window between the volume and tuning controls contains a digital display of FM and AM frequencies, LED readouts of signal strength and volume setting, and identification of the various special operating modes of the receiver.

At the left of the panel are the illuminated power button and a DOOR button. Pressing the latter causes a hinged section of the panel to swing downward across its full width, revealing a number of less-oftenused controls. These include the bass and treble tone controls and the balance control as well as pushbuttons for the ACOUSTIC EN- HANCE and SYNTHETIC STEREO modes (these are used to enhance mono program sources and will be described later), loudness compensation, independent switching of two sets of speaker outputs, mono/stereo mode, memory set (for the station-preset controls), scan (for automatic tuning to the next receivable station), and CATV (for selecting cable-TV channels). There is also a DECODER button for connecting a video game or CATV decoder to the system.

At the left of the concealed area are a headphone jack and a knob to select the program source for headphone listening, which is independent of the source being heard or watched through the regular receiver outputs. This knob can be used to select all the normal signal sources except VIDEO 2 (for a videodisc player) and AM. A small knob controls headphone volume, also independently of the regular volume control. The remaining knob control is for the DNR (dynamic-noise-reduction) circuit. Advancing it clockwise increases the effect of the DNR circuit, which rolls off the highfrequency response in a manner controlled by the signal level and its high-frequency content to reduce audible hiss without a subjective loss of highs.

A couple of operating features of the AVS-1500 are both unusual and functional.



^{...} and you say that every full moon it changes into a 750-watt transistorized super amplifier?"

First, the volume setting is indicated by a row of LED's that looks like the system employed in some receivers using microprocessor-controlled digital volume adjustment. The resemblance is merely superficial, however, since the AVS-1500's volume is controlled by a conventional potentiometer driven by a small motor, which provides a smooth volume change instead of the discrete steps of a digital system. Second, the lower control knobs are normally flush with their subpanel, which allows the door to close flush with the top front panel of the receiver. The knobs cannot be turned when the door hinges open, but pressing and releasing a knob causes it to emerge from the subpanel for easy operation.

On the rear apron of the Jensen AVS-1500, besides the expected input and output jacks for the stereo receiver functions, there are standard phono jacks for VIDEO 1, the video and audio inputs and outputs from a videocassette recorder (VCR), and for VID-EO 2, which is intended for use with a nonrecording accessory such as a videodisc player and therefore has only a video input jack. The receiver provides stereo audio outputs for tape recording the sound portion of a videodisc. Although standard phono plugs are used for the video connections, the video connecting cables are 75-ohm coaxial types.

Also on the rear apron is a phono-jack output for the video-monitor connection, as well as a coaxial jack for connecting the VCR r.f. output to the TV. A remote-control connector to the Jensen TV monitor switches its power from the power switch of the receiver (its picture-tube heater is always on so that the picture appears almost immediately). In addition to the bindingpost AM and FM (300- and 75-ohm) antenna terminals and a pivoted AM ferriterod antenna, there are coaxial antenna jacks for the VHF TV antenna, the decoder input (which can also receive a home-computer signal), and an AUX antenna input, as well as 300-ohm UHF TV antenna binding posts. There are two a.c. outlets, one of them unswitched (for the VCR, so that its clock and timer settings will be retained when the receiver is turned off).

The infrared wireless remote control is exceptionally compact $(6\frac{1}{4} \times 2\frac{1}{4} \times 9\frac{1}{6}$ inches) and contains buttons for the six preset AM or FM channels, numerical input buttons for the TV channels (from 2 to 83, plus all currently used CATV channels), all input selections except for the VCR, an audio-mute switch, and a system power switch. In addition, the remote control has miniature duplicates of the channel-selection, volume, and tuning pressure controls.

The Jensen AVS-1500 audio/video receiver is supplied with the remote control, a full set of audio and video connecting cables, a 75- to 300-ohm antenna-matching transformer, and an FM dipole antenna. Price: \$990.

• Laboratory Measurements. Because of the large size and mass of the AVS-1500 (relative to its power rating), its top, over the heat sinks, became only moderately warm during its one-hour preconditioning and the high-power tests that followed. With both channels driving 8-ohm loads at

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*Less than 1% THD at total 25 watts-12.5 watts/channel

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1.000 Hz, the output waveform clipped at 64 watts per channel, for a clipping-headroom rating of 1.1 dB. With 4-ohm loads, the clipping power was 85 watts per channel. The AVS-1500 is not rated for driving 2-ohm loads, and because of its role as a center for a specific audio/video system, with specified (or at least recommended) peripherals, we would not expect it to be used with such a load. Nevertheless, it delivered about 20 watts per channel to 2 ohms, at which point the internal protective relay shut off its outputs. With the pulsed dynamic-headroom test signal, the maximum output was 80 watts into 8 ohms, for a dynamic-headroom rating of 2 dB, 92 watts into 4 ohms, and 130 watts into 2 ohms.

The 1,000-Hz distortion was about 0.002 to 0.006 per cent in the output range of 1 to 50 watts, reaching 0.01 per cent at just over 60 watts. With 4-ohm loads, the distortion was slightly higher, 0.006 to 0.007 per cent up to 30 watts and 0.015 per cent at 80 watts. At the rated 50-watt output into 8ohm loads, the distortion was less than 0.01 per cent from 70 to 2.000 Hz, rising to about 0.02 per cent at 30 Hz and to just under 0.1 per cent at 20,000 Hz. At reduced output powers the distortion curve was very similar. The second-order intermodulation distortion, with input signals at 18 and 19 kHz, was -72 dB, and the third-order distortion was -79 dB, both referred to 50 watts. The amplifier slew factor exceeded our measurement limit of 25, and it was stable with reactive loads.

The tone-control response characteristics were conventional, although almost all the control action occurred in the last part of the knob rotation from its center setting. The loudness compensation boosted both low and high frequencies moderately. With loudness compensation on and at the maximum volume setting, the amplifier response rolled off slightly above 2,000 Hz, to -5 dBat 20,000 Hz, but with loudness compensation off and the tone controls centered it was flat. The RIAA phono response was within +1, -0 dB from 20 to 20,000 Hz.

For a reference output of 1 watt, the amplifier required an input of 22 millivolts (mV) through a high-level (TAPE) input and 0.35 mV through the PHONO input. The respective A-weighted noise levels were -77 and -73.5 dB referred to 1 watt. Phono overload occurred at comfortably high levels of 160 to 175 mV, depending on frequency. The input impedance of the phono preamplifier was 47,000 ohms in parallel with 70 picofarads.

The noise reduction afforded by the DNR system was 10.5 dB (CCIR/ARM weighting) at its maximum setting. The effect of DNR on the static frequency response was very slight at intermediate settings, but at the full setting of the control the response rolled off at 6 dB per octave above a frequency that varied between 10,000 and



1,000 Hz for signal levels between 0 and -30 dB (referred to 50 watts).

We made limited tests of the two signalenhancing systems of the AVS-1500 in order to establish their operating principles. The ACOUSTIC ENHANCE mode cross-couples the two channels with a phase shift between them that varies with frequency. Its principal audible effect was to roll off the highs and boost the bass, and it imparted an enhanced sense of lateral spread to the sound. The SYNTHETIC STEREO-intended primarily as an enhancement of mono TV soundintroduces a slight time delay on the mono signal, affecting frequencies below 10,000 Hz, before adding that signal to the original on one channel and subtracting it from the other. The resulting frequency response exhibits a "comb" characteristic, with sharp output nulls occurring at intervals of 150 Hz. The audible effect of this was to "spread" the sound so that it was no longer likely to be mistaken for mono, imparting at times a feeling of listening to "out-ofphase" stereo sources. Neither of the two sound-enhancing systems would be of great value for normal stereo reproduction, but they might be useful with close speaker spacing (for example, if the speakers flanked the video monitor).

The FM tuner had a usable sensitivity of 12.8 dBf (2.4 microvolts, or μV), exactly as rated. The stereo sensitivity was established by the switching threshold of 19 dBf (5 μ V). The respective mono and stereo 50-dB quieting sensitivities were 15 dBf (3 μ V) and 36 dBf (35 μ V). The ultimate signalto-noise ratio (S/N) of the FM tuner was a good 77 dB in mono and 71 dB in stereo, and the respective distortion readings at a 65-dBf (1,000-µV) input were 0.065 and 0.22 per cent. The FM frequency response was +1.5, -1 dB from 30 to 15,000 Hz. The channel separation was better than 35 dB up to 6,500 Hz, with a maximum of about 55 dB at 1,000 Hz and a minimum of 30 dB at 15,000 Hz. The frequency response of the AM tuner section was ± 1.5 dB from 35 to 1,750 Hz and down 6 dB at 3,000 Hz relative to the 1,000-Hz level.

The IHF IM distortion of the FM tuner was measured with test signals at 14 and 15 kHz. In mono, the second-order (1,000-Hz)distortion product was -77 dB, and the third-order products at 13 and 16 kHz were at -50 dB. In stereo the readings were not



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very different, -73 and -52 dB, respectively, besides the usual display of additional IM products arising from the FM demodulation process (at levels between -65and -80 dB, and therefore not audible under normal program masking conditions).

We made two measurements of the TV tuner's audio performance and obtained a frequency response of ± 1.5 dB from 30 to 20,000 Hz. The audio signal-to-noise ratio of the television section was 49 dB (A-weighted). This may not seem like much compared with a typical FM-stereo tuner specification, but TV audio is broadcast with one-third as much carrier-frequency deviation as FM stereo, which automatically results in a worse theoretical S/N.

• Comment. Judged as a conventional AM/FM stereo receiver, the Jensen AVS-1500 performed very satisfactorily, and it is uncommonly handsome. It does just about everything one expects of such a receiver, and it does it just about as well as any other we have used. The FM tuner disconcerted us briefly when we found that it has no interstation noise muting if one tunes "manually" (stepping the station frequency by pressing the TUNE controls). In the SCAN mode, however, the audio is muted as the tuner steps in the selected direction until it stops at a signal of suitable strength.

The remote control worked perfectly, and the motor-driven volume control was easy to master (it operates slowly and smoothly enough to prevent any excessive "overshoot"). The combination of the signal-enhancing and DNR circuits enabled us to hear almost any program, including TV sound, at its best. Yet it does not prevent a purist from listening to stereo as it was meant to be heard. Although we did not

THE JENSEN AUDIO/VIDEO SYSTEM

FOR those of you wishing some information on the other components in Jensen's video-component system, here is a collection of manufacturer's specifications and ratings.

AVS-3250 Monitor. Dimensions: 24^{7/8} x 22^{1/2} x 14 inches. Weight: 92 pounds. Video input level: 1 volt peak-to-peak (p-p), 75 ohms. Horizontal resolution: 350 lines. Picture tube: 25 inches (diagonal). Price: \$1,050.

AVS-5250 Speaker. Dimensions: 22^{1/2} x 8 x 9 inches. Weight: 18 pounds. Vented two-way system with passive radiator. Low-frequency driver: 5^{1/4}-inch polypropylene cone, magnetically shielded. Passive radiator: 5^{1/4}-inch polypropylene diaphragm. High-frequency driver: 1-inch soft dome with samarium-cobalt magnet, magnetically

shielded. Nominal impedance: 8 ohms. Rated frequency response: 55 to 18,000 Hz. Price: \$125 each.

AVS-4400 Stereo Videocassette Recorder. Format: VHS. Three speeds (SP, LP, EP). Maximum recording time (T-120 cassette): SP, 120 minutes; EP, 360 minutes. Channel coverage: VHF 2-13, Cable A-W, UHF 14-83. VHF-output signal: Channel 3 or 4, 75 ohms. Video output: 1 volt p-p, 75 ohms. Video input: 1 volt p-p, 75 ohms. Horizontal resolution: 240 lines. Video signal-tonoise ratio: more than 45 dB. Audio signal-to-noise ratio: greater than 46 dB (Dolby-B system on). Audio frequency range: 70 to 10,000 Hz. Timer: 14-day programmable (eight programs). Dimensions: 181/8 x 145/8 x 61/8 inches. Weight: 261/2 pounds. Price: \$1,595.

make any measurements on the AVS-5250 speakers, they sounded fine.

The ability to operate two sets of speakers from the receiver means that one can always enjoy a favorite pair of speakers for stereo listening while retaining the utility of the Jensen speakers for TV. (The external magnetic field of many speakers prevents their use in close proximity to a TV monitor, but we were unable to detect any external field from the Jensen AVS-5250 speakers even with a sensitive gaussmeter.)

As a TV receiver, the AVS-1500, used with the AVS-3250 25-inch monitor, was very impressive. One could hardly ask for better picture quality, and the accompaniment of equally good TV sound made the combination most attractive. The same reaction extended to the AVS-4400 VCR, a feature-laden supplement to the system.

Video is certainly here to stay as a key part of our home entertainment systems, and we must say that Jensen has done a superior job of integrating it with audio, retaining the best of both with no significant sacrifice or compromise of performance or flexibility in either one. In fact, we felt that the styling of the electronic components of the system was superior to most current stereo components, exhibiting a rare combination of good taste, good engineering, and functional design. —Julian D. Hirsch

Circle 140 on reader service card



Sherwood cassette decks is the Model S-6000CP, which features three heads, Dolby-B and Dolby-C noise-reduction systems, and a logic-controlled, solenoid-operated transport. The recording and playback heads are made of wear-resistant Sendust bonded into a single structure. Because the recording and playback heads are separate elements, the user can instantly compare the signal going to the tape with the recorded result, and the head-gap widths can be optimized (during manufacture) for their respective functions. A single d.c. motor with electronic-governor speed regula-

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tion drives both the capstan and the reel hubs.

The cassette well is rather unconventionally located on the right-hand side of the front panel; it is illuminated, and its door hinges are mildly air-damped. Cassettes are mounted, tape openings downward, into the customary slides behind the door. Twelvesegment peak-indicating fluorescent displays show the recording and playback levels, and they are calibrated from -20 to +8 dB, with 0 dB corresponding to the Dolby level. The FAST FORWARD, REWIND, RE-CORD, PLAY, and PAUSE buttons have builtin LED indicators and operate with a light touch slightly below their centers. Small pushbuttons select between tape and source monitoring, set bias and equalization for three tape types (ferric, CrO₂, or metal), and control an FM-multiplex filter recommended for dubbing stereo broadcasts. Three similar pushbuttons are used to select either no noise reduction or the Dolby-B or Dolby-C systems; LED indicators are provided for the latter two. Vertical slider controls set the recording level, but there is no separate playback-level control. A three-position slide switch, in conjunction with the three-digit mechanical counter, provides for optional memory rewind and replay functions. A FINE BIAS control is provided, and the manual indicates recommended settings for a number of popular cassettes. For unlisted tapes, the procedure for using interstation FM hiss for fine-bias adjustment is also described. A front-panel jack is provided for a pair of stereo headphones.

The rear panel of the S-6000CP contains the microphone jacks and the usual line-level input and output connectors. There is no provision for remote control or timer activation. Overall, the deck measures 171/2 inches wide, 14 inches decp, and 5 inches high, and it weighs about 15 pounds. Price: \$399.95.

• Laboratory Measurements. Sherwood supplied the actual cassettes -TDK MA (metal), TDK SA (CrO₂-equivalent), and TDK AD (ferric)—that were used for factory setup and checkout of our sample of the S-6000CP, so we used these for our own measurements. However, the FINE BIAS control had a range more than adequate to



The upper curves indicate overall record-playback response at the manufacturer's indicated 0-dB recording level using the tapes designated on the graph. In the center are the same measurements recorded at -20 dB relative to the upper curves, a level conventionally used for tape-deck frequency-response measurements. Bottom curves show playback response from calibrated test tapes and indicate performance with prerecorded tapes.

achieve comparable results using Maxell, Sony, Fuji, and BASF formulations of all types. Playback equalization was checked using our IEC standard BASF calibration tapes. In the chrome position (70-microsecond), tape-replay accuracy was within +0, 1.6 dB over the entire 31.5-Hz to 18-kHz test-tape range. With the ferric (120-microsecond) tape, the playback response curve was virtually identical up to 10 kHz, above which it gradually declined to -4.5 dB at our 18-kHz limit. Overall record-playback frequency response, measured at the customary -20-dB level, was extremely flat with the metal tape; response at 20 kHz was down by less than 2 dB. The high-frequency 3-dB points for the CrO2-type and the ferric-oxide formulations were 18 kHz and a little over 17 kHz, respectively. All tapes reached - 3 dB at approximately 27 Hz on the bass end. At a 0-dB recording level, response was down by 10 dB at 10 kHz with TDK AD (ferric) and TDK SA (CrO,equivalent); it did not drop off by this amount until a little over 15 kHz with the metal TDK MA.

Third-harmonic distortion of a 400-Hz tone at 0 dB (200 nanowebers/meter, the



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Dolby level) was very low: 0.38, 0.64, and 0.68 per cent with TDK AD. SA, and MA, respectively. To reach the 3 per cent distortion point used for signal-to-noise measurements required increasing the input levels by 6.9, 6, and 6.4 dB for the ferric, chrome-equivalent, and metal tapes. On an unweighted basis, with no noise reduction, signal-to-noise ratios were between 55 and 56 dB for all three tapes. With Dolby-B and CCIR/ARM weighting, signal-to-noise ratios ranged from 68 to 69 dB, and with Dolby-C (CCIR/ARM-weighted) they increased to 77 dB (metal), 77.2 dB (chrome-type), and 77.7 dB (ferric).

Wow-and-flutter, measured with a Teac MTT-111 test tape, was 0.04 per cent wrms and 0.06 per cent with DIN peak-weighting. The Dolby calibration was exact, and Dolby tracking was within 1 dB throughout the frequency range, using either the Dolby-B or the Dolby-C system, at recorded levels of -20, -30, and -40 dB. At the line inputs a signal level of 64 millivolts (0.064 volt) was required for a 0-dB indication, which produced an output level of 0.46 volt. Microphone sensitivity was 0.36 mV with a 600-ohm input (recommended input is 600 to 6,800 ohms), and the overload point of the microphone circuitry measured 200 mV, which represents a healthy margin. Fast-forward and rewind times for a C-60 cassette were somewhat slow, averaging 108 seconds.

• Comment. Direct source-vs.-tape comparison produced virtually no audible degradation in copies of most program material, though music with extremely demanding high-frequency content did require the use of metal tape to preserve the treble range fully. When we compared the S-6000CP with our reference deck, using top-quality InSync, Mobile Fidelity, and JVC prerecorded cassettes, our listening tests confirmed that our sample of the Sherwood unit was a close competitor when playing material meant for 70-microsecond equalization, though the extreme highs suffered somewhat with demanding material requiring 120-microsecond equalization. During our record-playback tests, Dolby-B pro-




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vided adequate noise reduction for most musical selections, though the improvement made by Dolby-C was distinctly audible during the quietest passages of music having a very wide dynamic range. Mechanically, the deck was extremely quiet in operation. Any criticism we might have would probably concern the closely spaced pushbuttons, which occasionally invited pressing the wrong one, but except for lab-testing purposes these would not often be pushed during normal recording and playback. All in all, the Sherwood S-6000CP represents a highly attractive audiophile value in terms of both appearance and performance. —Craig Stark

Circle 141 on reader service card



SOME years ago, Roy Allison conducted a study that indicated that the room in which a speaker is placed, and the physical relationship of the speaker and the room, can produce a significant change in the actual acoustic low-frequency power response of the system. This is in addition to the normal standing-wave and room-resonance phenomena that usually cause variations in the low-frequency sound-pressure level throughout a room. The undesired interaction between room and speaker can be minimized by designing the speaker to operate together with the room as a system. From the beginning, therefore, Allison loudspeaker systems have featured what Allison Acoustics calls "Room-Matched" design.

The low-frequency power output of a speaker can be optimized for mounting against one, two, or three room-boundary surfaces (walls, floor, or ceiling). All Allison speakers have been designed to take advantage of this fact, although the various models differ considerably in their physical configuration and in their recommended placement. The new Allison:Seven is a relatively lowcost, floor-standing, two-way speaker designed to be placed against a wall but at least 2 feet from a corner. Because of their broad dispersion, a pair of Allison:Seven speakers need not be placed against the same wall and will operate effectively when facing at right angles to each other. The oak-veneer cabinet is 271/2 inches high and 95/8 inches square, and each speaker weighs 22 pounds.

The 8-inch woofer of the Allison:Seven faces upward, and in the recommended placement its edge is within an inch of the wall. (This is necessary to avoid the partial cancellation of mid-bass output that occurs whenever a woofer is located a foot or so from a wall.) The woofer operates in a sealed (acoustic-suspension) enclosure with a volume of 1,775 cubic inches, and it resonates at 52 Hz. It crosses over to the tweeter at 2,000 Hz, with 6-dB-per-octave slopes. The speaker has no level or balance controls.

The forward-facing tweeter is located near the top of the front surface of the cabinet. Its voice coil is cooled and damped by Ferrofluid, and the tweeter has the patented Allison convex diaphragm, which gives excellent dispersion by virtue of being designed to simulate a pulsating hemisphere. The diaphragm is not hemispherical in shape, however. It resembles a rounded cone reminiscent of a giant spherical phono stylus.

The low-frequency response of the Allison:Seven is specified as $-3 \, dB$ at 41 Hz and $-6 \, dB$ at 34.5 Hz. The system impedance is rated at 4 ohms, and its sensitivity is specified as 87 dB at 1 meter for a 1-watt input. The Allison:Seven is sold in pairs, and the price is \$450 per pair.

• Laboratory Measurements. The closemiked woofer response of the Allison:Seven was unusually flat and extended, varying ± 0.5 , -1.5 dB from 60 to 1,100 Hz. The response fell off at 12 dB per octave below 60 Hz, and there was a 7-dB dip at 1,500 Hz. The high-frequency response, measured in the reverberant field of the room, showed the usual variations in the midrange, where speaker-room interaction was



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unavoidable, but it was exceptionally uniform from 5,000 to 20,000 Hz, where the output varied only ± 0.5 , -2 dB.

There was a peak of about 5 dB in the room curve at 1,500 Hz, corresponding to the dip measured in the woofer output in the close-miked measurement, as well as a smaller 3.5-dB peak at 4,500 Hz. When we spliced the two curves to derive a composite frequency response, there seemed to be a marked difference between them at 1,500 Hz. However, we concluded that the 7-dB dip in the close-miked woofer response was not significant since it was caused by the tweeter output refracting around the edge of the cabinet (that path length was consistent with an interference effect at 1,500 Hz). Thus the composite, room-corrected curve was used to give the unit's frequency response, which was an excellent ± 2.5 dB from 54 to 20,000 Hz.

The impedance of the speaker was about 4 ohms at 20 Hz and between 100 and 200 Hz. It fell to 3.5 ohms in the 10,000- to 15,000-Hz range and reached a maximum of 19 ohms at 57 Hz and from 1,500 to 2,000 Hz. The sensitivity of the speaker was almost exactly as rated, with a measured sound-pressure level of 87.5 dB at 1 meter with 2.83 volts of random noise.

The bass distortion was measured with

input levels of 2 and 6.32 volts, corresponding to 1- and 10-watt power levels. At 1 watt, the distortion was between 1 and 1.4 per cent from 100 Hz to 60 Hz, rising slowly to 4.3 per cent at 20 Hz. At 10 watts, the distortion readings were in the range of 3 to 4 per cent down to 50 Hz and climbed to 11.2 per cent at 20 Hz. We found with our IQS 401-L FFT analysis system that the phase response of the Allison tweeter was as impressive as its other attributes, resulting in a group-delay characteristic that remained between 0.3 and 0.4 milliseconds from 2,000 to 20,000 Hz.

• Comment. Over the years, we have tested most of the Allison speakers as they have appeared, and we have found them, despite their wide differences in size and price, to be uniformly excellent and generally very similar in their sound properties. The Allison:Seven is in that tradition.

In our listening room we were unable to place the speakers directly against the wall behind them because of baseboard heating fins and other obstacles. Much of the time, the speakers were about one foot from the wall. If this had any adverse effect on their performance, we were unaware of it. The sound was smooth, balanced, and without any apparent emphasis or de-emphasis of any part of the audio spectrum. The dispersion of the speakers was excellent, and there was no sense of spatial separation between the sounds from the woofer and tweeter.

The Allison:Seven is a compact speaker, and its pale oak finish is attractive. When given the opportunity, the system delivers an impressive level of clean, deep bass that seems almost inconsistent with its dimensions and light appearance. Considering that we did not have the speakers placed optimally for flat bass output, their performance is all the more impressive.

Priced competitively with a number of good but conventional "bookshelf" speakers, the Allison:Seven offers definite advantages over many of them in both audible and visible terms. It is an excellent value, and the only possible disadvantage we can see for it is the requirement of a closely backing wall for theoretically optimum results. Allison claims, however, that no matter where the speaker is placed, its bass response will always be at least as good as a conventional speaker in the same location, and this seems to have been confirmed in our tests. Smooth, well-balanced sound, compact, and relatively inexpensive-a nice -Julian D. Hirsch combination.

Circle 142 on reader service card



THE Pioneer PL88F automatic singleplay record player is a completely integrated design that includes a high-output moving-coil cartridge, the PC-41MC. It is front-loading, and its quartz-controlled direct-drive turntable and tone arm are mounted on a drawer that slides in and out at the touch of a button. The unusual design of the record player permits it to be

...and then came Super Feedforward.

Not many years ago a "high fidelity" amplifier delivered 5 watts with 5% harmonic distortion. Today, distortion levels of 0.05% — or even 0.005% — in amplifiers with hundreds of watts and a much wider frequency range are almost routine.

Reducing harmonic distortion has usually been achieved by using negative feedback. But too much negative feedback can introduce a new kind of distortion, TIM (Transient Intermodulation Distortion) that audibly degrades the musical sound.

To reduce TIM and other forms of residual distortion, Sansui developed its DD/DC (Diamond Differential/

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While Super Feedforward circuitry puts Sansui's AU-D 11 and AU-D 9 amplifiers in a class by themselves, all our amplifiers are renowned for their musicality, versatility, and respect for human engineering. Add a matching TU tuner to any of Sansui's AU amplifiers and you'll appreciate the difference 35 years of Sansui dedication to sound purity can produce.

For the name of the nearest audio specialist who carries the AU-D 11 and AU-D 9 or other fine components in Sansui's extensive line of high fidelity products, write: Sansui Electronics Corp., 1250 Valley Brook Avenue, Lyndhurst, NJ 07071.



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Sansui

test_reports.

"stacked" with other components. Its styling matches that of other Pioneer products, and its heavy steel cabinet will support as much as 80 pounds.

The PL88F is also capable of some unusual electrical integration with Pioneer cassette decks. In this mode of operation, the tape deck automatically goes into PAUSE whenever the pickup lifts to move to another band of a record or when a record is completed. Another of the unconventional features of the PL88F is its microprocessor control system, which can be programmed with front-panel buttons to play up to eight different bands on a record in any desired sequence. In fact, as many as fourteen programmed selections may be played automatically by selecting some of the eight available bands more than once. The system is programmed by pressing the numbered buttons in the desired sequence, which lights a red LED in each button. The light blinks while that selection is being played and goes out when it is finished.

The PL88F has several modes of operation: automatic, programmed, indexed, manual, and repeat. The INDEX SCAN button is convenient for searching the bands of a record to check on their contents, since pressing it causes the first 10 seconds of each band to be played automatically in sequence. Repeat operation is available at any time; pressing the REPEAT button causes the entire cycle (in the programmed sequence if a program has been entered) to be repeated until the button is pressed a second time.

For manual operation, the only mode available while the turntable drawer is extended from the front of the unit, the MAN-UAL ARM SET/CUT button is pressed. This causes the arm to move from its rest position (out of sight deep within the cabinet) and stop over the outer lead-in groove of the record, at which time the turntable starts rotating. The ARM ELEVATION button must be pressed to lower it to the record (alternate pressure raises and lowers the pickup, and a red LED shows that it is off the record). In the manual mode, the arm can be cued by hand, or it can be cued by means of the internal servomotor by holding in either the START or STOP button to move the arm inward or outward over the record.

In ordinary automatic operation, the OPEN/CLOSE button is first pressed to move

the turntable out for loading a record. The clear plastic window that covers most of the front-panel area swings up into the cabinet, then the entire turntable/arm system moves out smoothly so that it is exposed as far as the center spindle (the arm is not visible at this time, since it is stored deep within the unit). When the record has been placed on the platter's rubber mat, the OPEN/CLOSE button is pressed again, causing the turntable to move into the cabinet and the window to swing down over the opening in the front of the record player.

To begin play, the START button is pressed (a single touch on START will also initiate the closing of the door before starting the playing operation). When the cycle begins, the arm swings out over the record and stops above the lead-in groove. During its movement, an optical sensor in the end of the arm counts the number of "dead" bands between recorded portions of the record (this information is used during programmed play for determining the arm position). The platter then begins turning, the arm descends, and the record is played in accordance with the selected mode. At the conclusion of playing, the arm lifts and moves inward to its storage position, and the turntable motor shuts off. The OPEN/ CLOSE button must be pressed to remove the record

On top of the PL88F's motorboard, visible when the door is closed, are green lights that show turntable speed (33½ or 45 rpm) and a red light that glows when the speed is exactly locked to the quartz-crystal frequency reference. When the turntable stops, only the red light goes out. The speed must be selected manually by pressing the front-panel SPEED button (which toggles between the two speeds). Also on the motorboard, accessible when the turntable is out, is a three-position sensitivity switch for the optical sensor. The NORMAL setting is suitable for almost all records.

The straight tubular tone arm is factory set for a nominal 2-gram tracking force. The antiskating correction is also fixed. The tracking force is not user-adjustable, although the stylus set-down point is. The Pioneer PC-41MC cartridge is a high-output moving-coil design with a replaceable stylus. Because of its high output, it should be connected to the moving-magnet cartridge



"....We apologize for the stereo image's seeming to come from your ceiling, but we are experiencing technical difficulties."

input of a preamplifier, and it operates into the normal 47,000-ohm termination.

The cabinet of the Pioneer PL88F is finished in satin gold with a dark brown control panel. It measures $16^{1/2}$ inches wide, $13^{1/4}$ inches deep, and $3^{3/4}$ inches high and weighs about 22^{3/4} pounds. Price: \$400.

• Laboratory Measurements. Because of its totally integrated design, setting up the Pioneer PL88F involves little more than unpacking it, placing the platter and mat (which together weigh about 2 pounds) on the spindle, and removing the stylus guard from the cartridge. The output of the PC-41 MC was by far the highest we have ever measured from a moving-coil cartridge, about 4 millivolts at a 3.54-cm/sec stylus velocity (the channel levels were balanced within 0.4 dB). We terminated it in 47,000 ohms shunted by capacitance values from 70 to 300 picofarads. As to be expected from a moving-coil cartridge, the capacitance had not the slightest effect on the measured frequency response.

The frequency response with the CBS STR100 test record was flat up to 6,000 Hz, rising to a 5-dB peak at 10,000 Hz and returning to the midrange level at 20,000 Hz. This performance was confirmed by the response to the 1,000-Hz square waves on the CBS STR112 test record. The 10,000-Hz resonance was visible as one cycle of ringing with an amplitude of about 12 per cent of the square-wave amplitude. The test record's inherent ringing, at about 40 or 45 kHz, was visible across the full square wave, indicating that the cartridge response extended well beyond the audio range. The channel separation was in the 22- to 27-dB range up to about 6,000 Hz and exceeded 10 dB all the way to 20,000 Hz. There were several small glitches in the frequency-response curve, at 100, 160, and 450 Hz as well as at 6,000 Hz and 12,000 Hz, all of which corresponded to discontinuities in the crosstalk response. The high-frequency resonances were undoubtedly in the moving system of the cartridge proper, but the lower-frequency resonances could also have been a property of the tone arm.

The measured tracking force was 1.9 grams, and the vertical tracking angle of the stylus was 30 degrees. The arm's antiskating adjustment appeared to be correct. The horizontal tracking error was less than 0.6 degrees per inch, and at most radii it was less than half that much. When we played the Shure TTR-102 test record, the intermodulation distortion of the cartridge was quite low, from 1.2 to 3 per cent at velocities of 6.9 to 27 cm/sec, and it did not mistrack at all on this rather demanding record. The high-frequency tracking distortion, with the 10.8-kHz tone bursts of the Shure TTR-103 test record, was also quite low, from 0.6 to 1.3 per cent over the record's range of 15 to 30 cm/sec.

Playing our other high-velocity test records, the PC-41MC acquitted itself quite well, the chief exception being in the case of the 300-Hz tones on the German HiFi Institute Record Number 2. The highest level it could track without distortion was 50 micrometers amplitude, although at 60 micrometers the distortion was barely audible. (Continued on page 42)

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test reports

We consider this marginally acceptable tracking performance for a high-fidelity cartridge.

The Shure "Audio Obstacle Course" records were played with reasonably good results. The ERA IV record could be played in its entirety without audible mistracking, and with the new ERA V record the cartridge mistracked at level 3. The tone-arm resonance, as determined with the aid of this record, was at 11 Hz, although the resonance was quite broad and could be detected over a range of 8 to 12 Hz.

The turntable performance was what one would expect from a good direct-drive, quartz-controlled design. The rumble was -33 dB unweighted and -60 dB with ARLL weighting, and the rumble was a maximum in the 5- to 10-Hz range. Flutter was only 0.06 per cent weighted rms (JIS) and ± 0.08 per cent weighted peak (CCIR), and it was predominantly at about 10 Hz. The turntable speed was 0.3 per cent high, although this is well within the possible error in the frequency recorded on the test record.

The automatic cycling times were fairly typical of other automatic record players. From the time when START was pressed to the beginning of play was 13 seconds. The fastest shutdown was achieved by pressing the OPEN/CLOSE button, which brought the turntable to a stop in 8.5 seconds (when only the STOP button was pressed, the shutdown required 12 seconds).

• Comment. All the operating features of the Pioneer PL88F worked as intended and with a satisfying smoothness and quietness. The programmed mode was very easy and convenient to use. Pioneer is quite specific about the limitations of the optical sensing system (transparent or colored records and certain types of "dead bands" can confuse the system and require either automatic or manual play).

The turntable itself is obviously a good one and generally comparable to other quartz-controlled turntables we have tested. The PL88F has somewhat better than average isolation against base-conducted vibration in the low audio range (20 to 1,000 Hz) but is quite sensitive to jarring. Perhaps with a heavy stack of amplifiers and tape decks weighing it down, it would be more difficult to jar.

We are somewhat puzzled about Pioneer's choice of a moving-coil cartridge for this player. True, it has a very sizable output, it is essentially independent of load conditions, and its stylus is readily replaceable by the user. However, it has a few shortcomings-the prominent, relatively undamped stylus resonance at 10,000 Hz, the 2-gram tracking force required by its 0.3 x 0.7-mil elliptical stylus, and the undistinguished lower-midrange tracking ability-that we feel could have been eliminated or lessened by choosing any of a number of moving-magnet cartridges, including (no doubt) those made by Pioneer. The lack of access to the internal portions of the PL88F might also be frustrating to those users who like to modify or upgrade individual components. Even with the steel cover removed, virtually none of the mechanical operating parts of the PL88F are 'accessible.

It seems to us that this record player should have its greatest appeal to those who need its front-loading and stacking features. The PL88F sounds quite good and gives no obvious clues to its peaked high-frequency response. Moreover, the mechanical engineering is very clever and all of it works nicely. If you find its listening qualities acceptable and can use its unique operating characteristics, the Pioneer PL88F is an obvious choice. —Julian D. Hirsch

Circle 143 on reader service card



ACE AUDIO is a small company specializing in the design and manufacture of inexpensive accessories that can make a significant improvement in listening quality. Typical of their products is the Model 4100-X24 infrasonic/ultrasonic filter.

It is generally appreciated that widening the bandwidth of a signal-transmission system (such as the audio recording and playback chain) substantially beyond the program requirements can only degrade performance, since doing so will add noise without any improvement in the accuracy of reproduction ("fidelity," if you prefer). To restrict an audio system's bandwidth to audible frequencies, the Ace Model 4100-X24 combines low-frequency and high-frequency filtering. It is designed for insertion in the tape-recording loop of an amplifier or receiver (or between the preamplifier and power amplifier in a system using separate components). The filter, which has a nominal fixed gain of unity, attenuates the response below 20 Hz at a rate of 24 dB per octave and above 20,000 Hz at 12 dB per octave. Between those limits it is essentially distortionless and noise-free.

The filter is intended to remove rumble from the signal path and to prevent any possible high-level ultrasonic signals from causing slew-induced distortion in amplifiers subject to such effects. Because the Ace filter consumes only 1 watt from the

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Ace Model 4100-X24

(Continued from page 42)

120-volt a.c. line, it can be left on at all times or switched by another component.

The Model 4100-X24 uses a Texas Instruments TL072CP operational amplifier to form an 18-dB-per-octave Bessel (linearphase) filter at the low end of the audio range, and this is supplemented by a 6-dBper-octave passive filter to provide the desired attenuation slope. The unit has an output impedance of 1,500 ohms, and it is suitable for connection to an amplifier input impedance of 10,000 ohms or greater. However, the actual low-frequency cutoff point will be affected by the total load on the filter, and the user is advised to replace a pair of internal 10,000-ohm resistors by higher values (given in the instruction booklet) if the associated amplifier input impedance is less than 70,000 ohms.

The Ace Model 4100-X24 is physically compact, measuring 43/8 by 51/4 by 2 inches. It has no controls, its only features being the four phono jacks for the inputs and outputs. Price: \$142. Other Ace filters offer different combinations of cutoffs and slopes at prices from \$98.50 to \$142.

• Laboratory Measurements. The gain of the Model 4100-X24 was slightly under unity (depending on the load). With a highimpedance load it was -0.6 dB, and with a standard IHF load of 10,000 ohms in parallel with 1,000 picofarads, it was -2 dB. All our measurements were made with the IHF load. The maximum unclipped output was 6.7 volts (7.8 volts with a high-impedance load), and the noise was less than our 100microvolt measurement limit. The 1,000-Hz distortion ranged from 0.0032 per cent at 1 volt to 0.0063 per cent at 5 volts (the rated distortion is less than 0.015 per cent).

The frequency response of the filter was essentially flat from 50 to 10,000 Hz and was down about 0.5 dB at those limit frequencies. It rolled off at low frequencies to -4 dB at 20 Hz (this would have been the -3 -dB frequency if we had changed the internal resistors in accordance with the manufacturer's suggestions), and it continued to fall at the rated 24 dB per octave to about -33 dB at our lower measurement limit of 5 Hz. At high frequencies the output fell to -2 dB at 20,000 Hz, reaching -16 dB at 100 kHz and -33 dB at 300 kHz.

• Comment. The measured performance of the Ace Model 4100-X24 filter conformed to its published ratings in all significant respects. This device is obviously meant to be left in an amplifier signal path and forgotten, requiring no further attention from the user after its initial installation. We found that its four phono jacks were rather close together (some molded plugs will be crowded, but all of ours fit), but we did not encounter any other problems in using the filter. We installed it in the tape-monitor circuit of a moderately low-power receiver so that we could switch it in and out of the system with the tapemonitor switch. A slight gain drop could be heard when it was switched in.

To demonstrate the filter's benefits, it was only necessary to play a record containing low-level program material and turn the volume up to a rather high level (adding a bit of bass boost from the tone controls made the demonstration even more dramatic). The low-frequency record and turntable noise was plainly audible, even with speakers having a limited bass response, since this noise spectrum is broad and random and extends well into the audible range. Switching in the filter made a dramatic change. The entire background "cleaned up," the agitated infrasonic flutter of the woofer cones disappeared, and the lowest-level musical passages became audible without the murky accompaniment of the infrasonic "garbage' that lurks beneath the recorded program.

We have long been aware of the importance of eliminating the potential distortions from out-of-band signal components, but most amplifiers and receivers simply do not have adequate filters for that purpose. The Ace filter does the job, and does it superbly. This could be a very valuable system accessory for anyone who regularly listens to wide-dynamic-range recordings. If your system is plagued by low-frequency acoustic feedback, jarring of a turntable from floor vibration, or similar ills, this little box could provide economical relief.

—Julian D. Hirsch

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How Good Is Car Stereo?

Stereo Review Tests Ten Car Stereo Systems in the Lab and on the Road

> By Julian D. Hirsch and Christopher Greenleaf



Since the audiophile of the Eighties seems determined to have music wherever he goes, it was only a matter of time before equipment manufacturers made serious efforts to produce music systems of hi-fi quality for automobiles. STEREO REVIEW is launching a program of car stereo testing intended to give readers the same product guidance that is found in our test reports on home audio equipment.



Car stereo units will be thoroughly bench tested by Julian Hirsch of Hirsch/Houck Laboratories and road tested by Christopher Greenleaf, who is a music and hi-fi equipment reviewer, a restorer of keyboard instruments, a free-lance recording engineer, and the owner of a middle-aged Volvo sedan. In future issues they will evaluate individual car stereo units, but to start off we thought it would be best to check out the products of a cross-section of car stereo manufacturers. For this article we asked each company to lend us its best all-in-one car stereo unit with an AM and FM tuner, a cassette player, and a power amplifier all built into an in-dash box. In some cases the unit tested is that company's top-of-the-line model; in others—where the manufacturer also makes higher-priced separate components—the unit we tested may not represent the absolute top performance available from that manufacturer. So don't expect home-system performance from these units, although some produce a very convincing sound, especially when you consider the listening environment. We just wanted to see what could be achieved when all those circuits are jammed into a 6 x 6 x 2inch box and bounced over pothole-riddled, multipath-infested roads. -G.S.



EVEN a casual comparison between typical home and automotive acoustic environments suggests that true "high fidelity" performance is a difficult, if not impossible, goal for a car stereo system. The interior volume of most automobiles is closer to that of a large speaker enclosure than to a normal living room. As a result, listening to a car stereo is not unlike sitting inside a speaker enclosure with the speakers mounted on the outside facing in (and with the inevitable addition of high levels of engine, road, and wind noise). Under the circumstances, it is remarkable that automobile sound can be as good as it sometimes is.

These same conditions also make it quite impossible to judge the ultimate performance quality of a car stereo receiver solely from bench tests and nearly as difficult to judge it by purely subjective "road tests." A combination of the two is required, and even so one cannot predict with 100 per cent reliability how any given automotive music system will actually sound installed in a consumer's vehicle.

In our test program, the car stereo units were each bench tested at Hirsch-Houck Laboratories in accordance with the only available "standard" procedure, the so-called "Ad Hoc Committee" proposal generated in October 1979 by representatives of fourteen manufacturers of car stereo equipment. It was subsequently adopted by the EIA (Electronic Industries Association), which issued it as the "Consumer Products Interim Standard No. 1" in March 1981.

The procedures of this standard were derived from existing IHF (now EIA) tuner and amplifier standards. The cassette-player test procedures also generally follow current practice. The testing process is complicated by the unified construction of a car receiver, which prevents independent access to the tuner and cassette-deck outputs or to the amplifier inputs. Thus, the unit can only be tested as a whole, by injecting a suitably modulated FM signal at the antenna jack and measuring the audio output across 4-ohm load resistors at the output (most car stereo ratings are based on driving 4-ohm loads). For the tape-deck measurements, standard test cassettes were played. The power source was a tightly regulated 14.4-volt power supply (the supply voltage called for by the standard).

It was difficult or impossible to make

certain typical performance measurements on the individual sections of the receiver/cassette units. For example, we could not measure distortion or noise levels of the FM tuners alone but had to measure the total noise and distortion of the tuners and amplifiers together. As a result, the performance of the weaker section generally determined the measured result. Our measurements were further complicated by the fact that many of the receivers (those rated at more than 5 or 6 watts output) use "bridged" output stages that do not allow either side of the load to be grounded.

Our results are presented in tabular form in the chart on pages 50 and 51. Some of the numbers will look strange to anyone who is familiar only with home stereo equipment. For one thing, amplifier power in car receivers is often advertised with the same total disregard for reality that once plagued the high-fidelity industry before the FTC established ground rules for advertised power ratings. Most of the distortion specs, however, are only too realistic, with rated power outputs being associated with distortion as high as 4 to 8 per cent! We measured the output power at distortion readings from 1 to 5 per cent to establish a single value that could be applied to all the tested receivers. That turned out to be 4 per cent distortion with both channels driven at 1,000 Hz into 4-ohm loads. It is instructive to realize that this corresponds to fairly hard clipping of the waveform, a condition that would never be tolerated in the cheapest home system.

The tape-playback frequency response was measured with the BASF New Standard Test Tapes for both 70- and 120-microsecond equalization characteristics. Although these tapes range as high as 18,000 Hz, only a couple of the test units had any useful output at that frequency, so we finally decided to rate the tape response as a plus-and-minus variation from the 315-Hz reference level over a 31.5- to 12,500-Hz range. One unit appeared to be badly misaligned, with an upper tape response limit of about 6,000 to 7,000 Hz, but most had at least reasonable response over the full range.

In the lab, we did not listen to any of the receivers except through headphones to monitor tuning of the test signal. Any attempt to listen critically under home conditions would have been useless for judging the performance of these systems. The subjective, listening part of the evaluation occurred during road testing by Christopher Greenleaf. He had no access to our lab test data prior to conducting his tests, and even though I came to some conclusions about the relative merits of several of the units based on their measured performance, it is quite possible that some of his conclusions are different from mine.

Most of the test samples came from regular production runs and were supplied with the manufacturer's usual operating and installation instructions. We found considerable variation in the clarity of these instructions, although they would no doubt be perfectly adequate for a professional installer. For most of the units with "bridged" outputs we were warned against using grounded speaker returns or otherwise having a common ground between any of the speakers, which could damage the receiver, but several omitted that warning. One of the receivers (the Delco) appeared to be an engineering prototype or pilot-run model, and therefore the fact that its performance was substandard in some respects should not be given undue weight.

To return to the question posed by this article: is hi-fi sound possible in a car? Obviously, I cannot answer that merely on the basis of measuring the performance of ten car receivers. Also, different people have different standards for what constitutes "hi-fi." Nevertheless, I would guess that—properly installed, with good speakers—most of the units I tested would do a fine job.

I recently heard and used one car stereo system that I would have no hesitation in describing as "hi-fi." Because of its unusual nature, it could not be tested with the others. The Delco/ GM/Bose music systems are designed as complete stereo installations for particular GM car models. The speakers are placed in critically determined locations, and the four channels of amplification are individually equalized for the specific model so as to create a sound field within the car that gives the same stereo and spectral balance for both driver and passengers. The design is so effective that the radio does not have (or need) a left/right balance control. Judging from the overall electrical and acoustical test data supplied by Bose, the approach seems to be effective.

I was even more convinced by the few days I spent in the sybaritic luxury of a



new Cadillac Seville equipped with a Delco/GM/Bose music system (available only as a factory-installed option on the top-of-the-line GM models this year). My ears told me that this was a real high-fidelity system whose sound was certainly comparable to that experienced by the majority of people using reasonably good home stereo components. In fact, it was superior to most home systems in many ways, since every listener was sitting in the ideal "stereo seat" and hearing an equalized signal with a flatter response than would probably exist in an unequalized home installation.

I must, therefore, conclude that it is possible to experience good, high-fidelity stereo sound in a car, but also that it is likely to be an expensive and uncertain quest for most people. As in the home, the installation of the system is vitally important, but, unlike in the home, one does not have the option of moving things around after the initial installation; once speaker holes have been cut, that is where they must stay.

It should be edifying, however, for audiophiles who are unduly impressed by the performance specifications of home components to contemplate the relatively limited power, high distortion (several per cent at any reasonable listening volume), and other characteristics of the car stereo receivers we tested. They are undoubtedly among the best of their kind, corresponding in some cases to "high-end" home components. Although they cannot begin to compete with the latter (or even the least-expensive home components) on "specs," they somehow manage to sound unbelievably good in actual operation. There should be a lesson in that. I think.

-Julian D. Hirsch

USIC lovers need not totally compromise their listening habits when they step into a car, as I discovered during extensive road tests of ten new auto sound systems. Many of the operating features found on very good home systems appear on the newest car audio gear, although a few of them are of questionable use on the road. With noise reduction, effective tone controls. digital tuners, and, in one case, extraordinary control over imaging-the latest generation of in-dash units generally provides a level of performance that was unheard of when car stereo first hit the road

Living with these ten units over a period of time was an education in human engineering. A few units' controls were inconvenient or confusing, but most were handy and useful.

Most of the tape players have a couple of features that were uncommon until recently: smoothly functioning autoreverse (with dual capstans) and selection-search capability. In addition, all ten units have locking fast-wind modes. Most of the tape transports are solidly built. They boast steady pitch and should survive the decline of America's transportation "infrastructure" (our streets, bridges, highways, tunnels, and so forth) relatively unperturbed. In the interest of cutting down on faceplate clutter, many of the decks have no eject

	Albine T146	Control 1900A	acord Har-130	Fullish I	Ten CR-1134	ionsen RESID	JICKSAT	panasonic Laat Jal A-15	pione CO-ST68EU	Col UNE-7100
Suggested Retail Price	\$499.95	\$329	\$529.95	(a)	\$319.95	\$420	\$379.95	\$399.95	\$289.95	\$399.95
Tuner Type	Digital	Analog	Digital	Digital	Analog	Digital	Digital	Digital	Analog	Digital
Presets (AM, FM) and Tuning Aids	5, 5 (b)	5 total	6, 6 (b, c)	4. 4 (b, c)	2, 3	5, 5 (c)	6, 6 (b, c)	6, 6 (c)	5 total	5, 10 (c)
Local/Distant (DX) Switch	Yes	No	Yes	No	Yes	No	Yes	Yes	No	No
Mono/Stereo Switch	No	No	Yes	No	Yes	Yes	Yes	No	No	Yes
Automatic High-Blend	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Noise Reduction	Dolby-B	Dolby-B	Dolby-B (f)	DNR	Dolby-B	Dolby-B	Dolby-B	DNR	None	Dolby-B
Ignition-Off Tape Operation	Ejects	None	Ejects	Disengages	None	None	Ejects	Disengages	None	Disengages
Tape Music Program Sensor	Yes	Yes	No	No	No	Yes	Yes	No	No	Yes
Front-Rear Fader	Yes (d)	Yes	Yes (d)	Yes	Yes	Yes	Yes	Yes	Yes	No
Loudness Switch	Yes	No	Yes (e)	Yes	No	Yes	No	No	No	Yes
Built-In Clock	No	No	No	Yes	No	Yes	No	Yes	No	Yes

CAR STEREO UNITS: OPERATING FEATURES

Unleas otherwise indicated in text, all units have auto-reverse cassette transports, separate bass and treble tone controls, 70- and 120-microsecond tape equalization, and automatic antenna-control leads.

(a) Dealer-installed option: see text

(b) Has station-seek feature (moves to next clear signal and holds it).

(c) Has station-scan feature (samples each successive signal for five seconds and then moves on unless stopped by user).

(d) Requires accessory amplifier to power rear speakers controlled by fader (e) Has three-band bass equalization (see text)



button; pressing the fast-forward and reverse buttons simultaneously ejects the cassette. Alpine's design is even better—a tap on the tuning knob and the cassette pops out.

Three of the units have digital clocks, and seven have electronic station-preset tuner memories. Since turning off the car's ignition shuts down anything connected to the main fuse box, an additional power line to the car's battery assures an uninterrupted trickle of current for these units' clocks and memories. On some units the same line also powers the mechanism that ejects the tape when the car's ignition is shut off. which keeps the deck's pinch-roller from being dented by the capstan. Alternatively, on some of the units the pinch-roller disengages when the power is shut off.

The tuners—seven digital or "electronically tuned" and three analog also showed a concern for convenience. None were encumbered with needless features, unlike some entries in the home-audio field, and every preset worked accurately, consistently, and (with one or two exceptions) conveniently. Most of the tuners have effective muting during scan, seek, or manual tuning operations, and the Concord unit has as many useful features as a good home tuner.

(As most makers use the terms, "scan" and "seek," now commonly seen printed on many digital tuners' faceplates, designate similar but not identical functions. In seek tuning, the unit moves to the next station strong enough to be received clearly, then locks it in. During scanning the tuner moves to the next strong station, plays it for several seconds, then moves to the next. Unless the user stops the sampling process at a station he wants to listen to, the tuner will keep scanning to the end of the dial and then start over again.)

The tone controls are very complete on most of the ten models. At home I seldom, if ever, touch the loudness button, but in my car I use it often. A properly shaped loudness contour boosts those portions of the audio spectrum that need emphasis at low listening levels. If the engineers are thoughtful, the loudness contour duplicates very little of the effect of the bass and treble controls. Built-in equalization in car stereos has now reached a degree of sophistication that makes a separate equalizer less necessary, though that is still the logical choice for fine tuning.

In the past, noise reduction was Dolby-B or nothing. Now the big competitor is National Semiconductor's DNR (Dynamic Noise Reduction) system. Unlike Dolby-B and its improved cousin, Dolby-C, which require encoding when a tape is recorded and decoding during playback, DNR works on radio and tape signals without an encode/decode cycle. Essentially, DNR rolls off extra-musical high-frequency noise unless there is sufficient treble material to hide it. Another coded system making an entry into car stereo is dbx. Whereas encoded Dolby-B tapes are listenable without decoding-they will have an unnatural but not too objectionable treble boost-dbx-encoded tapes must be decoded to be listenable. One of the units tested here (the Concord) accepts a plug-in dbx module.

Antennas were not a part of the tests, but I was able to compare the performance of my car's original antenna on the right front fender and a new, poweredretracting one on the left rear. With the car's heater/blower and wiper motor as electrical-noise sources and the moving metal windshield-wiper arms as an effective source of interference, I was amazed at how much quieter the stereos were using the rear antenna despite its 11-foot cable and extra connection joint, as opposed to the unbroken 21/2foot cable to the antenna up front. A good antenna could be a relatively inexpensive solution to local electrical and multipath interference, and, of course, a retractable antenna is less of an invitation to vandals and would-be car thieves than a fixed one.

Once Julian Hirsch finished laboratory testing the ten units, it was my turn to test them out on the road. Each received as closely as possible the same use and abuse on a carefully chosen test track along city streets, and all were also subjected to various less-formal critical drives in town and far out in the country.

The course for the controlled road tests was principally in the old downtown area of Brooklyn, on nearby expressways, and on a midtown Manhattan street that has what may be the nation's worst conditions for both AM and FM reception. The structures encountered in the test included the high, steel-girdered Kosciusko Bridge, which features an unimpeded view of most of the New York City radio transmitters but has some high-interference metal uprights: the Brooklyn Bridge with its studded steel roadway and tire-punishing approaches; the granite-block, cobblestone-like streets of old Brooklyn; and a lamppost-infested stretch of the Brooklyn-Queens Expressway that offers unusual forms of FM interference along with deteriorated concrete sectional pavement.

My Volvo's acoustics are probably about average; the back seat sounds

CAR STEREO UNITS: LAB TEST RESULTS

in watts per channel at 1,000 Hz into 4	ohms at		
4 per cent total harmonic distortion			
Signal-to-Noise Ratio (A-weighted)			
in decibels referred to 1 watt (higher is	s better)		
Tone-Control Range	100 H		
in decibels referred to the			
center setting	10,000 H;		
FM Mono Usable Sensitivity			
in μV (or dBf) with 75-ohm input (lower	is better)		
Mono 50-dB Quieting Sensitivity			
in μV (dBf) with 75-ohm input (lower is	better)		
Stereo 50-dB Quieting Sensitivity			
in μV (dBf) with 75-ohm input (lower is	better)		
Frequency Response			
in decibels from 30 to 15,000 Hz referm	ed to		
1,000 Hz (±0 is ideal)			
FM Capture Ratio			
in decibels at 45 or 65 dBf (lower is be	tter)		
Alternate-Channel Selectivity			
in decibels (higher is better)			
mage Rejection			
n decibels (higher is better)			
Stereo Separation			
n decibels at 100 Hz, 1,000 Hz, and 10	,000 Hz		
Tape Playback Frequency Response	120 µS EQ		
n decibels from 31.5 to 12,500 Hz referred to 315 Hz (±0 is ideal)	70		
elened to 313 Hz (±0 15 lde81)	70 µs EQ		
Flutter	wrms		
n per cent (lower is better)			
	weighted peak		
Tape Speed Error			
n per cent (lower is better)			
ape Playback Signal-to-Noise Ratio	A-weighted		
n decibels referred to 250 nWb/m at	0010		
1,000 Hz (higher is better)	CCIR/ARM with Dolby (or DNR)		
	LOUDA FOLDIARY		



great but the front has some problems with deep bass and part of the central midrange. The car is quiet enough to hear low-level details (provided 1 have the windows up) but too noisy at road speeds for me to be finicky about *pianissimo* tuner or tape background noise. My shock absorbers ... well, reading what follows will tell you what has been happening to them! The speakers involved in the test were installed in the front doors and on the rear deck. We chose this arrangement, rather than something more sophisticated, because this is how 95 per cent of all four-speaker systems are installed. The pair in back are Jensen Triax II's, those in front Philips Model 8741 4-inch coaxials. Each speaker is installed with both wires going to the hook-up terminal, not grounded to the car's chassis, since the bridged outputs of many of the amplifiers in the units we tested require ungrounded returns. In cases where the leads were meant to be grounded together, 1 did so at my testing terminal. (The speakers, wiring, and automatic antenna were installed by Phil's Auto Radio in Brooklyn.)

In-dash installation of the receiver/

	Lipine 7145	Clarion 1500A	ncord HPL 130	Fuiline Fuiline	Jen CR-113A	msen Hts10	NCKSRI	panason. Laal Jat k: 15	pioneen pioneen	URE-1100
	5.1	13.3	19.6	14.5	14.8	5.1	13	15.4	5.6	5.3
	72	71.5	72.5	(a)	71	73.3	73.5	60	72	66
4	± 11 + 11.5, - 11	+ 10, - 12.3 +6, -5.2	± 11.5 + 12.3, - 11	± 12 to 13 in each of five bands	+9.5, -12.5 +11.5, -10	+9.5, -10 +8.5, -9.5	+ 10, - 11.5 ± 10	+7, -10 +8, -7.5	+8.5, -13 +5.5, -13	+ 10, - 11.5 ± 11
	2 (17.2)	1.8 (16.3)	1.2 (12.8)	1.5 (15.3)	4.3 (23.9)	2.3 (18.5)	2 (17.2)	L8 (16.3)	1.8 (16.3)	5 (25.2)
	1.9 (16.8)	2.2 (18.1)	1.5 (14.7)	(a)	<mark>3.4 (</mark> 21)	2.7 (20)	2.5 (19.2)	3 (20.6)	<mark>2.6 (19.8)</mark>	2.4 (18.8)
	30 (40.8)	21 (37.7)	20 (37.2)	(a)	(b)	(a)	20 (37.2)	(a)	(b)	25 (39.2)
	+0, -3.5	+1, -4	+0, -2.5	+0, -4.5	+0, -5	+2, -2.5	+0, -5.5	+3, -5	+1.5, -3	+0.5, -6
	2.55 (at 45)	1.9 (at 45)	1.26 (at 45 and 65)	4.8 (at 65)	2 (at 45)	1.76 (at 65)	6 (at 45)	1 4 (at 65)	1.46 (at 45)	3.8 (at 45 and 65)
	73.5	56	67	71	71	56	(c)	61	53	69
	36	36	83	40	53	76.5	46	63	46	50
	<mark>30, 3</mark> 2, 23	28, 36, 19	39, 48.5, 40	43, 40, 24	29, 32, 14	36, 38, 30	28, 30, 28	30, 31, 29	24, 26, 19	19, 19, 20 (at 65 dBf) (d)
	+0.5, -8 +0.5, =5	+0, -6.5 +0, -7.5	+0, -3 + 1.3, -12	+ 1, - 10.5 +0.5, - 11	+0, -3 +0, -3	+0, - 10 (at 6 kHz) +0, - 10 (at 7 kHz)	+0, -8.5 +0, -8.5	+1.5, -10 +1.5, -10	±4 ±4	+0, -7.5 +0, -7.5
	0.12	0.13	0.075	0.15	0.12	0.08	0.12	0.17	0.18	0.15
4	0.18	0.23	0.12	0.25	0.2	0.3	0.2	0.3	0.25	0.23
	+0.8	+ 1.9	+ 1.2	+0.3	-0.4	+1.3	+0.35	-0.2	+0.5	+0.5
	58 68	57 66	57.5 65	46 60 (DNR)	58 62	57.5 66	58 64	49 67 (DNR)	54 (e)	57.5 64

 (a) Noise level remains above -50 dB.
 (b) Automatic high-blend prevents measurement.
 (c) Tuner saturation prevents measurement.

 (d) Automatic high-blend affects separation at 65 dBf; 29, 29, and 31 dB at 85 dBf.
 (e) No noise-reduction system.

cassette units would not only have required lots of time and aggravation, it would also ruin my dashboard for normal use. Instead, I made up two doublescrew terminal strips and screwed each strip to a lacquered block of rosewood (no point in having it look bad!). The terminals extend out from the underdash space and contain power and vehicle grounding, the eight speaker connections, and a sensor wire for the automatic antenna that all ten units are equipped to trigger. The antenna cable was taped together with the rest of the wire in this bundle, and the whole assembly permits easy hookup of any unit. To subject the tape transports to somewhat harsher shock and vibration conditions than normal, each unit was clamped during the test to a special mount on the transmission hump; it thus became, in effect, part of the car body. Dashboards, in contrast, while also physically attached to the car body, tend to have a slight isolating effect because of their relative flexibility and lightness.

My country driving was not on a regular course, but it gave me the chance to compare reception of some of the same stations I normally receive in New York from up to 140 miles away. The Berkshire hills of western Massachusetts afforded valleys, peaks, and a mix of local and distant stations—a perfect test for tuners in a rural setting.

My TDK metal-tape test cassette contains selections from three different

records. The scherzo from Jeanne-Louise Farrenc's Nonetto (1849) is a masterpiece of woodwind and string balance (from Leonarda LPI 110). Joni Mitchell's Night in the City, from her first album (Warner/Reprise RS 6293)-one of the most beautifully recorded popular records I know-has a very delicate midrange and critical high frequencies on top of a solid bass. Otto Olsson's mammoth Second Symphony for solo organ (from a two-disc Proprius album, 7825/26) is not only magnificently recorded but has about the deepest bass I've heard on any record; the rock-steady pitch of the large Swedish organ provides a true test of tapetransport stability.

-Christopher Greenleaf

Alpine 7146. As the photograph shows, this unit departs somewhat from traditional car stereo designs. Except for the three knobs on each shaft, the visible controls are light-touch pushbuttons that have none of the mechanical feel of typical two-position switches or buttons. The controls are very easy to locate and use. For example, a light tap on the tuning knob will quickly unload a cassette (the tape will also be ejected if the car's ignition is switched off). Another innovation is the "SelecTouch" plate, whose four corners rock to key in (or out) the loudness compensation, Dolby-B, the Music Sensor (program search in fast-wind tape modes), and the dual-function switch for ferric, chrome, or metal tape equalization and FM local-distant tuning mode.

There are ten illuminated presets, five each for AM and FM. Even at dusk they present an easy target for stabbing fingers. Manual tuning is by a rotating knob with a click for each step up or down on the digital readout. I found myself taking the "express" route (the presets) to get near the stations I wanted, then the manual "local" the rest of the way.

Despite the presence of a fader control, the 7146 should have an add-on external

Clarion 7500R. This is a basic in-dash unit with an unfussy appearance and controls whose functions are obvious. It should appeal to car owners who want a good stereo music source, both radio and tape, but neither need nor want all the features it's possible to cram in. The five mechanical presets are no different from those found on nearly any other analog tuner, and they seamplifier if used with rear speakers (Alpine recommends its Series 3000 components and suggests possible combinations of them in the manual). The modest power of the 7146's own amplifier is sufficient for front speakers, and it can even drive a rear pair if they are wired in parallel—but then there's no way of controlling the front-rear balance, which will then depend only on the relative efficiency of each speaker pair.

Road testing this unit was a lesson in convenience and control flexibility. The bass and treble controls gave sufficient tonal variation to satisfy picky listeners, and the loudness button complemented them nicely. Using all three, I was able to tailor even vocal music to my finicky taste. The fact that the loudness compensation uses curves quite different from those of the treble and bass knobs certainly plays a major part in this ability to shade tone quality.

Both AM and FM stations could be tuned quickly and quietly, and once a station was set, reception was quite adequate in difficult metropolitan areas. In the country, even distant stations were received clearly and held firmly, although a mono/stereo switch would have been helpful to reduce noise on weak signals. The tape transport was nothing short of superb. There was no way I could encourage the unit to "cat" or otherwise mangle even a cheap C-120. Normal road bumps and vibration had little effect on pitch stability, and even brick pavement caused only brief (but audible) jars in especially uneven parts of the street.







lect the same dial position whether the tuner is set for AM or FM reception, which makes for a total of five choices for AM and FM combined, not five each. They are a little stiff to set, but lock quickly and firmly in place and appear not to wander at all.

The tape-eject mechanism is activated by pressing both fast-wind buttons (forward and reverse) together. At the left of the cassette bay, the direction-change button is easily accessible by feel. Underneath it are the Dolby-B switch and the one for tape equalization. Under the fast-wind buttons, and also accessible by touch with little possibility of mistake, are the AM/FM selector and the switch for automatic program search for taped selections. Fading and balancing are allotted to the large dials on the tuning and volume knobshafts. They work similarly, and the balance control has a center detent. The volume knob doubles (triples?) as the bass and treble tone control too, depending on whether it is pushed in (bass), pulled out (treble), or in the center position. The unit has a cable with a DIN plug for an optional equalizer.

Both in and out of the city, AM reception was listenable and clear, but FM always had a strong hiss, even on "hot" nearby stations with no interference. Even careful tuning failed to get rid of the hiss entirely, and a change of antennas had no effect. Amplifier power was certainly sufficient, but strong bass would have required loudness compensation to be convincing. Percussive low-frequency notes, such as those from the electric bass on a Steeleye Span album, had some authority, but the profound bottom notes of a large pipe organ never quite made it into the picture, though the same speakers have reproduced them at other times. Some of New York's worst potholes caused some obvious tape-transport instability, but not enough to be objectionable. Normal bumps and vibration had little effect.

Concord HPL-130. If adjustability and flexibility are important to you, the HPL-130 may be the kind of unit you'll want. Once I learned my way around the very business-like control panel, I found the layout both efficient and logical, with the possible exception of the six preset buttons along the bottom of the digital station readout. The buttons are small and easily confused, but the amount of time I needed to get the station I wanted (a second or so) was never sufficient to impair my driving concentration.

The first nice touch is the balance control. It is not among the concentric knobs on the volume or tuning shafts but is instead a rather small knob at the far left of the central face plate. Once I set the balance to my taste, there it usually stays, so I was happy to see this function removed from the busy shafts. The left knob is for volume and is also the fader if you push it in and turn it; the outer dial on the shaft is the bass-equalizer level control, about which more shortly. Pushing the tuning knob, on the right shaft, keys in the tuner scanning function, and the outer dial is the treble control. Bass, treble, and fader controls have center detents, and the tuning knob rocks a few degrees left or right to adjust the tuned frequency up or down.

Between the cassette bay and the readout

Delco ETR-520. The ETR-520 is a dealer-installed option on all General Motors cars (Chevrolet, Buick, Oldsmobile, Pontiac, and Cadillac). The price varies from car to car but basically depends on how many speakers come with the "standard" car. On the Olds Toronado, which has four speakers as standard equipment, the ETR-520 option costs \$328, while on a Pontiac Firebird, which comes without radio or speakers, the ETR-520 costs \$590 but includes four speakers. If you don't plan to buy a new GM car, you can still buy the



panel are fully ten controls nestling close together. From the left, these are for balance, tape equalization, Dolby-B, loudness compensation, muting, high-blend in/out, distant/local tuning, AM/FM, tuner/tape selection, and bass equalization. The last is a three-position switch that centers the basscontrol band at 40, 80, or 120 Hz in order to adjust the low, middle, or upper bass; it's a decidedly handy adjunct to the usual bass control. One auxiliary input can also be controlled from the front panel. Cassettes are ejected automatically when the car's ignition is shut off.

I was at first daunted by the HPL-130's busy look, but my apprehension about "too many" features quickly faded as I got used to the controls. The fine bass equalization and very good loudness contour ironed out tonal problems quickly and neatly. The tape/tuner switch permitted me to hit the eject button (which also controls fast-forward and reverse) without getting the distracting high-volume radio racket that so often follows the disengagement of a car tape player.

All I can say about the tuner and tape transport is that I was almost unable to make them sound unmusical. Multipath distortion and distant stations were no problem. Where a signal was too weak even for the effective high-blend circuit, the mono/ stereo switch gave me very nice mono FM instead of flickering stereo, always a good choice to have. The tape transport was ruffled only by high-speed driving on the worst part of the granite-block section of the test track. Power was satisfyingly ample for the one pair of speakers the unit drives; an external power amplifier must be added for a second pair controlled by the fader.

The Concord HPL-130 is truly an audiophile's car stereo, but 1 doubt that its impressive array of features will long intimidate anyone who can appreciate very exact control over his music on wheels.





ETR-520 as a replacement part from an AC-Delco supplier, but the price varies from dealer to dealer.

Purchasing peculiarities aside, this unit has a decidedly Detroit look to it, with shiny surfaces, large-scale lettering, and relatively simple operation. Both knob shafts are on the driver's side, and the cassette bay accepts tapes business-end first. (Most others use the more compact narrow-end loading format.) Controls are widely spaced and present an uncluttered appearance. The built-in five-band equalizer has controls at 50, 250, 1,000, 3,500, and 10,000 Hz. The sliders offer a considerable adjustment range and, used with the loudness button, can tame many anomalies in a car's acoustics. The DNR noise-reduction system is switchable, and it works on all three program formats: AM, FM, and tape. A two-

Fujitsu Ten CR-1134. This model looks simpler than it is. Buyers attracted by its relatively high power and printed specs see an essentially straightforward faceplate whose features, though certainly not exhausting the possibilities of today's in-dash controls, enable users to deal successfully with a wide variety of car acoustics, tape characteristics, and reception conditions.

The volume knob also works as the fader (when pushed in) or as the center-detented balance control (when pulled out). On the same shaft is the bass tone-control knob. The tuning knob shares the right-hand shaft with the treble-control knob. Except for the hard-to-get-at Dolby-B button next to the tuning knob, the faceplate controls are logical and accessible. Below the Dolby switch is a button doubling for tape equalization and FM mono/stereo. Opposite this, next to the volume control, are the program (tapedirection reverse), fast-forward, and fastreverse buttons.

The analog tuner has five presets, two for AM and three for FM. To switch from FM to AM or vice versa, one of the appropriate position tape-equalization switch rounds out the complement of signal-processing controls.

I find that I seldom use more than four station presets, so it was no disappointment to discover that the ETR-520 has only four each for FM and AM. The seek control finds and locks in the next powerful station, while the scan control allows sampling, stopping in turn at each sufficiently strong station for five to ten seconds, then moving on: a second touch of the same button locks the tuner on whatever station happens to be playing at the moment.

During my road test the AM tuner provided consistently listenable reception with relatively quiet background noise. On FM the tuner sometimes "chuffed" or made a spitting sound in especially appalling reception areas, but the sound, helped by an automatic high-blend circuit, remained musical under most conditions. I missed a mono/stereo switch, but not desperately. Generally, the FM performance was quite good, but in a few bad-reception areas the sound was unambiguously unpleasant (noisy and distorted).

A smooth fader and adequate power made for very good allotment of the powerful bass sound between my efficient rear speakers and less efficient front ones. The tape transport made it through my test course with good results, even meeting the expressway largely unruffled and mostly on pitch. The sketchy owner's manual has one fine feature: a guide to North American FM stations indicating the program format of each station. Arranged by state and locality, it's a great help on long trips through regions of unfamiliar ether.



presets must be pressed. Though small, the tuner dial is readable and sufficiently illuminated to be clear even at dusk, when visibility both outside and inside a car is at its worst.

Though the mono/stereo switch is helpful, especially in the country, 1 found that the unit's own automatic mono/stereo switchover worked well. FM sound quality was good in all areas except some of New York City's concrete canyons, where r.f. overload and multipath are rampant. The AM sound quality was okay. Tape transport sometimes went briefly out of whack over very bad surfaces, especially corrugated bridge grids at 30 mph, but was otherwise problem-free. I have one complaint about the tone controls: treble seems to be affected very high up, but it is difficult to affect anything lower. As a result, resonances or underemphasized notes must remain more or less as they are unless a significant portion of their character lies in the high treble. This would probably be unimportant in cars whose acoustics favor the lower part of the treble spectrum. The bass knob has a more encompassing effect and reaches up into the midrange. A loudness contour would have been welcome.

Overall, this is a fairly uncomplicated unit with moderate performance and an appealing look. It delivers good sound without requiring elaborate adjustments.

Jensen RE-520. This particular Jensen model combines just about all of the features a well-equipped car stereo is likely to need. There is sufficient differentiation among the various groups of buttons to allow very quick familiarization with the many functions, and after-dark use is easy and sure, with certain exceptions mentioned below.

In a line across the top are six buttons: FM/AM, stereo/mono, loudness, automatic tape search, tape equalization, and Dolby-B. Below the display panel (which serves as the cover for the cassette bay as well) are



fast-wind controls and another button that either changes the tape direction or activates the tuner frequency display. The latter function is necessary since the time is normally displayed. Just to the right of these three buttons are the preset buttons for five channels each in FM and AM. The eject button at the right of the faceplate is not quite as accessible as it might be. The tuning knob on the far right rocks left or



right to tune up or down the spectrum and can be rotated to adjust the clock. On the same shaft are the balance and fader controls, both with center detents. The volume knob on the other shaft switches power on and, when pushed in, starts station scanning; pushed in again, it holds the station being sampled. Treble and bass knobs share the same shaft. Despite a projecting lug on the rear knob of both shafts, it was difficult to separate the rear and middle knobs. At night this proved distracting.

The RE-520 permitted enough tonal adjustment to make an equalizer unnecessary. (Incidentally, any unit with a good fader, as this one has, provides in effect a fourth tone control beyond bass, treble, and loudness, namely the different characteristics of the front and rear speakers. I ended up using this particular fine-adjustment all the time,

JVC KS-R7. The KS-R7 is loaded with controls, and a quick look reveals its flexibility. Some of the controls, however, are just a shade too small for real convenience, especially the eject button, one of a cluster of four small, square buttons in the upper right corner. The others in that area are stereo/mono, AM/FM, and tape equalization/mute off. The six preset buttons, both AM and FM, are also too close together for comfortable use. The left cheek of the faceplate has, from top to bottom, a program button (tape-direction change), Dolby-B/ distant/local, (tape) Music Scan, and one of the fast-wind buttons. The other side has the cluster of four mentioned earlier and the other fast-wind button, and next to the latter are the seek and scan buttons. The volume knob also controls balance when pushed in, and the rear dial on the same shaft serves both for treble and (when pushed in) bass control. The other shaft has manual tuning on the main knob and the

Lear Jet A-15. My first impression of the A-15 was of a deliberately "high-tech" appearance. Its quiet all-black faceplate and knobs seem to promise performance rather than just good looks. The owner's manual is reasonably complete and quite usable, though apparently an awkward translation from a Korean original.

Six AM or FM preset buttons join pushbutton controls for AM/FM, local/distant reception, DNR, memory, digital clock/frequency display, fast-wind functions, and cassette eject. The left knobs are for bass/ treble and volume/balance; the right shaft holds the fader and tuning knobs. The tuning knob also switches station scanning or

ance substantially changed the tone quality of the sound). Bass and transients were clear and solid at moderate to low volume. The treble was, if not exceptional, clean even in massed vocal passages and earwringing brass chords. Distortion became audible only when I nudged the volume high enough to be unpleasant anyway. Sharp vibration, such as on the studded

and even minute shifts in front-to-back bal-

metal roadway of the Brooklyn Bridge, caused regular small breaks in the tape motion, but a bumpy Massachusetts country lane had no effect at all. Tire chatter caused by ripples in the road surface also shook up the transport, but not enough to endanger the tape or my patience. AM reception was respectable, and FM was quite good in the city and in the Berkshire hills. An automatic local/distant switch adjusts sensitivity and selectivity to local conditions, so I did not miss an on/off button for it. Since I listen to the radio a lot while traveling, this impressed me. As usual, the stereo/mono switch was a nerve saver on long trips. At one point, atop a southern Massachusetts hill, I could receive stereo broadcasts from New York, Boston, and Albany! The buttons for the five AM and five FM presets are a bit small and close together, but familiarity soon made them easy to use.

My main complaint about the RE-520 was the sensitivity of the volume knob to accidental brushes. It is distracting to cope with a sudden jump in gain when you're concentrating on driving and using another control. That aside, I thoroughly appreciated how much Jensen has shoehorned into this neat package and enjoyed having it along for the ride.



fader on the rear one. The unit also has an automatic power-off tape-eject system.

The very clean reception of FM in downtown Brooklyn surprised me greatly. Suburban and country driving only confirmed this impression of clean, open, and crystalclear reception. Even distant stations did not sound weak or unclear when I switched to mono in the country. Despite my best efforts to challenge the unit with bad multipath, such as from the steel cage around the Brooklyn Bridge and its nearby tall buildings, the tuner performed remarkably well. When there was multipath interference, though, it was loud and unmistakable. AM was quite good.

A fine tape transport and obviously effective Dolby noise reduction and tape equalization made for enjoyable listening. The bad-road-surface test did little to faze the unit; neither vibration nor sudden shocks caused pitch wobbles or audible skips. I missed a loudness button, but the bass and treble controls worked satisfactorily, though the treble affects only the very high frequencies. Altogether, this is a sonically exciting unit. I only wish a little more attention had been paid to human engineering.



tape direction. The rear knobs have protruding lugs for grasping and indicating position; they seem to be made of a less than top-grade plastic and tended to wobble on the shafts after a period of use.

The DNR noise reduction works for both FM and tape playback, and it does the job

expected of it. Considering the unit's disappointing FM performance, the DNR was a blessing. Cross-modulation in strong signal areas was quite noticeable, and multipath on bridges and near tall buildings (that is, wherever I drove in the city!) made FM unlistenable. Changing to my second antenna



caused no noticeable improvement. The absence of a mono/stereo switch made it even harder to enjoy FM with this unit. AM reception, on the other hand, was very good; distant stations came in clearly and without much interference even in downtown Manhattan. [Shortly after we finished these

Panasonic CQ-S768EU. This is a relatively straightforward car stereo unit except for a genuinely unique "ambience" circuit, which makes the sound from the left speaker appear to be coming from outside the car to the left of the driver! The analog tuner incorporates an automatic high-blend optimizer, which is not switchable. The unit has a traditional look with its moving-pointer dial and five presets that move the pointer to the same position whether the tuner is set for AM or FM. The tuning knob is set for fine tuning, so using it to move from one end of the dial to the other is time consuming; it's best to use a preset to get to the general area and then use the knob.

I looked in vain for any indication of a noise-reduction system, if any. Both tape player and tuner have a minimum of controls: tape equalization, FM/AM, ambience, eject, and fast-wind functions. The right knob shaft handles tuning and the front-rear fader. The volume knob switches the unit on, pulls out to control treble, and pushes in for balance. The second knob on the left is for bass. There are no center detents on any of the knobs.

This was the first unit I installed for testing, and it was also the last. I enjoyed the ambience effect so much that I had to try it road tests, Lear Jet notified us that it was putting an improved tuner section in the A-15 and other models—*Eds.*]

The tape transport is stable and resisted most of my attempts to put it off its stride, although road-surface ripples and the resulting rear-tire chatter garbled the sound briefly. The tape-transport controls are logically arranged and easy to use. It is unusual to find such good AM reception (it was among the best of the units I tested), but the FM lagged far behind. The A-15 is physically attractive, and I had hoped for better performance.



out again. What this model lacked in controls, it made up for in clarity and quality of sound (at reasonable volume levels), even with my Volvo's less than perfect acoustics. Tape playback, whether or not there is some kind of noise reduction, was listenable and quite stable. I noticed less than first-rate performance only in exceptionally critical low-level orchestral music, much of which disappeared under outside wind noise anyway. The ambience circuit doubled as a loudness contour and certainly complemented the well-designed bass and treble controls. The slight right-left and front-rear delay caused general expansion of the car's apparent acoustic size. It made listening to tape or FM a liberating experience, especially in contrast with the normal imaging of car speakers. I listened to talk shows with the ambience off, however, since speech seemed more intimate without it.

Signal interference on FM—multipath, cross-modulation, fading, and picket-fencing—was manifested as a "pop" rather than as a hashy sound or a ripping "chuff." Strangely, this turned out to be less irritating than I expected, and the tuner's fair to good multipath resistance and nice distantstation reception made it a pleasant driving companion. AM reception was good without being exceptional.

The tape transport ranked in the middle of the field. It resisted large shocks but partially succumbed to vibration and tire dancing on road ripples. At no time did I fear for the safety of my test tape. The ambience effect is the best of the many good features in this deck and is well worth the cost. Together with the generally quite good tone controls it makes for smooth and very relaxing auto sound, a good tonic against the tensions of driving.

Pioneer UKE-7100. Pioneer's concise and informative manual describes well the many features of this unit. The only one it lacks—and it was the only one of the ten units I tested that did—is a front-rear fader. On a \$400 deck this is a puzzlement, since most car owners opt for two pairs of speakers, not one. Of course, you can wire the left front and rear speakers together and do the same on the right, but this locks you into an unalterable balance between the pairs, and you must stay within the 2- to 8-ohm speaker-impedance range. (Most car stereo dealers can install an outboard fader control, however.)

Under the five preset buttons (which select five AM and ten FM stations, the latter in two switched groups of five) are buttons for loudness, local/distant, mono/stereo, clock display, tape equalization, Dolby-B noise reduction, and memory. A button incorporating tape direction indicators serves



to reverse the tape player. Just above, the two fast-wind mode buttons eject the cassette when pressed simultaneously. Right below these are the clock controls.

The tuning knob and the AM/FM 1/FM 2 selection knob are on the right, and on the left are the treble, bass, and volume/balance knobs. The unit comes with a silver faceplate with black lettering and a black faceplate with white lettering.

The digital tuner performed well. Both on rural roads and on city streets, I got listenable FM as long as I avoided very distant stations and was not in very acute multipath areas. Of course, I used the mono/stereo switch a lot on long trips away from strong stations. The AM sound was fine and the tuning very stable. I had no complaints about the tape-transport mechanism. It did act up on a corrugated bridge surface, but otherwise the pitch and tape-to-head contact were just as they should be.

All I lacked for complete satisfaction was a fader. The unit's sound was clean and tonally pure, and the equalization controls were both handy and effective.

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How to ean a STU

By David Ranada

I think I'm on safe ground when I assert that most phonograph-system distortion heard anywhere in the world stems not from poor cartridge-tracking ability, nor from discs cut too "hot," but from dirty styli. Many a demonstration put on by a reputable high-fidelity manufacturer has been ruined by a minuscule, and in some cases not so minuscule, speck of dust stuck on a stylus.

How do you recognize dirty-stylus distortion? That's harder to generalize about. Surely, if the accumulation of junk on the stylus tip is visible to the naked eye or if the stylus keeps jumping grooves, something should be done. Invisible-dirt distortion can generate what sounds like incipient mistracking: a sense of strain in such complex program material as massed choral singing or an ensemble of strings. The difference is that dirty-stylus distortion does not go away if the recorded levels go down; even low-level material may sound distorted. A dirty stylus can generate "inner-groove sound" from the first grooves of a record.

If you wonder whether the distortion you are hearing comes from a dirty stylus, the easiest way to find out is to clean the stylus. If the distortion vanishes, you've found its source. With generally clean records, a stylus should be thoroughly cleaned at least after every ten discs are played. Dirty or dusty records may require alcohol-andbrush treatment after every side.

There are almost as many stylus-care products available from stereo-accessory manufacturers as there are tape-deck-care items. Some products duplicate, in possibly more expensive form, the tools and procedures covered here. Others have special cleaning fluids designed not to harm any stylus assembly or use an unusual mechanized procedure said to be more foolproof than a hand-held brush. These products bear investigation if you don't trust yourself for the steady hand necessary for a good stylus-cleaning job.

Photos: 1, 5, and 6 courtesy Pickering & Co., Inc.; 2, 3, and 4 by Geoff Rosengarten



Would you want this mess to bobble through your record grooves? This scanning-electron micrograph dramatically shows the dust, dirt, and debris that can accumulate around a stylus. The greater the accumulation, the less accurate the sound reproduction. Most of this glop can be removed by very simple stylus-cleaning procedures.



My method of stylus cleaning involves these three elements. First comes the cartridge, preferably removed in its headshell from the tone arm. You might want to remove only the stylus assembly for cleaning-if that's possible with your cartridge-but I find that styli alone are too small and hard to manipulate compared with a whole cartridge. If you cannot readily remove your cartridge from the tone arm, you'll just have to be a bit more careful during the cleaning process.

I've used concentrated isopropyl alcohol (not the more commonly available rubbing-alcohol mixtures) for years with no ill effects on any cartridge. (Vodka will do in a pinch!) However, alcohol might damage the elastic suspension holding the stylus cantilever, especially if too liberally applied. Check with your cartridge's manufacturer if in doubt. Most, if not all, commercially available stylus-cleaning "fluids" are alcohol-based. "Dry" cleaning (without fluids) isn't always effective.

You can use the tiny brushes supplied with top-of-the-line cartridges. I like to use the very small camel's hair or sable brushes available from artist-supply stores or hobby shops. They are inexpensive (\$2 to \$3 at most), last for decades, and, because of their relatively long handles, are difficult to lose. Most important, a large handle balances better in the hand and is much easier to control. A wayward brush can demolish an unsuspecting stylus assembly



Using a brush lightly moistened with alcohol, I start by cleaning the stylus shank (or cantilever). Many stylus-cleaning devices seem to neglect this area of the cartridge. It should be cleaned if for no other reason than to reduce the added moving mass caused by the dust and dirt. Always brush a stylus and cantilever from the rear of the cartridge to the front. In other words, the brush should pass over the cartridge only in the same direction that the record groove does. Brushing in the opposite direction risks certain cartridge destruction. Slight movements from side to side of the brush or stylus are not harmful, so you need not be overly concerned with these. Never press too hard: the bristles should give way, not the stylus assembly.



I clean the stylus last, and I clean it until it appears completely free of debris. Then I clean it again just to make sure. (An invisibly small particle is enough to clog up both the stylus and the sound quality.)



A clean stylus and cantilever. The actual business end of the stylus assembly is the cone-shaped, highly polished tip. Only a small portion of the tip contacts the record groove.



Just how small a portion that is can be seen from this photo of a stylus in a stereo groove. Compare this with Photo No. 1 and imagine all the dirt and debris in that picture applied to this stylus. The necessity of stylus cleaning should be immediately apparent. (Also apparent in this picture are "horns," small ridges thrown up at the rim of the groove by the cutting stylus. Some record companies remove them in the mastering procedure since they are believed to cause added disc noise. Telefunken's DMM-Direct Metal Mastering-process of disc cutting does not generate horns.)

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Best of the Month Stereo Review's Selection of Recordings of Special Merit

Exceptional Singing by All Five Principals in London's Digital Figaro **L**ONDON'S new digital recording of Mozart's *The Marriage of Figaro*, directed by Sir Georg Solti, is the eighth stereo version in the catalog. None is without merit, but none is without faults either. In the case of the new set, however, the balance is so tilted to-



ward its virtues that, were I to build a new record library with only one version of the opera in it, I would probably choose this one.

First of all, it has an ideal Figaro in Samuel Ramey. He is vigorous, dynamic, and youthful sounding, characterizing the role with the right combination of cunning and defiance, and the tricky tessitura fits his voice perfectly. Also excellent is the Almaviva of Thomas Allen. This young English baritone's previous recordings have suggested that he has a light, lyric voice, but there is plenty of substance in his tones and the right kind of imperious elegance in his attitude to achieve the appropriate contrast with Ramey's down-to earth manner.

There is similar good news about the female leads and their trouser-bearing companion. As the Countess, Dame Kiri Te Kanawa sings exquisitely, though with a subdued quality that does not project a strong enough profile for the role. The Susanna of Lucia Popp and the Cherubino of Frederica von Stade are perfectly in character and admirably vocalized.

Except for the solid Antonio of Giorgio Tadeo, the supporting cast is not as felicitous as in some previous recordings. Kurt Moll brings remarkable sonority to the role of Bartolo but also a certain squareness of manner. Jane Berbié is now a somewhat frayedsounding Marcellina. The slimy character of Don Basilio is often conveyed by tenorial nasality, a quality that comes naturally to Robert Tear. He is undoubtedly a gifted singing actor, but his tones, however suitable for this role, remain unappealing. Marcellina's and Basilio's arias, usually omitted in staged performances, are included in this recording.

Solti provides generally effective tempos and a cohesive overall vision of the opera, but his approach is rather short on charm, and sometimes there is not enough attention to detail. Nothing really damaging happens, but listeners

An ideal Figaro: bass-baritone Samuel Ramey who cherish certain grand moments in this work may occasionally be disappointed. To begin with, Solti, like many other conductors, cannot resist a frantic pace for the overture. Cherubino's aria "Non so più" sounds rather superficial, though we know that Von Stade can project it with more charm and meaningful inflections. And the magic moment when the Countess steps forward with "Almeno per loro perdono otterd" is just about thrown away. There are times when correct musical execution is not enough; the interpreter must find the poetry.

Perfection is, as always, elusive. Nonetheless, no other recorded *Figaro* can match the combined strength of the five principals in this one, and that is quite something. —*George Jellinek*

MOZART: Le Nozze di Figaro. Samuel Ramey (bass-baritone), Figaro; Thomas Allen (baritone), Count Almaviva; Dame Kiri Te Kanawa (soprano), Countess Almaviva; Lucia Popp (soprano), Susanna; Frederica von Stade (mezzo-soprano), Cherubino; Kurt Moll (bass), Bartolo; Robert Tear (tenor), Don Basilio; Jane Berbié (mezzo-soprano), Marcellina; Giorgio Tadeo (bass), Antonio; Philip Langridge (tenor), Don Curzio; Yvonne Kenny (soprano), Barbarina; others. London Opera Chorus; London Philharmonic Orchestra, Sir Georg Solti cond. LONDON O LDR 74001 four discs \$51.92, © LDR 5 74001 \$51.92.

"Welcome to My Love": An Impressively Varied Debut Solo Album by the Talented Dianne Reeves

IANNE REEVES is the kind of singer whose talent is so striking that it demands recognition even on a first hearing. On her debut album, "Welcome to My Love" on the Palo Alto label, Reeves effortlessly traverses some of the most difficult terrain in contemporary popular music. She handles complex passages with incredible ease, and her singing style is wide-ranging, reminiscent at one time or another of the bird-like lyrical warblings of Morgana King, the Brazilian-flavored, instrument-like stylings of Flora Purim, and the vocal brilliance of the pre-pop Dee Dee Bridgewater.

Reeves does not imitate these older artists, but, like them, she will probably be categorized as a "jazz singer," one of that rare breed of vocalists who can play authoritatively with changes thanks to their knowledge of harmony



Dianne Reeves: not just a "jazz singer"

and willingness to stretch music to its limits. Yet the texture of her singing is derived from the more accessible nuances of popular song. Welcome to My Love, for instance, reflects the spirit of black popular singing with its distinctive rhythms and inflections.

Though her name is not yet widely known, Dianne Reeves is no newcomer. She has toured extensively with Brazil's Sergio Mendes-experience that has obviously influenced the development of her style-and she has been championed by stalwart jazz trumpeter Clark Terry. Her other credits include appearances with Ronnie Laws, Chick Corea, and Count Basie. That's pretty heavy company to be traveling in, but Reeves shows every indication of being able to match their pace. "Welcome to My Love" was produced by Phil Moore, a star maker of earlier decades celebrated for his ability to bring out the best in the singers privileged to work with him. Reeves more than merits his attention.

There are so many special moments

on this album that it is difficult to mention only a few. Reeves's dazzling improvisations on Hesitations are surely among the high spots, as are her sensitive tribute to grandmotherly love in Better Days and her bright Brazilian accents on Siren Serenade. It is also impossible to overlook her marvelous interpretation of the Rodgers and Hart evergreen My Funny Valentine, which demonstrates her mastery of phrasing. It takes a stout-hearted singer to attempt that deceptively simple ballad today, for it has been sung by the best, from Sinatra to Sarah Vaughan. Suffice it to say that Reeves's performance shines even in that company.

Dianne Reeves is more than merely a good or promising new singer. She's already wonderful. —*Phyl Garland*

DIANNE REEVES: Welcome to My Love. Dianne Reeves (vocals); instrumental accompaniment. Welcome to My Love; Better Days; Hesitations; Mi Vida; Siren Serenade; Perfect Love; My Funny Valentine; Passageway; Lullaby. PALO ALTO PA 8026 \$8.98.

Glenn Gould's Legacy: A Second Towering Statement of Bach's *Goldberg* Variations

IN June 1955 a twenty-two-year-old pianist from Toronto, then known only to a few small recital audiences in this country, recorded Bach's Goldberg Variations for Columbia. Once the record (ML 5060) was issued, Glenn Gould was recognized virtually overnight as one of the really significant new artists of his time, for he packed an astounding wealth of insight, depth, and creative imagination into that debut recording.

Gould's subsequent public appearances frequently proved to be controversial. Before conducting the Brahms D Minor Concerto with Gould as his soloist, Leonard Bernstein told his New York Philharmonic audience that he and Gould didn't really see eye to eye on the interpretation. During a rehearsal with the Cleveland Orchestra, George Szell is said to have remarked of Gould, "This nut is a genius!" Eventually Gould withdrew from the concert hall altogether, confining his musical activity to recording, broadcasting, and films. He recorded all five Beethoven piano concertos, the Schoenberg concerto, Mozart's C Minor, and the Bach D Minor, as well as some provocatively different interpretations of the Mozart sonatas and some unconvincing ones of some of Beethoven's. He also recorded sonatas by Scriabin, Prokofiev, and Grieg, some Handel suites on the harpsichord, and, about a year ago, Haydn's last six keyboard sonatas.

Most of all, though, Gould was associated with the music of Bach. His discography includes all the partitas, *The Well-Tempered Clavier*, the French and English Suites, and the Two- and Three-Part Inventions. In the spring of 1981, he rerecorded the *Goldberg* Variations—this time in stereo, of course, and digitally. Released in time for his fiftieth-birthday celebration on September 25, 1982, it proved to be his valedictory effort. On October 4 Gould died in Toronto of a stroke suffered a week earlier; he had never regained consciousness.

It is poignantly fitting that this unique musician's legacy should be framed by two towering statements of the Goldberg Variations, and sentiment plays no part in my describing these performances as "towering." They are also quite different from each other, which should surprise no one. An artist of probing intelligence and continual growth, as Gould was, is far less likely to want to preserve a "celebrated" or "classic" interpretation than to find, in an advanced recording technology, an impetus to explore new, or at least different, approaches to a work that cannot possibly be pinned down to a single "definitive" reading.

Gould's earlier Goldberg Variations may well be the briskest on records at just under thirty-nine minutes' playing time; his remake runs just over fiftyone minutes. The difference is accounted for in part by some repeats omitted the first time around, but there is also, more significantly, an altogether

more expansive approach to the music. The Aria is set forth very deliberately now, in a rather dreamy manner, at both the beginning and the end of the work, almost as if to remind us of the original, intimate objective of the composition-to serve as an elaborate lullaby. The first three variations, which whizzed by so brilliantly in the 1955 performance, are opened up and more fully characterized here. Throughout the sequence one is intrigued less by sheer drive than by an engaging warmheartedness and reserved wit (apt enough after twenty-seven years of rethinking). Gould is quoted as describing the Goldberg Variations as "thirty very interesting but independent-minded pieces." He succeeds in his new reading in bringing out the independent character of each, without preciousness or self-consciousness, while still projecting an essential relatedness that welds them into a continuous whole no less seamless than the one exhibited in 1955.

The earlier recording, which still remains in Columbia's active catalog (as MS 7096, rechanneled for stereo), does have two advantages. One is freedom from the vocal contribution that was to embellish all of Gould's subsequent recordings. In the new Goldberg Variations his vocalizing is audible to a degree that more than a few listeners will find distracting-and, curiously, it sounds as if it had been dubbed in over the piano tracks instead of recorded at the same time. The voice is lontano, which adds an eeric-dimension to the valedictory context, while the piano is very much forward. The other advan-



tage of the 1955 release was Gould's own comprehensive annotation. Although CBS has issued the new disc in an elaborate gatefold package, there is virtually no information on the music; what there is in the way of notes, in three languages, is all about Glenn Gould, with several photographs from both the 1955 and 1981 sessions. (There is also a photo captioned "Original cover design, 1955," but what is shown is actually the totally different cover for the rechanneled version issued several years later.)

But no matter. The disc itself is what counts, and what is in its grooves moves me to say that Gould left us the two most intriguing recordings ever made of the Goldberg Variations. I would not think of being without either of themthe earlier one for its brilliance and exuberance, the later one for its fuller characterization. If pressed to make a choice between them, though, it would be for the new one, which strikes me as the most stimulating and entertaining account of this remarkable work yet recorded on either piano or harpsichord. And the sound is absolutely first-rate. -Richard Freed

J. S. BACH: Goldberg Variations (BWV 988). Glenn Gould (piano). CBS • IM 37779, © IMT 37779, no list price.

A New Album from the Unequaled Poet of Rock: Captain Beefheart's "Ice Cream for Crow"

AFTER years of neglect, a veritable deluge of media attention greeted the last album by Captain Beefheart (Don Van Vliet), "Doc at the Radar Station." But, despite its relative accessibility (compared with its predecessors) and nearly unanimous critical raves, the album had only modest sales.

Beefheart's new album, "Ice Cream for Crow," has not been attended by the same heady expectations, but in many ways it is even better than "Doc." It may not be as topical or as listenable, and it doesn't nod to punk or New Wave (or to any other style or individual, for that matter). It is just the most brilliant expression of Beefheart's strange muse since "Trout Mask Replica." And as a poet Beefheart has no equal in rock.

Like all his best work, "Ice Cream for Crow" overflows with exciting, offbeat associations ("ice cream by night, sun cream by day") and vivid, surreal



Captain Beefheart (Don Van Vliet)

images—appropriately, a videocassette of the title cut was recently accepted into the permanent collection of the Museum of Modern Art. Beefheart's lyrics are driven by their own crazy inner logic. They're absurdly sensible and sensitive in a way that makes you want to laugh and cry at the same time.

Musically this album represents a retreat from its more ambitious predecessor. The band is smaller, the sound cruder, the arrangements less complex. Four tracks provide most of the musical interest: two instrumentals, carried off with heroically manic precision by guitarist Gary Lucas, and two songs, the title cut and The Past Sure Is Tense, that rock as hard as anything in Beefheart's repertoire. Generally, however, the arrangements here play a supporting role, creating a dense, sputtering, clangorous setting for Beefheart's poetry. His fabled voice, alas, sounds more ragged with each release. He doesn't

even attempt to sing here, resorting instead to a raspy sort of recitative, occasionally slipping into his familiar guttural basso profundo. But Beefheart's voice is still one of the most remarkable instruments in rock, and in "Ice Cream for Crow" it speaks for a head full of the strangest ideas. For that, his fans can be thankful. —Mark Peel

CAPTAIN BEEFHEART & THE MAGIC BAND: Ice Cream for Crow. Don Van Vliet (vocals, harmonica, soprano saxophone, Chinese gongs, prop horn); instrumental and vocal accompaniment. Ice Cream for Crow; The Host the Ghost the Most Holy-O; Semi-Multicoloured Caucasian; Hey Garland, I Dig Your Tweed Coat; Evening Bell; Cardboard Cutout Sundown; The Past Sure Is Tense; Ink Mathematics; The Witch Doctor Life; "81" Poop Hatch; The Thousandth and Tenth Day of the Human Totem Pole; Skeleton Makes Good. VIR-GIN ARE 38274, © AET 38274, no list price.

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Classical Music

News Briefs



Alberich and the Rhinemaidens in Das Rheingold



Peter Hofmann as Siegmund

O^N Monday, January 24, the PBS network will launch the much anticipated telecast of Richard Wagner's Der Ring des Nibelungen (The Ring of the Nibelung). bringing the music and drama of that monumental operatic cycle into millions of American homes. Because of its length, the Ring, which is normally presented in four evenings, will be serialized for television. Das Rheingold, the first opera in Wagner's four-part cycle and, at two and a half hours, the shortest, will be shown in its entirety on the 24th; Die Walküre, Siegfried, and Götterdämmerung will be aired in two segments each on successive Mondays (dates to be announced).

This production of the *Ring*, which might be described as that most Germanic of operatic masterpieces, was staged some six years ago for the Bayreuth Festival centennial by two Frenchmen, the composer-conductor Pierre Boulez, who also conducts on the live recording made at Bayreuth and released by Philips (6769 074, sixteen discs), and the director Patrice Chéreau.

Chéreau has set the four operas, most daringly, in the nineteenth century—in Wagner's own time, in fact among the symbolic trappings of the Industrial Revolution. The Rhinemaidens, for instance, are not at first revealed as fräuleins frolicking about in river waters but as three lusty whores hanging out on what appears to be a hydroelectric dam.

The cast for the video production, made under the directorial supervision of the BBC's Brian Large, is exactly the same as that recorded by Philips. *Das Rheingold* features Donald McIntyre as Wotan, Hermann Becht as Alberich, Hanna Schwarz as Fricka, and Heinz Zednik as Loge.

Peter Hofmann joins the cast as Siegmund in *Die Walküre*, along with Gwyneth Jones as Brünnhilde and Jeannine Altmeyer as Sieglinde. Manfred Jung sings the title role in *Siegfried*, with Donald McIntyre as the Wanderer and Gwyneth Jones again as Brünnhilde. Jung and Jones are joined in *Götterdämmerung* by Fritz Hübner as Hagen, Franz Mazura as Gunther, Jeannine Altmeyer as Gutrune, and Gwendolyn Killebrew as Waltraute.

The entire series, preceded on Monday, January 17, by a documentary on the making of the Ring for the tube, highlights the tenth anniversary season of PBS's widely honored Great Performances series. Described by the network as the "longest-running performing arts series" on television, Great Performances is made possible by grants from Exxon, the Corporation for Broadcasting, and Public America's public television stations. This first-ever TV Ring will be hosted by the composer's granddaughter, Friedelind Wagner. It is a coproduction of the Bavarian Radio and Unitel, Munich, in association with WNET/ Thirteen, New York. The operas will be sung in German with English subtitles and will be simulcast in FM stereo at the option of radio stations in cities with PBS outlets. Check local stations for exact dates and times



Fafner, Freia, and Fasolt

N September the American conductor Lorin Maazel became general director of the Vienna State Opera, a post that Gustav Mahler held for ten years at the turn of the century. For three seasons Mahler was also conductor of the Vienna Philharmonic (which draws its personnel from the opera orchestra), but it has, surprisingly, recorded relatively little of that composer's music. CBS Masterworks has taken care of all that. This past fall CBS went into Vienna's historic Musikvereinsaal to record Maazel and the Philharmonic, digitally, in Mahler's Symphonies Nos. 5 and 6. They will be the initial releases, sometime in 1983, in the orchestra's first complete cycle of Mahler symphonies.

T was announced last fall that conductor André Previn will become music director of the Royal Philharmonic Orchestra in London, but not until June 1985 because of his present commitment to the Pittsburgh Symphony. When he takes up his new post in London, he will be billed as belonging exclusively to the Royal Philharmonic.

Previn's appointment is striking on two counts. He will be returning to London as a full-time conductor/music director only six years after leaving the London Symphony amid disagreements with some of that orchestra's members, who believed he had given their work an overbearing Anglo-American bias (though he remained exceedingly popular with London audiences). Previn is also agreeing to join the RPO at a time when that orchestra is making a serious bid to re-enter London's musical life as an artistically and commercially viable force.

A year and a half ago the Royal Philharmonic had just about hit bottom financially when it made the record album "Hooked on Classics,"

distributed in the United States by RCA. The album has sold phenomenally well. It was certified platinum by the RIAA when its U.S. sales passed one million copies, and it has since achieved doubleplatinum status. Royalties from these sales have erased the orchestra's deficit of £110,000, and the sales of the recently released "Hooked on Classics II" (RCA AFL1-4373) should keep the RPO in the black for some time to come. The orchestra was invited to perform excerpts from "Hooked on Classics" during the halftime show at the Orange Bowl in Miami on New Year's Day. CR

DRIMA DONNAS: It is fitting that soprano Regina Resnik should have returned to San Francisco this season to celebrate her fortieth year as an opera singer. She made her debut with the San Francisco Opera only a few years after her very first operatic appearances in 1942 with the New Opera Company of New York under Fritz Busch. During the recently concluded San Francisco season she sang the role of the Countess in a new production of Tchaikovsky's The Queen of Spades directed by Nathaniel Merrill and designed by Robert O'Hearn. Meanwhile, in Paris, Galina Vishnevskaya was bidding farewell to the opera stage after thirty years. The Russian soprano was appearing at the Opéra as the youthful Tatiana in another Tchaikovsky opera, Eugene Onegin, in a new production directed by Gian-Carlo Menotti and conducted by her husband, Mstislav Rostropovich. Vishnevskaya and Resnik share billing in a Deutsche Grammophon recording of The Queen of Spades (2711 019).

Beverly Sills, who has retired from the stage since becoming general director of the New York City Opera, has been elected to the Board of Warner Communications, . And making her Inc American operatic stage debut Thanksgiving week was Jessye Norman, singing Dido in Purcell's Dido and Aeneas and Jocasta in Stravinsky's Oedipus Rex with the Opera Company of Philadelphia. The double bill was videotaped during performance at the Academy of Music for national telecast at a later date. Miss Norman is, of course, no stranger to opera on records. Her latest is a studio-recorded performance of Wagner's Die Walkure in which she sings the role of Sieglinde. This Eu-



Coloratura soprano Edita Gruberova

rodisc album (301 143) is part of that label's projected complete digital *Ring* cycle.

The second release in London Records' Mozart concert aria series features the rising young soprano Edita Gruberova (OS 26662). Her most recent recording otherwise is an album of French and Italian coloratura arias that she recorded for Angel Records (DS-37870), chosen as "Best of the Month" in the July 1982 issue of STEREO REVIEW. Reviewing that album, George Jellinek pronounced Gruberova "the reigning queen of this excitingly acrobatic repertoire." C.B.

Disc and Tape Reviews

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

ALFVÉN: Symphony No. 4, in C Major, Op. 39 ("From the Seaward Skerries"). Elisabeth Söderström (soprano); Gösta Winbergh (tenor); Stockholm Philharmonic Orchestra, Stig Westerberg cond. TURNABOUT TV 34778 \$5.98, © CT 4778 \$5.98.

Performance: First-rate Recording: Excellent

There is much more to the music of Sweden's Hugo Alfvén (1872-1960) than the

Explanation of symbols:

- (8) = eight-track stereo cartridge
- © = stereo cassette
- $\mathbf{O} = digital-master recording$
- $\Phi = direct-to-disc$
- $\mathbf{OX} = CX$ -encoded

Monophonic recordings are indicated by the symbol \bigotimes

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

picture-postcard romantic nationalism of his Swedish Rhapsody No. 1, or Midsummer Vigil; his Second Symphony, for example, is really splendid. But until the release of this Turnabout disc, the popular rhapsody was the only one of his works in Schwann. The Fourth Symphony of 1918-1919 is a programmatic work evocative of idyllic and tragic love amid the windswept isles of the Stockholm archipelago. A germinal motive binds the four episodes, which are played without interruption as one continuous movement, and wordless voices are used intermittently throughout as an integral part of the tonal fabric. The symphony should appeal to those whose tastes lean toward a somewhat heated Scandinavian romanticism. It offers abundant tone color and emotional rhetoric rather than the more architectural grandeurs of the mature Sibelius and Nielsen, or, for that matter, Alfvén's own Second Symphony.

This performance, recorded in 1979, represents a distinct sonic improvement in brilliance, clarity, and spaciousness over the earlier Discofil LP I reviewed here in 1977. Stig Westerberg knows his business thoroughly when it comes to Swedish repertoire, his orchestra responds with a will, and he is lucky in having as his vocalists the peerless Elisabeth Söderström and the highly gifted Gösta Winbergh. I trust this will be only the first in a long line of Turnabout releases derived from Sweden's Bluebell label. D.H.

C. P. E. BACH: Trio Sonata in D Minor (W. 145); Trio Sonata in E Major (W. 162). J. S. BACH: Trio Sonata in G Major (BWV 1039). TELEMANN: Trio Sonata in E Minor. Jean-Pierre Rampal, Maxence Larrieu (flutes); Motoko Nabeshima (harpsichord). CBS M 36670, © MT 36670, no list price.

Performance: Glib Recording: Sparkling

Even though the compositions are charming, even though the pearly sound of two flutes gliding up and down the scale is ravishing, and even though the harpsichord offers a period bite, the monotony of the sound on this disc becomes cloying and the



Joshua Rifkin

A Fascinating Bach B Minor

T is the rare musicologist who can both expound a theory in a scholarly article and illustrate it with a fine performance. Joshua Rifkin is such a musicologist: his copious notes for his new Nonesuch recording of the B Minor Mass explain why he believes that Bach's vocal works were originally performed with only one singer per part, and the records show what such a performance is like. Besides the five singers, there is a small ensemble of early instruments. The result is fascinating. Admittedly, it takes quite an adjustment on the part of the listener to accept the chamber-like choral singing that replaces the usual massed sonorities of a full chorus. Once that more intimate sound is accepted, however, there are many rewards. The most obvious, of course, is the clarity of all the parts, especially in the many sections of intricate counterpoint. The dramatic contrast between the "Crucifixus" and the "Et resurrexit" comes off very well, and all the effects we associate with a large chorus are achieved perfectly by the smaller forces. The only difficulty is an occasional lack of blend. The two sopranos and countertenor together produce a flat, white sound while the tenor produces a broad vibrato, and the contrast is sometimes disturbing.

The arias and duets are especially rewarding because of the clear articulation by all the singers and the strong playing of the obbligato instruments. The period instruments used show Bach's exploitation of unusual sonorities in a way that modern instruments cannot. The most striking example is in the "Quoniam tu solus sanctus" with its obbligato natural horn and two Baroque bassoons, but the combination of trumpets, timpani, and oboe d'amore is equally telling. The varied sound palette of fers constant delights and is, after the singing, perhaps the strongest characteristic of this recording.

Many scholars disagree with Rifkin's one-person-per-part approach, and many musicians may be unhappy with the anusical results. Nonetheless, he deserves full credit for boldness and courage in organizing a performance that so clearly illustrates his theories. This recording is, at the very least, an *interesting* one, and Nonesuch has provided fine sound. —Stoddard Lincoln

J. S. BACH: Mass in B Minor (BWV 232). Judith Nelson, Julianne Baird (soprano); Jeffrey Dooley (countertenor); Frank Hoffmeister (tenor); Jan Opalach (bass); Bach Ensemble, Joshua Rifkin cond. NONESUCH • 79036 two discs \$23.96, © 79036-4 \$23.96.

music seems amorphous. Perhaps if Rampal and Larrieu offered more articulation and projected the phrase structure more clearly, and perhaps if a cello were used to play the bass line, we could hear more of what the composers had in mind rather than merely the beautiful ripple of two virtuoso flutes. S.L.

J. S. BACH: Goldberg Variations (see Best of the Month, page 63)

RECORDING OF SPECIAL MERIT

BEETHOVEN: Fifteen Variations and Fugue in E-flat Major, Op. 35 ("Eroica"); Piano Sonata No. 7, in D Major, Op. 10, No. 3. Emil Gilels (piano). DEUTSCHE GRAMMOPHON O 2532 024 \$12.98, © 3302 024 \$12.98.

Performance: Powerful Recording: Superb

Beethoven's *Eroica* Variations require a pianist with a virtuoso technique to play the

notes, mature musicianship to give them their expressive due, and a keen intelligence to make them cohere. Emil Gilels, one of the rare pianists combining these three qualities, produces here one of the most powerful and exciting performances of this monumental work available today.

The D Major Sonata comes off well too. Gilels brings out the wit of the outer movements, the tragedy of the slow movement, and the lyricism of the graceful minuet. But I must chide Gilels gently for taking a short appoggiatura in the second theme of the first movement; ordinarily such a criticism is merely picky, but in this case the relationship of the thematic material depends on a long appoggiatura. Still, this is a very exciting record. S.L.

RECORDING OF SPECIAL MERIT

BERLIOZ: Les Nuits d'Été, Op. 7. Dame Kiri Te Kanawa (soprano); Orchestre de Paris, Daniel Barenboim cond. La Mort de Cléopâtre. Jessye Norman (soprano); Orchestre de Paris, Daniel Barenboim cond. DEUTSCHE GRAMMOPHON • 2532 047 \$12.98, © 3302 047 \$12.98.

Performance: Excellent Recording: Excellent

Some fifteen years separate these two major works of Berlioz. *Cléopâtre*, of 1829, is an extended dramatic cantata, perhaps somewhat overscaled but undeniably powerful. *Les Nuits d'Été*, originally conceived for soprano with piano accompaniment over the years 1834-1841, shows the lyric Berlioz at the peak of his powers in luminous settings of poems by Théophile Gautier.

Cléopâtre remained unpublished in the composer's lifetime, but posterity rescued it with several recordings, all relatively recent. The best of them, Dame Janet Baker's on Angel (S-36695), is currently unavailable, but I can wholeheartedly recommend DG's beautifully engineered new one. Jessye Norman brings intensity and a wide range of vocal colors to this highly charged scene. Her dramatic involvement more than compensates for the few instances in which her sumptuous tones are not under perfect control.

Gorgeous is the word for Dame Kiri Te Kanawa's singing of Les Nuits d'Été. With a velvety midrange and a free, soaring top, she invests Gautier's wistful and melancholy moods with haunting lyricism. Unlike some of her recorded predecessors (an illustrious list, to be sure), she adheres to the composer's original choice of keys. Daniel Barenboim provides sensitive, deferential orchestral support in the songs and properly incisive support in *Cléopâtre*. *G.J.*

BRAHMS: Handel Variations (see REG-ER)

BRAHMS: Symphony No. 2, in D Major, Op. 73. Los Angeles Philharmonic Orchestra, Carlo Maria Giulini cond. DEUTSCHE GRAMMOPHON • 2532 014 \$12.98, © 3302 014 \$12.98.

Performance: Individual Recording: Good

The "individual" tag above applies mainly to Carlo Maria Guilini's conception of the opening movement of this symphony. Instead of the sunlight with passing clouds suggested by most interpretations of this music, Guilini gives us clouds with patches of sunlight, which is a way of saying that his view is a searchingly romantic one focused on the darker elements. The pacing is relatively flexible. There is a clear distinction in tempo between the opening theme group and the famous lyrical secondary subject. and the "bridge" between the two is unusually intense in utterance and elongated in pace. The same holds for the great solohorn episode that ushers in the reprise of the principal theme. Observance of the repeat adds to the bigness of this reading, which will not be to everyone's taste but is surely thought-provoking.

Guilini's sensitive handling of the poignant slow movement and the orchestra's response in the final pages are for me the highlights of this performance. With the scherzo, *Allegretto grazioso*, the musical atmosphere undergoes a complete change; all is crispness, vitality, and precision, thanks again to marvelous orchestral execution as well as the clarity of the recording. And the high spirits are carried over into the brilliant finale. The sound throughout is very full, though it may seem a bit hard to some ears because of the hall acoustics and a fairly close microphone setup. D.H.

BRAHMS: Variations on a Theme by Paganini, Op. 35; Two Rhapsodies, Op. 79; Three Intermezzos and Rhapsody, Op. 119. François-René Duchâble (piano). MUSICAL HERITAGE SOCIETY MHS 4522 \$7.75 (plus \$1.60 postage and handling charge from the Musical Heritage Society, 14 Park Road, Tinton Falls, N.J. 07724).

Performance: Dramatic Recording: Excellent

A blurb on the jacket of this record advises that François-René Duchâble's ambition is "to accompany singers and to play chamber music," a modest goal, it would appear, for a thirty-year-old who has toured as a soloist since his teens and made several recordings. This one, originally from Erato, shows him as possessed of a prodigious technique and a strong flair for the dramatic. The Op. 79 rhapsodies are really stormy and impassioned here, yet invested with a sense of sweep that keeps them from becoming overweighted or earthbound. The declamation of the rhapsody in Op. 119 is similarly effective, but the intensity may be a bit overdrawn in the intermezzos. Rudolf Serkin is more persuasive in the Op. 119 pieces (CBS M 35177), and Claudio Arrau is incomparably eloquent in the Paganini Variations (Philips 9500 066). But there is solid musicianship underlying the excitement of Duchâble's performances, and the vividness is enhanced by excellent sonics. R.F.

BRIDGE: Piano Quintet; Phantasie Trio in C Minor. Music Group of London. NONE-SUCH 71405 \$5.98, @ 71405-4 \$5.98.

Performance: Forceful Recording: Very good

Eclipsed by his contemporaries Holst, Vaughan Williams, and Delius, and surpassed by his pupil Britten, Frank Bridge (1879-1941) is finally coming into his own. Judging from the Piano Quintet and the Phantasie Trio, both from before World War I, a revival is long overdue. Written in the international musical language of the turn of the century (there is nothing English about it), the music is formally cast on a grand scale and holds one's attention with its power and drama. The Music Group of London delivers splendid performances. Their sound is beautifully balanced, and the long lines of Bridge's music are beautifully sustained. No detail is lost. For anyone unfamiliar with the music of Frank Bridge, this album is a fine place to begin. S.L.

BRITTEN: Scottish Ballad for Two Pianos and Orchestra, Op. 26. MARTINU: Concerto for Two Pianos and Orchestra. Joshua Pierce, Dorothy Jonas (pianos); Luxembourg Radio Symphony Orchestra, Ettore Stratta cond. VARÈSE SARABANDE VCDM 1000.330 \$15.

Performance: Good Recording: Orchestra good

Strange as it seems, both of these unusual works by European composers were written

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Sir Georg Solti

A Superb Bruckner Fourth

S IR GEORG SOLTI's digitally mastered London recording of Anton Bruckner's Fourth, the most approachable of his mature symphonies, has been available in England for well over a year, the performance having been taped in January 1981 in Chicago's renovated Orchestra Hall. The sonics are simply superb, as is the playing by the Chicago Symphony, especially the horn and brass sections.

In general, readings of the Bruckner Fourth tend to be either rugged, like Klemperer's and Max Rudolph's, or ruminatively poetic, like Walter's and Jochum's, with Karajan striking something of a middle ground. Solti here leans toward the rugged, though his slow movement is a marvel of subtle line and exquisitely controlled dynamics. The famous "Hunting" scherzo is every bit as spectacular as one could wish, and the usually problematic finale is unlabored, with tremendous cumulative power in its mighty unison proclamations and exultant final pages. In short, we have here great orchestral playing, splendid sound, and an ideal reading for those listeners who like their Bruckner sinewy but with plenty of bucolic poetry in the right places.

—David Hall

BRUCKNER: Symphony No. 4, in E-flat Major. Chicago Symphony Orchestra, Sir Georg Solti cond. LONDON O LDR 71038 \$12.98, © LDR5 71038 \$12.98.

in the New World, and within a short time of each other. Benjamin Britten's Scottish Ballad was composed in 1941 in California and premiered in Cincinnati; apparently Britten and Clifford Curzon performed for a while as duo-pianists, and this piece was in their repertoire. It was mostly forgotten thereafter, and this appears to be its first recording. It isn't much like the Britten we know and love but is instead a bit of oldfashioned exotica, mildly showy, a little too serious to be much fun.

The Martinů is a much more impressive piece. Bohuslav Martinů had a kind of late flowering in New York City during World War II, and his Two-Piano Concerto, written for the team of Luboschutz and Nemenoff, is a substantial work. It has the composer's characteristic motoric drive but is set in a style of impressive, dramatic restlessness. The tumult of the outer movements is separated by a gorgeous slow movement that is alone worth the revival of the work. Joshua Pierce and Dorothy Jonas, the two American pianists here, are more than equal to its big demands. The orchestra is okay, and the digital sound is excellent except that the soloists should have been given more presence. E.S.

CHERUBINI: Requiem in C Minor. Ambrosian Singers; Philharmonia Orchestra, Riccardo Muti cond. ANGEL O DS-37789 \$12.98, © 4XS-37789 \$12.98.

Performance: Polished and rich Recording: Very good

There is drama in this Requiem by Cherubini—he was, after all, a highly successful opera composer in his time—but it is of an understated kind. It is a beautiful, dignified work, free of showy effects, even austere at times. The sizable orchestra rarely emerges from its supporting role; lower strings frequently double the vocal lines to give them more weight and emphasis. The *Dies Irae* begins with a powerful effect, yet Cherubini refrained from exploring its theatrical possibilities the way Berlioz and Verdi were to do many years later. It is necessary, in fact, to hear this music in its historical context (1815), and not with hindsight, to appreciate Cherubini's originality.

Riccardo Muti and his fine chorus and orchestra provide a most welcome warmth and lyricism. Known for a sometimes excessive vigor in opera, Muti here offers a surprisingly soft-contoured and reverential reading of a work he clearly admires. The inspired *decrescendo* ending of the Requiem, as the chorus intones a repeated C, is executed with great sensitivity. *G.J.*

ELGAR: Symphony No. 2, in E-flat Major, Op. 63. Hallé Orchestra, James Loughran cond. NONESUCH H-71406 \$5.98, © H4-71406 \$5.98.

Performance: Lean and sinewy Recording: Somewhat constricted

The Elgar E-flat Symphony grows on you over the years, especially if you have had the opportunity of living with such first-rate recordings of it as those of Sir Adrian Boult, who has remained a peerless interpreter of this music. The elegiac slow movement and the terrifying scherzo are the high points, but the opening motive, a leaping third and a plunging fifth, together with a sinuously menacing figure incorporating a variant of the *Dies Irae*, provides the aural "handles" that enable one to cope with the sometimes dense textures of the end movements.

I wish I could say that the Hallé Orchestra's James Loughran was an interpretive match for either Boult or Sir George Solti in this work. There is a strong rhythmic drive to this reading, but many of the fine points of accentuation found in Boult's Angel disc (S-37218) are lacking here. I suspect that the real problem is the recording locale, which sounds cramped relative to the spaciousness of that used for the 1976 Boult sessions. The audible frequency spectrum is also less extended; I miss both the bassdrum transients and overtones in the middle movements. In a word, stick with Boult's disc until an equally fine recorded performance, digitally mastered with extended dynamics, can do full justice to this deeply personal work. DH

HÁBA: The Mother. Oldřich Spisar (tenor), Křen; Vlasta Urbanová (soprano), Marusa; others. Prague National Theater Chorus and Orchestra, Jiří Jirouš cond. SUPRA-PHON 1116 3251-2 two discs \$19.96 (from Qualiton Records, Ltd., 39-28 Crescent Street, Long Island City, N.Y. 11101).

Performance: Extraordinary Recording: Good

Quarter-tone music has been the bugaboo of modern composers. If, as Wagner and Schoenberg proved, the black notes could be used just as well as the white ones, then why not the notes in the cracks between? The traditional Western well-tempered system of dividing the octave into twelve equal parts is, after all, an artificial compromise. Why not divide the octave some other way—as is done in various ethnic and non-Western musics?

Easier said than done. Most microtonal music simply sounds out of tune to Western
ears. The problem is not only our poor ears but the ears and technique of singers and instrumentalists brought up on and trained to quite a different way of hearing and making music. The most successful Western microtonal music uses electronic means or new instruments created especially for the purpose.

Alois Hába, however, was limited by the structure of the tradition within which he worked. A Czech composer born in 1893, Hába was the principal pioneer of quartertone music in the European modernism of the earlier part of the century. Although he developed or altered some instruments, he mostly depended on conventional forces and in fact wrote a great deal of music for regulation tunings. His quarter-tone music is mentioned in all the books, but very little of it has ever turned up in the concert hall, opera house, or recording studio. It is, if nothing else, too hard and too ungrateful.

Nevertheless, the Czechs, very aware of their artistic heritage, have kept Hába's music alive. Not only has The Mother appeared on the Czech stage (apparently in quite effective productions), but it was also recorded as far back as 1964. It is that version which has only now become available here, and, whatever its age, it is certainly a remarkable accomplishment.

The Mother is a curious, improbable, and highly flawed piece of work. Hába himself put together its ten little domestic scenes. which, in spite of some modern and even feminist overtones, are undramatic and almost banal. And if I add that the music sounds like a cross between Janáček and Wozzeck, all played and sung peculiarly out of tune, you will probably clap your hands over your ears before the stylus hits the vinyl. The writing is, however, extraordinarily artful and even moving. There is a great deal of the expressionist, endlessly meandering, tragical wailing that pervades so much of the inheritance of Wagner and Mussorgsky-qualities that are exacerbated by the quarter-tone writing and not really characteristic of folk music at all, even in the saddest, most microtonal Eastern European forms. Nevertheless, Hába found some kind of authenticity in this score. The "out of tuneness" seems not an artifice or a mistake but something real and meaningful. Strangely, it works.

I do not expect that The Mother will enter the international repertoire very soon, but I am grateful to have the chance to hear it. Just thinking about the performance problems is enough to give anyone a headache. Better not to think about it-just listen. This realization is far more than a curiosity; it is natural and moving. E.S.

HAYDN: Piano Concerto in D Major (see MOZART)

LISZT/TCHAIKOVSKY: Concerto in the Hungarian Style. LISZT: Hungarian Fantasy. SCHUBERT/LISZT: Wanderer Fantasy. Cyprien Katsaris (piano); Philadelphia Orchestra, Eugene Ormandy cond. ANGEL O DS-37888 \$12.98, © 4ZS-37888 \$12.98.

Performance: Glittering Recording: Excellent

The Concerto in the Hungarian Style, long attributed to Liszt's pupil Sophie Menter

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Vladimir Ashkenazy

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The Chopin Projects

URING the past year, London Records released two more volumes, the seventh and the fifteenth, of the projected fifteen volumes of Vladimir Ashkenazy's monumental series of recordings of virtually all of Chopin's piano music. They are, respectively, the seventh and eighth volumes in order of appearance. As if that weren't complicated enough, the series presents the music in reverse chronological order-except for the études, which happened to be recorded before the others and were released as Volume One. Volume Seven, then, is middle Chopin, Chopin at his height: the most famous sonata and the most famous polonaise as well as the great C-sharp Minor Scherzo and a fistful-should I say handful?-of wonderful mazurkas.

I think Ashkenazy is, with Horowitz, one of the greatest Chopin interpreters today, and I say this in full cognizance that the first movement of the Sonata No. 2 here is highly quirky. I also wish he kept stricter time in one or two of the mazurkas, which are, after all, dances. Nevertheless, anyone who wants to learn something about the soul of this music had better check out these performances. They are moving in a way that reminds us of how fresh, extraordinary, and original this intense music was—and still is.

According to the logic of this series, Volume Fifteen consists of the composer's earliest surviving work, pieces written by Chopin between the ages of eight and sixteen. He was almost as precocious as Mozart and Mendelssohn. Not that all these pieces are masterpieces, far from it. But the Écossaises, a couple of the polonaises (those in D Minor and G-sharp Minor), and, above all, the two rondos have long been accepted into the Chopin canon by pianists who are probably not aware that they are playing music by a very young composer.

Ashkenazy takes this early music quite seriously. These lively, sensitive readings culminating in a delicate and luminous performance of the *Rondeau* à la Mazurka evoke the spirit of the early Romantic-period salons that were to be Chopin's home all his life. Every trait of his mature music except harmonic originality and emotional depth is to be found here. Beautiful piano sound, exquisite playing. —*Eric Salzman* CHOPIN: Sonata No. 2, in B-flat Minor, Op. 35; Scherzo No. 3, in C-sharp Minor, Op. 39; Mazurkas Nos. 26-29, Op. 41, Nos. 1-4; Polonaise No. 3, in A Major, and Polonaise No. 4, in C Minor, Op. 40, Nos. 1 and 2. Vladimir Ashkenazy (piano). LON-DON CS 7235 \$10.98, © CS5 7235 \$10.98.

CHOPIN: Variations sur un Air National Allemand, Op. Posth.; Rondo in C Minor, Op. 1; Trois Écossaises, Op. 72, No. 3; Rondeau à la Mazurka, Op. 5. Polonaises: D Minor, Op. 71, No. 1; G Minor, Op. Posth.; A-flat Major, Op. Posth.; B-flat Major, Op. Posth.; G-sharp Minor, Op. Posth.; B-flat Minor, Op. Posth. Vladimir Ashkenazy (piano). LONDON CS 7210 \$10.98, © CSS 7210 \$10.98.

N an age accustomed to the convenience of the complete waltzes, the complete nocturnes, etc., Peter Serkin has been recording Chopin collections offering the contrasts and balances more likely found in actual recital programs. His latest on RCA is the third, and it seems to me another winner. I can understand how Serkin's approach to Chopin might not be everyone's cup of tea, how those with firm traditional leanings or stereotyped notions might not respond to it. There is little of the candlelight-and-filigree aura: the music sounds mellow, mature, sane-and more than a little Schubertian here and there. That is not to suggest that Serkin has imposed the style of one composer on the music of another. but rather that his performances show how much the two have in common, most notably a credible intimacy based on solid substance and straightforward directness. There are no sweeping gestures here, but there is no conspicuous understatement either. It is all extremely musical, well balanced, and persuasive. Excellent sound and stimulating annotation. -Richard Freed

CHOPIN: Three Mazurkas, Op. 59; Impromptu No. 1, in A-flat Major, Op. 20; Ballade No. 3, in A-flat Major, Op. 47; Nocturne in E-flat Major, Op. 55, No. 2; Andante Spianato and Grande Polonaise in Eflat Major, Op. 22. Peter Serkin (piano). RCA © ARC1-4356 \$12.98, © ARE1-4356 \$12.98. and orchestrated for her by Tchaikovsky in 1893, is billed here as "a 'lost' concerto by Liszt," and the story of how it was determined that Liszt himself composed it is told in detail on the jacket of the disc. Intriguing background stories, however, do not a masterpiece make. Following the standard lassu-friss pattern with pianistic glitter galore as a kind of gingerbread decoration, this one-movement piece falls decidedly into the "entertainment potboiler" category-good fun for fans of virtuoso pianism. The Hungarian Fantasy, a piano-and-orchestra expansion of the Hungarian Rhapsody No. 14, offers slightly more musical substance. In any event, the young pianistic fireball Cyprien Katsaris has everything in his fleet fingers to toss this stuff off with the greatest of ease, and he gets fine assistance from Eugene Ormandy and the Philadelphia Orchestra.

There is more substantial musical fare still on the other side of the disc in Liszt's effective concerted treatment of the Schubert Wanderer Fantasy. Katsaris's piano entry seems a bit subdued after Ormandy's aggressive orchestral introduction, but by the time they reach the beautiful variations on Schubert's Der Wanderer, the music making is of the first order. The finale, with its virile fugue, is carried off with splendid panache.

The piano played here by Katsaris is an instrument developed and hand-made by Mark Allen of Portland, Oregon. The sonics throughout are fully adequate to the demands of the music and the undoubted virtuosity of the solo pianist. D.H.

MARTINŮ: Concerto for Two Pianos and Orchestra (see BRITTEN)

RECORDING OF SPECIAL MERIT

MOZART: Piano Concerto No. 32, in A Major (K. 488). HAYDN: Piano Concerto in D Major (Hob. XVIII/11). Steven Lubin (fortepiano); Mozartian Players, Ransom Wilson cond. ARABESQUE © 6510 \$9.98, © 7510 \$9.98.

Performance: A revelation Recording: Bright

In most performances of the Mozart piano concertos, the modern instrument overwhelms the detailed orchestral writing with its sheer volume and lush tone. If a fortepiano is used, the modern orchestra, no matter how scaled down, covers the pianist's figurations. This recording at last offers the perfect solution, a fortepiano with a chamber orchestra of period instruments. It is revelatory. The orchestral balance is superb: the contrast between the woodwinds and strings is striking, and when the full band is playing every part is clearly heard. When the fortepiano joins in, the sonority is ravishing; the delicate balance is maintained, and not a note is lost.

Steven Lubin, a fine musician who knows both how to turn a phrase and how to pace a large-scale work, stresses the lyrical aspects of the music. While this is fine for most of the Mozart concerto, there are many passages written for brilliance alone that suffer from a lack of it. The performance here would have sparkled more if Lubin had applied some of the brilliance he reserves for the cadenzas to the main body of the con-



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certo. But the lyric moments and pathos of the slow movement certainly compensate for this in their sensuousness.

The Haydn D Major Concerto, all too often rendered silly in student performances, here takes on spacious dimensions and depths of feeling that force one to take it seriously. (It is too bad, however, that Lubin strays so far from the Haydn style in his cadenzas.) Ransom Wilson deserves great credit for his strong contribution. S.L.

MOZART: The Marriage of Figuro (see Best of the Month, page 61)

RAVEL: Boléro; Alborada del Gracioso; Rapsodie Espagnole; La Valse. Montreal Symphony Orchestra, Charles Dutoit cond. LONDON O LDR 71059 \$12.98, © LDR5 71059 \$12.98.

Performance: Classy Recording: Mostly very good

RAVEL: Boléro; TCHAIKOVSKY: 1812 Overture, Op. 49. Melbourne Symphony Orchestra, José Serebrier cond. TIOCH O TD 1001 \$8.98.

Performance: Routine Recording: On the blowsy side

Charles Dutoit is one of the most brilliant young stylists around when it comes to the French repertoire, and his new Ravel performances have somewhat more atmo-

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do Mata in his 1980 RCA sonic spectacular (ATC1-4096). This may be due in part to the more reverberant recording locale used for the Montreal Symphony recording, a factor that works especially to the advantage of the highly atmospheric *Rapsodie Espagnole*, with its fascinating mix of timbres at the beginning, as well as the early pages of *Boléro*. The latter work is taken at an even more measured pace than Mata's, enhancing its ritualistic aura. The London recording captures the snare-drum overtones remarkably well.

sphere and refinement than those of Eduar-

It is most fascinating to compare Dutoit with Mata in the Alborada del Gracioso. Excellent though Dutoit's reading is, the reverberant locale tends to dilute the allimportant plectral sonorities at the start. There can be no question that for sonic impact, Mata and RCA win hands down in this piece and in Boléro. Moreover, while it is good to have a digital La Valse, I would opt for less reverberant sound. The ambience is fine in the opening pages, and the rhythmic Ur-pulse that marks the opening comes across superby, but the last pages sound muddied.

Routine performance and an excessively reverberant locale work to the disadvantage of the Tioch digital recording of *Boléro* and the Tchaikovsky 1812. José Serebrier is a gifted and conscientious conductor, and he deserves better than having to compete with his more celebrated colleagues in standard repertoire with a less than internationalclass orchestra. *D.H.*

RECORDING OF SPECIAL MERIT

REGER: Variations and Fugue on a Theme by Telemann. BRAHMS: Variations and Fugue on a Theme by Handel. Jorge Bolet (piano). LONDON CS 7197 \$10.98.

Performance: Brilliant but serious Recording: Very good

Max Reger's Telemann Variations and Fugue are fun—monumental fun, to be sure, but fun nonetheless, at least the way Jorge Bolet plays them. There's no intellectual breast- or bush-beating here. Bolet plays Reger as if he were Hummel or Moscheles, and I'd almost say he plays the Brahms that way too, except that you might get the idea that he isn't serious. These *are* serious performances of tremendous stature, and the virtuosity displayed is not really showy but just what is needed and no more.

Being serious doesn't mean you can't be lighthearted, lyrical, glittering, heartbreaking, or even a bit flamboyant (where required). Bolet is all of that, which makes for a strong and varied performance of the Brahms and puts the Reger right up there in the big time. The music is never a strain to listen to and, in fact, doesn't even sound all that difficult. Don't be fooled. Bolet makes it sound easy so he can concentrate on the business at hand, which is making music. And he tends to that business very well indeed. E.S.

SCHUBERT/LISZT: Wanderer Fantasy (see LISZT)

R. STRAUSS: Death and Transfiguration, Op. 24; Don Juan, Op. 20. Salomé: Dance of the Seven Veils. Dallas Symphony Orchestra, Eduardo Mata cond. RCA **O** ARC1-4353 \$12.98, © ARK1-4353 \$12.98.

Performance: Efficient to brilliant Recording: Very fine

As is clear from his series of digitally mastered Ravel recordings for RCA, Eduardo Mata has made the Dallas Symphony into a highly proficient, often brilliant ensemble. The performances here of the two familiar Richard Strauss tone poems are generally excellent, but they do not really surpass the recordings of Szell, Kempe, and Reiner. Mata truly responds, though, to the dazzling colorations of Salomé's dance, and the result is as outstanding musically as it is sonically. D.H.

STRAVINSKY: Petroushka; Three Pieces for String Quartet. Paul Jacobs, Ursula Oppens (piano four hands). NONESUCH O D-79038 \$11.98, © D4-79038 \$11.98.

Performance: Scintillating Recording: Bright

The main item on this disc is not the Three Movements from Petroushka that Stravinsky created as a solo work for Arthur Rubinstein, but the entire ballet in a four-hand reduction by the composer. Paul Jacobs, in his annotation, asks the obvious question: ... why a recording of a work so indelibly imprinted on the public's mind as a riot of orchestral color in a monochromatic piano transcription?" I'm not sure his written answer to that question is all that convincing, but his scintillating performance with Ursula Oppens simply demolishes skepticism. The familiar orchestral colors are so effectively evoked that one wonders whether it is just because we are so familiar with Petroushka that hearing the music in any medium would put those colors in the mind's ear or because the coloring exists independent of the medium. (The piano is not quite the only sound heard: Oppens, playing secondo, is called upon to strike a triangle and drop a tambourine during the performance.) An entire psychoacoustical congress might be devoted to exploring these possibilities. The point, however, is that this is a surprisingly rich listening experience.

Stravinsky's own arrangement of the Three Pieces for String Quartet comes off less convincingly, probably because *Petroushka* was conceived at the piano in pianistic terms, while the Three Pieces, though also composed at the piano, were surely conceived in terms of string sonorities. Still, it's an appropriate enough filler, and the sound is big and bright. *R.F.*

TCHAIKOVSKY: 1812 Overture (see RA-VEL)

TELEMANN: Trio Sonata in E Minor (see C. P. E. BACH)

ZEMLINSKY: Lyric Symphony. Julia Varady (soprano); Dietrich Fischer-Dieskau (baritone); Berlin Philharmonic, Lorin Maazel cond. DEUTSCHE GRAMMOPHON **1** 2532 021 \$12.98.

Performance: Unpolished but powerful Recording: Excellent

Alexander Zemlinsky is a name in the history books: disciple of Mahler, Schoenberg's father-in-law and principal teacher, an important conductor and leading figure of the Second Viennese School, composer of a number of major works, including this Lyric Symphony, which inspired (and is quoted in) Berg's Lyric Suite. Like so many others of his generation, Zemlinsky was a refugee from the Nazis; he died, virtually forgotten by the world, in this country in 1942.

Now the once-famous Lyric Symphony has been revived by, of all people, an American conductor named Lorin Maazel. It turns out to be "lyric" in a literal sense: it is a cycle of love poems by Rabindranath Tagore set for baritone and soprano in an intricate and varied symphonic web—something in the line of Das Lied von der Erde and Schoenberg's Gurrelieder. Written in 1922, it uses every technique of the post-Wagnerian period from exoticism and Mahleriana right up to the edge of Schoenbergian atonal expressionism, the whole put together with tremendous technique, artistic integrity, intensity of feeling and thought, and a great deal of imagination. If all these virtues, as well as largeness of purpose, were enough, this would be one of the great masterpieces of the century. As it is, it comes close. Alas, Zemlinsky overreached himself, and the work does not quite achieve that sense of individuality and unity out of diversity that one finds in, say, Mahler or early Schoenberg. Yet the Lyric





Jean Martinon

The DG Collector's Series

W^{ITH a successful mid-price reissue se-ries (originally called "Privilege,"} subsequently renamed "Resonance") already in circulation, Deutsche Grammophon has now introduced another series of reissues costing only a dollar less than its full-price line. The point of the new "Collector's Series" is the restoration of "rarely recorded repertoire," exemplified by the only recording ever issued of Hindemith's opera Cardillac and apparently the only one of Liszt's Hungarian Coronation Mass. This is the sort of material that is notoriously short-lived in the active catalog because it never sells as well as another Scheherazade or Pathétique or Beethoven symphony cycle, and it is always heartening to see a record company bring rare titles back into circulation under its own initiative.

The new series is not a "historical" project: all the recordings are stereophonic, those in the initial release spanning the period from 1960 to 1973. The earliest item is lgor Markevitch's sensitive and brilliant performance of the Suite No. 2 from Roussel's ballet Bacchus et Ariane. Jean Martinon's French recording of both Bacchus suites is still current, but no other recording of this stunning counterpart to Ravel's Daphnis et Chloé is listed in the current Schwann. DG's coupling is a side drawn from two other discs: Satie's Parade and Milhaud's Carnaval d'Aix in handsome performances under Louis Frémaux, with Claude Helffer as piano soloist in the Milhaud. Both titles are available elsewhere, but these versions are quite competitive.

All the other items are rereleases of the originals. Most of the music is of twentiethcentury origin (even the one piece by Saint-Saëns was composed as late as 1919), and much of it is French. All the cover art is new, however, and there is new annotation as well. Hindemith is the only German composer represented. It is good to have his *Cardillac* available again; it is an intriguing work, and both the performance and the recording do it honor. While there is a very helpful new essay by Dieter Rexroth, no libretto is provided, an unacceptable omission in the case of so totally unfamiliar a work—or, for that matter, any opera recording selling at ten dollars a disc.

Perhaps the most valuable single release is the disc pairing the Piano Concerto and Violin Concerto of Arnold Schoenberg, the only current versions of each of these works. Zvi Zeitlin has been the Violin Concerto's most conspicuous champion in the last twenty years; it was fitting that this work should be his first recording. Alfred Brendel recorded the Piano Concerto earlier on Vox, but his remake for DG has the advantage of a superior orchestral contribution under Rafael Kubelik as well as superior sound.

The Hungarian Coronation Mass is probably the most immediately attractive of all of Liszt's sacred works. It has the characteristic excitement and sweep of his symphonic poens and more than a touch of patriotic fervor. János Ferencsik and his associates give it a powerful and convincing performance, and the 1961 recording hardly shows its age. This could, I suspect, be a "sleeper" in its second lease on life.

Not one of Honegger's symphonies was listed in Schwann at the time Herbert von Karajan's impressive coupling of Nos. 2 and 3 was restored in the Collector's Series, though these two and No. 5 may still be available in Serge Baudo's performances with the Czech Philharmonic on Supraphon imports. Personally, 1 prefer Baudo's readings, which strike me as more idiomatic, but there is no denying the intensity of Karajan's approach, the brilliance of his Berliners' playing, or the richer sound of DG's more recent recording (1973). These highpowered presentations are probably just what this music needs to get it enough attention to enter the so-called standard repertoire.

Claudio Abbado's similarly brilliant Berg package is almost as welcome as Karajan's Honegger. Although all the titles are available elsewhere, I don't think the Three Pieces or the *Altenberg Lieder* have been done by anyone else as compellingly as they are here—and what a handy alternative to Boulez's CBS recording of the same two works. Jean Martinon's Lalo collection may be the least adventurous item in this release, but it offers gorgeous accounts of each of the three scores, reflecting the conductor's genuine affection for the music.

Of the concerted pieces for harp played by Nicanor Zabaleta, with Martinon again conducting, the Saint-Saëns is the only one otherwise available, and that only in an arrangement in which the orchestra is replaced by a second harp. All three pieces are worthwhile, the Ginastera most of all perhaps, but Germaine Tailleferre's Concertino is a gem also—too bad it is here the victim of one of those unfortunate "sandwich" arrangements. —*Richard Freed*

BERG: Lulu, Suite; Three Pieces for Orchestra, Op. 6; Altenberg Lieder, Op. 4. Margaret Price (soprano, in Lulu and songs); London Symphony Orchestra, Claudio Abbado cond. DG COLLECTOR'S SERIES 2543 804 \$9.98.

GINASTERA: Harp Concerto. SAINT-SAENS: Morceau de Concert in G Major, Op. 154. TAILLEFERRE: Concertino for Harp and Orchestra. Nicanor Zabaleta (harp); Orchestre National de l'ORTF, Jean Martinon cond. DG COLLECTOR'S SE-RIES 2543 806 \$9.98.

HINDEMITH: Cardillac, Op. 39. Dietrich Fischer-Dieskau (baritone), Cardillac; Leonore Kirschstein (soprano), Daughter; Elisabeth Söderström (soprano), Lady; Donald Grobe (tenor), Officer; Karl Christian Kohn (bass), Gold Dealer; Eberhard Katz (tenor), Cavalier; Willi Nett (baritone), Chief of Police. Cologne Radio Chorus; Cologne Radio Symphony Orchestra, Joseph Keilberth cond. DG COLLECTOR'S SERIES 2721 246 two discs \$19.96.

HONEGGER: Symphony No. 2; Symphonie Liturgique (No. 3). Berlin Philharmonic Orchestra, Herbert von Karajan cond. DG COLLECTOR'S SERIES 2543 805 \$9.98.

LALO: Namouna, Suites Nos. 1 and 2; Valse de la Cigarette; Rapsodie Norvégienne. Orchestre National de l'ORTF, Jean Martinon cond. DG COLLECTOR'S SERIES 2543 803 \$9.98.

LISZT: Hungarian Coronation Mass. 1rén Szecsödy (soprano); Magda Tiszay (alto); József Simándi (tenor); András Faragó (bass): Chorus and Orchestra of the Coronation Church, Budapest, János Ferencsik cond. DG COLLECTOR'S SERIES 2543 802 \$9.98.

ROUSSEL: Bacchus et Ariane, Suite No. 2. Lamoureux Orchestra, Igor Markevitch cond. SATIE: Parade. MILHAUD: Le Carnaval d'Aix. Claude Helffer (piano, in Milhaud); Monte Carlo National Opera Orchestra, Louis Frémaux cond. DG COLLEC-TOR'S SERIES 2543 807 \$9.98.

SCHOENBERG: Violin Concerto, Op. 36; Piano Concerto, Op. 42. Zvi Zeitlin (violin); Alfred Brendel (piano); Bavarian Radio Symphony Orchestra, Rafael Kubelik cond. DG COLLECTOR'S SERIES 2543 801 \$9.98. Symphony is not merely admirable but enjoyable to listen to.

The vocal performances here are both superb, and Maazel's conducting is impressive. The orchestral playing of this difficult and unfamiliar score is somewhat less than polished—as is only too well revealed by the excellent digital recording—but the sense and shape of the work come through powerfully. Here is a forgotten major work that must be put near the top of the post-Romantic charts. E.S.

COLLECTIONS

PLACIDO DOMINGO: Viva Domingo. Verdi: Rigoletto: Questa o quella; La donna è mobile; Quartet (with Ileana Cotrubas, Elena Obraztsova, and Piero Cappuccilli). La Traviata: Libiamo ne' lieti calici (with Ileana Cotrubas); De' miei bollenti spiriti. Macbeth: Ah, la paterna mano. Massenet: Werther: O nature pleine de grâce. Bizet: Carmen: Flower Song. Puccini: La Fanciulla del West: Ch'ella mi creda. Wagner: Die Meistersinger: Morgenlich leuchtend (with Catarina Ligendza, Dietrich Fischer-Dieskau, and Peter Lagger). Lara: Granada. Placido Domingo (tenor); various orchestras and conductors. DEUTSCHE GRAMMO-PHON 2531 369 \$10.98, @ 3301 369 \$10.98

Performance: Vital Recording: Good

How can you go wrong with a record like this? The selections are sure-fire hits, the recorded sound is sumptuous, and Placido Domingo is an exciting artist. Some of the arias here (Werther, Carmen, Macbeth) show him at his very best, some (La Traviata) below his usual form, but nowhere is he anything but first-class, and surely no other tenor today can match his wide-ranging command of the literature.

All of these arias are excerpted from complete recordings, and at times the editing shows. This particular collection seems to have been put together with the tenor's TV fans, not seasoned operagoers, in mind. How else can one explain a sequence in which two French opera excerpts separate the selections from *Rigoletto* and, to heighten the absurdity, the Quartet and "La donna è mobile" are placed in reverse order? To guarantee the satisfaction of that public, a supercharged Granada has been added with deafening sound. *G.J.*

MICHAEL MURRAY: Encores à la Française. L. Couperin: Chaconne in G Minor. Dupré: Carillon, Op. 27, No. 4; Musette, Op. 51. Gigout: Scherzo. Franck: Pièce Héroïque. Widor: Symphony No. 5: Toccata. J. S. Bach: Cantata No. 29: Sinfonia. Vierne: Symphony No 1: Finale. Lemmens: Fanfare. Michael Murray (organ). TELARC © DG-11069 \$14.95.

Performance: Showy Recording: Sumptuous

Michael Murray makes no bones about the purpose of this album: to display the glories of the "wondrous machine" built by the Aeolian-Skinner Organ Company in 1949-1950 under the direction of G. Donald Harrison and housed in Boston's Symphony Hall. And what could show it off better than the colorful brilliance of nineteenthcentury French organ music? Using every stop and combination thereof (and the variety is staggering), Murray wallows joyfully in the chestnuts of the period. This record is a lot of fun. S.L.

RECORDING OF SPECIAL MERIT

JESSYE NORMAN: Sacred Songs. Gounod: Saint Cecilia Mass: Sanctus. O Divine Redeemer. Schubert: Ave Maria. Franck: Panis Angelicus. Adams: The Holy City. MacGimsey: Sweet Little Jesus Boy. Yon: Gesù Bambino. Trad.: Amazing Grace; Let Us Break Bread Together; I Wonder as I Wander; Greensleeves. Jessye Norman (soprano); Ambrosian Singers; Christopher Bowers-Broadbent (organ); Royal Philharmonic Orchestra, Sir Alexander Gibson cond. PHILIPS **0** 6514 151 \$12.98, © 7337 151 \$12.98.

Performance: Lustrous-sounding Recording: Excellent

Although these titles are certainly well known, the selections are not easily found on records and hardly ever in such settings. Jessye Norman brings to them unfailing beauty of tone and true emotional involvement. There are a few tiny lapses in pitch, but, surprisingly, the unaccompanied Sweet Little Jesus Boy is flawless in this respect. The choral and orchestral arrangements are tasteful, the recording sumptuous. G.J.



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Popular Music

News Briefs



ACCORDING to an apparently true story, John Cougar, the American rocker who has been described as "the Yahoo Bruce Springsteen," was halfway through a concert near San Francisco recently when he felt something hit him. The projectile turned out to be an old leather jacket with the insignia of a motorcycle gang on the back. Cougar took it backstage with him after the show and found a note in the pocket that read, "I was fired from my job today and wrecked my Harley on the way home. It's been one of the worst days of

my life. I want you to have this jacket because you're the first person I could believe in since the crash."

Moved and curious, Cougar asked a roadie to seek out the note's author and soon found himself face to face with a sixand-a-half-foot biker. "What did you mean by 'the crash'?" asked Cougar. Replied the biker, "You're the first person who's been able to make me happy since Ronnie Van Zant and Lynyrd Skynyrd went down in their plane." Cougar says that the jacket will be on his next album cover. S.S. self more than respectably in the slot once occupied by the inimitable Keith Moon). And there was not a rote moment in the entire evening, which is fairly astonishing when you consider they've been performing some of these tunes for nearly twenty years. In terms of energy and commitment, they're still a match for any band in the world, including their heirs apparent, the Clash, who opened for them.

But recent material made up the bulk of the show, and, to put it bluntly, the new songs stopped things cold. It was sad to see what was once "The World's Most Fabulous Group" (their own, deserved, billing) so obviously past their creative prime. Oddly, the band only really caught fire during the encore, which included a classic demolition job on the Beatles' I Saw Her Standing There. For a few brief moments, while they flailed away as if possessed, they sounded as they must have at the Marquee Club during the heyday of Mod, and they were simply thrilling. Mostly, though, the 1982 Who concert was a triumph of professionalism rather than inspiration. I had a good time, but the nearly 100,000 kids who filled the stadium were considerably more enthusiastic. 1 prefer my memories. S.S.

HOSE of you familiar with the clean-cut John Boy of TV's The Waltons may have some difficulty recognizing that role's creator, actor Richard Thomas, in the bearded. bespectacled character pictured below. Thomas portrays country music star Hank Williams, Jr., in the made-for-TV film Living Proof. Based on the Williams autobiography with the same title, the movie depicts the chaotic life of the famous son of the legendary Hank Williams.

Included is the incident that turned the younger Williams's life around, a near-fatal fall from a mountain in 1975 that broke the bones in his head and destroyed his face. The singer is now rehabilitated and more successful than ever, with ten albums on the country charts simultaneously in 1982 and his latest, "High Notes" (Elektra/Curb El-60100), topping them all at this writing.

And who provides the vocals for *Living Proof*? Thomas himself gamely tackles some of the early Williams material, and rumor has it he does a fairly credible job. Williams provides the more substantial later vocals for Thomas's lip-synched performance scenes. Thomas also acted as executive producer for *Living Proof*, which will be aired on NBC in February. *P.W.*

Richard Thomas (left) and Hank Williams, Jr. (right)



WELL, I'm not a Mets fan, so I hadn't been to New York's Shea Stadium since 1967, when I took in The Batman Show (featuring Adam West) and the Young Rascals. But on a rainy night last fall, I traveled out to the Queens arena to catch the farewell appearance of English rock legends The Who. Talk about mixed emotions. Now, understand, this band has meant a great deal to me over the years. I have all the original Decca singles and all the bootlegs, I have sat

through The Kids Are Alright more times than 1 can count, and 1 have seen the group at least once on every tour they've done since their 1966 American debut at a Murray the K. Christmas show.

As much as it pains me to admit it, though, on the basis of what I saw this time I think they are wise to pack it in. Oh, they were never less than excellent. One of the eternal surprises of every Who show is just how brilliantly they play and perform (Kenney Jones, for the record, acquitted himAFTER the Go-Go's had two platinum albums of songs they wrote ("Beauty and the Beat" was the first album by an all-girl band ever to hit No. 1 on the charts) and a couple of hit singles, you'd think that other singers would be battering down their doors for material. But that is not the case. Two conspicuous exceptions have been, not surprisingly, other female rockers.

Bette Midler, of all people, requested a song from Go-Go's guitarist Charlotte Caffey and recently dropped in on her at home, where she found Charlotte at work in front of a four-track tape recorder. "So this is where it all happens," said Bette. "Actually, it doesn't," replied Charlotte, who confessed that she wrote the melody for the song carmarked for Bette "in a deli."

Go-Go's bassist Kathy Valentine, meanwhile, has been songwriting in her spare time with country-punk singer Carlene Carter (a.k.a. Mrs. Nick Lowe). "We send tapes back and forth from L.A. to London," said Kathy. Carlene has been working on demos of the collaboration with former David Bowie producer Tony Visconti for probable inclusion on her next album. S.S. SAY what you will about the music of A&M Records' multi-platinum artists Supertramp, their albums have always been state-of-the-art sonic showpieces. So it isn't a big surprise (to me, at least) that their forthcoming eighth "Famous Last album, Words," is due to be released, simultaneously with the disc, on a BASF chromium-dioxide cassette. But the list price of the high-grade tape will be the same price as the disc, \$8.98, which is an industry first in this country. The rationale behind this unusual move is not hard to figure out: economics. According to A&M president Gil Friesen. "If a consumer can buy a high-quality prerecorded tape at no additional cost, he'll have one less reason to tape at home." And, adds the group's John Helliwel, "By raising the quality of our own cassettes, we can also help raise industry awareness of the benefits of better prerecorded tapes." As a consumer who has been burned-recently-by some prerecorded cassettes that sound as if they were duplicated on a waffle iron, I can only add: it's about time somebody did something. Dare we anticipate a trend in the making? 2.2.



HATS ARE BACK DEPARI-MENT: New Wave singer Lene Lovich sports what looks like the latest in fashion, a hat designed to hide your Sony Walkman earphones and provide a place to hang your umbrella as well. Actually, Lene is costumed here for her star-

ring role in the "operini" Mata Hari, which ran at the Lyric Studio in London late in 1982. Lovich's latest album is "No Man's Land" on Stiff/ Epic, and it features her playing trumpet and saxophones as well as providing those eerie vocals. P.W.

Disc and Tape Reviews

By CHRIS ALBERTSON • NOEL COPPAGE • PHYL GARLAND • MARK PEEL PETER REILLY • STEVE SIMELS • JOEL VANCE

RECORDING OF SPECIAL MERIT

ABC: The Lexicon of Love. ABC (vocals and instrumentals); other musicians. Show Me; Poison Arrow; Many Happy Returns; Valentine's Day; Date Stamp; All of My Heart; and four others. MERCURY SRM-1-4059 \$8.98, © MCR4-1-4059 \$8.98.

Performance: A labor of love Recording: Lovingly engineered

What do you do after the candlelit dinner at Lutèce, the Teuscher chocolates, the long-

Explanation of symbols:

- (B) = eight-track stereo cartridge
- $\odot = stereo \ cassette$
- = digital-master recording
- CA-encoucu

Monophonic recordings are indicated by the symbol \bigotimes

The first listing is the one reviewed; other formats, if available, follow it. stemmed American Beauties, and the night spent dancing 'til dawn at Regine's finds you alone out on the sidewalk? Slunk miserably at the curb in your tails with nothing to show but flat feet, a flat wallet, and a hangover? Well, you could go home, pour yourself a drink, light up a Gitane, and put on "The Lexicon of Love." At least you'd have company.

The latest romantic export from Britain is a sophisticate's tour of *haut* heartbreak complete with poison-tipped arrows from Cupid's bow, goodbyes by streetlamp in the rain, and a hundred unanswered questions. ABC's lavish brand of pop-soul carries all the hallmarks of the current British movement: a stroboscopic disco beat, twangy, high-strung bass, chunking, tinny rhythm guitar, and staccato brass. To this familiar recipe ABC adds several twists of its owndramatic strings, occasional *Baby-Love* back-up vocals, and some dazzling wordplay that really *is* a lexicon of love.

The verbal pyrotechnics are delivered by the group's leader. Martin Fry, a self-admitted dilettante (are all British bands led by non-musicians these days, or am I imagining things?) with an unerring instinct for the grand gesture, the big entrance, the bottomless sigh. It's a style that owes more to Donna Summer than to Motown, really. For all its facile wit and lush, sensual arrangements, ABC is hard to identify with. Hard for me, anyway. Their message is for those who see the tragic face of romance in spilled champagne and a long, lonely limousine ride. Those of us who've found it's more like being up to your elbows in dishwater while your loved one sits with a six-pack watching *Family Feud* will have to look elsewhere for consolation. *M.P.*

THE BOOMTOWN RATS: V Deep. The Boomtown Rats (vocals and instrumentals); other musicians. Never in a Million Years; The Bitter End: Talking in Code; He Watches It All; A Storm Breaks; Charmed Lives; and five others. COLUMBIA FC 38195. © FCT 38195, no list price.

Performance: Overdressed

Recording: Showy

Hot air rises, my elementary-school science teacher always assured me, and, that being the case, I'm a bit surprised this record didn't float off my turntable. Which is a

Marshall Chapman: Grown-Up Rock

COLK artist Artie Traum says Rounder records are made of compressed bean sprouts and tofu. Don't know about that, but the music on them does seem more organic than that on the major labels, and moving to Rounder for "Take It On Home" seems to have improved Marshall Chapman's taste. It's her first album where she gets on with making music rather than trying to prove something extramusical-for instance, that she's a hard rocker, that she has a right to sing the blues, etc. Here she just does it, and she does it, as McCartney says, "good." The thing rocks, when it rocks, with a spontaneity that wasn't there before, and it provides a calm enough environment for nuance when that is what is called for

Chapman is also both more playful and more contemplative in her writing and singing here than she was in the past. She sings with a minimum of inhibitions, but this time it doesn't seem like an act. She also seems more emotionally committed to her songs than in previous performances.

And the material is uniformly good. The songs neither try for earth-shattering revelations nor exhort us to forget everything and boogie our lives away. They deal with

smarty-pants way of saying that "V Deep," the latest bit of overproduced piffle from the once entertaining Boomtown Rats, is as flimsy in content as anything I've heard in the Eighties (admittedly not exactly the Golden Age of Pop Music). There's a little bit of almost everything here—cabaret blues, pseudo-Spector Wall of Sound, dub reggae, psychedelic surf music—but the dominant style is a glitzy appropriation of Talking Heads' recent Africanisms, and none of it suggests that the Rats have anything on their minds beyond appearing trendy. It's sad; once these guys were a terrific



moods, feelings, pleasures, and problems that people actually have: how everyone is busy when you're down and out, how a guitar can sometimes seem like your best friend, the frustration of dealing with a heavy boozer, even-although Chapman wouldn't phrase it this way-the essential aloneness of the individual. And each piece is arranged according to its own needs (Guitar Song, for example, is mainly acoustic), which not only allows for more variety and texture than we're used to but makes for a curiously-and welcome-adult approach to rock. They say growing up gracefully is hard to do, but Marshall Chapman does some of it here before our very ears.

-Noel Coppage

MARSHALL CHAPMAN: Take It On Home. Marshall Chapman (vocals, guitar); Kyle Tullis (bass); Billy West (drums); Fred Williamson Jr. (guitar); other musicians. Bizzy Bizzy Bizzy; Take It Like a Man; The Island Song; The Perfect Partner; Booze in Your Blood; Pick Up the Tempo; Midnight Chauffeur; To Be Alone with You; The Girl Can't Stand to Lose; Guitar Song. ROUNDER 3069 \$8.98, © C 3069 \$8.98.

r-&-b pop band. Haunt the bargain bins for their first two albums. S.S.

PAUL BRADY: Hard Station. Paul Brady (vocals, guitar, keyboards, percussion); instrumental accompaniment. Busted Loose; Night Hunting Time; Hard Station; Crazy Dreams; and four others. 21 RECORDS T1-1-9001 \$8.98, © CT-1-9001 \$8.98.

Performance: **Promising** Recording: **Good**

This Irish-made album adds materially to my hope that we are actually seeing the return of the songwriter who contemplates something besides his own glands. American and Canadian folkies and neo-folkies have already shown that it's possible, and Paul Brady applies an updated soft-rock format to observations on other parts of himself and the outside world. He writes pretty well too, although at this point his writing, singing, and back-up all seem to carry a synthesis of influences that may be a little too apparent. Jackson Browne and Bruce Cockburn can be heard in his writing, Van Morrison in his phrasing, and Al Stewart in his instrumentation.

Still, there's a fair amount of originality here, particularly in the song Nothing But the Same Old Story, an impressionistic but powerful treatment of the way an Irishman feels about going to work in London. Brady's lyrics not only deal with real subjects but are well constructed and set to real tunes. Give his style a little more time to jell, and we may have something. Give us a few more troubadours with his attitude and native ability, and we may yet turn the Eighties around. N.C.

ED BRUCE: I Write It Down. Ed Bruce (vocals); James Garner (vocal, on Bret Maverick); instrumental accompaniment. My First Taste of Texas; Ever, Never Lovin' You; Somebody's Crying; The Songwriter (I Write It Down); Mamas, Don't Let Your Babies Grow Up to Be Cowboys; Theme from "Bret Maverick"; and four others. MCA MCA-5323 \$7.98, © MCAC-5323 \$7.98.

Performance: His best yet Recording: Good

Ed Bruce is almost as good as James Garner (*Bret Maverick*) says he is. Bruce is not a terribly original songwriter, but he is a good, steady one, and he has a baritone that can rattle your loose change. With the blow-dried boys working country music over left and right, it's nice to have a guy who's craggy and understands the value of simplicity. He builds real—though not very new-sounding—tunes, and his words deal with real things. If you aren't bothered by a tempo that doesn't change much from song to song, you'll like this warm, richly textured album. N.C.

GEORGE BURNS: Young at Heart. George Burns (vocals); vocal and instrumental accompaniment. Young at Heart; Kids; As Time Goes By; The Old Fashioned Way; You're Nobody 'Til Somebody Loves You; and five others. MERCURY SRM-1-4061 \$8.98, © MCR4-1-4061 \$8.98, ® MC8-1-4061 \$8.98.

Performance: A bore Recording: Good

George Burns is a very funny man. Part of what has always made him a funny man, and which has always been written into his act, is his (supposed) conviction that he's actually a red-hot singer. His first album exploited this delusion admirably and hilariously. His second album found him taking himself a lot more seriously, and it wasn't very good. This album, his third, is a tiresome bore. He growls through such things as *Hearts (Are for When You Want to Love Someone)*, a piece of infantile prattle, and the classic kitsch of *As Time Goes By* with all the warm, cozy wisdom of one of those insufferable "grandpas" who used to infest B movies in the Fifties. Say goodnight to recording, George, and give us all a break. P.R.

CAPTAIN BEEFHEART & THE MAGIC BAND: *Ice Cream for Crow* (see Best of the Month, page 64)

KIM CARNES: Voyeur. Kim Carnes (vocals); Waddy Wachtel (guitar); Craig Krampf (drums); Bill Cuomo (synthesizers); other musicians. Voyeur; Looker; Say You Don't Know Me; Undertow; Merc Man; The Arrangement; and four others. EMI AMERICA SO-17078 \$8.98, © 4XO-17078 \$8.98.

Performance: Style über alles Recording: Good

Kim Carnes is a stylist, and more than a little arch; this album seems fresh and interesting at first, but it pretends to have more depth than it has. For example, you would think a song called Breakin' Away from Sanity would be heavy enough for anybody, but all it actually divulges is that the heroine is bored with her old man; "sanity" turns out to be a cute, laundromat-chat-level way of saying "convention" or "routine." The title song seems confused about just what a "voyeur" is, as if it were written for people who never bother to look anything up. Everything here is unsatisfying for that or a related reason. As a vocalist, Carnes has two or three devices, mostly inflectionbased, that she overworks mercilessly, and the back-up, though civilized and musical, subordinates too many good pickers to a synthesizer programmer's trip. Taken together, it all suggests that feelings are going to be kept in their place, and I don't think Carnes and company have given them a prominent enough one. NC

EARL THOMAS CONLEY: Somewhere Between Right and Wrong. Earl Thomas Conley (vocals, guitar); instrumental accompaniment. Heavenly Bodies; Don't Get Along Without the Blues; This Ain't No Way to Be; The Highway Home; We've Got All Night: Bottled Up Blues; and four others. RCA AHL1-4348 \$8.98, © AHK1-4348 \$8.98, © AHS1-4348 \$8.98.

Performance: Bright future indicated Recording: Very good

A few years ago Nashville watchers thought they saw the day of the country singer-songwriter about to dawn. If it did, it was cloudy; Lacy J. Dalton, Gail Davies, Rodney Crowell, and a few others have shown up, but there's no sign of a real bumper crop. The quality has been good, though, if not the quantity, and Earl Thomas Conley looks like another ray of hope. His lyrics so far don't do as much as they could, but his songs are soulful and tuneful, and, unlike the soft-rock singers who did descend upon country music in near-horde numbers, he sings with real punch and real feeling. He sounds a little as if he's imitating George Jones, but that's not so terrible at this stage; Merle Haggard at first sounded as if he were imitating Lefty Frizell, and Jones himself at first imitated everybody. Conley also appears to borrow phrasings from Ray Charles. That's not so





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Nichael Putland / Batna 1 +



Michael McDonald



Don Henley

On Making Tunes

NE thing I find perplexing, if not inexplicable, is the great number of professionally written songs that are tuneless. I don't mean derivative or lacking in originality; I mean meandering, flat, aimless, not capable of being sung, able only to be chanted. I've concluded that, where the construction of tunes is concerned, it's better to sound unoriginal than to sound lost. It's better to have a derivative tune than no tune at all. Indeed, in pop music, the "schlock of recognition," as Rust Hills calls it, will work in your favor in communicating with the general public. I have at hand new solo albums by two gents who stepped out of Southern California groups, and they almost seem designed to illustrate that point.

In "I Can't Stand Still" on Asylum, Don Henley, singer-drummer of the (at the moment erstwhile) Eagles, presents a batch of tunes as derivative as Milton Berle's jokes. At times you may think you've absentmindedly put "Hotel California" on the turntable, but at least the tunes move the songs from point A to point B. The shortest distance between two points, of course, is a straight line, but that's not what you want in melodies. If it were, Michael McDonald, the Doobie Brothers vocalist-keyboard player soloing with "If That's What It Takes" on Warner Bros., would have a satisfying album, for he strings notes out on flat planes like birds on a wire. Either that or he rambles; in That's Why, written with Randy Goodrum, he sounds like a not particularly talented four-year-old making up the "tune" as he goes along.

The difference in tunefulness makes the Henley album easier to take, though both singers have vocal problems when it comes to carrying off a whole album. While McDonald has a distinctive sound, he doesn't sound quite natural; a human voice just doesn't sound like that without a little artifice or affectation imposed on it. At times McDonald reminds me of the way Ron Ziegler used to talk to the press from the back of his throat. This can bother listeners because they sense that the singer is putting something between them and where he's really coming from, as we used to say. Henley's problem, in contrast, is that his voice seems capable of expressing only melancholy, which worked better in an Eagles album where Glenn Frey and others took some of the vocals and expressed other emotions.

McDonald comes off as having more class than Henley, but class alone doesn't get the job done; there's also subject matter. McDonald's lyrics may be a little better crafted than Henley's, but McDonald's songs are almost all about "romance." Henley's subjects include romance, but they also include lamentations over why Johnny Can't Read (Henley blames television, like everybody else), why people seem to dote on other people's Dirty Laundry, why we tend to divide the world up into Them and Us. It is refreshing to hear a song about Something Else once in a while.

ALL in all, though, these albums are probably similar in more ways than they are different. Parts of both sound less like solo than group efforts; parts of McDonald's sound like the Doobies, and parts of Henley's sound like the Eagles. Both, believe it or not, could use more action from the instruments-a strange thing to say in this age of rampant overproduction-but only in Henley's case could you say that some cuts are underproduced. Two of his best songs, Talking to the Moon and Dirty Laundry, have more holes than they need. The first, a slow, pretty song, could use some seamless instrument, probably a woodwind, weaving behind the vocals. The second, an up-tempo blues-structured piece. definitely needs a harmonica. McDonald's holes are there not because there aren't

enough instruments but because there isn't enough tune for the instrumentalists to work with. He does have one good tune which he wrote all by himself and applied to *I Can Let Go Now*, but even there the stylized vocals tend to undercut it.

After listening to hundreds of records over the years, I suspect that songwriters influence each other to be tuneless. A fair amount of tuneless stuff sells-including a cut from McDonald's album, I Keep Forgettin' (Every Time You're Near), that's getting mucho air play as this is written-so that's a factor. Also, the fashions of recent years, such as punk and New Wave, mitigate against tunefulness. And then there's the computer study, some ten years ago, that supposedly found that all the possible combinations of notes to make "new" tunes will be exhausted pretty soon. I don't know what the long-term answer to that is, but, for the time being, I say again, better unoriginal tunes than no tunes at all.

-Noel Coppage

DON HENLEY: I Can't Stand Still. Don Henley (vocals, drums); Danny Kortchmar (guitar); Bob Glaub (bass); Jeff Porcaro (drums); other musicians. I Can't Stand Still; You Better Hang Up; Long Way Home; Nobody's Business; Talking to the Moon; Dirty Laundry; Johnny Can't Read; Them and Us; La Eile; Lilah; The Unclouded Day. ASYLUM E1-60048 \$8.98, © E4-60048 \$8.98.

MICHAEL McDONALD: If That's What It Takes. Michael McDonald (vocals, keyboards); Steve Gadd (drums); Willie Weeks (bass); Steve Lukather (guitar); other musicians. Playin' by the Rules; I Keep Forgettin'; Love Lies; I Gotta Try; I Can Let Go Now; That's Why; If That's What It Takes; No Such Luck; Losin' End; Believe In II. WARNER BROS. 1-23703 \$8.98, © 4-23703 \$8.98. terrible either. Conley is still developing his own voice, both as a writer and a singer, and this album shows that he's got some pretty good raw material to work with. Keep your eye on this guy. N.C.

JOSIE COTTON: Convertible Music. Josie Cotton (vocals); instrumental accompaniment. Johnny, Are You Queer?; So Close; Waitin' for Your Love; Tell Him; Bye Bye Baby; Systematic Way; and five others. ELEKTRA 60140-1 \$8.98, © E4-60140 \$8.98.

Performance: Josie, are you kidding? Recording: Good

Bobby and Larson Paine, who produced and arranged this album for Josie Cotton, also wrote her most famous song, Johnny, Are You Queer? It's a real gasper about a teenybopper who is harboring dark suspicions about the virility of a boy she's anxious to seduce, while he just wants to dance with his friends. Finally she confronts him with her question. She never does get a straight answer, so to speak, but she wails on through three or four more choruses. Cotton puts all this nonsense across with just the right punky alarm, and the song itself has a certain raffish charm-none of which can be said about anything else on this album. The rest is just a boring attempt to send up Fifties-style pop, which was fairly boring to begin with. PR

PETER FRAMPTON: The Art of Control. Peter Frampton (guitar, vocals); vocal and instrumental accompaniment. I Read the News; Sleepwalk; An Eye for an Eye; Heart in the Fire; Don't Think About Me; and four others. A&M SP-4905 \$8.98, © CS-4905 \$8.98, ® TP-4905 \$8.98.

Performance: Good Recording: Good

Ten years ago Peter Frampton left Humble Pie to go solo; his commercial success peaked five years later when he was dubbed a post-teen idol. Since then his stock has gone down considerably, and he's now trying to work his way back up out of obscurity. He aims to stay in business. His strategy is to present himself as a serious youngadult rocker. He is still handsome and still a fluent guitarist with a style somewhere between heavy-metal and pop chromium. His material is typically bloodless, full of posturing and cliches, but that's what the market demands. The sound here is boiler-plate produced and engineered by Eddie Kramer. Buried in the self-conscious muck is one simple, effective song at the end of side two called Barbara's Vacation, about a girl losing her mind. Forget the rest. J.V.

ROBERT GORDON: Too Fast to Live, Too Young to Die. Robert Gordon (vocals); vocal and instrumental accompaniment. Red Hot; The Way I Walk; Sea Cruise; Black Slacks; Rock Billy Boogie; Fire; and six others. RCA AFLI-4380 \$8.98, © AFK1-4380 \$8.98.

Performance: Entertaining Recording: Mostly fine

Robert Gordon may be "Too Fast to Live, Too Young to Die," but not, apparently, "Too Young to Be Dropped by His Label." This album was his last for RCA, and it's



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Tennessee Whiskey • 90 Proof • Distilled and Bottled by Jack Daniel Distillery Lem Motlow, Prop., Inc., Lynchburg (Pop. 36L), Tennessee 37352 Placed in the National Register of Historic Places by the United States Government. actually a "Greatest Hits" collection. Surprise, surprise-it's not as shoddy a job as you might expect. Sure, the version of Bruce Springsteen's Fire is not the vastly superior single remix that would have been included had anybody connected with the project given it more than ten minutes' thought. Still, between the two excellent and previously unreleased Marshall Crenshaw tunes (Wasting My Time and Something's Gonna Happen), a hot live version of Black Slacks, and a reasonable selection of stuff from Gordon's earlier LP's, this does give a fair picture of his approach to rockabilly, which seems to have more head than heart. Genre revivals are a tricky business. Gordon was perhaps doomed to be dismissed as a novelty act, but he's made consistently entertaining music, and a lot of it is on this record. Worth a listen. 22.

RECORDING OF SPECIAL MERIT

GWEN GUTHRIE. Gwen Guthrie (vocals); instrumental accompaniment. Peeka-Boo; Getting Hot; Your Turn to Burn; Dance Fever; Is This Love?; God Don't Like Ugly; and two others. ISLAND 90004-1 \$8.98, © CS-90004-1 \$8.98.

Performance: Versatile and exciting Recording: Very good

Here's a "new" vocalist who really isn't all that new. She has been singing back-up for years for everyone from Ray Charles, Roberta Flack, and Stephanie Mills to Carly Simon, Mick Jagger, and Peter Tosh. That's certainly a diverse crowd. Now, like Luther Vandross, with whom she sang two duets on Quincy Jones's "Sounds.... And Stuff Like That," Gwen Guthrie has stepped out of the background to claim the spotlight. She has every right to do so, for she sings with robust energy and sassy stylishness, and she has the sort of strong vocal equipment that enables her to do almost anything she wants to do.

Guthrie chooses to do quite a bit on this impressive debut album. She carries *Dance Fever*, one of the best tracks here, to almost hypnotic peaks of excitement and adapts equally well to the cooler, lighter sounds of reggae on Bob Marley's Is This Love? She also sings her own God Don't Like Ugly, which was recorded by Roberta Flack, a tough act to follow. Gwen Guthrie has enough talent to follow just about anyone if she continues to operate on the high level displayed here. P.G.

RECORDING OF SPECIAL MERIT

MERLE HAGGARD AND GEORGE JONES: A Taste of Yesterday's Wine. Merle Haggard, George Jones (vocab;); Dave Kirby (guitar); Pig Robbins (piano); Weldon Myrick (pedal steel); Terry McMillan (harmonica); other musicians. Yesterday's Wine; After I Sing All My Songs; The Brothers; C. C. Waterback; Silver Eagle; Must've Been Drunk; and four others. EPIC FE 38203, © FET 38203, no list price.

Performance: Vintage Recording: Good

George Jones likes to record with other people, and vice versa. It seems to loosen him up-sometimes to the point where the result is more of a goof than a "real" album. Not this time. He's hooked up here with somebody who's as big a country-music legend as he is, maybe bigger. You know the vocals are going to be good, and you'll find out, if you didn't know already, that the spirit of the late Lefty Frizzell sort of hovers over both Jones and Merle Haggard. They also sound more alike than you might have suspected. Jones is more spectacular, hitting some knee-bending low notes in a couple of tunes cast low enough that Haggard can hit the high notes, but then Jones is more spectacular than almost anybody eise in country, pop, jazz, whatever.

The mostly new material turns out to be good enough, hitting some fine peaks in *Mobile Bay (Magnolia Blossoms)*, by Curly Putnam and Dave Kirby, and *Silver Ea*gle, by Freddy Powers and Gary Church. And, besides a couple of Hag's songs, there's one Jones wrote about himself, *No Show Jones*, that sort of underscores how relaxed these sessions were. The back-up is honest country. The production, by Billy Sherrill, is uncluttered and unfussy, which was all these guys needed. N.C.

AL KOOPER: Championship Wrestling. Al Kooper (vocals, guitar, keyboards); other musicians. I Wish You Would; Snowblind; The Heart Is a Lonely Hunter; Finders Keepers; Bandstand; and four others. Co-LUMBIA FC 38137, © FCT 38137, no list price.

Performance: Good Recording: Good

Al Kooper has been in the rock business for so long and his accomplishments are so considerable that he doesn't need to make new records. He does so occasionally just for the exercise. His casual attitude is evident on this harum-scarum date with guest vocalists Mickey Thomas, Valerie Carter, and Ricky Washington. Kooper himself sings on two tracks, but he seems to have been more interested in displaying his talents at arranging and playing. The album amounts to a retrospective of Kooper's career as a pop songwriter, member of the Blues Project, instigator and producer of the first Blood, Sweat & Tears album, and general Wunderkind. It's a road show in a studio, entertaining but hardly novel. IV

ROBBIE PATTON: Orders from Headquarters. Robbie Patton (vocals); vocal and instrumental accompaniment. Louise; Victim of Your Love; Smiling Islands; Feel the Flow; It's Your Heart; Look Away; and four others. ATLANTIC 80006-1 \$8.98, © CS-80006-1 \$8.98.

Performance: Spotty Recording: Very Good

This is singer-songwriter Robbie Patton's second album, his first on the Atlantic label. He has written songs with Fleetwood Mac members Christine McVie (who also co-produced Patton's first album) and Stevie Nicks. The two assist with vocals here, McVie on Look Away and Nicks on Smilling Islands.

Not surprisingly, Patton wrote or cowrote all the songs on this disc, some of which are pretty good examples of the oh-

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poor-me genre. Victim of Your Love has an interesting premise-a girl delighting in the pain of romance-but the other songs are thin on thought and thick with cant. Louise, Lonely Nights, and the title tune get by on their arrangements, but the rest are soggy. IV

THE PRODUCERS: You Make the Heat. The Producers (vocals and instrumentals). Back to Basics; Dear John; Operation; Breakaway; Chinatown; and four others. PORTRAIT AL 38060, C ART 38060, no list price

Performance: Very good Recording: Very good

A most accomplished band, the Producers have a rich sense of invention and coloration for their arrangements. The lead vocals are an integral part of the ensemble sound, and the harmony back-up is as tightly packed as a subway train at rush hour. With all that going for them, there's only one area where the band lacks strength, and that's songwriting. The material isn't bad by any means, but it's not up to par with the group's vocal and instrumental achievements, so the album doesn't work as a whole. By the middle of the first side it's obvious the band is biting off less than it can chew

There are two terrific cuts, though, that make the album memorable. One is She Sheila, a captivating mood piece with a "raindrop" introductory figure, and the other is Back to Basics, which uses an oddball tonal progression for the vocal and features beautifully understated but very dramatic drumming-rim shots on the snare played close to the offbeat. Classy. JV

MIKE RUTHERFORD: Acting Very Strange. Mike Rutherford (vocals, guitars, bass, keyboards); instrumental accompaniment. A Day to Remember; Hideaway; Halfway There; and five others. ATLANTIC 80015-1 \$8.98, © CS-80015-1 \$8.98.

Performance: Lazy Recording: Very good

Mike Rutherford, the bassist for Genesis, spends all his time on this album indulging in the oogum boogum that has made Genesis successful in the (shudder) "art rock" field. There are sepulchral vocals, and the sidemen try to create an ominous atmosphere, but it all sounds like a tea-party production of Dracula in which no one bothered to learn his lines. The only cut that's vaguely entertaining is Couldn't Get Ar-J.Vrested. Not worth the money.

SANTANA: Shango. Carlos Santana (guitar, vocals); vocal and instrumental accompaniment. The Nile; Hold On; Night Hunting Time; Body Surfing; Nowhere to Run; and six others. COLUMBIA FC 38122, © FCT 38122,
 FCA 38122, no list price.

Performance: Very good Recording: Good

Except for Carlos Santana's unmistakably lean, searing guitar lines, "Shango" sounds

mostly like forty minutes of commercialfree FM-a smattering of r-&-b, some Latin jazz, a little AOR heavy-metal, all of it unadventurous, anonymous, and forgettable. Of course, Santana's guitar is here, along with a truly outstanding rhythm section, to inject some muscle into rather limp material. Although his playing slips once or twice into hackneyed, whiny sustained notes that border on self-parody, Santana generally plays with the assurance and imagination that keep him at the top of the jazz popularity polls year in and year out. If it were simply a matter of chops, Santana would produce nothing but great albums. But he also writes. Here he's contributed a song celebrating body surfing as a way of life, a love song with such lines as "Please come with me to a place of ecstasy," and two songs that dabble in false, trumped-up myth elements, sort of like those fantasy theme parks. The effect is to obscure the one or two good tunes, such as Junior Walker's What Does It Take, and the fine performances as well. MP

PHIL SEYMOUR: 2. Phil Seymour (vocals, guitar); instrumental accompaniment. Love Receiver; Surrender; Talk to Me; Suffering; Dancing a Dream; and five others. BOARDWALK NB1-33252 \$8.98. @ NWT-33252 \$8.98,
 NWA-33252 \$8.98.

Performance: Good Recording: Good

l like Phil Seymour's straightforward brand of adolescent rock. Though it's not as clum-

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The Great Jarrett Debate

HE release of a solo concert recording by Keith Jarrett invariably renews the Great Jarrett Debate. Is he the original genius his devoted followers claim, or is he merely an exceptionally gifted stylist? A visionary or a self-indulgent pretender? "Concerts," a three-record set of live performances in Bregenz and Munich, seems almost to crystallize this debate. It captures Jarrett's unique performance style both at its pinnacle and at its most flawed. In what is most often described as "spontaneous composition." Jarrett simply sits down at the piano with no preconceived notion of what he will play and begins to improvise. His "compositions" are bound by no formal structure. As he plays, he seems possessed-crouching at the piano, twisting his head and body, and groaning in the ecstasy of creation. Few if any other artists today allow themselves this degree of intimacy with their instruments.

At his best, there is little to rival a Keith Jarrett solo performance for excitement, pure emotion, and approachable intelligence. The first disc in the new set, the Bre-

genz concert, does show him at his best. His playing is unusually concise and focused. The two-part Bregenz solo begins with a gently swinging melody that is then developed through some lighthearted rhythmic variations to a jubilant resolution. There follows a brief exploratory passage during which Jarrett maintains an air of expectancy through a series of false cadences built around a shifting tonal center. This interlude gives way to the core of the piece, an extended rhapsody of breathtaking power. In the past, Jarrett has taken flights into modernism that have led to comparisons with Bartók, but I don't think he's ever before sustained this kind of furious invention, or rhythmic and harmonic complexity, quite as impressively and consistently as he does here. From the final third of the first side through the end of Bregenz, Part II, roughly halfway through the second side, the ideas just tumble out in a seamless pattern. The disc concludes with two shorter pieces: one is an untitled essay is simplicity, with a strong rhythmic insistence; the other, Heartland, is an introspective piece that

gradually turns outward, concluding as a fervent anthem. Together they make a charming, unaffected finale to a brilliant performance.

If Bregenz is the pinnacle of Jarrett's art, the two remaining discs, from a Munich concert, show what can go wrong when Jarrett's muse deserts him, leaving him with only his intensity and his technique. Though no less impassioned or virtuosic, Jarrett's playing here is largely devoid of substance. The four-part, three-and-a-half-side piece called München begins tentatively, and, except for two clipped moments-once when a pounding prelude-like phrase erupts and later when a simple march emerges-it is little more than a wandering display of dexterity. Nonetheless, Jarrett manages to keep his listeners' attention through the hypnotic power of his left hand, which seems to find a rhythmic life of its own. The culmination of the München solo comes when, in a burst of fervor, Jarrett moves from the keyboard to the guts of the piano, rapping on the inside walls and plucking the high strings while stamping his feet and moaning uncontrollably. The audience's response is equally visceral-they actually erupt into applause, not once but twice, an act of real courage considering how Jarrett feels about such outbursts.

As Jarrett himself likes to point out, his stark confrontations with spontaneity have their risks: what if he gets up to play and nothing comes out? Despite his vast resources, there are long passages here when little of interest happens, when Jarrett is obviously groping around the keyboard for an idea. Too often, the idea his imagination throws out has very little to do with what went before. This shows the essential flaw in Jarrett's approach, for composition is as much a process of rejection, of casting off what doesn't belong, as it is of creation. Jarrett's solos are the raw material of musicadmittedly very fine, and often very compelling, raw material, but raw nonetheless. While one might argue that he permits us a rare, intimate glimpse of the creative process, this too is incomplete. We see the pain of creation, but not the equally painful act of selection and reshaping.

"Concerts" is available in two formats: a three-record set of both the Bregenz and Munich concerts, which I would recommend only to fans who love Keith Jarrett warts and all (or who won't admit there are any warts), and a single disc containing just the Bregenz performances, which is one of the finest solo albums Jarrett has ever made and a must for music lovers of all stripes. —Mark Peel

KEITH JARRETT: Concerts. Keith Jarrett (piano). Bregenz, May 28, 1981—Parts I and II; Untitled; Heartland; München, June 2, 1981—Parts I, II, III, and IV; Mon Coeur Est Rouge; Heartland. ECM O ECM-3-1227-9 three discs \$20.98, © 3E5-1227 \$20.98.

KEITH JARRETT: Concert. Keith Jarrett (piano). Bregenz, May 28, 1981, Parts I and II; Untitled; Heartland. ECM • ECM-1-1228 \$9.98, © M5E-1228 \$9.98.

sy as punk, it's hardly subtle and, like most songs of teenage lust, it's utterly humorless. But Seymour's band plays as if it means business, and his vocals are cocky. Don't Let Daddy Find Out, written by Terry Mace, Ralph Hammer, and Debbie Wright, would make an interesting companion piece to Rachel Sweet's Tonight, Ricky. Seymour's own material isn't of that caliber, but Tom Petty's Surrender and Dancing a Dream by Robert and Paul Cowsill (remember the Cowsills?) are effective. There's also some good guitar work on Suffering, but I'm unable to name the player, since no less than seven guitarists, Seymour included, played on these sessions. This music is kid stuff, but, to paraphrase Pete Townshend, these kids are all right. J.V.

GEORGE THOROGOOD & THE DE-STROYERS: Bad to the Bone. George Thorogood (vocals, guitar); the Destroyers (vocals and instrumentals); Ian Stewart (keyboards). Back to Wentzville; It's a Sin; New Boogie Chillun; Blue Highway; As the Years Go Passing By; Wanted Man; and four others. EMI/AMERICA ST-17076 \$8.98. © 4XT-17076 \$8.98, @ 8XT-17076 \$8.98.

Performance: Boneless Recording: Good

George Thorogood is two generations younger than the black musicians who inspire him, and, while I'm glad he's introducing vital music to a new audience, his interpretations of it are mostly shallow and loud. Thorogood is the nominal author of Back to Wentzville and Bad to the Bone, but the former is loaded with references to Chuck Berry's song titles and guitar style, and the latter is a rewrite of Hoochie Coochie Man, made famous by Muddy Waters. As the Years Go Passing By is an Albert King triumph; Thorogood's version is embarrassingly pale. Berry's No Particular Place to Go is given a standard bar-band treatment. The Isely Brothers' Nobody but Me and Jimmy Reed's It's a Sin are virtually unrecognizable here, and John Lee Hooker's New Boogie Chillun is a flop. The only cut on which Thorogood seems comfortable is Wanted Man, a typically plodding Bob Dylan dud. Thorogood's early albums were fun, but this one's not. IV

RECORDING OF SPECIAL MERIT

TONIO K.: La Bomba. Tonio K. (vocals, guitar); vocal and instrumental accompaniment. Fools Talk; Politician; The New Dark Ages: La Bomba; Mars Needs Women. CAPITAL EP MLP-15004 \$5.98.

Performance: Apocalypse nu? Recording: Excellent

I must confess to a lack of objectivity where the work of Tonio K. is concerned. Longtime readers, in fact, will recall that I declared each of his two previous efforts the Greatest Album Ever Recorded. Can't say that about "La Bomba," though, since it contains only five songs, but I will allow that it's the greatest EP since the Rolling Stones' "Five by Five."

Tonio K. continues here his scathing chronicle of human frailty, and he is backed, as usual, by a blistering combo whose music is so intelligent and kinetic

heavy-metal a good name. I'm particularly taken with the title track, an inspired reworking of the Fifties chestnut by Ritchie Valens in which Valens's ghost stalks the land equipped with a tactical nuke. But all of these songs-including a cover of Cream's Politician, its pointedness restored by recent events-struck me as either fallon-the-floor hilarious, genuinely thoughtprovoking, or both. They all rock like mad too. It's inspiring stuff, and I recommend it highly, especially to those who think that the Clash has a patent on Social Commentary mated with the Big Beat. S.S

VANGELIS: To the Unknown Man. Vangelis (synthesizers). To the Unknown Man; Aries; Bacchanale; Albedo; and four others. RCA AFL1-4397 \$8.98, @ AFK1-4397 \$8.98.

Performance: Good Recording. Very good

Vangelis hit the big, big time with his theme for Chariots of Fire, one of the finest British films of recent years. The album was the first soundtrack to hit No. 1 on the pop charts since Saturday Night Fever and Grease in 1978. In contrast to many other synthesizer virtuosos, Vangelis is able to present a melody and then to develop it without getting lost in synthesizer techniques. It is Vangelis' very real composing ability that sets him apart from his contemporaries. But it is this very same ability that seems limited by the synthesizer's lack of tonal depth. Mini-tone poems like Pulstar and Bacchanale deserve better treatment than the electronic whine the synthesizer imparts to almost everything. PR

RECORDING OF SPECIAL MERIT

CRIS WILLIAMSON: Blue Rider. Cris Williamson (vocals, piano, organ, guitar); Tret Fure (guitar, keyboards); Diane Lindsay (bass); Cam Davis (drums); other musicians. Blue Rider; Lodestar; Peter Pan; Night Patrol; Like an Island Rising; Leviathan; and four others. OLIVIA LF 931 \$7.

Performance: Very good Recording: A bit thick

Cris Williamson sometimes trips over the difference between lyrics and poetry, but she does everything else quite well and deserves a place just behind Claudia Schmidt in the new folkie chase, which means at the front of the pack. "Blue Rider" is rife with well-built tunes, clear, unstrained, naturalsounding vocals, and sensible, unobtrusive back-up (now and then an electric guitar, now and then a cello). The lyrics are occasionally disappointing in that they sometimes try to be "poetic" when being straightforward would be better. Even so, 1 applaud Williamson's determination to get something beyond "I love you, baby" into every song.

Lucille has the kind of street-corner tune and beat that forces a more down-to-earth lyric approach, and Like an Island Rising is the kind of love song in which the lyric ought to be poetic, so they come off as the best songs all around. But I like something about all the others too. I recommend "Blue Rider," particularly to those who'd rather be talked to than hollered at. NC



CIRCLE NO. 51 ON READER SERVICE CARD



RECORDING OF SPECIAL MERIT

GEORGIE AULD AND HIS ORCHES-TRA, VOL. 2. Sarah Vaughan (vocals); Georgie Auld (saxophone, vocals); Georgie Auld Orchestra (instrumentals). Canyon Passage; You're Blasé; Handicap; I Don't Know Why; Just You, Just Me; Blue Moon; and six others. MUSICRAFT MVS 509 \$8.98.

Performance: Stunning Recording: Excellent remastering

Georgie Auld had a small role as Liza Minnelli's bandleader in the movie New York, New York and played the saxophone dubbed in for Robert DeNiro. He was pretty convincing in the role, as well he might be; leading a band was what he did for years after Artie Shaw turned his famous orchestra over to Auld back in 1939. Before replacing Shaw, Auld had led a small group of his own and then became tenor-sax soloist in Bunny Berigan's band. After getting out of the army in 1943, Auld formed his own orchestra. This disc, the second Musicraft album of Auld's vintage performances, contains material recorded in 1945 and 1946 that has been expertly restored and rechanneled for stereo.

The program starts off with a real burst of energy in Budd Johnson's Canyon Passage and only gets better as it goes along. There's also the chance to hear Sarah Vaughan before she became a totally stylized singer, delivering perfectly phrased treatments of A Hundred Years from Today and a version of You're Blase as wonderfully world-weary as its subject. There are other vocals by Auld himself, in a style vaguely reminiscent of Bunny Berigan's, and some splendid trumpet solos by Al Porcino. And there are two versions of Blue Moon for buffs who like to make really fine distinctions. Most of the cuts have been on records before (Canyon Passage and Neal Hefti's Handicap are previously unreleased), but the cleaned-up sound makes it seem as if the recording sessions took place only yesterday. -Paul Kresh

THE DORSEY/SINATRA SESSIONS, VOLUME 1. Frank Sinatra, the Pied Pipers (vocals); Tommy Dorsey and His Orchestra (instrumentals). The Sky Fell Down; Too Romantic; Shake Down the Stars; I'll Be Seeing You; Polka Dots and Moonbeams; Fools Rush In; East of the Sun; I'll Never Smile Again; Imagination; Devil May Care; This Is the Beginning of the End; and seventeen others. RCA CPL24334 two discs \$11.98, © CPK2-4334 \$11.98.

THE DORSEY/SINATRA SESSIONS, VOLUME 2. Frank Sinatra, Connie Haines, Jo Stafford, the Pied Pipers (vocals): Tommy Dorsey and His Orchestra (instrumentals). I Could Make You Care; The World Is in My Arms; Our Love Affair; Stardust; Oh! Look at Me Now; Dolores; Without a Song; Do I Worry; Everything Happens to Me; Let's Get Away from It All; This Love of Mine; and sixteen others. RCA CPL2-4335 two discs \$11.98, © CPK2-4335 \$11.98.

THE DORSEY/SINATRA SESSIONS, VOLUME 3. Frank Sinatra, Connie Haines, Jo Stafford, the Pied Pipers, Tommy Dorsey (vocals); Tommy Dorsey and His Orchestra (instrumentals). I Guess I'll Have to Dream the Rest; You and I; Neiani; Blue Skies; I Think of You; Violets for Your Furs; The Sunshine of Your Smile; How About You; Street of Dreams; Be Careful, It's My Heart; In the Blue of Evening: and seventeen others. RCA CPL2-4336 two discs \$11.98, © CPK2-4336 \$11.98.

Performance: Historic Muzak Recording: Okay

These three sets comprise rechanneled stereo versions of eighty-three original 78-rpm recordings made by Tommy Dorsey, his orchestra, and his then-new vocalist Frank Sinatra in thirty-five sessions held between



CIRCLE NO. 60 ON READER SERVICE CARD

February 1, 1940, and July 2, 1942. The numbers and talents involved are impressive (there are appearances by Buddy Rich, Jo Stafford, Bunny Berigan, Joe Bushkin, Connie Haines, and the Pied Pipers, among others), but the question remains whether the recordings hold up as entertainment. Except for those Sinatra fans who would want records of his Hoboken babytalk if there were any, the answer is no. It's a very young and unpolished Sinatra here. On the original recordings he was credited merely for the "vocal refrain," but it is still undeniably, unmistakably Ol' Blue Eyes himself crooning through band after band of good, bad, and indifferent material.

The collection is, of course, a must for Sinatra groupies of all ages. For others, me included, the sameness of the arrangements and performances, and the almost perfunctory way that Dorsey's band often raced through the songs, reduces it to nostalgic Muzak. P.R.

RECORDING OF SPECIAL MERIT

PAQUITO D'RIVERA: Mariel. Paquito D'Rivera (saxophone); other musicians. Miami; Wapango; Moments Notice; and three others. COLUMBIA FC 38177, © FCT 38177, no list price.

Performance: Fulfilling Recording: Very good

Saxophonist Paquito D'Rivera first demonstrated his talent to U.S. audiences when he was a member of the visiting Cuban band Irakere. Since taking up residence here, he has signed with Columbia and further displayed his considerable talent on "Paquito Blowin'" (FC 37374), released in 1981. In "Mariel," the transplanted Cuban has again chosen to express himself within a small group (for the most part, a quintet), and, with one small exception, the result is again impressive. The very small fly in this ointment is New York Is You, a bland piece of pop featuring lyrics and a vocal by Brenda Feliciano. It is not offensive, just dull and out of character. D'Rivera should go far if he keeps up to the standard he has set for himself. C.A.

GRIFFITH PARK: Echoes of an Era 2. Nancy Wilson (vocals); Joe Henderson (tenor saxophone): Chick Corea (piano); Stanley Clarke (bass); Lenny White (drums). Them There Eyes; 'Round Midnight; I Want to Be Happy; Rhythm-a-ning; and four others. ELEKTRA/MUSICIAN 60165-1 \$8.98, © 60165-4 \$8.98.

Performance: Live and swell Recording: Fine remote

"Echoes of an Era 2" is the third Elektra/ Musician release by Griffith Park, a group led by drummer Lenny White. The first two albums were, respectively, great and gross, the second rendered virtually unlistenable by the strained vocals of soul screecher Chaka Kahn, ex-lead singer with Rufus. This time around, Freddie Hubbard is missing from the group, and the more experienced Nancy Wilson provides the vocals. She has no problem handling jazz material, of course, but she does get a bit carried away in a couple of spots. The overall result is, however, a pleasant listening experience, and, though Hubbard added much to the previous albums, this one does not cry out for his trumpet. All in all, a successful meeting of professionals. C.A.

ART HODES AND MILT HINTON: Just the Two of Us. Art Hodes (piano); Milt Hinton (bass). Winin'; Miss Otis Regrets; Down Home Blues; Randolph Street Blues; Milt Jumps; and five others. MUSE MR 5279 \$9.98.

Performance: Mellow Recording: Good

One of the few albums I find myself returning to purely for pleasure is a 1957 Audiophile release by a soothing, traditionsteeped Art Hodes quintet. Hodes started making fine records in 1939, and "Just the Two of Us," a new Muse release, proves mellifluously that he hasn't stopped. The Russian-born pianist grew up in Chicago at a time when that city boasted some of the finest, most innovative jazz in the world. All those sounds seem to have penetrated to his very marrow, and they emerge in his playing. Accompanied only by Milt Hinton's superbly matched bass, Hodes caresses the piano keys with characteristic gentleness and insight-it's like hearing an eyewitness account. C.A.

(Continued on page 97)

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Chuck Berry

The Chess Reissues

HESS RECORDS of Chicago has had a alasting impact on American popular music. Founded by brothers Leonard and Phil Chess and continued by Leonard's son Marshall, the label was family operated from the late Forties until the very early Seventies. Chess's foremost artist was Chuck Berry, but its roster included nearly every major Chicago bluesman (Muddy Waters, Howlin' Wolf, Little Walter, Sonny Boy Williamson) as well as vocal groups (the Moonglows, the Dells) and jazz artists (Ahmad Jamal, John Klemmer, Ramsey Lewis, Woody Herman). Also recording for Chess were the irrepressible rhythm-andblues zany Bo Diddley and a local semi-psychedelic band called Rotary Connection, which featured the late and very talented Minnie Ripperton. After the British Invasion, Chess gained new prestige as the Beatles, the Rolling Stones, and Cream recorded selections from the Berry, Diddley, and Howlin' Wolf catalogs. (On one of their early American tours the Stones stopped off in Chicago to record at the

Chess studios; one of the selections was an instrumental named after the company's address, 2120 South Michigan Avenue.)

Now revived as part of Sugar Hill Records, Chess recently released a batch of albums featuring selected previously issued recordings by some of the major artists of its glory days. The reissue series is being produced by Marshall Chess and Tomie Swan, and it offers a generous sampling of the nearly three-decade-long partnership between the remarkable Chess family and a group of remarkable musicians.

"Muddy & the Wolf," featuring Muddy Waters and Howlin' Wolf, combines parts of two albums that derived from Marshall Chess's attempt in the late Sixties to refurbish the label's blues roster with all-star sessions. The first side consists of live and studio dates by Waters with white disciples Paul Butterfield, the late Mike Bloomfield, and Donald "Duck" Dunn of Booker T. and the MG's. Waters had just recovered from a heart attack, but his singing on these 1969 sessions is at full power. Long Distance Call and You Can't Lose What You Ain't Never Had are superb.

The second side is drawn from Howlin' Wolf sessions in London with Eric Clapton, Steve Winwood, Bill Wyman, and Charlie Watts. Wolf was suffering from heart trouble at the time, and he sounds a bit tired on these cuts, but his guttural, eerie voice is still fascinating. A charming rehearsal excerpt from *Red Rooster* is included in which he almost shyly demonstrates his slide-guitar riffs and has to be coaxed into playing by Clapton, a devout admirer.

The Dells, who recently celebrated their thirtieth anniversary, were Chess's premier vocal group. They had a hit in the Fifties with Oh What a Night and reprised it a decade later in slick style. When Motown began to lose its prominence, Chess used the Dells to fill the "Detroit Sound" void with heavily orchestrated, highly rhythmic, "righteous" ditties such as Give Your Baby a Standing Ovation and Stay in My Corner. Their album in the reissue series is entertaining but not at all extraordinary.

Checker was Chess Records' gospel line—with the distinctly secular exception of Bo Diddley—and the same label name has been used for a reissue of gospel material by the young Aretha Franklin. Recorded live in her father's church in Detroit in 1956, when Franklin was fourteen, it shows the passion and grandeur already apparent in her voice. Unfortunately, the songs are too rococo for my taste, and the plodding tempos make the album tend to pall after a few cuts.

"Wizards from the South Side" is no idle title for a potpourri of selections by six of the best bluesmen from Chicago's Harlem. The range is from Muddy Waters's 1950 Rollin' and Tumblin' (with Waters playing acoustic slide and singing in a high voice) to Sonny Boy Williamson's 1963 masterpiece Bring It On Home, which contains one of the most successful uses of the steam train as a sexual symbol. Bo Diddley is represented by only two cuts, one of them his classic I'm a Man. Presumably there will be a follow-up album devoted exclusively to him. Little Walter Jacobs was a harmonica wizard whose technique and imagination made him king in a town crowded with thrilling harp players. Howlin' Wolf's 1961 Down in the Bottom has a guitar riff later used by Neil Young, and John Lee Hooker's Walking the Boogie-better known as Boogie Chillun-has been copied often, most recently by George Thorogood.

Chuck Berry is, of course, unique, one of the essential figures in the history of rock. "The Great Twenty-Eight" includes all his hits, plus some odd sides, from 1955 to 1965. At his peak, Berry was second in popularity only to Elvis Presley. He seems never to have been comfortable in a studio except when recording for Chess. In 1970, after a frustrating experience with another label, he returned. His first Chess album of this period was titled "Back Home," and Phil Chess burst into Marshall's office triumphantly waving a spool of the tape and growling, "To hell with that psychedelic crap-this is the real stuff?" But that was the attitude of the Chess family, who were

as individualistic as their artists. It's very good to have these documentations of their legacy. —Joel Vance

CHUCK BERRY: The Great Twenty-Eight. Chuck Berry (vocals, guitar); vocal and instrumental accompaniment. Maybellene; Thirty Days; You Can't Catch Me; Too Much Monkey Business; Brown-Eyed Handsome Man; Roll Over Beethoven; Havana Moon; School Days; Rock and Roll Music; Oh Baby Doll; Reelin' and Rockin'; Sweet Little Sixteen; Johnny B. Goode; Around and Around; Carol; Beautiful Delilah; Sweet Little Rock and Roller; Little Queenie; Almost Grown; Back in the USA: Let It Rock: Bye Bye Johnnie; I'm Talking About You; Come On; Nadine; No Particular Place to Go; I Want to Be Your Driver. CHESS CH8201 two discs \$8.98, © CHC 8201 \$8.98.

WIZARDS FROM THE SOUTH SIDE: Muddy Waters: Rollin' 'n' Tumblin'; Evans Shuffle (Ebony Boogie); Still a Fool; Just to Be with You; Mannish Boy. Howlin' Wolf: Down in the Bottom; Evil; I Ain't Superstitious. Little Walter: Mellow Down Easy; Hate to See You Go. Sonny Boy Williamson: Bring It On Home. John Lee Hooker: Walkin' the Boogie. Bo Diddley: She's Mine, She's Fine; I'm a Man. CHESS CH8203 \$5.98, © CHC8203 \$5.98.

THE DELLS. The Dells (vocals); instrumental accompaniment. There Is; Oh What a Night; Love Is Blue (I Can Sing a Rainbow); Always Together; Stay in My Corner; Bring Back the Love of Yesterday; The Love We Had Stays on My Mind; I Wish It Was Me You Loved; My Pretending Days Are Over; Open Up My Heart; Give Your Baby a Standing Ovation. CHESS CH8400 \$5.98, © CHC8400 \$5.98.

ARETHA FRANKLIN: Gospel. Aretha Franklin (vocals); vocal and instrumental accompaniment. There Is a Fountain Filled with Blood; Precious Lord (Parts One and Two); You Grow Closer; Never Grow Old; The Day Is Past and Gone; He Will Wash You White as Snow; While the Blood Runs Warm; Yield Not to Temptation. CHECKER CH8500 \$5.98, © CHC8500 \$5.98.

MUDDY WATERS AND HOWLIN' WOLF: Muddy & the Wolf. Muddy Waters (vocals, guitar); Otis Spann (piano); Michael Bloomfield (guitar); Paul Butterfield, Jeff Carp (harmonica); Donald "Duck" Dunn, Phil Upchurch (bass); Sam Lay (drums). All Aboard; Blow Wind Blow; Can't Lose What You Ain't Never Had; Walkin' Thru the Park; I'm Ready; Long Distance Call. Howlin' Wolf (vocals. harmonica, guitar); Eric Clapton, Hubert Sumlin (guitar); Steve Winwood (piano, organ); Bill Wyman, Phil Upchurch (bass); Charlie Watts (drums); Jeff Carp (harmonica); Ian Stewart, John Simon, Lafayette Leake (piano). Rockin' Daddy; What a Woman!; Who's Been Talking?; The Red Rooster; Highway 49; Do the Do. CHESS CH8200 two discs \$8.98. © CHC8200 \$8.98



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THAD JONES, FRANK WESS, MAL WALDRON: After Hours. Thad Jones (trumpet): Frank Wess (flute, tenor saxophone); Mal Waldron (piano); Paul Chambers, Doug Watkins (bass); Elvin Jones, Art Taylor (drums); other musicians. Pot Pourri; Count One: Dakar; Empty Street; Blues Without Woe; and five others. PRES-TIGE @ P-24107 two discs \$15.96.

Performance: Superb Recording: Excellent mono

"After Hours" is not just another two-fer reissue; it is a veritable treasure chest of jazz sounds in the modern vein of the late Fifties. Originally released on Prestige as two separate albums-"Olio" (7084) and "After Hours" (7881)-the sets have more in common than just being filled with outstanding performances of 1957 vintage. Both feature trumpeter Thad Jones, saxophonist Frank Wess, and the innovative piano of Mal Waldron. With Teddy Charles, Doug Watkins, Elvin Jones, Art Taylor, Kenny Burrell, and Paul Chambers also on hand, it would be pretty hard to select a leader for these groups, so none was named. It doesn't make a bit of difference. The result reflects glory on all the participants. These were not rehearsed sessions but "blowing" dates, a euphemism for "low budget." Actually, experience and talent had prepared these players for anything; all they needed was a verbal agreement on opening phrases and the general order of things. Charts have probably ruined more jazz sessions than have all the incompetent producers and engineers combined.

I would not call these "classic" sessions, but they *are* extraordinary examples of what often happens when professional players get together for some mutual inspiration. I have had both albums in my collection since their original release. It's good to see them back on the market. C.A.

DIANNE REEVES: Welcome to My Love (see Best of the Month, page 62)

STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION (Required by 39 U.S.C. 3685)

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11. I certify that the statements made by me above are correct and complete.

WILLIAM L. PHILLIPS, Assistant Treasurer

Going on Record

By Christie Barter

Music Editor Barter (right) with Thomas Z. Shepard, division vice president, RCA Red Seal. and soprano Leontyne Price

THE SHOW GOES ON

How do you propose "going on record" if you're the veteran Broadway producer-director Hal Prince and you've got a flop on your hands? The property in question was the first major musical of the current season, A Doll's Life, with book and lyrics by the seasoned team of Betty Comden and Adolph Green and music by Larry Grossman, who is not so seasoned. Grossman has, however, been represented on Broadway before, though not very memorably, with Minnie's Boys and Goodtime Charley, and he has written music for nearly fifty television specials. He was also in this case lucky enough to have Bill Byers as his orchestrator; it was Byers who gave the spark of theatrical life to Marvin Hamlisch's otherwise merely serviceable score for A Chorus Line.

Grossman's music for A Doll's Life, of which there was a lot, was attractive, with a couple of ballads that might have gone on to have a life of their own and still may. The score overall disclosed a serious effort on the composer's part to support the book thematically and provide a degree of stylistic continuity. These are qualities that Stephen Sondheim has most successfully brought to the musical theater in recent years, and if Grossman drew more than a little inspiration from that quarter, mostly from A Little Night Music, he did so with sensitivity and taste.

What was really at fault was the book, which did not fulfill its considerable promise. In the words of RCA Records' Thomas Z. Shepard, the dean of original-cast album producers, who was to supervise the recording of A Doll's Life, "It just didn't play." And if a book doesn't play, Shepard says, "a show is dead, no matter what else it's got going for it."

The book for A Doll's Life was potentially one of its strongest assets. It surely represented a courageous move on the part of its authors. What, it asked, happened to Nora, the heroine of Ibsen's A Doll's House, after she walked out on husband and children at play's end to start a new life, slamming the door behind her? That door is one of the theater's most famous props, and it turned up a good deal during the course of this show. It got slammed again, too, as Nora

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walked out on other men in her new life. But the problem really was that Comden and Green never succeeded in raising Nora or her lovers much above prop level either. Musical comedy, so called, does not often require robust characterization, but when you presume to take over where Ibsen left off and aspire to the "Broadway operetta" format, you'd do well to supply your director and your actors with more than cardboard to work with.

In any case, A Doll's Life drew a very cranky response from the New York press and shut down in short order, with a Sunday matinee. The New York Times ran a six-column post-mortem the next day under a banner headline: "Why a \$4 Million Musical Lasted Only Four Days." Four million clams down the tubes; that's news. And what of the RCA recording promised in the program?

Most contracts for Broadway show albums specify that the record company may be let off the hook if a show runs less than a set number of performances. Sometimes, when a major and/or bankable talent is involved, a failing show will be kept alive to insure that a recording will be made. That is what I suspect happened (fortunately) with Sondheim's Merrily We Roll Along, which RCA recorded despite its failure on stage. Otherwise the case is closed-most of the time.

ENTER a couple of guys, a.k.a. Original Cast Records, who will sometimes sense that a Broadway disaster has its fans and also has a chance of finding its own audience on records. They then set about getting it recorded, usually for about a third of what it might cost one of the "majors."

In the past this mini-company has salvaged the music from such shows as Bring Back Birdie with Donald O'Connor and Chita Rivera, Prettybelle with Angela Lansbury, and the feminist off-Broadway Housewives Cantata. The list of over forty titles now includes A Doll's Life, which was recorded two weeks after the show closed (ironically, in RCA's Studio B). It is available for \$14.95 from Original Cast Records, P.O. Box 496, Georgetown, Connecticut 06829

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