NEW AUDIO PRODUCTS: A REPORT FROM CES

EQUIPMENT TEST REPORTS: dbx 228 Expander/Noise Reducer
Marantz SR 8100 DC Receiver • EPI A70 Speaker System
Hitachi D-E99 Cassette Deck • Yamaha M-50 Power Amplifier

DISC SPECIALS: Bobby Short • Melanie • Richard and Linda Thompson
Haydn's Seasons • Digital Bartók
To those audiophiles saddened by the price of perfection:
You’re about to weep for joy.

Introducing
The 6000 Series Separates by Sherwood.

THE S-6040 CP POWER AMPLIFIER
100 watts per channel,* MOS FET output devices, push/pull, full complementary circuitry, precision imaging, ingeniously protected.
Suggested retail: About $350. *Min. RMS into 8 ohms, from 20 Hz to 20 kHz, with no more than 0.03% THD or IMD.

THE S-6010 CP AM/FM TUNER
Digitally synthesized, MOS FET front end, PLL Multiplex Demodulator, 16-station preset capability. Suggested retail: About $250.

THE S-6020 CP PREAMPLIFIER
Wideband overload tracking (phono), no ICs, narrow band tone controls (minimal effect on midrange), accurate RIAA equalization, FET differential amplification. Suggested retail: About $250.

THE S-6000 CP CASSETTE DECK
3 heads, Dolby* B and C NR, expanded meter range for metal tapes, fine bias adjustment, microprocessor controlled. Suggested retail: About $400.


For the location of the Sherwood dealer nearest you, please call toll free 1-800-323-1717 (in Illinois 1-800-942-8881), Operator #441.

Sherwood
17107 Kingsview Avenue, Carson, CA 90746
In Canada: The Pringle Group, Ontario.

*CIRCLE NO. 35 ON READER SERVICE CARD
Radio Shack's New Receiver
With 7-Band Graphic Equalizer
Makes Any Listening Room Perfect

Now—exercise complete control over your music! Realistic's new STA-790 features a seven-band stereo graphic frequency equalizer with slide-action controls that boost or cut audio response by up to 12 dB at 50, 150, 400, 1000, 2400, 6000 and 15,000 Hz. Provides far more precise adjustment than with two or even three conventional tone controls so you get exactly the sound you want. Adjust it to suit your listening room acoustics and personal taste perfectly. EQ bypass pushbutton allows instant comparison to “flat” response.

30 Hz cut pushbutton reduces power robbing hum and rumble distortion. Monitor output power to your speakers with a 21-segment LED display. Exclusive Auto-Magic® automatically fine-tunes and locks-in FM stations.

LED tuning and 5-segment LED signal strength indicators assure you of precise station tuning.

And there's plenty of clean power to deliver all the dynamics that today's music demands. 45 watts per channel, minimum rms into 8 ohms from 20-20,000 Hz, with no more than 0.04% THD. Experience the new STA-790 at your nearby Radio Shack—today! Only $359.95.
NEW PRODUCTS  
Roundup of the latest audio equipment and accessories ................................................................................. 13

AUDIO QUESTIONS AND ANSWERS 
Power Capability, Phono-brush Force, Volume Pop ................................................................................... 20  

CAR STEROE  
Coming Attractions ........................................................................................................................................... 22  

TAPE TALK  
At the Summer CES ........................................................................................................................................ 24

TECHNICAL TALK 
Does Everything Have a "Sound"? ................................................................................................................. 28  

EQUIPMENT TEST REPORTS 
dbx Model 228 noise-reduction system and dynamic-range expander, Marantz SR 8100 DC AM/FM stereo receiver, EPI A70 speaker system, Hitachi D-E99 cassette deck, and Yamaha M-50 power amplifier .................................................................................. 29

CONSUMER ELECTRONICS SHOW: AUDIO 1982 
The latest hi-fi trends and product introductions ............................................................................................. 50

HOW TO HANDLE RECORDS 
From jacket to turntable and back without dust or damage ............................................................................... 62

INTERVIEW: BOBBY SHORT 
"It's all we have, isn't it? A well-written song, a fine painting... " ....................................................................... 92

BEST RECORDINGS OF THE MONTH 
Haydn: The Seasons .............................................................................................................................................. 64  
The Thompsons: "Shoot Out the Lights" ........................................................................................................ 66

CLASSICAL MUSIC 
Digital Bartók ....................................................................................................................................................... 70

POPULAR MUSIC 
Melanie: "Arabesque" ......................................................................................................................................... 86  
Billy Vera ............................................................................................................................................................... 96

BULLETIN  
WILLIAM LIVINGSTONE .................................................................................................................................... 5

SPEAKING OF MUSIC  
WILLIAM LIVINGSTONE .................................................................................................................................... 6

LETTERS TO THE EDITOR  
JAMES GOODFRIEND .......................................................................................................................................... 8

GOING ON RECORD  
ADVERTISERS' INDEX ...................................................................................................................................... 48  

COVER: Design by Borys Pączkowski; photo by Peter Bosy.
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 alloy frame and Reference Standard Mechanism 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.

TDK's superior technology is just as evident in our SA/EE (Extra Efficiency) and GX open reel tapes. TDK SA/EE is the first open reel tape to use TDK's famous Super Avilyn particle. This gives SA/EE almost double the coercivity and high frequency MOL of conventional open reel tapes. GX mastering tape offers a wide dynamic 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.

©1982 TDK Electronics Corp.
HEADPHONE USERS ARE TRAFFIC HAZARDS, according to officials in Woodbridge, Township, New Jersey, who have voted to restrict the use of phones on streets there. A recently passed ordinance will outlaw the use of headphones by people driving cars or riding bicycles. Pedestrians will be permitted to use phones while on sidewalks, but will be required to remove them for crossing streets. Passed in July, the ordinance becomes law when approved by the New Jersey Department of Transportation.

HEADPHONES ARE HAZARDOUS TO HEARING only if misused, according to Joseph J. Rizzo, executive director of the Better Hearing Institute in Washington, D.C. Personal portable cassette players with earphones are not inherently dangerous, Rizzo says, but people who listen at high volume levels for long periods without rest may suffer the same kind of damage that often results from overexposure to loud rock or disco in clubs or to industrial noise in factories. "I am a marathon runner," says Rizzo, "and I listen to music on my Walkman for an hour or two a day while running. I certainly would not do this if I thought there was any risk. But I am careful to keep the volume at a reasonable, comfortable level."

JOHN COUGAR's song Hurts So Good on his hit Polygram album "American Fool" is claimed to be one of the fastest written songs in U.S. musical history and the only one written in soap. Cougar says he got the idea for the song early one morning and wrote it out on the glass door while showering.

THE SAN FRANCISCO OPERA COMPANY'S performances will be broadcast this fall by National Public Radio on Friday evenings and Saturday afternoons. The series will begin with Handel's Julius Caesar on September 3 and 4. Among the highlights this month will be Verdi's Un Ballo in Maschera with Montserrat Caballé and Luciano Pavarotti (September 10 and 11) and Bellini's Norma with Joan Sutherland and Marilyn Horne the following week. Check local stations for exact time.

"JANE FONDA'S WORKOUT" is the first of RCA's SelectaVision videodiscs to use the dual sound capability of the capacitance electronic disc (CED) system. Each disc of this type can carry two completely separate soundtracks, and owners of RCA's new stereo units can play the videodisc and choose to hear music only or music plus Ms. Fonda's exercise instructions. CBS Records has released an audio version of "Jane Fonda's Workout," which is now high on best-seller charts, well ahead of its nearest competitor, Elektra's "Reach," featuring ABC-TV's guru of good health, Richard Simmons.

THE INTERNATIONAL VIOLIN COMPETITION of Indianapolis, held this year for the first time from September 6 to 19, will give the first-prize winner $10,000, a gold medal, debuts in Carnegie Hall and the Library of Congress, thirty concert bookings in the U.S. and Canada and twenty in Europe, and a recording on the Vox Cum Laude label. The Finnish composer Jonas Kokkonen has written a work to be played by the contestants.

CURTAINS FOR JOAN JETT & BILLY JOEL. No, they weren't going together. It's just that Joel's new album on Columbia is titled "Nylon Curtain," and Jett's September tour of East Germany will make her the first post-punk act to appear behind the Iron Curtain.

TECH NOTES: Hitachi-Maxell of Japan says it has developed a recording tape capable of high-fidelity performance at one eighth of normal tape speeds. Its use will require new tape heads with very narrow gaps and sharp pole pieces that cause the magnetic flux to pass through the tape in a tight arc. Hitachi-Maxell has provided samples of the new tape, known as Multi-Component Magnetic Tape (MCMT), to recorder manufacturers. The eight-fold increase in recording density portends a probable application in digital as well as analog recording.... With the high-budget car stereo market booming, Nakamichi is planning to offer in-dash units in the $1,000-plus range for introduction later this year.

September 1982
Speaking of Music

By William Livingstone

PLUS ÇA CHANGE...

When I went to the Consumer Electronics Show in Chicago this summer, I knew that I would soon be succeeding William Anderson as Editor in Chief of Stereo Review. Consequently, at the show I kept thinking about how things have changed in the audio field and in this magazine since I joined the staff back in 1965.

At that time most new recordings were released simultaneously in mono and in stereo, the latter usually costing a dollar extra. Our critics reviewed both. We also had a separate section for reviews of prerecorded tapes—all open-reel, of course, because the cassette had just been introduced and was not yet of hi-fi quality.

In this country in the middle Sixties the audio industry was dominated by American manufacturers. The important names among them included Acoustic Research, Bozak, Dynaco, Eico, Electro-Voice, Empire, Fisher, Harman Kardon, Heath, Jensen, Koss, KLH, Lafayette, Marantz, McIntosh, Pickering, Scott, Shure, and Stanton. Only a few European products, such as turntables by Dual and Garrard, were common in the installations of our readers, and Japanese manufacturers were just entering this market.

The first hi-fi show at which I represented the magazine was in Los Angeles, and compared with CES today, it was a rather sedate affair. Exhibitors, dealers, and members of the press stayed at the Ambassador Hotel, and the exhibits were set up in the cottages around it. There a manufacturer could demonstrate how his product sounded—usually with classical music. Queen Elizabeth made the Beatles members of the Order of the British Empire in 1965, but rock records were not considered fare for carefully nurtured hi-fi components.

Today new audio products are demonstrated to dealers at the gigantic twice-yearly Consumer Electronics Shows in a context that includes watches, calculators, X-rated videotapes, computers, TV sets, and telephone-answering machines. The physical scope of this summer's show was overwhelming.

At first most of the excitement seemed to revolve around video, its hardware and its software (tapes, discs, and games). Star Wars and The Empire Strikes Back seemed to be on every screen. But using The Empire Strikes Back, the NAD demonstration showed the quality of the sound that could be gotten from a video source. And throughout the show there was plenty for the audiophile to focus his ears on, now usually demonstrated with Vangelis or Melissa Manchester. The products in the Design and Engineering Exhibition were so beautiful they made me want to go home, junk all my equipment, and start over from scratch.

Elsewhere in this issue my colleagues report on what they saw at CES. This is something that has not changed in the years I've been with the magazine. We have tried always to provide our readers with guidance to what's happening in the audio world, reporting today on digital audio discs and stereo TV just as we reported on solid-state amplifiers and new cassette tapes back in the Sixties. We've tried to do this in simple language that does not require an engineering degree for comprehension.

We've also tried to write about music without snobbery, neither giving extra points to one kind of music because it is rarified and classical or to another because it is up-to-the-minute and hip. We've tried to encourage our readers to increase their musical pleasure by increasing the kinds of music they listen to.

This approach to equipment and music has worked for the magazine in the past. My colleagues and I intend to continue to apply it, and we hope it will keep working well enough to keep you listening.
Introducing a scientific first in stereophone transducer technology and sound.

New Koss PRO/4X

By combining a solid state piezoelectric tweeter with a rare earth moving coil transducer, Koss engineers have created a new first in hybrid transducer technology. It's the new Koss PRO/4x. And it's the ultimate in both stereophone listening and the Sound of Koss.

The PRO/4x's unique tweeter design features a piezoelectric bimorph disc mounted to an acrylic impregnated cone. Incredibly, the piezoelectric's bimorph disc moves the cone at frequencies from 2,500 Hz to over 40,000 Hz! That means you'll hear the full timbre of each musical instrument without the harmonic distortion found in headphones that peak out at much lower frequencies.

But if the PRO/4x's tweeter can give you a spine-tingling thrill, wait till you hear the bass and mid-range. The new PRO/4x features a powerful, yet extremely light, samarium cobalt magnet moving coil transducer that reproduces a deep rich bass and a clean, clear midrange. In addition, the PRO/4x's unique floating earplate and Pneumalite® earcushion design conforms automatically to the optimum position for both comfort and maximum seal around the ear for bass performance to below audibility.

Visit your Koss dealer so you can hear how Koss has extended the state-of-the-art in stereophone sound and design with the new PRO/4x. Once you've heard it, you'll never settle for less.

Hearing is believing®

Koss® Stereophones/Loudspeakers/Digital Delay Systems

© 1982 Koss Corp.

CIRCLE NO. 23 ON READER SERVICE CARD

Introducing a scientific first in stereophone transducer technology and sound.

New Koss PRO/4X

By combining a solid state piezoelectric tweeter with a rare earth moving coil transducer, Koss engineers have created a new first in hybrid transducer technology. It's the new Koss PRO/4x. And it's the ultimate in both stereophone listening and the Sound of Koss.

The PRO/4x's unique tweeter design features a piezoelectric bimorph disc mounted to an acrylic impregnated cone. Incredibly, the piezoelectric's bimorph disc moves the cone at frequencies from 2,500 Hz to over 40,000 Hz! That means you'll hear the full timbre of each musical instrument without the harmonic distortion found in headphones that peak out at much lower frequencies.

But if the PRO/4x's tweeter can give you a spine-tingling thrill, wait till you hear the bass and mid-range. The new PRO/4x features a powerful, yet extremely light, samarium cobalt magnet moving coil transducer that reproduces a deep rich bass and a clean, clear midrange. In addition, the PRO/4x's unique floating earplate and Pneumalite® earcushion design conforms automatically to the optimum position for both comfort and maximum seal around the ear for bass performance to below audibility.

Visit your Koss dealer so you can hear how Koss has extended the state-of-the-art in stereophone sound and design with the new PRO/4x. Once you've heard it, you'll never settle for less.

Hearing is believing®

Koss® Stereophones/Loudspeakers/Digital Delay Systems

CIRCLE NO. 23 ON READER SERVICE CARD
LETTERS TO THE EDITOR

Melchior

- Regarding George Jellinek's July review of the recent Pearl Records issue honoring Lauritz Melchior: the second-act excerpt from Die Walküre derives not from the Metropolitan Opera broadcast of January 16, 1937—in which Marjorie Lawrence, not Kirsten Flagstad, was the Brunnhilde—but rather from the November 13, 1936, San Francisco performance conducted by Fritz Reiner. The latter was the only collaboration between Flagstad and Lotte Lehmann ever recorded. Because of broadcast time limitations, the engineer started fading the sound just as Wotan (Friedrich Schorr) began his line "Geh hin, Knecht!" at which point the mistress of ceremonies came on to praise "this most extraordinary performance of Die Walküre." That is why the excerpt on the record is interrupted before the end of the act.

Michael A. Leone

Houston, Texas

Several other readers also wrote to correct Mr. Jellinek on this point. "In the complete absence of documentation for the excerpt on the album," he explained, "I guessed—wrongly, as it happens."

Tape "Tax"

- Contrary to William Anderson's July column, "Taxing Tape," the Mathias Amendment and the Edwards Bill now before Congress have nothing to do with "taxes" at all. These bills simply state that manufacturers of blank tape and tape recorders should be paying royalties to artists, just as record companies, radio stations, and other institutions do when they use the work of a person involved in creating an art form. Royalties go to an artist in a direct manner; taxes, on the other hand, go through the bureaucratic grindmill. Mr. Anderson is, of course, correct in assuming that payments in the form of taxes would be illogical and ineffective.

The U.S. is a capitalistic state, and a democratic one, or at least that is what we are striving for. An artist should be compensated for his work, and no one could claim that any manufacturer of tape or taping equipment was pushing his product solely for recording junior's birthday party or bird calls (that goes for videotape as well). New LP releases are down some 30 per cent from several years ago—there is little incentive for a record company to look for new artists or for artists themselves to produce if they are not going to be paid for it. Their work does not simply "belong to the people." Mr. Anderson should ask himself why great artists flock to this country from behind the Iron Curtain before he opposes the home-taping bills.

William B. Cornell

Dallas, Texas

We think you are wrong. Royalties are usually paid to the creator of a specific artistic work after it has been used by someone else for commercial purposes. As we understand the proposed legislation now before Congress, it would require payment of a fee at the time of purchase by anyone who buys tape or tape equipment that could enable him to make illegal use of the artistic creations of others whether he in fact does so or not.

- Ed.

Tape "Tax"

- I am opposed to a blanket royalty or tax on audio and video tape and tape equipment. To me it seems un-American to assume in advance that because a person buys tape equipment he will be guilty of using it improperly to appropriate copyrighted works for financial gain. I know that a lot of audio tape machines are used by students and teachers for educational purposes in the same way that photocopiers are used in schools. Since the principle is the same, I think it would be unfair to put a royalty tax on tape recorders and not on photocopy machines. And since many of the latter use plain paper, this might lead to a tax on all paper.

James Morales

New York, N.Y.
Once again, JVC harnesses higher tech in the pursuit of higher fidelity.

The power of higher tech, harnessed by superior engineering. Once again, it's the mark of JVC's leadership. Even in the realm of moderately priced components like these.

The intricacy of JVC turntable design. You see it, and hear it, in attention to subtle, yet significant details. Like a straight, low-mass tonearm with tracing hold to stabilize tracking. And quartz control to insure virtually perfect platter rotation.

Powerful, yet musically pure receivers. A JVC innovation called Super-A removes subtle forms of distortion. So musical overtones and transients are amplified intact for a pure, musically natural sound. Add graphic equalization and quartz tuning, and you have receivers unsurpassed for performance and versatility.

The innovators in metal cassette decks. It was JVC who first put together the technology needed to record metal tapes. Now we've added Dolby® C for ultra-quiet recordings. Plus features like Music Scan to find selections automatically. Spectro-Peak metering. Logic controls, digital indication, memory and more.

Speakers more precise than the ear itself. Our Dyna-Flat ribbon tweeter extends to 100 kHz, higher than the ear can hear. By doing so, it helps provide correct amplitude and phase characteristics in the audible range. So music takes on the focus, detail and spatial image of live sound.

Your JVC dealer is waiting to demonstrate the full new line of higher tech components. Computerized tuners. "Thinking" tonearms. Self-optimizing cassette decks. Higher tech engineering all focused on one goal — achieving the highest fidelity possible.
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.

First and foremost, it features Concord's exclusive signal processor circuitry which (with our plug-in 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 10-station 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-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).

To 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. It 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
Sensitivity: 30dB Quieting
1.0 Microvolts 11.2 dB
Stereo separation: min. 35dB
Frequency responses: ±2dB
30-16,000 Hz
Tape Section
Frequency response: ±2dB
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
0.9% THD max

DBX® is the registered trademark of DBX Laboratories Inc.
Dolby® is the registered trademark of Dolby Laboratories Inc.
the present difficulty in buying classical records. For the first fifteen years or so of my shop, I could fill most special orders for RCA, Columbia, Angel, and London within a few days. In fact, many times I have walked to the local Columbia distributor to pick up a special order while the customer waited in my shop. Then the local distributors were terminated by the manufacturers, and we told to order from larger distributors or factory branches in Atlanta. This took a bit longer, but we could still fill an order within a week.

Several years ago, the Atlanta warehouses were closed (excepting Capitol, which closed this past July). We were then advised to begin ordering direct from factory warehouses in New Jersey. Now, after the companies had eliminated our sources of supply except for factory-direct orders, they started instituting restrictions on purchases, including the following:

1. Columbia and Polygram cut off most of the small dealers in the country, especially the “mom-and-pop” type stores. They both terminated me, but I did get Polygram to rescind the termination. Columbia, however, has refused to sell to me since 1979. They allege that unless I buy at least $5,000 of merchandise per year, they lose money on my account! Years ago they stopped furnishing catalogs, sales aids, posters, etc., and no Columbia salesman has called on me in about ten years. So how could they lose money by selling me $2,000 or $3,000 worth of records a year? Yet they will sell one LP at a time direct to retail customers through their club, the Columbia Home Music Service.

2. Both RCA and Polygram have raised their minimum orders from $100 at cost to sixty record albums and tapes, or $300 to $400 at cost. At slow times of the year, this may mean that we may only be able to order every two or three months instead of two or three weeks as in the past. Many customers will not wait. They will spend their money for something else, and, if they can find a copy of the record at a friend’s house, they will tape it simply because they cannot buy it. My shop, incidentally, sells only classics—no pop or rock—so I cannot buy the records I need through distributors or one-stops.

JOE LITTLE
Charlotte, N.C.

Abridged Offenbach

- George Jellinek’s informative, useful, and essentially factual June review of the Peters International recording of Offenbach’s La Vie Parisienne gives the mistaken impression that it is an abridgement. Musically, at least, it is not; in fact, it is the most complete recording of the score yet released. The Angel version, which Mr. Jellinek says has “more music,” suffers from some of the standard cuts, which have been restored in the Peters recording. The Angel set does have one entr’acte not included in the Peters. However, while musically complete, the Peters release has none of the operetta’s dialogue; the Angel contains the abbreviated spoken text typical of operetta recordings today. If the dialogue is to be considered, then, indeed, the Angel could be claimed to be “complete” and the Peters “abridged.”

ROBERT J. FOLSTEIN
Bartlesville, Okla.

It’s almost like getting a new VCR for the cost of a tape.

New JVC High Grade VHS Tape

Now from JVC, the originators of the VHS system, comes High Grade VHS videocassette. A tape so advanced, so perfected, that alone it can make a significant difference in the quality of your VCR’s performance.

JVC High Grade. A video tape that’s ultrasmooth, ultrarefined, ultrasound. With it, you’ll possess all the advanced qualities required for ccnsistent, maximum recording and playback excellence.

What’s more, there is no software anywhere that performs better in today’s world of punishing “slow-speed” VCR features like six-hour recording, slow motion, and freeze frame. Plus, JVC High Grade reduces the possibility of drop-outs to an all time low.

JVC High Grade comes in both 60 and 120 minute lengths. It’s the one new videocassette no VCR should be without. See it at your JVC Vidstar dealer today.

The service is exemplary. I often order recordings by the numbers in reviews or given over the radio. I have never experienced their not being able to obtain a new recording, and two or three weeks is all it ever takes for my orders to arrive. I have used other mail-order services but have found none to be so quick and reliable or to cover such a wide range of recordings.

JUDITH ANN MILLER
Dayton, Ohio

JVC COMPANY OF AMERICA
Home Entertainment Division
41 State Drive, Bloomingdale, N.J. 07401
JVC CANADA INC., Scarborough, Ont.

SEPTEMBER 1982
Presenting High Bias II and the Ultimate Tape Guarantee.

Memorex presents High Bias II, a tape so extraordinary, we're going to guarantee it forever.

We'll guarantee life-like sound.

Extraordinarily flat frequency response at zero dB recording levels, combined with remarkably low noise levels, means music is captured live. Then Permapass, our unique oxide-bonding process, locks each oxide particle—each musical detail—onto the tape. So music stays live. Not just the 1st play. Or the 1000th. But forever.

We'll guarantee the cassette.

We've engineered every facet of our transport mechanism to protect the tape. Our waved-wafer improves tape-wind. Silicone-treated rollers insure precise alignment and smooth, safe tape movement. To protect the tape and mechanism, we've surrounded them with a remarkable cassette housing made rigid and strong by a mold design unique to Memorex.

We'll guarantee them forever.

If you ever become dissatisfied with Memorex High Bias II, for any reason, simply mail the tape back and we'll replace it free.
Low-distortion
Sansui Receiver
Has Equalizer

The “Super-Feedforward” DC power-amplifier section in Sansui’s Z-9000 microprocessor-controlled receiver is said to reduce all forms of steady-state and dynamic distortions. The unit is rated at 120 watts per channel from 5 to 100,000 Hz with total harmonic distortion of less than 0.005 per cent. The preamplifier section includes a pre-amp for moving-coil cartridges. Signal-to-noise ratio (S/N) of the moving-magnet phono section is 82 dB. The Z-9000 has a digital-synthesis tuner section with a S/N rated better than 80 dB. Useful sensitivity is better than 10.3 dBf, and distortion is under 0.05 per cent. Sixteen presets are available (eight AM, eight FM) as well as a choice of automatic or manual tuning and narrow or wide i.f. bandwidth.

The built-in graphic equalizer is a seven-band model with a reverbation amplifier and adjustable 0- to 3-second echo decay. Other features include fluorescent peak-power meters, switching for three pairs of loudspeakers and two tape recorders, microphone mixing, a station-frequency display that doubles as a digital clock, and a three-memory program timer. Price: $950.

Circle 120 on reader service card

LaserDisc Player
Has CX Decoding

Pioneer Video’s top-of-the-line LD-1100 laser-optical videodisc player includes a CX noise-reduction / dynamic-range-expansion system for use with CX-encoded videodiscs. Properly decoded, such discs are said to offer an audio signal-to-noise ratio greater than 70 dB and a frequency-response range of 40 to 20,000 Hz.

The LD-1100 comes with a handheld infrared remote-control unit for audio switching, random access to individual videodisc chapters or frames, scanning, fast forward or reverse at three times normal speed, slow motion, and step- and freeze-frame display. It also has pause and play controls and a reject switch for changing videodiscs. The front panel of the player duplicates most of the controls on the remote unit. It also has the power switch, a CX on/off switch, and a variable-speed control for the slow-motion mode. Audio-output connections are made with stereo phono jacks on the rear panel. Both r.f. and NTSC video outputs are provided. Dimensions are 20 3/4 x 5 7/8 x 15 3/4 inches. Price: $800. Pioneer Video, Inc., Dept. SR, 200 West Grand Avenue, Montvale, N.J. 07645.

Circle 122 on reader service card

Two Low-impedance
Stanton Cartridges

Stanton’s new 885LZS (left) and 785LZE (right) low-impedance, low-output moving-magnet phono cartridges both incorporate a samarium-cobalt magnet attached to a specially developed cantilever whose material permits maximum stiffness with minimum moving mass. The 885LZS is designed for a tracking force of 3/4 to 1 1/2 grams and has a large-contact-area Stereohedron stylus. Output is 0.06 millivolt per cm/sec of recorded velocity. Frequency response extends from 20 to 40,000 Hz. Channel separation is given as 35 dB, cartridge inductance as 1 milihenry, resistance as 3 ohms. The recommended load impedance is 100 ohms or higher. Designed to track at the same force as the 885LZS, the 785LZE has a 0.2 x 0.7-mil elliptical stylus and a 30-dB separation specification. Both cartridges weigh 5.5 grams, come with a Stanton long-hair record brush, and have user-replaceable styls. Prices: 885LZS, $150; 785LZE, $100.

Circle 121 on reader service card

Yamaha’s Low-profile Turntable Line

Yamaha’s new P-200, P-300, P-500, and P-700 turntables all feature low-profile styling, smoked-plastic dust covers, and improved versions of Yamaha’s “Optimum Mass, Minimum Resonance” straight tone arm. The tone arm has been simplified and modified for a damped resonance frequency designed to fall near 12 Hz with most phono cartridges.

The P-200 is a belt-drive semi-automatic unit, the P-300 a direct-drive semi-automatic model, and the P-500 a direct-drive fully automatic turntable. The P-700 (shown) has a quartz-regulated-PLL direct-drive mechanism, fully automatic operation, light-touch front-panel controls, and two lightweight headsheals. Wow-and-flutter is given as 0.015 per cent (wrm); signal-to-noise ratio is 78 dB. Weight is 13 1/4 pounds. Dimensions of all four new models are 17 1/8 x 4 5/16 x 14 1/2 inches. Prices: P-200, $150, P-300, $190, P-500, $220, P-700, $270.

Circle 123 on reader service card

Computer Controls
JVC’s Top Tuner

The T-X55 quartz-locked digital-synthesis AM/FM stereo tuner from JVC features automatic computer-controlled optimization of reception and newly developed circuitry for improved performance. When tuning in a station, the built-in microcomputer measures the signal strengths of the desired station and of adjacent stations that might interfere with reception. It then adjusts antenna attenuators, i.f. bandwidth, and stereo blend for best reception. The circuitry includes a gallium-arsenide field-effect-transistor (FET) mixer for reduced
station cross-modulation, a high-Q varicap in the front end for improved selectivity, a non-multiplexed drive of the front-panel display for lower noise, and a new quadrature detector and balanced AM mixer.

Other features of the T-X55 include eight FM and eight AM station presets, an AM sensitivity switch for improved AM reception, a recording calibration-tone switch, manual override of the computer-set parameters, a digital r.f. field-strength display (which doubles as the station-frequency indicator), a six-broadcast programmable timer recording function that makes possible the sequential recording of different stations, and a detachable AM loop antenna.

FM specifications include a mono usable sensitivity of 10.3 dBF (0.9 microvolt, or fV) and a 50-dB-quieting sensitivity of 31 dBF (9.8 fFV) in stereo. The A-weighted stereo signal-to-noise ratio with short-circuited antenna terminals is 80 dB. At 1,000 Hz, total harmonic distortion in stereo is 0.07 per cent. Alternate-channel selectivity and image-response ratio are both 80 dB.

Capture ratio is 1 dB and stereo separation at 1,000 Hz is 50 dB. Frequency response is given as 30 to 15,000 Hz +0.3, -0.8 dB. In AM, usable sensitivity is 20 µFV with an external antenna, total harmonic distortion is 0.3 per cent, and signal-to-noise ratio is 50 dB.

Dimensions are 17 1/8 x 3 x 12 1/2 inches; weight is about 135 pounds. Standard finish is Makassar ebony, Indian rosewood, and white-oak finishes are available. There are five models in the series. The top-of-the-line CBR 1702 (shown without grille cloth) is a four-way system with a 13-inch woofer, 7- and 2-inch polypropylene-dome midrange drivers, and a 1-inch dome tweeter. A 12.2-watt input will produce a 96-dB sound-pressure level at 1 meter. Frequency response is given as 22 to 22,000 Hz; impedance ranges down to 4 ohms. There are level controls for the midranges and tweeter. Enclosure dimensions are 32 x 17 x 14 inches, and a pedestal support is supplied. Price: $649.95. Jamo Hi-Fi U.S.A., Inc., Dept. SR, 916 Ash Street, Winnetka, Ill. 60093. Circle 125 on reader service card

Bass-reflex Speakers From Denmark’s Jamo

Jamo Hi-Fi’s CBR (Center Bass Reflex) speaker systems incorporate special features intended to eliminate secondary resonances transferred to the speaker’s front plate by drivers and enclosure components. A claimed 10dB reduction of these resonances is achieved in CBR speakers by a combination of compliant woofer mounting and a port that loads the woofer symmetrically to minimize distortion. The bowed fronts are said to insure correct phase relationships of the drivers.

There are five models in the series. The top-of-the-line CBR 1702 (shown without grille cloth) is a four-way system with a 13-inch woofer, 7- and 2-inch polypropylene-dome midrange drivers, and a 1-inch dome tweeter. A 12.2-watt input will produce a 96-dB sound-pressure level at 1 meter. Frequency response is given as 22 to 22,000 Hz; impedance ranges down to 4 ohms. There are level controls for the midranges and tweeter. Enclosure dimensions are 32 x 17 x 14 inches, and a pedestal support is supplied. Price: $649.95. Jamo Hi-Fi U.S.A., Inc., Dept. SR, 916 Ash Street, Winnetka, Ill. 60093. Circle 125 on reader service card

TheEQ-One combination real-time analyzer, ten-band graphic equalizer, and pink-noise generator from Audiosource combines three useful components in a single rack-mountable chassis. The ninetynine-two-LED analyzer display can be used along with the pink-noise generator and equalizer to perform speaker/listening-room equalization and optimization of speaker placement besides showing the frequency content of audio signals. The analyzer can be switched to either a 16- or 32-dB display range. The equalizer has center frequencies of 31.5, 63, 125, 250, 500, 1,000, 2,000, 4,000, 8,000, and 16,000 Hz for each channel. The control range is ±12 dB, the control bandwidth ("Q") 1/2.5. The unit can be switched to equalize tape recordings during recording or playback.

A switchable infrasonic filter provides an 18-dB-per-octave rolloff starting at 20 Hz. Frequency response is 3 to 100,000 Hz ±0.75 dB with all controls centered. Distortion is 0.2 per cent or better from 20 to 50,000 Hz. An electret-condenser microphone with a frequency response of 30 to 16,000 Hz is supplied for room and speaker equalization. Dimensions of the EQ-One are 19 x 5 1/4 x 8 1/2 inches; weight is about 8 1/2 pounds. Price: $399.95. Audiosource, Dept. SR, 1185 Chess Drive, Foster City, Calif. 94404. Circle 126 on reader service card

JBL’s Four-way, Floor-standing Speaker System

The enclosure of the JBL L250 is an asymmetrical pyramid, a shape chosen for its acoustical properties. The front-panel width varies according to each driver’s size, all edges are rounded to minimize diffraction effects, the dome tweeter is positioned at the best height for average listeners, and the front baffle is slanted so as to align the drivers’ acoustical centers. All units are sold in mirror-image pairs for better imaging.

The L250’s crossover frequencies are 400, 1,600, and 4,500 Hz, and there are shelving controls for the lower and upper midrange drivers (three settings) and a roll-off control for the high-frequency driver (four settings). Adjustments are made with high-current stepped attenuators; the crossover network’s components were selected to meet the demands of high-power operation. The widths and crossover points of the drivers—a vented 14-inch low-frequency, an 8-inch lower-midrange, a 5-inch upper-midrange, and a 1-inch soft-dome high-frequency—were chosen for consistent, wide dispersion and smooth, wide-range response. The midrange units are housed in isolated subchambers to prevent acoustical interactions with the other drivers. Sensitivity is 90 dB sound-pressure level at 1 meter with a 1-watt input. Nominal impedance is 8 ohms; maximum power-handling capability is 400 watts.

Dimensions are 52 x 22 1/2 x 14 1/4 inches; weight is 135 pounds. Standards finish is oil black walnut, but black painted birch, Makassar ebony, Indian rosewood, and white-oak finishes are available by special order. Choices for grillecloth color include black, blue, brown, mar-
THE V-95RX.

YOU CAN'T EVEN HEAR ITS BEST FEATURE.

This is the Teac that's quicker than the ear. It features Real Time Reverse. When your cassette comes to its end, a miniature infra-red sensor activates either the independent forward or reverse capstan (as appropriate). Its unique four-channel permalloy record/play head is repositioned. And the tape reverses course. All in an astoundingly swift 0.15 seconds. So quick, the gap is virtually inaudible. In record or play. And you'll never have to flip a cassette again.

Yet this is just one feature of an extraordinary deck which also offers the unusual option of both Dolby NR* and dbx** noise reduction. Plus Computomatic. So you can program in advance the exact cuts you want. Along with a three-motor transport system. And an optional full-function remote control.

The V-95RX. You won't know if it's coming or going.

TEAC. MADE IN JAPAN BY FANATICS.
Denon's PRA-6000 preamplifier is ±1 per cent. Dimensions are 17 1/4 x 4 3/4 x 4 3/4 inches; weight is 31 1/2 pounds. Price: $3,000.

**Akai's Top-of-the-line Cassette Deck**

- The microcomputer-controlled Akai GX-F91 cassette deck is a three-head, two-motor unit with a quartz-locked direct-drive dual-capstan closed-loop tape transport. The microcomputer automatically sets optimal equalization, sensitivity, and bias levels for any tape type, with fine-tuning in a series of sixty-four 0.26-dB steps. (There is also a manual fine-tuning bias control.)
- The system's memories will store up to four tape settings. The deck incorporates Akai's Super GX crystal-ferrite heads, which are said to be guaranteed for more than seventeen years of use (150,000 hours). The fluorescent twenty-four-segment meters show peak or VU levels.
- The "Instant Program Location System" locates the beginnings of program segments, and the "Intro Scan" function plays back the first 10 seconds of each selection.
- Specifications include a frequency response of 20 to 21,000 Hz ± 3 dB (metal tape, 20-VU recording level). Response with ferro tape extends to 18,000 Hz. Signal-to-noise ratio with metal tape is greater than 60 dB; this figure improves by 10 dB above 3 kHz with the Dolby-B circuits on and by 20 dB from 1 to 10 kHz with the Dolby-C circuits operating. Wow-and-flutter is less than 0.025 per cent (r.m.s.) or 0.08 per cent (DIN). Tape-speed tolerance is ±1 per cent. Dimensions are 17 1/4 x 37/8 x 14 1/4 inches. Price: $750.

**AR's First Minispeaker**

- The AR1MS from Acoustic Research is a miniature two-way acoustic-suspension speaker housed in a rigid drawn-aluminum cabinet. Threaded inserts on the rear of the cabinet accommodate several mounting options (wall, ceiling, etc.). The driver complement includes a 4-inch woofer and a 3/4-inch liquid-cooled dome tweeter. Cross-over frequency is 2,800 Hz; slopes are 12 dB per octave. Rated sensitivity is 88 dB sound-pressure level at 1 meter with a 2.83-volt input. Nominal impedance is 4 ohms with a 3.8-ohm minimum. Recommended amplifier power is 7 watts minimum; power-handling capability is 75 watts per channel with normal program material.
- The AR1MS's half-power (-3-dB) points are 95 and 25,000 Hz. Dimensions are 7 1/4 x 4 3/4 x 4 3/4 inches; weight is 4 1/2 pounds. Price: $220 per pair.

**Digital-synthesis Sony Receivers**

- Two of Sony's newest receivers, the STR-VX33 (shown) and STR-VX22, feature "Direct Access" tuning in which the user can enter the station frequency directly. If the exact station frequency is not known, the user can enter the approximate frequency and use the scanning controls to find the desired station. Up to eight AM or FM stations can be preset. The STR-VX33 also has a "Memory Scan" function that samples each preset station for about four seconds. New low-noise integrated circuits are used in the i.f. and multiplex stages of the tuner sections of both receiver models.
- The units have bass, treble, and loudness controls as well as connections and switching for two pairs of speakers. The STR-VX33 can handle two tape decks, the STR-VX22 only one. The auxiliary inputs are also labeled DAD (for digital-audio discs). The STR-VX33 is rated to deliver 40 watts per channel into 8-ohm loads with no more than 0.008 per cent total harmonic distortion; the STR-VX22 at 30 W/ch has no more than 0.03 per cent THD. Prices: STR-VX33, $310; STR-VX22, $250.

**Acoustic-isolation Products from Mission Electronics**

- Two new products from Mission Electronics, the Mission Sorbomat and the Iso-plate, are designed to cut down on unwanted vibrations in a turntable system. Both are made with a polyurethane elastomer called Sorbothane that is described as a "quasi-liquid molecular spring" with both the dimensional stability of a solid and many of the hydraulic characteristics of a fluid. Sorbothane is claimed to absorb much of the energy impinging on it, thus making it suitable for turntable isolation.
- The Mission Sorbomat is a 12-inch-diameter, 3-millimeter-thick pad that replaces...
NEW VANTAGE ULTRA LIGHTS

New richer taste.
New tobacco blend.
Still only 5 mg.

YOUR BEST DECISION IN ULTRA LOW TAR.


Not available in States of Oklahoma, Colorado.

5 mg. "tar", 0.5 mg. nicotine av. per cigarette by FTC method.
Fuji Cassettes Have Improved Tapes, New Shell Design

Improvements have been announced in the magnetic coatings, tape binders, and mechanical construction of Fuji's audio cassettes. New manufacturing processes applied to the tapes include "Mono Particle Dispersion" (preventing clusters of magnetic particles) and "Micro Integrated Orientation" (thoroughly aligning the particles parallel to the recording tracks), both of which are said to result in increased output level and lower bias-noise levels. The new binder formulation provides improved cohesiveness and resilience plus increased immunity to temperature and humidity effects. The new cassette shells have loop-prevention guides to eliminate tape snagging and tension-stabilizer guides to minimize irregularities in tape run. All the cassettes in the line have cleaning leader tape and extra cassette labels, and all except the DR cassettes have a braille side indication.

There are five types of cassette in the new line: FM Metal (a metal-bias tape), FR-II (a premium CrO2-equivalent tape), FR-I (a super-premium ferric-bias tape), ER (a premium ferric tape), and DR (a low-noise, high-output ferric tape). All are available in C-46, C-60, and C-90 lengths; C-120 DR cassettes are also available. Prices for C-90s: FR Metal, $10.75; FR-II, $7.50; FR-I, $7.30; ER, $5.75; DR, $4.75.

Circle 133 on reader service card

Medium-power Integrated-amp Kit From Heath

The Heathkit AA-1205 integrated amplifier is rated at 30 watts per channel into 8-ohm loads with less than 0.009 per cent total harmonic distortion. The power-ampifier section is a class-AB design with a dynamically biased output stage for low distortion. The preamplifier section has inputs for tuner, two phono cartridges, two tape decks, and two auxiliary sources. An adapter loop allows insertion of an equalizer, audio processor, or other accessory into the system. A peak-reading, ten-LED bargraph display for each channel indicates output levels over a 45-dB dynamic range.

The front panel also has switches to activate 20- or 50-Hz low-frequency filters and 6- or 12-kHz high-frequency filters, change the tone-control turnover points, and defeat the tone controls. The back panel has preamp-out and power-amp-in jacks to permit substituting other amplifiers or adding crossovers or equalizers. Size is 4½ x 17 x 13 inches. Price: $289.95.

Circle 134 on reader service card

Pyramid Loudspeaker’s Modular System

The three-part “Futuresonics” system from Pyramid Loudspeaker consists of the Metronome 7 full-range minispeaker, the Metronome 8W bass module, and the T-9 high-frequency ribbon speaker. The three modules can be combined in various ways, either physically separated or stacked as the photo shows, to form a customized sound system. Using one or two Met 8W units with a pair of Met 7s provides extended bass response, and the addition of a pair of T-9 modules is said to improve mid- and high-frequency response and spatial imaging. An optional concealing grille cover (in black or wheat color) and bracket kit are available for installations combining the three modules into a single floor-standing system measuring 45 x 16¾ x 13 inches.

Frequency response of the Met 7 is given as 76 to 22,000 Hz ± 3 dB. The Met 8W is rated at 30 to 150 or 30 to 250 Hz ± 3 dB depending on the setting of the internal crossover. The bipolar-radiating T-9 has a rated response of 4,000 to 40,000 Hz ± 3 dB and includes a sensitivity selector. The complete three-piece Futuresonics system is rated for a response of 30 to 40,000 Hz ± 3 dB. Available finishes for the bass module are oak or walnut; the Met 7 is finished in black or simulated-walnut vinyl, the T-9 in walnut veneer. Total system price: $1,718 (East Coast). Pyramid Loudspeaker Corp., Dept. SR, P.O. Box 192, Flushing, N.Y. 11352.

Circle 135 on reader service card

New Top-of-the-line Radio Shack Speaker

The Realistic Optimus T-300 floor-standing speaker from Radio Shack has a rated frequency response of 44 to 20,000 Hz, sensitivity of 91 dB sound-pressure level at 1 meter, and power-handling capability of 150 watts. The drivers are a 10-inch long-throw woofer, 10-inch passive radiator, 5-inch midrange, and 1-inch ferrofluid-cooled soft-dome tweeter. Two L-pads adjust midrange and tweeters to suit room acoustics. System impedance is 8 ohms.

The design of the front baffle and grille is said to minimize diffraction effects and to enhance dispersion at high frequencies. Finish is genuine oiled-walnut veneer. Dimensions are 34 x 12¾ x 14 inches. Price: $259.95.

Circle 136 on reader service card
"...a superb cassette deck, remarkable in performance, simple in operation and styling... perhaps the finest deck I have yet tested."*

Stereo Review agrees we have reached our goal—a cassette recorder that is beautiful, simple to operate, and yet achieves the remarkable performance that has been a Nakamichi heritage: "...playback-response curves...so nearly perfect that they call for no comment..."," “record-playback response...so flat across the 20- to 20,000-Hz range that it is almost pointless to put it in the graph;" "—truly extraordinary performance"* at 0-dB recording level, and, in the listening tests, "...impeccable copies."**

Performance like this is no accident. It is the direct result of Nakamichi's unequalled expertise in magnetic-recording technology—our exclusive "Discrete 3-Head" system, the unique Asymmetrical, Dual-Capstan, Diffused-Resonance Transport with Microprocessor-Controlled Motor-Driven Cam, and state-of-the-art electronics of our own design—technology that provides automatic professional fades, punch-in recording, remote control, bias tuning, and a 70-dB dynamic range.

Experience the beauty of form that reflects the beauty of performance—the LX-5 and its companion LX-3—now at your Nakamichi dealer.

Nakamichi
For more information, write Nakamichi U.S.A. Corporation, 1101 Colorado Avenue, Santa Monica, CA 90401

"Excerpts from STEREO REVIEW Lab Test Reports April 1982 Issue Copyright © 1982. All rights reserved"
Power Capability

Q. How can Julian Hirsch say, in a recent H-H Labs report, that a speaker system's 500-watt power rating is justified when a 200-watt-per-channel amplifier blows its tweeter fuse?  

A. Speaker power-handling ratings are not a simple matter. First, note that H-H Labs did not say the speaker in question could handle 500 watts, but rather that it is rated for use with amplifiers delivering up to 500 watts output. The two statements are not at all the same. A speaker's power rating is a function of both frequency and time. The low-mass higher-frequency drivers can easily be burned out (literally) by a few watts of energy applied for a sustained period. On the other hand, the heavy woofer structure can dissipate a large amount of power for a long time, and modern woofers are in fact more likely to be damaged mechanically (by a torn cone, suspension, or displaced voice coil) than thermally.

Luckily for speaker designers, ordinary music does not contain an even distribution of energy over the audio-frequency range. It is maximum in the range of several hundred hertz, where the woofer is easily able to handle it, and except for brief transients it will rarely exceed its midrange value in the tweeter range. Such factors as the crossover frequencies and slopes as well as the use of such heat-transfer agents as ferrofluid in the voice-coil gaps can have a great effect on the ruggedness of tweeters and midrange units. Most testers have blown out tweeters by feeding in only a few watts of test-tone energy centered in their frequency range even though the woofers in the same systems could easily handle 50 to 100 watts.

The best way to specify power-handling ability is to state, however loosely, the amount of power a speaker can handle in a given frequency range for a given amount of time. Such a specification would read something like that of, say, the Allison:Five system: "At least 15 watts continuous or average at any frequency. At least 35 watts peak at resonance frequency. Over most of the frequency range, at least 350 watts for 0.1 second; 125 watts for 1 second; 60 watts for 10 seconds."

An alternative approach is the equally useful power spec from Acoustic Research: "May be used with amplifiers capable of delivering up to 100 watts continuous power per channel, being driven into clipping no more than 10 per cent of the time on normal speech and music source material in non-commercial applications."

Phono-brush Force

Q. The instruction manuals for several phono cartridges with built-in brushes (Shure, Stanton, Pickering) say to add extra tracking force to compensate for the brush. That doesn't make sense to me since when it's on the record the brush supports its own weight—or doesn't it?

A. It does—which is precisely why you must provide additional tracking force for the cartridge. Obviously, in order to be effective, the brush has to exert adequate downward pressure on the disc surface. This pressure is provided by a deliberate weighing of the brush assembly, usually by a specified extra half gram or so. During play, the weight of the independently pivoted brush assembly does not affect the tracking force of the cartridge. However, when the tone arm is lifted off the record for the "zero balancing" procedure used originally to set stylus tracking force, the weight of the brush assembly is added to the weight of the arm and cartridge. This combined weight is then nullified in the zero-balancing process.

But since the brush assembly is supported independently by the record surface during play, a tracking force dialed in after zero balancing will be too low by precisely the weight of the brush assembly. In other words, what you are compensating for by dialing in a higher tracking force is the absence of that amount of weight during play.

I hope that the readers who have written expressing confusion about this matter will be gratified that I have treated it as a properly weighty question instead of giving it a fast brush-off.

Volume Pop

Q. When I play records (not the tuner or a tape) the volume level in one channel pops up and down intermittently. I have had both the amplifier and the phono cartridge checked, but nobody seems to be able to determine where the trouble is. Can you offer any suggestions?

A. The "intermittent" is a major headache for any service technician. The classic symptom is a sudden and apparently unprovoked complete or partial loss of signal; operation will usually return to normal when the amplifier is either physically or electrically disturbed. The technician's problem is that simply connecting his test instruments into the circuits to make diagnostic measurements will frequently restore normal operation, and when the circuit is operating normally there is no easy way to locate the trouble. Most of the battle is won when you can determine the point in the system where the defect is occurring. In your case it has to be in either the phono cartridge, the record- player connections, or the phono-preamplifier stage of your preamp or integrated amplifier.

The first connections to check are those in the tone-arm headshell. Using long-nose pliers, tighten the cartridge-pin clips and squeeze the pin terminals where they are crimped around the thin shell wires. Also clean the contact points where the cartridge shell mates with the tone arm by rubbing them carefully with a pencil eraser. If none of this cures the problem, try substituting another cartridge and/or headshell. You might also try to induce the effect by vigorously wiggling the phono leads from your turntable while it is playing. If that makes the volume level "pop" up and down, check out the leads and the jacks they connect to. The ultimate diagnostic test for this part of your system is to substitute a different turntable temporarily.

If none of the above clears up the problem, the preamp section is probably the culprit. If you feel confident enough to check this out yourself, unplug the amplifier's a.c. power cord and open up its enclosure. Gently wiggle each of the printed-circuit boards, particularly those that plug into some type of edge connector. (Oxidation of internal plug-in connectors is a common cause of intermittent operation of some types of audio components.)

In any case, it's a good idea to check with the service departments of the manufacturers of your turntable and amplifier. The fault you are experiencing may be more or less typical of one of the products involved, and the manufacturer may be able to suggest an effective quick fix.

Because the number of questions we receive each month is greater than we can reply to individually, only those letters selected for use in this column can be answered. Sorry!
DESIGN INTEGRITY:
The performance that comes closest to our $8000. Separate...
Pure Class-A, Non-NFB PRA-6000 Preamplifier and POA-8000 Amplifiers...
comes in our $450. PMA-750...
Direct-A Integrated Amp with Odb, Real-Drive, Super-EQ, and Real Time Circuitry.
...and our $359. DRA-400,
Non-Switching AM/FM Receiver with MC Head Amp and Digital FM.

The pure Class-A and Real Drive operation of the PRA-6000 and POA-8000's safely extracts the full performance potential of transistor technology. The elimination of Negative Feedback (Non-NFB) removes the principal cause of Transient Intermodulation and Time Delay Distortions and represents the very latest in contemporary audio design. Virtually all of this technology is incorporated into the PMA-750. To keep its transistors operating optimally, yet safely, it employs Direct-A Odb circuitry (capacitorless, non-negative feedback and non-switching), Real-Drive (distortion measured at the speakers is reduced to 1/50!) and Real-Time passive tone control. The sound quality is only surpassed by Denon separates costing 13 times as much!
Non-switching A circuitry can also be heard in the DRA-400 AM/FM Receiver, in addition to its built-in Moving Coil Head Amp and Digitally Synthesized FM tuning. With the DRA-400, Denon has made a new standard of listening quality available to those demanding economy and operating convenience in a compact package.
Denon products share more than name alone.

DENON
Imagine what we'll do next.
Car Stereo

By Fred Petras

COMING ATTRACTIONS

Car stereo has really grown up in the past few years. An impressive level of quality and innovation was apparent in the car-stereo products exhibited to dealers by the top manufacturers at this summer's Consumer Electronics Show. These products should be on dealers' shelves ready for you this fall.

The main topic of conversation at the show, however, was not the products or the design innovations, but a factor that could have enormous influence on the car-stereo business—AM stereo. The FCC's recent decision to allow the "free market" to choose between five competing AM-stereo systems has created a variety of problems (see Stereo Review, June 1982, page 58). Various companies and groups seem to be choosing sides (AM-stereo formats, that is), and, from what we have seen, the two major candidates are the Magnavox and Harris systems.

Harris seems to be the system preferred by many broadcasting people, and the Magnavox system seems to be the choice of many receiver manufacturers because it is expected to be cheaper to build in. A number of manufacturers (Pioneer, Alpine, Clarion, Ford, Delco, General Electric) and a parts supplier (National Semiconductor) have stated that they would prefer the Magnavox system but have also added that they do not plan to go into production with any system at this time.

The consensus is that AM stereo could be stillborn if no broadcasters or manufacturers decide to force the issue soon. The manufacturers think that AM broadcasters should go first because they are the ones whose business needs it the most, but broadcasters see no reason to broadcast in AM stereo until there are radios that can receive it. Most of the car-stereo manufacturers are not too eager to stick their necks out for AM stereo when they are doing okay without it.

Despite the recession, the car-stereo business is actually doing quite well right now. Total sales last year were in the $2-billion-plus range. That means it is as big if not bigger than the home audio field. The lure of potential profits has encouraged many home audio manufacturers to move into car stereo in the past few years. This year, Sansui, JVC, Proton, Acoustic Research, JBL, and B&W introduced lines of car-stereo speakers or components for the first time.

Theories abound as to why the autosound business is doing so well. One theory is that in these hard times people are enhancing existing cars with new sound systems rather than buying new cars. Another is that upgrading home audio seldom makes a dramatic audible difference, whereas an investment in car stereo does provide a major sonic improvement over the radios found in most cars. The reason is probably a combination of these and other factors such as the car enthusiast's wish to "accessorize" his vehicle.

There were several noticeable trends in the products being offered at the CES, among them the proliferation of DNR (Dynamic Noise Reduction) from National Semiconductor, the availability of many better-quality loudspeaker systems, and an increase in the availability of high-quality automobile-audio separates systems.

Since its introduction last year DNR has spread as fast as manufacturers could get it into production. Already, according to National Semiconductor, there are more than twenty car-stereo companies producing thirty-four different DNR-equipped models. Its popularity is based on the fact that it works on any audio signal and needs no encoding or decoding as do Dolby or dbx noise-reduction systems. DNR is a variable dynamic high-cut filter that operates except when the high-frequency music content is strong enough to mask the noise. Among the companies using DNR in products they showed at CES were Audiovox, ARA/Motorola, Audiotek, Blaupunkt, Boman, Clarion, DEG/Lear Jet, FAS, JIL, Metrosound, Sparkomatic, and Tancredi. There will probably be many more in the future.

There were a number of other products that stood out at the show. Panasonic has a line of in-dash units with "Ambience," a circuit that adds delay and response shaping to the left-channel signal to make it appear to come from outside the driver's side window, giving the driver the sense that he is centered between the speakers. Proton introduced the two in-dash units that were promised at the last show. Both have the Schotz variable-bandwidth PLL-tuning circuit and the NAD "soft clipping" circuit. Sansui, Kenwood, Alpine, and Sony all offered matched-design separates.

Both B&W and Acoustic Research introduced small-enclosure speakers that can be mounted on the rear shelf of a car. Jensen introduced what must be the thinnest 6-x-9-inch three-way ever, just 125/2 inches deep. Clarion introduced a unique rear-shelf three-way with an upward-firing woofer and separate tweeter and midrange drivers mounted horizontally in rotating turrets on each end of the speaker.

There was also a noticeable increase in the output power available from some of the in-dash units, and many more accessory power amplifiers have become available. Alpine introduced three bridgeable amps, the most powerful rated at 50 watts per channel in stereo and more than double that in mono. If that seems inadequate to you, then AudioMobile has an "amp rack package" of three stereo amplifiers and related crossovers mounted on an aluminum plate that collectively put 340 watts into 4 ohms for about $1,900; they also have lesser models for those whose budgets and ears can't cope with the big time.

In respect to car stereo the Summer CES was a very interesting show, and the next few months promise interesting developments as well. Everybody seems to be hedging his bet about what is going to happen with AM stereo, but it's safe to say that if it does come to pass it will add a new dimension to the field.

Sunsui's SA-7 pre-main amplifier (right) with SA-7C Sound Commander remote-control module

Clarion's SD5000 Hi-Way Fidelity omnidirectional speaker system
In the June issue of Stereo Review our 60 watt receiver received rave reviews: "...exceptionally smooth and bug-free operation." "It can hold its own (and then some) against some of the most prestigious names in hifi..." "It is a nice piece of work in every way." That's model 3260, shown here at the bottom; just $479.95. Our 25, 35 and 45 watt receivers (pictured here) also boast outstanding specs and range from $249.95 to $379.95. MCS.®
You have to see it, hear it, touch it, feel it... to believe it.
Tape Talk

By Craig Stark

AT THE SUMMER CES

The Summer Consumer Electronics Show in Chicago clearly showed the dominance of the cassette medium in the hi-fi marketplace. No new open-reel decks were in evidence (though a number had been introduced at last winter's CES, including five from Teac), but new component cassette decks were everywhere. Overall, all the specs are still better in the open-reel format, but cassette machines and tapes have improved dramatically over the past several years. The most recent developments are Dolby-C, which essentially doubles the 10-dB noise reduction of the Dolby-B system, and the low-voltage IC chip from Matsushita (parent company of Technics and Panasonic) that facilitates incorporating the dbx system, which nearly doubles a recorder's dynamic range, into all types of cassette machines. With this and more and more dbx-encoded prerecorded cassettes being released, dbx should be increasingly popular as a cassette-deck feature.

Besides Dolby-C and dbx, many of the new decks in Chicago featured auto-reverse, twin-transport dubbing facilities, and microprocessor controlled functions. Some had real-time electronic tape counters rather than the conventional numerically arbitrary mechanical types. The trend continues away from mechanical record-level meters to multisegment fluorescent or LED-string displays. Higher-priced models generally have three heads, and metal-tape capability is now a standard feature.

I noted five new models from Aiwa, including two with Dolby-C and built-in head demagnetizers, and two from Akai with Dolby-C, one computer controlled and the other with auto-reverse. Cybernet had no new offerings but dropped prices on its two cassette decks by about $90 each. Fisher seems to have added several new cassette decks to its extensive "Studio Standard" series, and Garrard brought in two low- to medium-priced units. Harman Kardon had a new wide-range (20 to 20,000 Hz ± 3 dB) machine for only $250. Hitachi had four new cassette decks (from $150 to $570), and JVC had direct-drive capstans in three of its eight new models, seven with Dolby-C. Kenwood added a new mid-priced model, and Luxman added to its line with both Dolby-C and dbx-equipped units. Marantz added three models, two with Dolby-C. Of the three brand-new Nikko decks, one has Dolby-C and one has twin-transport dubbing (prices from $210 to $379). Pioneer's six new decks all feature Dolby-C, as does the new $2,000 Revox cassette deck. One of Sansui's new offerings has auto-reverse, and two offer three-head operation. Sherwood has Dolby-C in a three-head, microprocessor deck (the S-6100 CP) for only $400.

Sony had seven new cassette decks, from the economical TC-FX33 at $180 to the computerized, three-head TC-FX1010 at $650. Tandberg brought its proprietary Dyneg and Actilinear recording systems to the world of cassettes in the $500 Model 3034. Technics had two new Dolby-C models, several with dbx, one with both Dolby-C and dbx, one with auto-reverse, and one dual-transport-dubbing deck in its eight introductions (at all price levels). Among Toshiba's four new offerings ($160 to $300) were a Dolby-C unit and one with auto-reverse.

The obvious popularity of the Sony Walkman has led to many imitators in the "personal-portable" genre, some with FM/AM radio reception and many with either stereo or mono recording capabilities. Aiwa introduced a unit with auto-reverse recording and playback as well as AM and FM reception. Panasonic introduced two models worth special note: one was claimed to be "the world's smallest" and the other the first to be equipped with dbx noise reduction. Almost all the personal portables still use standard-size cassettes, but it seems to me that the trend in this type of equipment will be increasingly toward microcassettes, although there was not quite as much evidence of this at the show as I had expected. Only JVC and Fisher offer home microcassette decks.

There was a lot of activity among the tape makers, though in audio tapes much of it consists of minor improvements in packaging and filling out of lines. Fuji now has five audio cassettes (one metal, one premium high-bias, one premium normal-bias, and two less-expensive normal bias). Lorain has improved its high-bias formulation, as has TDK, which has also revised its packaging. PD Magnetics has introduced a metal-bias formulation. Memorex, which was still shattering wine glasses at its demonstration booth, also brought out a microcassette line, as did Scotch, Sony, and JVC. It's safe to predict that we will be seeing rapid progress from this point on in the record-playback capabilities of microcassettes and the machines that use them.

Panasonic RQ-J20X
personal portable with dbx noise reduction

Aiwa HS-P02 cassette player is only slightly larger than a standard cassette (production units will not be transparent).
Sony Cooks Up a Top Tape

Tape makers literally can't leave well enough alone. Just as tape development had reached the well-enough level, with the better brands sounding very good indeed, some manufacturers seem eager to outdo their own — and anyone else's — achievements.

Competition, innovation, and sheer cussed perfectionism aside, the question arises whether such compulsive pushing of limits really brings practical benefits to the listener. In the case of Sony's new UCX-S cassettes — the latest champion in the international tape derby — the answer is a decided yes.

The nature of these benefits is best understood by way of analogy. Tape is to a recorder what film is to a camera. Even the best camera can't take good pictures with poor film. Similarly, no tape recorder can sound better than the tape running in it. Just as the grain and pigments of a film determine the quality of a photograph (other factors being equal), so the frequency response, dynamic range and noise characteristics of a tape determine the quality of a recording.

In Sony's UCX-S, these factors have been slightly but perceptibly improved over previous norms, and the ear readily and gratefully registers the difference. In critical listening comparisons with other ferricobalt cassettes (i.e., cassettes made with cobalt-treated iron oxide), the treble not merely seemed extended in range but also more natural in character. Credit for this goes to the greater treble capacity of this tape, which obviates any need for false emphasis in the upper range. As a result, timbres and textures of orchestral music assume a very pleasing, natural in character. Credit for this goes to the greater treble capacity of this tape, which obviates any need for false emphasis in the upper range. As a result, timbres and textures of orchestral music assume a very pleasing, natural in character. Credit for this goes to the greater treble capacity of this tape, which obviates any need for false emphasis in the upper range. As a result, timbres and textures of orchestral music assume a very pleasing, natural in character. Credit for this goes to the greater treble capacity of this tape, which obviates any need for false emphasis in the upper range. As a result, timbres and textures of orchestral music assume a very pleasing, natural in character. Credit for this goes to the greater treble capacity of this tape, which obviates any need for false emphasis in the upper range. As a result, timbres and textures of orchestral music assume a very pleasing, natural in character. Credit for this goes to the greater treble capacity of this tape, which obviates any need for false emphasis in the upper range. As a result, timbres and textures of orchestral music assume a very pleasing, natural in character. Credit for this goes to the greater treble capacity of this tape, which obviates any need for false emphasis in the upper range. As a result, timbres and textures of orchestral music assume a very pleasing, natural in character. Credit for this goes to the greater treble capacity of this tape, which obviates any need for false emphasis in the upper range. As a result, timbres and textures of orchestral music assume a very pleasing, natural in character. Credit for this goes to the greater treble capacity of this tape, which obviates any need for false emphasis in the upper range. As a result, timbres and textures of orchestral music assume a very pleasing, natural in character. Credit for this goes to the greater treble capacity of this tape, which obviates any need for false emphasis in the upper range. As a result, timbres and textures of orchestral music assume a very pleasing, natural in character. Credit for this goes to the greater treble capacity of this tape, which obviates any need for false emphasis in the upper range. As a result, timbres and textures of orchestral music assume a very pleasing, natural in character. Credit for this goes to the greater treble capacity of this tape, which obviates any need for false emphasis in the upper range. As a result, timbres and textures of orchestral music assume a very pleasing, natural in character. Credit for this goes to the greater treble capacity of this tape, which obviates any need for false emphasis in the upper range. As a result, timbres and textures of orchestral music assume a very pleasing, natural in character. Credit for this goes to the greater treble capacity of this tape, which obviates any need for false emphasis in the upper range. As a result, timbres and textures of orchestral music assume a very pleasing, natural in character. Credit for this goes to the greater treble capacity of this tape, which obviates any need for false emphasis in the upper range. As a result, timbres and textures of orchestral music assume a very pleasing, natural in character. Credit for this goes to the greater treble capacity of this tape, which obviates any need for false emphasis in the upper range. As a result, timbres and textures of orchestral music assume a very pleasing, natural in character. Credit for this goes to the greater treble capacity of this tape, which obviates any need for false emphasis in the upper range. As a result, timbres and textures of orchestral music assume a very pleasing, natural in character. Credit for this goes to the greater treble capacity of this tape, which obviates any need for false emphasis in the upper range. As a result, timbres and textures of orchestr

Yet the exceptional merit of this tape is not confined to the upper range. The bass also comes through with genuine depth and solidity not usually attained in cassettes, and the noise level remains happily unobtrusive. No single technical advance can be credited for all these virtues. After all, formulating a tape is rather like flavoring a sauce. Not just the ingredients count, but also their proportion, blend and texture — plus what the chef calls je ne sais quoi. The sauce analogy applies even to attitudes. Tape manufacturers typically are as much about their concoctions as any professional cook might be about his hollandaise. When interviewed in his laboratory, Mr. T. Hirano, Sony's top tape wizard, declined in fluent English to divulge particulars. But he confided that the exceptional attributes of his UCX-S formulation arise from a combination of three factors:

First, the magnetic particles forming the working parts of the tape have been shrunk in size by nearly 30 percent, making a finer and more uniform dispersion on the tape. This may be likened to grain in photographic film. The finer the grain, the sharper the image. Or, to invoke the proper explanatory concept, the smoother surface can "resolve" more image detail, just as finer lines can be drawn on smooth paper than on rough surfaces. Similarly, smoother grain structure in a recording tape can resolve smaller waveforms, thereby permitting higher frequencies and finer sonic detail to be captured.

Secondly, ways have been found to arrange the particles so they don't stick to the tape in a crisscross pattern like trees in a logjam. The new process allows more of the rod-shaped particles to be packed in parallel, like tree trunks in a raft. This yields multiple benefits: It provides a smoother — and hence more receptive — surface on which the magnetic signal can be inscribed. The greater density of the tightly packed particles concentrates more magnetic force into a given area (about 500 billion particles in each millimeter of tape) so that greater loudness peaks can be accommodated with less distortion. What's more, hiss is reduced by the regularity of the particles.

Thirdly, the basic material itself has been improved by new methods of spiking each iron particle with molecules of cobalt, so as to heighten such magnetic properties as coercivity and retentivity. These determine how faithfully the tape "remembers" the music entrusted to it, and how much detail it recalls on command. To be less metaphorically and more precise about it, retentivity is 1800 Gauss and coercivity is 650 Oersted — uncommonly high values assuring that this tape will be on its very best behavioral performance when jolted by the impact of the musical signal.

Although developed at Sony's laboratories at Sendai, in northern Japan, the new tape is to be domestically produced in Alabama and Texas. With a list price of $5 for a one-hour cassette, it is much less expensive than the so-called metal tapes, yet in most practical uses virtually equivalent to their performance.

Talking to the originators of the new tape, one gains the impression that they were inspired, at least in part, by friendly rivalries within Sony's corporate empire. Traditionally, Sony tape has stood in the shadow of the company's more eye-catching developments, such as Trinitron TV, the Betamax, and its excellent stereo components. The new tape represents a bid for a bit of the limelight and is — to borrow a phrase from my college yearbook — most likely to succeed. © 1982 The New York Times Co. Reprinted by permission.
ULTRA LIGHTS: 4 mg. "tar", 0.4 mg. nicotine.
LIGHTS: 11 mg. "tar", 0.9 mg. nicotine.
KING: 15 mg. "tar", 1.1 mg. nicotine. ev. per cigarette, FTC Report DEC. '81.

nston
Nobody does it better.

This is your world.
This is your Winston.
Taste it all.
Does Everything Have a "Sound"?

Following the publication of the report on the Shure V15 Type V cartridge (Stereo Review, June 1982) I received several letters from readers asking why I did not comment on the sound of the cartridge. Actually, this question could frequently be asked about my reports on almost every other type of component (speakers being the principal exception), and I would like to clarify my position on the matter once and for all.

There seems to be a widespread feeling among, shall we say, the more fundamentalist audiophiles that every type of audio component (and sometimes even particular parts such as resistors, capacitors, connectors, and wire within the components) contributes a distinct coloration to the final sound. This belief is difficult to counter with any logical argument—if I hear something and you do not, it is prima facie evidence of a flaw in your hearing!

However, there is another side to this coin. If you say you hear some special sound quality but others do not, and if controlled double-blind tests do not confirm your claims, then it is probable that you are demonstrating the nearly limitless human capacity for self-delusion. After all, if you expect, with sufficient intensity, to hear these effects, then (in your mind) you doubtless actually do. Such views have become virtually an article of religious faith on the part of some audiophiles, who naturally lose no opportunity to denounce all heretics and unbelievers.

Please understand that I am not denying the existence of small sonic differences that could be caused by a variety of things, not all of which can be satisfactorily explained. Also, individuals differ widely in their hearing acuity, and I have no doubt that many people can hear effects that I cannot (and vice versa). What I am trying to do is put the question into perspective. Such small differences, detectable or not by any given individual, can hardly be characterized by adjectives like "huge," "drastic," "enormous," or any of the others used with abandon by some hyperbolic audiophiles. I have only sympathy—not empathy—for those who are so sensitive to the real or imagined sonic aberrations attributed to such things as the normal wires and connectors in a system that they are driven to spend large sums of money to "correct" them.

I have been listening to and evaluating high-fidelity components for nearly thirty years, and I have never heard a significant difference between two supposedly similar electronic components that could not be explained by measurable electrical differences. In the case of the electromechanical transducers, such as phono cartridges, microphones, and speakers, the situation is quite different. There are most certainly differences between products in these categories, and not all of them are readily explainable by conventional measured performance. I emphasize the "readily" since a knowledgeable person with access to complete measurement data and the skill to interpret them can often explain effects that would baffle most engineers.

Even in this product category, the magnitude of the differences is often greatly exaggerated. Phono cartridges tend to sound pretty much alike these days since so many of them have nearly identical, flat frequency-response characteristics. The real differences (those that can be demonstrated in blind listening tests) are almost always related to those (usually) minor frequency-response differences that really do exist. As with amplifiers, all of this assumes linear operation, meaning that the amplifier is never driven into clipping and the tracking ability of a cartridge is never exceeded.

Although I have never conducted or personally participated in properly controlled double-blind listening tests of phono cartridges, such a test was described in the April 1980 issue of AudioScene Canada (now AudioVideo Canada, 481 University Avenue, Toronto, Ontario, M5W 1A7, Canada). The test organizers found that, while subtle differences could be detected, they could not only be closely correlated with the cartridge frequency response but were also strongly influenced by the specific records used. Their conclusion, like mine, was that the mysterious differences supposed to exist between moving-magnet and moving-coil cartridges were largely in the area of frequency response—if they had any objective existence at all.

This brings me back to the letters that led me to this discussion. Despite my plain statement that this cartridge was the finest, in just about every respect, that I had ever tested, one reader voiced the suspicion that it might have sounded mediocre or worse, and that I had deliberately avoided men-
tioning this fact because of the simultaneous advertising campaign launched by its manufacturer. He also felt that it was incumbent upon me to report on what any item I test sounds like.

With respect to the first suggestion, let me state flatly that I am subject to absolutely no commercial pressures as to what I say (or do not say) about any product I test. I generally avoid the "best of its kind" appellation since it is rarely justified, and even when it is, it may not be true six months down the road. In this case, I made an exception. I have tested a great many cartridges, and a large proportion of them in recent years have been excellent by any standard. Even so, the subject of the report was completely outstanding in almost every area of test, and I said so in almost those words. It is amusing, in a way, that in this case I am accused of evading a forthright judgment when I was in fact absolutely specific about the product's performance.

What about the suggestion that I should comment on the sound of everything I review? I cheerfully do so when the products do have a specific sound quality—but, in general, they do not. For years I have tried to hear significant differences in amplifiers, tuners, turntables, and so forth. But such differences, when they exist, are generally so minute and/or so transitory that it seems unnecessary or even misleading to comment on them. When I do find a genuinely significant difference, I say so.

Even in that rare event, how does one describe a totally subjective experience so as to convey its essence to another person? When I read that some coloration is analogous to a particular physical texture or color, I rarely feel that I understand exactly what the author is trying to convey. Frequently, when I test the same product (typically a speaker, since I have seldom seen a speaker) "sounds." If it doesn't have a sound, how can I comment on it? If, as in the case of a speaker, I do hear a distinct coloration, I will continue to try to characterize it verbally, but I have little confidence that I can do so with great success except in the case of gross defects. And keep in mind that it is absolutely certain that what I (or anyone else) hear or measure is a totally subjective experience so as to convey its essence to another person. When I test the same product (typically a speaker, since I have seldom seen a totally subjective experience so as to convey its essence to another person.)

The dbx II noise-reduction system (the consumer version of the professional dbx I system) operates over the full audio-frequency range, making its noise reduction equally effective against hum and hiss. It also has internal high-frequency pre-emphasis during recording and a complementary de-emphasis during playback.

A feature of the dbx noise-reduction system is its relative independence of program level. Because of the system's extremely wide dynamic range, and because the same compression and expansion slopes are maintained over its full dynamic range, precise record-playback level matching is not required. As a tape-recording accessory, the system can theoretically double the dynamic range of a tape recorder. This offers the intriguing possibility of obtaining a 100-db range from a cassette deck whose inherent dynamic range is only 50 db. Even with allowance for variations in the placement of the compressed program within the available operating range, a dynamic range of 90 db is achievable with cassette recorders. As with other encode/decode noise-reduction systems, the dbx II can only reduce the noise added during the recording and playback process and will not affect noise already in the program.

In the dbx disc system, phonograph records are cut with signals processed by a dbx encoder. When played back through a suitable decoder, these discs can deliver roughly the same dynamic range as dbx tapes—up to 90 db or so. Since the noise reduction is equally effective against rumble, the re-
sult is a total absence of the usual record noises.

The actual dynamic range of a dbx record is often limited by the master tape from which it was made. Many derive from analog masters, and no matter how good they might be, their background noise will certainly be higher than that of the dbx decoder. Nevertheless, the total silence in the background of these records is uncanny and adds greatly to their realism and impact. A similar limitation exists with respect to making or playing dbx cassette tapes. Under most conditions the limiting "noise floor" will be established by external conditions and prevent the full potential of the system from being realized.

The final mode of the dbx Model 228 is dynamic-range expansion, which is applicable to any program source (including the playback of dbx-encoded discs or tapes—after decoding—although it should not be needed with wide-dynamic-range program material) virtually every recorded or broadcast program has undergone some degree of compression, limiting, or other dynamic-range restriction before it reaches the listener. The expander makes it possible to recover some or all of the lost dynamic range making a program more natural-sounding. In the Model 228, the expansion system operates completely independently of the tape—or disk-processing systems.

The dbx Model 228 is furnished with brackets for mounting in a standard 19-inch rack or on a table top available as an option. The front panel contains two horizontal slider controls and a number of pushbuttons. In the center of the panel two mechanically interlocked buttons marked SOURCE and TAPE select the program input for the dynamic-range expander. One slider (EXPANSION) sets the amount of expansion over a calibrated range of 1.0 (no expansion) to 15 (maximum). The other (TRANSITION LEVEL) shifts the range of input-signal levels within the processor's operating dynamic range. A horizontal row of red and yellow LEDs shows the operating status of the expander. Yellow lights extending to the left of the center indicate the degree of gain reduction, and red lights extending to the right of the center show the degree of increase. When no lights are lit, the gain of the expander is unity.

The two NOISE REDUCTION buttons are marked TAPE and BYPASS. The latter is normally engaged unless one is recording or playing back a dbx-processed tape. To their right is the dbx DISC DECODE button, which is mechanically interlocked with the others. It is used for playing dbx-encoded discs. This expansion width, which can be used to degree desired, at any time (it affects only the playback signal, after decoding). Setting the EXPANSION slider to 1.0 is all that is needed to remove it from the system.

In the rear of the dbx Model 228 there are standard phone jacks for the signal inputs and outputs, which are normally obtained from the monitor-loop jacks of the associated equipment. Additional tape jacks on the rear of the Model 228 replace the functions of the amplifier jacks. There are three screwdriver-adjusted level controls for matching the output levels from the Model 228 in each of its modes. They are for convenience only, and do not affect the internal operation of its circuits.

- Laboratory Measurements: There are few conventional measurements that can be made on a dynamic signal processor such as the dbx Model 228. A valid analysis of its operation requires separate access to its signal-modification and control circuits, which (Continued on page 32)
Creating great music has never been simple.
Now recreating it is.

Being good isn't enough to make it to the top. You have to be great. Our top-of-the-line M-808 proves the point. With the M-808, unadulterated power is yours. The totally new Plus A Class amplifier has reduced distortion to inconsequence. To reduce operating confusion, each component is ergonomically designed. The back-lit front panel controls assure quick, miss-free operation. Of course, the metal capable cassette deck includes Dolby C, while our quartz synthesizer tuner boasts 12 station memory preset. Whether or not you add our front loading turntable, infrared remote control, seven band equalizer or the program-mable timer, you'll find the M-808 system is simply amazing. And thanks to Aiwa technology, it's also amazingly simple.

The M-808: Aiwa's Ultimate Mini-Component System.

* Dolby is a trademark of Dolby Laboratories.
Aiwa American Inc., 35 Oxford Drive, Moonachie, New Jersey 07074. In Canada, Shiro (Canada) Ltd.
CIRCLE NO. 1 ON READER SERVICE CARD
Frequency response, as such, cannot be measured while compression or expansion is taking place, since the response of the sensing and control circuits determines the total response in a steady-state measurement. With the expansion set to 1.0, the response of the Model 228 was flat from below 100 to 20,000 Hz and rolled off slightly at lower frequencies to -2 dB at 20 Hz. This satisfies the manufacturer's specification of 20 to 20,000 Hz ± 1 dB.

We also measured the transfer characteristic (output voltage vs. input voltage) of the expander at expansion settings of 1.0, 1.2, and 1.5. The 1.0 setting, of course, gave a linear (1:1) relationship between input and output, and with the others the output varied more rapidly than did the input. The three curves intersected at one point (determined by the setting of the TRANSITION LEVEL control). Below that input, the expanded output curves fell much more rapidly than did the input, and above it the expanded output exceeded the unexpanded output by approximately the amount indicated by the EXPANSION control setting.

Circle 141 on reader service card
ON MAXELL, ROCK 'N' ROLL IS REALLY HERE TO STAY.

Every Maxell cassette is destined to become a golden oldie. Because at Maxell we build cassettes to standards that are 60% higher than the industry calls for. Durable cassettes you can shake, rattle yet they keep on rolling. Precision engineered tape that even after 500 plays still delivers high fidelity.

So when we say, on Maxell, rock 'n' roll is really here to stay... Be-Bop-A-Lu-La... we don't mean maybe.

IT'S WORTH IT.
and 12,800 Hz. Each slider has a maximum control range of ± 10 dB. To the left of the sliders is the power off (standby) switch and a pair of 1/4-inch phone jacks for headphones and EQ OUT (the latter for recording an equalized program with a machine plugged into the front-panel jack).

The four knobs visible on the front panel control volume and balance, tape (or listening to the source or the playback from either of two tape decks or for dubbing from either deck to the other), and the timer switch for setting, activating, and de-activating the timer and clock functions.

On the rear of the SR 8100 DC are the various input and output jacks, two sets of insulated spring-loaded speaker-output connectors, antenna terminals, and a hinged AM loop antenna, as well as two a.c. outlets, one of which is switched. A scan selector switch changes the AM-tuning interval to 9 kHz for use in Europe or whenever that channel spacing is used.

**Laboratory Measurements.** Following the usual preconditioning period (during which the top of the receiver became quite hot), the 1,000-Hz output clipped at 90 watts per channel into 8 ohms, 124.3 watts into 4 ohms, and 58.3 watts into 2 ohms. The 8- and 4-ohm clipping-headroom ratings were 0.8 and 1.4 dB, respectively. Using the pulsed signal of the dynamic-power test, the clipping levels were 97.3, 163.5, and 30 watts, respectively, for the three load impedances. The 8- and 4-ohm dynamic-headroom ratings were 1.13 and 2.6 dB, respectively.

When we drove 8-ohm loads at 1,000 Hz, the distortion was about 0.001 per cent from below 1 watt to 80 watts, where it was 0.0012 per cent. Into 4 ohms, the readings were only slightly higher—in the range of 0.005 to 0.007 per cent up to 100 watts and only 0.02 per cent at 120 watts. The 2-ohm distortion was less than 0.005 per cent up to more than 30 watts output, reaching 0.1 per cent at 55 watts. Obviously the amplifier is not at its best when driving two pairs of low-impedance speakers.

Using 8-ohm loads and operating the amplifier at rated power (75 watts) and at half and one-tenth rated power, the distortion was negligible over the full audio range. The lowest reading was 0.0004 per cent at 20 Hz, and the highest was 0.024 per cent at 20,000 Hz. The high-frequency inter-modulation distortion, with equal amplitudes of 19- and 20-kHz input with a peak level equal to that of a 75-watt sine wave, was at −80 dB for the third-order product (18 kHz) and −76 dB for the second-order product at 1,000 Hz.

The amplifier was stable with a reactive simulated loudspeaker load. Its slew factor was 1.7, with waveform distortion visible at 34 kHz when the amplifier was driven to rated output. Through the aux inputs, 19 millivolts (mV) drove the amplifier to a 1-watt reference output and the phono sensitivity was 0.28 mV. The respective A-weighted noise readings were −78 and −75 dB, referred to 1 watt. The phono input overloaded at a high 235 mV at 1,000 Hz, and the equivalent readings at 20 and 20,000 Hz were 250 and 242 mV. The RIAA phono equalization was accurate within 0.5 dB overall, and it was not affected by phono-cartridge inductance.

The EQ response curves were essentially (Continued on page 36)
From the Driving Force:

A new angle in Panasonic speakers solves some old problems in car stereo performance.

The Panasonic EAB-069 car speaker system and its smaller version, the EAB-049, represent a new and different approach toward improving car stereo performance.

Notice the unusual angle of the horn tweeter. It projects higher frequencies in music directly at the listener: frequencies sometimes lost within the confines of a car. At the same time, a diffuser channels the lower frequencies down the length of the passenger compartment.

Accurate bass reproduction requires a treatment all its own. So an upward firing woofer is used to maximize bass frequency projection.

Working together, the angled horn tweeter and upward firing woofer enhance the stereo image and achieve exceptional sound reproduction.

And how much power can these speaker systems take? The EAB-069 handles a hefty 60 watts. The EAB-049, 30 watts. And these compact, low profile speaker systems can be used in separate pairs or as a powerful complementary foursome.

Angled horn tweeter speaker systems. Part of the entire line of high quality, innovative car speakers from Panasonic.

Panasonic car audio
The driving force

CIRCLE NO. 36 ON READER SERVICE CARD
as rated in respect to the center frequencies of the controls, and each slider had a maximum adjustment range of +10, -8 dB. The loudness contours boosted both low and high frequencies as the volume setting was reduced, but the maximum boost was only about 10 dB and the sound never became objectionably heavy. The filters had not very effective gradual slopes of 6 dB per octave, with their -3-dB points being 100 and 5,000 Hz.

The FM-tuner section of the SR 8100 DC had a usable sensitivity of 11.8 dBf (2.1 microvolts, or µV) in mono. The stereo sensitivity was determined by the switching threshold of 27 dBf (12 µV). The mono and stereo 50-dB quieting sensitivities were 15 dBf (3 µV) and 36 dBf (36 µV), respectively. The FM-tuner frequency response was down 1.4 dB at 30 Hz and up 1.1 dB at 15,000 Hz relative to the 1,000-Hz level. The channel separation was excellent, averaging 58 to 59 dB from 80 to 400 Hz and falling to 45 dB at 30 Hz and 37 dB at 15,000 Hz. Other tuner-performance measurements include a capture ratio of 1 dB (very good), AM rejection of 66 dB at 45 dBf (100 µV) input, and image rejection of 78 dB. The alternate- and adjacent-channel selectivity readings were 74 and 4.6 dB, respectively. The muting and stereo thresholds were identical, 39 dBf (50 µV) for the Hi setting and 27 dBf (12 µV) for the Lo setting. The 19-kHz pilot carrier leakage was -62 dB, and the tuner hum was -67 dB. The AM section was no better than adequate with a frequency response of -6 dB at 80 and 3.200 Hz.

The FM-tuner section of the SR 8100 DC had a usable sensitivity of 11.8 dBf (2.1 microvolts, or µV) in mono. The stereo sensitivity was determined by the switching threshold of 27 dBf (12 µV). The mono and stereo 50-dB quieting sensitivities were 15 dBf (3 µV) and 36 dBf (36 µV), respectively. The FM-tuner frequency response was down 1.4 dB at 30 Hz and up 1.1 dB at 15,000 Hz relative to the 1,000-Hz level. The channel separation was excellent, averaging 58 to 59 dB from 80 to 400 Hz and falling to 45 dB at 30 Hz and 37 dB at 15,000 Hz. Other tuner-performance measurements include a capture ratio of 1 dB (very good), AM rejection of 66 dB at 45 dBf (100 µV) input, and image rejection of 78 dB. The alternate- and adjacent-channel selectivity readings were 74 and 4.6 dB, respectively. The muting and stereo thresholds were identical, 39 dBf (50 µV) for the Hi setting and 27 dBf (12 µV) for the Lo setting. The 19-kHz pilot carrier leakage was -62 dB, and the tuner hum was -67 dB. The AM section was no better than adequate with a frequency response of -6 dB at 80 and 3.200 Hz.

THE EPI A70 is a small and inexpensive two-way "mini-bookshelf" speaker system. It has a 6-inch acoustic-suspension woofer crossing over at 1,800 Hz to a 1-inch inverted-dome tweeter (similar to the tweeters used in other EPI speakers for many years). The nominal system impedance is 4 ohms, and it is rated to handle 50 watts input for 8 hours in accordance with EIA Standard RS-426A. The recommended minimum amplifier power is 15 watts per channel.

The A70 has no level or balance controls. The insulated spring-loaded input connectors are recessed into the rear of the cabinet. Removing the black grille-cloth assembly (whose frame is retained by plastic pegs on the cabinet) reveals the drivers, with the tweeter just above the woofer and slightly to its right. The wooden cabinet is veneered in wood-grain vinyl.

Laboratory Measurements. The room-response measurements were made with the two A70 units placed against a wall at ear level for a seated listener. The microphone was about 12 feet from the left speaker (on its forward axis) and about 30 degrees off the axis of the right speaker. The signal was a sine wave sweeping from 20 to 20,000 Hz with a 0.2-octave warble. The responses of the left and right speakers were plotted separately on the same graph and averaged to obtain a single room-response curve corrected for room absorption above 10,000 Hz. The A70 was somewhat unusual in its excellent dispersion at the highest frequencies (there was little difference between the two curves above 7,000 Hz), but there was a substantial difference—as much as 5 dB—between the levels we measured from the left and right speakers from about 1,800 to 5,000 Hz. The response of the woofer was measured from 20 up to about 2,000 Hz with a close-spaced microphone. This gives essentially the anechoic response of the woofer, which was exceptionally flat over most of its operating range. The woofer response was within ±1 dB from 70 to 800 Hz, falling at 12 dB per octave at lower frequencies. It had a dip in output of about 3 dB between 1,100 and 1,200 Hz and a return to the average midrange level before the output fell rapidly (Continued on page 40)
One of the best cassette decks you can buy happens to be a Walkman.

Introducing the Walkman Pro.

Don't judge our cassette deck by its size. Judge it by something a lot more meaningful.

Our specs: Dolby* noise reduction. Manual record level. LED recording meter. Playback speed control. Signal-to-noise ratio of 58dB with metal tape. Sendust and Ferrite head for frequency response of 40-15,000Hz, ±3dB. Disc drive system for wow and flutter of less than 0.04%. And quartz-locked capstan servo, for speed accuracy of ±0.3%.

As you can see from our list of specifications, the Sony Walkman Pro offers you more than many cassette decks ten times its size. So when you connect it to a full-size stereo system, you can expect full-size sound.

In fact, it sounds so good you'll want to take it with you everywhere you go.

Which you can easily do.

(remember, it happens to be a Sony Walkman.)

With our featherweight stereo headphones, you'll be able to enjoy the same incredible sound outdoors that you do in your favorite easy chair.

© 1982 Sony Corporation of America. Sony and Walkman are trademarks of Sony Corporation. Model shown: WM-Pro. *Dolby is a registered trademark of Dolby Laboratories.
Come to Marlboro Country.

Marlboro Red or Longhorn 100's — you get a lot to like.

above 1,800 Hz (due to the action of the crossover network).

The composite response curve formed by splicing the woofer curve to the averaged room-response curve was flat within ±3.5 dB from 45 to 20,000 Hz, a very creditable achievement for a small, inexpensive speaker such as the A70.

The quasi-anechoic response was measured with our IQS FFT (Fast Fourier Transform) analysis system at a 1-meter microphone distance and also at 12 inches, since a response curve taken at that distance was supplied to us by EPI and we were interested in any possible correlation between the two sets of measurements.

The measurement at 1 meter yielded a response within +6, -3 dB from 180 to 18,000 Hz (the measurement limits). Since it did not take into account the energyradiation patterns throughout the entire room, which had contributed to our room-response curve, it could not be expected to duplicate the latter. There were some recognizable similarities between our curves and EPI's, but they could not be called a close match.

The close-spaced (12-inch) measurement was quite similar in its details to the one we made at 1 meter. However, the phase-shift and group-delay measurements at 12 inches were much better than those made at 1 meter. The group delay (a measure of the time coherence of the speaker's output) varied only about 0.3 millisecond over most of the operating range above approximately 2,000 Hz.

The IQS computer-analysis system allows us to measure and print out the difference between two frequency-response curves as well as the actual response curve itself. When one measurement is made on the speaker's axis and the speaker is then rotated 45 degrees for the other curve, the difference between the two is a good measure of the directivity of the speaker in the horizontal plane. The two curves were within 6 dB of each other (except for two narrow peaks at 16 and 17 kHz) over the speaker's operating range.

The low-frequency (woofer) distortion was measured with the same close microphone spacing used for the frequency-response measurement. The speaker was driven with a 2-volt input at frequencies from 100 Hz down and also at 6.32 volts (the two levels correspond to power inputs of 1 and 10 watts to the 4-ohm rated impedance). At 1 watt the distortion was less than 1 per cent down to 85 Hz, rising steadily to 6.3 per cent at 40 Hz, where we stopped the measurement. At 10 watts input the distortion (as would be expected in a small speaker system) was much greater, rising from 1.4 per cent at 100 Hz to 10 per cent at 60 Hz and 28 per cent at 40 Hz.

The speaker's impedance was rated correctly, with the minimum reading of 4 ohms occurring at 20 Hz and between 150 and 300 Hz. Elsewhere it remained well above that value, and at the bass-resonance frequency of 65 Hz it rose to about 50 ohms. The sensitivity of the A70 was unusually high, with a sound-pressure level of 95 dB being measured at 1 meter when the speaker was driven with 6.32 volts of pink noise in an octave band centered at 1,000 Hz (this corresponds to 2 watts of power input to the speaker).

The high sensitivity of the A70 should be expected in a small, relatively inexpensive speaker, but it does emit sounds surprisingly clean. Although the size and price of the A70 might tempt some people to drive it as far as the amplifier's power output will allow, we would suggest caution in this respect. The A70 is a true 4-ohm speaker, and paralleling two of them will load the amplifier with 2 ohms in a frequency range where high program levels are likely to be encountered. Some amplifiers will not take kindly to this treatment, and that fact should be considered before a system is set up in this way.

The high sensitivity of the A70 should make it a logical choice for a system based on a good low-power receiver or amplifier in the 20-watt range. It can handle much higher power inputs (we used a 200-watt amplifier without damage), but the sound quality suffers if it is pushed too hard. The A70 is not meant to fill a hall or a large, well-upholstered living room with sound at "natural" levels. It is designed to deliver a comfortably level of clean, balanced, musical sound in a relatively small room, and it does that very well and inexpensively.

—Julian D. Hirsch
Toshiba's CX receivers give you so much music, there's no room for noise.

Toshiba's new CX receivers can do more for music than you've ever heard. But to understand just how much, it's necessary to understand two things: record surface noise and dynamic range.

WHERE DOES RECORD SURFACE NOISE COME FROM?
Not from the music, but from the record itself. Other than dust on the record, the reason you hear noise is that it lies in the same grooves as the music.

In the past, you had to go out of your way to try to silence this problem, with everything from expensive audio equipment to premium audiophile discs. But now you don't have to go any further.

CX RECORDS ARE WHAT YOU'VE BEEN WAITING TO HEAR.
CX records are the latest development in audio technology. CX is a coding process that actually extends the dynamic range of music, and in the process virtually eliminates record surface noise.

Dynamic range is simply the difference in sound level between the loudest and softest passages of music. The dynamic range of live music is usually around 85 dB. But the same music on an ordinary record only approaches 65 dB.

What CX does, is give you the 20 dB of sound you would otherwise miss. Loud passages are louder, soft passages are softer.

And because there's more room for music, there's less room for noise.
YOU HAVEN'T HEARD EVERYTHING YET.
You can play a CX record on an ordinary receiver and it will sound ordinary. But we know you won't settle for that. That's why Toshiba has included a CX decoder circuit in our new receivers, so you can hear the startling difference CX makes.

Close your eyes and you might think you're in a concert hall. That's how close a CX record comes to reproduction of live sound.

And we've given you a lot more than just a CX switch on our new receivers. Our SA-R3 CX Receiver has 40 watts per channel, with a digital-synthesized tuning system and 12 station pre-sets. You'll get 25 watts per channel from our SA-R2 CX Receiver, along with servo-lock tuning.

Now all you have to do is listen to our CX receivers for yourself. We think you'll be amazed at what you'll hear. And what you won't.

CX IS A TRADEMARK OF CBS, INC.
permit direct comparison of the input signal and the recorded result are made of high-density ferrite and are contained within a single casing.

Cassettes are inserted, tape openings down, into slides behind the door of the illuminated cassette well. The digital tape counter reads out in conventional units (in all modes) and directly in elapsed time (minutes and seconds) for record and playback. The sixteen-segment peak-reading fluorescent level indicators, calibrated from -30 to +8 dB, had no Dolby-level marking on the scale, but both registered -1 dB when tested with a Teac MTT-150A Dolby-calibrated cassette.

The PLAY, RECORD, and PAUSE touchbuttons, as do the four tape-type (ferric, CrO₂-equivalent, ferrichrome, and metal) selectors, the Dolby-system switches, the TAPE/SOURCE monitor and multiplexer -filter switches, and the buttons that select either fixed (factory-set) or ATRS (Automatic Tape Response System) bias/equalization/sensitivity adjustments. The ATRS procedure takes approximately 10 seconds to complete (its operation is signaled by a flashing LED), and at its conclusion it rewinds the tape and stores the proper settings for that cassette type in its memory. The memory is retained by batteries when the unit is turned off; their condition (they should last about a year) is indicated by another LED.

Additional switches are provided for automatic rewind to stop or play, operation by an external timer, and for selection between microphone or line-level sources. The record-level controls are concentric, allowing separate settings for the left and right channels, and an output-level control is provided that simultaneously affects the output from the front-panel headphone jack and the normal rear-mounted outputs.

In addition to the regular line-level inputs and outputs, the rear panel of the Hitachi D-E99 contains a DIN-type jack for a remote-control accessory and an access door for battery replacement.

### Laboratory Measurements

The factory settings for bias, record equalization, and sensitivity were made with Hitachi-brand tapes that were not supplied, so I used the ATRS system on a number of cassettes of each type. The flattest frequency response was obtained with TDK AD (ferric), Sony UCX-S (CrO₂-equivalent), BASF Professional III (ferrichrome), and Maxell MX (metal) as shown in the graph, but nearly identical results were obtained (because of the ATRS system) with a wide variety of cassettes from TDK, BASF, Maxell, Scotch, Memorex, Sony, Fuji, and Loran.

Playback frequency response was measured with IEC-standard BASF calibrated test tapes, and it was exceptionally flat at the 120-microsecond (ferric) position from 31.5 Hz to 18 kHz. There was a mild rolloff (3.5 dB) at 18 kHz in the 70-microsecond (CrO₂) position. At the normal -20-dB input level the overall record-playback response was within ±3 dB from approximately 40 Hz to 20 kHz, though a 6-dB-per-octave bass rolloff was imposed on frequencies below 50 Hz. Interestingly, the response of TDK AD (ferric) essentially matched that of the metal Maxell MX at both -20- and 0-dB input levels.

With a 0-dB input level at 31.5 Hz, the third-harmonic distortion levels measured 0.43 per cent (TDK AD), 0.82 per cent (Sony UCX-S), 1.1 per cent (BASF Professional III), and 1.5 per cent (Maxell MX). It took an additional input of 4.7, 5.2, 2.4, and 2.3 dB for the four tapes, respectively, to reach the 3 per cent threshold.

When played with Dolby-B and IEC-A weighting, S/N improved to 70.5, 69.3, 70.3, and 66 dB, respectively. With Dolby-B and IEC-A weighting, S/N improved to 70.5, 69.3, 70.3, and 66 dB, respectively.

(Continued on page 44)
NOW YOU CAN HAVE DIGITAL RECORDING WHERE YOU WANT IT MOST: AT HOME.

There are moments when a musician is so inspired he stops making music and starts making magic. And, as most artists agree, these peak periods of supreme inspiration don't always occur in the clinical conditions of the recording studio.

Which explains why Sony, the inventor of digital audio processing, has just created the world's smallest, lightest and most compact digital audio processor—the PCM-F1.

Already touted by every major audio magazine, the PCM-F1 leaves one awestruck by its vital features: its level of performance surpasses that of even the most sophisticated analog recording studio. Its unique 3-way power supply allows you to use it anytime, anyplace.

And because Sony consciously designed it without a built-in VCR, it can be used with any VCR—½ or ¾ inch.

But perhaps its greatest feature is its price.

Obviously, we can go on and on about the brilliance of this new machine, but by now we figure you've heard enough about it and you're ready to go to your Sony dealer and hear it for yourself.

SONY. The one and only.

Features and Specifications: Wow and flutter—unmeasurable; dynamic range—greater than 90dB; distortion—less than 0.005%; frequency response—10-20,000Hz ± 0.5dB; Weight—9 lbs.; height—3⅛”; depth—12”; width—8⅞”; 14- and 16-bit quantization. © 1982 Sony Corp. of America. Sony is a registered trademark of the Sony Corp.

CIRCLE NO. 39 ON READER SERVICE CARD
dB, with Dolby-C, using the CCIR weighting. S/N measured 80.5, 74.7, 79.8, and 72 dB, respectively. Wow-and-flutter, using a Teac MTT-111 test tape, measured 0.024 per cent w.r.m.s and 0.038 per cent with the DIN peak-weighted standard. Line-level input sensitivity for a 0-dB indication was 0.13 volt, with an output of 0.5 volt. Using a 600-ohm generator, microphone input sensitivity was 0.5 mV, and overload occurred at 120 mV. Fast-winding time for a C-60 cassette was an average 64 seconds.

Circle 144 on reader service card

Yamaha M-50 Power Amplifier

- Yamaha M-50 Power Amplifier
- Power Rating: 120 watts per channel
- Size: 17¼ x 5¼ x 15 inches
- Weight: 26 pounds
- Price: $650

The Yamaha M-50 power amplifier features the company's ZDR (zero distortion rule) amplifier circuit and the "signal-tracking" X power supply that is intended to provide higher overall operating efficiency. Also in the interest of low distortion, Yamaha employs a "linear-transfer bias circuit" in the output stages to virtually eliminate crossover distortion. Although no circuit details are given, the block diagram of the amplifier suggests that the ZDR feature is a form of amplified feedback of the extracted distortion signal.

The performance specifications of the Yamaha M-50 include a 120-watt output into 8-ohm loads from 20 to 20,000 Hz with no more than 0.002 per cent total harmonic distortion. With 4-ohm loads, the only specification is a clipping output of 200 watts per channel, and there is no rating for any other load impedance. The M-50 is finished entirely in black. The front panel contains a large square illuminated pushbutton power switch, and a PROTECTION light comes on if the amplifier's protective circuits operate for any reason (they delay the connection of the speakers for a few seconds when the amplifier is turned on to prevent turn-on transients from reaching the speakers).

At the right side of the panel there are separate level controls for the two sets of speaker outputs, either (but not both) of which can be selected by a button near the level controls. Another button shuts off the speakers entirely. Although the two controls (marked A and B) resemble the individual channel-level controls sometimes used on power amplifiers, each of them affects both channels equally for the selected speaker output.

A large rectangular window in the center of the panel contains a dual peak-power display. In it are two vertical columns of short horizontal bars that light in orange to follow the instantaneous output level of their respective channels. Each column is calibrated in power output (based on 8-ohm loads) from 0.03 to 150 watts, with a row of corresponding decibel calibrations in the center of the display. A small button to the (Continued on page 47)
CANADA AT ITS BEST
The whisky that's becoming America's favorite Canadian.

Share some tonight.

IMPORTED BY B-F SPIRITS LTD. N.Y., N.Y., CANADIAN WHISKY—A BLEND. 80 PROOF. © 1979
Photographed at Lake Beauvert, Jasper, Canada.
Come and listen to the most famous names in jazz. Some time this year, somewhere near you, they’ll be playing and singing their unforgettable sounds. Don’t miss them.
Yamaha M-50
(Continued from page 44)

left of the window shuts off the display. On the rear apron of the M-50 there are insulated speaker connectors, the input phono jacks, and a single unswitched a.c. outlet.

The speaker connectors, which resemble conventional binding posts, have holes that accept the stripped ends of the wires; a quarter-turn of the connector clamps the wire firmly in place and makes a solid electrical connection.

● Laboratory Measurements. The 1-hour preconditoning of the Yamaha M-50 at an output of 40 watts into 8 ohms, followed by five minutes of full power, resulted in a rather hot top cover above the transistor heat sinks. The power output at clipping (1,000 Hz into 8 ohms) was 153 watts per channel for a clipping-headroom rating of 1.06 dB. With 4-ohm loads, the clipping power was 240 watts, well above the 200-watt rating. We could not make any measurements with 2-ohm loads since the protective circuit shut off the amplifier outputs before the waveform distortion occurred. The dynamic-power output was measured with the 20-millisecond tone bursts of the standard IHF test, with the outputs clipping at 156 and 260 watts into 8- and 4-ohm loads, respectively. The 8-ohm dynamic-headroom rating was about average at 1.14 dB. When we tried to drive 2-ohm loads with the pulsed signal, we found that the waveform distortion (rounded off symmetrically) long before the protective system operated. The maximum reasonably undistorted output into a 2-ohm load was roughly 20 watts per channel.

Nevertheless, Yamaha's claims to ultralow distortion were essentially confirmed with 8-ohm operation. At 1,000 Hz, the distortion was between 0.0003 and 0.0004 cent from 1 watt to at least 120 watts output (with 4 ohms the results were quite similar, the 0.001 cent point being about 140 watts per channel). At rated power or less, the 8-ohm distortion was between 0.0003 and 0.001 cent from 20 to 3,000 Hz, rising to a low maximum of about 0.0003 cent in the 5,000- to 20,000-Hz range. The high-frequency linearity was also measured with the two-tone IHF intermodulation-distortion test signal consisting of equal amplitudes of 18- and 19-kHz signals whose peak amplitude was equal to that of a 120-watt sine-wave output. The second-order (difference-tone) distortion at 1,000 Hz was an excellent −90 dB, and the third-order (17-kHz) component was −64 dB, both referred to 120 watts.

The sensitivity of the Yamaha M-50 for a reference output of 1 watt was 0.105 volt, and the A-weighted noise in the output was less than our 100-microvolt measurement limit (better than 90 dB below 1 watt). The amplifier's slew factor was greater than 25, and its rise time was 3 microseconds. It was stable with reactive simulated loudspeaker loads, and its IHF reactive-load rating was 1.18 dB.

Circle 145 on reader service card

Yamaha M-50
Power Amplifier

● Comment. In service as part of a home music system, the Yamaha M-50 worked perfectly, with absolutely no sound of its own. Even turn-on and turn-off operations were completely silent. It delivered the type of performance we would expect from such a deluxe audio component. Recalling its limited output with low load impedances, we paralleled several pairs of speakers in an effort to hear distortion when the amplifier was driven hard. In this we were only partly successful. Distortion was audible only when we drove the M-50 very hard, producing sound levels far beyond what any rational person would find enjoyable in a home environment. While the distortion disappeared when we switched to a much more powerful amplifier that was able to drive low-impedance loads without difficulty, this is hardly a fair comparison with the M-50.

Yamaha's awareness of the current-output limitations of the M-50 is demonstrated by their using an output-switching system that makes it impossible to drive two pairs of speakers simultaneously regardless of their impedance ratings. The apparently unruffled behavior of the amplifier when we drove a group of speakers whose combined nominal impedance must have been less than 2 ohms can probably be explained by the fact that actual speaker impedances vary widely with frequency, and no two are likely to be alike in this respect. It is therefore probable that the amplifier never "saw" an impedance as low as 2 ohms; at most frequencies it may have been closer to 4 or even 8 ohms. Considering the frequency distribution of most music, it is not hard to understand why the apparent deficiency on the test bench might have been of little practical importance. However, there are speakers whose actual impedance comes perilously close to 2 ohms at some frequencies, so caution is advisable when using them with this amplifier.

One surprising discovery about the M-50 was that it is not a particularly cool-running amplifier despite its "X" power supply. Even operating with no signal, its top became distinctly warm—not actually hot, but certainly not as cool as even some conventional amplifiers of the same or higher power ratings. It is also not especially small or light for an amplifier of its power rating, although it must be admitted that there are heavier and larger "120-watt" amplifiers on the market.

The M-50 is a good amplifier, with extremely low distortion and no voices other than those already mentioned. It is not inexpensive, but it appears to be well built and adequately protected.

—Julian D. Hirsch

There's only one way to play it.

KOOL JAZZ FESTIVALS, 1982

Washington, D.C. May 29-30
San Diego May 30-June 5
Orlando June 4-13
Philadelphia June 6-13
Pittsburgh June 12-20
Atlanta June 21-27
Hampton, Va. June 24-27
New York June 25-July 4
Minneapolis/ St. Paul July 12-18
Cincinnati July 12-17
Seattle July 30-Aug. 6
Milwaukee Aug. 11-15
Newport, R.I. Aug. 21-22
Chicago Aug. 30-Sept. 5
Detroit Sept. 1-6
New Orleans Sept. 17-19
Houston Sept. 16-19
Dallas/ Ft. Worth Sept. 23-26
San Francisco Nov. 6-2
Los Angeles Nov. 6-10

Famous soloists to big bands... come hear them all!

Count Basie George Benson
Dave Brubeck Oscar Peterson
Ornette Coleman Preservation Hall
Ella Fitzgerald Jazz Band
Stan Getz George Shearing
Dizzy Gillespie Mel Tormé
Benny Goodman McCoy Tyner
Spyro Gyra Sarah Vaughan
Herbie Hancock Weather Report
Al Jarreau Joe Williams
And many, many more.
(Not all artists appear at every festival.)

Free Festival brochure
Write to P.O. Box 2526
Highland Park, IL 60035
or call 513-321-5557
Specify city or cities.

SEPTEREM 1982 47
DO YOU SEE WHAT I HEAR?

By James Goodfriend

IT is no secret that technology has far outpaced common sense in the modern world; a single look at a daily newspaper will provide multiple examples of people using intelligently designed equipment for the accomplishment of dumb ends. I don’t know if the problem exists because our best minds are drawn to the research and development end of things rather than the humanistic and philosophical, or because we are simply inclined to pay more attention (and more money) to scientists and engineers than to philosophers and social workers. But the problem exists.

The advent of prerecorded video as a mass medium sets up an interesting new specific question: what are we going to look at while we listen that is worth looking at more than once? There are the obvious things: old movies, for example. There are also, of course, musical shows, operas, ballets, those artistic constructions that themselves include a visual element. But here somebody has to figure out a more effective way of presenting them through the two-dimensional world of the television screen. Certain live musical events may also have enough visual interest to bear repetition: cabaret acts, a unique and particularly successful jazz or classical concert, an occasional vocal recital, a rock or country group that has a real visual element to its act (Olivia Newton-John playing in the water?). But what about all that music, pop and classical, we want to hear and which now, in line with the latest technology, we are to look at as well as listen to?

The back of Leonard Bernstein’s neck, even alternated with shots of violinists bowing as one and trombonists shaking saliva out of their mouthpieces, will simply not do. Watching a concert on television is not at all the same experience as being at such a concert, and it’s going to take a great deal more than an enlarged screen and stereo sound to make anyone believe otherwise. And most concerts are not news, nor are any studio performances. What we are after is music and performance, not reportage.

One could show travelogue pictures: merry Bohemian peasants (if any can be found) with Smetana’s Moldau, long shots of sky and water with Debussy’s La Mer, and so on. I wonder how long that idea would last. Someone, I’m sure, will suggest giving us the printed score, page by page, on screen as the music goes by. That should also be interesting once or twice. Some will call for the Fantasia approach. But that takes a lot of ingenuity and a lot of time—and, successful as that film was, it is notable that Disney never did it again. Do we have any other choices?

Not really. What we have instead is the necessity of finally facing a law of reality: all technology has its human side; all technology, if it is to be used, has a psychological and philosophical component. Quadraphonic sound failed not just because of the hardware mixup, but because no one ever properly analyzed the nature of the soundstage it produced and designed programs that were both effective on that soundstage and true to the music. Television is such a waste because few have ever defined it—a fixed, flat screen of a certain size and definition, located in a living room—and investigated what there was that would be indigen- ous, effective, and unique to that medium. Prerecorded video makes its own demands, sets up its own advantages and limitations, and someone will have to explore them as virgin territory.

If your goal is new levels of detail, openness and three-dimensionality in an audiophile preamplifier, you must hear the surprisingly affordable C-1.

C-1
The CARVER C-1 Sonic Holography Preamplifier.
The C-1 fulfills the requirements of the most demanding audiophile.

Highly acclaimed and far beyond what other manufacturers call state-of-the-art, the Carver C-1 is a wonderfully affordable way to experience the sheer musical pleasure of Sonic Holography.

A quality instrument replete with precision gold-band laser-trimmed resistors, life-time lubricated sealed switches, G-10 epoxy boards, machined solid metal parts and vapor deposited 24-Karat gold contacts, the C-1 provides moving coil input, soft touch controls, an infrasonic filter, a headphone amplifier, dual tape monitors, variable turnover tone controls, silent muting, and an external processor loop.

Its straight-line engineering assures that a watt of input leaves with just 0.0000000251 watts of distortion. Or less.

If your goal is new levels of detail, openness and three-dimensionality in an audiophile preamplifier, you must hear the surprisingly affordable C-1.

Carver Corporation
P.O. Box 664
14304 N.E. 193rd Place
Woodinville, WA 98072
In Canada distributed by Evolution Audio.

CARVER CORPORATION
CIRCLE NO. 8 ON READER SERVICE CARD

48

STEREO REVIEW
ANNOUNCING A NEW CONCEPT IN PICKUPS

NEW-SIZE FORD RANGER. Ford’s American-built Ranger combines high mileage with big-size room, ride and features.

Use for comparison. Your mileage may differ depending on speed, distance and weather. Actual highway mileage and California ratings lower.

SEATS THREE in the widest cab of any small pickup. Ranger rides you high, wide and handsome!

BUILT LIKE THE BIG ONES, SAVES LIKE THE SMALL ONES.

TWIN-I-BEAM suspension. The only small truck with it. And it’s computer-tuned for smooth ride.

DOUBLE-WALL box sides mean dings on inside won’t mar the outside. No import has it!

1625-LBS. payload option. More than most compacts and many standard-size pickups.

CHOICES include: 6- or 7-ft. box, 2.0L or 2.3L 4-cylinder truck engine, Trailer Towing Package, Auxiliary fuel tank.

AMERICA’S TRUCK, BUILT FORD TOUGH.

FORD

FORD DIVISION

CIRCLE NO. 16 ON READER SERVICE CARD
CONSUMER ELECTRONICS SHOW: AUDIO 1982
The latest hi-fi trends and product introductions from the Summer CES

By Ralph Hodges

held under the auspices of the Electronic Industries Association, the Consumer Electronics Shows (CES) are trade fairs where manufacturers and retailers get together and the latter have an opportunity to order new and interesting products to display in their stores. Since consumers are not admitted to the shows, which are held at McCormick Place in Chicago in the summer and in Las Vegas in the winter, STEREO REVIEW reports on each CES to tell you what you can expect to see on dealers' shelves in the near future.

Back in 1973, when this magazine first reported on CES, there was only one show a year, and all the news and hi-fi products could be covered comfortably in a six-page article. Since then the industry has grown tremendously. There are now two shows a year, and the number of new-product introductions has risen from a few dozen to well over a thousand. Accordingly, it is no longer possible to cover every new product adequately in a survey article. In this issue we describe only the highlights of this summer's CES, covering trends and developments in the hi-fi industry to give you background. This should help you evaluate the newly introduced units you will be reading about in coming months in our enlarged "New Products" section. There we can give a more complete description and include a photograph.

Incidentally, our first CES article was written by Ralph Hodges, who also wrote this one. In 1973 he was STEREO REVIEW's Associate Technical Editor; today he is a successful free-lance writer and audio consultant.

JUST as actors have nightmares about going on stage and forgetting their lines, some of us audio journalists harbor a fear that one day we will walk into a Consumer Electronics Show and find no new high-fidelity equipment to write about. That wasn't what happened at this year's SCES in Chicago. New goods were actually rather plentiful, even if innovation in product design was rare. For the most part, receivers and integrated amplifiers remained moderate in size and power and leaned heavily on convenience features to stir interest. There were many new turntables, a few with novel design approaches. There were also rack systems and mini systems and mini systems by the boxcar-full.

In the following pages, which are not intended to be comprehensive, I will try to map out current trends and directions and point up some noteworthy examples. Elsewhere in this issue, Craig Stark reports on new developments in tape and tape gear, and Fred Petras does the same for car stereo.

AM Stereo and Digital Audio Discs

Let's begin with two much anticipated developments that have not quite come to pass: AM stereo and the digital audio disc. Ever since the FCC abdicated responsibility for choosing one AM-stereo system from the five candidates, the industry has been wringing its hands over the stalemate and wondering how AM stereo, as a concept, can survive. National Semiconductor came to the show with samples of its integrated circuit intended for the Magnavox system (although adaptable to others, it is said), which presumably pleased equipment manufacturers with its low cost and compactness. Representatives of the Harris Corporation had a spectrum analyzer demonstrating how scrupulously their system respects available channel bandwidths, which reportedly cheered those broadcasters who attended. Sansui made a frontal attack on the situation with a prototype component tuner that decodes the Magnavox, Harris, and Kahn/Hazeltine systems, switching automatically between them. However, nobody seemed to believe this was the solution for the all-important car-stereo receivers of the future. And I don't think anybody left Chicago feeling the AM-stereo dilemma was any closer to being resolved.

As for the digital audio disc, the joint project of Philips and Sony, known as the Compact Disc (CD), seems in the strongest position of any such system today. And progress toward the marketplace has been quite gratifying, at least overseas. PolyGram, the European record giant, rented a huge room at CES and played selections from the CD catalogs of Deutsche Grammophon, Decca/London, Philips, Phonogram, Polydor, and Mercury. There will be two hundred of these discs by year's end, says PolyGram, and thirty or more each month thereafter. But until next June they'll all be over there, not over here, nor are they likely to get here by next June if there are no machines to meet them.

Speaking of the machines, meanwhile, top executives from Sony of Japan sat with the press and explained that the uncooperative attitude of U.S. record makers toward the new format meant that there would be no CD players for us until next year either. Large U.S. record companies are balking at the royalties Philips wants for every disc. Somewhere down the line Sony will accommodate adventurous U.S. labels with custom CD mastering and pressing facilities in Japan. But until the U.S. gears up to manufacture CD's on its home shores, record buyers should be prepared to pay top dollar for the imported product. And they should be prepared to wait for discs (and therefore for machines) until both Japan and Europe have satisfied their home markets.

Of course, CD players (or prototypes

Photo by Peter Bosy
thereof) weren’t hard to find at the show. You couldn’t walk down an aisle without tripping over several. I saw machines from Aiwa, Denon, Hitachi, Kyocera, Mitsubishi, Onkyo, Optronica, Pioneer, Sansui, Sanyo, Technics, and Yamaha, as well as the Philips player that was used by PolyGram. For good measure, Yamaha also displayed its AHD/VHD disc machine, which uses the same player for both audio and video discs. Marantz did not choose to show a CD player in Chicago, although the company has done so at previous shows.

There is no point in listing model numbers and features at this time. With about another year to go before U.S. introduction, even those machines that are now operational will probably change substantially before we can buy them.

**Receivers and Tuners**

Some twenty years ago Harman Kardon introduced what was generally considered the world’s first stereo receiver: about 15 watts per channel, rather basic in control facilities, and costing a couple of hundred 1960s dollars. At this show Harman Kardon introduced the hk330i receiver, 20 watts per channel, rather basic in control facilities, and—despite inflation—costing a couple of hundred 1980s dollars. Of course, the new H-K model is undoubtedly better in a number of audible and inaudible ways. But the big point is that the receiver has, as a category, weathered twenty years of evolutionary pressure to remain pretty much what it started out to be: a no-frills, no-fuss electronics package for Everyman’s hi-fi system. One or two of the show’s new receivers approached or exceeded 100 watts per channel, and many of them sported digital tuning readout, station presets, and pushpads rather than rotary controls for volume and tuning.

The significant new receiver feature to appear in a number of products at this show was built-in decoding for CBS’s CX phono noise-reduction system, trotted out in a single model from Marantz and two each from Onkyo and Toshiba. Although the CX disc-encoding scheme is not yet in widespread use, the decoding electronics for it contribute only a minor expense to the overall cost of receivers. Undoubtedly there would have been many more CX product introductions if CBS and others had been more forthcoming with the software. Next winter’s CES should tell the tale for CX. The 55-watt Marantz SR620CX ($495) has a front-panel CX calibration control to match the output of the phono cartridge used to the operating level of the CX circuitry.

Most audio receivers still have two—or at most three—tone controls, but a few manufacturers continue to favor multiband equalizers. JVC has done so from the beginning, and its three top models for this year retain the five-band “S.E.A.” graphic controls that are a company trademark.

Sansui is a relative newcomer to built-in equalization, but its enthusiasm for it is apparent in the 120-watts-per-channel Z-9000 ($950), with a seven-band equalizer, a signal processor that adds reverberant decays of up to 3 seconds’ duration, and a built-in timer that shares the digital display and fifteen-button keypad of the tuner section to permit programming of two daily on-off cycles and one single-event cycle.

Like JVC, Sansui has incorporated what it considers its most sophisticated amplifier and tuner technology in its top receiver models. Both companies also introduced less expensive models with fewer features.

Sony has designed its two new receivers and one new tuner to forgive misprogramming by jumping to the nearest available signal when there proves to be nothing on a channel that has been erroneously preset. The tuner will also automatically scan through those channels entered into memory, ignoring other signals on the dial.

Convenience features aside, three of the show’s new tuners and one new receiver offered several different FM-circuit innovations intended to deal with weak and/or interference-troubled radio signals. In the Carver TX-11 FM-only tuner ($550, and now at last available), noise and multipath products are to a large degree canceled without affecting stereo separation. The NAD Model 4150 tuner and 7150 receiver

---

JVC’s new T-X55 tuner (top) features a unique digital signal-strength display and a “computer” that selects the optimum tuner operating mode. Carver’s TX-11 tuner (center) features proprietary multipath-canceling circuits that were impressively demonstrated at the show. The Onkyo TX-61 receiver (bottom) features CX disc decoding and a record-output selector that allows the user to listen to the tuner while taping from a record player. This feature is also on a Yamaha integrated amplifier and the NAD Model 7150 receiver.
The Kenwood Audio Purist Basic CI preamplifier (top) and Basic M1 power amplifier have the spartan appearance of more exotic units. Sherwood introduced an attractive line of separates exemplified by the S-6020CP preamplifier (center). Yamaha's A-4601I integrated amplifier (bottom), has many controls and convenience features.

use the recently developed Schotz circuit to get the best from whatever signal is coming in by tracking the strength and noise content of the signal and varying the detector bandwidth accordingly from moment to moment. The amplifier section of the NAD 7150 is identical to the Model 3150 integrated amplifier from the same manufacturer, providing 50 watts per channel with a dynamic headroom of 3 dB and NAD's "soft clipping" feature. The Carver and NAD products all share digital station-frequency readouts and ample station presets (sixteen for the Carver TX-11).

JVC has a different approach to reception problems. In the T-X55 tuner a microprocessor evaluates the incoming signal and then decides whether to attenuate it by either 25 or 10 dB to prevent r.f. overload, to leave it alone, to switch to the narrow-band i.f., or to switch in the quieting-slope control circuit for best reception of weak signals. This $350 tuner also has a 1-dB-increment (0 dB to 99 dB) digital signal-strength display that makes antenna adjustment easy and is also fun to play with.

Preamplifiers and Amplifiers

There just aren't very many new trends this year in audio preamplification and power amplification. We already have class A, quasi-class A, class H and variants, power supplies that go from nothing to everything depending on the signal, feedback loops that encompass the loudspeakers, feedforward, dynamic-headroom enhancement, clipping relaxers, low-negative-feedback designs, distortion eliminators based on comparator techniques, nonmechanical function switching, and lots and lots of gold-plated connectors. Somewhere it was decided that both manufacturers and consumers needed a rest, and so the SCES brought us just a little bit more of the same, plus some features heretofore found only outside the separate-component market.

For example, the CX4200 preamplifier from Soundcraftsmen has CX decoding circuitry in addition to the company's excellent ten-band equalizer with separate controls for each channel and a calibration system that ensures unity gain within 0.1 dB when the equalization section is engaged. The Sony TA-AX44 integrated amplifier is controlled exclusively by push bars or push pads and is equipped with memory that permits up to three inputs to be preprogrammed for special equalization and filtering; it will perform that way whenever one of those inputs is selected. The $280 unit, together with the matching ST-JX44 tuner, is also designed to accept wireless infrared remote control, as are four Sony record players and a large number of cassette decks, by means of retrofits for that purpose now becoming available.

These shows tend to spawn huge power amplifiers with huger price tags and purist preamplifiers costing almost their weight in gold. This show had its share of those, but it also had the Kenwood Basic M1 power amplifier (105 watts per channel), which looks like a very serious piece of business but which costs a mere $330, and its companion Basic CI preamplifier, as spartanly purist as you could wish in its control facilities (except for a continuously variable loudness-contour adjustment), at a mere $225. The power amplifier employs Kenwood's signal-sharing scheme between medium- and high-power output stages together with a negative-feedback loop that includes the loudspeakers, while the preamp automatically adjusts to phono-cartridge types, including moving-coil devices. On the other hand, the new Kenwood L-02A integrated amplifier (170 watts per channel) goes for $3,000, weighs a great deal, features nonmagnetic construction, and has special interface provisions for the new L-02T tuner (also $3,000). The tuner has the capability of enclosing the L-02A's inputs in a negative-feedback loop.

Next on the price scale is the Harman Kardon Citation XXP, the preamplifier mate to the previously introduced XX power amp. Its appearance is simple but pretty, its features are conventional but unstintingly elaborate in execution, and its price is unavailable at the time of writing. But expect the highest.

The big-amplifier market has become attractive to Studer/Revox,
CES

which has derived its new B740 power amplifier from a professional unit intended for music and broadcast studios. Rated power is 100 watts per channel, the power supply has 60,000 microfarads capacity, and the audio circuits contain no ICs—a feature that, like minimum negative feedback, some amplifier makers like to make much of these days. Price: $2,299.

Down a bit from these rarefied strata is the Yamaha A-960II, a 105-watt $495 integrated amplifier that has a certain satisfying busyness and purposefulness to its front panel. Yamaha has lately been building amplifiers that counter distortion by developing a correction signal in a side chain and then introducing it into the signal path out of phase to cause distortion cancellation. The manufacturer has been employing the Carver-based X power supply, and this new integrated amplifier seems a good example of what Yamaha's techniques are all about.

Carver will be introducing its first integrated amplifier this fall, the Model 120-1A (price not yet announced), which offers 120 watts per channel, the Carver "magnetic-field" power supply, and a "Sonic Holography" generator that expands the stereo image by canceling interaural crosstalk signals from the two stereo loudspeakers. These features, which will be familiar to readers who follow audio developments, require more explanation than can be given here. But they do make this new Carver product unique—and interesting.

Unique to Sherwood is a line of ambitiously targeted separate components that includes a frequency-synthesizing tuner, a preamplifier with CX decoders, and a power amplifier that, because of MOSFET output stages, is able to drive 8-ohm loads at 100 watts, 4-ohm loads at 180 watts, and 2-ohm loads at 250 watts.

JVC also deserves some attention for the depth of its audio introductions at this show, including six integrated amplifiers, several of which incorporate the manufacturer's five-band equalizer plus illuminated indicators to show the nominal operating level of each band; the prodigious M-L10 power amplifier and a companion preamplifier, both wrapped in high-gloss lacquered "furniture" shells; and a hearty helping of other devices.

A final amplifier development, and one that warms my heart, is the availability of the revered Stewart Hege- man's Hapi 2 preamplifier in kit form ($479 kit, $650 assembled), courtesy of Adcom. Wiring electronic kits is emotionally therapeutic and somewhat cost-effective, and in this case it should produce a fine purist preamplifier.

Record Players

In 1979, when Technics brought out the first of its enticingly compact and aesthetically pleasing radial-tracking turntables, only one phono-cartridge configuration would fit the machine—and it was the configuration of a Technics cartridge. When the turntable became very successful, however, a number of cartridge manufacturers began redesigning their top models so that they could plug directly into the Technics arm. In the intervening years, the resultant style of cartridge body began to be called a "P-Mount," probably referring to the fact that the four signal-carrying pins were the "plug" that secured the cartridge to the end of the arm. Now that the P-Mount cartridge is ubiquitous, Technics has decided to convert its entire line, radial-tracking and pivoted arms alike, to the P-Mount system, and company representatives speak confidently of its becoming an industry-wide standard.

In this, Technics has made a significant contribution to the ease of owning high-fidelity equipment. No chore in setting up an audio system has been quite as exasperating as installing and aligning the phono cartridge in the tone arm. The industry has been under pressure for years to do something about it, and Technics, with its simple socket and set-screw, has done something about it. There are some liabilities involved—with a P-Mount system one has to rely on the record-player and cartridge manufacturers to establish correct record-playing geometry since no user-adjustable parts are provided. At a time when lateral and vertical tracking-angle errors are coming under increased scrutiny, we can only hope that the manufacturers involved are taking proper care.

The new Technics record players—a total of nine, of which only the $1,700 SP-10MK3 is provided without an arm—are so thoroughly locked into the P-Mount concept that a tracking-force adjustment range of only ½ gram is provided. According to Technics, this range is adequate to accommodate its own P-Mount cartridges (the latest of

P-Mount phono cartridges such as the Stanton L747 S (inset) are becoming more common; Technics introduced a line of pivoted-arm turntables such as the SL-Q20 (left) to use them. Optonica's RP-114VL (right) has a separate tone arm for each side of the record.
which is the $50 EPC-P28) as well as those now offered by Audio Technica, Empire, Ortofon, Pickering/Stanton, and Shure.

Technics may have popularized radial-tracking tone arms (as it did direct-drive turntables), but it no longer dominates the market. Sherwood, in a surprise move, has come up with two low-cost players that accept P-Mount cartridges only. JVC's new radial-tracking offerings are similar in price and features. (However, JVC's deluxe introduction for this show, the $500 QL-Y55F, employs a pivoted tone arm, but it is dynamically controlled by servomotors to maintain stability under play conditions.) Sansui is there too with the $360 radial-tracking P-L50, which is microprocessor-controlled for sequential selection of record bands and for automated interface with Sansui's newer cassette decks.

I can remember when radial-tracking record players were impressively expensive, and so, evidently, can Studer/Revox, whose $749 B791 was the most costly such machine at the show. It does, however, provide platter-speed adjustment in precisely calibrated increments of 0.1 per cent, and it comes with Shure's top-of-the-line P-Mount cartridge (other cartridges can be substituted later, but the Shure TXE-SR is indeed part of the purchase).

If radial tracking doesn’t fill your bill, perhaps you’ll be moved by the turntable-in-a-drawer approach being taken by Sony and Pioneer. First seen, I believe, in an innovative product introduced by Aiwa a few years ago, the drawer turntable, at the touch of a button, motor-drives the platter out of the front of its base where you can easily get at it for record changing and cleaning. Another touch of the button causes it to retreat, and play commences. The turntable no longer needs to be the top component in a stack. For its new models, Sony has made the rubbery wheels on which the drawer mechanism travels the key element in the turntable's suspension. Pioneer has done much the same thing with two of its new turntables. Both manufacturers have used conventional pivoted arms and have equipped their machines with degrees of automation commensurate with price.

Massive turntables, defying both human lifting strength and seismological disturbances, continue to be introduced. Thorens, now distributed here by Epicure, again sent its physically overwhelming “Reference” turntable to the show; this year it was accompanied by the only slightly less imposing TD 226 ($1,600), with a broad, glossily finished wood base that has ample room for another tone arm in addition to the SME unit supplied. Denon displayed another enormous reference-type turntable—evidently meant, like the Thorens, not for sale but for show and edification—and Kenwood enlarged its Audio Purist series with a big brute, the $2,500 L-07D, that it seems to have every intention of selling. However, if your floors are weak, or if you are, be aware that both Harman Kardon and Yamaha, among others, have introduced extensive new lines of conventional record players at conventional prices from $400 down to $150.

Not at all conventional is the Optonica parent company, Sharp, has taken the concept and applied it to various integrated music systems, including, of all things, an enormous portable boom-box.

Among the show’s new phono cartridges, Empire’s introductions were the most numerous, including the company’s first moving-coil cartridge (the MC Plus 20, $90), six P-Mount models, and a pair of new moving-magnet pick-ups designed to carry static charges off the record via conductive surfaces. Denon hit the $1,000 point with its lowest-mass moving-coil design yet, and Nagatron spoke of two introductions, one with a sapphire cantilever, scheduled for a few months hence. A surprise was Klipsch’s entry into the phono cartridge business with four moving-coil models.

Audio for Video

Sound that’s at least as good as the picture shows signs of becoming an obsession with a number of home-entertainment manufacturers. This is perhaps a good time, then, to get interested parties forewarned of the developments about to be sprung upon them.

First, some justification. If you question the desirability of experiencing Laverne and Shirley in stereo with 16 to 24,000 Hz response and a 90-dB dynamic range, welcome to the club. But

The turntable-in-a-drawer design, available from Sony (the PS-FL3, left) and Pioneer, makes it possible to place a record player anywhere in a rack. The Klipsch MCZ series moving-coil cartridges are available with aluminum, boron, ruby (shown, right), or diamond cantilevers.
there are circumstances in which good audio in support of video really counts. At this show Proton, a company closely affiliated with NAD, demonstrated its new 19-inch video monitor (a picture tube without audio or TV-reception circuits) with twenty minutes of excerpts from The Empire Strikes Back on a 3/4-inch videotape. The monitor gave a decent account of itself, but what held the largeish audience in that dark and stuffy room was not the 19-inch picture but the sound, taken directly off a Dolby surround-sound master, decoded appropriately for noise reduction and surrounds, and heard through a quartet of minispeakers, arranged four-channel style, and a subwoofer. This was the soundtrack the way it was meant to be heard in better movie theaters, and I wouldn’t have believed the difference it made with a TV picture if I hadn’t experienced it for myself.

It seems that videocassette pirating of Star Wars forced 20th Century-Fox to release tapes of the film under its own label just to get in on some of the profits that others were reaping at its expense. Consumers should soon be able to purchase videocassettes with stereo soundtracks that truly represent the sophisticated audio mixes now available for the movie theater. We’ll also find that many of them have a very bright upper midrange designed to punch through cinema screens and defeat their masking effects.

From this moment on, it seems certain that all videocassettes and videodiscs will be released with stereo sound if the original source material has stereo to offer. There will also be noise reduction, which is rapidly shaking down to Dolby-B for videocassettes and CBS CX for videodiscs.

It appears that super audio accompanied by impeccable video is somehow down the road. But if you would like to get involved immediately, here are the latest temptations.

Marantz is first with a stereo Betamax VCR incorporating Dolby-C noise reduction: the Model VR 200, priced at $1,295. My first question was whether the generally poor quality of VCR sound might reveal noise-modulation problems in the C-type system that have otherwise been undetectable, but in two visits to the Marantz exhibit I failed to unearth program material with which component-type noise reduction could make an audible difference anyway.

Jensen is the first company to come out with a complete audio/video receiver (AVS-1500, $990) designed to receive AM, FM stereo, and TV/CATV transmissions while controlling switching with video monitors, TV sets, speakers, VCR’s, videodisc players, phonographs, and audio tape recorders. It also features simulated stereo, variable DNR, a proprietary ambiance-enhancement circuit, and a 50-watt-per-channel amplifier. The company’s new video products line also includes an FM-only receiver with video switching facilities and two speaker systems designed to be used in close proximity to a TV screen without distorting the picture. Scaled to the Jensen 19- and 25-inch video monitors, they cost $125 each and employ 51/4-inch woofers, 51/4-inch passive radiators, and 1-inch soft-dome tweeters.

Kenwood’s AM/FM (no TV-audio reception) receiver, the KVR-510, is an outgrowth of the KVA-502 integrated amplifier, with its claim to video applications residing in a circuit that “ster-eozizes” mono signals and a filter array that is said to suit the noise characteristics of TV audio. Power is 30 watts per channel, and price is $419.

“Stereizers” and special filters comprise about the only other offerings on the audio-for-video component scene. Audio Control has introduced its Video Detailer, a $129 video-soundtrack five-band equalizer with a proprietary stereo simulator using comb filters, delay and phase-shift circuitry, and DNR noise reduction. The unit is designed to be installed between the audio output circuits of any video unit and a preamplifier or receiver. R.G. Dynamics includes a dynamic-range enhancer with its $180 VC-1 “Videosonic Stereo Phaser.” Superex’s VAP-3 ($270) has equalization in four bands, dynamic-range enhancement, and a “stereizer” that works by splitting the mono signal and delaying one of the signal paths for a few milliseconds.

Speaker Systems

There were, as usual, many new speaker systems introduced at CES, but only a relative few of them can be touched on here, and only those with some apparent novelty or interesting engineering angle at that. Apologies in advance to all the unremarkable-seeming brown boxes, among which may have been found some of the show’s finest new loudspeakers.

The AR9LS ($750) has replaced the esteemed AR9 in Acoustic Research’s lineup, offering a uniformity of vertical sound dispersion that matches the already excellent lateral directional characteristics of the AR9. This has been achieved with the so-called Lambda “Dual Dome” array, a midrange/tweeter assembly that places the 11/2-inch dome midrange and 3/4-inch dome tweeter so close together that they are able to share the same magnet structure. This proximity, combined with a properly chosen crossover frequency, ensures that the spacing between drivers is always less than one wavelength of any frequency they handle jointly. The two side-firing woofers of the AR9 have been replaced with a front-firing 12-inch driver and a downward-aimed 10-inch one. Acoustical contouring of the 10-inch woofer’s response is said to correct for the effects of the rear-wall reflection that the AR9’s side-firing woofers were meant to eliminate. Another new AR design, the AR98LS, also employs the Lambda array and is adjustable for floor or shelf placement.

JBL introduced an ambitious tower system (or perhaps more of a leaning obelisk in this case), the $600 four-way L250, which rises from a 14-inch woofer at its broad base to a 1-inch dome tweeter at its lofty top. As an alternat-

The Jensen AVS-1500 is an AM/FM/TV (audio and video) receiver that can switch inputs from various antennas, cable TV, VCR’s, videodisc players, audio tape, and record players and feed the appropriate signal to video monitors, conventional TV sets, and VCR’s. It has a 50-watt-per-channel amplifier, stereo synthesizer, and Dynamic Noise Reduction.
An 18-inch woofer dominates the cabinet of JBL's B460 subwoofer (top left). Acoustic Research redesigned its AR9 and AR98 speaker systems as the AR9LS and AR98LS (top right). The larger AR9LS has a downward-firing woofer; both have a tweeter/midrange assembly with a shared magnet. Design Acoustics uses a downward-firing woofer in its PS-10 three-way bookshelf speaker (bottom left). There were many subwoofer/satellite speaker systems at the show; a typical example was Cerwin-Vega's SW 12 and SAT I combination (bottom right).

JBL also demonstrated a sort of satellite system made up of a pair of the company's new two-way L15's, with 6½-inch woofers and a 112-dB-plus subwoofer, the $900 B460, which has an 18-inch driver in a ported cabinet of monumental proportions. Like many manufacturers this year, JBL is emphasizing the furniture appeal of its designs with enclosures available in walnut, stained birch, ebony, rosewood, and oak.

Infinity is still building downward from its $25,000 Infinity Reference Standard, and this year it has reached price points ranging from $260 to $565 for four systems in furniture-quality enclosures with diffraction-avoiding rounded edges (the edges are also fluted, but whether this is meant to be functional or just decorative is not clear). Polypropylene woofers, Poly-Dome midranges, and EMIT tweeters are used throughout the series. Three bookshelf models, at $98 to $199, round out the Infinity introductions.

Allison did not overlook furniture appeal for this show. The familiar configurations of the company's "Room-Matched" speaker systems are suddenly not so familiar, their appearance having been completely restyled to yield the Models Nine, Eight, and Seven ($495 to $225). All are resplendent in pale oak, with clean, striking planes and angles.

Polk's Stereo Dimension Array I ($1,600 the pair) consists of two towers rising a little higher than belt level. Audibly the effect somewhat resembles Carver's Sonic Holography, but Polk can't reveal details pending patent resolution. The new Design Acoustics "Point Source" loudspeakers employ baffle sizes as small as possible (to minimize diffraction) and woofers that are front-loaded by the bookshelf systems' bases.

"The digital era is going to blow out all our loudspeakers" is a threat we've heard plenty of lately, and whether or not we're inclined to take it seriously, Cerwin-Vega claims to have done something about it with nine new "Digital Design" systems, including a satellite model and two subwoofers, ranging from $250 to $450. Like all other Cerwin-Vega loudspeakers, they can play loud enough to hurt.

Every show has its share of new "miracle materials" that, used in conventional or unconventional driver technology, are said to produce dramatic sonic improvements. Sansui's latest is "PMC," a proprietary combination of polypropylene, mica, and carbon that is said to work well as woofer and midrange cones. Scott is equally enthusiastic about "Ppf" (polypropylene foam), which makes stiff, light, inherently well-damped tweeter domes that are beginning to turn up in the company's line. (Infinity seems to have something similar, PolyCell, which is doing the...
very same thing for that company.)

RTR has been working for a while with an acrylic-film dome reinforced with a criss-cross of glass thread. The company thinks it is close enough to the impossible dream to have made a preliminary announcement of the AFT-1, the first system slated to use the 1-inch dome. For Winslow Burhoe, now designing for Energy in Canada, the miracle material is aluminum foil, a 10-inch strip of which forms the diaphragm of a "ribbon" tweeter in a very new Energy prototype. The diaphragm is driven by a one-turn voice coil bonded to its back, and it is operational down to 200 Hz.

Aluminum foil turns up again in a true ribbon tweeter (the diaphragm is driven directly, not through a bonded or etched "voice coil" that adds mass) from Magnepan and demonstrated at the show in the new Tympani IV system. The tweeter is about six feet (!) high, with the ribbon perhaps a half-inch in width over this length. Its configuration is said to make it a highly effective line source with near-ideal lateral omnidirectionality, while its length and extreme thinness result in an essentially resistive load suitable for virtually any amplifier. Integrated behind the grille with one of the Tympani IV's planar magnetic midrange panels, it cannot be seen. But it certainly can be heard, and it sounded so good that I forgot to ask the price (my recollection is that the complete system is a bit over $2,000 the stereo pair).

Another show dazzler—two of them, actually—came from Acoustat in the form of new electrostatic panels. I'm not sure quite how to describe them, but remember the monolith from 2001: A Space Odyssey? Well, dress it in an off-white grille sheath and... The huger of these two new monsters, both literally higher than I could reach, was in use along with sundry other speakers by a company called Sonic Arts to demonstrate four-channel recordings of prop-airplane flyovers. Those of us emerging from elevators to plunge directly into this din prepared to run for cover to avoid being strafed.

B&W announced an excellent-sounding minispeaker in a cast-metal enclosure that is electrically, acoustically, and physically designed to adapt to the specific needs of both car and home use. A flick of a switch changes both its frequency and impedance characteristics to optimize its performance in the selected listening environment.

I think I was still a schoolboy when Klipsch last came out with a new loudspeaker, but this show did bring another one, the $200 Klipsch kg2, least expensive model from this manufacturer and an obvious attempt to court the two-way bookshelf market.

One-brand Systems

Rack systems, stack systems, shelf systems, mini systems, and other such one-brand systems have become a fact of life at Consumer Electronics Shows. And despite their hi-fi-by-the-yard concept and appliance-store image, they have been attractive to component buyers, but there is no consensus as to exactly how successful they've been. Yamaha has brought out several attractive rack systems, and they must sell for Fisher, because a major part of this manufacturer's line is one-brands.

Yet other companies say they have taken a beating from the one-brand market and are now backing off. Still other companies, such as Sansui, "suggested" complete systems that the dealer and customer are free to alter to their liking (last January Kenwood inaugurated almost-one-brand systems by arranging for JBL to supply loudspeakers for them, thereby mitigating the one-brand curse of pretty good electronics with "who-knows-what" speaker systems).

But there is one clearly advantageous aspect to one-brands. The components can be designed to interact more effectively with each other. For example, microprocessors in Sansui's new "intelligent" Super Compo Series get the system fired up, the input source selected, and the program source going at the push of a single button. They also supervise dubbing onto cassette decks with similar automation.

Aiwa's V-1000 "midi system" goes One trend in one-brand systems was towards integrated control of the various components in a system. The Aiwa V-1000 (top) can be set up so that the touch of a button activates the turntable and tape recorder simultaneously. Another trend is towards compactness, typified by Kenwood's "New Life" system (bottom) with vertical turntable.
Because Sony redesigned the car stereo, the auto makers don't have to redesign the car.

The interior of an automobile is designed with a lot of purposes in mind. Unfortunately, great stereo sound reproduction isn't one of them. Fortunately, Sony did more than just tackle this problem. They actually solved it. By designing a stereo system that meets the acoustical challenges inherent in a car.

**INTRODUCING THE SONY SOUNDFIELD™ SYSTEM.**

As the very name of our system indicates, we started with the acoustical sound field itself by treating the entire front of the car as a stage. The very directional high-end and mid-range frequencies emanate from this stage in an accurate stereo image. The bass frequencies below 100Hz actually are directed from the rear of the car, where the Super Woofers are placed. However, since these frequencies are omnidirectional, they seem to be coming from the proper "stage" location.

The result is richer, fuller, and more dramatic bass.

**CONVERT WITH COMPONENTS.**

The optimum SoundField System consists of a powerful amplifier (XM-L20) driving a pair of 8" Super Woofers (XS-L20), along with a medium-powered amplifier driving the front speakers. This means full-range speakers can be used without risk of modulation distortion.

But you can begin to enjoy the SoundField System simply by adding one of our lower powered amplifiers and the Super Woofers to the car stereo you already have. Then you can slowly build up your system, adding a higher powered amplifier, more speakers, and an equalizer.

**A SOUND THAT TAKES A BACKSEAT TO NONE.**

Although the technology of the Sony SoundField System is complex, the reason for it is simple. It will give you high dB levels with very low distortion, extremely precise stereo imaging, and an amazingly broad frequency response. In addition, you'll be pleasantly surprised at just how easily a SoundField System can be installed in your car.

So come into your local Sony dealer and ask to hear the next generation in autosound systems.

**SONY: THE ONE AND ONLY**

Of equalizers, JVC had a new seven-network remote control as well. The new one, which has prewired connectors that mate with those of the components, very much easing system setup.

Sony is this year’s big advocate of remote control, and a single wireless unit the size of a pocket calculator provides control functions for virtually all of the components in the company’s F-4500R Music Lab system. Future Sony systems will be accessible to the same sort of remote control as well. The new one-brand introductions did not exceed $2,000 in suggested retail price in any instance I noted, and they generally tended to feature separate tuners and integrated amplifiers rather than all-in-one receivers. Most included cassette decks as well as record players, but in a few cases you could opt for an equalizer.

Accessories

Once again, equalizers and headphones led the field of new accessories. Of equalizers, JVC had a new seven-band for $200, while Onkyo appeared with a $180 ten-band equalizer that still stands out in the platter-vacuum system for flattening and damping discs, first introduced as part of a turntable by Luxman and as an add-on accessory by Audio-Technica, and now joined by a somewhat-similar model from Nakamichi.

The Technics SH-8065 equalizer ($500) ups the band ante to thirty-three per channel. It comes equipped with a switch that provides the inverse response to what’s shown by the slider controls, enabling the user to “dial in” his system’s existing response irregularities and then flatten them with a push-button. JVC offers a similar feature.

Another type of accessory, back for another run at the market, is the ambiance enhancer that simulates reverberation through multiple delays. Both Technics and Sansui have seized on new “bucket-brigade” integrated circuits to provide their delays. The Technics SH-8040 is designed for ambiance enhancement only. The Sansui RA-990 has two-channel mixing facilities that encourage a greater degree of signal processing, such as doubling vocal or instrumental solos.

Headphones are divided into home-type instruments and those adorable little “personal” things you wear to the supermarket or the jogging path. Koss introduced two new home phones at this show ($30 and $40), calling them evolutionary improvements on previous models, and Nakamichi made much of the output capabilities and response contouring of its new $70 SP-7 headset. Koss was right there as well with a new personal model, the budget-price ($20) P-19, Audio-Technica added $30 and $90 models, and both Kenwood and Sony introduced in-the-ear designs.

Needless to say, the show brought the usual number of new brushes, pads, ointments, and antistatic treatments for records, but the one new disc accessory that still stands out is the platter-vacuum system for flattening and damping discs, first introduced as part of a turntable by Luxman and as an add-on accessory by Audio-Technica, and now joined by a somewhat-similar model from Nakamichi.

I was four days late getting out of Chicago this year, so I was able to watch the forklifts and tear-down crews participate in the CES post-closing ceremonies. It took those four days to get everything out of McCormick Place, and the show left town in a line of trucks that stretched as far as you could see down Lake Shore Drive.

I wonder how, in these troubled times, all that equipment will manage to get sold. It is possible, as always, that you will never see some of it in stores, because the lukewarm response of dealers at this show “canceled” the product or because distribution doesn’t yet extend to your part of the world.

Please don’t write for further information, since we usually don’t have any. If you would like a few addresses of manufacturers, we will be pleased to supply them, but only if you include a stamped self-addressed envelope with your request. Write to: Stereo Review, Dept. CES, One Park Avenue, New York, N.Y. 10016.

The Technics SH-8065 graphic equalizer (left) has thirty-three one-third-octave bands per channel and an “invert” switch that enables the user to set the sliders in a curve approximating a system’s output and then invert it to flatten the response. Like many other companies, Koss updated some of its established products—the new K/6XLIC headphones are shown at right.
NOW FOR THE PRICE OF A GREAT RECORDING TAPE

YOU GET A PHENOMENAL ONE.

If you're familiar with Maxell UD-XL tapes, you probably find it hard to believe that any tape could give you higher performance.

But now Maxell has gone one step farther to deliver exceptional high fidelity. And it's called XL-S.

XL-S tape is so phenomenal it moved Audio Video Magazine to say, "Those who thought it was impossible to improve on Maxell's UD-XL II were mistaken. The 1981 tape of the year award goes to Maxell XLII-S." How does high bias XLII-S give you such high performance? With our new High Epitaxial formulation we improved the crystallization process that produces magnetic particles. As a result, the high frequency response, sensitivity and MOL of XLII-S has been increased by as much as 2 dB over our UD-XL II tapes.

And since hearing is believing, we invite you to compare our two best tapes at no extra charge. Because now you can pick up a MAXELL TEST PACK and get a UD-XL II C90 cassette and our slightly more expensive XLII-S 90 cassette for the cost of two UD-XL II tapes.

After you hear the difference, you'll seriously consider switching from a great tape to a phenomenal one.
How to Handle Records

By David Ranada

Phonograph records have been around in disc form for about ninety-five years, so long that you'd think the proper way to handle them would be encoded in everyone's genes. But it's not unusual to see even a so-called audiophile wrest a disc out of its jacket or liner with all the finesse of someone removing an English muffin from its package. No wonder disc-care accessories sell so well.

Fingerprints are oily and dusty, so you should learn to handle records in such a way that your fingers (or any other parts of your hands) never touch the grooves. Also, static charges on records actually attract dust particles which lead to increased numbers of ticks, pops, and skips. The procedures for handling records recommended here thus revolve around two basic considerations: first, to avoid damaging the grooves, you should rub, pinch, squeeze, scuff, or otherwise manhandle the disc as little as possible; second, to reduce the amount of dust attracted to the disc you should minimize the time it's exposed to the open air. The latter requires speed, and that takes practice. The pictures on these pages are a guide to a quick, tried-and-true way to get records out of their jackets and sleeves, onto turntables, and back again. They are only suggestions, and you should feel free to invent other ways of handling records efficiently and easily without damage or dust.

1. Buyers are not permitted to handle records at all in most stores, and consequently it is impossible to examine a record for visible traces of pressing defects before buying it. But there are some precautions you can take to avoid getting a warped record. While you are in the store, look for a flat jacket with no bent or dented corners. Beware of a dished jacket because the record inside it is likely to be equivalently warped. Jackets whose spines are bent should also be avoided.

2. Completely remove the shrink wrap from around the album; don't just make a slit in the side. Shrink wrap can keep on shrinking after the cover is opened, applying warp-causing forces to the album cover and to the disc itself. Some recent audiophile pressings come with loose-fitting heavy-plastic envelopes that don't have to be discarded. But make sure that such envelopes don't crumple to make lumps between discs when they are sitting (vertically, well-packed, completely supported on both sides) on your record shelf.

3. A good way to withdraw a record (in its sleeve) from a jacket. Bow open the album with your hand and body, and pull the disc out by grasping a corner of the inner sleeve. Squeezing that portion of the inner sleeve with the disc inside can press any dust caught between the sleeve and the disc into the grooves.
4 In removing the disc from the inner sleeve let it slip into your hand with as little friction from the sleeve as possible. Do not insert your hand into the sleeve at any time. Any grit on your hands can easily be attracted to and deposited on the record and sleeve. In this picture the fingers of my right hand are touching the outside surface of the inner sleeve. When the sleeve is completely drawn off, the disc should already be sitting correctly in the hand.

5 This is the classic record-holding grip: thumb on the edge as a "latch," fingers on the center label for balance and support. Your hands don't have to be large to do this, though it does take a little practice to hold a disc this way with confidence.

6 Another classic disc grip, one more suitable for placing the record on a turntable. Changing between this grip and the previous one is simple: as the free hand catches the rim, the fingers on the center label are retracted. As soon as possible after putting the disc on the turntable, close the turntable dust cover and replace the inner sleeve in the album so that the sleeve won't pick up dust. If you are concerned with keeping dust off your records, always play your records with the turntable dust cover down.

7 Replacing the record in its sleeve is essentially the reverse of getting it out. In this case the sleeve might have to be pulled over the disc. Again, do not put your hands into the sleeve. Try to arrange the flexing of the inner sleeve so that the disc is supported mostly by the edges and the sleeve rubs as little as possible over the surface of the record.

8 Slide the inner sleeve and record into the jacket, taking care not to squeeze the disc in the inner sleeve. Note that the opening of the sleeve is toward the top of the jacket. When re-inserted in this way, the sleeve keeps the record well isolated from dust. Inner sleeves are basic protective devices for your records. Never discard the sleeves that come with your records unless you replace them with others that are made of plastic or are plastic lined.

9 Some collectors fold the corners of the inner sleeve to make it easier to reinsert in the jacket. (Many record companies do this too.) If the corners are folded back far enough to overlap the edge of the disc, the practice increases the chances of warping the record, and therefore I do not recommend it.
Baron Gottfried van Swieten
(Pastel by V. Clavareau, Historisches Museum, Vienna)
**A Masterpiece of Joseph Haydn's Old Age**

**Baron Gottfried van Swieten** (1734-1803) is one of the most fascinating characters in the history of music. Of Dutch origin, he was a diplomat, court librarian in Vienna, a writer, a musician, and a consummate connoisseur and patron of the arts. They don't make 'em like that any more. At a time when Baroque music was almost completely unfashionable and neglected, Van Swieten collected manuscripts of Bach and Handel and had their music performed. It was in this way that Haydn, Mozart, and Beethoven came to know some of the music of their illustrious predecessors. The rediscovery of Baroque counterpoint and the revival of the oratorio were only two of the beneficial results.

Van Swieten was also the librettist of Haydn's The Creation, and the success of that work led to its sequel—a sequel that was at least as successful and popular as its predecessor. *The Seasons*—superbly performed on a new Philips digital recording by star soloists and the Chorus and Academy of St. Martin-in-the-Fields conducted by Neville Marriner—is a product of Haydn's old age, and it cost him two years of work, a long time for a composer who turned out symphonies and quartets by the dozen and who virtually breathed music. Haydn had reservations about the text, which Van Swieten had adapted from the English poem by James Thomson, translating it into German and adding a new happy ending incorporating textual material by two other poets. What bothered the composer was not so much this heterogeneous mixture of literary material, but the necessity of his writing for it music imitative of natural sounds, a kind of music he referred to as "Frenchified trash."

Whatever effort it may have cost the composer, there is not the slightest trace of it in *The Seasons*. It is a work that is rich and complex in the simplest possible way. If it is, in part, lyric, meditative, even autumnal, it is so with freshness and vitality—it has not aged a bit in more than a century and three quarters.

Neville Marriner and his English musicians are perfect for this music. They make an elegant, effortless statement. They love what they are doing and express that love in a beautiful sound—beautiful in phrasing as well as sonority. Haydn was a sophisticated man who retained the naïve and straightforward nature of a peasant upbringing. How much harder for modern performers, far removed in time and, often, in place, to keep these qualities intact without losing sincerity and sensitivity. Marriner and his forces have achieved this without compromise.

I have intentionally praised the conductors, chorus, and orchestra first although the excellent soloists deserve no less credit for the success of this recording. Wisely, the soloists were chosen from the German-speaking world. I say wisely because it is probably true that even the best and most artistic singers can never quite achieve a level of sincerity and depth of expression in a language they have not thoroughly mastered. This kind of ease with the language is absolutely necessary for close identification with the feelings being expressed (something the chorus does not always achieve). All three singers—Edith Mathis, Siegfried Jerusalem, and Dietrich Fischer-Dieskau—are outstanding as individuals; they also make a tight and effective ensemble. (Parenthetically, I was struck by how much Jerusalem sounds like a younger, tenorish version of Fischer-Dieskau.)

There are many felicitous details in this performance—the use of a fortepiano to play continuo, for example. Marriner's sense of tempo is, I think, unerring; liveliness comes not from external speed but from internal vitality. Lyricism is achieved with tone, pulsation, infinite care with phrasing and articulation, and a natural way of speaking that is never studied or pushed. The sound is on the mellow side, but there is plenty of clarity and presence. Full texts and translation are furnished. This is a beautiful recording and, if this music means anything to you at all, one not to be missed.

—Eric Salzman
The Thompsons and Friends Give Us the Most Immediately Gripping Pop Album of the Decade

Let's get the prejudices right up front: for me Richard and Linda Thompson's new Hannibal album, "Shoot Out the Lights," is the kind of record that makes most of those that cross my reviewer's desk seem like the work of artistic pygmies. In terms of intensity of feeling, craftsmanship, and originality of vision, the only record I've heard this year that's in the same league is Lou Reed's magnificent "The Blue Mask." Unfortunately, the Thompsons' album will probably fare even more poorly than that one did in the marketplace. It probably won't even sell well enough to become somebody's tax write-off (when was the last time you heard a hit album that featured the word "renew" in one of its song titles?). And that is why I refuse to feel embarrassed about gushing over Richard and Linda publicly for what seems like the umpteenth time.

The facts of the matter are these: Richard is one of the most interesting, and perhaps the most idiosyncratic, rock guitarists now working (he has infinitely more chops than either Neil Young or Tom Verlaine, by the way). He is also a songwriter who, with his timeless-sounding amalgam of antique English balladry, American mountain music, early rock-and-roll, and his own considerable demons, should be recognized as one of the best alive. And finally, his wife Linda is the most moving folk-oriented vocalist out of England since the late Sandy Denny.

"Shoot Out the Lights" is the Thompsons' most consistently satisfying album since the near legendary "I Want to See the Bright Lights Tonight." It rocks harder (the title track could pass for heavy metal if Richard's soloing weren't so idiosyncratic), but it has the same Apollonian grace, it is just as easily elegant, rhythmically insinuating, and lyrically incisive. Did She Jump or Was She Pushed? may be the best suicide song anybody has ever written, and ditto for Back Street Slide on the topic of adultery. The backing musicians, mostly long-time colleagues from Richard's tenure in Fairport Convention, are uniformly splendid, and they provide accompaniment that is both spare and forceful. Producer Joe Boyd, who has also worked with Richard since the old days, has framed the whole thing with a music becoming aural sheen that never once lapses into slickness. "Shoot Out the Lights" isn't exactly what I'd call espapist entertainment, and it probably won't be to everyone's taste, but if there has been a more immediately gripping pop album released since the dawn of the decade, I haven't heard it.

—Steve Simels

Richard and Linda Thompson: Shoot Out the Lights. Richard and Linda Thompson (guitar and vocals), Simon Nicol (guitar); Pete Zorn, Dave Pegg (bass); Dave Mattacks (drums); other musicians. Don't Renegade on Our Love; Walking on a Wire; Man in Need; Just the Motion; Shoot Out the Lights; Back Street Slide; Did She Jump or Was She Pushed?; Wall of Death. Hannibal. HNBL 1303 $8.98.

Previn and the Pittsburgh: Shimmering Ravel and Appealing Saint-Saëns in Digital Sound

The Pittsburgh Symphony Orchestra, under such illustrious conductors as Fritz Reiner, the late William Steinberg, and now André Previn, has always made a strong impression in its recordings, but I can't remember its ever having sounded so downright luscious—and so aptly so—as it does in Previn's new Philips digital recording of Ravel's Mother Goose (Ma Mère l'Oye). It is the full ballet version that is offered here, not just the orchestrated piano suite, and its shimmering opulence is a joy from first note to last. Previn keeps the music moving just briskly enough to avoid sentimentalizing it, while allowing every one of Ravel's magical touches to make its full effect in context. One feels the aural deliciousness comes from the very heart of the music, not merely its coating, and the marvelously transparent sound is nearly as important a contributor to the enchanting effect as the superb performance itself. This is not a matter of decibels on display, but of mostly delicate sounds and exquisite colors perceived in the clear, honest light of uncontrived, beautifully balanced sound engineering.

The companion work is Saint-Saëns' Carnival of the Animals, and it is brought off with similar distinction. The bracketing of these two titles gave me a moment of apprehensiveness, because the only similar pairing I could recall was the old Columbia disc on which André Kostelanetz did the shorter Mother Goose Suite and a Carnival of the Animals in which Noel Coward recited Ogden Nash's more tiresome, than-clever verses. (That was in fact the premier recording of the Nash verses; it is still circulating on Odyssey Y 32359, with a different discmate.) Happily, Previn had better judgment than to clutter up a witty and original work with gratuitous verbiage, and he makes the most of the not inconsiderable musical substance in the Carnival. In fact, while Boulez, Martinon, Monteux, and, especially, Skrowaczewski all do nobly by Mother Goose in their recordings (in each case without the same allure that helps make Previn's so special), I don't think there is any other recorded performance of the Carnival of the Animals, either in Saint-Saëns'...
WE CAN MAKE BEAUTIFUL MUSIC TOGETHER.

Put an eager, imaginative mind in the same room with an ATARI® Home Computer, and there's no telling what could be accomplished.

For instance, learning becomes a whole new ball game. Take our ATARI Music Composer.™ You can compose your own melodies or recreate your favorite songs in colorful detail.

Want to learn a new language or increase your knowledge of geography? ATARI Conversational French or European Countries and Capitals program could take you far in both subjects.

But it really doesn't matter how you employ or enjoy your ATARI Home Computer. Because the combination of your talents and our computer is a winning team.

For more information, write: Atari, Inc., Dept. A14Q, PO Box 16525, Denver, CO 80216. © 1982 Atari, Inc. All rights reserved.

Don't miss Discover: The World of Science, brought to your home this September by Atari.

CIRCLE NO. 3 ON READER SERVICE CARD

ATARI® HOME COMPUTERS
We've brought the computer age home.
Where a man belongs.

Light: 8 mg. "tar", 0.7 mg. nicotine av. per cigarette, FTC Report DEC '81.
Filters: 15 mg. "tar", 1.1 mg. nicotine av. per cigarette by FTC method.

original chamber version or with the fuller strings in general favor now, that is quite as appealing as Previn's. The Pittsburgh cellist, Anne Martindale Williams, gives a dream performance of the battered old "Swan"—sensitive, dignified, alive—and the two pianists, Joseph Villa and Patricia Prattis Jennings, as well as the various other orchestral soloists, give a more satisfying account of the music than most of the "all-stars" in some recent recordings of the chamber version. In short, everyone involved in the making of this record can be very proud of it, and everyone who buys it can be very sure of a great deal of listening pleasure from it.

—Richard Freed

RAVEL: Mother Goose (complete ballet).
SAINT-SAENS: Carnival of the Animals.
Pittsburgh Symphony Orchestra, Andre Previn cond. PHILIPS O 9500 973 $12.98, © 7300 973 $12.98.

Hank Williams Jr.:
Good Pickings on the Border of Country Macho And Southern Rock

THROUGH several good albums in recent years, Hank Williams Jr. has been hanging out on the country side of the Southern rock frontier, but with his new "High Notes" for Elektra he steps right up to the border and finds good pickings in more ways than one. In fact, the difference between the sound of rhythm guitars in this program and those in the typical Nashville Sound album speaks volumes about the attitudes involved. Here they sound like real guitars played by real people (you can check this out easily in Norwegian Wood, in which they are, appropriately, recorded up front), not like those anemic, neutered-bass, round-back things played by robots.

There is more than a dash of Dixie chauvinism in this borderline mix, of course, and there is still ample evidence that Williams came from the macho school of country performing, but the man's respect for the music and its listeners overshadows all that. His material dares to make waves both verbally and melodically, and even though a staggering variety of instruments is played here (only a few at a time, of course), he has come up with a cohesive sound that may not be spanning new but does have a certain vernal freshness about it.

One of the most impressive cuts is Jessi Colter's Ain't Makin' No Headlines (Here Without You), which Williams does in full-blown Mexican style. This treatment seems so right you wonder why Colter didn't think of it in the first place—Williams has literally taken the song over. He works a similar improvement on the Ozark Mountain Daredevils' If You Wanna Get to Heaven ("you gotta raise a little hell") and even finds his own space in Norwegian Wood. What I particularly like about the last is how he remains himself throughout, delivering the song rather than letting it deliver him—that, and the way he tricks me into thinking he won't be able to hit the high notes, which he then hits with no strain at all. Add a few interesting tunes he had a hand in writing (especially good is the blues-with-twist I've Been Down) and some of the best country-Southern rock-ensemble playing you can get on an album, and you have something worth your forty minutes. A couple of the songs could be stronger, I suppose, but I'm not sure they could be played any better.

—Noel Coppage

HANK WILLIAMS JR.: High Notes. Hank Williams Jr. (vocals, guitar, banjo); Steve Nathan (keyboards); Terry McMillan (harmonicas); Roger Clark (drums); David Hanigte (bass); other musicians. If Heaven Ain't a Lot Like Dixie; Whiskey on Ice; High and Pressurized; I Can't Change My Tune; I've Been Down; Hanky Tonkin'; The South's Gonna Rattle Again; Ain't Makin' No Headlines; If You Wanna Get to Heaven; Norwegian Wood. ELEKTRA E1-60100 $8.98, © E4-60100 $8.98, © E8-60100 $8.98.

SEPTEMBER 1982
A among record collectors who specialize in conductors, there are many who disdain today's maestros, such as Marriner, Mehta, and Muti, and reserve their passion for conductors of the past Sir Thomas Beecham, Wilhelm Furtwängler, and Arturo Toscanini, for example, have long had avid followings. Gathering strength at the moment is the cult of Fritz Reiner (1888-1963).

A model of the Central European tyrant of the podium, Reiner was born in Budapest and educated there After filling a number of important musical posts in Germany, he came to the United States in 1922. Here he led the orchestras of Cincinnati and Pittsburgh and conducted opera in San Francisco, Philadelphia, and New York. He spent the last decade of his life as music director of the Chicago Symphony, with which he made some of his finest records.

Reiner's recordings of Mussorgsky's Pictures at an Exhibition and Richard Strauss' Ein Heldenleben with the Chicago Symphony are among those remastered by RCA for its "5" (read 'point five') Series of audiophile recordings listing for $15.96 per disc. Reiner's famous recording of the Verdi Requiem, which he made twenty years ago in Vienna with Leonette Price, Rosalind Elias, Jussi Björling, and Giorgio Tozzi, has just been reissued in London Records' mid-price Jubilee Series, listing for a mere $13.96 for two discs.

The Metropolitan Opera has gotten into the Reiner revival by choosing as the ninth in its series of Historic Broadcast Recordings performances of Strauss' Salome and Elektra conducted by Reiner. Both are derived from tapes of Texaco-sponsored Saturday matinee broadcasts from 1952. Heading distinguished casts are Luba Weilisch as Salome and Astrid Varnay as Elektra. They were the world's leading exponents of these roles in the mid-twentieth century, yet neither made a complete commercial recording of her interpretation. When Strauss, who was a close friend of Reiner's, wrote to congratulate the conductor on the success of his Salome at the Met, he said of Weilisch, "What a pity we did not have this excellent girl in Dresden, but your orchestral performance was magnificent in those days!"

The performances are authoritative, and the carefully restored sound (mono, of course) is surprisingly good. The four-disc set in a felt slip case will be sent to contributors of $125 or more to the Metropolitan Opera Fund, P.O. Box 930, New York, N.Y. 10023.

If that is too steep for your budget, you might consider the forecasts that the next Central European tyrant of the podium will come back into vogue among connoisseurs of conducting will be George Szell. Born in 1897 in Budapest and, like Reiner, educated there, Dr. Szell held important musical posts in Germany before coming to the United States, where he became permanent conductor of the Cleveland Orchestra. CBS Masterworks has been reissuing Szell's recordings with the Cleveland Orchestra at a great rate in the Great Performances series; no list price is specified, but the records cost only about $6 a disc.

O n September 15 the American operatic soprano Leontyne Price will perform for the first time on Exxon's Live from Lincoln Center series telecast on the Public Broadcasting Service. Appearing with the New York Philharmonic conducted by its music director Zubin Mehta, Miss Price will sing 'Come scoglio' from Mozart's Cosi Fan Tutte, the Willow Song and Ave Maria from Verdi's Otello, and the Final Scene from Strauss' Salome. Mozart's Symphony No. 41 and Strauss' Don Juan complete the program. Stereo simulcast will be available in some cities.

When the fifteenth International Record Awards are given at the music festival at Montreux, Switzerland, this month, the Swiss soprano Edith Mathis will be singled out for a special award recognizing her contributions to the art of singing and the art of recording. Initially an EMI artist, Miss Mathis made her U.S. recording debut when the Seraphim series was launched in this country by Angel Records in September 1966. Since then many of her albums have been re-issued here by Deutsche Grammophon and Philips.

In 1970, Miss Mathis appeared at the Metropolitan Opera, but she has performed little in this country. Married to the conductor Bernhard Klee and the mother of two children, she prefers to sing in Europe in order to be close to her family. She has usually declined inter-
views by saying, "Must one give these? Surely it is enough just to sing!"

Miss Mathis appears on Deutsche Grammophon's new set of Bach's Cantatas for Sundays after Trinity and on the first recording of Mozart's opera Apollo and Hyacinthus, both released this summer. This year, which is the 250th anniversary of the birth of Haydn, she has been particularly praised by Sterio Review's critics for her work in Haydn's opera L'Infedeltà Delusa (January) and an album of Haydn arias (March), both on the Philips label. She also sings in the new Philips recording of Haydn's The Seasons, reviewed in this issue in the "Best of the Month" section.

"Nobody buys records at list price," says Gideon Cornfeld of Orion Records. Like most small classical labels faced with serious distribution problems, Orion now offers records directly to consumers by mail order, but with one big difference. Most labels of this kind mail order, but with one big difference. Most labels of this kind charged their mail-order customers list price plus something extra for postage and handling. Orion, whose records list for $8.98, sells by mail at $8 postpaid for one record, $15 for two, and $21 for three. Write to Orion Records, P.O. Box 4067, Malibu, Calif. 90265.

The soprano who sang at the wedding of the Prince of Wales and Lady Diana Spencer last summer, Kiri Te Kanawa from New Zealand, has been elevated to the rank of Dame Janet Baker and Dame Joan Sutherland in the Queen's birthday honors this year. Te Kanawa was made a Dame Commander of the Order of the British Empire. Dame Kiri will open the season at the Metropolitan Opera on September 20 as the Marschallin in Strauss' Der Rosenkavalier. Later in the season she will sing the title role in a new production of Strauss' Arabella at the Met. The BBC videocassette "The Royal Wedding," which includes Dame Kin's performance of "Let the bright Seraphim" from Handel's Samson along with the bridal procession and the marriage service, is being distributed by the Book-of-the-Month Club. Available in VHS or Beta format, the cassette runs for approximately 115 minutes. It lists for $79.95 but is available to BOMC members for $62.50.

The blind Spanish composer Joaquin Rodrigo (center) acknowledges the applause following the world première of his new cello concerto, which was performed by Julian Lloyd Webber (right) and the London Philharmonic Orchestra conducted by Jesus Lopez-Cobos (standing left) at the Royal Festival Hall in London earlier this year. The concerto was written specifically for Lloyd Webber, who is the brother of Andrew Lloyd Webber, composer of the musicals Jesus Christ Superstar and Evita. RCA's recording of the new concerto with these same performers is available in England, but since the company has no plans to release it here, the disc is being imported by some American shops and by International Book and Record Distributors of Long Island City, N.Y.

The new concerto is not to be confused with Rodrigo's Concierto en Modo Galante for cello and orchestra recently released here by Angel in a performance by cellist Robert Cohen with the London Symphony Orchestra conducted by Enrique Bátiz. The latter is an older work dating from 1949.

**Disc and Tape Reviews**

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

© = stereo cassette  ✎ = digital-master recording  0 = quadrophonics 0 = mono
= stereo cassette  ✎ = direct-to-disc  ✎ = quadraphonic disc  ✎ = monophonic recording

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

**BARTOK: Mikrokosmos (complete).** William Masselos (piano). MUSICAL HERITAGE SOCIETY MHS 834434 three discs $23.25 (plus $1.60 postage and handling from the Musical Heritage Society, 14 Park Road, Tinton Falls, N.J. 07724).

Performance: Excellent
Recording: Poor

As I remarked in reviewing another recent recording of the complete Mikrokosmos, these pieces are meant to be played as much as listened to. Bartok's remarkable set of six volumes of graded piano works starts with five-finger exercises and moves steadily toward more complex dances, studies, and miniatures. Only by the time we hit Book V do we have pieces of sufficient scope and complexity to be worth listening to by themselves in concert or on a recording.

Anyway, such was—and, to some degree, still is—my opinion. But I will say that William Masselos is a pianist of such skill and authority that in his hands even the earliest and simplest of these pieces become genuine musical experiences. He even includes the extra exercises printed at the back of the first books and makes them sound like music. If you want to learn how even the simplest of musical ideas can be expressive, beautiful in shape, and meaningfully articulated, listen to this recording.

I have no hesitation in recommending these wonderful performances, but the release is badly marred by the poor quality of the recording and production. The piano tone is ugly and surrounded by distortion—a buzz that may come from the poor quality of the disc itself. There are a few hideous edits, including one that drops a whole measure of music. The two-piano numbers are presumably overdubbed by Masselos himself, but who sings the vocal numbers? I could find no clue.


Performance: Fleet
Recording: Surface problems


Performance: Good as ever
Recording: Still very good

Anthony Newman plays a copy of a Conrad Graf fortepiano made by the Viennese pianomaker around 1810, the very sort of instrument available to Beethoven when he was composing his sonatas. While it is al-
The ADC Sound Shapers. Improvements on perfection.

When you make a line of equalizers, audiophiles consider to be the best, it's difficult to make them better. But we did. And our exciting new Sound Shaper line reinforces our reputation as the leader in the equalizer world.

You'll find the same superb electronics and high performance technology that you've come to expect from ADC. With LED lit slide controls that let you custom-tailor your sound to compensate for room and system deficiencies. And now, you'll find our Sound Shapers updated with new refinements and sleek styling that makes them look as good as they function.

Our top-of-the-line SS-30 is a perfect example. A ten-band equalizer with LED meters and two-way tape dubbing, it has its own integrated spectrum analyzer built in, so you can clearly see the altered frequency response. And unlike many other equalizers with integrated spectrum analyzers that require outside pink noise sources, our SS-30 has its own pink noise generator built right in. So now, you can accomplish corrective equalization of your room without an additional component.

The rest of the line is equally impressive. From our 12-band SS-20 to our ten-band SS-10 to our five-band SS-5, all ADC Sound Shapers offer you fingertip control of your frequency response, with features geared to your equalization needs.

If you're serious about equalization and want to maximize the potential of your present system, an ADC Sound Shaper is your answer. The new ADC Sound Shapers. Perfect examples of sound thinking. Improved.

Sound thinking has moved us even further ahead.

ADC, Route 303, Blauvelt, N.Y. 10913

ADC Sound Shaper is a registered trademark of Audio Dynamics Corporation.

= Sound Shaper Frequency Equalizers

Sound thinking has moved us even further ahead.

ADC, Route 303, Blauvelt, N.Y. 10913

ADC Sound Shaper is a registered trademark of Audio Dynamics Corporation.

CIRCLE NO. 1 ON READER SERVICE CARD

Recording of Special Merit

BERNSTEIN: Dybbuk, Suites Nos. 1 and 2.
Paul Sperry (tenor); Bruce Fifer (baritone);

Performance: Eloquent
Recording: First-rate

Leonard Bernstein's score for Jerome Robbins' 1974 ballet inspired by the famous Shlomo Ansky tale of demonic possession and deathless love in an Eastern European Jewish community has undergone some changes for concert-hall purposes. Virtually all of the music heard in the original ballet is retained somewhere in these two suites, but the performance order has been changed as well as the titles of individual sections; the important Hebrew scriptural and liturgical episodes for tenor and baritone, ably sung here by Paul Sperry and Bruce Fifer, have been shifted to some extent and, in one instance, expanded. According to annotator Jack Gottlieb, the two suites concentrate on the "poetry of earth" and the "poetry of air," respectively. For myself, I would call the first suite the overly dramatic one and the second the mystical.

(Continued on page 76)
A case for getting organized
Magazines • Cassettes • Records • Videocassettes • Important Papers

A • MAGAZINE CASES
Store and protect your magazines the way libraries do! These open-back file cases keep your magazines neat and organized...and in order. Magazine title (almost 12,000 titles available!) is embossed on the spine. Specify titles on coupon. Colors selected by Publisher.

Z-MC $6.95 each, 3 for $19.95, 6 for $37.95

B • MAGAZINE BINDERS
Metal rods hold your magazines in their proper sequence. Binders available for almost 12,000 titles. Specify your choices. Colors selected by Publisher.

Z-MB $7.95 each, 3 for $22.95, 6 for $42.95

C • FILES FOR EVERYTHING
Now you can organize your important papers...newsletters...maps...receipts...photographs...clippings...anything you like! Order these handsome files in the sizes and colors you prefer. Available with or without drawer.

Storage Files With Drawers:
(Add “D” after item number and specify color and size.)
$10.95 each, 3 for $29.95, 6 for $58.95

Storage Files Without Drawers:
(Add “S” after item number and specify color and size.)
$6.50 each, 3 for $17.95, 6 for $35.95

D • CASSETTE CASES
Put your tapes in order with these handy cassette cases. Each cassette gets its own slot. Pressure-sensitive labels are included for easy identification. Available in a variety of colors for 30 or 60 cassettes.

30-Tape Cassette Case.
= JC-30 $14.95 each, 3 for $39.95

60-Tape Cassette Case.
= JC-60 $19.95 each, 2 for $37.95

E • RECORD CASES
Protect your record collection with these deluxe record cases. Each one holds 20 12” LP albums. Center divider helps keep your records organized. Specify color.

J-R12 $8.95 each, 3 for $23.95

F • VIDEOCASSETTE CASES
No more pile of tapes on the TV set! These handy cases organize and protect your valuable videocassettes. Holds twelve VHS or Beta cassettes. Designer colors only.

Z-VC $12.95 each, 3 for $34.95

DESIGNER COLORS
(for all products except magazine binders and cases)
MAROON REPTILE • ORANGE REPTILE • GREEN REPTILE • BROWN REPTILE • BLACK REPTILE • DENIM • BURLAP • WOODGRAIN

ZIFF-DAVIS PUBLISHING CO.
110 W. Rittenhouse Square, Philadelphia, PA 19107

ZIFF-DAVIS PUBLISHING CO.

ITEM COLOR TITLE OR DESCRIPTION QUAN. PRICE

POSTAGE AND HANDLING

If your order is

Under $10 — add $1.50
$10.01 to $30.00 — add $2.50
$30.01 to $40.00 — add $4.50
$40.01 to $60.00 — add $6.00

POSTAGE IS FREE IF YOUR ORDER IS OVER $60!

Outside U.S.A., postage and handling charge is $3.00 for each item ordered.

FOR FASTER SERVICE, CALL TOLL-FREE:
(800) 345-8112 in PA (800) 662-2444
Digital Bartók
Sketch of Béla Bartók by George Buday, c. 1938

Could anyone, even Béla Bartók, ever have predicted that someday his one-act opera Bluebeard's Castle would have nearly as many recordings in the catalog as Mascagni's Cavalleria Rusticana? Yet this is precisely what the latest issue of Schwann reveals to our disbelieving eyes!

Like all the other current versions, the newest one—a digitally mastered Hungaroton recording—is in Hungarian. The two stars of the Bolshoi Opera, Yevgeny Nesterenko and Elena Obraztsova, here re-create their performances in the 1978 Moscow revival of the opera. The conductor, as on that occasion, is János Ferencsik, who has been championing Bluebeard's Castle for the past forty years with unparalleled authority (this is his third recording of it). It is impossible to overstate the conductor's importance in this case. Non-Hungarian singers may learn the Hungarian text phonetically, as these Russian artists have laudably done, but they must be guided by the conductor in the parlando rubato style of the music (singing freely across bar lines), which is based on Hungarian speech accents. (Failings in this regard compromise the otherwise excellently sung Columbia recording of the opera conducted by Pierre Boulez.)

Ferencsik's poetic view of the opera is beautifully realized in this recording, the first Hungaroton digital disc to come my way. Bartók's magical sonorities are captured with richness and transparency nearly without exception; only in the episode of the third door (Bluebeard's treasury) did I think the recording failed to capture fully the music's scintillating sonorities. The singers are ideally suited to their roles in terms of vocal weight and color. Nesterenko's resonant bass encompasses Bluebeard's high-ranging music without too much effort, and his richly inflected tones express the character's strength, nobility, touch of cruelty, and immense suffering. Obraztsova's powerful voice has no trouble with her part's tessitura either, nor does she fail to convey Judith's commanding and calculating personality. However, her heavy vibrato tends to obscure the pitch in Bartók's chromatic writing, and her diction is less clear than her colleague's.

In all, though, now that my long-time favorite recording (London OSA 1158, István Kertész conducting) has been deleted, I find this new one the most satisfying Bluebeard's Castle in the catalog. The recent London recording under Sir Georg Solti benefits from the more idiomatic singing of its Hungarian principals, but the hard-driven conducting is an occasional handicap.

—George Jellinek

BARTÓK: Bluebeard's Castle. Yevgeny Nesterenko (bass), Bluebeard; Elena Obraztsova (mezzo-soprano), Judith. Hungarian State Opera Chorus and Orchestra, János Ferencsik cond. HUNGAROTON 0 SLPD 12554 $15.98 (from Qualiton Records, Ltd., 39-28 Crescent Street, Long Island City, N.Y. 11101).
This latest version contains everything you need to get the fullest, most realistic reproduction from your stereo equipment. Whether you've spent thousands on your stereo system or have a more modest setup, the SRT14-A is an indispensable tool for helping you realize the full potential of your equipment. Best of all, you don't have to be an electronics engineer to use it. You can actually perform a complete stereo system checkup by ear alone.

A test lab in a record jacket

Employing the most advanced recording, mastering, and pressing techniques, the Stereo Review SRT14-A is produced to strict laboratory standards. Engraved in its grooves are a series of precisely recorded test tones, frequency sweeps, and pink noise signals that enable you to accurately analyze and check your stereo system for:
- Frequency response
- Stereophonic separation
- Cartridge tracking ability
- Channel balance
- Hum and noise, including musical instrument tuning, turntable rumble, standards, and more...much more.

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

Step-by-step instructions

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

For professionals too

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

SRT14-A record contents

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

FREQUENCY RESPONSE, 20 kHz to 25 Hz. Uses one-third octave bands of pink noise, centered on twenty-nine frequencies over the audio spectrum, compared with reference tones at three levels.

SEPARATION, LEFT-TO-RIGHT. Uses test tones consisting of one-third octave bands of pink noise recorded in the left channel with reference tones in the right, to check leakage from left to right.

SEPARATION, RIGHT-TO-LEFT. Same as Test 3, with channels reversed.

CARTRIDGE TRACKING, LOW FREQUENCY. Uses a single 300-Hz tone that repeatedly swoops to a high level, producing buzzy tones if the cartridge is misadjusted or inferior.

CHANNEL BALANCE. Two random-phase noise signals, one in each channel, produce sounds heard separately to allow accurate setting of channel balance.
and otherworldly one. The music's duality is expressed at the very opening by contrasting a tone-row outburst Bernstein derived from cabalistic numerology with an utterly elemental Yiddish-style slow round-dance theme fraught with menace and terror. Both are subjected to stunning metamorphic treatment throughout the score.

There is no show biz in this music. Rather, I sense a very close relationship between it and the best pages of Bernstein's youthful Jeremiah Symphony. I do wish that the album notes had included a concordance of the ballet numbers and the movements of the suites, but the lack of it does not in any way affect the eloquence and brilliance of Bernstein's music. This recording is infinitely finer than the rather raw and shallow-sounding one of the complete ballet score with the New York City Ballet Orchestra that the composer conducted for Columbia shortly after the 1974 premiere. Bernstein and the New York Philharmonic are in top form here, and the production is simply superb.


Curiously, the current Schwann lists no recording of the Bloch Viola Suite in its original form, and there seems to be none at all of the Hindemith Viola Sonata. Milton Katims' performance of the Bloch in its viola-and-orchestra version, with the Seattle Symphony under Henry Sieg, is available on Turnabout (TV-S 34622), and Gabor Rejto plays the cello arrangement of it with his wife Lory at the piano (MHS 1486), and the same duo recorded some of Hindemith's works for MHS, but not, apparently, the sonata recorded here by Yizhak Schotten and his wife. The CRI release fills these gaps very handsomely. Both works are set forth with all the technical proficiency and sensitivity one could want, and the recording itself (made, incidentally, in the same city and by the same engineer as the aforementioned Katims recording) presents both instruments in the most agreeable perspective. Bloch's own charming note on his suite is printed in full; a publisher's note on the Hindemith sonata tells little about it and confuses the issue of the composer's other works for viola by scrambling some of the opus numbers. R.F.

BRAHMS: String Quartet No. 3, in E-flat Major, Op. 67 (see SCHUMANN)

RECORDING OF SPECIAL MERIT

FRANÇAIX: Paris, à Nous Deux! Cora Canne Meijer (mezzo-soprano), Mistress of the House; Howard Crook (tenor), L'Activiste; Ruud van der Meer (baritone), the Guide; Tannie Willemsen (soprano), the Child; Jelle Draijer (bass), a Snob; Jaap Dieleman (bass), a Connoisseur; Netherlands Chamber Choir; Nelleke Gescink (piano); Netherlands Saxophone Quartet, Kerry Woodward cond. Little Quartet for Saxophones. PIERNÉ: Introduction and Variations on a Folk Dance. RIVIER: Grave and Presto. Netherlands Saxophone Quartet. NONESUCH H-71402 $5.98, © H4-71402 $5.98. Performance: Idiomatic Recording: Good

JeanFrançois composed this saucy little opéra-bouffe in 1954 to please his former teacher, Nadia Boulanger. Peter Eliot Stone, in his invaluable annotation here, advises that the title, Paris, à Nous Deux!, might be rendered "Paris, we'll have it out together," or "Paris, put up your dukes," but in the context of the plot, "Paris, here I come!" seems to suffice. The subtitle, Le Nouveau Rastignac, refers to the arriviste in Balzac's Comédie Humaine. As the reader will have inferred by now, the twenty-seven-minute work is a comedy of manners, a spoof of snobs, social climbers, connoisseurs, and pretentiousness in general; the witty libretto was concocted by France Roche and Françaix himself. The saxophone quartet and piano not only constitute the total instrumental complement in this work but are themselves figures in the drama. The performance is fresh, enthusiastic, and extremely musical. The three works for saxophone quartet on side two are more or less classics of this genre, and they could hardly be more persuasively set forth than they are here. Fine sound and full bilingual text for the opera; the only flaw are some misspelled names in the liner copy, and they are certainly not going to spoil anyone's listening pleasure. R.F.

RECORDING OF SPECIAL MERIT


The continuing popularity of Philip Glass is nothing short of amazing. I have seen a record-store window filled with copies of this record, and he is certainly the only composer alive today whose personal popularity as a composer ("Composed and arranged by less classical" of this genre, and they could hardly be more persuasively set forth than they are here. Fine sound and full bilingual text for the opera; the only flaw are some misspelled names in the liner copy, and they are certainly not going to spoil anyone's listening pleasure. R.F.

The continuing popularity of Philip Glass is nothing short of amazing. I have seen a record-store window filled with copies of this record, and he is certainly the only composer alive today whose personal popularity as a composer ("Composed and arranged by less classical" of this genre, and they could hardly be more persuasively set forth than they are here. Fine sound and full bilingual text for the opera; the only flaw are some misspelled names in the liner copy, and they are certainly not going to spoil anyone's listening pleasure. R.F.

The continuing popularity of Philip Glass is nothing short of amazing. I have seen a record-store window filled with copies of this record, and he is certainly the only composer alive today whose personal popularity as a composer ("Composed and arranged by less classical" of this genre, and they could hardly be more persuasively set forth than they are here. Fine sound and full bilingual text for the opera; the only flaw are some misspelled names in the liner copy, and they are certainly not going to spoil anyone's listening pleasure. R.F.
EVEN AT FACE VALUE, THERE'S NOT ANOTHER DECK LIKE IT.

AKAI flies in the face of convention.

Again. This time with the incomparable GX-F91. A bold new design that looks—and performs—like no other cassette deck in the world.

It is literally the face of the future. No knobs. No keys. And no clutter. Instead, a polite presentation of just the basics.

But press the "door" button and, almost by magic, the faceplate automatically lowers to reveal the main control panel.

Now, insert a cassette.

Two microcomputers take charge, first automatically setting the bias. Then, executing a 64-step "tape tuning" analysis that makes sure the GX-F91 gets the maximum from any tape.

For superior frequency response and dynamic range, the GX-F91 is also endowed with a 3-head design, AKAI Super GX Heads and Dolby* B & C systems. Plus operational features like auto-fade, auto-mute and auto-record-cancel that virtually guarantee professional quality recordings.

In short, it's the proud flagship of our entire 10-deck AKAI family. A family that now includes three outstanding auto-reversing record/play-back designs.

So audition the new GX-F91 at your AKAI dealer's soon. And come face-to-face-to-face with the future.

AKAI
Super GX
Heads and
Dolby* B & C systems.

TM Dolby Labs. Inc.
SAVE • MONEY • TIME • FREIGHT
ON NAME BRANDS

AKAI CASSETTE DECKS
MODEL CSP-33R AUTO-REVERSE OK • $244.00
MODEL CSP-14 NEW DOLBY B & C • $138.00
MODEL CSP-31 COMPUTER CONTROL • $198.00

ADC SOUNDMASTER EQUALIZERS
MODEL SS-II DC NEW EQUALIZER • $150.00
MODEL SS-2 IC • BAND EQ • $175.00
MODEL SS-3 IC • TOP OF THE LINE • $350.00

DUAL TURNTABLES—LOW MAGIC UNITS
MODEL 500-BELT DRIVE SEMI-AUTO • $90.00
MODEL 800 SEMI-AUTO DIRECT DRIVE • $169.00
WRITE OR CALL FOR ALL OTHER DEALS!!!!!!

JVC ELECTRONICS—DECKS—ETC.
MODEL CS-12-REVERE DECK • $314.00
MODEL CSF-33R AUTO-REVERSE • $245.00

TEAC CASSETTE DECK DEALS!!!
MODEL RC-500 CASSETTE DECK • $275.00
MODEL RC-600 CASSETTE DECK • $400.00
MODEL RC-700 CASSETTE DECK • $795.00

TECHNICS ELECTRONICS
MODEL SL-991 LINEAR TRACKING TABLE • $180.00
MODEL RS-205X NEW DUAL • $258.00
MODEL RS-605X NEW DUAL • $350.00
MODEL RS-709X NEW DUAL • $475.00

CASSETTE TAPS
SONY UC-10 NEW HIGH BIAS TAPE • $30.00/10
SONY UC-200 NEW DOLBY B/C • $25.00/10
SONY UC-300 NEW DOLBY C • $19.00/10

SAVE MONEY
TOLL FREE
Phone Now
(312) 664-0020
TOLL FREE
(800) 621-8042

12 E. Delaware Pl., Chicago 60611
—send for free catalog

Name ________________________________
Address ________________________________
City __________________________ State ______ Zip __________

STEREO REVIEW


Performance: Affectionate
Recording: Very good

In its ten or twelve releases so far, Laurel Record has exhibited a devotion to the exploration of the less familiar works of chamber music from both the past and the present. This recording of Rubin Goldmark's Op. 1 Trio appears to be not only the first of the work itself but the first of any music by this composer. It is neither an exciting nor in any way revelatory piece, but it is a richly enjoyable one, and it is high time we had a chance to hear some of this Goldmark's music. "This Goldmark" (1872-1936) was the American-born nephew of the celebrated Karl Goldmark; he studied with some noted pedagogues in Vienna as a teenager, and then in New York with Dvorak, to whom he dedicated this trio at the age of twenty. While his music enjoyed some trans-Atlantic circulation in his own time, he is remembered now primarily as a teacher who numbered among his pupils Copland, Gershwin, Giannini, Hallef, Chasins, and Jacob. The Op. 1 trio shows, not surprisingly, the strong influence of Dvorak, a fine command of technical elements, and enough individuality to make it worthwhile hearing.

The obviously affectionate and very able performance here might well trigger an examination of some of Rubin Goldmark's other works. In the meantime, here it is to investigate and enjoy, together with a similarly ingratiating performance of Beethoven's lovable little one-movement follow-up to the mighty Archduke and a bright-eyed (if somewhat less distinguished) reading of one of Haydn's finest works in this form. Exceptionally well-balanced and vivid sound, with surfaces as quiet as promised on the liner.

GRIEG: Holberg Suite, Op. 40 (See MOZART)

RECORDING OF SPECIAL MERIT
HANDEL: Ode for St. Cecilia's Day. Jill Gomez (soprano); Robert Tear (tenor); Choir of King's College, Cambridge; English Chamber Orchestra, Philip Ledger cond. VANGUARD • VA-25010 $12.98, © CVA-25010 $12.98.

Performance: Noble
Recording: Tops

One of the ironies of English music is that Henry Purcell never set the greatest of the poems written for the celebration of St. Cecilia's Day, his contemporary John Dry-
den's "From harmony, from heavenly harmony." The committee in charge of the celebration in 1687 assigned the text to Giovanni Battista Draghi, whose musical ineptitude has since been forgotten. Fortunately, however, some fifty years later Handel turned his genius to Dryden's text and gave it the setting it deserved.

The work's splendors are fully manifest in this performance by the Choir of King's College and the English Chamber Orchestra under the direction of Philip Ledger. Robert Tear brings out the heroic qualities of the music, Jill Gomez soars to ethereal heights in effortless tones, the choir, one of England's finest, offers its usual combination of sumptuous sonorities and clarity of line, and the orchestral playing is flawless. Last but not least, the recording engineers have perfectly caught the ambiance of the King's College Chapel. A triumph.

S.L.

HAYDN: The Seasons (see Best of the Month, page 64)

HAYDN: Piano Trio in C Major (see R. GOLDMARK)

HINDEMITH: Sonata for C-melody Saxophone and Piano (see PROKOFIEV)

HINDEMITH: Viola Sonata, Op. 25, No. 4 (see BLOCH)

KHATACHATURIAN: Trio for Clarinet, Violin, and Piano (see PROKOFIEV)

RECORDING OF SPECIAL MERIT


Performance Superb

Recording Superb

This appears to be only the fourth record by the Panocha Quartet since the young Czech foursome began recording in 1974. It more than justifies the expectations inspired by the earlier releases and makes it even harder to imagine why so distinguished an ensemble has been heard from so little. Everything in both these performances seems just about ideal. All four players display beautiful tone and eloquent but unselfconscious phrasing. There is a collective balance of vigor, delicacy, warmth, and elegance in which no element is allowed to exceed its Mozartean bounds and yet none gets less than its due. The superb performances are given superb sound and unbelievably silent surfaces.

R.F.


Performance: Tchaikovsky better

Recording: Mozart veiled

RECORDING OF SPECIAL MERIT


SEPTEMBER 1982

BES. The only speakers in the world that bring you music in the round.

Even the most expensive conventional speakers can't create an honest 3-dimensional image unless you're sitting at a specific point between them.

BES speakers don't care where you sit. They don't even care where they sit. The absolutely unique, 360 degree sound that radiates in every plane from our elegantly-styled enclosures accommodates any position you or your BES speakers care to take. Sense the true depth of music anywhere. A special gift from BES.

BES speakers.

Music in the round.

Performance: Elegant
Recording: Rich and well defined

Neville Marriner's pleasant, if not quite outstanding, performance of the Tchaikovsky C Major Serenade has been offered in outstanding, performance of the Tchaikovsky String Serenade (Argo ZRG 848). While on a full-price disc paired with Dvořák's sky C Major Serenade has been offered in Neville Marriner's pleasant, performance of the Tchaikovsky String Serenade (Argo ZRG 848). While von Karajan has recorded Eine Kleine Nachtmusik at least half a dozen times, but never, I think, so engagingly as in this new digital version, which combines some of the warmth of the Bruno Walter and Karl Böhm orchestral readings with the crisp elegance we associate with chamber-music versions. The Prokofiev and Grieg works appear to be new to Karajan's discography; both are every bit as winning and characterful as the Mozart, with the same affection, good humor, and—again—elegance in ideal balance. Collectors now are accustomed to all-Mozart, all-Grieg, and all-Prokofiev discs, but this combination of titles presents the sort of balanced contrasts one finds in an actual concert, and one could hardly hope for more satisfying versions of any of these works. The sound is wonderfully rich and well defined.

R.F.

PIERNE: Introduction and Variations on a Folk Dance (see FRANÇAIX)

RECORDING OF SPECIAL MERIT

PROKOFIEV: Overture on Hebrew Themes. KHATCHATURIAN: Trio for Clarinet, Violin, and Piano. Ted Hegvik (clarinet); Ferde Malenke (piano); West Chester String Quartet (in Prokofiev); Sylvia Ahramjian (violin, in Khatchaturian).
TOMASI: Le Tombeau de Mireille. HINDEMITH: Sonata for C-melody Saxophone and Piano. Ted Hegvik (saxophones); Joe Goebel (tambourine, in Tomasi); Ferde Malenke (piano, in Hindemith). GOLDEN CREST 0 CRDG-4206 $9.98.

Performance: Fine
Recording: Excellent

One of the secrets of good record making is interesting programming, and this Golden Crest release could be declared a winner on that ground alone. Here is the Prokofiev Overture on Hebrew Themes in its original form, as written for a group of chamber musicians in St. Petersburg. Here also are seldom-heard compositions with ethnic flavors by the Armenian composer Aram Khatchaturian, whose Clarinet Trio contains folk tunes as danceable as anything in his popular Guyn ballet score; by Henri Tomasi, whose duet Le Tombeau de Mireille was composed for shepherd's pipe and drum but left open to a variety of instrumental combinations; and by Paul Hindemith, whose sonata, written in New Haven in 1943 during the composer's wartime exile, is rife with nostalgic references to the folk music of the Old World. The playing matches the compositions in both skill and charm, and the audably unobtrusive digital recording is on the same high level as the rest of the enterprise.

P.K.

PROKOFIEV: Symphony No. 1, in D Major, Op. 25 (see MOZART)

RAVEL: Mother Goose (see Best of the Month, page 66)

RIVIER: Grave and Presto (see FRANÇAIX)

ROCHBERG: String Quartets Nos. 4, 5, and 6 ("The Concord Quartets"). Concord String Quartet. RCA ARL2-4198 two discs $19.96.

Performance: Superb
Recording: Very good

The cover of this double album of the pieces that George Rochberg wrote for the Concord Quartet has a very clever motif: a string-quartet weather vane. The image turns out to be very much to the point; one cannot listen to this music without wondering which way the wind is blowing.

As everyone must know by now, Rochberg is a former modernist, a twelve-tonc
composer who, after a period of quoting tonal music of the recent and distant past, has now openly taken to writing his own. To be more specific and more accurate, he has taken to composing in a style that is a compound of Schubert, late Beethoven, and Mahler, with perhaps a bit of Bartók and early Schoenberg thrown in. He is not very coy about this new direction. The Fifth Quartet, with its opening pizzicato march, its Mesto, its scherzo/waltz, and its fugal finale, is quite openly Beethovenian. The sprawling Sixth Quartet is Mahlerian in its dimensions, its references to Beethoven and late Romanticism, even in its variations on the Pachelbel Canon and its huge, panoramic finale.

There is no doubt that a major reaction to avant-gardism is taking place right now. This "post-modernism" is comparable to the neo-Classicism and Socialist Realism of the Twenties and Thirties, and it has been obvious for some time that it is part of a second big cycle in twentieth-century music. The question is whether the return to tonality, tradition, and accessibility is a kind of new conservatisms. The answer is, not necessarily. Not unless you consider, say, Kurt Weill's music conservative or Stravinsky's Or Philip Glass's.

But in Rochberg's case I think we are dealing with New Conservatism. The past he draws on is the great European Romantic tradition, and he not only revels in it but draws on is the great European Romantic tradition, and he not only revels in it but


The playing is excellent, but I'm not sure this is a performance to live with. The opening is so stark and breathless we suggest the "hyper" feeling some of us suffer after too much coffee on an empty stomach. One could put this down to Schumann's own characteristic impetuosity, but his Florentine side always shows a warm heart and some sense of inner radiance; not here, however. Yet the entire second movement is realized to perfection with genuine Schuman'esque poetry. A similar warmth is felt again at the very end of the work, but these sections serve to throw the overag-

AUDIO CRITICS RAVE ABOUT THE V15 TYPE V:

"Our tests show that the Shure V15 Type V not only lives up to the claims made for it, but in virtually every respect OUTPERFORMS the best cartridges we have previously tested.... It is hard to imagine how the V15 Type V could be improved significantly. It offers the MOST PERFORMANCE of the most areas, plus the most convenience and safety in installation and operation."


"... (The V15 Type V) is definitely the FINEST pickup Shure has ever made, which makes it one of the finest ever made, period." — High Fidelity, July, 1982.

"... In a world of audiophile disc with demanding tracking requirements, the Shure V15 Type V KEEPS AHEAD of the times."


"(The V15 Type V) REDEFINES its maker as a pioneer in cartridge design not only from the beginnings of microgroove technology but well into the future of the LP disc." — FM Guide (Canada), June, 1982.

"... It may be safe to say that this cartridge's excellent tracking ability is NUMBER ONE in the world. Provides exquisite and elaborate sound."

Swing Journal (Japan), May, 1982.

Find out why the critics are so excited: Send for free fact-filled brochure AL694A.

Call for the name of the dealer nearest you


Shure Brothers Inc., 222 Hartrey Avenue, Evanston, IL 60204.
Schoenberg: “Verklärte Nacht”

When Arnold Schoenberg came to lecture at the University of Chicago in the mid Forties, some of the students in the audience were astounded to hear Cecil Smith introduce the founder of the Second Viennese School, the mentor of Webern and Berg, the developer of dodecaphony, the creator of the atonal Pierrot Lunaire and Five Pieces for Orchestra, as “the beloved composer of Transfigured Night.” Schoenberg himself didn’t appear surprised. After all, he had only recently, in 1943, revised the string-orchestra version of Verklarte Nacht that he had produced in 1917, some eighteen years after he completed the original version for string sextet. In the expanded orchestral setting, this tone poem for strings has indeed been Schoenberg’s most beloved work. Its opulent Romanticism and dramatic expressiveness have endeared it to listeners to whom the composer’s very name is otherwise forbidding, and it has reached a still wider audience as the music for Anthony Tudor’s ballet Pillar of Fire.

We seldom hear the sextet version now, either live or on records. More than three decades ago the Hollywood String Quartet and friends made a classic recording of it for Capitol with the benefit of the composer’s own counsel. The only recording of the original version in the catalogs of late has been the one by the Ramor Quartet and associates on Turnabout (TV-S 37012), quite a good performance, if not the last word in expressiveness and not blessed by the most lustrous sonics. Now, however, Nonesuch has released a new one with very lustrous sonics indeed, and the performance has both the power and the sumptuousness to rival the impact of the most stunning orchestral ones. The players are six superb musicians who took part in last year’s Santa Fe Chamber Music Festival: violinists Ani Kavafian and Yuuko Shiokawa, violists Walter Trampler and Heiichiro Ohyama, cellists Ralph Kirshbaum and Timothy Eddy. The intensity and sensitivity they exhibit here make theirs one of the most compelling statements of this music in either format—and suggest that this ensemble is a “natural” for new recordings of the great sextets of Brahms and Dvořák.

On the other side of the digitally mastered disc Trampler, Eddy, and violinist Daniel Phillips make a similarly persuasive case for Schoenberg’s much later and less familiar String Trio, Op. 45. The trio, whose composition in 1946 was interrupted by a severe heart attack, is more terse and episodic than Verklarte Nacht (Schoenberg even labeled two of its five sections “episodes”) and in a somewhat different idiom, but in its way it is no less directly expressive. It benefits enormously from the advocacy of these committed performers, in whose hands it seems not only a most appropriate discmate for Verklarte Nacht but a piece that demands wider circulation than it has enjoyed up to now. (In the album’s exceptionally informative annotation, Leon-ard Stein, director of the Schoenberg Institute at the University of Southern California, advises that, like Verkleirte Nacht, the trio has a sort of “program,” not a literary but a more or less autobiographical one. However, it does not make itself felt in the music as directly as that of Verklarte Nacht does, and awareness of it is hardly essential to one’s appreciation of the work.)

Both works are recorded with fine presence and virtually impeccable balance. The surfaces might have been a bit quieter and the editing of the printed material perhaps a bit tidier, but this is a very distinguished release nonetheless.

—Richard Freed

gressiveness elsewhere into higher relief, and the initial hell-for-leather approach wears even less well because of this inconsistency, exciting as it may be for a hearing or two. The overside Brahms is not only more of a piece but is a rather distinguished statement of the B-flat Quartet. First-rate sound on both sides.

Thomas Rajna and the Alberni Quartet give a less hectic, more consistent, altogether enjoyable performance of the quintet. It would have been more appealing if it had been paired with their recording of Schumann’s Piano Quartet, Op. 47, as it was when it appeared here briefly as a CRD import (CRD 1024), for that work was given a really exceptional performance, while the String Quartet in A Major has had stronger cases made for it. At $5.98 list, this release is still competitive, perhaps, with the Serkin/Budapest (CBS MY 37256), but the disc of Opp. 44 and 47 by the Beaux Arts Trio and friends on Philips (9500 065) may be worth its higher price.

R.F.

STRAVINSKY: Le Sacre du Printemps.
Detroit Symphony Orchestra, Antal Dorati cond. LONDON O LDR 71048 $12.98, ©LDR5 71048 $12.98.

Performance Good to excellent
Recording Highly detailed

Antal Dorati’s approach to Le Sacre has changed considerably over the years. The savagery of his 1954 Minneapolis performance for Mercury has been superseded by an interpretation that offers more in the way of tempo contrast, especially in the first three sections. In this new digital recording, moreover, it is obvious that one of the goals was to bring out every bit of inner texture and detail. Oddly enough, the “Evocation of the Ancestors,” which had such terrific impact in the Minneapolis recording, comes off very tamely here, but the bass-drum transients in the “Glorification of the Chosen One” and at the end of the “Danse Sacrée” are likely to blow some fuses.

This is not the ultimate Sacre recording (I still prefer the composer’s own despite its shallow sound by today’s standards), but musically it is certainly the best I have heard of the available digitally mastered releases.

D.H.

RECORDING OF SPECIAL MERIT

TCHAIKOVSKY: 1812 Overture, Op. 49; Romeo and Juliet, Fantasy-Overture. Tanglewood Festival Chorus, Boston Symphony Orchestra, Sir Colin Davis cond. PHILIPS 9500 892 $10.98, © 7300 921 $10.98.

Performance Grand and glorious
Recording Very good

Colin Davis is generally regarded as a "serious" conductor, not the kind to associate with such as the Tchaikovsky 1812 Overture. But, after all, he did do pretty well commercially some years ago with a “Last Night of the Proms” pops-concert album for Philips. So why not give the good old 1812 the full treatment? And that is what it gets here—chorus (superb, by the way), organ, cannon, church bells, the lot. For all the grand and glorious noise, though, this is an essentially musical performance as well as being a dandy demo item for sound buffs.

On more serious ground, Davis and the Bos-
Denon has been making it for over twenty-five years. Denon professional manufacturers have nothing to do with music. Denon, on the other hand, has been in the music business for well over seventy years. Denon professional equipment can be found in almost every single Japanese radio station and recording studio. Denon is the company credited with the development of the PCM recording process, a development which has already revolutionized the entire recording industry. And, when it comes to tape, Denon has been making it for over twenty-five years.

CASSETTE TAPES CAN MEASURE ALIKE AND STILL SOUND DIFFERENT.

Serious audiophiles know that components with identical specifications can sound noticeably different. Conventional measurement techniques do not explain this phenomenon, so words such as "musical" are often used to describe sound that possesses the "life-like" characteristics of real music.

THE FIRST TRUE MEASUREMENT OF TAPE SOUND QUALITY

The reason conventional tape testing measurements do not tell the whole performance story is that they are based on simple test tones rather than complex musical signals. Denon adopted a unique means for measuring Dynamic Distortion: the distortion created on the tape by actual musical signals. By specifically developing formulations to reduce Dynamic Distortion, Denon was able to significantly improve DX Tape's ability to accurately recreate the sound of real music. It is no wonder that Denon DX Tape is rapidly becoming the first true "audiophile's" cassette.

Have you ever heard a cassette sound like real music?

TO MAKE A CASSETTE SOUND LIKE MUSIC, YOU'VE GOT TO KNOW WHAT MUSIC SOUNDS LIKE.

Other than making tape, most cassette manufacturers have nothing to do with music. Denon, on the other hand, has been in the music business for well over seventy years. Denon professional equipment can be found in almost every single Japanese radio station and recording studio. Denon is the company credited with the development of the PCM recording process, a development which has already revolutionized the entire recording industry. And, when it comes to tape, Denon has been making it for over twenty-five years.

CASSSETTE TAPES CAN MEASURE ALIKE AND STILL SOUND DIFFERENT.

Serious audiophiles know that components with identical specifications can sound noticeably different. Conventional measurement techniques do not explain this phenomenon, so words such as "musical" are often used to describe sound that possesses the "life-like" characteristics of real music.

THE FIRST TRUE MEASUREMENT OF TAPE SOUND QUALITY

The reason conventional tape testing measurements do not tell the whole performance story is that they are based on simple test tones rather than complex musical signals. Denon adopted a unique means for measuring Dynamic Distortion: the distortion created on the tape by actual musical signals. By specifically developing formulations to reduce Dynamic Distortion, Denon was able to significantly improve DX Tape's ability to accurately recreate the sound of real music. It is no wonder that Denon DX Tape is rapidly becoming the first true "audiophile's" cassette.

TCHAIKOVSKY: String Serenade in C Major, Op. 48

Minor, Op. TCHAIKOVSKY: Symphony No. 6, in B Major. Op. 48 (see MOZART)


Performance: Poised
Recording: Somewhat dry


Performance: Vehement
Recording: Impressive

These two digitally taped readings of the Pathétique stand at opposite poles both interpretively and sonically. In the first movement Carlo Maria Giulini insists on poise and an almost classic chasteness in the expository sections, building to a fine climax at the dénouement. His 5/4 movement is exquisite of nuance, but he doesn't quite hit the true Russian quickstep pace that makes the great march movement really go. An eloquent yet unsentimentalized reading of the final adagio reveals unmistakably the architectural focus of Giulini's conception, and the somewhat dry character of the sonics tends to underline his essentially objective view of Tchaikovsky's utterance. Arturo Toscanini was also objective in his view of this score, but he was not afraid to go all out with drama when the occasion demanded.

Argentine-born Carlos Païta, as his London Phase-4 discs already attest, is not exactly moderate in his readings of the Romantic repertoire, and in this superbly recorded Pathétique he runs true to form. "Wild" is how I would describe the end movements here; Karajan's 1949 Vienna Philharmonic recording is the only other reading I can recall as being in quite the same vein. There are times in the first movement where things almost get out of control—in the development and in the overbearing brass just before the reprise of the lyrical theme—and the ensemble is not always altogether unanimous in the early pages of the exposition proper. Païta does bring a fine feeling of momentum to the 5/4 movement, and the march is splendidly taut and spirited.

Digital recording has its benefits, to be sure, but of the more than twenty-five recordings of the Pathétique listed in the current Schwann catalog, my choice for the best balance of poise and passion is still Vladimir Ashkenazy's analog disc on London (CS 7170). D.H.

TOMASI: Le Tombeau de Mireille (see PROKOFIEV)

WOLF: Lieder (see Collections—Elisabeth Schwarzkopf)

COLLECTIONS


Performance: Good, but... Recording: On location

If you like operatic recitals taped before an audience that greets every selection with heartfelt applause and lusty braves, you will definitely enjoy this joint concert by the two most celebrated citizens of Modena, Italy. It was recorded in 1980 in Modena's Teatro Comunale before an understandably vociferous gathering of friends and neighbors, with the orchestra conducted by Leone Magiera, another local boy.

The program is familiar terrain for both singers, especially for the tenor, who has recorded all these selections before (sans prolonged applause). Both artists are in good voice, and that means singing as lovely in tone and as accomplished in technique as one can find anywhere nowadays. Mirella
Freni's artistic contribution is nearly always exemplary. Luciano Pavarotti allows an otherwise fine "Pourquoi me réveiller?" to be spoiled by a rather inelegant ending, however, and slips into careless phrasing in other songs as well.

Thanks to the clarity of the recording we know that the orchestra is undersize, and its technical production is a worthy swan song for Walter Legge.

The Carl Loewe song here could almost be invaded Nightingale. Thanks to the clarity of the recording we know that the orchestra is undersize, and its technical production is a worthy swan song for Walter Legge.

"A labor of love on all sides... my and Walter's last record..."—so reads the artist's description on the cover of this album. Walter Legge, Elisabeth Schwarzkopf's husband and the producer of all her recordings, died two months after completing this last one. The program reflects Legge's lifelong enthusiasm for Hugo Wolf and honors Schwarzkopf's mastery as a Wolf interpreter. Her voice is in remarkable shape at sixty-two plus and suffers only slightly—indeed, in comparison with its own earlier beauty. Besides, the selections were cleverly chosen to focus on the singer's impressive and enduring attributes without needlessly exposing certain unavoidable limitations.

The Wolf songs are all based on texts by Edvard Mørike, a humane, sophisticated, and remarkably modern poet for his period (1804-1875). Schwarzkopf's artistry is most compelling in the subdued passions of Heimweh and Lebe Wohl, in the tragic dejection of Das Verlassene Mädgen, and in the worldly wisdom of her old favorite, Nimmersatte Liebe, in which she can still find fresh nuances. Those who have always objected to the artful and calculated elements in Schwarzkopf's singing will probably cite a few examples here as signs of excessive mannerism. Some of Mørike's poems (Storchenbotschaft, Mausfallensprüchelein) do invite the kind of cutesiness that makes lieder such an easy target for parody, but I have always admired Schwarzkopf's art sufficiently to accept occasional exaggeration.

The Carl Loewe song here could almost have been written by Wolf, the three Brahms miniatures are not too significant, and Grieg's En Svane does not sound right in German, but Schwarzkopf makes a good case for all of them. It is not only the soprano's long-standing admirers who will treasure this release. Geoffrey Parsons is Schwarzkopf's perfect collaborator, and the technical production is a worthy swan song for Walter Legge.


Performance: Remarkable
Recording: Excellent

Although I expected to be thoroughly bored by this disc of music for solo recorder, I was completely mistaken. There is a haunting quality about the instrument that is captivating, and it seems to be effective for a wide range of music, as is shown by the varied medieval, Baroque, and contemporary selections here.

Walter van Hauwe is an excellent technician and a remarkable musician. He can drive the rhythms of an estampie, produce dazzlingly brilliant variations, and then charm you with the calls of a nightingale. Perhaps his most amazing feat is in Maki Ishii's Black Intention, where he plays two recorders simultaneously as well as using his voice and a tamtam. The pieces by Ishii and Makoto Shinohara exploit the instrument to its extreme limits, but they are effective and fascinating, and with them Van Hauwe certainly brings the recorder into the latter half of the twentieth century. Highly recommended.

S. L.

The New Polk Audio RTA 12B

"The best high performance speaker value on the market today." Off The Record

The new Polk Audio RTA 12B is a reference monitor designed for the appreciative listener seeking the finest in sound. While most speakers which offer comparable sound to the RTA 12B are extremely expensive, the 12B offers superb sound and exceptional value at an affordable price.

The RTA 12B is a full floorstanding system which is supplied in mirror imaged pairs. It incorporates Polk trilaminate-polymer drivers, a dual isophase crossover network and 12 fluid coupled subwoofer. It was designed using the aid of Polk's newly developed digital sampling-fast Fourier transform computer testing procedure. The RTA 12B, while costing less than $500 each, can be directly compared against the $1500 each and up, super speakers. When you do you'll hear many more similarities than differences. Use the reader's service for full information on the new RTA 12B and our other similarly superb sounding speakers starting from less than $100 each.

In Canada — Evolution Audio — Ontario

The Affordable Dream

CIRCLE NO. 32 ON READER SERVICE CARD
Popular Music Briefs

How do you get to Carnegie Hall? According to the old joke, practice, man, practice. Or, in the case of Australian-born rocker Rick Springfield (center, doing the Sylvester Stallone impression), just land a juicy role on a hit soap opera like General Hospital and then make a couple of chart-topping albums. Springfield actually played the venerable Manhattan concert hall recently, and the scene was like something out of the palmer days of Beatlemania—sold-out crowds, mostly young, mostly female. But Springfield was really quite good. He has roots in mid-Sixties British pop-rock, and though he's inherited the David Cassidy teenybop audience, he aspires to something musically more substantial than what Cassidy used to do. A very nice show.—S.S.

A SPEAKING in a cameo role in a soap opera is incontestable validation of a person's fame, and Rick Springfield is not the only recording artist to get this seal of approval. Loverboy, a pop-rock group that records for Columbia Records, recently appeared on the CBS-TV daytime serial Guiding Light. Band members took part in dramatic scenes with actors from the show's regular cast, and they performed their first hit, Turn Me Loose, and their more recent one When It's Over in a "notorious disco" on the show. Shown below on the set of Guiding Light are (left to right) Loverboy keyboardist Doug Johnson, actress Jane Elliot, and guitarist Paul Dean. Like Springfield, Loverboy has also made a couple of chart-topping albums—"Loverboy" and "Get Lucky." Now that they've been on a soap opera and have made best-selling albums, they will probably follow Rick into Carnegie Hall. Incidentally, the "notorious disco" where Loverboy played on Guiding Light is named Springfield's. Can that be coincidence? —W.L.

And speaking of pop rock, we recently caught two other highly touted bands, the Smithereens and the Bongos, at the Bottom Line in New York. The Smithereens are the genuine article: Rickenbacker guitars, three-part harmonies, faithful cover versions of obscure Beau Brummels songs, a certain sense they are as retro as can be, but they're terrific songwriters (check out their Girls About Town EP, D-Tone DT 150, released last year) and the most exhilaratingly tight live band I've seen in ages. After a dozen encounters with them, I'm still not bored. At the Line, however, they were sabotaged by abysmal sound, and while their energy and enthusiasm came through unflaggingly, it was a disappointing set. The Bongos, despite a better mix, were disappointing for different reasons. A product of the burgeoning Hoboken, New Jersey rock scene (no kidding!), they try to have it both ways, playing Sixties pop through a late-Seventies modernist perspective. Their act is appealingly cheerful, but I find them overall, just a wee bit too arch. That may explain why the New York critics like them so much. Curious out-of-towners should check out their album "Drums Along the Hudson" (RCA) and make up their own minds.—S.S.

According to the New York Times, "Greenwich Village is Once Again a Magnet for Folk Singers." Not only is the venerable and revitalized Folk City club again featuring big names—everybody from such old neighborhood types as Eric Andersen to the Band's Rick Danko—but there is now a competitive club called the Speakeasy. Run as a musicians' cooperative, the Speakeasy's bill of fare is resolutely acoustic (the only drums you might hear there are bongos). It has become a clearing house for aspiring folkies loose in the Village, and there are a lot of them these days. Perhaps taking a cue from the do-it-yourself approach of London's punk bands, the Speakeasy even issues a monthly fanzine, The Coop, the Fast Folk Musical Magazine, and record albums. The magazine includes editorials, interviews (with lapsed folkie Roger McGuinn, for instance), and song lyrics. The recordings are made on a four-track Teac...
now that Plastic Bertrand, the European crooner whose Ca Plane Pour Moi was the big novelty smash to come out of the initial punk explosion, is back. Sugarcoop Records, a new-wave-disco label, has just released a twenty-minute version of the Belgian warbler’s Stop! Encore, described by the Plastic One’s press agent as a summer/street version of a French rap record. I haven’t heard such exciting news since the last Tiny Tim comeback bid. Graham Nash, appearing on Warner Cable’s MTV recently, actually designed to discuss the now-completed Hollies reunion album (in between hugging the inevitable new Crosby, Stills and Nash record and tour). Nash opined that the LP came out “really well” and was “incredibly well sung.” Still no word on whether an American label will release the damn thing, though. And finally, Donnie Van Zant, lead singer of the currently successful 38 Special, was hauled off stage by police during his group’s concert in Tulsa, Oklahoma, his crime? Allegedly taunting the audience with a sip of Jack Daniel’s (Tulsa is what they call a “dry” town). Van Zant was described as “puzzled,” and he was ultimately released on a $1,000 bond. The local Tulsa World, oddly enough, turned out to be a friend of rock-and-roll. In a critical editorial, “Oklahoma’s Greatest Newspaper” declared that “one can only wonder whether police would have been so quick to make an arrest if the performer had been Jackie Gleason.” I dunno—how many hits has the Great One had lately? —S.S.

**Disc and Tape Reviews**

By Chris Albertson • Noel Coppage • Phyl Garland • Paul Kresh
Mark Peal • Peter Reilly • Steve Simels • Joel Vance

- stereo cassette
- digital-master recording
- eight-track stereo cartridge
- direct-to-disc
- monophonic recording
- quadraphonic disc

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

**HERB ALPERT: Fandango.** Herb Alpert (trumpet); orchestra. Route 101; Angel; Sugarloaf; Fandango; Margarita; and six others. A&M SP 3731 $8.98, © CS 3731 $8.98.

Performance: Accomplished
Recording: Excellent

Herb Alpert made his name, fame, and fortune well over a decade ago with a series of albums featuring his very fine trumpet playing, often with a chorus of other brass behind him, in a Latin-flavored repertoire. Then it was “Herb Alpert and the Tijuana Brass.” Today it’s just rich ol’ Herb tooting away on much of the same material. He is, however, such an easy and accomplished performer and such a fine musician technically that his albums go down as smoothly as a perfect Margarita. There’s nothing new or different on “Fandango,” but Alpert’s audiences probably wouldn’t want it any other way. A few previous albums have included some experimentation, but this one returns to his commercial roots. As such it is a sterling example of popular music making at its sleekest. 

P.R.

**LAURIE ANDERSON: Big Science.** Laurie Anderson (vocals, keyboards, violin); other musicians. From the Air; Sweaters; Walking & Falling; Born, Never Asked; O Superman (For Massenet); and three others. WARNER BROS. BSK 3674 $8.98, © M5 3674 $8.98.

Performance: Amusing
Recording: Good

Laurie Anderson’s O Superman tied with the Rolling Stones’ Start Me Up for Single of the Year in a recent Village Voice critics’ poll, which is a neat metaphor for the total confusion in what passes for the pop-music community these days: the two records couldn’t be more dissimilar.

Anderson is the first of New York’s SoHo performance artists to make a splash in the mainstream, and if you’ve ever seen one of her promo videotapes it’s not hard to figure out why; she’s got an appealing deadpan sense of humor, and she is, as they used to say, easy on the eyes. (Besides, she’s a pro. During her underground days, hers was the one SoHo act whose equipment never broke down.) What she does musically on this debut album is to take childishly simple little melodic and rhythmic figures, then overlay a kind of suburban Sprechstüme and some state-of-the-art electronic gimmickry. The effect is something like low-budget Mike Oldfield crossed with early-Seventies bubblegum, and, in small doses at least, it’s hypnotically pretty.

(Overleaf)
Melanie

Salmay now, as the Fox and the Crow used to say, Melanie, one of the genuine stylists of the rock generation, with her cracking, throbbing, aching voice, is back and set against the garbage bands of the early Eighties, she is more impressive than ever. I'm not sure I can say the same for her music; the five songs she wrote for her new Blanche/Jem album, "Arabesque," are overshadowed by Detroit or Buffalo, an excellent progressive-type rock song by Barbara Keith and Le Foist, by Michael McDonald's simpler It Don't Matter Now, and by Chip Taylor's venerable Any Way That You Want Me. But singing is her strong suit anyway, and her writing stands up well in the larger context of today's pop. Besides, if she keeps on finding material this good, she doesn't need to write much.

These songs were chosen partly for their impact as drama, for Melanie is quite a dramatic singer—and that's probably also why she is often backed by a rock band which is in turn backed by strings. I'm not sure the strings are a good thing, but some kind of seamless instrumentation is. At any rate, I'm so fascinated with the vocals throughout "Arabesque" that the strings don't bother me too much.

Melanie still sounds a little like Piaf to me. She still regards singing a song as a highly emotional experience, and she still puts it and herself through the wringer. And she does seem a little older and wiser, and a little less extreme about some of her vocal quirks, yet she is eternally chilidike. A few more like her and the flesh-and-blood side of the androids could retrieve pop music from the clutches of the electronics.

—Noel Coppage

MELANIE: Arabesque. Melanie Safta-Scheckerik (vocals, guitar, piano); instrumental accompaniment: Detroit or Buffalo: It Don't Matter Now, Any Way That You Want Me; Roudburn: Fooling Yourself; Too Lute; Chances: Standing on the Other Side (of Your Love); Love You to Loath Me; When You're Dead and Gone; Imaginary Heroes. BLANCHE/JEM Bl. 6177 $8.98, © BLC 6177 $8.98.

Recording Excellent

The Blasters are being hyped in some circles as the Great White Hope of American rock-and-roll, which probably says as much about the sad state of the music as it does about the group's merits. The most irresponsible talk casts them as a new Creedence Clearwater Revival, which on the basis of this debut album is plausible only if you remember that the first Creedence album was one of their weakest.

At this stage, the Blasters seem to be simply a good, sweaty, r-t-b bar band. They're not particularly brilliant musicians, but they are genuinely soulful and have undeniable songwriting potential. The anthem American Music, for example, is a rousing and effective paean to just that, and Border Radio is touching and heartfelt in the manner of the very best country music. The rest here are mostly rockabilly-ready-mades of varying degrees of effectiveness, and the album is underproduced in a manner that suggests not deliberation but simple inexperience in the studio.

In short, this is an interesting young band that may or may not have great potential. Bear in mind, of course, that such judgments are relative. I mean, given a choice between hearing the Blasters or, say, Foreigner on the radio, I'd vote for these guys in a minute.

RECORDING OF SPECIAL MERIT

BLUE ÖYSTER CULT: Extraterrestrial Live. Blue Oyster Cult (vocals and instrumental); instrumental accompaniment. E.T.I. (Extraterrestrial Intelligence); Dr. Music; Black Blade; Joan Crawford; Burn in for You; Veteran of the Psychic Wars; and seven others. COLUMBIA KG 37946 two disc, © KGT 37946, © KGA 37946. no list price.

Performance Scorching

Recording Excellent

This two-record set brings to five the total number of live discs in the Blue Oyster Cult catalog, and it illustrates how much this is a performing band. In fact, looking back on the group's seven studio albums, it's hard to find one that can match the live sets for sustained quality, never mind energy. "Extraterrestrial Live" may be BOC's best live album yet. It covers a wider range of the group's output than did "Some Enchanted Evening," reaching back to such early classics as Cities on Flame, Hot Rails to Hell, The Red and the Black (all previously recorded live), and Dominance and Submission (which, strangely, was not). And, of course, it draws on the superior work BOC has done since their first live LP, 1975's "On Your Feet or on Your Knees.

That excellent album relied heavily on the fire and brimstone of satanic lead guitarist Donald "Buck Dharma" Roessler. "Extraterrestrial" finds the group more balanced, the songs more complete—formidable entities in their own right, not just vehicles for Roessler's riveting solos. We get a survey of the best recent work by this thinking man's heavy-metal band, including three tracks from their last record, "Fire of Unknown Origin," the by-now standard (Don't Fear) The Reaper, and a rousing cover of the Doors' Roadhouse Blues, with the Doors' original guitarist Robbie Krieger lending extra authenticity to the proceedings. BOC also has a lot more electronic gadgets at its disposal now and treats us to a virtuosic display of them on the towering tour de force Godzilla.

This band clearly enjoys itself and is determined to drag us along for the fun. But for all the blistering boogie and torrid chops, I think my favorite moment on "Extraterrestrial Live" is when Eric Bloom announces to the upstate New York audience that "We know Poughkeepsie is serious" (Continued on page 91)
Here's an easy way for you to get manufacturer's information about products advertised or mentioned editorially in this issue. Just follow the directions below...and the literature will be sent to you free of charge from the manufacturer.

Please circle the numbers on the card that correspond to the key numbers at the bottom of the advertisement or editorial mention that interests you. (Key numbers for advertised products also appear in the Advertisers' Index.)

This address is for our "Free Information Service" only. All other inquiries are to be directed to, Stereo Review, One Park Ave., New York, N.Y. 10016.

Please mail the card. One card per person is all that is necessary. No postage is required.

Please send me 12 issues of Stereo Review for $4.99 and bill me.
(Full subscription price $9.98)

PLEASE PRINT—Use only one card per person.

NAME__________________________

ADDRESS______________________

CITY__________________________STATE___________ZIP CODE________

(Zip Code must be included to insure delivery.) (Void after November 30, 1982)
Whether you're about to buy your first high-fidelity component or your fifth, you need all the facts you can get your hands on. That's where Stereo Review can help you—we furnish the basic buying, installing and operating guidance you won't find elsewhere. Any questions you have about HOW TO BUY, HOW TO SET UP, HOW TO USE or HOW TO UNDERSTAND audio equipment are probably answered in one or more of the reprints listed below.

- 40896 ROOM ACOUSTICS (How to Correct Your Room Acoustics) (10/66)
- 40897 GUIDELINES TO SPEAKER SHOPPING (8/69)
- 40898 RECORD DEFFECTS (Their Causes & Cures) (6/71)
- 40900 HOW IMPORTANT IS AUDIO COMPONENTS COMPATIBILITY (1/74)
- 40902 HOW TO SELECT A MICROPHONE (2/75)
- 40904 HI-FI TROUBLESHOOTING CHARTS (7/75)
- 40905 SPEAKER MYTHS (How to Avoid Bad Choices) (8/75)
- 40907 HOW TO SELECT AN FM TUNER (1/76)
- 40908 HI-FI DEMONSTRATION DISCS (4/76)
- 40909 CLEAN UP AND TUNE UP YOUR AUDIO SYSTEM (6/76)
- 40910 USING FM INTERSTATION HISS TO TEST RECORDERS AND SPEAKERS (1/76)
- 40911 HOW TO BUY A PHONO CARTRIDGE (1/77)
- 40912 THE PROFESSIONAL APPROACH TO TAPE RECORDING (3/77)
- 40913 HOW TO ELIMINATE RADIO-FREQUENCY INTERFERENCE (5/77)
- 40914 ALL ABOUT NOISE REDUCERS (10/77)
- 40915 HOW TO BUY HI-FI (A Beginner's Guide to Hi-Fi) (12/77)
- 40916 HOW TO MAKE YOUR OWN DEMO TAPES (Sem-Pro Recording) (3/78)
- 41365 ANTENNAS (9/78)
- 41366 TIME-DELAY SYSTEMS (10/78)
- 41367 HI-FI EQUIPMENT RACKS (12/78)
- 41368 HOW TO UNPACK, HOOK UP, TEST AND INSTALL YOUR NEW EQUIPMENT (12/78)
- 41370 UNDERSTANDING RECORD PLAYERS (6/79)
- 50040 SUBWOOFERS (10/79)
- 50041 A DOZEN RECOMMENDED DIGITAL DEMO DISCS (1/80)
- 50042 A BASIC VOCABULARY OF TAPE RECORDING (3/80)
- 50151 AUDIO EQUALIZERS (Understanding and Choosing Equalizers) (4/80)
- 50152 BUYING GUIDE TO AUTO SOUND EQUIPMENT (6/80)
- 50153 LOUDSPEAKER POWER REQUIREMENTS (8/80)
- 50199 HOW TO UPGRADE YOUR EQUIPMENT (11/80)
- 50265 A BUYER'S GUIDE TO CASSETTE DECKS (3/81)

DATE FOLLOWING EACH LISTING INDICATES ISSUE IN WHICH ARTICLE APPEARED.
Reprints $2 each. Minimum order $6.

HERE'S HOW TO ORDER
CASH: Mail your order with your name, address and remittance to STEREO REVIEW REPRINTS, PO. Box 278, Pratt Station, Brooklyn, NY 11205. U.S. orders shipped first class. Add 50¢ per order for postage and handling. Outside USA—ship by AIR MAIL ONLY. Add $2 per order. Residents of CA, CO, DC, FL, IL, MA, MI, MO, NJ, NY State, OH, SC, TN, and VT add applicable sales tax.
CHARGE: Your American Express, Visa, Master Charge, or Diners Club account. Include your name, address, card #, expiration date, and signature.
PHONE ORDERS ACCEPTED (minimum $10). PHONE TOLL FREE 800-345-8112. In PA only 302-622-2444.
MASELL UD-EL IIS C-110  
BASF PRO II C-40  
SONY TC3330  
ONKYO TA-630010$105  
PIONEER CT-FIR  
TECHNICS RSM2553  
CASSETTE DECKS  
SONY STR-1/115  
PIONEER SKH  
TECHNICS SA-024  
CALL or WRITE for your lowest price on over 80 major brands!

800-221-0974  
CIRCLE NO 42 ON READER SERVICE CARD

ORDER TOLL FREE  
SAVE BY PHONE  
Monday - Friday  
9am - 5:30pm EST

Call Toll-Free  
800-221-0974  
(ex NY, AK, HI)  
Monday - Saturday  
9:30am - 6:30pm EST  
OR CALL (212) 253-8888

CALL OR WRITE for your lowest prices on over 80 major brands!  
ALL MERCHANDISE IS BRAND NEW  
AND FULLY GUARANTEED

Call Toll-Free:  
800-221-0974  
ex NY, AK, HI.  
Monday - Saturday  
9:30am - 6:30pm EST  
OR CALL (212) 253-8888

SAVE ON AUDIO VIDEO CALL TOLL-FREE  
800-221-0974

HI-FI BUYS

RECEIVERS  
TECHMATES SA-924 $317  
PIONEER SX-9 $317  
SONY STR-V91 $317  
ONKYO TA-322 $267  
CASSETTE DECKS  
TECHMATES RS-9215 $335  
PIONEER CT-F44 $317  
UNION TA-833CM $146  
TEAC V-955 $335

BLANK TAPE  
BABY FRESH $10.95  
TOK SA C-50 $33.5  
MAXELL UD TL-C90 $33.5  
MAXELL UD TL-C120 $33.5

VIDEO  
TECHMATES FG-2200 $119  
PIONEER SKL-300 $119  
SONY SL-5085 $119

TECHMATES SL-50 $132  
PIONEER SL-300 $132  
PIONEER SL-300 $132

TECHMATES SL-32 $132  
PIONER PL-4 $115  
TECHMATES SL-31 $132

SHURE 015-V $75  
SHURE 015-V $75  
SHURE 015-V $75

SHURE 015-V $75

TECHNICS SL-030 $115  
SANSUI TG-11 $115

KNIGHT RECORDING COMPANY  
800-221-0974  
CIRCLE NO 42 ON READER SERVICE CARD

S Survival of the Fittest called "Rock and Roll". If you're serious about rock and roll, don't miss this record.


Performance: As usual

Recording: Good

Martin Rushent, who produces the Human League (among other tragically hip English acts), said recently that the guitar sound prominent on most American records played on the radio was really as old-fashioned as the saxophone sound on his parents' Glenn Miller records, and that the American audience was bound to wise up and reject it. Of course, there's a certain amount of vested interest talking there, and "rock" acts like the Human League probably will throw the baby out with the bathwater, but Rushent just may be right.

This unpleasant thought occurred to me while I was listening to the new Cheap Trick album, because what we have here is the same Led Zeppelin-derived metal-guitar histrionics that have glutted our airwaves and concert halls for nearly a decade. In this particular instance there is precious little of the wit that has occasionally in the past made Cheap Trick seem more appealing than, say, Rush. In other words, "One on One" has no tunes, no lyrics, and lots of high-decibel bluster. One might have expected new producer Roy Thomas Baker to alter the formula a bit, given his fondness for New Wavey keyboards (note his work with the Cars), but he didn't. All things considered, this is an extremely dull record. You'd be better off with Glenn Miller.

S.S.

RECORDING OF SPECIAL MERIT

ANGELA CLEMMONS: Angela Clemmons (vocals); vocal and instrumental accompaniment. We Must Take Our Time/ Give Me Just a Little More Time: Uneeasy. When You're Through I'll Be Waiting. Givin' It Away, Fill You Up, and four others. Portrait FR 36828, © FET 36828, no list price.

Performance: Sings like an angel

Recording: Excellent

Angela Clemmons, a former church singer from Norwalk, Connecticut, has come up with a fascinating potpourri of old and new r- & b styles showcasing her voice, which ranges from the coy cuteness of Sixties Motown "girl" singers to robust but controlled abandon. One thing is certain: this young woman sings so well she could make almost anything sound good. She gets deep into a song and puts it across with conviction.

Fortunately, almost all the songs here are several pgs above average in this genre, and the whole album was skillfully produced by Paul Leka to highlight Clemmons' considerable expressive abilities. Eight songs are by Michael W. Brown, their tempos are varied but all are unashamedly pretty. Several reminded me of Stevie Wonder's less self-conscious work of a few years ago.
**Bobby Short**

"... you have to stick to your guns."

SINGER-PIANIST Bobby Short, whose new Elektra album is called "Moments Like This," explained to me recently how he had weathered the years during the tyrannical reign of "relevance" in popular music.

"About ten or twelve years ago I had so-called friends who deserted me completely because I didn't 'get with it.' They'd say, 'Oh, he's very nice, but I don't want to live in the past.' I had to face that, but I'm as stubborn as can be about anything that concerns my true and inner self. I believe you have to be true to yourself and look out for yourself. That was Noel Coward and Cole Porter's great point, that you have to stick to your guns."

Short was speaking from the comfort of an armchair in his cavernous apartment in one of the grandest of New York City's old-landmark apartment buildings. Bobby Short is also a New York landmark. Not to go and hear him sing and play at the Café Carlyle is rather like going out of your way to avoid the Plaza fountain or Rockefeller Center or the Metropolitan Museum of Art. When you do hear him, whether at the Carlyle or on any of his albums (previous ones have been on Atlantic), you're immediately in touch with the great tradition in classic popular music.

"Out of concern people used to tell me to go out and get a whole new act, new clothes, to Get In Style," he said, looking out his bay window onto 57th Street. "But people who say things like that are not people who are involved in what you're involved in. They may be involved in your business, but they don't know what you know about your business. Anyway, I guess now I'm back in style, whatever that means."

What that means is that for "Moments Like This" Short has made his usual superior selection of songs by the very best classic and contemporary pop composers—such wonderful pieces as Body and Soul, Say It Isn't So, Sigh No More, and Memphis in June—and has sung the hell out of them. The only differences are that for this record he has a full-orchestra back-up instead of a small combo and that he doesn't simultaneously accompany himself on the piano, having recorded the vocal and piano tracks separately.

"Very few of us are able to sit down and give full service to the vocal and the piano at the same time," he said, even though he manages it very nicely every night at the Carlyle. "For recording purposes, I thought it would be wise to separate them. That meant that I was able to take a nice rest in between, which is impossible in the saloon life. That's hard work. The audiences are spoiled; they want to hear a nice long show."

Short told me, however, that he's noticed an interesting change in his audiences these days. "I'm getting a lot more young people. They want to hear the old songs. They understand literature and music, and they're really curious about the Thirties. When they hear a lyric by Lorenz Hart or Ira Gershwin they analyze it like a piece of poetry."

But Short's repertoire is not exclusively old songs. The new album, for instance, includes the Streisand-Williams Evergreen, which Short "never even knew about" until he was asked to perform it at a Golden Globe awards ceremony. "At the Carlyle I sometimes play some of Billy Joel's things, and I do like Randy Newman's work, but I don't make a big thing out of it. It's nice to be au courant, but not to the point where you are untrue to yourself. I've known most of the composers whose songs are on the new album—Coward, of course, and Porter, and I knew Duke and Hoagy. Cy Coleman is still a friend, and so is Burton Lane."

Unlike performers who aim at the lowest common denominator—and reach it—Short says that he made his new album for himself and his audiences, and he's included songs with a broad appeal "because they're good songs." Short and his fans share an appreciation for the finer things in life. "Women who are dressed by the best couture houses in the world and wear jewelry from Carimati and Winston come to the Carlyle, or buy my records, to hear the songs they know, songs that hark back to the time when music was one of America's greatest exports. The songs I do have been translated into every known language. Our American popular music has been one of our contributions to civilization. It's all we have, isn't it? A well-written song, a good piece of orchestration, a fine painting, a classic piece of furniture, a well-cut suit made from good cloth—the sooner one learns to appreciate that kind of fineness about living, the better off one is."

If there are any beginners in Life Appreciation reading this, I'd suggest that they couldn't have a better first lesson than listening to Bobby Short's "Moments Like This." It is very fine indeed.

—Peter Reilly

BOBBY SHORT: Moments Like This. Bobby Short (vocals, piano); orchestra. Someone to Light Up My Life, Georgia Blues/Georgia on My Mind, Sigh No More; I'm Satisfied; Evergreen; Memphis in June; Moments Like This; I Am in Love; Say It Isn't So; Body and Soul; Sometimes When You're Lonely. ELEKTRA E1-60002 $8.98, © E1-60002 $8.98.
including Uneasy, Keep It Warm for Me, Fill You Up, and the choice Sure Thing. On the other hand, Giving It Away is downright Fill You Up, and the choice Sure Thing. On including Uneasy, Keep It Warm for Me, Space Age Love Song; You Can Run; Don't Seagulls (vocals and instrumentals). I Ran: A FLOCK OF SEAGULLS. A Flock of RECODING OF SPECIAL MERIT mighty fine music together.

HERBIE HANCOCK: Lite Me Up, Herbie Hancock (vocals, keyboards, synthesizers); vocal and instrumental accompaniment. Lite Me Up: The Bomb, Gettin' to the Good Part, Paradise, and four others. COLUMBIA FC 37928, © FCT 37928, no list price. Performance: Progressive r-&-b Recording: Very good

Listening to Herbie Hancock's funk productions has usually made me hungry for all the wonderful jazz things he used to do on acoustic piano back in the Sixties. Since his defection, he has often spruced up his pop sets with a track or two of jazz for us die-hards who wish he'd never learned how to make money in the mainstream. But this time around he has accomplished the next to impossible. "Lite Me Up" is a progressive r-&-b album that even I found thoroughly satisfying.

Although everything here falls safely within the range of commercial r-&-b, Hancock has invested each selection with craftsmanship and inventiveness. The carefully structured music abounds in sudden, unexpected changes and imaginative harmonic embellishments. There is also close

Orbitrac™
Always in the groove!

Orbitrac circles your album with hundreds of microscopic fibers in each groove for a clean no other record care system offers. Just align with the center notch and the hand-held pad swirls each and every groove free of abrasive grit. It's simple and fast and, because it uses a wet solution, damaging particles are lifted free without grinding or scraping across groove ridges. No other record cleaner can touch it for complete and really get in the...
attention to musical texture in Hancock's clever work on a battery of synthesizers, which he often uses to inject whining, blues-like comments. Among the standouts are Gettin' to the Good Part, which could easily have been given a jazz treatment with instrumental rather than vocal emphasis, and Paradise. One minor sour note, though: I wish Hancock would abandon the Vocoder, an odious electronic device that makes him sound as if he's singing with a clothespin clamped over his nose. His music needs no gimmicks.

P.G.

JETHRO TULL: The Broadsword and the Beast. Jethro Tull (vocals and instruments). Beasty; Clasp; Fallen on Hard Times; Flying Colours; Slow Marching Band; and five others. CHRYSALIS CHR 1380 $8.98, © CCH 1380 $8.98, © CH 1380 $8.98.

Performance: A bit tame
Recording: Very good

Criticalizing Jethro Tull's leader, Ian Anderson, for being strident or given to excesses in lyrics or performance is like finding fault with a professional wrestler for hamming it up in the ring. It's part of the act; you either like it or you don't. "The Broadsword and the Beast" isn't Jethro Tull's best album. It isn't even close. But on its own terms, it's not bad. "Broadsword" certainly has its heart in the right place, coming out four-square against fear, hypocrisy, and pettiness and in favor of friendship and a firm handshake. In fact, the album's greatest shortcoming may be its ordinariness. There's not a single outrageous song in the whole thing, just competent, occasionally insightful, and neatly arranged songs on a variety of subjects you wouldn't think Anderson would bother with—such as the subtle ways two people in a disintegrating relationship find to hurt one another or the way sitting in the typhing pool for eight hours a day after day can bring a girl with big dreams down to earth. If you don't mind sacrificing outrage for a few modestly acute observations, you'll like what Jethro Tull is doing here.

M.P.

ELTON JOHN: Jump Up! Elton John (vocals, piano); instrumental accompaniment. Stupefied Child; Legal Boys, Princess; I Am Your Robot; Ball and Chain; and five others. GEFFEN GHS 2013 $8.98, © MS 2013 $8.98.

Performance: Don't jump
Recording: Good

It was only a few years ago that Elton John fever had youthful rock fans clamoring for the little man with the bizarre glasses and the thin smile. Elton was not a part of the disco craze, but when he entered that music's glittery patrons flocked around him all the same. For quite a while now, Elton John has kept a relative silence; and five others. ATLANTIC SD 19344 $8.98, © CS 19344 $8.98, © TP 19344 $8.98.

Performance: Medium cool
Recording: Good

There's not a single outrageous song in the whole thing, just competent, occasionally insightful, and neatly arranged songs on a variety of subjects you wouldn't think Anderson would bother with—such as the subtle ways two people in a disintegrating relationship find to hurt one another or the way sitting in the typhing pool for eight hours a day after day can bring a girl with big dreams down to earth. If you don't mind sacrificing outrage for a few modestly acute observations, you'll like what Jethro Tull is doing here.

M.P.

ELTON JOHN: Jump Up! Elton John (vocals, piano); instrumental accompaniment. Stupefied Child; Legal Boys, Princess; I Am Your Robot; Ball and Chain; and five others. GEFFEN GHS 2013 $8.98, © MS 2013 $8.98.

Performance: Don't jump
Recording: Good

It was only a few years ago that Elton John fever had youthful rock fans clamoring for the little man with the bizarre glasses and the thin smile. Elton was not a part of the disco craze, but when he entered that music's glittery patrons flocked around him all the same. For quite a while now, Elton John has kept a relative silence; and five others. ATLANTIC SD 19344 $8.98, © CS 19344 $8.98, © TP 19344 $8.98.

Performance: Medium cool
Recording: Good

The good news is that Carole King sings better here than she used to. As for her songwriting—well, the keepers seem fewer and farther between. Although King's pro at writing lyrics, her songs impress me in direct proportion to the catchiness of the tunes, since she tends to write forgettable lyrics about the usual subjects. Most of these melodies meander hopelessly before a back-up that's on the standoffish side of cool. The tune to Read Between the Lines has some zing to it, though, and the one to Little Prince has some structural subtleties I like. These two are reminders that the better Carole King songs have come out of instinct rather than midnight oil, the latter being a little too apparent in most of the others here.

N.C.

RECORDING OF SPECIAL MERIT


Night and Day; I've Got You Under My Skin; At Long Last Love; True Love; Love for Sale; Easy to Love; and eight others. FINNADAR SR 9034 $8.98.

Recording: Stylish and stunning

When the "new" Waldorf-Astoria Hotel was built in 1931, the owners decided to name a restaurant/cocktail lounge on the premises after the famous "Peacock Alley" corridor in the old Waldorf where members of New York society used to stroll in their glittering get-ups. In Peacock Alley today there is a piano that once belonged to Cole Porter and at which, in his suite at the Waldorf Towers, he wrote some of his most enduring hits. Jimmy Lyon, who now performs regularly at Peacock Alley, used that very piano for this live recording of Porter tunes, and it seems to have inspired him to give it his all. It may be hard to believe anyone could throw new light on such familiar melodies as these, but it happens here. These are not cocktail-lounge tinklings but imaginative embellishments of Porter perennials. The kind of sophistication these songs originally represented may have gone the way of the old Smart Set, but it seemed to live again as I listened to this marvelous album.

P.K.
MOON MARTYN: Mystery Ticket. Moon Martin (vocals, guitar, bass); vocal and instrumental accompaniment. X-Ray Vision, She's in Love with My Car, Witness; and six others. CAPITOL ST-12200 $8.98, © 4XT-12200 $8.98, © 8XT-12200 $8.98.

Performance: Good in spots
Recording: Good in spots

Moon Martin's vocal range is somewhere between a wheeze and a mumble. I still maintain that he's a more-than-competent songwriter who doesn't have any business making albums as a performer, but what the hell, somebody's buying these things. Every time I'm about to file and forget Martin's latest effort, though, one song grabs me. On his last album it was Signal for Help. Here it's She's in Love with You—a good old-fashioned pop-rock with just the right mix of macho and schmatz. The lyrics are juvenile, as they're meant to be (otherwise the song wouldn't work), but the melody and production are perfect. One other redeeming feature here is this witty line from She's in Love with My Car: "Ever since you've been gone/I walk around with sunglasses on." Pretty well skewers adolescent affection, doesn't it? Unfortunately, one good song and one good line do not an album make.

JOHN MARTYN: Glorious Fool. John Martyn (vocals, guitar), Phil Collins (drums, piano, vocals), other musicians. Couldn't Love You More; Amsterdam; Hold On My Heart; Perfect Hustler; Hearts and Keys; Glorious Fool; and five others. DUKE DJ 19345 $7.98.

Performance: Martyn rampant
Recording: Good

Once a gentle British folkie, John Martyn in recent years has come down with severe Jazz Singer Syndrome, slurring words beyond recognition, breaking up phrases unnaturally, trying to sound like an instrument, and all that. When he first started doing this, the nonverbal communication increased enough to make me hang around, but about all I can get out of "Glorious Fool" is that he's in one unspecfic, vaguely outlined mood here and in another one there. The pieces simply aren't interesting enough as music to have their words thrown away. You can get away with almost anything if you don't take it to extremes—and with practically nothing if you do.

John Martyn

RECORDING OF SPECIAL MERIT

THE O'JAYS: My Favorite Person. The O'Jays (vocals); instrumental accompaniment. I Just Want to Satisfy You, Your Body's Here with Me (But Your Mind's on the Other Side of Town); My Favorite Person, One on One; I Like to See Us Get Down; and three others. PHILADELPHIA INTERNATIONAL FZ 37999, © FZT 37999, no list price.

Performance: Lustrous sound
Recording: Very good

The O'Jays' sound on this new set is so impressive that I just gave myself up to enjoyment of it. The group's harmony is so accurate and their blend so mellow that it doesn't really matter that these aren't the
Billy Vera

Billy Vera had one minor hit—"Storybook Children," a duet with black singer Judy Clay—in the mid-Sixties on the Stax label in Memphis. It might have been a bigger hit, but biracial duos were then unacceptable in live performance or even in publicity photographs. Vera made a few unsuccessful recordings, played back-up, and saw some of his songs become hits for other performers (Dolly Parton made No. 1 on the country charts with his "I Really Got the Feeling"). Then in 1981 his group Billy and the Beaters won acclaim with their self-titled debut album on Alfa Records.

Vera's new solo album on Alfa retains only Lon Price of the Beaters, and it displays Vera as a terrific Southern pop writer—sentimental, down-to-earth, and hilariously salacious. Vera's vocal accent suggests Dr. John without the pervasive rasp, but his phrasing is a lot freer. He sings with great skill, humor, and showmanship.

Vera and Jerry Wexler co-produced this delightful program with a minimum of flapdoodle but lots of ingratiating folderol. Vera wrote nearly all the songs, either alone or in collaboration with such stalwarts as L. Russell Brown and Chip Taylor. The back-up musicians are first-rate.

Oooh is, as its title implies, a seduction song (Vera adds some spoken "endearments" and cackles). We Got It All and Down are about connubial bliss; the former finds the hero poor but happy ("A broken down TV that only gets Channel 3"), and the latter has him urging his mate to more decorum ("When we make love in the evenin'/The landlady thinks you're dyin'"). Private Clown is a kiss-off to a vampire. I Don't Want Her has a melodic structure very reminiscent of Sam Cooke, but the subject matter is unusual; having won his lady fair, our hero is scared to death by success ("She's everything I've ever wanted/And it's more than I can stand"). Hopeless Romantic is a bit too sentimental and melodramatic for a ballad, but Once in a Lifetime (Will Do) is more laid-back and it scores.

Of the outside material, the only real dud is I Don't Want to Go On Without You, written some years ago by Jerry Wexler and the late Bert Berns. Slow Down is the old Larry Williams rocker that the Beatles cut in the Sixties, and it's still a lot of fun. Peanut Butter, a minor hit from the early Sixties, is a wonderfully silly parody of the dance tune Hully Gully. This album is a real treat, and I hope we'll be hearing a lot more from Billy Vera.

--Joel Vance

BILLY VERA. Billy Vera (vocals, guitar, piano); vocal and instrumental accompaniment. We Got It All; Oooh; Hopeless Romantic; Down; Slow Down; I Don't Want Her; Once in a Lifetime (Will Do); Peanut Butter; I Don't Want to Go On Without You. ALFA AAB-11012 $8.98.

ROBERT PALMER: Maybe It's Live. Robert Palmer (vocals, guitars, keyboards, drums); vocal and instrumental accompaniment. What's It Take?; Some Guys Have All the Luck; Style Kills; Maybe It's You; What Do You Care; and five others. ISLAND ILPS 9665 $8.98, © M 9665 $8.98.

Performance: Spirited
Recording: Fairly good

Probably the most interesting but, at the same time, most unsatisfying thing about this album is its schizoid division between live and studio recordings. The first side delivers wall-shaking sound... driven by a good 30-watt-per-channel amplifier."

"...the blending of the DA20LF with the DA-10 satellites was exceptionally effective...." no one could suspect... that a common-bass module was present."

"...a most attractive system...

Read the entire review and hear the exciting DA-30 Stereo-trio at your Design Acoustics dealer today!
consists of live takes of such Robert Palmer favorites as *Best of Both Worlds* and *Every Kind of People*. It succeeds on power more than anything else. There's little differentiation between instruments and not a single strong instrumental solo, but the overall sound is positively thunderous in the opening cut, *Sneaking Sally Through the Alley*, and almost apocalyptic on the closer, *Bad Case of Loving You*. Palmer is in great voice throughout, putting on a display of acrobatic phrasing that dips and shimmies and almost apocalyptic on the closer, Bad sound is positively thunderous in the open-

tiuation between instruments and not a single favorites as *Best of Both Worlds* and *Every
car in his studio "laboratory," tinkering with all

cut along with Gary Numan's bleak key-

board visions (it's a long way from Lowell

The split between live oldies and new stu-

in the hands of Norman Whitfield, they

past, when they left everything pretty much

in the recording studio and let them treat

get the feeling he

the current pop fads.

The question this release raises is, how can

JOHN SCHNEIDER: Quiet Man. John

Schneider (vocals); orchestra. *Dreamin*: I

need Someone to Miss; In the Driver's Seat;

Needs Like the Devil; Quiet Man; Love Letters in the Sand; and four others.

REPORT BROTH S FZ 37956, © FZT

37956, © FZ 37956, no list price.

Performance Sluggish

Recording Bombastic

The question this release raises is, how can one of the Dukes of Hazzard TV boys go into the recording studio and let them treat him like a male Debbie Boone? Unlike most

WHO SAYS... YOU CAN'T GET RETAIL STORE SERVICE AT LOW MAIL ORDER PRICES? IT TOOK US YEARS TO PERFECT A WAY OF GIVING YOU FULL SERVICE RISK FREE— BUYING AT LOW MAIL ORDER PRICES CALL NOW AND FIND OUT HOW! • All top name brands • Same day shipping • No-deposit ordering • No lemon guarantee • Lifetime service • Free money-saving advisory service

1-301-488-9600 Daily 9 a.m. to 9 p.m. Sat. til 5 p.m.

CIRCLE NO. 19 ON READER SERVICE CARD
IT'S HERE!
Stereo Discounters
new Fall 1982 Buying Guide is here!

It's bigger and better than ever, offering you page after page of famous name-brand Hi-Fi & Home Entertainment equipment. It's full of manufacturer's specifications and illustrations of the latest in sight and sound, home information and entertainment, for your home and your car. From car stereo to home computers, Stereo Discounters has it all for less!

STEREO DISCOUNTERS
We accept Visa, Mastercard

6730 Santa Barbara Court, Baltimore, MD 21227
CALL TOLL FREE 1-800-638-3920 for your catalog of the latest in audio & video equipment!

GET MORE MUSIC FOR YOUR MONEY!

EVEY ARTIST, EVERY LABEL
Nobody's got a catalog packed like ours because nobody blunders list prices like we do. HERE'S PROOF EVERY MAJOR ARTIST AND LABEL - FROM POP, ROCK AND JAZZ TO COUNTRY AND WESTERN.

TREMENDOUS SAVINGS
LIST PRICE  LIST PRICE LIST PRICE


FREE J&R RECORD CATALOG
SEND FOR YOUR FREE 52 PAGE RECORD & MUSIC PRICE GUIDE. 100% GUARANTEED DIFFERENT LIST PRICE. MOST POPULAR ARTISTS & TITLES IN STOCK POP ROCK JAZZ COUNTRY & WESTERN.

SUPER FAST SERVICE
J&R's Computer Controls Express Mail Order Service WITHOUT NO DELAY! (800) 221-9180

AUDIO Cassettes

J&R Music World
23 Park Row, Dept. S 389 NYC 10038

CIRCLE NO. 32 ON READER SERVICE CARD

CIRCLE NO. 29 ON READER SERVICE CARD

actors, John Schneider has a pretty good singing voice and seems to have at least an advanced amateur's ability at using it. (On the other hand, like most singers, he isn't much of an actor.) But he is plumb drowned out here by cascading strings and general heavy-handedness in the production. The thing booms out at you even if you have the volume knob barely turned on, it may be the highest-priced recording, volume-wise, in my burgeoning collection. And then there are those icy strings, used with all the imagination and verve of elevator music circa 1952. But if you think that's bad, you ought to hear this bunch try to rock, as on the opening cut, "Dreamin'," the Johnny Burnette hit of yore. It's like Frenchmen trying to play bluegrass, or as if the musicians came from two different planets. Actually, it's like the way music is routinely treated on television. Schneider really should give the real world a try. N.C.

SPLIT ENZ: Time and Tide. Split Enz (vocals and instrumentals). Hello Sandy Allen; Six Months in a Leaky Boat; Take a Walk; Lost for Words; Haul Away; Dirty Creature; and six others. A&M SP-1894 $8.98, © CS-1894 $8.98.

Performance: Good, but ...
Recording: Good

Suicide, nervous breakdowns, the end of the world, and—everybody's favorite modern problem—the inability to communicate are the subjects of Split Enz's latest outing. There is some very tricky and intricate vocal writing here that calls for great breath control and rhythmic precision. Split Enz has set themselves some difficult tasks, and they come through very well, but I'm still disappointed with "Time and Tide." I kept waiting for one of those charmers that the band usually includes on each album—the gorgeous Iris from their last disc, for instance—but this time they have opted for big production and a mysterious cosmic message. Grandiosity makes the album unsatisfying. The worst cut is Pioneer, an instrumental that I suspect is supposed to demonstrate the inadequacy of words to convey the pain of churning innards and overtaxed psyches. It is actually nothing more than hurly-burly presented with a touch of pride that gives the game away. Scors are seldom modest. J.V.

Squeeze: Sweets from a Stranger. Squeeze (vocals and instrumentals). Out of Touch; I Can't Hold On; Points of View; Stranger Than the Stranger on the Shore; Onto the Dance Floor; When the Hangover Strikes; Black Coffee in Bed; and five others. A&M SP-4899 $8.98, © CS-4899 $8.98.

Performance: Parched
Recording: Very good

Squeeze may be the best (and smartest) pop-rock band now working in the Free World, but there's no call for the kind of extravagance certain rock critics (and A&M Records) have been indulging in lately: Chris Difford and Glenn Tilbrook are not the new Lennon and McCartney or the new Gilbert and Sullivan. Squeeze is a very good, thoroughly English band that has all the right influences but is also locked into a fairly rigid formula.
Lyrically, I have no complaint whatsoever; Difford and Tilbrook have novelist's eyes for small details and a flair for language like Ray Davies' when he's on, and there's more humanity in one of their throwaway efforts than in a year's worth of Top-40 hits. Musically, however, I'm not so thrilled. They can be gifted tunesmiths (recall the earlier Another Nail in My Heart or Pulling Mussels from a Shell), but too often they seem compelled to torture a melody into as many awkward modulations and chord changes as possible, and their big vocal gimmick—the melody line sung in a split octave (a la Lennon and McCartney)—can get awfully tiresome. Harmonies would be nice occasionally, fellas.

"Sweets from a Stranger" is simply dry. In terms of production, it's Squeeze's first with the kind of high gloss one expects from a McCartney or a Ronstadt, but there's a strained, false feeling to it that puts me off. There's simply too much hard work and agonized decision-making on display here for the results to be truly involving. Granted, it's odd these days to carp about a record's being too brainy for its own good, but that about sums up "Sweets from a Stranger." Give these guys a couple of weeks lolling on the beach before letting them back in the studio, that's my advice.

S.S.

RICHARD AND LINDA THOMPSON: Shoot Out the Lights (see Best of the Month, page 66)

RECORDING OF SPECIAL MERIT

MEL TILLIS: It's a Long Way to Daytona. Mel Tillis (vocals); instrumental accompaniment. Dream of Me, The One That Got Away: It's Gonna Be One Of Them Days; She's Been Doin' That for Years; Always Me; Wrong Again; and four others. ELEKTRA E1-60016 $8.98, © E4-60016 $8.98, © E8-60016 $8.98.

Performance: Classy Recording: Pretty good

Even though this album's title and dedicatory note had me all set for the first stock-car-racing album by a major star and only one song turns out to be on that subject, I like it enough to play it on my own time. Most recent Mel Tillis albums have been too slick for me, but this one has some bite to it; indeed, the instrumentals seem to be treated with a new respect, and the pickers respond the way people usually respond to good treatment.

The songs are strong too, even if they do stray off to conventional love-story themes that have nothing to do with the track. Only the title song really deals with racing; its lyrics are the musings of a short-tracker yearning for a crack at the big oval at Daytona. You can relate to the other songs even if you're not interested in racing, for they deal rather intelligently with the off-track soap opera we call life. And Tillis presides over it with the authority of an old pro, smooth as good Irish whiskey. N.C.

ROBERT WHITE: Songs My Father Taught Me. Robert White (vocals); Dick Hyman (piano); orchestra, Dick Hyman cond. My Blue Heaven; Bye Bye Blackbird; When I Grow Too Old to Dream; Shine On.

The New 1982 Basic Repertoire

STEREO REVIEW again presents the annual revision of the Basic Repertoire. In pamphlet form, the 1982 updating includes disc and tape recommendations for over 180 standard musical works. For your copy, send $1 in cash, plus a stamped (40c) self-addressed No. 10 envelope (9½ x 4¼ in.), to Basic Repertoire, Box 506, Murray Hill Station, New York, N.Y. 10016.
Talking Heads

All new art seems ugly at first, an art critic once said in justifying Jackson Pollack or some other high-priced abstractionist, and I think the whole New Wave business has to be looked at with the understanding that rock critics sense this on some level. All critics fear being deemed reactionary, so, in looking at or listening to something new in the "different" or "strange" sense, they are susceptible to letting the second question, "Am I being reactionary?", supplant the first, "Is this stuff art?" With rock critics, almost anything sufficiently far-out or off-the-wall tends to get automatic credence, nature abhorring, as she does, a vacuum in the Next Big Thing mentality. I have long agreed with the late Lester Bangs that New Wave is mainly a marketing ploy aimed (unsuccessfully, it now appears) at taking up where sagging disco sales left off. After several hours of sticking my head into "The Name of This Band Is Talking Heads," a two-disc retrospective from Sire, I am as convinced as ever that Bangs was right.

You do, of course, have to learn how to listen to something new, but this style has been around for half a decade now. The new Talking Heads set, recorded live at various venues (as rock critics like to call places), just about spans it, covering 1977, 1979, and 1980-1981. We've learned as much as just about it; perhaps because then they 1977 stuff best, possibly because then they turn on inflection more than con- that matter, in the playing of a simple chord cleanly). What you have here is not some radical new invention but an extension—or distortion, if you will—of various aspects of rhythm-and-blues. Now, the Talking Heads occasionally get this sort of thing into a fine groove, as in Houses in Motion, and you can get lost in the rhythms and make a kind of emotional connection with the band—which is, after all, what we claim we're after as long as we can call it music. But an awful lot of this seems to be about making an intellectual connection; the music seems purposefully ugly, as if to call attention to the words—which in turn are covered up by the instrumentals. When you can make out a string of words, it turns out there's a lot of repetition involved, and it begins to appear that it turns on inflection more than content, and so on, until you despair of finding a bet that isn't hedged.

FIND, now, that I like the Talking Heads' 1977 stuff best, possibly because they did not need to top themselves. There is a freshness about that side, which seems gradually replaced by a kind of brittleness. Although not intellectual giants, leader David Byrne and associates are reasonably bright, so I may be hearing boredom showing through. Contrived formats will do that to you.

—Noel Coppage

TALKING HEADS: The Name of This Band Is Talking Heads. Talking Heads (vocals and instrumentals). New Feeling: Don't Worry About the Government; Pulled Up, Psycho Killer; Artists Only, Stay Hungry, Air, Building on Fire; Memories, 1 Zimba, Drugs; Houses in Motion, Life During Wartime; Take Me to the River, The Great Curve, Croceyed and Painless. SIRE 2SR 3590 two discs $12.98. © 2SR 3590 $12.98.

Harvest Moon: By the Light of the Silvery Moon, and seven others. RCA NFL1-8005 $6.98, © NFK 1-8005 $6.98.

Performance Corny Recording Excellent

As an early admirer of Robert White, a marvelous tenor who merits comparison with the great John McCormack, I thought he could be safely trusted to stick to Irish song repertoire. Robert has never forgotten, however, that his father was Joe White, the NBC radio network's celebrated "Silver Masked Tenor" of the Twenties and early Thirties.

As the title tells us, on this record White sings the songs his father taught him, and for one of my age it was rather an eerie listening experience. Suddenly, there I was, catapulted back to my childhood, when the family Victrola or Atwater Kent radio seemed always to be playing All Alone by the Telephone, Charmaine, and My Blue Heaven. Not content with singing these chestnuts in a voice that is far too good for them, White has also arranged with conductor and pianist Dick Hyman to provide the kind of settings that gave this popular music of the period its special blandly sentimental appeal. It's as if the Age of Orhophonic Sound had suddenly risen from sleep to do battle with the Digital Giant. For those few enough to be immune to the heart-tugging associations of such dusty items as Poor Butterfly, "Songs My Father Taught Me" should serve nicely as a musical history lesson—the phono graphic equivalent of a Thirties movie on the Late, Late Show, except that the sound is astonishingly clear it seems at odds with the material. At times White's own strong vocalizing seems at odds with it too, but, even so, he certainly does his pop proud.

DENIECE WILLIAMS: Neecy. Deniece Williams (vocals); vocal and instrumental accompaniment. Waiting by the Hotline, It's Gonna Take a Miracle, Love Notes; I Believe In Miracles, A Part of Love; and three others. COLUMBIA FC 37952, © FCT 37952, © FCA 37952, 0 FCA 37952, no list price.

Performance Fine singing Recording Very good

Deniece Williams' first albums, back in the mid-Seventies when she was produced by Maurice White and the late Charles Stepney, generated an immediate surge of excitement, but this new one is different. Here Williams has teamed with Thom Bell to co-produce a set featuring consistently excellent singing and songs that range in quality from so-so to very good. The highlight is her rerecording of the golden oldie It's Gonna Take a Miracle, which sounds just as delectable here as in any of its previous incarnations—maybe even better. Love Notes, which Williams wrote with the versatile Skip Scarborough, gets off to a bumpy, repetitious start but soon breaks into a wonder ful chorus. And in the poignant A Part of Love, which closes the album, Williams displays marvelous control and range of expression. But too much of what falls between these high points is undistinguished and forgettable.

—P.G.

HANK WILLIAMS JR.: High Notes (see Best of the Month, page 69)
AZYMUTH: Telecommunication. José Roberto Bertrami (keyboards); Alex Malheiros (bass, vocal); Ivan Conti (drums). Estreito de Taruma; What Price Samba; Country Road: May I Have This Dance?; Nothing Will Be As It Was; and two others. MILESTONE M-9101 $7.98.

Performance Very good
Recording Good

Brazilian jazz continues to find a receptive audience in America for its mixture of Latin sophistication and rain-forest paganism. Led by keyboardist José Roberto Bertrami, Azymuth provides a convincing blend. The trio uses a fixture of American black pop, the riff, but instead of repeating it unadorned as black groups do, Azymuth expands it by peripheral decoration and harmonic variation. For extra atmosphere on Country Road, bassist Alex Malheiros provides a typically eerie Brazilian scat vocal. Last Summer in Rio and The House I Lived In, both reminiscences of Rio, have a genuine longing about them, as opposed to the manufactured emotion of much of the jazz made by musicians on the Rio/New York/Los Angeles shuttle, or, for that matter, much of American jazz itself. You'll find it easy and rewarding to hear this album many times, at dawn or dusk, alone or in company.

J.V.

RECORDING OF SPECIAL MERIT

RUBY BRAFF: Very Sinatra. Ruby Braff (cornet); Vic Dickenson (trombone); Sam Margolis (clarinet); Dick Hyman (keyboards); Bucky Pizzarelli (guitar); Michael Moore (bass); Mel Lewis (drums). Street of Dreams/The Lady Is a Tramp; Nancy; All the Way; New York/New York/My Kind of Town (Chicago Is); Perfectly Frank; I Hear a Rhapsody; and five others. FINESSE FW 37988, © FWT 37988, no list price.

Performance Handled with care
Recording Very good

Cornetist Ruby Braff was the Scott Hamilton of the Fifties, a young man solidly devoted to, and in full mastery of, a jazz style that many people had more or less relegated to the files of music history. Ignoring the keynote of the day—the flatted fifth that characterized bop—Braff breezed ever so effortlessly and successfully onto the scene with the mellow swing of previous decades. Some thirty years later, the beat goes on. Braff’s latest album, “Very Sinatra,” is a laid-back, thoroughly melodic, and gently swinging tribute to the singer. The arrangements are by Dick Hyman, who is excellent at this sort of thing, and Braff gets exquisite help from such simpatico players as Bucky Pizzarelli, Mel Lewis, and, on two tracks, a fine local vocalist.

A MAN can read the Moore County News in just five minutes. That’s all it takes to keep up with Moore County.

Occasionally, you’ll see a piece on Jack Daniel’s Distillery. Like when Jack Bateman broke his arm rolling barrels to the warehouse. Or when Frank Bobo (our head distiller) had his grandson born. But normally we don’t make the paper much. You see, we’ve been charcoal mellowing whiskey here at Jack Daniel’s since 1866. And according to the editor, there’s no news in that anymore.

If you’d like subscription information on this little paper, drop us a line.

CHARCOAL MELLOWED DROP BY DROP

Tennessee Whiskey • 90 Proof • Distilled and Bottled by Jack Daniel Distillery
Lem Motlow, Prop., Inc., Route 1, Lynchburg (Pop. 361), Tennessee 37352
Placed in the National Register of Historic Places by the United States Government.
trombonist Vic Dickerson. This is mainstream jazz at its euphonious best. C.A.

RECORDING OF SPECIAL MERIT

JOYCE CARR. Joyce Carr (vocals); Dick Thomas (piano), the Bob Vigna Trio (instruments). If You Believe in Me, I Can Love You. Yesterday, Ev’rytime, As Children Do, and seven others. AUDIOPHILE AP-148 $8.98.


Joyce Carr is a lady who seems well on her way to being something of a local legend around Washington, D.C., where she’s been performing for a couple of decades. For a change, the folks in Washington know what they’re talking about. Carr is an extremely fine singer with a wonderfully relaxed and easy style that in no way interferes with her mercurial attention to lyrics, her pure vocal line, or her lovely intonation. She sounds silky and sexy without hitting you over the eardrums with it, and she never, never takes a note or a line. Her version of the Lennon/McCartney Yesterday is perhaps the best I’ve ever heard. I know her I’m Glad There Is You Is. If you like Anita Ellis or Barbara Cook, then you’ll like Joyce Carr.

MILES DAVIS: We Want Miles. Miles Davis (trumpet); Bill Evans (soprano saxophone); Mike Stern (guitar); Marcus Miller (Fender bass); Al Foster, Mino Cinelu (percussion). Fast Track; Jean Pierre (two discs, © C2T 38005, no list versions); Kix; and two others. COLUMBIA C2 38005 two discs, © C2T 38005, no list price.


When it became clear that Miles Davis was going to be gone from the scene for a long time, many of us felt that he would return to take jazz down a new path and make amends for the (con)fusion he started. After all, he had been one of the most influential players the music had known. But many jazz devotees had been disappointed in Miles’ music since his early Seventies rejuvenation at the Fillmore East. Sure, he made some exciting sounds in the “Bitches Brew” days, and he alone should not be held accountable for the inane efforts that subsequently propelled such Davis sidemen as Herbie Hancock and Chick Corea to the surface of popdom. But he was falling into the fusion morass himself at the time of his withdrawal.

If Miles Davis felt that he was stepping off a treadmill in 1976, however, his pathetic return in 1981 reflected no progress. In fact, Davis has never sounded worse, and the man whose sidemen have included John Coltrane, Cannonball Adderley, Ron Carter, and Sonny Rollins is now reduced to the surface of popdom. He was falling into the fusion morass himself at the time of his withdrawal.

PEGGY LEE: You Can Depend on Me. Peggy Lee (vocals); orchestra. Sugar, Gone with the Wind; My Last Affair. I’m Confessin’; I Should Care; That Old Gang of Mine; Someday Sweetheart; Don’t Blame Me; Nice Work If You Can Get It; and six others. DRG MRS 505 $7.98.


The late Irene Kral was a very fine artist, with a durable, beautifully focused voice and an unerring instinct for the sharply shaped phrase. For many years she was a cult favorite, well known only to a small group of people with superior taste in pop-jazz singing. These tracks date from 1963 and were originally released as “Irene Kral: Better Than Anything.” The reissue is one of the more valuable entries in DRG Records’ “Jazz Master” series. Highly recommended listening. 

RECORDING OF SPECIAL MERIT

IRENE KRAL. Irene Kral (vocals); the Junior Mance Trio (instruments). Just For You; No More; This Is Always; Passing By; Rock Me to Sleep; and six others. DRG MRS 505 $7.98.


The late Irene Kral was a very fine artist, with a durable, beautifully focused voice and an unerring instinct for the sharply shaped phrase. For many years she was a cult favorite, well known only to a small group of people with superior taste in pop-jazz singing. These tracks date from 1963 and were originally released as “Irene Kral: Better Than Anything.” The reissue is one of the more valuable entries in DRG Records’ “Jazz Master” series. Highly recommended listening.

RECORDING OF SPECIAL MERIT

PEGGY LEE: You Can Depend on Me. Peggy Lee (vocals); orchestra. Sugar, Gone with the Wind; My Last Affair. I’m Confessin’; I Should Care; That Old Gang of Mine; Someday Sweetheart; Don’t Blame Me; Nice Work If You Can Get It; and six others. GLendale GL 6023 $7.98.


This album contains fourteen previously unreleased tracks by the great Peggy Lee. When, where, or why they were recorded isn’t mentioned, but why look fourteen thoroughbreds in the mouth? It’s the same Peggy Lee of legend who is heard here, with that smoky-topaz phrasing and that sinuously sexy voice. Pick anything on the record—a moody Don’t Blame Me, a jaunty sarcastic Nice Work If You Can Get It, or a merely sublime September in.

(Continued on page 105)
STereo Review Classified


Equipment

Diamond needles and STEREO CARTRIDGES at Discount Prices for SHURE, PICKERING, STANTON, 9AM - 8PM except Sunday. COD service Toll Free 800-221-0906. N.Y. State (212) 871-3303. 9AM - 8PM except Sunday.

Top Quality Speakers and Kits. Send $3.00, Speaker Warehouse, 501 North Route 441, Hollywood, FL 33021.

Stereo Express

Call Now (714) 594-5749
Call Us With Your Best Price
5 Most Ordered Ships Same Day

Yamaha - Adcom - Onkyo - Sony - Harman - JBL
Path Line Exhibits - JVC - Sansui - SAE - JBL - Audio - Concord
Ortofon - Technics - Micro Seiki - Energy - Sansui - Axcess

Video

Sony - RCA - JVC - VCR's - Cameras
Black Tape Auto - Attari & Matt Video Games
Call or Write For Price Quotes
709 Green Canyon Rd., Suite 5, Walnut, CA 91789


Hafler in Stock Trades Accepted. More Electronics. 57 Park Place-8R, New York, NY 10016. (212) 964-4570.

3D, N.A., Mission, Amper, Ohm, Thiel, Astac, etc. Shipping paid. Audio File, 1202 South Congress, Austin, Texas 78704. (512) 433-9295.


Philips, Audax and Dynaudio loudspeakers. In stock with good prices and competent service. Crossover components also. MADISON SPEAKER COMPONENTS, 8992 Table, Austin, Texas 78751. (512) 767-2673.

Before You Buy — Check Our Prices. Send for free catalog featuring audio and video equipment at discount prices. Discount World, P.O. Box 191, Mineola, NY 11501.

We Have It All! Audio and Video Tape, Accessories, Recording Equipment. Fine Audio Components. KNOWLEDGEABLE SERVICE AVAILABLE — Free Buyers Guide SOund Ideas, Dept. SR, Box 671, Cary, NC 27511-0671 (919) 467-8462.


East. (904) 262-4000; West: (213) 243-1168.


QUALITY USED AUDIO EQUIPMENT! Newsletter: hundreds of listings. Items for sale, items sought, published 6X annually. SEND YOUR LISTINGS TO: SRC Audio, 3238 Davis Dr., Columbus, Ohio 43229. (614) 329-7206.

Cable TV Converters & Equipment. Plans and Parts. Build or Buy. For more information send $2.00. C & D ELECTRONICS INC, P.O. Box 21, Jenison, MI 49428.

We will NOT BE BEAT! Lowest Prices Anywhere! Select your equipment — Fast Delivery. Hi-Fi, H-End, Car Products and Video. Call Now, (213) 934-5291. AUDIO PEOPLE, 1000 Orange Avenue, West Haven, CT 06516.

So What's New?? Consider the following — DIRECT AUDIO PEOPLE. 1000 Orange Avenue, West Haven, CT 06516. More. Save 60% to 75%, Build Your Own Speaker System. 1/2" & 1" drivers, many kits, information, full service. MADISOUND SPEAKER COMPONENTS. 593-B King Street. Charleston, South Carolina 29403. (803) 787-0651.

Audio Accessories


Woofer-Pads-Tweeters-Drivers. All NEW! CATALOG featuring the largest selection of brand name speakers and accessories. Send $1.00 for Catalog. Soundbox, Dept. S911 S. Carlisle, Philadelphia, PA 19146.

Cable TV Converters & Equipment. Plans and Parts. Build or Buy. For more information send $2.00. C & D ELECTRONICS INC, P.O. Box 21, Jenison, MI 49428.

MADISOUND. We have it all! Audio and Video Tape, Accessories, Recording Equipment. Fine Audio Components. KNOWLEDGEABLE SERVICE AVAILABLE — Free Buyers Guide SOund Ideas, Dept. SR, Box 671, Cary, NC 27511-0671 (919) 467-8462.


East. (904) 262-4000; West: (213) 243-1168.

POWER AMPLIFIER MODULE STK 2070, $235. Complete line up to 200 watts. Call Toll FREE 1-800-458-6053.
Pennsylvania, (814) 837-6828. Picture of the $90.00 home stereo receiver. B&O ENTERPRISES, Box 305, Kane, PA 16735.

STereo & TAPE OUTLET

Tape Delay/Ambience Superiors: Sensation, Realism, Frequency Response, Versatility, Dynamic Range.

Time delay is new to consumer audio. Recording Studios have been using it for 30 years. We have developed much more realistic system that can be presently offered for consumer use, with One notable exception...Our TAK! Call or write for a 24 pg brochure on our line of 14 present and 10 on display of the NEWEST and most advanced tape delay/ambience system. contact your local TAK distributor of TAK. A new dawn in tape delay/ambience systems. For details, contact the manufacturer,inc. 2700 W. Wabansia Avenue, Chicago, IL 60647. (312) 872-8722 VISA/MC.

REMOVES VOCAL FROM MOST STEREO DISCS

TDX AD C-90

TAPES & RECORDERS

OPEN REEL TAPES: Prerecorded Catalogue: 1,000 Bar-Crocker, Room 117, 11 Broadway, New York, NY 10004.

30 DAY MONEY BACK GUARANTEE
SOUND COMPONENTS - DIRECT - DISC. DIGITAL. Half-speed mastered. DBX encoded, and YSL Japanese Pressings. Send $1.00 for catalog. DISConnection. P.O. Box 10705, Tampa, FL 33679.

RECORDS
SHOW ALBUMS. Rare, Out-of-Print LP's. 64 pg. list. $1.00. Broadway/Hollywood Recordings. Georgetown, CN 60629.
ORDERS, Box 4347, Grand Central. New York, NY 10163.

RECORDS


TAPES & RECORDERS


QUALITY TAPES, DEPT. SRI
864 East 7th Street, Brooklyn, NY 11220

JBL SA600 AMPLIFIER: COLLECTORS ITEM! All original and fully operational, owners manual, schematic. Best offer over $1200. (215) 777-1217 after 6pm EST.

JBL SA600 AMPLIFIER: COLLECTORS ITEM! All original and fully operational, owners manual, schematic. Best offer over $1200. (215) 777-1217 after 6pm EST.


POWER AMPLIFIER MODULE STK 2070, $235. Complete line up to 200 watts. Call Toll FREE 1-800-458-6053.
Pennsylvania, (814) 837-6828. Picture of the $90.00 home stereo receiver. B&O ENTERPRISES, Box 305, Kane, PA 16735.
BOOKS & MAGAZINES
PUBLISHERS: OVERSTOCK BARGAIN BOOKS 2,000 titles, all subjects! Free catalog: Hamilton's, 98-58 Clapboard, Danbury, CT 06810.

EDUCATIONAL OPPORTUNITIES
LEARN WHILE ASLEEP: Hypnotize! Astonishing details, strange catalog freerAutosuggestion, Box 24-ZD, Olympia, Washington 98507.

PERSONALS
MAKE FRIENDS WORLDWIDE through international correspondence. Illustrated brochure free. Hermes-Verlag, Box 10602/D-1000 Berlin 11, W. Germany.


CORRESPONDENCE FOR FRIENDSHIP IN PHILIPPINES, MALAYSIA. Free information. AAWS-(SR), Box 2777, Currat, California 93455-0777.


FREE CHAMBER MUSIC RECORD CATALOG. Free record mailout: Box 98-78, Mt. Vernon, III. 62864.

FOR INVENTORS
INVENTIONS WANTED
FREE CONSULTATION • NO IDEA TOO SMALL
Disclose the innermost secrets of your mind and be rewarded for your efforts. We pay royalties on every new invention. Free facts now! For your free information kit, call (212) 725-6000.

AMERICAN INVENTORS CORP.
59 Interlake Drive, Dept SR
West Springfield, MA 01089 (413) 737-5767
A Free Based Marketing Company

RUBBER STAMPS
RUBBER ADDRESS STAMPS, BUSINESS CARDS. Free information. BARRINGTON STAMPS, 417 82nd Street, Brooklyn, NY 11209.

MISCELLANEOUS
FREE-promotional albums, concert tickets, stereos, etc. information: BARRY PUBLICATIONS, P.O. Box 43, Mt. Vernon, Ill. 62864.

IDEAS: INVENTIONS, new products wanted for presentation to industry. Call Free 1-800-528-6050. Arkansas 1-800-352-0456 X831

DEALERS! SELL STEREO REVIEW in your store and make big profits on every copy. We pay all shipping and give you a FREE display rack. Minimum order 8 copies/issue.

FOR DETAILS, CALL COLLECT:
(212) 725-7518

STAND OUT FROM THE CROWD! Now your Expand-Ad® can be more outstanding on a BENDAY screened background like this! Call (212) 725-3927 for more information.

DEALERS! SELL STEREO REVIEW in your store and make big profits on every copy. We pay all shipping and give you a FREE display rack. Minimum order 8 copies/issue.

FOR DETAILS, CALL COLLECT:
(212) 725-7518

the Rain—and you'll soon hear why the fuss has been made about this lady's spec- tacular talents. In 1946 (!) Lee was voted the Best Female Vocalist of the Year by Down Beat magazine. Since all of the cuts on this new disc are being released for the first time, I suggest we enter her for a 1982 award. Lovely stuff.

RECORDING OF SPECIAL MERIT
JOHN MCLAUGHLIN: My Goals Beyond. John McLaughlin (guitar, percussion), instrumental accompaniment. Peace One: Peace Two; Goodbye Pork-Pie Hat; Something Spiritual; Hearts and Flowers; Philip Lane; and four others. ELEKTRA/MUSICIAN E1-60031 $8.98, © E4-60031 $8.98.

Performance Excellent Recording: Excellent The reissue of this long-deleted classic offers a rare second chance for every serious jazz and guitar lover—and it is a positive statement about the direction of Bruce Lundvall's new Musician label. "My Goals Beyond" (or "My Goal's Beyond," as it was originally punctuated) was McLaughlin's first acoustic album, and its personnel were the precursors of the Mahavishnu Orches- tra, with Billy Cobham on drums and Jerry Goodman on violin. It also features Dave Lieberman, Charlie Haden, and Airto. Side one is solo McLaughlin interpreting works by Charlie Mingus, Chick Corea, and Miles Davis as well as his own compositions. They are moving and remarkable performances. The second side (Peace One, Peace Two) is an extended meditation inspired by and using the modalities and instruments of Indian music. Seldom has a group of jazz players moved onto new turf so confidently and brilliantly.

My old copy of "My Goal's Beyond" is among the most worn records in my collection. If you've worn yours out too, or if you missed it eleven years ago, you've just gotten lucky.

M.P.
Somehow My Funny Valentine crept into Mel Lewis' latest album on the Finesse label, but the rest is all fresh material from the imaginative pen of Bob Brookmeyer, the Jazz Orchestra's musical director. Written with specific soloists in mind, the five original tracks feature Dick Oatts on alto saxophone (Make Me Smile), Tom Harrell on flugelhorn (Nevermore), Joe Lovano on tenor saxophone (The Nasty Dance), Jim McNeely on piano (McNeely's Piece), and Brookmeyer on trombone and Lewis on drums in the two-part final track (Goodbye World).

The recording was made at New York's venerable Village Vanguard, a curvy hole of a jazz club that almost defiantly stays alive against all the laws of acoustics. Brookmeyer's charts are a joyful blend of whimsy and seriousness, reflecting an unjaded imagination and a sharply focused historical perspective. The soloists play appropiately, and the ensemble passages are often exquisite (listen to the Ravelian buildup that nearly ends The Nasty Dance). It all adds up to the most interesting Mel Lewis album to date. —Chris Albertson


Recordings of Special Merit

GUY VAN DUSER: Stride Guitar. Guy Van Duser (guitar), Billy Novick (clarinet, soprano saxophone). That Certain Feeling, smart, and just right. Mel Lewis

RECORDING OF SPECIAL MERIT

GUY VAN DUSER: Stride Guitar

There's enough good music in "Offramp" to write about for pages and pages, but one composition in particular seems to distill Metheny's invention, emotion, and intelligence. Au Lait is an enchanting nocturne that's pinned down at the outset by, of all things, a feathery snare drum. Like the rest of "Offramp," it works because it's surprising, smart, and just right.

M.P.

Awards' Index
Hi-Tech Midi Compo

THE NEW DIMENSION FROM SANSUI

Good music wherever you want it. That's Midi Compo, one of the new Sansui Hi-Tech Compo series. Great sound and simple operation, ensured by Sansui's know-how in developing and using advanced technology.

Midi Compo is programmable throughout. By presetting up to 10 of your favorite stations (5 AM and 5 FM), you can instantly tune any one at the touch of a button. Or pick selections on a record, in the order you want to hear them on a quartz-locked turntable. The Midi Compo's cassette deck with exclusive Sansui Compu Edit will then tape them in that order, automatically.

Sansui Midi Compo also includes a powerful amplifier and bass-enhancing speakers to give you the full feel and impact of the music. In any room.

See and hear the new dimension in sound at your authorized Sansui dealer today.

SANSUI ELECTRONICS CORPORATION
Larchurst, NJ 07071, Gardena, CA 90248
Sansui Electric Co., Ltd., Tokyo, Japan
Protect Your Stereo System and Maintain Its Sound

The D4™ Record Care System
The highly active D4 fluid and unique directionally fibered pad removes harmful microdust and debris that can cause permanent damage to your recordings.

The SC-2™ Stylus Care System
SC-2 fluid with the exclusive nylon fibered brush effectively loosens and wipes away stylus contamination, a major contributor to record wear.

The Discwasher® D4 Record Care System and the Discwasher SC-2 Stylus Care System are available separately or together as DiscSet™.

For a free copy of our "Guide To Record Care" write to Discwasher.