

IN A SEA OF COMPETITORS AND CLAIMS, EXCELLENCE SURFACES.

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Bulletin

Edited by Christie Barter and Gordon Sell

- MUSIC VIDEOS from Sony have nearly doubled in number since the company signed late last year with Capitol Records' subsidiary Picture Music International. Under the new agreement Sony is releasing on its Video 45 label music-video clips of over a dozen Capitol artists, including Ashford and Simpson, David Bowie, Sheena Easton, and J. Geils Band. Many of these have been shown recently over MTV, but this is the first retail offering, in both VHS and Beta formats. And China Girl, included in the David Bowie video, is an uncut version heretofore censored by MTV....Sony is also entering the classical market with a two-hour "Horowitz in London" Video LP. The suggested list price in both VHS and Beta is \$39.95.
- GET 'EM WHILE THEY'RE HOT: For reasons unfathomable to the staff of STEREO REVIEW, Sanyo has discontinued production of the Beta Hi-Fi VCR that we tested for our December 1983 issue and featured on the cover. The warehouse is out of stock, but there may be a few left in stores. It is being replaced by a \$699 table-top model.
- GOLD ALBUMS certified by the RIAA toward the end of last year were Linda Ronstadt's collection of 1940's standards, "What's New," on Elektra/Asylum and two new-music LP's—Talking Heads's second album for Sire/Warner Bros., "More. Songs About Buildings and Food," and the Eurythmics' RCA debut, "Sweet Dreams." British hard-rockers Def Leppard took one of three Platinum awards for "High 'n' Dry" on Mercury. The other two were Culture Club's "Kissing to Be Clever" (Virgin/Epic) and Bonnie Tyler's "Faster Than the Speed of Night" (Columbia).
- TECH NOTES: Prices of Compact Disc players are continuing to drop. Sanyo has announced a \$549 CD player, and Sherwood will sell a minimal-features player for \$499. Over the Christmas selling season Sears was offering its \$589 player for \$489....Pioneer has announced plans to add Compact

- Disc manufacturing facilities to its laser video-disc plant.... The National Association of Broadcasters is urging radio manufacturers to develop receivers that can handle all the different types of AM stereo broadcasts....The Multichannel Television Sound Subcommittee of the Electronic Industries Association has completed its tests of the various stereo TV broadcast and noise-reduction systems. As soon as various industry representatives have voted to register their preferences the results will be presented to the FCC. It is hoped that the FCC will then issue a ruling that concurs with the EIA vote....At the Berlin audio/video show Philips showed a prototype car stereo CD player....Watch for Proton's entry into the home audio market....International Electrical Technology has developed a circuit that will add a Nakamichi-like coded security system to make any microprocessor-controlled device useless to a thief who doesn't know the code.
- THE VIDEO DISC market is heating up, with very aggressive RCA promotions leading the way. RCA's leader-model player now sells for \$199, many discs for \$19.95. The proportion of stereo music software is increasing rapidly. Pioneer Video is expected to introduce a compact, front-loading LaserVision player with a cheaper, more efficient semiconductor laser rather than the current helium-neon gas laser.
- THE BOSTON POPS has signed a new three-year contract with Phonogram International calling for three LP's a year. One of the first will be an album by Jessye Norman and the orchestra in a program of songs by Gershwin and other popular American composers.
- HAPPY BIRTHDAY this month to Antoine "Fats" Domino and Leontyne Price, both 56; to baritone Sir Geraint Evans, 62, and to Sir John Pritchard, principal conductor of the BBC Symphony, one year his senior; to former Beatle George Harrison, who will be 41, and to Peter Gabriel, ex-Genesis, 34.

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Speaking My Piece

By William Livingstone



At the Klipsch speaker plant in Hope, Arkansas

MUSICAL DEBTS

T's hard for me to imagine anyone's getting tired of music. For one thing, it offers such variety. Samuel Johnson said, "When a man is tired of London, he is tired of life, for there is in London all that life can afford." Music, too, it seems to me, can add a larger dimension to almost every aspect of life.

But in the late Seventies the American public did seem to tire of music. Stars faded, talent dwindled, rock faltered, disco disappointed us, and hype bored us. Pessimists declared the end of a musical era had come and henceforth youth would look to video games for all that life can afford.

Fads like hula hoops, citizen's band radio, and video games come and go, but music endures. After a brief fallow period, music on records has bounced back with great resilience.

The emergence of new artists and groups is reflected in our Record of the Year Awards (see page 65). On a couple of these we agree with the mass audience. An award is going to "Synchronicity" by the Police, which has sold enough copies to become a Platinum record. Another goes to Michael Jackson's "Thriller," the biggest-selling album in CBS Records' history.

It would have been hard for you to escape noticing "Synchronicity" and "Thriller," but awards in many cases serve to call attention to records you might otherwise have missed. Mark Knopfler's soundtrack for Local Hero might easily have slipped by you, and you'd be musically poorer if you didn't hear Susannah McCorkle's "The People That You Never Get to Love."

In the classical field an artist so new to the American music world that she has not yet performed in this country is the French pianist Cécile Ousset. Our critics love her recital of French piano music, and we're giving it an award. The conductor Charles Dutoit, who

has been getting rave reviews in our pages, is receiving his first award from us for works by Manuel de Falla on London.

Neville Marriner, a conductor long familiar to classical record buyers for his work with the Academy of St. Martin-in-the-Fields, has branched out in new directions and is receiving two awards from us this year. One is for a twentieth-century ballet, Stravinsky's *Pulcinella*, on Angel, and the other is for his first operatic recording, Rossini's *Barber of Seville*, on Philips.

So established stars continue to shine, new talent begins to twinkle, and there is plenty of exciting music for us to write about. The awards give us an opportunity to pay back artists in a small way for what they have brought into our lives.

I am moved by my colleagues' voting for Frank Sinatra to receive our special award for outstanding contributions to the quality of American musical life. When a public figure grows as big as Sinatra, we often forget that he has feelings. I hope it will please him that music journalists have chosen to thank him in this way for decades of explaining our lives to us through the American popular song.

Mabel Mercer's influence is felt in the work of Sinatra and many other current singers. I am one of the lucky ones who have heard her many times in live performance, and I feel tremendously indebted to her. It gave me great pleasure that receiving our first lifetime achievement award brought about a late flowering in Miss Mercer's career. Sinatra is the tenth recipient of that award, and because of his musical debt to her, this year we are renaming the honor the Mabel Mercer Award. I hope this gesture will please her. I'd like to think of it as a small down payment on my musical debt to her.

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Rory Parisi

If noise, hum and distortion turn you off, turn on Sansui's new AU-D77X* integrated amplifier for pure, true sound.

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Sansui's new GF amplifiers depart from the conventional to assure inaudible distortion even at the highest level of sound.

THE SILENT TREATMENT

distort on. (You also get this impeccable performance with Sansui's 130-watt* top-of-the-line AU-D11 MK II integrated amp.)

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Letters

Hi-Fi Shopping

• I have just started on another perilous adventure: I'm going to shop for a new piece of audio equipment. This should be fun, which it is, but it is also very frustrating and confusing. Audio salespeople seem to be in the same class as car salesmen-and you know their reputation. A piece of gear that's highly recommended by one is called a piece of junk he wouldn't have in his house by another. At one store you're told that you need a certain amount of power for your speakers or that one type of cartridge is vastly superior to another, and at a different store the answers to the same questions are just the opposite. And if you venture into the rarefied atmosphere of high-end or audiophile equipment, it becomes an even more confusing bucket of worms.

When I turn to the audio magazines, I find that you guys like everything. You may not like a particular feature, but the product being reviewed is always "worth consideration" or "may be of interest."

May I take it, then, that if you print a review of a product it has your approval and that if something never gets reviewed I should leave it alone?

STAN DAVIS Buena Park, Calif.

Last month's article on "How to Deal with Your Audio Dealer" should provide some help for confused shoppers. As to whether we "like everything," you can assume that anything we review in our equipment test reports is "worth consideration." Whether it is best for you, only you can decide. With thousands of hi-fi products introduced each year, we can only test a small, representative sample.

Cassette Fans and Foes

• Why is it that even some major record companies still insist on issuing LP's without a cassette version? My dealer tells me that cassettes are outselling LP's by three to one and that distributors are having trouble keeping up with the de-

mand. I've even found some recordings where there is an eight-track cartridge available but no cassette. My dealer doesn't even sell eight-tracks any more because no one ever asks for them.

Some of the small record companies are very selective about what they put on cassette. If they can put some recordings on cassette, why not all of them just as easily? And there are some really small independent companies that don't put any of their recordings on cassette; I don't know how they can survive that way. Why not go where the sales are and give people what they want? At least give people a choice!

Tom Shouse Lake Park, Fla.

• I'm ticked off that the cassette version of the Electric Light Orchestra's recent album "Secret Messages" has an extra song, *Time After Time*, that's not on the LP. Whoever started this practice is a total jerk! Don't forget that many of us still prefer to buy records. If this continues much longer, I'll stop buying records and resort to home taping. I refuse to be ripped off as a record buyer!

TODD Post Moorhead, Minn.

Labels of Special Merit

• Two jazz labels have received high marks from STEREO REVIEW's critics month after month, Pablo and Concord. I

THE "T" SERIES TURNTABLES STATE-OF-THE-MIND TECHNOLOGY

Thirty years ago Harman Kardon introduced the world's first high fidelity receiver. It was built on the philosophy that quality audio must evolve from quality thinking. Today, Harman Kardon products are so technologically advanced that "state-of-theart" falls short of describing them. They have become "state-of-the-mind," the highest level at which the mind can create

The "T" Series turntables are true examples of "state-of-the-mind" technology. All three incorporate belt driven, massive platters. The belt drive acts as a vibration damper which filters out the unwanted vibrations from the motor.

Harman Kardon has discovered that the more massive the platter, the more constant the speed. For example, the top-



of-the-line T-60's platter weighs 3.3 pounds and is, therefore, less affected by outside forces. Each "T" Series turntable is fitted with a straight, low mass tonearm and a vibration absorbant carbon fiber headshell. They have an effective mass of only 8 grams to better track warped records and keep resonant frequencies in the

One of the many performance features
Harman Kardon offers is a unique capacitance
trim to achieve optimum cartridge performance.

So, while other manufacturers continue to pile on unnecessary features and gimmicks, Harman Kardon continues to fine tune the basics and develop fundamentally advanced audio equipment.

The "T" Series Turntables: T-25, T-35, T-45, T-60

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Music is truly an art. However, bringing that art to you in your car is pure science. No one knows that better than Delco Electronics.

For example, Delco engineers work with General Motors divisions when a car is still on the drawing board to scientifically design the location, mounting, size and shape of every speaker to match that vehicle's acoustics. A Delco Music System is not an afterthought. It is literally designed into the car.

And because we know the electrical system of GM cars, we also build impulse noise blankers into Delco Music Systems to minimize interference.

Finally. Delco's Electronically Tured Receiver (ETR™)

contains audio-processing and computerized signalprocessing circuits that help improve reception and automatically lock in a station, keeping it from "drifting"



as you drive.

Delco Electronics is truly a leader in automotive electronics technology. When you buy your new car or truck ask your dealer to demonstrate the science of a Delco Music System (including the incredible Delco-GM/Bose Music System).





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music and none of the tape. Make the switch today to the world's quietest tape. BASF Chrome.

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nominate them as "Best of 1983." Congratulations to all concerned!

DENNIS R. HENDLEY Milwaukee, Wis.

Realistic Imaging

 A plea to recording engineers who work on classical and jazz recording sessions: please resist the temptation to put a piano's treble notes in the right speaker and the bass notes in the left speaker while stringing the midrange across the room between them. The same goes for other instruments: no matter how many microphones you use, mix them down to a discrete location on the imaginary stage. A recording of a jazz trio, for example, could have the piano a little to the left of center, the traps somewhat to the right, and the horn in between. The more common approach results in what seems to be a fifty-foot-wide piano surrounded by six underemployed percussionists with a saxophonist huddling in forlorn focus among them. Similarly, any small ensemble that's recorded with extra ambience, as though in a large hall, should be presented close to the center, not spread out.

Most of us want to be able to close our eyes and imagine that the performance is taking place in front of us. I would guess that the larger market for pop music, with its hunger for dramatic effects, has tended to corrupt recording techniques for other kinds of music. The improved dynamic

range of digital recordings has been a big step forward. Scrupulous attention to more realistic imaging would be a great next step.

J. M. RATHBUN Cumberland, Wis.

Disc Disillusionment

● I am looking forward to the early demise of the analog LP disc. The record manufacturers have taken a technically adequate, convenient medium and made it inferior and cumbersome. They have spawned a whole new industry making expensive record cleaners and destaticizers by eliminating the antistatic ingredient used in older vinyl records. The reason given for this, that the market will not bear the cost, carries no weight, as witness the \$18 premium discs now successfully marketed.

More recently, many manufacturers have done away with the automatic sequencing on multiple-disc sets in favor of manual sequencing. Many hi-fi addicts probably got rid of their fine automatic changers in favor of "technically superior" single-play turntables. I too bought a manual but stored my changer in the attic. I found that the well-reviewed manual that I bought for more than \$300 was not superior, and I had lost the convenience of automatic record changing. I promptly sold it at a loss of 70 per cent and reinstalled my changer.

So bring on Compact Discs. When

PCM tapes are standardized, I will copy my old discs and then out they'll go. The only question remaining is whether the manufacturers will find some way to trash up the CD medium.

RICHARD E. ANDRES Howell, N.J.

Corrections

- Our December 1983 test report on the Nakamichi TD-1200 car stereo included a criticism of the unit's 3-minute turn-on delay, which appeared to occur with each use. The ambiguously worded instruction manual suggested that this was normal operation, and a Nakamichi representative verbally confirmed this. In fact, however, the delay feature is activated only the first time the system is used after installation or after it has been completely disconnected from the car's battery. Normally the TD-1200 is fully operational as soon as the car's ignition is turned on and the stereo system's built-in burglar alarm has been de-activated by punching in a numerical code. This correction removes our only significant criticism of this fine car stereo component.
- The violinist pictured with Itzhak Perlman in the photograph on page 78 of the January issue, accompanying the review of Deutsche Grammophon's Huberman Festival album, is the recently beardless Pinchas Zukerman, not, as stated, Ivry Gitlis. We regret the error.

When you tape your music with a dbx Noise-Reduction System, you'll play back something only dbx can give you. An exact copy of the original. Because only dbx allows tape to capture the full 90dB dynamic range of digital compact discs. While completely eliminating hiss. Same goes for albums and broadcasts. Try a dbx NX-40, 222, or 224 Noise-Reduction System with your tape deck. They give ordinary tape extraordinary sound. For our full-line brochure, call or write: dbx Inc., 71 Chapel Street, Box 100C, Newton, MA. 02195. 617-964-3210.



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GREAT SOUND FOR EVERYONE

It's called a Subwoofer. And, normally it is the beloved pet of only the most ardent audiophiles.

It is not generally understood that it can be used with virtually any speaker systems in any stereo. And, in addition to substantially increasing and perfecting the bass response, it also has a significant impact on the midrange clarity too.

Before I tell you exactly how marvelous your stereo will sound when you connect this Subwoofer to it, there are two things you should know.

First, you'll be getting your new friend at a large discount. Over 50% off retail. And Second, you won't have to worry about paying vet bills.

Your new friend comes complete with a paid up health insurance policy in the form of a 5 year limited warranty from its father, Cerwin-Vega.

And, after 25 years, Cerwin-Vega certainly qualifies as the father of deep rich bass. Their disco systems have just about shaken California right into the ocean.

But, don't be misled. Cerwin-Vega bass is clean and tight; never sloppy or overpowering. It adds a feeling of depth and fullness to your music that you simply can't get with conventional two or 3way speaker systems.

HERE'S WHAT IT DOES

Basically, the problem with most speaker systems is that the bass overpowers the system. In a 3-way system, a woofer may be crossed over at about 800hz. And, in a 2-way system as high as 2-3000hz.

So, the speaker must handle movements of up to an inch at frequencies below about 80hz, while at the same time attempting to reproduce the very fine vibration type movements of the midrange frequencies.

It is this difference in movements that causes both the bass to be weak or nonprecise, and the midrange to become muddy. Even the best 3-way systems fall prey to these problems.

PROBLEM SOLVED

It has a specially engineered crossover network that sends frequencies above



120hz to your regular speakers and reproduces just the mammoth movement frequencies from 120hz down to 29hz with a special floor firing dual wound super woofer. (If you have downstairs neighbors, this Subwoofer isn't for you.)

The woofer is a very special hybrid. It has a mammoth two inch voice coil which is about double the average size of a woofer in a two or 3-way system.

This large voice coil allows the speaker to make the very large movements required to reproduce the very low frequencies.

But, it would do a lousy job of reproducing midrange or high frequencies which is why, cost aside, manufacturers don't put big coils in normal woofers.

To make the massive movements, this woofer has a very large speaker magnet that weighs an incredible 112 ounces. This super magnet also makes the subwoofer system extremely efficient. (The

PUPPY LOVE AT 50% OFF



Here's a 'floor's eye view' of the subwoofer. The woofer is positioned just 3" off the floor. You'll feel and hear bass so alive, you'll think it is

sensitivity is 92db at 1 watt at 1 meter). Finally, even the cabinet is special. It produces extremely high bass efficiency which is derived from the Helmholtz resonator design. In fact, this is the newest of Cerwin-Vega's Subwoofers, the SW12B and it has an increased output of 2db at 30hz over the original SW12.

So, whether you have two or threeway speaker systems, with 8", 10" or 12" woofers, you will find the sound and sonic differences staggering.

EASY HOOKUP

It's easy to connect. You simply run both the right and left channels from your amplifier to the input terminals of the woofer. It works with any system from 15 to 125 watts per channel.

The signal is passed through its special massive crossover network to two totally separate voice coils on the woofer. Then you connect the speaker wires from your two stereo speaker systems to the output terminals on the Subwoofer and only the 120hz signals and above reach your speakers.

Placement of your regular speakers is just as critical as usual for stereo imaging, but the Subwoofer can be placed anywhere because low frequency material is totally nondirectional.

The Subwoofer makes a perfect end table or cocktail table. Its rich woodtone appearance matches any decor and it is 25½" long, 13¼" high and 16¼" wide.

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INDUSTRIES INCORPORATED

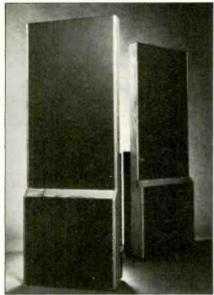
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New Products

Latest Audio Equipment and Accessories

Curved-Diaphragm Martin-Logan Electrostatics

☐ The Monolith speaker system from Martin-Logan combines a mylar electrostatic membrane for the high and middle frequencies with a moving-coil driver for



the bass frequencies. The crossover network—which contains more than 20 pounds of large-gauge, high-purity copper wire in the low-pass inductor alone—is said to assure smooth transitions, tight damping, and high resolution. The electrostatic membrane is curved to produce a cylindrical wavefront with a dispersion angle of 30 degrees. The Monolith measures 6 feet 3 inches high, 25 inches wide, and 13½ inches deep. Price: \$4,250 per pair. Martin-Logan, Dept. SR, 320 N.E. Industrial Lane, Lawrence, Kan. 66044.

Circle 120 on reader service card

Sony Digital Processor For Home Recording

☐ Used together with any standard video-cassette recorder, Sony's PCM-701ES digital-audio processor makes home digital-audio recording possible with switch-



able fourteen- or sixteen-bit encoding. The unit features direct digital output for dubbing and twenty-eight-segment peak-level meters. Finish is black anodized aluminum. Dynamic range is given as greater than 90 dB with sixteen-bit encoding or greater than 86 dB with fourteen-bit encoding. Frequency response is 10 to 20,000 Hz ± 0.5 dB; harmonic distortion is less than 0.005 per cent (sixteen-bit) or 0.007 per cent (fourteen-bit); wow-and-flutter is below measurable levels. Price: \$1,200. Sony Consumer Products, Dept. SR. Sony Drive, Park Ridge, N.J. 07656.

Circle 121 on reader service card

Mission's High-End One-Brand System

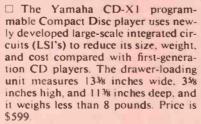
☐ The new one-brand audio system from Mission Electronics, the System 1, combines a moving-magnet cartridge, a direct-coupled tone arm, a belt-driven turntable, an integrated amplifier, multistranded speaker wire, and a pair of two-

way speakers in a complete package that is ready to hook up, plug in, and play. The Model 773 cartridge has a rated frequency response of 10 to 28,000 Hz and channel separation of 28 dB at 1,000 Hz.



The stylus is a 0.3-mil elliptical diamond. The cartridge is mounted in Mission's 774LC tone arm, which has a rigid two-plane symmetric and concentric gimbel design. The offset angle of the adjustable headshell is 23 degrees 45 minutes. Effective arm length is 228 millimeters, and effective mass is 7 grams. The arm is mounted on the Model 775 turntable, which has a rated speed accuracy of 0.15

Yamaha's Sma<mark>ller,</mark> Lighter, Lower-Cost Compact Disc Player



The CD-X1 has a three-beam laser pickup that is said to improve tracking of dirty or imperfect discs. The LSI's are used for signal processing, servo control, and digital filtering. The sampling frequency has been doubled, from 44.1 to 88.2 kHz, which is said to double the playback-signal resolution and to permit the use of a simple low-pass analog filter for reduced phase distortion. Frequency response is giv-

en as 5 to 20,000 Hz ±0.5 dB with less than 0.004 per cent total harmonic distortion. Rated dynamic range is

better than 95 dB, and wow-and-flut-

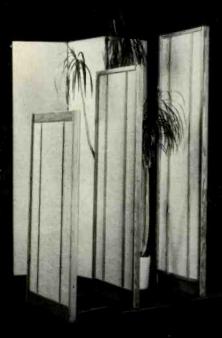
ter is said to be unmeasurable.

The CD-XI can play up to twenty-three tracks in numerical order while omitting unwanted tracks. The entire disc or any part of it can be repeated automatically, and play can also be controlled by an external timer. Discs can be scanned in either direction with the audio output muted by 20 dB. Displays include the number of tracks, the number of the current track, total time of the disc, elapsed time of the current track, and total remaining time. Yamaha Electronics, Dept. SR, 6660 Orange-thorpe Boule-

vard, Buena Park, Calif. 90620.

Circle 122 on reader service card

Willie Nelson, Issac Stern and 50,000 music lovers have something in common.



They own Magneplanar® speakers.

III MAGNEPAN

1645 9th Street White Bear Lake, MN 55110

CIRCLE NO. 2 ON READER SERVICE CARD

New Products

per cent and less than 0.1 per cent (DIN) wow-and-flutter. Rumble is -75 dB.

The Model 778 integrated amplifier delivers 50 watts per channel into 8 ohms from 20 to 20,000 Hz with less than 0.1 per cent total harmonic distortion. The amplifier has three large knob controls for volume, selection of input sources. and tape dubbing. A special input allows the signal from a Compact Disc player to bypass the preamplifier stage. The amplifier is connected to the Model 70 II speakers with Mission Speaker Wire, which has two pure-copper conductors woven of 1,000 strands each. The speakers have 61/2-inch woofers and 19-millimeter dome tweeters with ferrofluid damping. Nominal impedance is 8 ohms, and harmonic distortion (measured at 90 dB) is around 0.5 per cent. Sensitivity is given as 89 dB. Price for the entire system: \$1,299. Mission Electronics, Dept. SR, Carlingview Drive, Rexdale, Ontario. Canada M9W 5G1.

Circle 123 on reader service card

Hafler Preamplifier Is Designed for Simplicity

☐ The DH-100 preamplifier from the David Hafler Company, available either factory assembled or in kit form, uses simple circuitry and carefully selected components for low noise and distortion. According to the manufacturer, its "audible characteristics" are free from all aber-



rations; SMPTE and CCIF intermodulation distortions are said to be too low to be measured. Specifications, assuming a load representing a typical power amplifier's input and a bandwidth of 20 to 20,000 Hz, include 3 volts rms rated output, 8 volts rms maximum output, 0.005 per cent harmonic distortion, and 100 dB signal-to-noise ratio.

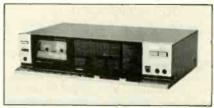
The "no-frills" unit has a minimum of knobs and switches. The bass and treble tone controls have ranges of ± 12 and ± 15 dB, respectively. Inputs are provided for one tape deck, tuner, phono, and aux. There are two switched power outlets on the back panel, and a delay circuit prevents turn-on noises. There is a single glass-epoxy circuit board. In the kit form, most of the components are already mounted and tested; final assembly is said to take only one evening's work. Price: factory assembled, \$199.95; kit,

\$149.95. David Hafler Company, Dept. SR, 5910 Crescent Boulevard, Pennsauken, N.J. 01809.

Circle 124 on reader service card

Aiwa Cassette Decks Have Keyboard Controls

☐ Two new twin-head cassette decks from Aiwa feature both Dolby-B and Dolby-C noise reduction and automatic selection of correct bias and equalization

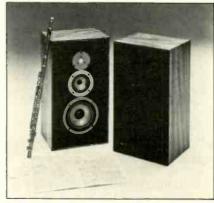


for normal, chrome, and metal tapes. The AD-F330 (shown) has IC logic with a keyboard control panel and a bias fine-adjustment guide for specific brands of tapes. It also features automatic record mute, timer standby for recording or playback, and sliding record-level controls. The AD-F220 deck features soft-touch controls on an angled panel for easy access. Levels are shown on a "peak-step" LED display. Like the AD-F330, the AD-F220 has bias fine-adjust for normal and chrome tapes. Prices: AD-F330, \$225, AD-F220, \$160. Aiwa America, Dept. SR, 35 Oxford Drive, Moonachie, N.J. 07074.

Circle 125 on reader service card

Infinity Speaker Has Polypropylene Drivers

☐ The new Infinity RS8a is a three-way bookshelf speaker system with a 6½-inch polypropylene woofer, a 4½-inch polypropylene midrange, and a ¾-inch Polycell dome tweeter. Polypropylene is said to be impervious to heat and moisture



and to cause less sonic coloration than paper, metal, or other plastic cone materials. Polycell is an expanded cell form of polypropylene; Infinity claims that it gives the high-frequency radiator the same sonic characteristics as the system's polypropylene midrange and bass drivers. The RS8a's enclosure is made of high-density particle board with an oakgrain vinyl finish. Dimensions are 21¾

inches high, 12 inches wide, and 10 inches deep. Weight is 28 pounds.

Frequency response is given as 46 to 22,000 Hz ±3 dB. Suggested amplifier power range is 20 to 100 watts per channel. Crossover frequencies are 800 and 4,000 Hz, and nominal impedance is 4 to 9 ohms. Price: \$338 per pair. Infinity Systems. Dept. SR, 7930 Deering Avenue, Canoga Park, Calif. 91304.

Circle 126 on reader service card

First Car Stereos From Vector Research

□ Vector Research has entered the car stereo field with two receiver/cassette players, the VM-950 (shown) and the VM-700. Both have Dolby-B noise reduction, a loudness control, fader and line-



out jacks, ignition-key-off eject, and autoreverse. The VM-950 has electronic tuning, a digital clock, twelve station presets, and light-touch solenoid-operated controls that are backlit for easy visibility at night. The VM-700 has analog tuning, five presets, LED indicators for loudness, Dolby, and metal tape, and surround lighting on all the function buttons.

The VM-950 measures 7 x 2 x 5½ inches. The VM-700 has a universal-mount chassis and measures 7 x 1¾ x 5½ inches. Prices: VM-950, \$500; VM-700, \$325. Vector Research, Dept. SR, 20600 Nordhoff Street, Chatsworth, Calif. 91311

Circle 127 on reader service card

Discwasher Upgrades Zerostat Destaticizer

☐ Slowly squeezing the trigger of the latest version of Discwasher's Zerostat destaticizer shoots a stream of positively ionized air over the surface of a record, and releasing the trigger produces an



equally large shower of negative ions that neutralizes the static-electricity charge of the target area. The Zerostat 3 uses two piezoelectric crystals that generate the positive and negative ions when compressed by the trigger mechanism. Neutralizing the static charge on an LP reduces its attraction of dust particles, keeping records cleaner and prolonging

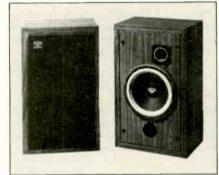
their life and that of the stylus. The Zerostat 3 will also neutralize static charges on turntable dust covers.

The Zerostat 3 can be tested by attaching the supplied ion indicator to the barrel and slowly squeezing and releasing the trigger. A glow in the window of the ion indicator shows that the unit is working properly. The Zerostat 3 needs no batteries, external power supply, or refills. Price: \$23. Discwasher, Dept. SR, 1407 North Providence Road, Columbia, Mo. 65205.

Circle 128 on reader service card

''Digital-Ready'' Cerwin-Vega Speaker

☐ Cerwin-Vega's new D-2 speaker system is said to have improved phase accuracy, reduced distortion, wider frequency response, extremely narrow "time smear," high efficiency, and high power-



handling capability, all of which makes it "digital ready." Intended for either floor or shelf placement, the vented D-2 system combines a 10-inch woofer in a castaluminum frame crossing over at 3,000 Hz to a 1-inch horn tweeter. There is a user-adjustable high-frequency level control and a built-in circuit breaker to protect the tweeter from overload.

Specifications include nominal impedance of 8 ohms, power-handling capacity of 5 to 125 watts (wrms), and frequency response of 30 to 20,000 Hz. Rated sensitivity is 96 dB sound-pressure level (SPL) measured at 1 meter with a 1-watt input; maximum output level with "full power" is 116 dB SPL at 1 meter. The particle-board cabinet has a black cloth grille and is covered in walnut-grain vinyl. The D2 measures 24½ x 14 x 10 inches and weighs 38 pounds. Price: \$410 per pair. Cerwin-Vega, Dept. SR, 12250 Montague Street, Arleta, Calif. 91331.

Circle 129 on reader service card

RG Dynamics' Latest Dynamic Expander

☐ Designed to increase the dynamic range of analog recordings to the levels of digital Compact Discs, the Signature One dynamic-range expander from RG Dy-



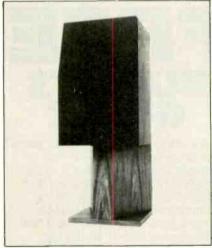
namics is also said to make turntable rumble and wow inaudible. Expansion is variable from 4 to 20 dB in 4-dB steps, and LED's indicate left- and right-channel noise reduction. There are switch selectors for phase inversion, tape monitoring, and source or tape expansion. The Signature One is rack mountable. Price: \$650. RG Dynamics, Dept. SR, 6440 North Ridgeway Avenue, Lincolnwood, Ill. 60645.

Circle 130 on reader service card

Pyramid Speaker Is Phase- and Time-Aligned

□ All the drivers in the three-way, four-driver Met 11 speaker system from Pyramid are time-aligned and phase-corrected for minimum diffraction, which is said to improve imaging and to reduce distortion. Moreover, all the drivers have Pyramid's Coaxial Sheer Radiators, which are aluminum plugs attached to the magnet and extending into the cone. The 8-inch woofer has a long-throw voice coil; the ferrofluid-cooled 5-inch midrange driver and two 2-inch tweeters have "controlled band-pass response."

The Met 11 uses a first-order crossover network, air-wound inductors, and mylar



capacitors. Frequency response is given as 34 to 22,000 Hz \pm 3 dB. The cabinet, veneered in oiled walnut with a black fabric grille cloth, measures 9 x 11½ x 13 inches. An optional preassembled pedestal stand (shown) is designed to maximize the depth of the acoustic image and to increase the clarity of the sound. Price per pair: \$500; \$525 on the West Coast; stands, \$75 per pair. Pyramid Loudspeaker Corporation, Dept. SR, 131–15 Fowler Avenue, Flushing, N.Y. 11355.

Circle 131 on reader service card

NOTE: All product descriptions and specifications quoted in these columns are based on materials supplied by the manufacturers, who will respond directly to reader requests for further information. Domestic inflation and fluctuations in the value of the dollar affect the price of imported merchandise. Please be aware that prices quoted in this issue are therefore subject to change.



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Tape Talk

By Craig Stark



Where to Find .

Q. . . . a tape splicer of the kind the professionals use? I've tried several audiophile models and none of them seems to do a really clean job.

J. A. MALST Chadron, Neb.

Q.... calibrated playback-alignment tapes for cassette decks that meet the official IEC standards but don't cost the small fortune BASF charges for the ones you use at Hirsch-Houck Labs?

David Russell Hanover, N.H.

A EdiTall has been the splicing block of choice for many years, and while I haven't looked for one recently (they last forever), they should be available from any professional supplier. Since you're in the Midwest, you might try Hy James, 2839 Boardwalk, Ann Arbor, Mich. 48104.

Teac has announced that it is about to release a new series of IEC-standard cassette alignment tapes. Write to them at 7733 Telegraph Road, Montebello, Calif. 40690. Good calibrated tapes are always rather expensive, however; beware of cheap ones.

Dealer Fine Tuning

A reputable hi-fi dealer suggests that customers have him adjust all new cassette decks for their choice of tapes, on the grounds that otherwise all but state-of-the-art decks will have far from flat (or even acceptable) frequency response. He supplies before-and-after response curves showing the improvement, but he charges \$25 to \$30 for the adjustments. Are most mass-produced decks so far off that one couldn't get much the same results by trial and error?

JOE CASAREGOLA Newburgh, N.Y.

A It is very frustrating and time consuming to use trial and error to find the tape that gives the flattest response in a particular deck. As I see it,

your dealer's offer to optimize a deck for your choice of tapes (on decks that don't have built-in optimizing facilities) is a good deal more useful because he'll probably catch (and fix) other problems that may have been missed through poor quality control at the factory than because he'll correct for any differences between the factory-set up tape and most of the top-line tapes you might select. A technician can easily measure frequencyresponse differences between comparable tape brands on the same deck, but more often than not I find these too small to be audibly significant—on a well-set-up recorder. On a badly adjusted machine, on the other hand, even slight brand variations can mean the difference between meeting and not meeting specifications.

For most people, of course, especially those who don't see a need to get "state-of-the-art" machines, the fact that a deck may be off a few decibels from its specification is not a matter of great concern. You must decide how important such proof of performance is to you. For \$30, however, I'd insist that the dealer also include frequency-sweep checks with the Dolby system(s) on as well as off.

Trade-Offs

In considering a cassette deck for my system I have encountered a dilemma: in my price range (\$300-350), there is one excellent deck with excellent frequency response, 20 to 20,000 Hz ± 3 dB, but only Dolby-B noise reduction and several with both Dolby-B and Dolby-C but frequency responses of 40 to 17,000 Hz ± 3 dB. Which is more important—the extended response or the lower noise—for an average stereo buff who enjoys excellent sound reproduction and particularly a good solid bass range?

WARD MOELLER Rocky Point, N.Y.

A I'll give you only some general advice: listen. As a test, go into your dealer and ask to make simultaneous dubs on the Dolby-B machine you're considering and one of the alternative Dolby-C models. Use a Compact Disc as the sig-

nal source, and pick a section that has both very loud and very soft passages. (Also be sure to use high-quality cassettes and the correct bias and equalization settings, of course.) Play back the two dubs at the same volume level, switching back and forth between them, and then decide which deck is likely to give you greater satisfaction.

Ferric EQ for Chrome?

Many commercially prerecorded · chromium-dioxide cassettes today are marked for playback with the 120microsecond "ferric" (or "normal" or "Type I") equalization setting. Why, then, are we still supposed to use the 70microsecond "chrome" (or "high" or "Type II") setting for CrO, cassettes that we record ourselves at home? Would I lose anything by following the duplicators' lead and recording and playing back chrome cassettes using the "ferric" settings?

THOMAS RUSSELL Minneapolis, Minn.

The trend toward using 120-micro-A second playback equalization for prerecorded chrome cassettes has been greatly stimulated by the success (four million copies at this writing) of "Synchronicity" by the Police on A&M. In addition to A&M (which also produced Supertramp's "Famous Last Words" and Herb Alpert's "Blow Your Own Horn"), EMI, PolyGram, and Deutsche Grammophone will also be releasing 120microsecond cassettes recorded on BASF Pro II Chrome tape, according to Mark Dellafera, BASF's marketing director. There are several reasons why BASF should promote this trend. One, of course, is that it's a lot easier to sell chromium-dioxide tape to duplicators if they know that their final product can be played optimally on every cassette deck, including car players, personal portables, and "boom boxes," many of which have no "chrome" switch position.

A less commercial consideration, however, is that the 70-microsecond (µs) playback equalization originally selected (in 1970) for the newly developed chromium-dioxide tape may not have been the wisest choice. At both the 0- and -20-dB recorded levels, the performance of today's best ferric cassettes seems very close to that of the high-bias cassettes. This is somewhat misleading, though, for, relative to the chrome type, every ferric tape is actually benefiting from a playback treble boost of about 4.5 dB at all frequencies above approximately 3,000 Hz. That 4.5 dB is the difference between using 70- and 120-µs playback equalization. Put another way, if nothing else changes, when you switch from 70- to 120-us equalization while playing a prerecorded chrome cassette, you add 4.5 dB to the cassette's treble response. In itself, of course, this is not really desirable (except for low-quality cassette players with poor high-frequency performance), for we want a flat, not an elevated, high-end response. But a smart mass duplicator can achieve flat response from chrome cassettes with 120-us equalization by reducing the amount of treble boost during recording. That means less treble overload during duplication and therefore a brighter, clearer high end for the commercial product.

There's no free lunch, however. Using 120- rather than 70-µs playback EQ means boosting tape hiss by the same 4.5 dB. By BASF's reckoning, that increase in the hiss level would not be commercially acceptable with "chrome-equivalent" tape formulations, and certainly I've not heard of any duplicators rushing to use the usual high-bias tape stock in cassettes intended for 120-us playback equalization. While a true chrome formulation

does not have as much low-frequency capacity as the Japanese ferricobalt (chrome-equivalent) tapes, it does have less inherent high-frequency hiss. Thus, BASF argues, true chrome can tolerate the additional treble playback boost without becoming objectionably noisy. A good many duplicators seem to agree.

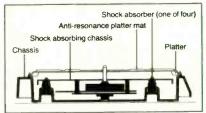
For the home user, however, following the duplicators' lead is usually impossible because the same switch is normally used to control bias, record equalization, and playback equalization simultaneously for each tape type. On professional equipment these three parameters can be varied independently—as they used to be on at least a few consumer decks.

The more you know about Dual the more this turntable will surprise you.

This is the new Dual 515. There's one reason you'll want to know more about it. And one that will surprise you.

1. The design and engineering. Vibrations from footsteps and acoustic feedback can muddy the sound from records, cause mistracking and even groove jumping. The sophisticated suspension system of the 515 solves this problem with typical Dual ingenuity.

The tonearm, drive system and platter and mat are isolated from the base by four independent shock absorbers-with damping qualities computer-designed to cope with all likely conditions in the typical home.



Four independent shock-absorbing elements, with computer-calculated damping, isolate the tonearm, platter and drive system from the turntable base, and thus from external shock and vibrations such as those caused by toottalls or acoustic feedback. This system, combined with the new Dual platter mat, achieves a higher level of isolation for the record during play.

You can easily hear the difference this entire system makes when you play a record on the 515. The bass will be tighter, the highs cleaner and missing details restored.

Now for the tonearm.

Dual's exclusive ULM (Ultra Low Mass) tonearm and cartridge system has only 7 grams total effective mass. That's less than half that of conventional tonearm and cartridge combinations. ULM assures accurate, stable tracking, especially on badly warped records. But low mass is only one aspect of Dual's tonearm design.

The four-point gyroscopic gimbal centers and balances the tonearm where it pivots. The straight-line tonearm tube is made of XM300 alloy for its extremely high rigidity and low resonance. Dual's system for setting track force-a tempered, flat-wound spring inside the pivot-maintains the tonearm's dynamic balance.

The belt-drive system is also pure Dual. The belt is precision-ground to within 1/200 mm. The high-torque motor and 12% pitch control are electronic. The illuminated strobe confirms exact speed.

2. The price.

This is the surprise: less than \$135! (The 515 is semi-automatic; the fully automatic 530 is less than \$150.) We think this will really surprise all those who've been willing to pay substantially more for West German design, engineering and precision manufacturing. Now you have all that, plus new and unprecedented Dual value.



Audio Q. and A.

By Larry Klein



Front/Rear Car Stereo

QI've noticed that in some cars with four-speaker setups the highs are reproduced by the front speakers and the lows by the rear ones. Is that really a good idea? I don't think I want it that way in my car.

STEVE SEIF Baltimore, Md.

A No, it's not a good idea, but, Lord knows, it seems to be a common one! In a sense, every car stereo installation reflects the installer's attitude about the way music should be listened to. The installation can be set up for special sonic effects (gut-wrenching bass, for example), for realism, or perhaps for some compromise between the two. It's actually easier to do a special-effects installation since you simply let the system elements "fall where they may." Woofers fit nicely in 6 x 9-inch cutouts in rear decks, and midrange/tweeters are easily installed in front-door panels.

The classical-music listener will almost always prefer the realistic approach, which automatically precludes having the highs and lows coming at him from opposite directions. The pop/rock listener, on the other hand, is likely to go for special effects—as do the groups he listens to. I have nothing against special effects when they are appropriate to the music. For example, when I give one of my rare disco dance parties (in my living room, not in my car), my equalizer and time-delay components are brought into play to help provide the sonics appropriate to the occasion.

It seems to me that you need to be very clear about the way you like to listen to music and to communicate that to your car stereo installer before he starts to work.

Headphones + Speakers

When I was playing my system the other day I plugged in a pair of headphones and put them on without turning off my speakers. I was astonished to hear a wonderful sort of "openness" in

the music—almost like good four-channel sound. Can you explain this effect?

K. REESE Roosevelt, N.Y.

You just accidentally discovered the A sonic pleasures of time delay. To understand what you were hearing, you need some basic facts about how live musical sound propagates in a concert hall. Not all of the sound produced by the performers reaches your ears simultaneously. Part of the sound does reach you directly, but most of it is delayed before it gets to you because it has been reflected repeatedly off one or more walls, the ceiling, or the floor. The size of the hall and its absorptive properties determine the length of the delay and the strength of the delayed signal. (A cathedral, for example, provides delays that are both long and strong.) It is the delayed portion of the sound-and the fact that the multiple reflections cause it to come from many directions—that provides a sense of fullness and of being in the same environment as the performers.

What has all this to do with your headphone experience? Simply this: I assume that your headphones are of the nonsealing type and that your speakers are located at least 15 feet away from where you do your listening. Your headphones provide the equivalent of undelayed, direct sound, while your speakers provide a delayed version of the same sound by virtue of their distance from your listening position. Sound travels at a speed of approximately 1,100 feet per second, so the distance traveled by the direct sound from the speakers would cause a delay compared with the headphone sound of about 16.5 milliseconds. This interval. along with that contributed by the normal reflections of the speakers' output, is certainly enough to produce the effect that you heard.

You can optimize the time-delay effect by adjusting the relative volumes at your ears of your headphones and speakers (the headphones should be louder) and experimenting with various listening distances from your speakers. Incidentally, those who have the room and would like to experiment further with this sort of

acoustic—rather than electronic—time delay, without using headphones, should try adding a second set of speakers spaced 15 feet or more behind the main speakers. They should be playing the same material as the closer speakers but possibly at somewhat lower volume. About seventeen years ago, Fisher had provisions for this sort of arrangement built into some of their equipment, so the idea does have historical precedent.

Gauging Wire

In a recent item in this column you recommended 12-gauge electrical house wire as an inexpensive and effective alternative to special speaker cables. I've looked at various types of wire, both solid and stranded, that are labeled 12-gauge, and they seem to have different thicknesses. Does that mean that some wires have lower resistance than others of the same gauge? Some of my friends claim that the very thick wires with multiple strands and special twists or braiding have superior audible qualities. What do you think?

Kevin Longer Cambridge, Mass.

A The thickness of a conductor correlates with its gauge only when you are dealing with solid wire. The gauge of a multistrand conductor is determined not by its overall thickness but rather by the sum of the cross-sectional areas of all the individual strands in it. Because of the spaces between the strands, a multistrand cable is always going to be thicker than a single-conductor cable of the same gauge. And the greater the number of strands for a given gauge, the greater the thickness and flexibility.

Aside from its superior flexibility, multistrand cable does have an electrical advantage for those seeking to convey radio-frequency (r.f.) signals by wire. High radio frequencies tend to travel on the surface of a conductor rather than in its core, which means that the r.f. resistance of a wire can be decreased by increasing its surface area. And since a multistrand cable has a greater surface area than a solid wire of the same gauge, its r.f. conductivity is naturally superior.

I've not encountered any convincing evidence that an audio signal cares what sort of wire it is traveling through as long as the wire's resistance and capacitance are low enough to minimize interaction with the input impedance of the speaker system and the output impedance of the amplifier. I'm aware, however, that lots of people out there claim that their ears tell them different. In any case, despite what your friends think, the thickness of your speaker cables is not a reliable gauge of your dedication to audio fidelity.

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.

What a deal! The RCA MUSIC SERVICE gives you

YEAH, but then you have to buy a whole lot more RIGHT?

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VOL. 2 ROBERT PLANT The Principle	6 2 2 2 8			4 0 2 ROURY
OAK RIDGE BOYS AMERICAN MADE	6 3 5 5 5	12.17		6 2 2 270min
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FOREIGNER RECORDS	5.3 3 1 7			2 2 9 RCA
(GREATEST HITS)	5 3 5 0 3		TWIN Double the SETS * Count as	music one!
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ANNE MURRAY GREATEST HITS	6 3 5 3 0 CaPITOL			3 9 0 EA
HALL & OATES	1 3 3 6 9		* LED ZEPPELIN 12:	1 8 10MG
Louis Clark: Royal Philhamonic HODICED ON CLASSICS II	5 0 3 9 3 RCA			20
BILLY SOUIER EMOTIONS IN MOTION	0 4 7 8 7 CAPIDA			2 9 5 STA

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Segovia: Intimate Guitar	04628
Herb Alpert; Blow Horn	63504
Little River Band: Gt. Hits	53429
Dolly Parton: Burlap/Satin	44133
Styx: Kilroy Was Here	34460
Neil Diamond: Jazz Singer	32877
Oak Ridge Boys: Gt. Hits	44417
John Cougar: American Fool	40331
Van Halen: Diver Down	44205
Bellamy Bros.: Gt. Hits	04770
Rick Springfield: Living Oz	53844
A Flock Of Seagulls: Listen	33905
• Lionel Richie	44354
Lionel Richie Rubinstein: Beethoven Con. 5	24408
K Roners: We've Got Tonight	34557
K. Rogers: We've Got Tonight Quarterflash: Another Picture	33973
John Denver: It's About Time	24563
Triumph: Never Surrender	53938
Sylvia Snapshot	
Sylvia: Snapshot Rush: Moving Pictures	43915
Best Beach Boys	23946
Hank Williams, Jr.: Gt. Hits	34553
Elton John: Too Low Zero	10196
The Who: It's Hard	54190
Crosby/Stills/Nash: Allies	43977
Eagles: Gt. Hits, V.2 C. Twitty: Lost Feeling Pat Benatar: Get Nervous	63318
C. Twitty: Lost Feeling	10202
Pat Benatar: Get Nervous	14616
 Hooked on Swing	04722
Statler Bros.: Today	33753
Stevie Nicks: Bella Donna	
J. Geils: Showtime	13346
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Best Best Merle Haggard	33505
Chris Cross: Another Page	
 Bob Seger: Night Moves 	43584
 Alabama: Feels So Right 	
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RCA 89

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Installation of the Month

BY CRAIG STARK

AUDIOPHILES often nod knowingly about the importance of listening-room acoustics, but they are rarely able to do much about them. One exception is Art Kulak, a self-employed architect in Northern California who designed his listening surroundings literally from the foundations up.

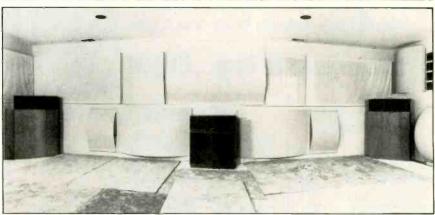
By modifying some of the walls in his partially below-grade basement, Mr. Kulak created a listening space whose generous proportions—26 x 18 x 8 feet—help to minimize the effects of low-frequency room resonances. All the ventilation ducts and water pipes inside the walls were vibration-isolated from the building structure, and speaker-wire conduits were installed for both front and possible rear speakers as well as multiple couplers for separate FM and TV antennas.

To isolate the listening room from external noise, the interior walls were built up using multiple layers of sound-insulating board with 1-inch spaces between them, and all joints were sealed with silicone beading. The corners were extensively reinforced with heavy studding and exterior-grade plywood. Over this Mr. Kulak laid sheetrock with additional plastering in order to provide a mechanically solid and airtight coupling for his corner-mount Klipschorns.

The walls themselves are made of %inch fire-code sheetrock. A hundred square feet of sound-absorbing Sonex foam was applied to the back walls and the ceiling, and the side walls were treated with randomly placed panels of soundabsorbing Celotex fiber. The Celotex panels are masked by suspended linen panels, in part to reduce slightly the amount of absorption and in part to create a soft and spacious appearance. Following a practice common in large studio installations, Mr. Kulak also installed polycylindrical sound diffusers made of ordinary Masonite and additional randomly placed Celotex tiles to create a variety of acoustically absorbent surfaces that can be "tuned" to create the most natural effect. Randomly placed medium- and heavy-weight 6 x 4-foot rug remnants on the concrete and asphalt-tile floor also permit acoustical experimentation.

In addition to the corner Klipschorns, Mr. Kulak has a Belle Klipsch center speaker that is connected through a Klipsch 2ph3 phantom center-channel circuit. Each speaker system has its own Luxman MB3045 class-A triode tube amplifier. A Crown D-60 amplifier is used for headphone listening and for remote speakers. Overall system control is provided by an Audio Research SP-6B





preamplifier. Signal sources include a Sony CDP-101 Compact Disc player, a Thorens TD-125 turntable with an SME III tone arm and Sonus Gold cartridge, a Linn-Sondek turntable with a Decca International tone arm and Decca cartridge, a Nakamichi BX-2 cassette deck, and a Yamaha T-1 tuner.

To house the equipment while providing for proper ventilation and convenience in changing individual components, Mr. Kulak built four solid-pine open racks with slotted wall-mount-type shelf standards, all mounted on heavy casters. The two turntable racks are acoustically isolated by being loaded down with more than 300 pounds of concrete blocks "floated" on closed-cell foam pads.

Mr. Kulak's musical tastes run the gamut from twentieth-century symphonic composers such as Holst, Barber, and Harris to "classical heavy rock" such as Pink Floyd and the Grateful Dead. His

wife Diane is more inclined to light-jazz and folk-music performers such as Al Jarreau, Joni Mitchell, and Emmylou Harris. When he's not tinkering with his audio system, Mr. Kulak's other recreational interests include computers, photography, and bicycling.

Building a personalized listening room like Art Kulak's is clearly a major project, but the natural sound quality Mr. Kulak feels he has been able to achieve without resorting to any form of electronic equalization has convinced him that the space we listen in is the most important component of all.

s your system an installation of the Month? To find out whether it is, send a clear snapshot and a brief description of its components to STER-EO REVIEW, Dept. IOTM, One Park Avenue, New York, N.Y. 10016.

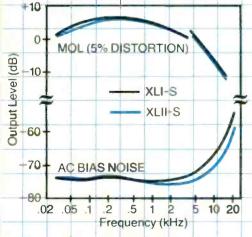
COMPACT DISC COMPATIBLE

Maxell introduces the new XL-S audio cassettes; a series of ferric oxide tapes which deliver a level of performance that can capture the sound nuances found on Compact Discs more faithfully than other ferric oxide cassettes on the market.

There are a number of areas where this achievement is apparent.

GREATER DYNAMIC RANGE.

Through a new formulation of our magnetic particles, we were able to reduce the perceived residual AC bias noise level by 1 dB in the critical 2 kHz to 10 kHz mid-frequency range. And simultaneously increase sensitivity and maximum output levels by as much as 2 dB.

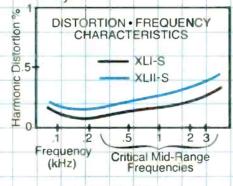


As a result, the dynamic range of each tape has been significantly expanded. So you get a

better signal to noise ratio and a fuller impact of the dynamic transients exclusively inherent to digital CD recordings.

LOWER DISTORTION.

The newly formulated particles also contribute considerably to XL-S's low output fluctuation, as well as its virtual distortion-free reproduction, especially in the critical mid-range frequencies. This, in turn, accounts for our XL-S tape's enhanced sound clarity.



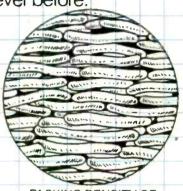
IMPROVED MAGNETIC PARTICLES.

Our refined particle crystallization process is the basis for all of these accomplishments. Maxell engineers are now able to produce a more compact needle-shaped Epitaxial magnetic particle of extremely high uniformity.

This allows us to create a greater ratio of total surface area to unit weight of magnetic particles.

As a result, our XL-S

tapes now have the ability to record more information per unit area than ever before.



PACKING DENSITY OF UNIFORM PARTICLES

Which is why Maxell high bias XLII-S and normal bias XLII-S are unsurpassed at reproducing the sound qualities found on today's finest recordings. Regardless of whether your frame of reference is analog or digital audio discs.

For technical specifications on the XL-S series, write to: Audiophile File, Maxell Corp. of America, 60 Oxford Drive, Moonachie, New Jersey 07074.

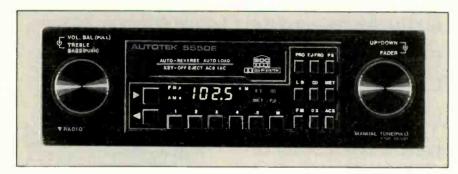


IT'S WORTH IT.

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CIRCLE NO. 27 ON READER SERVICE CARD

Car Stereo



BY JULIAN D. HIRSCH AND CHRISTOPHER GREENLEAF

AUTOTEK 5550F

Like many medium-priced car stereos today, the Autotek 5550E includes a digital-synthesis AM/FM receiver, a two-channel power amplifier, and an auto-reverse cassette player with a full complement of operating features. The tape features include a solenoid-operated transport with automatic shut-off and tape eject at the end of a cassette or when the power is turned off, Dolby-B noise reduction, selectable 120- or 70-microsecond playback equalization, and a program-search high-speed scanning mode that works in both forward and reverse.

The 5550E's FM tuner section has an Auto Control Stereo (ACS) system that automatically blends the channels and rolls off the high-frequency audio response as the received FM signal strength decreases. The ACS function can be switched off by a front-panel button, but then all FM reception is in mono. The unit also has a continuously operating impulse-interference blanker and an Auto Gain Control (AGC) system that responds to the strength of adjacent stations and adjusts the tuner's sensitivity so as to reduce or eliminate interference. The radio can be tuned manually in 0.1-MHz steps for FM and 10-kHz steps for AM. It can also be set to scan in either direction until it finds a receivable station. There are five presets, each of which can store an AM and an FM frequency.

The Autotek 5550E has separate bass and treble controls as well as a switchable loudness control. The frequency display doubles as a digital clock; the time is ordinarily displayed except for a period of 10 seconds after a new station has been selected. The frequency of the tuned station can also be displayed for 10 seconds at other times by pushing the tape-eject button while the radio is in use. Besides the usual power, speaker, and antenna wires emerging from the rear of the re-

ceiver, there are two short cables terminated with phono jacks for the front- and rear-channel line outputs. There is a front-panel fader control.

The audio amplifiers are rated to deliver 5 watts per channel with 10 per cent total harmonic distortion or 2.5 watts per channel with 1 per cent distortion from 50 to 15,000 Hz. Various tuner performance ratings are given, but since they cannot be measured separately from the amplifier we won't repeat them here. Tape-section specifications not dependent on the performance of the other parts of the unit include a signal-to-noise ratio (S/N) of 55 dB without Dolby and 65 dB with Dolby-B, crosstalk of -45 dB, wow-and-flutter of 0.1 per cent wrms, tape-speed tolerance of +2, -0.5 per cent, and fast-wind time for a C-60 cassette of 95 seconds. Price: \$400. Autotek Electronics, Dept. SR, 1447 North Carolan Avenue, Burlingame, Calif. 94010.

Lab Tests

The 5550E's FM usable sensitivity in mono was better than the rated 17.6 dBf,

measuring 15 dBf (1.5 microvolts, or μ V) into the tuner's 75-ohm antenna input. The stereo threshold, as defined by the illumination of the stereo indicator light, was 29 dBf (8 μ V), but the ACS system's automatic channel blending made the reception essentially mono at that point, which also corresponded to the 50-dB "stereo" quieting sensitivity.

There is no conventional muting circuit in the 5550E, but when a station's signal is too low, below about 20 dBf (2.5 to 3 µV), the audio output drops suddenly, which has the effect of keeping interstation noise at an unobtrusive level. The frequency response at 65 dBf with the tone controls centered (though their detents were very light and not easily found) was ± 2 dB from 70 to 14,000 Hz. Below a 25-dBf signal strength, the high frequencies rolled off above 3,000 Hz to 10 dB at 15,000 Hz. The AM section's frequency response was very restricted. being down 6 dB at 20 and 1,900 Hz. The tone controls had a moderate but adequate range, and the loudness compensation boosted both low and high frequencies by a maximum of about 5 dB.

We were not able to measure the selectivity of the tuner. With alternate-channel (0.4-MHz) spacing we were unable to create any interference with the maximum output of our signal generator, and with adjacent-channel (0.2-MHz) spacing there was no measurable selectivity! We suspect that the AGC circuit was affecting the apparent selectivity.

The tape deck had approximately its rated performance, with a 52-dB unweighted S/N increasing to a good 66 dB with Dolby-B and CCIR/ARM weighting. The tape crosstalk was a good -50 dB. The forward playback frequency response with 120-microsecond equalization was flat within +0, -2 dB from 100 to 13,000 Hz with a continuing low-frequency rolloff to -5 dB at 50 Hz. In reverse the high-frequency response fell off gently above 1,000 Hz to -5 dB at 12,500 Hz. The performance with 70-microsecond equalization (identified as MET, for metal) was similar, but with less high-frequency loss in reverse.

Hirsch-Houck Lab Measurements

FM mono usable sensitivity (75-ohm input): 15 dBf (1.5 μV)

Mono 50-dB quieting sensitivity (75-ohm input): 23 dBf (4 μV)

Stereo 50-dB quieting sensitivity (75-ohm input): 29 dBf (8 µV)

Input): 29 dBf (8 µV)

Tuner signal-to-noise ratio at 65 dBf:
mono, 64.5 dB; stereo, 62.5 dB

Tuner distortion at 65 dBf: mono, 1.2 per

cent; stereo, 1.8 per cent FM frequency response: 60 to 16,000 Hz +1, -3 dB

Stereo separation at 100, 1,000, and 10,000 Hz: 35, 37, and 25 dB

Capture ratio at 65 dBf: 2.9 dB AM rejection at 65 dBf: 60 dB Alternate-channel selectivity: not

measurable (see text)
Adjacent-channel selectivity: not measurable (see text)

Image rejection: 43 dB AM frequency response: 20 to 1,900 Hz +0. -6 dB Tape-playback frequency response (standard BASF test tapes, -3-dB limits): 120 μS EQ-70 to 13,500 Hz forward, 65 to 5,000 Hz reverse; 70 μS EQ-70 to 14,500 Hz forward, 70 to 11,000 Hz reverse

Tape signal-to-noise ratio (referred to 250 nWb/m at 315 Hz): 120 μS EQ-52 dB unweighted; 66 dB with Dolby-B, CCIR/ARM weighting

Flutter: at start of cassette, ±0.15 per cent CCIR-weighted peak, 0.19 per cent JIS-weighted; at end of cassette, ±0.2 per cent CCIR weighted peak, 0.11 per

cent JIS-weighted
Tape speed accuracy: +1.4 per cent at
start of cassette, +0.9 per cent at end
Fast rewind time for C-60: 96.5 seconds

Fast rewind time for C-60: 96.5 seconds Tone-control range: +7 -8 dB at 100 Hz; +6, -8 dB at 10,000 Hz

Amplifier power output into 4 ohms at clipping (measured at 1,000 Hz): 4.6 watts per channel

The internal audio amplifier delivered 4.6 watts per channel at 1,000 Hz into 4ohm loads at the clipping point. The 8ohm output was 2.6 watts. The available output was much less at the frequency extremes, but it was limited by the maximum output achievable with 100 per cent modulation of the FM signal generator instead of by clipping. At 20 Hz it was 0.5 to 0.6 watt into either load impedance, and at 10,000 Hz the maximum output was 1 watt into 4 ohms and 0.6 watt into 8 ohms. The line-level output was a maximum of 60 millivolts at 1,000 Hz and correspondingly less at the extremes. In this case also it was limited by the available signal voltage and not by clipping. The amplifier distortion was measured with 30 per cent FM modulation to reduce the contribution of the tuner to the total reading. At 1,000 Hz it varied between 0.23 and 0.32 per cent from 0.1 to 4 watts output into 4 ohms.

In almost every respect, the Autotek 5550E worked smoothly and effectively on the test bench. At times we found it awkward to operate the closely spaced buttons without accidentally pressing an adjacent one, and we had reservations about their practicality (as well as safety) in a moving automobile. This criticism, of course, is equally applicable to similar units from many other manufacturers.

Our test sample was a very early production model, and the manufacturer advised us that a new instruction manual was in preparation. The one we received, while fairly well supplied with typos, was quite adequate, lacking only detailed explanations of the 5550E's features. Overall, the Autotek 5550E offers reasonable performance and a useful selection of features at a reasonable price.

—J.H.

Road Tests

My first impression of the Autotek 5550E was of how smoothly the cassette player functioned, from motorized cassette loading to quick ejection when the eject button is pushed or the ignition switched off. The granite-block streets

around the Brooklyn Navy Yard offered their usual challenging mix of potholes, old tram rails, and an occasional island of ripply old asphalt. But even bucketing over my car's least-favorite street, below the Brooklyn Bridge, never caused the tape transport to fail. There were no problems at all on poor to good roads, and there was only a slight warble on very bad surfaces at 35 to 40 miles per hour.

THE FM TUNER SECTION
PULLED IN BOTH LOCAL
AND DISTANT STATIONS
WELL. SOUND QUALITY
WITH STRONG SIGNALS
WAS EXCELLENT.

The tapes I used for my tests showed essentially the same sonic performance in reverse play as in forward. (Despite the convenience of auto-reverse, however, I usually prefer to flip a cassette over manually instead because the tape head in most decks is aligned more accurately in the forward direction.) Tape sound quality was generally good, lacking only a little of the highest frequencies, which are not always obtained with home decks either. Changing from fast-forward or rewind to play always produced an audible "zoop" as the tape slowed down. On the other hand, there need be no unwanted blast from the tuner when a tape ejects since the tape player can operate with the tuner off, unlike many units.

The tuner's AM performance was unusually noisy for a car stereo. Distant stations were generally unlistenable, and even local broadcasts were obscured by a haze of noise. Despite the automatic impulse-noise suppressor, both AM and FM reception seemed very susceptible to both impulse noise and nearby electrical interference. An arc-welding shop in the Navy Yard that had never drawn much atten-

tion to itself in previous road tests was evident in strong general interference.

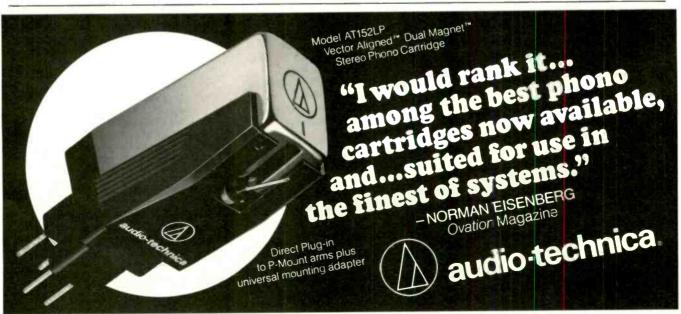
The FM tuner section pulled in both local and distant stations well, holding onto them tenaciously even during a country drive through hills and hollows. The sound quality with strong signals was excellent. While the range for mono reception was good, stereo FM cut out a few miles from the city limits. I ended up switching to mono for all of my out-oftown driving instead of using the ACS system with its automatic channel blend and high-frequency attenuation. Except during a brief drive around the Empire State Building, New York's principal FM transmitter tower. I did not need to use the local setting of the tuner-sensitivity switch. [liked the way that the 5550E's memory stays open for about 9 seconds. which makes assigning preset frequencies while driving a safer and less nervewracking affair.

I also tested the 5550E with external amplifiers for both the front and rear channels. In this setup the front-channel level is linked only to the volume control and is not variable by the fader, which affects only the rear speakers. If the unit's own amplifier is used for the front speaker pair, the fader works for both them and an externally powered rear pair.

The nine buttons on the right of the control panel are closely grouped, but use quickly makes them familiar. They have enough spring resistance to make accidental activation of the wrong function unlikely. The curves of the loudness compensation and the two tone controls did not really match my car's acoustic needs, but that's my car. The loudness control had a considerable effect on the midrange, and when it was engaged it was almost impossible to get my tapes of Joni Mitchell and Elly Ameling to sound like themselves.

The Autotek 5550E is well laid out and easy to use, and the tape and tuner sound quality is almost up to that of many good home components. The amplifier has adequate power, and the tape handling is exemplary.

—C.G.



CIRCLE NO. 20 ON READER SERVICE CARD

One Step Closer to Perfection

The Ohm Walsh 2 is the "Speaker of the Year." The new Ohm Walsh 4 is even better.

Over 4,000 acknowledged experts chose the Ohm Walsh 2 as "The Speaker of the Year" in Audio Video International's 1982 Hi-Fi Grand Prix Competition. How could anyone make a better speaker than one that is "among the best speakers we have ever heard, regardless of price" (The Complete Buyers Guide to

Speaker/Hifi Equipment), or that has received more rave reviews than any new speaker in the last 10 years? That question is answered by the new Ohm Walsh 4.

Here's What We Did

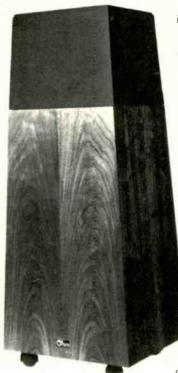
We reproduced the sound quality the New York Times described as "a spacious acoustic ambience with precise stereo imaging creating a 'reach-out-and-touch-it' realism that this listener has rarely experienced..."

We gave it the ability to play louder. The new Ohm Walsh 4 can handle 500 watts rms of music. It can reproduce a full orchestra at live levels in a normal listening room, flawlessly. It also can handle the new digital audio discs, effortlessly.

We made it play deeper. The Ohm Walsh 4 can reproduce over half an octave deeper bass. At 30 Hz the 4's put out 10 times as much volume as the superb 2's. Maybe only one record out of a hundred demands this—but the 4's are ready whenever you are. They let you physically feel the impact of a bass drum or timpani. An unusual luxury, but it's there.

4 We gave it more control range, so you can better match your own listening room to your musical taste. While most high-end speakers do have a high frequency control, the Ohm Walsh 2 has both a high frequency control and an additional Sub Bass Activator control to balance bass output—something no other speaker has ever had. The new Ohm Walsh 4 goes one better. We added a truly exciting and unique control called "perspective." This allows you to change your 'seat' in the audience from up front to





in the rear-matching your taste, your music, your room and your state of mind.

5 We made the Ohm Walsh 4 even more convenient to live with. They come built with casters for easy placement or movement. Moreover, our three ambience controls are placed within easy reach on the rear. The speakers are tall enough (40") not be blocked by most chairs and sofas but small enough (only 121/2" square at the top) to be inconspicuous in most rooms. They come in five finishes (all genuine wood veneer) to match your furniture.

Here's How We Did It

We used the same unique, patented technology as in the Ohm Walsh 2. The main transducer is in the shape of a conical pyramid, inverted like an upside down

ice cream cone. This driver is driven full range and by its very nature gives perfect dispersion, so you can still sit anywhere in your room and hear and hear everything correctly. Our patented design mates this driver to a tiny super-tweeter supplementing the highest octave. They are in time and phase alignment at all listening positions. This perfect alignment is what prompted The Washingtonian to say the Walsh 2s are among the best 'imaging' speakers at any price. which means they create the original setting in which the music was recorded-Evoking the broad expanse of an orchestra or the compact spacing of a jazz combo, for example." The inverted driver and

cabinet of the Ohm Walsh 4 are much bigger, which allows it to handle more power and go deeper.

Now You Have A Choice

Either the Ohm Walsh 2 speakers which "...certainly must be rated a 'best buy" (Audio), "The fact that a pair sells for well under a thousand dollars is, in our opinion, nothing short of a sonic miracle." (The Complete Buyers Guide to Speaker/ Hifi Equipment), or the more expensive new Ohm Walsh 4, with both the luxury of extended bass and the ability to be played louder, which the New York Times said "is a bigger and more potent version of the remarkable Ohm Walsh 2 which has gained a devoted following among listeners since its first appearance about 2 years ago." In either case, you will get the sound Popular Mechanics has said,

"...meets the ultimate audio test: It makes you unaware of its presence. You feel there's nothing between you and the music." One step closer to perfection.

To get details on buying directly from Ohm, call today toll free.

800-221-6984

Or write.

Ohm Acoustics Corp. 241 Taaffe Place, Brooklyn, New York 11205



We make loudspeakers correctly.

Specifications	Ohm Walsh 2	Ohm Walsh 4
Frequency Response	45Hz to 16kHz ± 4 dB	32Hz to 17kHz + 4dB
Size	32½" tall x 9¼" x 9¼" at top, 11½" x 11½" at bottom	40" tall x 12½" x 12½" at top, 15½" x 15½" at bottom
Weight	29 lbs.	63 lbs.
Sensitlvity	87dB at 1 meter with a 2.83 volt input and all controls at maximum	87dB at 1 meter with a 2.83 volt Input and all controls at maximum
Finish	Genuine wood veneer, walnut and oak standard. Scandinavlan rosewood and black or white lacquer on oak finishes available on special order.	Genuine wood veneer, walnut and oak standard. Scandinavian rosewood and black or white lacquer on oak finishes available on special order.
Inputs	Press connectors accepting "banana plugs" or bare wire up to 12 gauge	Press connectors accepting "banana plugs" or bare wire up to 12 gauge
Controls	2 — low and high frequency each with 3 positions	3 - low, high and perspective each with 3 positions
Power requirement on Music	30 watts minimum/150 watts maximum	50 watts minimum/500 watts maximum
Impedance	4/4 ohms	4/4 ohms
Price per Pair	Under \$995 Depending on finish	Under \$1895 Depending on finish

Technical Talk



JULIAN D. HIRSCH

CROSSOVER NETWORKS

Most audiophiles know that within each of their speaker-system enclosures there are two or more separate speakers, or "drivers" (a woofer, a tweeter, and so forth), plus something called a "crossover network." Basically, the function of the crossover network is to channel the program energy occurring in different parts of the audio-frequency range to the appropriate speakers so as to keep the woofer "woofing" and the tweeter "tweeting." Although this is a correct, if considerably oversimplified, description of its role, there are some less well-known aspects of crossover design and operation that have much to do with how a speaker ultimately sounds. Understanding them can help explain why two apparently similar speaker designs can differ enormously in both sound and price.

If a single speaker cone could function properly over the full ten-octave audio range, there would be no need for multiway systems or crossover networks. This is indeed the case with headphones, where the sound level to be generated is comparatively low. For a *louds*peaker, however, the requirements for a bass reproducer are completely incompatible with those for a treble reproducer. The former must move a large volume of air to generate a usefully loud low-frequency output, and this requires both a large cone area and a large excursion (back and

forth movement of the cone). Because of its size, a woofer cone is unavoidably massive and thus cannot move as rapidly as would be required for producing high frequencies. It also cannot move like a single rigid surface (a piston, say) at higher frequencies, where it eventually begins to vibrate in several sections, resulting in an uneven frequency response. Furthermore, the directional characteristics of a driver change with frequency; as the frequency increases, a larger cone concentrates its output into a narrower angle.

Tweeters, being optimized for high-frequency operation, are small in diameter and have low moving mass. At high frequencies, the radiating surface must move back and forth very rapidly (as many as 20,000 times per second), but only through a short distance. A small radiator is compatible with these requirements. Moreover, because of the small dimensions, its output is dispersed over a wide angle, providing a broad, relatively uniform coverage throughout the listening area.

With driver design thus specialized according to the frequency range to be covered, the crossover network must select

the signals to be sent to each driver. In essence, a crossover is a filter (actually a set of filters, one for each range of driver coverage) that restricts the signal frequencies supplied to each driver to those within the band limits chosen by the designer. In a two-way system where the woofer is to handle frequencies up to, say, 1,500 Hz and the tweeter only those above that, the crossover system should stop frequencies in the the excluded ranges from getting to each driver while permitting unimpeded passage of frequencies in the desired ranges. (For this discussion we'll consider only a single crossover as used in a twoway system. The design considerations are similar for a three-way system, which has two crossovers-woofer to midrange and midrange to tweeter-and for a fourway system, which has three.)

In theory, that is all a crossover system does, but the reality is rather more complex. For one thing, actual filters do not cut off abruptly but attenuate the unwanted band at a gradual rate, often only at 6 dB per octave and sometimes at as much as 24 dB per octave. Thus, the energy delivered to a driver near the limits of its intended operating frequency range is reduced only to some extent, and an appreciable amount of energy may reach it that is well beyond its intended range. In the case of a woofer, this cannot harm the driver itself, although the smoothness of its acoustic output will suffer if it is driven above its useful frequency limit. With a tweeter, the results can be more serious. Not only will a tweeter's output be distorted if it is operated below its rated low-frequency limit, but its delicate voice coil can easily be burned out by an excessive low-frequency power input.

Normally, the crossover frequency is chosen so as to provide a safe operating range for each driver. For example, a crossover at 1,000 Hz might be used for a woofer capable of working properly up to 1,500 Hz paired with a tweeter designed for safe operation down to 500 Hz. It is often possible to use the natural high-fre-

TESTED THIS MONTH

Kyocera R-851 AM/FM Receiver Kenwood KX-71RB Cassette Deck Dahlquist DQM-3 Speaker System Sony CDP-610ES Compact Disc Player McIntosh MR 500 FM Tuner quency rolloff of a woofer to aid the crossover network, achieving the desired acoustic attenuation with a simpler, more gradual electrical cutoff from the filter components

If a straightforward channeling of certain frequencies to specific drivers were the only job of a crossover network, designing them would be much simpler (and less expensive) than it is in practice. There are other considerations, however. For one, the phase shifts of the two drivers in the crossover region are likely to be different, which can greatly complicate the designer's task. And the network itself, especially if it is a complex one, will introduce a considerable phase shift in the crossover range. Designing a crossover network to drive resistive loads is simple; when its terminations are complex reactive elements (real speaker drivers), the process becomes much more complicated.

To achieve a smooth, "seamless," and inaudible transition from one driver to another, it is important for both the phase and amplitude of the driver signals to be controlled at and near the crossover frequency. Even the directivity patterns of the two drivers need to be matched in the crossover region, and, while it is unlikely that they will be inherently optimal, a certain degree of control over the speaker's overall directionality characteristics is possible by appropriate design of the crossover network.

In bygone years, designing a crossover network was a cut-and-dried process, often almost an afterthought in the total speaker design. The results too often reflected this state of affairs. Only the availability of powerful computers has made it possible to design the highly complex crossover networks used in some of today's high-quality speaker systems.

One example of this new approach is the technique used in designing KEF's Reference Series speakers. Using an FFT analyzer (similar in principal to the one we use to measure speaker response at Hirsch-Houck Labs, but vastly more powerful and refined), KEF's designers measure the amplitude and phase response of their drivers not only in their normal operating ranges but well beyond them. Knowing the final response they are striving for, they use the computer to design an optimum crossover network, incorporating all the phase and amplitude correction needed to give the desired system response with the specified drivers. When the actual network and drivers are combined, the FFT measurement of the system's frequency and phase response can be seen to agree closely with its computer simulation. I witnessed a demonstration of this design process on a visit to KEF a few years ago, and I was most impressed by the close agreement between the computer-simulated response and the actual acoustic performance of a speaker system, the Model 105.2, whose crossover network had been designed by the computer program (and drawn out on the computer monitor, complete with all component values).

Although KEF pioneered the use of computerized FFT analysis in speaker design more than a decade ago, many other manufacturers employ a similar process today. The crossover networks derived from this analysis and synthesis process can be very complex, sometimes employing fifteen to twenty inductors, capacitors, and resistors made to extremely close tolerances and achieving effective crossover cutoff rates as high as 24 dB per octave.

Fortunately, it is not always necessary to go to such lengths to obtain high-quality reproduction. There are some moderately priced two-way systems whose crossovers consist of a simple capacitor in series with the tweeter and an inductor in series with the woofer (even the latter is sometimes omitted when the woofer cone and its suspension have been designed to have a natural response rolloff

at the desired frequency). Some of these speakers manage to sound first-rate, thanks in part to careful driver design combined with an appropriately selected crossover frequency, which together accomplish much of what might otherwise have been done with the aid of an expensive crossover network.

Another factor affecting the price of a crossover network is the choice of the lowest crossover frequency. Low-frequency filters require large-value inductors and capacitors, and these are both physically large and expensive. In some

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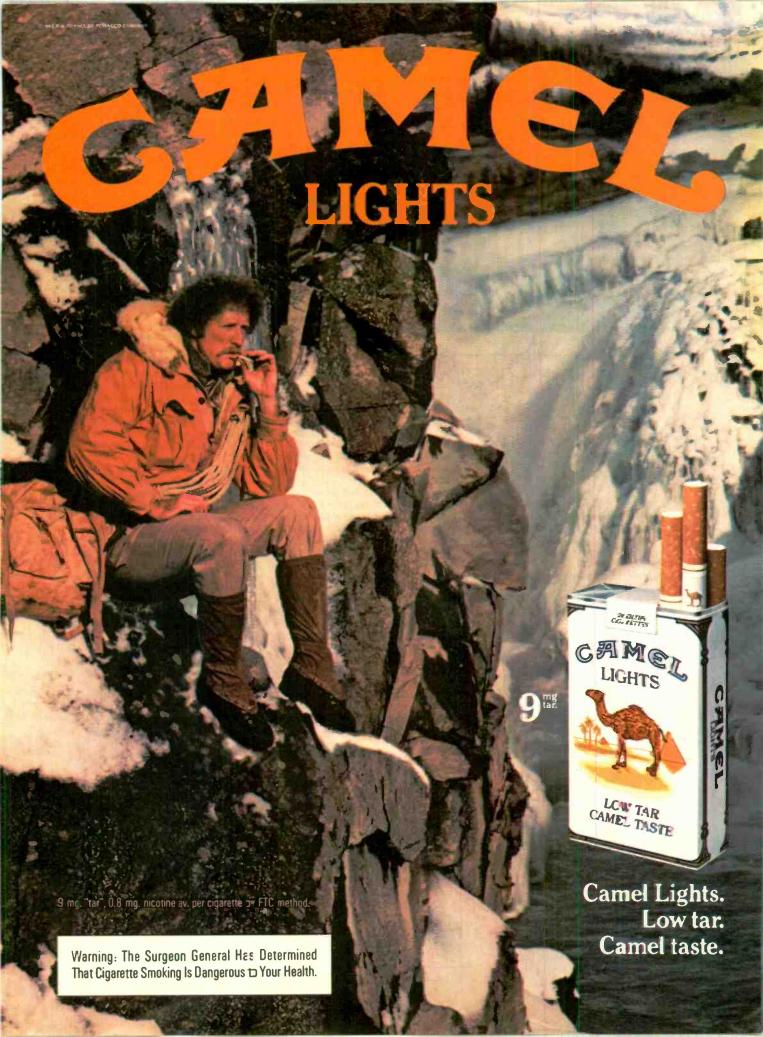
three- and four-way speaker systems, it would be sonically desirable to cross over from a woofer (sometimes misnamed a "subwoofer") to a lower-midrange speaker (which in some cases is referred to as the "woofer") at a very low frequency, such as 100 or 200 Hz. The advantage of this is that the major part of the frequency range containing the fundamental tones of most musical instruments would be covered by a single driver, the midrange, thus avoiding the risk of modifying the signals in this range by crossover anomalies. But economic considerations may dictate using a higher bass-crossover frequency, usually from 400 to 600 Hz, because of the expense of the components needed for a lower frequency.

A solution to this dilemma has been known for many years but is not often used in commercial speaker systems. It is possible to do the crossover filtering in the low-level signal circuits ahead of the power amplifier(s) and then to provide each driver (or group of drivers) with its own separate power amplifier. This permits a "tighter" control of the speaker drivers by their amplifiers and both simplifies the design and reduces the cost of high-performance crossover filter networks. Such bi- or triamplified systems have long been recognized as having potentially superior performance, but their relatively high prices have limited their marketplace acceptance.

Test reports start on page 26



"... Don't worry about the kids, Robert. I hid all the newspaper reports about your embezzlement trial and told them you're here for illegally taping music from your FM radio."



Equipment Test Reports

Hirsch-Houck Laboratories: Julian D. Hirsch and Craig Stark



KYOCERA R-851 AM/FM RECEIVER

HIRSCH-HOUCK LABORATORIES: JULIAN D. HIRSCH

Ceiver has an audio-amplifier section rated to deliver 85 watts per channel into 8-ohm loads from 20 to 20,000 Hz with no more than 0.015 per cent harmonic or intermodulation distortion. In normal operation, its front panel presents a simple, uncluttered appearance, with no visible knobs. Almost half the area of the metallic-gray panel is blank except for the POWER pushbutton near its left edge. A black control-display area occupies most of the right side of the panel. This contains the digital frequency readout and LED's showing FM signal strength, relative audio power output, and the FM tuner's operating status as well as a number of black pushbuttons or pushplates for tuning and input selection. Other pushbutton controls include a 20-dB AUDIO MUTING switch and two TAPE COPY switches for dubbing between two decks. The volume control is a vertical slider.

Despite this apparent simplicity, the R-851 is an unusually versatile and full-featured receiver. Pressing the lower-right corner of the panel causes a full-width door to swing down, revealing additional pushbuttons, knob controls, and a headphone jack. There are three tone controls (bass, midrange, and treble), each of which has eleven detented knob settings and a continuously adjustable turnover to vary the affected frequency range. The bass-control turnover frequency can be varied from 100 to 500 Hz, and the treble turnover-frequency range is 2,000 to 10,000 Hz. The frequency of maximum effect for the MID control can be varied between 500 and 2,000 Hz, giving the R-851 a quasiparametric capability.

The only other knob is the balance control. Small pushbuttons select two pairs of speaker outputs, tone-control bypass, "subsonic" and high-cut filters, FM muting threshold, i.f. bandwidth, stereo channel blend, FM de-emphasis (75 or 25 microseconds), loudness compensation, stereo/mono mode, and moving-magnet (MM) or moving-coil (MC) phono preamplification.

The FM tuner section has an AUTO TUNING mode in which the i.f. bandwidth switches to narrow (lighting the IF NARROW indicator) whenever adjacent-channel interference occurs. Simultaneously with the bandwidth reduction, an "antibirdie" audio filter goes into operation to further reduce audible interference. Normal i.f. bandwidth can be restored only by tuning to another station or by pressing the AUTO/MANUAL button, which also shuts off the muting circuit in its MANUAL position. Either bandwidth can be selected at any time in the manual mode by pressing the IF button behind the door.

The rear apron of the R-851 contains the usual signal input and output jacks, two sets of insulated spring-loaded speaker-output connectors, and a hinged AM ferrite-rod antenna. There are binding posts for an external wire AM antenna and an F-type coaxial connector for a 75-ohm FM antenna. A 300-to-75-ohm

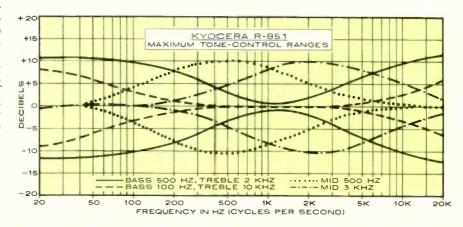
matching transformer is furnished with the receiver for use with 300-ohm FM antennas. There are three a.c. outlets, one of them switched. Including the walnut-finish wood side plates, the R-851 is 18½ inches wide, 14¾6 inches deep, and 5¾6 inches high. It weighs 27 pounds. Its styling matches that of other Kyocera audio products. Price: \$850. Kyocera International, Inc., Dept. SR, 7 Powder Horn Drive, P.O. Box 4227, Warren, N.J. 07060-0227.

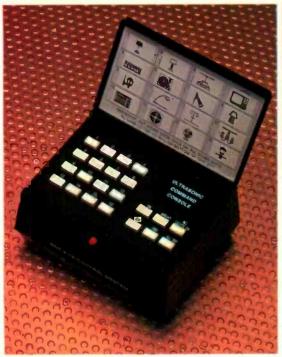
• Laboratory Measurements. The output transistors of the Kyocera R-851 are cooled by large heat-sink fins located near the left rear of the receiver. The top-plate grille above the fins became very warm during the one-hour preconditioning and the subsequent high-power testing. Its ventilation should not be restricted if it is played at constantly high levels.

The amplifier section's 85-watt rating proved to be extremely conservative. With both channels driving 8-ohm loads at 1,000 Hz, the output waveform clipped at 110 watts per channel. Into 4-ohm loads, the clipping power was 149 watts, and even with 2-ohm loads the R-851 delivered a potent 120 watts per channel. The dynamic-headroom measurements showed that the power output into low load impedances is limited by the powersupply regulation rather than by any internal protective circuits (none of which were triggered during our tests of the receiver). With the prescribed 20-millisecond tone-burst signal, the clipping output into loads of 8, 4, and 2 ohms was 136, 213, and 265 watts, respectively. Since the receiver is rated only for 8-ohm loads. its clipping headroom was 1.12 dB and its dynamic headroom 2.05 dB.

Driving 8-ohm loads, the distortion of the amplifier section rose from about 0.005 per cent at 10 watts (it was below the noise level at lower power outputs) to 0.017 per cent between 70 and 100 watts.

(Continued on page 30)









Remote Control Seduction

It had to happen. Now you can do it from across the room or throughout the house. And best of all, you can do it without even leaving your bed.

It's late at night. You're in bed. The lights are romantically low. The stereo playing in the background, as well as your lights, will be automatically turned off after you're asleep.

As you peacefully drift off, you'll be secure in the knowledge that to a burglar on the prowl, your family still appears to be moving about. Even your garage door will be electronically locked.

You'll sleep soundly while you save energy as your central heat is automatically set back for the night.

And if that's not enough, you'll awake in the morning to a warm home, freshly brewed coffee, and the sounds of your favorite cassette.

And look at this, even your electric blanket will be automatically shut off after you're up.

All of the above can be yours right now. And, wait till you see just what you can do when you're not in bed.

CHEAP THRILLS

Romantic lighting, burglar deterents and energy saving controls are just the beginning of this remarkable, installation free, remote control system from BSR, the mammoth electronics giant.

And speaking of remarkable, due to a DAK all cash buy, you can forget the retail price. In fact, you can even forget the wholesale dealer cost.

Now you can remotely turn on, off and dim your lights, thwart burglars, start your dinner while you're away and even turn the lights on or off in an unattached garage or barn for as much as 65% off the suggested retail price. Wow!

This instant remote control system simply plugs-in in seconds and consists of inexpensive space age control modules and command centers.

It actually uses your existing house or

office wiring. And if you can plug in a lamp, you have all the expertise you'll need to plug-in this system.

\$16.50 STARTS IT ALL

Imagine that you're watching TV. You can dim the lights from your easy chair. If you hear a noise outside, touch a button and your outside flood lights jump to life. If you get warm or cold, just touch a button to activate your heat or air.

It's all easy when you have this top of the line Command Console, shown above, sitting next to you. It can let you control up to 16 different lights and appliances.

You can turn each on or off. You can dim or brighten lights. And look at this, you can turn all your lights on or off for instant security with the 'all on' and 'all off' buttons on the console. Plus, a red LED lights to acknowledge commands.

It's a \$49 retail value, but it's yours, only from DAK, for just \$16.50. You can keep the Console on your nightstand, by your easy chair, or in the kitchen.

You can even move it from room to room because its total installation consists of simply plugging it in. Or at DAK's super low price, you can put Command Consoles in as many rooms as you wish.

No matter where the Command Console is, you can control lights, fans, TVs, and stereos anywhere in or around your home.

There's even a remote for your remote. This top of the line Command Console has a built-in ultrasonic receiver so that you can add (they weren't sold as a set) an optional \$24.99 retail value wireless remote handset. DAK's price for the handset is just \$10.

Every control on the console is exactly duplicated on the handset. So you can roam up to 30 feet from your easy chair or your bed and still be in full control.

And, if you buy several consoles, the

handset will work with all of them. But beware, the handset only works with the top of the line \$49 consoles. If you already own a BSR X10 console it may not have the sophisticated circuitry to accept and act on the remote handset's signals.

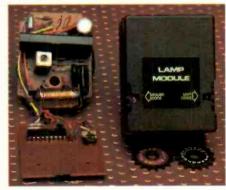
HERE'S HOW IT WORKS

As you push each button on the command console, a powerful but silent, encoded signal is sent down its AC cord into your home or office wiring.

This safe, silent encoded signal travels in all directions throughout your electrical system. It won't disturb your TV or your FM, but it will instantly find its way to every inch of your system.

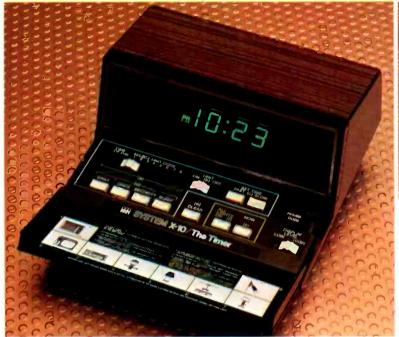
It can even reach your unattached garages, barns, sheds and even your pool light, porch lights and yard lights.

Wherever you want to control a light or appliance, all you have to do is plug-in one of the system's sophisticated special controller modules.



Each module has a rotary dial numbered from 1 to 16. Just dial in a number to match one of the 16 number buttons on the console.

Over Please. . .





Remote Control

(Continued from previous page)

Then, just plug the module into the wall and the lamp or appliance into the module for instant remote control.

A sophisticated Integrated Circuit in each module senses all signals and responds only when the button on the console that corresponds to the number shown on the module's dial is activated.

Important note: You still have local control of all your lights and appliances by just using their normal switches even though they are plugged into modules.

Each module actually senses when you turn the controlled unit's switch and automatically relinquishes control.

There are separate modules for lamps that have full range dimming capability from 0% to 100% and handle up to 300 watts (that's three 100 watt bulbs or 500 watt bulbs). There are appliance modules that have no dimming but can handle up to 500 watts, or 1/3hp motors.

And, there are even light switch modules that have both full dimming and 500 watt capability which you can install instead of your present wall switches.

You can move the modules from place to place or change their numbers in seconds. And of course, if you move, your system goes with you.

So all you have to do is dial in a number, plug in the module and plug in the controlled device. Now, you'll have instant remote control in your own home.

SOME NEAT IDEAS

You'll find the system changes and bends to meet your exact needs. You can set several modules to the same number so that the front and rear lights can come on together.

Or, you can set all the lamps in a room to come on together. And, you can even

dim them together.

If you don't set modules to the same number, you're still in control. If you want 5, 7, and 9 to come on, just punch the number keys and then on. With this intelligent system, there's no need to push on, off or dim after each number.

You're sure to want a module in your dining room. Eating by subdued light is a

real pleasure. And it's important to remember that not only do you get full remote control, you get 0% to 100% control of your lights.

It's like getting free dimmers thrown in with your remote control system. So, for bedside lamps, swag lamps, ceiling lights, track lights and garage lights, you'll be in full command.

And, you'll automate your fans, coffeemaker, de-humidifiers, crock-pots and even shut off your electric garage door opener when you're at home.

And, there's one last very important feature. In addition to the 16 electronic devices you can control, the entire system gives you a choice of 16 master system codes that you set yourself.

BSR calls them house codes and there's a second dial on all the modules and on the Command Base that lets you select a code from A to P. You don't need to use this code except that all your modules should be set to the same 'house code'.

But, look at this. If you'd like to run more than 16 devices, just add another Command Console set to another 'house code' and you can have a second, third or even a fourth totally separate system that won't interact with your first system in any way.

Of course, if you set a Command Console to the same 'house code', it will become part of the original system. And, there's no limit to the number of Command Consoles you can use in a system.

THE TIMER

Now let's add remote control that doesn't even require you to be at home.

BSR calls it simply, 'The Timer'. But, it's so much more. This sophisticated electronic brain can perform 32 tasks. BSR's price list shows a suggested retail price of \$74.99 for the timer, but from DAK, it's yours for just \$37.50.

It installs just like the Command Console. Plug it in and you're in operation. But, wait till you see what it will do.

Just select the module number you want to control, then decide if you want the controlled device to come on or off.

Now the fun begins. This is more than

an on or off timer. You're in command. If you only want something to happen once, just push the 'Once' button.

This is great for starting dinner before you get home. Or, if your cassette deck is 'timer ready', now you can record a special AM or FM radio event that you'd miss because you were at work or asleep.

There is a 'Daily' button that lets what you've programmed occur every day, 7 days a week, 365 days a year.

This is great for set-back heating, night lighting and wake up functions. The daily function can be put 'on hold' any time you don't want an event to occur.

There's a 'Security' button. You can program lights and radios to give your house a lived-in look when you're away.

This button will cause whatever you've programmed to occur at random times, differing each day by as much as 30 minutes from the set time.

And, there's a 'Sleep' button. A single touch of this button will let you turn any controlled module on for an hour.

So, tonight you can listen to your stereo for an hour before auto-shut off and to-morrow you can go to sleep watching TV.

And, if you want more than an hour, just push the button twice for two hours, 3 times for three hours and so on.

The Timer will allow you to program 8 modules of the 16 possible numbers. Each module can be turned both on and off twice a day to suit your needs.

Every command can be different. For example, you can have any module come on 'Once', go off 'Daily', come on for 'Security' and still program it for 'Sleep'.

And, The Timer can be used as a Command Console by selecting a module and pushing the 'Now' button for instant nontimed operation. There's also an 'All Lights On' security button.

With The Timer you can set either your central or window air conditioning to come on an hour before you return from work. You can have your porch lights come on so you'll never enter a dark house. And, you'll have complete control of all your electronic devices.

Over Please. . .



Seduction



TELEPHONE CONTROL TOO

And if this doesn't end all, now you can even call your home on the telephone and control anything you like.

The Telephone Responder is the most sophisticated option to the system. BSR's price list shows its suggested retail price to be \$149. But, you can control your home by telephone for just \$69.

The Telephone System is incredibly easy to use. Just plug it into both your AC line and any modular phone jack in your home or office.

Then just call your regular phone number, give it your 3 digit code that you set yourself, and start controlling.

You can call home and turn on your lights before you leave work or before you leave a midnight party. Call home and turn on your air conditioning or heat. Or, call home and start your tape deck.

Anything you can control from the regular Command Console, you can turn on or off by phone. If you have a summer or winter home, call it before you 'head out' so it will be ready when you arrive.

If you live in a brush fire area as I do, you can call and turn on your automatic roof sprinklers. If you have a mountain cabin, you can turn on your pipe heaters if there's an early snow.

The Telephone Responder lets you control 8 of your modules. You can turn them on or off. Plus there's an 'All Off' feature as well. The base can also operate as an on/off command console.

Although this whole system is obviously made for the very rich, you'll live like a king without paying a king's ransom.

AND NOW THE SEDUCTION

Close your eyes and imagine the soft music, dimmed lights, the cocoon of safety and the remote temperature control. What a wonderful 'picture of seduction', right out of the movies this can be. And, it can be yours today.

CHEAP, BUT WITH FULL WARRANTY

DAK has made an incredible all cash buy on a limited quantity of these BSR X10 components. BSR sold them to us for two reasons.

First, BSR made too many units with

the Leviton (the light switch manufacturer) brand name on their name plate, so BSR didn't know what to do with them. And second, BSR was supposed to have a joint venture with a computer company for an interface for this system. Unfortunately it hasn't worked out.

DAK already has these components at just pennies on the dollar. So, if you don't mind some of your modules or controllers saying Leviton X10 instead of BSR X10 (they look identical) and if you don't need to hook the system to your computer, you're going to save a bundle. Of course, the modules for the system are available almost anywhere.

And, even though you're only paying pennies on the dollar, it's backed by the full strength of BSR.

Every component you buy is backed by BSR's iron clad full one year limited warranty for your protection.

TRY A REMOTE WONDER RISK FREE

Now you can experience the wonder of remote control. It's simply a thrill to use. And at DAK's price, it's a cheap thrill.

As you get into bed tonight, think about what you'd do if you heard a noise outside, downstairs or at the other end of the house. Now, just touch a button and your home will be bathed in light.

Think about how nice dimmed lights would be in your bedroom, den or living room. And, think about coming home to a piping hot meal. It's all possible with BSR's incredible remote system.

Try any part or all of it. If you're not 100% satisfied for any reason, simply return it to DAK within 30 days in its original box for a courteous refund.

Order any combination of Command Consoles and modules that you want. The choice is yours. There are no limitations except that sales are limited to stock on hand.

1)The Control Console-Lets you control up to 16 different modules. On/off/dim/all on/all off. Just \$16.50 plus \$2 P&H. Order No. 9775.

2)The Ultrasonic Remote-Lets you roam up to 30 feet from any Control Con-

sole and duplicates all functions. Just \$10 plus \$1 P&H. Order No. 9776.

3)32 Event Clock Timer-Lets you control B modules with up to 2 on and 2 off commands to each. Also acts as a command base plus sleep and security extras. Just \$37.50 plus \$2 P&H. Ord No. 9777.

4) Telephone Responder-Now you can just call your home, enter your code and control any 8 of your controlled devices. It's also a base. It's yours for just \$69 plus \$3 P&H. Order No. 9778.

5) Lamp Module-Controls/dims lamps up to 300 watts plugged into walls. Just \$12.50 plus \$1 P&H. Order No. 9779.

6) Wall Switch Module-Controls/dims lights now controlled by wall switches. 500 watt capacity. This is the only module that requires installation. Just replace your current wall switch with this automated module. Just\$12.75 plus\$1 P&H. Order No. 9780.

7)Appliance Module-Control stereos, TVs, or anything with motors. 15 amps, 500 watts, 1/3 hp rating. Just \$13 plus \$1 P&H. Order No. 9781.

8) Thermostat Controller-You don't touch your own thermostat. This device sticks just below your thermostat and 'fools' it into doing what you want by heating it 5, 10 or 15 degrees. It works for both air conditioning or heating, and it works perfectly. Use it to set back your heat at night, or turn your air on before you come home. Just \$69 plus \$3 P&H Order No. 9782.

You'll thrill in the automation of your whole house, not only at a fraction of the original price, but in ways that were never possible before at any price.



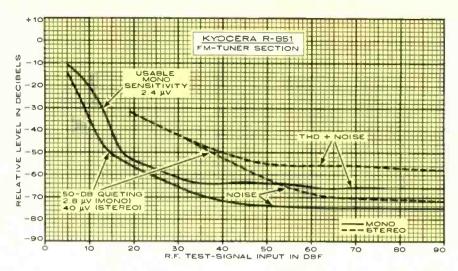
TOLL-FREE ORDER LINE
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CALL TOLL-FREE. . .1-800-325-0800
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Test Reports

With 4-ohm loads the characteristic was similar, the distortion climbing from 0.0065 per cent at 10 watts to 0.03 per cent in the 50- to 120-watt range. Even 2-ohm operation did not significantly degrade performance; the distortion measured about 0.017 per cent from 10 to 30 watts and 0.05 per cent at 100 watts. The amplifier distortion was nearly independent of frequency. At 85 watts output (into 8 ohms) it ranged from 0.004 to 0.008 per cent between 20 and 20,000 Hz. At half power the distortion range was 0.002 to 0.005 per cent, and at one-tenth rated power it was below 0.002 per cent up to 10,000 Hz, reaching 0.005 per cent at 20,000 Hz. The power-amplifier's slew factor exceeded 25, and it was stable with simulated speaker loads.

The tone controls of the R-851 were able to tailor its frequency response to a remarkable degree, limited only by the user's hearing acuity and taste (see the graph on page 26). They could be set to produce barely audible modifications of the response at the upper and lower frequency extremes and almost anywhere in the midrange, or they could be made as heavy-handed in effect as the majority of tone controls. The choice is up to the user. The receiver's loudness compensation boosted both lows and highs (the latter only slightly) and made the sound too heavy for our taste. The "subsonic" filter reduced the response by 3 dB at 20 Hz (it is said to have a 12-dB-per-octave slope at lower frequencies), and the "high" filter (which has a 6-dB-per-octave ultimate rolloff) reduced the response by 3 dB at

The RIAA phono equalization was very accurate, within \pm 0.5 dB from 20 to 20,000 Hz, and it was negligibly affected by cartridge inductance. The phonopreamplifier input (MM) was 47,000 ohms at 1,000 Hz, although it could not be defined as a simple combination of a resistance and a capacitance. Amplifier sensitivity (AUX) was 17 millivolts (mV)



for a 1-watt output, with a -74-dB noise level (A-weighted). The sensitivity was 0.23 mV through the phono (MM) input, also with a -74-dB noise level. The phono preamplifier overloaded at 150 to 160 mV, depending on frequency. We did not test the MC input, but its voltage gain is specified as twenty times that of the MM input, with a 100-ohm impedance.

The FM-tuner section had a mono usable sensitivity of 12.8 dBf (2.4 microvolts, or μ V). The stereo sensitivity was set by its switching threshold of 19 dBf (5 μ V). The muting threshold was switchable from about 19 dBf (LO) to 43 dBf (HI). The 50-dB quieting sensitivity was 14.1 dBf (2.8 μ V) in mono and 37.2 dBf (40 μ V) in stereo. The tuner distortion in mono (at 65 dBf, or 1,000 μ V) was 0.05 per cent, approximately the residual of our signal generator, and in stereo it was 0.165 per cent. The corresponding noise levels were -75 and -70.5 dB.

The stereo FM frequency response was ± 1 dB from 30 to 15,000 Hz, and the channel separation was about 43 dB through most of the low- and middle-fre-

quency range, decreasing to 39 dB at 30 Hz and 24 dB at 15,000 Hz. Other FMtuner performance parameters included a capture ratio of about 1.3 dB (narrow i.f.) or 2 dB (wide i.f.), AM rejection of 65 to 67 dB, and a very good image rejection of 88 dB. The narrow-i.f. alternate-channel selectivity was an excellent 83 dB, and in wide-band it was 44 dB, more than adequate in our suburban location. The corresponding adjacent-channel selectivity readings were 12 and 2.7 dB. The 19-kHz pilot-carrier leakage into the audio was a very low - 78 dB, and the tuner hum was 70 dB. The frequency response of the AM-tuner section was typical: flat within ±1 dB from 25 to 1,500 Hz and down 6 dB at 3,000 Hz.

• Comment. The Kyocera R-851 made a strongly favorable impression on us, not only because of its excellent performance, but because it handled so smoothly and never sounded anything but first-rate. It is also, as far as we could tell, a bug-free receiver, with not a trace of switching transients or other unwelcome side effects. Even its FM signal-strength lights, operating at intervals of 6 to 12 dB, are truly useful as an aid toward orienting an antenna, not merely cosmetic.

The three-band quasiparametric tone controls are extremely useful and versatile compared with the ordinary tone controls found on most receivers and preamplifiers. The only awkward aspect of the R-851's operation was the taper of the volume control, which produced uncomfortably high listening levels when playing FM broadcasts at any setting above 3 (out of a range of 10). On the other hand, there was no distortion at higher levels since the amplifier section is certainly not prone to clipping.

We never really determined the true limits of the amplifier section. No doubt our previous sad experiences with lesser products made us overly cautious. In any case, our listening tests and measurements of its dynamic headroom and low-impedance output clearly showed that the Kyocera R-851 is an unusually muscular and conservatively rated receiver.

Circle 140 on reader service card

(Continued on page 32)



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KENWOOD KX-71RB CASSETTE DECK

HIRSCH-HOUCK LABORATORIES: CRAIG STARK

KENWOOD'S KX-71RB is a moderately priced two-head cassette deck with auto-reverse, bidirectional record and playback capabilities, Dolby-B and Dolby-C noise reduction, and rapid programsearch facilities. Its transport is solenoid operated and has a separate capstan for each tape direction; the capstans are beltdriven by a d.c. servomotor. A second d.c. motor is used for the tape hubs. The record/playback head, made of hard permalloy, is mounted together with the erase head on a fast-acting rotator mechanism. When the tape direction is reversed-either manually or automatically, when the tape leader runs out-the head-mounting plate of the rotator spins through 180 degrees, turning the heads around. In the normal forward direction the heads scan the stereo tracks on side one. In the reverse direction the inverted heads scan the stereo tracks for side two. In this way both sides of a cassette can be recorded or played without manually turning over the cassette itself.

Cassettes are inserted into a typical cassette well. Its large, clear door affords ample label visibility, but the lack of interior illumination makes it somewhat difficult to see how much tape remains on the side in use. The door is easily removable for head cleaning and demagnetizing.

Unlike most cassette decks, which require both the record and play buttons to be pressed simultaneously in order to start recording, the KX-71RB begins to record as soon as its copper-colored REC/ARM button is pushed. If this button is pressed a second time, however, the record-mute function is activated, and four seconds later the deck stops in the pause mode. Other pushbutton controls in the transport section can be used to locate the blank spaces between selections (BLANK SEARCH) or to play the first few seconds of each successive selection until the desired one is found (INDEX SCAN).

Two columns of seven LED's are used as peak-reading record-level indicators. Calibrated from -20 to +6 dB, with the Dolby marking at +3 dB, the LED's are orange below 0 dB and red for 0 dB and above. Record levels are set with the very

large knob on the right of the front panel together with the small channel-balance knob. The tape counter is the conventional three-digit mechanical type. The remaining front-panel switches turn the noise-reduction systems on and off; select bias and equalization settings for ferric. CrO₂, or metal tape; set the deck for oneway, one-cycle (forward and reverse), or "endless-loop" operation (which automatically shuts off after eight complete loops); and set the deck for recording or playback controlled by an external timer. There are also front-panel jacks for two microphones and for a pair of stereo headphones.

The rear panel of the KX-71RB contains only the customary line-in and line-out jacks; there is no provision for remote-control operation. The deck measures 17% inches wide, 4¼ inches high, and 8¼ inches deep, and it weighs about 10½ lbs. Price: \$320. Kenwood Electronics, Inc., Dept. SR, 1315 East Watsoncenter Road, Carson, Calif. 90745

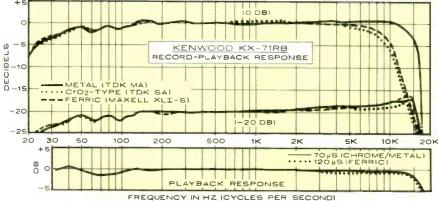
• Laboratory Measurements. We measured playback frequency response in both directions and with both ferric (120-microsecond, or μs) and CrO₂/metal (70-μs) tapes with BASF IEC-standard calibrated test cassettes. With both equalizations the response did not vary between the two directions by more than 0.5 dB, so we averaged the results to obtain the curves shown in the graph. With both tape types the response was extremely flat and smooth from the lower limit of the test tapes, 31.5 Hz, up to 14,000 Hz, after

which it rolled off to approximately -5 dB at 18,000 Hz.

Kenwood did not supply information about which tapes we should use for testing the KX-71RB. After trying a number of different brands (most of which, as we expected, gave very similar performance), we settled on the three shown in the graph: Maxell XLI-S (ferric), TDK SA (high-bias, CrO₂-equivalent), and TDK MA (metal). The superior high-frequency headroom of the metal-tape formulation is clearly evident in the 0-dB-level response curves. At the -20-dB recorded level all three tapes showed a dropoff above 15,000 Hz (the -3-dB point was between 16,000 and 17,000 Hz), which is clearly the designed maximum frequency of the deck. The new Scotch XS I (ferric) formulation gave flatter high-frequency response (+3.5 dB at 14,000 Hz) than the Maxell XLI-S we selected, but the latter had a better signal-to-noise ratio (S/N). At the low-frequency end, the -3-dB point was between 30 and 35 Hz, which is commendable in a deck of this price. The Dolby-system tracked within ±1 dB.

In attempting to measure the S/N for each of the three tape types, we encountered a situation on which we have had occasion to comment before: the IEC reference level of 250 nanowebers/meter (which, though relatively high, is still below the level that produces 3 per cent third-harmonic distortion with a properly biased deck and today's tapes) was a full 6 dB above the indicated "0-dB" level of the KX-71RB. As a result, using the 0-dB indications on the deck to set a maximum record level (which is what they are supposed to be for) will produce tapes that are underrecorded by at least 6 dB. This is practically the same as giving up the additional noise reduction provided by Dolby-C and simply recording with Dolby-B at a proper level. We can only point out again to Japanese manufacturers that 125 nWb/m is not the proper place to set the 0-dB ("maximum") point on their record-level indicators and advise owners of the KX-71RB that, since +6 dB is the highest level the machine can display, they should try letting signal peaks hit the very top of the scale.

(Continued on page 35)



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





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At Kenwood's indicated 0-dB level, the third-harmonic distortion of a 315-Hz test tone measured 0.35 per cent (Maxell XLI-S, ferric), 0.2 per cent (TDK SA, high-bias), and 0.25 per cent (TDK MA, metal). To reach the 3 per cent distortion point for these same tapes required raising the level to +8.6, +7.4, and +8.4 dB, respectively—all above the maximum on the indicator scales. Referred to the 3 per cent distortion point, unweighted S/N's with no noise reduction measured 54.6, 53.5, and 52.5 dB for Maxell XLI-S, TDK SA, and TDK MA, respectively. With Dolby-B and IEC A-weighting these figures improved to 68, 66.7 and 64.9 dB, and using Dolby-C raised them to 73.6, 73.3, and 72 dB.

With our Teac MTT-111 test tape, the wrms wow-and-flutter of the KX-71RB measured 0.052 per cent in the forward direction and 0.037 per cent in reverse. On the stricter DIN standard the forward and reverse figures were 0.075 and 0.059 per cent, respectively, which is typical for a single-capstan deck in this price class. The speed accuracy was only moderate: 0.76 per cent fast in forward and 0.86 per

cent fast in reverse. High-speed winding times were a little over 2 minutes for a C-90 cassette and just over 80 seconds for a C-60. A line input level of 61 millivolts (0.061 volt) was required to reach an indicated 0-dB record level, at which point the line output measured 220 mV. At the microphone jacks a 0-dB record level required a 0.5-mV input level; the microphone inputs began to overload with signal levels in excess of 50 mV, a typical 40-dB range.

• Comment. We listened to the KX-71RB with both prerecorded and dubbed cassettes, and we found that it did a creditable playback job. It cannot and is not intended to compete with our high-performance reference deck in terms of sparklingly clear high-frequency response. On the other hand, with the vast majority of prerecorded cassettes, if you left the room with one deck running and returned with the other running instead, you'd probably not notice that a substitution had been made. Our response to dubs of a variety of musical materials was essentially similar.

We do have some criticisms to make of the deck's human engineering. In part because of the dual use to which the record button is put, you cannot quickly shift from one direction to the other while recording. Holding down the record button and hitting the tape-reverse control won't work; the 4-second record mute is initiated, and then the machine stops and ignores the direction change. To change directions manually while recording requires a four-step control sequence: stop, play (in the other direction), stop, and record. This seems overly cumbersome and time-consuming. Also, the deck cannot perform "punch-in" recording, in which you enter the record mode while the deck is playing. Few new machines today lack this capability, which helps make "seamless" dubs.

These idiosyncrasies apart, the KX-71RB does provide good bidirectional record-playback performance, playback auto-reverse, useful scan and search features, and Dolby-C noise reduction, all at a price many will find attractive.

Circle 141 on reader service card



DAHLQUIST DQM-3 SPEAKER SYSTEM

HIRSCH-HOUCK LABORATORIES: JULIAN D. HIRSCH

THE Dahlquist DQM-3 is a compact two-way speaker system with an 8-inch acoustic-suspension woofer that has a flat-wound ribbon-wire voice coil and a polyvinyl-acetate cone. The sealed enclosure's outside dimensions are 17¾ inches high, 11¾ inches wide, and 10¾ inches deep; it weighs 34 pounds. There is a crossover at 2,000 Hz to a 1-inch dome tweeter. The system impedance is rated at 8 ohms, with a 5-ohm minimum. Its sensitivity is specified as 90 dB sound-pressure level (SPL) at 1 meter when driven

by I watt at 1,000 Hz. The DQM-3 is recommended for use with amplifiers rated to deliver between 20 and 100 watts per channel. Its nominal frequency response is 50 to 20,000 Hz, with no tolerances stated.

The cabinet is made of a laminated multilayer particle board identical to that used on Dahlquist's larger DQM series speakers. This material, imported from West Germany, is said to reduce cabinetpanel resonance effects compared with more conventional particle boards. The front baffle board is covered with Nextel, a felt-like flocking material, to reduce high-frequency diffraction effects. The black cloth grille is retained by plastic snaps that hold its wooden frame about 1/4 inch away from the baffle surface. The vertically aligned drivers are located slightly to the left of the center of the speaker board. Available cabinet finishes are either walnut-grain vinyl veneer or gray Nextel.

The DQM-3 has no user-adjustable controls. Inset into the rear of the cabinet are a pair of heavy-duty five-way binding posts and two fuse holders. The entire system uses a 2-ampere fuse, and the tweeter is separately protected by an additional 0.8-ampere fuse. Price per speaker: \$200 with the walnut-vinyl finish, \$225 with the Nextel finish. Dahlquist Inc., Dept SR, 601 Old Willets Path, Hauppauge, N.Y. 11787.

 Laboratory Measurements. The closemiked woofer response of the DQM-3 reached its maximum at 75 to 80 Hz, falling 12 dB per octave at lower frequencies. The woofer output also dropped off, though at a much lower rate, with increasing frequency. The averaged room response from the two speakers was quite uniform in the upper-middle and highfrequency ranges, with a 5-dB overall variation between 750 and 20,000 Hz. Splicing this curve to the woofer curve resulted in a composite frequency-response curve that was flat within ± 3.5 dB from 200 to 20,000 Hz but nearly 10 dB above the midrange average at its 80-Hz maximum level.

The general contour and smoothness of the middle- and high-frequency response was confirmed by quasi-anechoic response measurements made with our IQS FFT analysis system. In fact, the axial response was an excellent ±1.5 dB from below 1,000 Hz to about 22,000 Hz. Unfortunately, even the IQS system does not permit a true low-bass response measurement to be made in a room of normal size (except with the close microphone spacing used for our sweeping sine-wave lowfrequency response measurement), so we could not use it to confirm the validity of our curve-splicing technique.

The system impedance hit a minimum of about 4 ohms at 20 and 130 Hz, with a peak of 10 ohms at the bass resonance of

Test Reports

80 Hz. It typically measured between 8 and 20 ohms in the 700- to 20,000-Hz range. We would classify the DQM-3 as a 4-ohm system based on these measurements. The system sensitivity was lower than rated, with a measured output of 85 dB at 1 meter with 2.83 volts of bandlimited pink noise. Using the data to determine the drive level that would give a 90-dB SPL at 1,000 Hz, which was 5 volts, we drove the speaker at that level from 100 Hz down to measure the woofer distortion. The system's distortion measured only 1 to 2 per cent from 100 to 60 Hz, rising to 4 per cent at 50 Hz and to 9.5 per cent at 40 Hz.

The system's group delay was constant within ±0.1 millisecond over the upper part of the tweeter's range (9 to 20 kHz) and varied within 0.5 millisecond overall through the lower part of the range. The tweeter's dispersion was excellent, with less than 6 dB difference between the 0-

degree (axial) and 30-degree response at any frequency up to 20,000 Hz.

• Comment. Placed against the wall about 28 inches off the floor, the Dahlquist DQM-3 had a pleasant sound, with no hint of the measured 80-Hz bass peak. No doubt this was due, at least in part, to the low frequency of the bass rise. There is little energy in most music or voice sounds, in the range of this peak. It is more common to find speakers having a bass emphasis an octave higher than this (around 100 to 200 Hz), where it imparts an unmistakable coloration to male voices. This effect was notably absent in the sound of the DQM-3's, which instead had a balanced, wide-range response with clean, well-dispersed highs and an uncolored midrange.

The speaker's low measured sensitivity was obviously genuine, as was demonstrated by A/B comparisons with other

speakers of similar or higher rated sensitivities. The DQM-3 is certainly not a low-efficiency speaker, but we would advise using it with amplifiers nearer the upper end of its recommended power range than with those in the 20-watt category. For our tests we used amplifiers in the 100- to 200-watt range, and the DQM-3's always sounded fine at any level we cared to play them. (Since we never blew one of the speaker fuses, we cannot judge how much protection they offer, but fusing is always a desirable protection for any speaker that does not have a more sophisticated protection system.)

Considering the very modest price and dimensions of the Dahlquist DQM-3 together with its thoroughly musical and pleasing sound, we have no hesitation in recommending it for use in any moderate-priced music system.

Circle 142 on reader service card



SONY CDP-610ES COMPACT DISC PLAYER

HIRSCH-HOUCK LABORATORIES: JULIAN D. HIRSCH

THE "second-generation" Sony CDP-610ES digital Compact Disc player, though somewhat less expensive than Sony's original CDP-101, is very similar in its basic design and features. The CDP-610ES lacks the programming facilities of some CD players, but it provides just about any other operating convenience one might desire. Moreover, it is furnished with an infrared wireless remote control that offers even *more* operating flexibility than is available from its front-panel controls!

Pressing the OPEN/CLOSE button on the disc-loading door activates a motor-driven drawer that slides out so that the disc can be placed in its loading tray. A second touch on the button retracts the drawer and disc to the playing position. The numeral 0 then lights up in the fluorescent display area to the right of the disc drawer while the word DISC appears in red next to it. To the left of the door are a pushbutton power switch, a slide switch for playing discs under the control of an external timer, a stereo headphone jack, and a small

knob that controls headphone volume in five discrete steps.

The principal operating controls of the Sony CDP-610ES are a group of flat pushplates below the display window. Pressing PLAY starts playback of the entire disc beginning with its first track. The display shows the number of the track being heard, the index number of the subsection (if any), and the elapsed time in minutes and seconds from the start of the current track.

A PAUSE button is located below PLAY, and to its right is a group of manual-search buttons. Equivalent to a tape deck's fast-forward and rewind controls, these accelerate playback in either direction when pressed. One pair, marked with double arrows, speeds up the play nearly three times, reducing 1 minute of normal playback to about 23 seconds. The second pair of buttons, marked with triple arrows, can scan a minute of normal program in only 2.5 seconds. At either speed and in either direction, the accelerated program is heard with its nor-

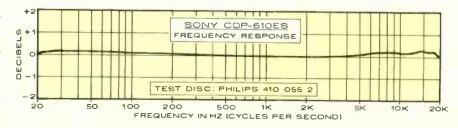
mal pitch but at a lower volume level.

Above the manual-search controls is a pair of larger AUTOMATIC MUSIC SENSOR buttons that are marked with double arrows for forward and reverse. These can be used to skip forward to the beginning of the next track or back to the beginning of the current track. Pressing one of these buttons a second time will cause the player to skip to the beginning of the previous or subsequent track; repeated operations thus give access in either direction to the beginnings of all the tracks on the disc. If a button is held in, after a couple of seconds the process takes place automatically, much as a digital tuner scans a radio band.

If the disc is indexed—that is, if the starting points of musically significant subsections were encoded during the mastering process—a pair of small INDEX buttons can be used for quick and accurate access, from either direction, to any indexed point within the current track. A stop button is located just below the INDEX buttons.

At the top-right side of the panel are several buttons that control the player's repeat functions. Pressing the button marked I will repeat the current track indefinitely, and pressing that marked ALL will keep repeating the entire disc. Any other portion of the disc, whether part of a track or a number of complete tracks, can be repeated indefinitely by pressing the MEMORY button once at the start of the selected section and again at its end. The repeat instructions can be canceled by pressing the CLEAR button.

Other controls at the right include an ELAPSED/REMAINING TIME button, which





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Test Reports

changes the display from elapsed time within the current track to the total remaining time on the disc, and an AUTO PAUSE button, which causes the player to pause at the end of each track. Play can be resumed by touching the separate PAUSE button below the PLAY button.

The rear apron of the CDP-610ES contains two sets of gold-plated line-output jacks. The level of one pair is variable and is set by a front-panel knob; the other is fixed at the maximum level. A BEEP control causes the player's internal beeper to emit a short tone each time a signal is received from the remote control. A multipin connector is also provided for unamed accessories to be released in the future.

The Sony RM-111 Remote Commander, included with the CDP-610ES, is a compact, battery-operated device measuring only 21/8 inches wide, 1 inch thick, and 6% inches long. It contains no fewer than thirty pushbuttons, which duplicate the functions of most of the player's front-panel controls. Omitted are the headphone-level control, the AUTO PAUSE and TIMER controls, and the POWER switch. But the remote control has a set of buttons marked from 0 through 9 and a START button that are not provided on the panel of the player itself. With these controls it is possible to access any track directly by keying in its number and pressing START. Although the remote unit does not have a volume knob, there is a pair of LINE OUT buttons that raise and lower the level at the variable-output jacks (the front-panel volume knob turns when these buttons are pushed).

Since most of the performance specifications of Compact Disc players are delimited by the specifications of the CD system itself, the manufacturer's specs for the Sony CDP-610ES are much the same as those for all the other CD players on the market. They include a frequency response of 5 to 20,000 Hz ±0.5 dB, distor-

Sony CDP-610ES Operating Features and Hirsch-Houck Labs Test Results

Manual Features

Skip to next track? Yes
Skip back to previous track? Yes
Skip to start of current track? Yes
Scan/Search? Yes
Program audible during scan/search? Yes
Repeat track/side? Yes/Yes
Repeat phrase? Yes
Cue by track number? With remote control
Cue by index number? Yes
Cue by time? No

Lab Measurements

Maximum output level: 2 volts
Maximum variable output level: 2 volts
Headphone output: 8 ohms, 0.15 volt; 600
ohms, 5 volts
Total harmonic distortion at 1,000 Hz:
0.0025 per cent referred to 0 dB; 0.0023

per cent referred to -6 dB

Signal-to-noise ratio: 92 dB unweighted; 100 dB A-weighted Channel separation: 105 dB at 1,000 Hz; 78 dB at 20,000 Hz Frequency response: +1.5, -0 dB from 20 to 20,000 Hz Cueing time: 4 seconds

Intermodulation distortion: 0.002 per cent

referred to 0 dB; 0.009 per cent referred

Other Lab Tests

to -20 db

Impact resistance: top, A; side, B
Cueing accuracy: A
Defect tracking (figures are size of the
largest defect successfully tracked):
signal-surface damage, 900 micrometers;
painted dots, 800 micrometers; simulated
fingerprint, pass

tion less than 0.003 per cent, dynamic range greater than 95 dB, and channel separation greater than 90 dB. The rated line-output level is 2 volts at a 0-dB recorded level (the system's maximum level), and the player is designed to drive a load of at least 10,000 ohms at its fixed-output terminals or 50,000 ohms at its variable terminals. Price: \$850. Sony Consumer Products, Dept. SR, Sony Drive, Park Ridge, N.J. 07656.

● Laboratory Measurements. The CDP-610ES's maximum output level at 1,000 Hz with a 0-dB recorded level measured 2 volts, as rated. The frequency response, measured with the Philips TS3 test disc, was flat within 0.15 dB overall from 20 to 20,000 Hz, the principal deviation being a slight rise in the upper two octaves, from 5,000 to 20,000 Hz. A 90-degree

phase shift between channels at 20,000 Hz indicates that the unit has a single digital-to-analog converter that is rapidly switched (multiplexed) between the two output channels.

The 1,000-Hz harmonic distortion at 0 dB was about 0.0025 per cent, and it was 0.0023 per cent at -6 dB. Measurements could not be made at lower levels because of low-level spurious signals in the audio output (typically at -90 to -97 dB, which is equivalent to less than 0.003 per cent in level but is sufficient to obscure the equally low harmonic-distortion components). The intermodulation distortion was 0.002 per cent at 0 dB (roughly the residual reading of the test equipment) and 0.009 per cent at -20 dB.

Channel separation at 100 and 1,000 Hz was about 105 dB, decreasing to 87 dB at 10,000 Hz and 78 dB at 20,000 Hz. The unweighted noise level (referred to 0 dB) was -92 dB, improving to -100 dB with A-weighting. Flutter was unmeasurable, being at the 0.002 per cent residual of our flutter meter. The maximum unclipped headphone output ranged from 4 volts into a 600-ohm load to 0.56 volt into 32 ohms (the basis of Sony's ratings) and 0.15 volt into 8 ohms. The listening level with 600-ohm phones was excellent, and we never had to turn the headphone output control all the way up for an adequate volume level.

The error-correction and tracking-servo system of the Sony CDP-610ES was among the best we have encountered. The "worst case" sections on the Philips TS4A calibrated-defect test disc-embedded signal-surface flaws 900 micrometers wide and surface spots 800 micrometers wide, as well as a simulated fingerprinthad no audible effect on the playback sound. Only a couple of other players we have tested have matched this performance, which is greatly superior in this respect to Sony's first-generation CDP-101. The resistance of the player to physical shock was good on its top surface and nearly as good on the front and sides. It must be understood, however, that these are relative judgments. No CD player we



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have used is totally immune to skipping as a result of impacts on the case, although some players can withstand a great deal of physical abuse. Unlike LP turntables, though, CD players are inherently immune to the effects of acoustic feedback. The CDP-610ES was certainly as good as any of the others we have tested in its resistance to shock.

The new Sony player also proved to have fast and accurate cueing capabilities. Slewing from the start to Track 15 of the Philips TS4 disc (our standard test of slewing speed) required only 4 seconds, and stepping forward or back using the AUTOMATIC MUSIC SENSOR required only 1 or 2 seconds for each step. One of our standard tests involves the transition between Tracks 17 and 18 of the Philips TS4 sampler, which have no silent interval between them. Most players clip a

slight but detectable amount of the first syllable of the vocal at the beginning of Track 18. The CDP-610ES performed perfectly in this test, but when we set it to repeat Track 17, it played an instant of the start of Track 18 before returning to the start of Track 17. Although these tests may have little bearing on the utility of the machine to any home listener, they give an indication of the accuracy of a player's cueing system.

• Comment. We will make no attempt to comment on the "sound" of this or any other CD player, at least until consistently distinctive sound qualities can be demonstrated. That has yet to be done, and, indeed, the weight of the technical evidence suggests that there can be no significant sonic differences between two properly operating CD players.

It is obvious, however, that there are extensive and meaningful differences among players in respect to the convenience and flexibility of their operating features as well as in their ability to perform properly with flawed discs. Although the Sony CDP-610ES has no programmed-playback capability, for us its other facilities more than compensate for that omission. We especially liked its choice of fast-cueing speeds, the audibility of the program material during these fast modes, the handy remote control, and its superior ability to track damaged discs. In sum, the Sony CDP-610ES is a fine-performing Compact Disc player with many genuinely useful features at a price lower than that of Sony's less-versatile first-generation model.

Circle 143 on reader service card



McINTOSH MR 500 FM TUNER

HIRSCH-HOUCK LABORATORIES: JULIAN D. HIRSCH

THE McIntosh MR 500 FM tuner has the distinctive styling and high-quality construction that are typical of McIntosh products. While it is called a digital tuner and has a numerical frequency readout and much digital circuitry, the MR 500's actual tuning system differs from that ordinarily used in digital-synthesis tuners and receivers. Described as a "Signal Locked Loop" (SLL) system, the tuning circuitry locks onto the actual received signal frequency instead of locking the local oscillator to the frequency of an internal quartz-crystal oscillator. Stations can be tuned in initially either manually or with an automatic scan function that uses a time-varying control voltage. Six station frequencies can be entered into the memory for automatic pushbutton recall.

The tuner's black front panel has two knob controls, one at the left for power on/off and volume, another at the right for manual tuning. Between them is a large framed control/display area with eleven pushbuttons, a headphone jack, and the readout panel. When the unit is turned on, the volume-control markings

and the McIntosh logo are back-lit in blue-green while the tuned frequency appears in bright-red %-inch-high digits. If a preset station has been selected, the preset number appears below the frequency display. On the right of the display panel is a column of nine LED's that show relative signal strength. Above this column is a stereo indicator light (marked MPX), and below it are three arrow-shaped LED's used as tuning aids. The arrows to the left and right light up to show that the station is tuned in either below or above the center of the channel; the central arrow lights when the station is correctly tuned in.

Pushing one of the two SCAN buttons, marked with arrows pointing up or down, causes the tuner to scan the FM band automatically in the desired direction, with the audio output muted, until a signal is received. The scanning then stops, and the oscillator is "pulled" by an error voltage derived from the FM detector until the tuner is set exactly to the center of the broadcast channel. The muting is then released and the program is heard. To store a frequency for recall, the ENTER button is held in while one of the six preset buttons is pressed. Preset stations are held in the memory indefinitely by an internal battery. The frequency readout has a 0.1-MHz resolution and always shows the actual frequency to which the tuner is set; in the automatic tuning modes (scanning and preset) it is possible to see the final frequency correction, typically a change of 0.1 to 0.2 MHz, taking place over a couple of seconds.

Momentarily pressing the MANUAL but-

ton on the panel transfers control from the scan and preset buttons to the tuning knob. The knob adjusts a control voltage that replaces the scanning voltage and simultaneously tunes the unit's local oscillator, r.f. amplifier, and mixer circuits. In the manual mode it is necessary to press the MUTE button to silence interstation noise and the sound of stations whose signals are too weak to be tuned in clearly. The tuner automatically unmutes after the final frequency correction is made and the channel-center tuning light comes on.

McIntosh points out some of the advantages of the SLL tuning system over the usual phase-locked-loop (PLL) digital-synthesis tuning, including the ability to tune to any frequency in the FM band (not just an exact multiple of 0.1 or 0.2 MHz) and automatic adjustment to the actual station frequency (unlike PLL systems in which the tuned frequency is ultimately determined by an internal oscillator rather than by the station's broadcast frequency). Another advantage of the SLL approach is that it does not generate the noise and spurious signals often associated with PLL synthesizers.

The actual tuner circuitry of the MR 500 differs from that of most tuners. Following its MOSFET r.f. amplifier, it has a passive (diode) double-balanced mixer, which provides superior rejection of cross modulation due to overload by strong local signals and reduces the amount of local-oscillator signal entering the i.f. amplifier. Following three stages of ceramic i.f. filtering, the tuner has an integrated-circuit limiter/detector and a PLL IC multiplex demodulator as well as a number of auxiliary circuits involved in the SLL tuning system.

The MR 500's internal audio amplifier is capable of driving either low- or medium-impedance headphones to a good listening level. In the rear of the tuner are two sets of audio-output jacks, one at a fixed level (nominally 1 volt) and the other controlled by the front-panel volume knob (as is the headphone output). Other rear-apron features include output jacks, marked VERTICAL and HORIZONTAL, for connection to an external oscilloscope

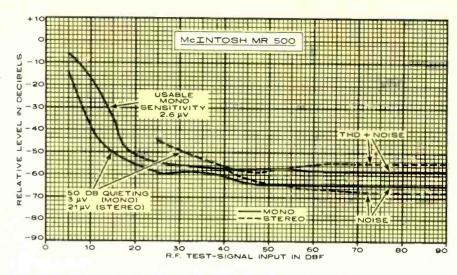
Test Reports

multipath-distortion indicator. Insulated spring clips accept the ends of 300-ohm antenna-feed wires, and there is a coaxial jack for a 75-ohm input. A slide switch enables the Automatic Frequency Lock (AFL) to be disabled for manual tuning if that is desired (it is always on during automatic or preset operation). A REMOTE SCAN jack accepts the plug of the 24-foot remote-control cable supplied with the tuner. Pressing the button at the far end of the cable is equivalent to pressing the up SCAN button on the tuner's front panel. Upon reaching the high end of the band. the tuner jumps back to the low end and continues its upward scanning. The last rear-apron feature is a single switched a.c. convenience outlet.

The entire exterior of the McIntosh MR 500 is finished in black, with pale gold accents on the front panel. As with other McIntosh components, the tuner's key performance specifications appear on a plate on the front of the top cover and it is equipped with the patented McIntosh "Panloc" system, which can be used to lock the unit securely in an optional wooden cabinet (\$69); it can be released and slid out from the cabinet for access to the rear apron by pressing two buttons on the front panel. The MR 500 is 16 inches wide, 141/2 inches deep, and 21/8 inches high, and it weighs 18 pounds. Price: \$1,499. McIntosh Laboratory, Inc., Dept. SR, 2 Chambers Street, Binghamton, N.Y. 13903-9990.

• Laboratory Measurements. The mono usable sensitivity of the MR 500 was 13.5 dB (2.6 microvolts, or μ V). Its stereo threshold was 23.8 dBf (8.5 μ V). The 50-dB quieting sensitivity was 15 dBf (3 μ V) in mono, and in stereo it was 31.6 dBf (21 μ V). These sensitivity measurements, especially the last, are not only very good but also agree closely with the tuner's ratings.

With a 65-dBf (1,000- μ V) input the tuner's distortion was 0.12 per cent in mono and 0.18 per cent in stereo, and the respective noise levels were -75 and -67 dB. The maximum output from the variable outputs was 6.6 volts at 100 per cent modulation, and the listening vol-



ume using medium-impedance headphones was excellent (no external amplifier is needed for comfortable listening to this tuner with headphones). The frequency response was flat within 0.5 dB from 30 to 6,000 Hz, rising slightly to a maximum of +1.4 dB at 15,000 Hz. Despite this rise, the tuner's multiplex filter reduced the 19- and 38-kHz leakage in the audio to a very low—68 dB. The tuner hum was an almost unmeasurable—76 dB at 120 Hz. The stereo channel separation was about 42 dB from 30 to 15,000 Hz except for a slight decrease to 40 dB at 10,000 Hz.

Because of the AFC-like "pulling" action of the MR 500's SLL tuning system. some of our double-signal measurements could not be made accurately. The capture ratio in particular was almost unmeasurably low, less than 1 dB. The alternate-channel selectivity measured 65 dB (rated 70 dB), and adjacent-channel selectivity measured 7.6 dB. Image rejection was an excellent 84 dB. The AM rejection was very good, measuring 75 dB. The muting threshold was close to the stereo threshold at 25 dBf (10 µV). The signalstrength indicators are useful rather than just ornamental: the lowest light came on with an input of only 15 dBf (3 μ V), the others at intervals of 4 to 6 dB.

• Comment. Much of the appeal of the rather expensive McIntosh components lies in their no-compromise engineering and construction standards and in the company's long-term back-up policies. To these we can add tasteful yet distinctive styling and a typical smoothness and general feel of precision both in the control movements and in the quality of the sound.

The MR 500 follows in that tradition. It does just about anything one might expect from a modern, full-featured FM tuner, and it does it supremely well. The smoothness and silence of the automatic tuning are exemplary, and the manual tuning indicators are very effective. We especially appreciated the conservatism of the ratings, which are in marked contrast to the all too common practice of citing performance specifications that can be verified, if at all, only with special and often unavailable test equipment. It is always difficult to duplicate measurements on an FM tuner that were made elsewhere, but we came closer to doing so with the MR 500 than we have with many other tuners.

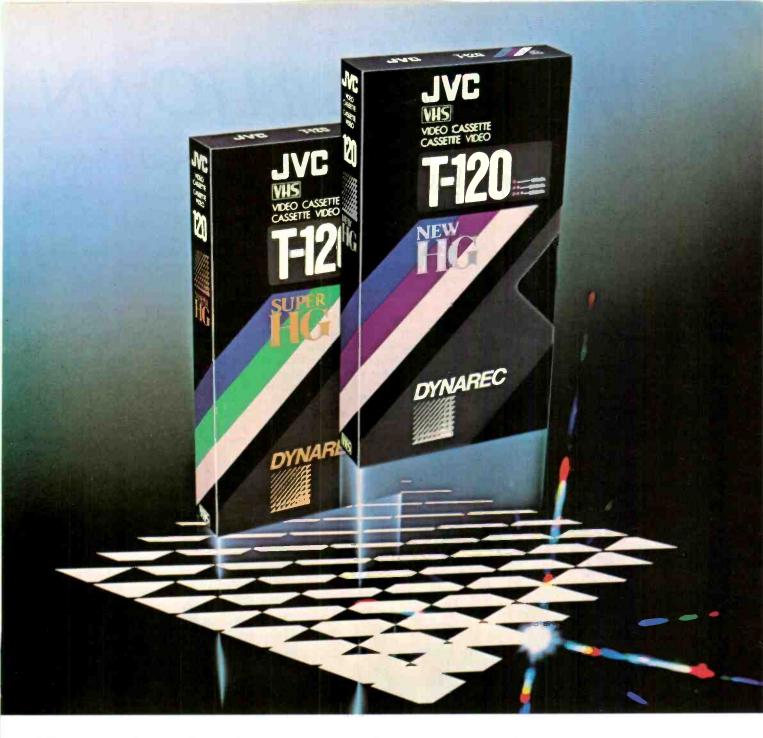
There are only two aspects of this tuner with which I could quibble. Perhaps I simply have an aversion to cables trailing across the floor, but I would have preferred a wireless remote control. The MR 500 also has no way of being switched manually into mono. While the tuner's very good 50-dB stereo quieting sensitivity permits quiet stereo reception of weak stations, there are times when it is advantageous to listen in mono even to powerful stations, as when a station is broadcasting a mono program but doesn't turn off its stereo encoding circuits.

The MR 500 is definitely an expensive tuner, and it may be debatable whether any \$1,500 FM tuner can sound better than many less-expensive models given the limitations inherent in the broadcast medium and how it is being used at present. No, the appeal of this tuner (and it is most appealing) lies in its superb handling, obvious manufacturing quality, and almost certain longevity. These are the true values, we believe, of any premium product, whether it be a fine car or a tuner like the McIntosh MR 500.

Okay, so we'll be late for the movie, but I just have the growing.

". . Okay, so we'll be late for the movie, but I just have the gnawing feeling that I didn't put the dust cover back on my turntable."

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FM TUNERS IN TOWN

Which specs really count? And where?

BY JULIAN D. HIRSCH

HICH of the common FM-tuner specifications are important, and how important relative to others, depends on where and how the tuner (or receiver) is to be used. It's easy to compare numbers, but not all of the many typically offered on tuner and receiver data sheets have much to do with actual performance, and not all of the differences in specs among competing models are really significant. In fact, some of the most popular specs are essentially meaningless in terms of selecting a tuner or receiver.

The nature of FM broadcasting has a lot to do with which tuner specs are important to consider. At the frequencies used for FM (88 to 108 MHz), radio waves are considered optimally receivable only within the "line of sight" of the transmitter, with limited or sporadic reception beyond the horizon. Since the horizon line is only approximate, it is commonplace with even simple antennas to receive FM stations broadcasting from fifty miles away or more. And the higher the transmitting or receiving antenna, the greater the reception range.

Most FM stations transmit more or less omnidirectionally in order to cover an area defined by a circle with the transmitter at its center. The limited coverage radius of FM broadcasting—in contrast to AM broadcasts, which can span a radius of hundreds or thousands of miles, especially after dark—makes it possible to assign the same (or nearly the same) frequencies to a large number of stations. Each is able to serve a limited, local audience with little or no mutual interference. The coverage areas may be fairly close geographically,



AND COUNTRY

but the short range of FM keeps them distinct—at least most of the time.

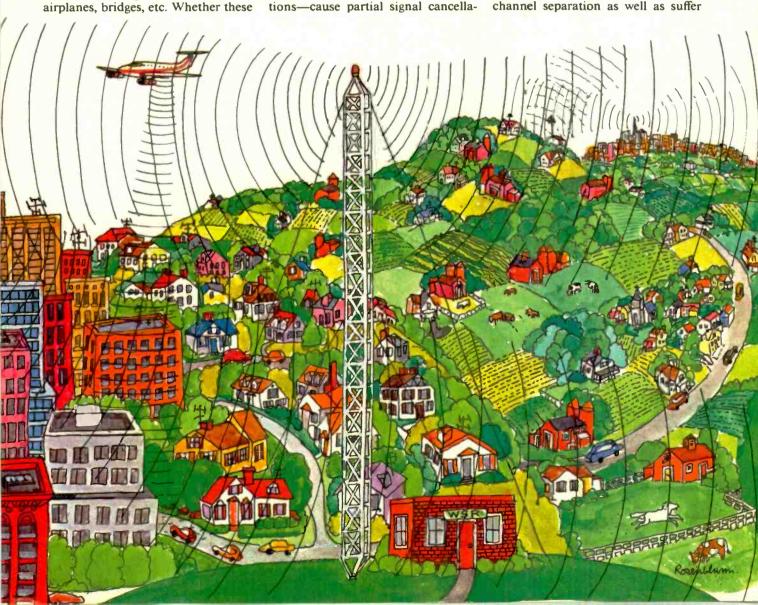
Interference Specs

Propagation vagaries, however, sometimes allow a station too far away to be received normally to interfere with the reception of local stations operating on the same or nearby frequencies. A somewhat related type of interference arises because FM signals can be reflected by large objects such as buildings, hills, mountains, airplanes, bridges, etc. Whether these

reflective objects are located between the transmitter and the receiver, behind or above one or the other, or off to the side of the line of transmission, the result is reception of several versions of the same program signal arriving at slightly different times (about 5 microseconds, or millionths of a second, for each mile of difference in the length of the paths the signals travel). The different time (phase) relationships of the components of these various signals—the original transmission and its reflections—cause partial signal cancella-

tions, which the tuner interprets as amplitude modulation (AM) of the received FM signal (not to be confused with AM broadcasting).

If the degree of amplitude modulation exceeds the AM-rejection capabilities of the tuner, the audible result is called "multipath distortion." This can range in severity from a barely noticeable raspiness to a condition in which the program becomes totally unlistenable. The effects of multipath are less severe for mono signals than for stereo ones, which can lose their channel separation as well as suffer





intolerable distortion. For minimal susceptibility to multipath, a tuner should have a numerically *low* capture ratio and a *high* AM-rejection rating.

Another form of interference is that between two stations either on adiacent channels (0.2 MHz apart) or on alternate channels (0.4 MHz apart). If this is a problem for you, look for a tuner with a high rating for adjacentchannel selectivity and/or alternatechannel selectivity. As we will see below, however, high selectivity may require compromise in some other area of tuner performance. An ideal tuner-which, of course, doesn't exist-would not respond at all to an adjacent- or alternate-channel signal. just as it would not be affected by multipath distortion (since FM tuners are supposed to be unresponsive to AM signals).

So far we've considered various types of interference with FM reception from an FM broadcast—either from multiple broadcasts on the same channel, multipath reflections of one broadcast, or broadcasts on nearby channels. Other forms of interference from unwanted signals are also possible, usually involving broadcasts on a non-FM band that are many times stronger than the desired FM signal,

Any "superheterodyne receiver" which category includes all current FM tuners ("receiver" is here used to refer to any unit that can receive a broadcast signal)—is subject to "image interference" from signals that are removed from the desired one by twice the receiver's internal intermediate frequency (i.f.). In most FM tuners and audio receivers, the i.f. is 10.7 MHz, and image interference can be caused by stations 21.4 MHz above the selected FM channel. Frequencies in this range are used by aircraft communicating with ground stations, and many FM listeners living near an airport, or farther away but under the flight-approach path of a major airport, have experienced an airplane transmission's breaking in on their favorite FM station as the plane passes overhead. In such cases, a tuner with a high image-rejection ratio is clearly advantageous (it can be as high as 100 dB or more, although 60 to 70 dB is more typical).

A related problem is "cross modulation," which is when two or more

strong signals combine in the tuner circuitry to create spurious signals that may interfere with another FM broadcast or simply clutter up the band with unwanted signals or noise. This is most likely to occur in urban areas where several very powerful transmitters may be located within a few miles of a home tuner or receiver. Anything that reduces the total r.f. (radio-frequency) signal voltage at the tuner's antenna terminals will decrease such spurious responses. In the past, some highly regarded receivers had antenna-attenuator switches that reduced the incoming r.f. level by 20 dB or so. This feature survives today in the common local/distant switches (or "local/dx") on many car stereos. With home equipment, look for a high rating for spurious-response rejection (more than 80 dB if possible: a few tuners today are rated at more than 100 dB).

Operating Specs

There are, of course, many FMtuner specifications that concern normal operation rather than the tuner's ability to deal with interference. Among these are frequency response, stereo separation, noise level (or signal-to-noise ratio), distortion, and the much-overrated sensitivity. I am relegating all these specifications to a secondary status only because (like some analogous amplifier ratings) they are the ones most likely to be emphasized in advertisements and sales literature and least likely to have much to do with how the tuner performs in your home or car. These specifications are not trivial by any means, but even in modestly priced equipment they often comfortably surpass the most critical hi-fi requirements.

It would be nice if all of a tuner's specs could be at state-of-the-art lev-

HOW IMPORTANT,	ARE TUNE	R SP	ECS.	Ş
1 Not critical2 Somewhat useful3 Important4 Very important	Reception Location City Subattage Country Car			
Usable sensitivity (the lower the spec the better)	1	1	2	1
Mono 50-dB quieting sensitivity (the lower the spec the better)	1*	2	3	3
Stereo 50-dB quieting sensitivity (the lower the spec the better)	2*	3	4	4
Capture ratio (the lower the spec the better)	4	3	1*	4
Alternate-channel selectivity (the higher the spec the better)	3	2	1	3
Adjacent-channel selectivity (the higher the spec the better)	1*	1*	1*	1*
AM rejection (the higher the spec the better)	4	3	1*	4
Image rejection (the higher the spec the better)	2*	2*	1*	1*
Spurious-response rejection	Δ	3	1	1

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(the higher the spec the better)

^{*}More important under certain reception conditions (see text)

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els for a down-to-earth price, but that hasn't happened yet, and it isn't likely to because of unavoidable tradeoffs between mutually antagonistic design goals. When you go to select an FM tuner or receiver, you must be prepared to concentrate on just those specifications that are truly relevant to your listening enjoyment. And that may have a lot more to do with where you live and what kinds of broadcasts you like to listen to than with the frontiers of audio technology.

Urban Blight

In any large city in the industrialized world, the presence of many tall buildings makes multipath distortion a normal, unavoidable, and unpleasant fact of life. The problem is unrelated to signal strength. In fact, it is not uncommon to find that local stations, some almost strong enough to overload a receiver, are unlistenable because of severe multipath distortion, which can make even a voice unintelligible. About all that can be done in terms of tuner design to help the situation is to have a very good (low) capture ratio and the highest possible AM-rejection rating. A capture ratio of 1 dB or even less is attainable and desirable; anything greater than 2 dB should be avoided in a tuner that will be used in a multipath-prone environment.

It should be obvious that good urban FM reception does not require high sensitivity. Instead, look for above-average interference-rejection ratings, such as high image rejection or high spurious-response rejection. In most cases, high selectivity is also not very important in a city environment, since local stations will usually be spaced widely in frequency and therefore be unlikely to interfere with each other. If, however, your favorite listening includes out-of-town stations whose frequencies are only 0.4 MHz away from those of strong local stations, look for a tuner with high alternate-channel selectivity. The higher the better, of course, but anything exceeding 80 dB will probably suffice, and anything less than 50 dB should be avoided. You should be aware, though, that high selectivity may result in a higher distortion level and a poorer capture ratio, which is one of those tradeoffs I referred to earlier.

A tuner with alternate-channel selectivity of 50 dB or less can, however, be perfectly satisfactory for avoiding interference between stations spaced at least 0.6 to 0.8 MHz apart. On the other hand, if you're getting interference from an adjacent station that is only 0.2 MHz from the station you want to listen to, you may have a real problem, one that perhaps cannot be solved only by buying a better or differently designed tuner. Most tuners, even good ones, have an adjacent-channel selectivity of only a few decibels, which is totally inadequate to separate stations on adjacent channels. There are a few tuners with adjacent-channel selectivity of as much as 20 dB or more, and one of these would be an obvious choice in this situation. Nevertheless, the only practical solution for many difficult cases of urban-area interference (including multipath) is to use a different antenna system, which is more obviously the solution in fringe reception areas.

Rural Isolation

How about your country cousin, living perhaps twenty miles from the nearest FM transmitter, who wishes to receive some stations as much as eighty or one hundred miles away? Unless he is unfortunate enough to have a high-powered station of some sort as a close neighbor, he can *ignore* selectivity ratings in choosing a tuner, while high sensitivity is obviously a must. But we had better be careful how we define sensitivity.

So-called usable-sensitivity ratings tell us how much signal is needed at the receiver to produce a combined noise and distortion level in the audio output that is only 30 dB below the maximum program level. Now, that is by no means a listenable signal in the context of high-fidelity performance. Furthermore, the usablesensitivity rating usually applies only to a mono signal; a stereo broadcast of the same strength would either be hopelessly noisy or would be heard in mono (and very hissy mono at that). Therefore, I would not recommend using this "unusable sensitivity" rating as a criterion for fringe-area tuner performance.

On the other hand, 50-dB quieting sensitivity, which is usually specified separately for mono and stereo, can be the basis for choosing a tuner for weak-signal reception. The -50-dB noise level associated with this specification is audibly hissy and not what most of us would consider hi-fi, but it is listenable. Furthermore, if a station

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RECEPTION, THE
MOBILE ENVIRONMENT
COMBINES THE WORST
ELEMENTS OF ALL THE
OTHERS, WITH THE
ADDED COMPLICATION
OF BEING IN MOTION
AND THEREFORE NOT
SUSCEPTIBLE TO THE
SAME REMEDIES.

can be heard in stereo with a tolerably low noise level, switching to mono will generally reduce the noise by 20 dB or so, yielding good FM listening quality.

Strange as it may seem, however, letters I have received over the years from readers who have to get their FM programs from transmitters a hundred miles or more away seem to suggest that the high specified (and measured) sensitivity of some modern tuners does not necessarily ensure their superiority in this respect compared with some older (and measurably inferior) tuners. I have no explanation for this effect but offer it as a warning that even the most sensitive tuner may not be good enough to do the job you ask of it. A directional antenna is essential in most rural locations.

Suburban Problems

Suburban listeners (a category into which I fall), share some of the problems of both urban and rural dwellers. The signals we receive are usually strong, but multipath is very com-



mon because signals originating in the city, perhaps twenty or thirty miles away, are reflected from buildings and bridges on their way to our receivers. Indeed, some suburban FM listeners have all the worst reception problems of both of the other groups, especially if they listen to stations transmitting from different major cities whose assigned frequencies overlap each other or those of local stations. Again, the best, sometimes the only, solution is a good rotating antenna.

On the Road

I leave for last what is probably the largest group of FM listeners and the one facing the worst reception problems: automobile drivers and passengers. In terms of reception, the mobile environment combines the worst elements of all the others, with the added complication of being in motion and therefore not susceptible to the same remedies. Not only are car listeners unable to put up a high, directional antenna, but they are forced to use a small, "no-gain" antenna virtually at ground level. The received signals, whether from local or distant stations, fluctuate wildly as the car moves, and multipath effects are incomparably more severe than in almost any home installation.

In one location where I regularly park my car, one of the strongest local FM signals is totally unlistenable. Moving the car about two feet restores the signal to its full quality. This sort of thing happens because the strength of a signal can vary from maximum to minimum through a spatial change of a quarter of a wavelength (about two feet at FM-radio frequencies). Picture, if you will, how that signal is distorted as the car moves along at highway speeds, passing through signal nulls many times per second.

In addition, the mobile listening room is far from ideal, with electrical and acoustical noise levels that would probably never be encountered or tolerated at home. A car stereo receiver can rarely match the overall performance of any home tuner or receiver. Some car units do come very close, however, and it is always possible to make some selection on the ba-

sis of specifications, especially the important ones that concern the radio's susceptibility to interference from unwanted signals.

Some car tuners have excellent selectivity and AM rejection, both of which are very desirable for automotive use. Others are poor in these respects and should be avoided if you have high performance expectations for your car system. In general, the same performance qualities that are desirable in a home receiver should be present in a car stereo. The higher ambient noise level in a car, however, makes it possible to have a lower signal-to-noise ratio without sacrificing much sound quality. Also, given the typical "room response" of an automotive music system, a very flat frequency response and a very low distortion level are less important than in a home component.

The fact that the reception location changes constantly can be both an advantage and a disadvantage for the car radio listener. You are less likely to be in a hopelessly bad location all the time, but you are almost certain to be in such a location at least part of the time. Although the option of a directional antenna is not open to the car listener, multipath and periodic signal-level fluctuation effects can be

dealt with in other ways. An intriguing approach is the Dual Diversity car radio recently announced by both Clarion and Sony. This uses two separate antennas placed as far apart on the car as possible. A fast-acting circuit selects the antenna that is receiving the stronger signal at each moment. Switching between the antennas takes place in milliseconds and is inaudible to the listener, but the effect should be a great reduction in the annoying rapid fluctuations in signal quality that are endemic to automobile listening.

The Critical Specs

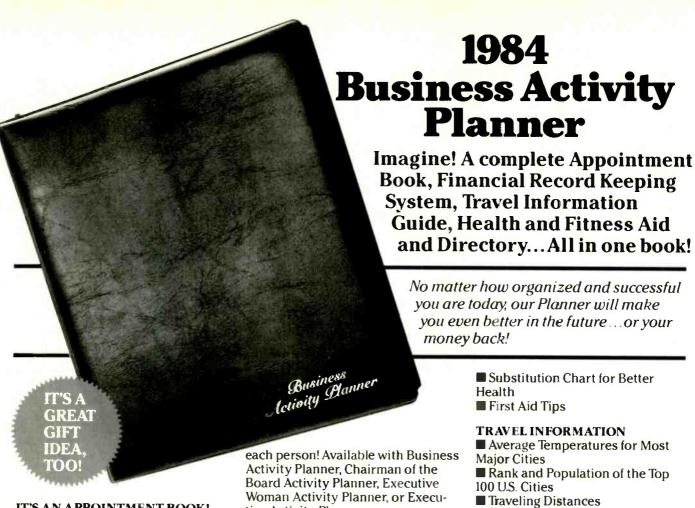
The specifications that should matter most to the majority of listeners concern a tuner's ability to reject interference from unwanted signals, whether from another FM station or any other broadcaster. A related factor is its resistance to the self-interference that results from multipath, which is probably the most common source of FM reception problems. Thus, high selectivity, high AM rejection, and a low capture ratio are the key specs to look for. Least critical are the more familiar ratings for sensitivity, distortion, and signal-tonoise ratio.

ANTENNAS: THE MOST NEGLECTED COMPONENT

No matter how sensitive a tuner may be, it cannot receive a signal that does not appear at its antenna terminals at a level at least slightly higher than the tuner's internal noise level. That means that the choice and use of an antenna are paramount in fringe-area reception. For best results, the antenna must have high gain (compared to a simple folded dipole or "rabbit-ears" antenna) and be located as high as possible. There is no substitute for a good antenna if you want to receive FM stations more than fifty or sixty miles away. Moreover, don't assume that you can always point the antenna at the transmitter and get the best results. Signals have a way of arriving from unexpected directions, so a rotator (or at least some experiments with

antenna direction) is a must in this situation.

There is often good reason to use a highly directional, rotatable antenna even if you are in an urban area. Given the susceptibility of even good FM tuners to multipath distortion, the best solution is to eliminate the cause rather than the effect. If you can receive only one signal from the FM station (preferably-but not necessarily-the most direct or the strongest one), you stop the multipath problem before it arises. This can sometimes, though not always, be done by rotating a directional antenna to favor a single direction of signal arrival and to discriminate against those that cause the multipath interference.



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The One and Only FRANK SINATRA

BY GARY GIDDINS

MERICAN music has made its mark in the twentieth century with such fabulous abundance that it's hardly ever wise to single out one artist at the expense of his or her colleagues. Who is our greatest orchestrator or songwriter or improvisor or blues shouter or instrumentalist or rock icon or bandleader? No matter whom you name, a persuasive argument can be made for someone else-a fact that blesses us all. Yet among singers of popular songs, a field more populous than most with bona fide stars, one remarkable artist clearly looms above the rest. For nearly half a century, Frank Sinatra-the recipient of STEREO REview's 1984 Mabel Mercer Awardhas been a vital and stubbornly individual force in the development of American singing.

Sinatra likes to refer to himself as a saloon singer, although his natural habitats are the concert stage and the recording studio. He speaks generously and thoughtfully about the singers—especially Billie Holiday, Bing Crosby, and Mabel Mercerwho influenced him and the tradition he sustains. But it's impossible to categorize him. A conscientious, knowing craftsman, he is a school unto himself. He sounds like no one who preceded him, and no one else sounds like him. S. J. Perelman's description of rock stars who "hatch one evening and perish the next with the mortality of mayflies" could just as well be applied to most of Sinatra's imitators. Yet Sinatra endures with a peculiarly dangerous energy, untrammeled by nostalgia or cheap sentiment. Undoubtedly, there are people who attend his concerts expecting a jog down memory lane, but from the moment he strides on stage, they know they're in for something deeper.



"When I was living in Paris, I first heard Frank Sinatra on records he made with Tommy Dorsey. I hoped I

might one day meet the man who possessed such a beautiful voice, but it never occurred to me that he would reach such heights or that I would come to live in the United States.

"Frank has always been generous in saying that he learned certain things from listening to me. Yet every time I hear him sing, he reveals new things to me. He is one singer who merits the word 'great.'"

-Mabel Mercer

At sixty-eight, Sinatra remains the consummate performer. His elegance and charm are dazzling, not least because they mask the possibility of unwarranted explosion. For all his experience and professionalism, he is always himself-which means that his performances tend to reflect his moods. On an off night, he can be peremptory and rude. But on good nights (and in recent years they have been the rule), he is simply mesmerizing. Duke Ellington wrote of him, "Every song he sings is understandable and, most of all, believable, which is the ultimate in theater." Sinatra is never a greater actor than when he maps out a favorite song, combining the economy of Gielgud and the charisma of, well, Sinatra. When he wants to emphasize a lyric, a flick of the wrist and a focusing of the eyes is enough to do the trick.

Perhaps Sinatra's commitment to performing is the key to his genius. We tend to think of him, justifiably, as a modernist, as someone who replaced cool crooning with adult emoting. But we're learning with increasing clarity and regret that he also embodies the end of something. In many respects, Sinatra represents the culmination of a performing style that harkens back to vaudeville, with its implicit social contract between the audience and the entertainer. Modern jazz, rock, and post-rock pop have accustomed us to singers who contemplate the middle distance, their navels, and each other. They might ignore us or pummel us, but only on rare occasions do they openly and continuously sing to us. Sinatra has no peers in creating the illusion that he is looking into the eyes of every person in the room.

Like any great interpreter, he also gives the illusion of creating the material he sings. People often assume that many of his songs were written for him, and indeed some were. It's interesting to recall that these songs-many of them fashioned by Sammy Cahn and Jimmy Van Heusen, including Come Fly with Me, Come Dance with Me, My Kind of Town, and Ring-a-Ding-Ding-are neglected by other singers in a kind of unstated homage. Yet the widespread assumption of ownership extends to much of his repertoire, from It Happened in Monterey, a forlorn 1930 waltz before Sinatra taught it to swing, to My Way, written by Paul Anka for himself. Paradoxically, the Sinatra imprimatur guarantees a song long life while discouraging other singers from tampering with it.

"My success," Sinatra has said (quoted in *The Frank Sinatra Scrapbook*, St. Martin's), "has been

specialized because no one in the audience can sing my way. I'd love to hear a good imitator-a good mimic of Sinatra. But where is there one?"

There have been dozens of bad imitators who sling trench coats over their shoulders and attempt Sinatra's vocal mannerisms, but no one has ever captured his elusive tonal quality. Recently, comedian Joe Piscopo satirized Sinatra by parodying his style in the service of current rock hits. The routine is malicious and hilarious, but you only have to return to the real thing to realize that Piscopo doesn't lay a glove on him. Sinatra was dubbed "The Voice" early in his career, but although the voice has changed, it remains difficult to characterize and impossible to reproduce. Henry Pleasants once described it in these pages as a "typical [!] light baritone with a two-octave range from G to G, declining, as it darkened in later years, to F to F." The uses to which Sinatra has put his instrument are more easily discussed.

Sinatra clearly knew from the beginning what he wanted his voice to do, and he embarked on an obsessive regimen of training. This is how he described it in a 1964 interview with David Lewin (again quoted in the Scrapbook): "I wanted a certain type of voice phrasing without taking breath at the end of a line or phrase. I



"The reason I and other Italian opera singers admire Frank Sinatra is not just for his star quality and the beauty of his

voice, but because his phrasing is very close to Italian bel canto.'

-Luciano Pavarotti



"There are many islands of quality in the vast sea of popular entertainment. but Frank Sinatra is a continent. No one else has

managed to sing so well for so long and yet to have such immense popular success." -Barbara Lea

studied the violin-playing of Heifetz to see how he moved his bow over the fiddle and back again without

seeming to pause. I applied it to singing. When I joined Tommy Dorsey, I watched how he took his breath when he played. He never seemed to open his mouth to draw breath at all. I learned to control my breath by swimming the length of an Olympic pool under water. I increased my lung power by pacing myself on a running track every day. ... " Etc. The result was peerless legato control that enabled him to dramatize songs-the melodies and the words-with maximum expressive impact.

Standard popular songs are frequently parsed in four-bar phrases. but few singers can glide over them at medium tempos without grabbing an extra breath or leaning on vibrato. Sinatra's phrasing is so natural that it never calls attention to the singer's virtuosity. If you want to test how imaginative and seamless it is, sing along with him, trying to anticipate his accents and caesuras. Consider, for example, his 1956 recording of Anything Goes, paying special attention to the way he attacks the release (he sings its first six bars on one gulp of air) and to the twist he gives subsequent phrases by applying vibrato to the word "propose" and withdrawing it on "goes." When he sings the release a second time, he breaks it up differently to increase the tension. Or consider the implacable smoothness with which he navigates Nelson Rid-





Left, Sinatra's father puts his fire-captain's hat on his famous son during a "Frank Sinatra Day" parade in Hoboken, New Jersey. Above and right, Sinatra on radio (1944), on Capitol, and on Reprise.



"Frank's musical quality has hypnotized me from the very start. Through all the changing fashions he took pop

music and turned it into an art form, which inspired me to do the same. The fact that he conducted Alec Wilder's music dazzled me. His accent on romantic music will never become dated, and he has left us a catalog that is timeless. When he told the world that I was his favorite singer he really changed my life. He helped me maintain the high standard of performance that he himself would expect. His music is art, and a work of art is a joy forever."

—Tony Bennett

dle's swinging arrangement of I've Got You Under My Skin, or the sweetly caressed yet firmly enunciated vowels in such ballads as Willow Weep for Me and She's Funny That Way, or his impeccably modulated, Dorsey-like exposition in the 1961 version of Getting Sentimental over You.

These songs, all first-rate, draw our attention to another aspect of Sinatra's talent—an uncommon sagacity (though one, to be sure, that has

failed him from time to time) in choosing the right songs. Sinatra was able to mature into the most assured and commanding interpreter of Tin Pan Alley's quality songs in part because he can tell a diamond from cut glass. This ability shouldn't be so rare, and among jazz singers it isn't, but stack up Sinatra's recording career against that of even a stylist as gifted as Nat Cole, and you begin to appreciate the pressures on a pop performer to record novelties and trash. Sinatra has succumbed to those pressures—first in the early 1950's, at the nadir of his career, when Columbia Records, under the malefic hand of Mitch Miller, attempted to fit him into the same mold as Patti Page and Guy Mitchell, and then in the late 1960's, when he appeared to be pandering to a still younger audience.

Significantly, he's rarely allowed trashy material to infect his concert appearances, and his current programs are, for the most part, a solid line-up of the best of Porter, Berlin, Rodgers, Gershwin, and the other melodists who shared in the songwriting renaissance of the 1930's. Perhaps the central irony in Sinatra's career is that he was nurtured and apprenticed on the rhythms and melodies of the Swing Era, yet he attained his greatest maturity as an artist during the same years that witnessed the rise of rock-and-roll. And it should not be forgotten that his initial fame



"When I finally saw Frank Sinatra in concert last April I was deeply inspired by his superb musicianship, commanding

presence, and open enthusiasm for his fine musicians and arrangers. And it was thrilling to see an artist so sure of himself and of his music that he actually discouraged the adoring audience of 18,000 from becoming hysterical. He didn't want them to scream—he wanted them to listen."—Susannah McCorkle



"When I think of great singers, one above all comes to mind, the best interpreter of lyrics and music a popular song

can have, Frank Sinatra."

-Margaret Whiting

with the bobbysoxers as an almost effeminately tender ballad singer and his subsequent incarnation as the super-hip, super-confident swinger of the affluent Eisenhower years were





separated by a period of nonstop humiliations. The matured Sinatra was the product of a renewed sense of identity and an impressive act of will.

The general outline of Sinatra's odyssey is so well known that it requires little retelling. Francis Albert Sinatra was born in 1915 in one of New Jersey's toughest neighborhoods, Hoboken. He quit school at sixteen and immediately started hustling for work as a singer. His first break came in 1935, when his vocal quartet, the Hoboken Four, won first g prize on the radio show The Major Bowes Amateur Hour. He soon returned to working as a single, but it wasn't until 1939 that Harry James, Benny Goodman's featured trumpeter, heard him and signed him to the band he was organizing. Within months, Tommy Dorsey convinced Sinatra to leave James and join his own far more established band. During the next three years, Sinatra recorded prolifically, and his contributions to such Dorsey classics as I'll Never Smile Again and Star Dust made his voice an indelible part of the era.

In 1943 Sinatra went out on his own, and his success was phenomenal—swooning teenagers, a movie contract, cover stories everywhere, one record hit after another, and an Oscar for his short film about religious and racial intolerance (*The House I Live In*). Things started to go wrong in 1947, when several journalists accused him of having ties with



"Frank
Sinatra is
incomparable
and
irreplaceable.
His emotional
honesty
reaches
unplumbed
depths."

—Peggy Lee



"I first heard Mr. Sinatra in person only recently, at Carnegie Hall, and, in the same way you don't know, really know, a place

until you visit it, I didn't fully realize his magic until I was in his performance presence, rocking and weeping and swinging with the rest of the faithful. Of course, I had an advantage over the rest of them—I knew he was only singing for me."

-Steve Ross

organized crime and/or Communism. During the next couple of years, Sinatra's personal life fell apart: his widely publicized divorce was followed by a brief and stormy marriage to Ava Gardner. His man-

ager died, his record sales fell off, and his attempts to rejuvenate his career through radio and TV series fell flat.

It all turned around again in 1953, when he won a best-supporting-actor Oscar for From Here to Eternity and signed a recording contract with Capitol. At thirty-eight, he was now about to crest one of the more fabled of all show-business comebacks.

Almost immediately, Sinatra's recordings revealed a probing undercurrent, a darkness around the edges of his voice, a resolute desire to sing the best songs in lavish but functional arrangements. His key collaborator was Nelson Riddle, an orchestrator with an uncanny knack for combining disparate elements in fluid and quietly provocative arrangements. Employing winds, strings, and exotic percussion instruments, a buoyant rhythm section, and topnotch jazz soloists (notably the great Count Basie trumpeter, Harry Edison), Riddle helped Sinatra to reclaim standards from the past thirty years, many of them long neglected. Most important of all, he seems to have arrived at precisely the right rhythmic feeling for Sinatra—a broad, optimistic bounce that aimed somewhere between the keening motion of jazz and the foursquare gallop of big-band pop.

The performances were brisk and to the point—with Sinatra usually singing no more than a chorus and a half—and the albums were uncommonly generous: "In the Wee Small Hours" contained sixteen selections, and "Songs for Swinging Lovers"—which, along with "Only the Lonely"



Above, Sinatra with Benny Goodman. Right, with Ella Fitzgerald.





"God gave him two ears—they hear the cries of the sick and needy ... two eyes (of blue) to see what good he could do ...

one mouth from which is emitted one of the great voices of our time, an international treasure.

"Frank Sinatra has long since been a world-class personality. A heterogeneous person with a medley of talent, he enjoys jurisdiction over many domains. His on- and off-stage authority continues to sway mass audiences worldwide to his point of view. His finely honed sensitivity to a lyric, his acute alertness to a melody, and his vigorous agility with a total song make him alone the chairman of his profession.

"My association with him has been a pivotal point in my life. To call him friend, and have it reversed, is a virtue which dwells in the heart."

—Sammy Davis, Jr.

(a ballad collection), is widely regarded as Sinatra's and Riddle's masterpiece—contained fifteen. Here was a new Sinatra; the skinny kid in need of coddling was gone, replaced by a man of authority and sensitivity. Not insignificantly, his resurgence as the personification of an adult singer

happened at the very time Elvis Presley was helping to usher in the age of rock.

Although Sinatra welcomed Presley home from the Army on a 1960 television "spectacular," their respective audiences remained at loggerheads. It wasn't until 1965 that Sinatra returned to the Top Ten for the first time in a decade, with It Was a Very Good Year, and it wasn't until the late Seventies that a relatively new breed of journalist, the rock critic, began to make a serious reassessment of his art. In retrospect, it seems safe to say that the split in sensibilities that divided Sinatra's audience from Presley's in the Fifties was less clear than most people assumed at the time. Sinatra was working loosely within an idiom that predated the war, but he embodied a rather provocative stance toughened by a worldly sexuality that, unlike Presley's, was shorn of sentimentality and nurtured on the acceptance of loss and defeat.

In 1961, Sinatra started his own record label, Reprise, for which he still records, and after completing a number of albums that continued the approach patented at Capitol, as well as collaborations with Count Basie and Duke Ellington, he embarked on a cycle of autumnal, autobiographical songs, culminating in My Way. At the age of fifty-five, in 1971, he announced his retirement. Happily, he changed his mind two years later, though a few rough and unsteady re-



"Francis
Albert Sinatra
is the master
of the art of
singing,
which is why
he continues
to remain the
consummate
entertainer

and recording artist, the undefeated champion of the world of popular music. How does one articulate the excitement of Sinatra? His humor, his humanity, his swinging, his understanding of the lyrics that turn them into tone poems with his caress? His recordings are ever the mood music to listen to when making love. To watch him in saloons or in concert is to see the art of communication in action.

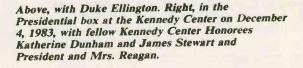
"Sinatra is a violoncello in full bloom. As an artist he has no equal; as my darling friend, he has no peers. Congratulations for the honor from Stereo Review."

-Sylvia Sims

cording and television projects briefly suggested that his talent was no longer up to his ambition.

By the Eighties, however, Sinatra scored a tremendous success with New York, New York, probably the most intelligent non-rock recording to hit the charts since Louis Armstrong's 1964 comeback with Hello Dolly, and a couple of uneven but







largely impressive new albums, including the three-volume "Trilogy." Once again there was a new Sinatra, with a loamier voice, a hard-earned and expressive tremor in the low notes, a stoic determination to use aesthetically the trappings of age sibilance, wavering, harshness.

Sinatra cannot be said to have mellowed much in recent years. He's been embroiled in more controversies than ever with the press and politicians (usually concerning his alleged Mafia connections). He has more than his share of enemies; they are apparently immune to the innate decency and pride of craft that allow him to bring the contradictory elements in his personality to bear on achingly personal and persistently renewed ballads, that enable him to lift a concert hall by its roots and swing it as though all time but his had come to a halt.

Frank Sinatra remains unique, the master explicator of the complexity and power of American popular songs, the entertainer as shaman. He is both the founder of his tradition and its principal heir.

FRANK SINATRA: A SELECTED DISCOGRAPHY

ALMOST all of the albums listed here are still available, but a few are simply the most recent releases of significant Sinatra recordings. They are grouped chronologically by label affiliation.

1939

During his first year as a band singer, Sinatra recorded ten sides with Harry James, including the famous All or Nothing at All. They are unavailable, although isolated tracks occasionally show up on Columbia anthologies of James or Sinatra.

1940-1942

☐ The Dorsey/Sinatra Sessions, three volumes, six discs (RCA CPL2-4334/ 4335/4336). Includes the eighty-three songs Sinatra recorded with the Dorsey band—which is probably more than anyone wants. A good one-volume anthology would be welcome. ☐ The Dorsey/Sinatra Radio Years (RCA AFL1-4741). The first side contains radio broadcasts, the second Sinatra's first solo session (arranged by

Axel Stordahl). 1943-1952

Sinatra recorded a few hundred sides for Columbia in these years, including dozens of ballads with lush arrangements by Axel Stordahl; collaborations with the likes of Alec Wilder, the Metronome All-Stars, and Rosemary Clooney; and any number of embarrassing novelties. Most of this material is out of print, though Columbia periodically reissues a handful of selections. The best collection, if you can find it, is the three-volume The Essential Frank Sinatra (Columbia S3S 842).

1953-1962

The Capitol recordings are generally conceded to be Sinatra's finest, and audiophiles will be pleased to know that sixteen albums, comprising more than two-thirds of his work for the label, have been pressed on virgin vinyl and packaged in a silver box (complete with discography) by Mobile Fidelity Sound Lab. Price: \$350. Although a few hits (among

them Young at Heart and The Lady Is a Tramp) and otherwise interesting performances (notably a version of Where or When that begins with pitch problems but achieves a stunning climax) are not included, this limited and numbered edition offers the rare pleasure of hearing many of Sinatra's best albums with greatly improved sound. (Available from Mobile Fidelity Sound Lab, 21040 Nordhoff Street, Chatsworth, Calif. 91311.) Many of the albums are available singly from Capitol, but beware: several songs have been deleted from the originals, and most of the records have been artificially rechanneled for stereo. Still, much of Sinatra's greatest work can be heard on these dozen: ☐ Swing Easy, arranged by Nelson Riddle (available now only in the

Mobile Fidelity set).

☐ In the Wee Small Hours (SM-581), arranged by Nelson Riddle.

☐ Songs for Swinging Lovers (SM-653), arranged by Nelson Riddle. □ A Swingin' Affair (SM-11502),

arranged by Nelson Riddle. □ Come Fly with Me (SM-920),

arranged by Billy May. ☐ For Only the Lonely (SN-16202), arranged by Nelson Riddle.

☐ Come Dance with Me (SN-16102), arranged by Billy May and Heinie Beau

□ No One Cares (SM-1221), arranged by Gordon Jenkins.

☐ This Is Sinatra (M-11883), arranged by Nelson Riddle.

□ Nice 'n' Easy (SN-16204), arranged by Nelson Riddle.

☐ Sinatra's Swingin' Session (SM-1491), arranged by Nelson Riddle. ☐ The Rare Sinatra (EST-24311), an

English Capitol import with various arrangers and accompaniments.

1960-1983

Since 1960, Sinatra has operated his own label, Reprise Records, a division of Warner Brothers. At least thirty-five albums are currently in print, of which the following fifteen are especially recommended:

□ Ring-a-Ding-Ding! (FS-1001), arranged by Johnny Mandel.

☐ Sinatra Swings (FS-1002), arranged by Billy May.

☐ I Remember Tommy (FS-1003), arranged by Sy Oliver.

☐ Sinatra & Strings (FS-1004), arranged by Don Costa.

☐ All Alone (FS-1007), arranged by Gordon Jenkins.

☐ Sinatra-Basie (FS-1008), arranged by Neal Hefti.

☐ The Concert Sinatra (FS-1009),

arranged by Nelson Riddle. ☐ It Might As Well Be Swing (FS-1012), with Count Basie, arranged

by Quincy Jones. ☐ A Man and His Music (2FS-1016), various arrangers.

☐ Strangers in the Night (FS-1017), arranged by Nelson Riddle and Ernie

☐ Sinatra at the Sands (2FS-1019), with Count Basie, arranged by Quincy Jones

☐ Francis A. & Edward K. (FS-1024), with Duke Ellington, arranged by Billy

□ Sinatra & Company (FS-1033), with Antonio Carlos Jobim, arranged by Eumir Deodato and Don Costa. ☐ Trilogy (3FS-2300), arranged by

Billy May, Don Costa, and Gordon **Jenkins**

☐ She Shot Me Down (FS-2305), arranged by Gordon Jenkins, Don Costa, and Nelson Riddle.

A Sinatra Sampler from Reprise

"Stereo Review Salutes Frank Sinatra 1984" is a 33-rpm seven-inch record containing four especially popular tracks from Sinatra's Warner Bros./Reprise catalog: Come Fly with Me, Summer Wind, (You'd Be So) Easy to Love, and New York, New York. To order this record, please mail your request, with a check for \$2 (payable to Stereo Review) to cover postage, handling, and applicable sales taxes, to: Sinatra Sampler, Stereo Review, Box CN 1914, Morristown, N.J. 07960. Only 5,000 of these records have been pressed, so orders will be filled on a first-come, first-served basis. Therefore, please indicate clearly your return address.

HOW TO BE AN AUDIO GURU

Show your friends the path to hi-fi enlightenment

BY WILLIAM BURTON



s a reader of STEREO REVIEW, you are probably asked for advice about everything from Astatic cartridges to Zapco amplifiers. Friends may pester you unmercifully about what components to buy, how to hook them up, how they work, and how to get them fixed. They may also ask your advice on less immediately practical matters, such as the theoretical advantages of digital audio, omnidirectional speakers, class-A amplifiers, or placing bricks on top of components.

Although it's flattering to be consulted about such weighty matters, it's not always easy to give helpful advice on audio. The common questions about what to buy can be even harder to answer than esoteric technical questions on, say, tone-arm geometry or error-correction circuitry.

Many of those who ask for audio advice are not interested in the technicalities. They don't know a woofer from a tweeter and refuse to learn. Even if you patiently explain that a woofer makes low sounds like a dog and a tweeter makes high sounds like a bird (a brilliant explanation if I ever heard one), your friend may just as patiently explain that he or she wants a speaker to sound like music, not a menagerie. Patience is important with audio novices, and while their lack of knowledge may be frustrating, it can also be very rewarding to help them assemble or upgrade a stereo system that will give them years of enjoyment.

In addition to being patient, it is important to be enthusiastic when giving audio advice. After all, we're talking about music-the food of love, the stuff that soothes the savage breast, moves strong men to tears, inspires lofty sentiments, drives dancers to sweaty exhaustion, and helps us forget the worldly woes and piddling problems in our lives of quiet desperation. Whether your friends are moved by Gustav Mahler or Joni Mitchell, they will be more deeply moved if the music is heard through a high-quality system that reproduces the full range of frequencies, each delicate nuance of intonation, every decibel of a fortissimo, and all the clarity, richness, and sonority of recorded music. This may be difficult to achieve with a total budget of \$200, but do your best.

Working within a budget is only one of the problems of helping a friend select audio components. With hundreds of audio manufacturers offering thousands of models, it is indeed difficult to select the right product at the right price. For your friends' satisfaction and your own peace of mind, unless you are very

GURU



sure of your own advice, try not to make one specific recommendation; rather, gently guide your friends to a few models that should suit their needs, and then let them choose on the basis of actual use and listening.

If you're being asked for technical rather than buying advice, it's tempting to pretend to be an expert who knows it all. Don't succumb to this temptation! Even if you've memorized every issue of STEREO REVIEW, you don't know everything about audio. Nobody does. Audio is not only a science but an art. It involves the sciences of acoustics, electronics, physics, chemistry, mechanics, psychology, and more, and it has a lot to do with the art of music as well. Pretending to know it all already will only prevent you from learning and may, if you make a mistake, cause your advice to be discounted. If you admit, however, that you don't understand some technical concept or that you don't have a particular fact at the tip of your tongue, but promise to check it out and report back, your friends will be bowled over by your modesty and seriousness.

When you're asked something you don't know, it's helpful to know where to find out. For a question about component features, specifications, or prices—for instance, which

Compact Disc player has the most programming options or which tuner has the best rated selectivity or sensitivity—Stereo Review's 1984 Stereo Buyers Guide is a good resource. (The current issue even includes helpful articles on how to buy a complete system and how to upgrade one.) For more technical questions, there are a few books you can consult-or recommend to friends who are serious enough about audio to do some studying. While the equipment and technology in the field are continually changing, usually for the better, the basic audio concepts do not change.

After relieving yourself of the responsibility of omniscience, you can find out what your friend really wants to know. Getting to the heart of the question gets you closer to the heart of the answer. A question often asked of those having a modicum of familiarity with audio matters is, "How much do I have to spend to get good sound?" The answer, of course, is \$1,669.35 (plus applicable state and local taxes). If you can't remember this figure, you should find out what the inquirer actually means by "good sound." Probably the best way to do this is to find a system (your own, perhaps, or one in a hi-fi showroom) that satisfies your friend's ears and use that as a reference, a starting place on the quest for the Holy Grail of good sound. This reference system can be useful not only to set a standard of sound quality but to suggest what may be needed to meet it. If, for example, the system your friend likes has a time-delay ambience-recovery/ synthesis component, he will need one is his system to achieve the same illusion of sonic spaciousness.

Another thing you need to know is what your friend wants a stereo system for. A system intended only to produce mellow burbles in the background need not be as elaborate as one intended to re-create the experience of hearing a concert in a good hall, dancing at a disco, or being in an arena with a heavy-metal band.

When you are asked for specific buying advice—such as, "Should I



buy this turntable?" or "Which cassette deck do you recommend?"—you need first to find out just what your friend wants or needs and how much he is willing to spend for it. This information will limit the possible choices to a more manageable number, and you can further reduce it by comparing specifications, reading test reports, and, most important, trying out various products in the store or (if possible) at home.

Often a component shopper will want a particular feature that eliminates most of the products in a category. For example, your friend may want a cassette deck with an elapsedtime indicator, something only a few decks have. Or he may want a turntable and ask if there are any with programming capabilities like those of many Compact Disc players. Yes, you answer, there are about fifteen, and the other 210 or so non-programmable models on the market can be ignored thenceforward. If, further, you know that your friend has trouble figuring out which end of a light bulb to screw in, you might suggest a turntable that is compatible with plug-in P-mount cartridges, which are easy to install and automatically have the correct alignment and tracking

Since many programmable turntables require special optical-sensing cartridges, the P-mount option reduces the field to (at this writing) about four models, which can be selected from on the basis of other features, specifications, price, and sound. (Restricting the field to P-mount models rules out many worthy cartridges, though an increasing number of manufacturers are making excellent P-mount models.) Note that in order to select a few possible components from among the hundreds on the market, as in this example, it is very helpful to have a comprehensive listing of what is available, such as the Stereo Buyers Guide, that you can turn to for information when friends turn to you for advice.

Sometimes you'll be asked for much more general advice, and either the nature of the question or the subiectivity of auditory experience may make it difficult to give a satisfactory answer. For example, you might be asked, "Which are better, movingcoil or magnetic cartridges?" Before you can answer, you have to clear up the questioner's confusion about terminology. Moving-coil cartridges are magnetic, of course. What the questioner probably wants to know is whether moving-coil cartridges are better than moving-magnet (or induced-magnet or moving-iron) types; all of these are magnetic cartridges, as opposed to nonmagnetic piezoelectric or ceramic models.

Terminology aside, the question gets into a subjective area where what is "better" is a matter of taste. Some people prefer the slight rise in highfrequency response typical of many moving-coil cartridges, calling the sound "airy" or "spacious," but others react to it as to the scrape of fingernails on a blackboard, calling the sound "harsh" or "shrill." Frequency response, moreover, is only one of many specifications that can indicate the quality of sound from a cartridge (or another component), and the spec alone is meaningless unless you know the tolerance (in decibels, plus or minus) of the measurement and where along the audio spectrum the

deviations from flat response occur. A frequency-response graph will tell you more than any set of numbers, but a careful listening test can tell you more than any graph. And it may turn out that your questioner wasn't asking about sound quality at all but about some other performance factor such as cartridge tracking ability.

Problems with terminology can not only make it difficult to give helpful advice to the less informed but can also create confusion when you're trying to help someone who's learned some loose jargon. It is hard enough to know just what people mean by such terms as "liquid," "tubby," "strident," "sumptuous," and "effortless" in descriptions of sound, but even the most tuned-in audiophile may be at a loss when asked to recommend the "wettest" speakers on the market. You have to find out what is meant before you can give any useful advice.

The same friend who asks you about "wet" speakers may also want to know your opinion about putting weights on amplifiers or using super heavy-duty speaker cables or whether you believe having a telephone in the same room as a stereo system degrades the sound. Newcomers to audio are especially prone to being taken in by the exaggerated claims made for some high-end equipment or faddish "audiophile" practices. It can be a lot easier to talk about subtle sonic differences than to actually hear them. Try to guide your friends away from audio absurdities by suggesting how they can test such claims for themselves. Explain the psychoacoustic pitfalls and help them make their own decisions. Advise, don't dictate.

One question you are probably being asked a lot these days: "Should I buy a Compact Disc player?" It is tempting to answer, "Yes! Immediately!" But there are many factors to be considered in each case, cost being the primary one. Don't advise a friend to buy something he can't really afford, and that applies to the discs as well as the players. Someone who hesitates at the price of a digitally re-



corded LP may find a CD library (at \$17 to \$25 per disc currently) out of the question.

Before recommending purchase of a CD player, have your friend compare the sound of one with that of a good analog turntable. This can be done at a store, but longer listening and more careful evaluation can be done at home. The setup procedure is very easy: just plug the CD player into the AUX inputs on the receiver or preamplifier. If the player does not have a variable output, match levels by running either it or the turntable through a tape deck in monitor mode and using the record- or output-level controls to ensure that both sources play at the same volume. Having the same recording on CD and LP is absolutely necessary for a valid comparison. Subjectivity is operative here, of course. You may find that some people prefer the familiar "veiled" sound of LP's to the unusually clear sound of CD's.

With patience, humility, understanding, and a few reference sources, you can give your friends the help they need to make a satisfying audio purchase. And besides the sterling reputation you'll build up as a reliable guide, you'll have the satisfaction of helping your friends receive more pleasure from recorded music.

THE JAPAN AUDIO FAIR

A dispatch from the Eastern front

BY BRYAN HARREII

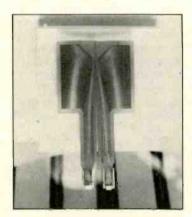
AID to be the world's largest fair devoted exclusively to audio products, the annual Japan Audio Fair enables the leading Japanese audio manufacturers to impress journalists, consumers, and the competition with eye-catching displays of photogenic models (both hardware and human). The most recent fair, the thirty-second, was held as usual at the huge Harumi Exposition Grounds in Tokyo. Some 250,000 people ogled, poked, and auditioned current equipment. But this fair, unlike the ones in the last few years, provided little in the way of revolutionary introductions. Instead of presenting anything that might be called the Next Big Thing in audio, most of the Japanese audio industry, it seemed, was still trying to come to terms with the Last Big Thing: the digital Compact Disc system.

Digital Audio

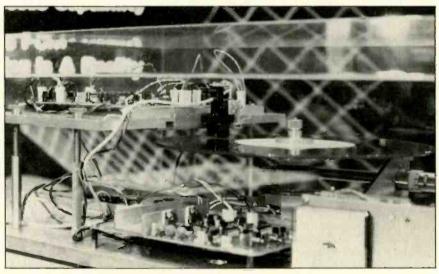
With sluggish high-fidelity and video sales resulting from both a saturated domestic market and a general economic recession (even in Japan!), manufacturers were staking their fortunes on widespread acceptance of the CD format. Accordingly, the biggest news at 1983's Japan Audio Fair was the introduction of the "second generation" of CD players, many of them boasting price tags roughly 40 per cent lower than their predecessors'. Yamaha broke the psychological 100,000-yen barrier (at 230 yen to the dollar, about \$435) with its 99,800-yen CD-X1. Close behind Yamaha in the downward price race were Technics (the SL-P7), Sony (CDP-11S), Toshiba (XR-Z70), and Hitachi (DAD-3000). Digital-audio insiders were predicting that players costing from 60,000 to 80,000 yen (\$260 to \$300) would be released by the end of 1984.

Of course, prices quoted at the fair are bound to rise by the time the equipment reaches U.S. dealers. The Yamaha CD-X1, for instance, now carries a suggested U.S. retail price of \$599. Moreover, not all the models shown in Tokyo last October will be sold here, and those that are may be restyled or carry different model names or numbers.

Offshoots of basic CD-player technology were shown at the fair too. Sanyo showed a "boom-box" porta-



Kenwood showed a prototype of its forty-track digital-audio tape-recording head. Many companies have developed tape formats for digital audio, but no standard is yet in sight.



Sansui's prototype laser-optical digital recording system demonstrated the possibility of producing a Compact Disc recorder/player. Even the most optimistic proponents, however, say that commercial models are at least five to ten years in the future.

ble with a built-in CD player, but no detailed information was available. Denon and Sony both displayed CD players designed for broadcast studios, with Denon's DN-3000F having an Instant Music Start system that cues up a disc to the precise point where music begins instead of merely the designated start of a track. Aiwa, Denon, and Hitachi had prototypes of what could become digital-audio jukeboxes. The Aiwa DZ-2000 holds ninety-nine CD's and boasts a 15-second access time to any track on any disc. Hitachi's unit uses a slide-in thirty-disc cartridge and is claimed to have a 2- to 20-second access time. According to one spokesman, these machines are intended for use as low-maintenance background-music sources. If so, they're sure to need some sort of dynamic-range-compression system!

The ever-popular (at least in Japan) karaoke sing-along machines are also going digital. CD players have been incorporated because they offer easier access to each track on a disc; future releases may have a voice-only track to assist phonetic learning of difficult foreign lyrics. At least one model, from Sanyo, had a special adaptor that could change the key of the music without changing the tempo, a perfect device for singers with limited range.

In other digital-audio news, Sansui showed a prototype record/play/ erase digital-disc recorder usable for audio and computer signals, and several manufacturers had prototypes of digital-audio cassette recorders. San-

yo's was a three-head model with a sampling rate switchable between 44.1 and 48 kHz. Digital-audio adaptors for video-cassette recorders were also shown. The Technics SV-110 allows digital editing when used with two VCR's.

Cassette Decks

Apparently the microcassette format for high-fidelity audio has died a sudden death, since the only player I saw displayed in Tokyo was Aiwa's pocket-sized HS-M2. No doubt it will soon be joining the Elcaset and various quadraphonic components in hifi heaven.

The big news in full-sized cassette decks was the proliferation of truly high-fidelity dual-transport chines, commonly known as dubbing decks. Aiwa's AD-WX22 makes it possible to copy a tape in a fourth of the normal playing time by using four-channel heads (to record both sides at once) and doubling the tape speed. Other new dubbing decks included Onkyo's TA-W990, Sansui's D-W9, and JVC's deluxe KD-WR90, which offers recording capability, Dolby-C, and auto-reverse with both transports!

The show stopper was Nakamichi's second solution to the problem of proper azimuth alignment in an autoreverse deck, the RX-202, also recently introduced in the U.S. When the reverse function is activated, the cassette-bay door slides open, the cassette slides out, does a 180-degree pirouette on a revolving platform,

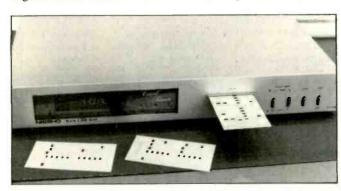
then slides back into the waiting arms (capstans) of the mechanism. Nakamichi's exhibit featured a whole wall of these machines doing a skipto-m'lou in unison, quite a sight for the uninitiated.

High-Fidelity VCR's

The Beta Hi-Fi system seems to be very popular in Japan, possibly because Japanese television features quite a few stereo broadcasts with good sound quality. It might be the death knell for open-reel tape decks in Japan, at least for typical home applications, since the specs of Sony's SL-HF77 (SL-2700 in the U.S.) are as good as or better than what the openreel medium affords. Aiwa got into the act too with a mini-component VCR, the AV-5M, and its optional Beta Hi-Fi adaptor, the SV-M5. Also joining the Beta Hi-Fi parade were NEC (VC-727) and Toshiba (L8V-L8). The newer VHS Hi-Fi system was represented in models by Hitachi, Matsushita (Panasonic in the U.S.), and Mitsubishi. All of this is leading to what the Japanese manufacturers call audio/video integration, a sparkling example of which was Onkyo's component-sized stereo integrated amplifier, the AV-08, which has a small black-and-white video monitor on its front panel.

Electronics

Technics had some really snazzylooking microcomponents combined in its SA-007 system. The power am-







Upper left: Nissho's ET-7000 Card Timer uses punch cards to enter the timer program. Audio-system timers are very popular in Japan.

Lower left: Sanyo's CPP-20 is a complete portable stereo system/boom box with a built-in player for Compact Discs. It was being promoted as "CD... to go!"

Denon's
DN-1102F
Compact Disc
changer can hold
up to a hundred
discs. Any track
can be accessed
within 15 seconds.

plifier, preamplifier, tuner, and cassette deck-all only 7 inches widelook like doll-house versions of the company's full-sized models. At the other end of the size scale, Luxman's M-05 power amplifier has two huge exhaust fans mounted on its rear panel-and no wonder, since it is rated at 105 watts per channel of pure class-A power. In tuners, the Technics ST-G7 has a rated THD of only 0.008 per cent in stereo, frequency response of 4 to 18,000 Hz, and a 120-dB dynamic range (a spec that may exceed the theoretical limit, depending on how that is defined). Kenwood's new KT-1010 uses proprietary circuity to achieve an equally incredible 0.009 per cent distortion level in stereo. These tuners definitely put the highfidelity ball in the broadcasters' court, where it has actually been all along. Japan will be receiving directto-home-antenna satellite broadcasts soon, and Mitsubishi had a collection of direct-broadcast-satellite (DBS) gear on display, including a small rooftop dish antenna, a DBS converter, and a DBS tuner.

The first example of the coupling of a computer with a one-brand system was displayed by Mitsubishi. The Roboty Intelligent Compo System has a computer input/output port to allow your home computer program to run it. The Roboty will (thank goodness) be known overseas as the Z-30. Other interesting one-brand systems included Sanyo's DC-W07, which comes in white, red, orange, yellow, black, blue, gray, and (ugh!) pink.

Turntables and Cartridges

With so much CD-player action at the fair, it was a surprise to see several high-end analog-turntable prototypes, such as Micro-Seiki's linear-tracking model with an air-bearing tone arm. Kyocera's PL-911 featured a ceramic platter, and Yamaha's GT-1000 had a five-layer laminated-wood base. Nakamichi showed a scaled-down version of its TX-1000 Computing Turntable, the Dragon CT, which uses a motor-driven servo system to move the platter in order to compensate for records with off-center spindle holes.

In the "popular-price" turntable category, Denon displayed an upgraded version of its DP-45F, the DP-65F, and Sony's PS-X555ES is a "downmarket" (?) version of the deluxe X8000. Onkyo's double-suspension floating-base design is currently enjoying brisk sales in the Japanese market and received highlight treatment at the show. In the cartridge category, the gee-whiz award was won hands down by Dynavector's Karat Nova 13D MC cartridge, which has a cantilever (all diamond, of course) only 1.3 millimeters long.

Blank Tape

"Open-reel cassettes" may sound like a contradiction in terms, but that didn't stop Teac from putting out what was claimed to be the world's first cassette with interchangeable tape reels. Teac's new Open Cassette features little flanged cassette spools that can be snapped into a special cassette shell; a pin is embedded in the leader tape for easier threading. The system is surprisingly simple and offers some impressive benefits, such as easier editing, compact storage, easier tape transport (your tape collection can be carried in a tube like a roll of coins), and (it was claimed) lower overall cost. It may seem like a marketing long shot, but then, so did the Philips Compact Cassette when it was first marketed as a high-fidelity medium back in the early Seventies.

Speakers

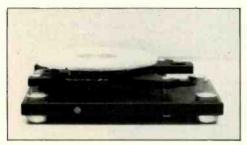
More and more Japanese manufacturers are coming out with aluminum honeycomb-diaphragm drivers in both circular and square shapes, as exemplified by Sharp's prototypes with mica-skinned diaphragms. Continuing the development of exotic speaker technologies, Stax showed its ELS-F83 line-source electrostatic speaker and Kyocera displayed the world's first "full-range" ceramic speaker, a result of the company's research into innovative applications for new ceramic materials.

Odds and Ends

Audio timers are popular in Japan, and the ET-7000 from Nissho Engineering of Osaka was the first I've seen to use optically read computer cards programmed by the user. Gone are all the switches and buttons; instead, there's a clean panel with a digital display and a slot to insert the cards. It has two separately switched outlets, and seven programs are storable at one time.

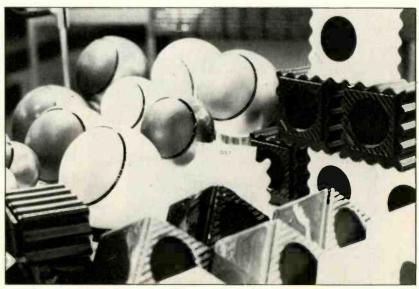
Finally, car audio in Japan seems to have been taken over by the "personal transceiver": CB in American. New models were displayed by hi-fi stalwarts NEC, Kenwood, and Sanyo. Maybe now there will be a market for all those U.S. units left over when the American CB boom collapsed.

Bryan Harrell, a first-time contributor to Stereo Review, is an American freelance writer living in Tokyo.



Kyocera (Kyoto Ceramics) showed products featuring ceramics, such as this turntable with a ceramic platter, speakers with ceramic cabinets, and some ceramic driver components.

Fostex's new line of minispeakers had the bright colors and flashy styling popular in products for the domestic Japanese market.



STEREO REVIEW'S RECORD OF THE YEAR AWARDS FOR 1983

EDITORS AND CRITICS CHOOSE 12 BEST RECORDS AND 25 HONORABLE MENTIONS

In the year just ended the fortunes of the record business took a turn for the better. Cassette sales were up, the Compact Disc made its debut and went SRO, and classical music won a larger share of the market. Imports, which poured in in all categories, competed strongly with U.S. recordings. One of our Records of the Year is a British import from EMI/Angel, the album of French piano music played by Cécile Ousset.

As usual, our editors and critics have voted awards to the twelve best records released in the preceding year and have singled out twenty-five others for honorable mention. They are listed on the following pages.

MABEL MERCER AWARD TO FRANK SINATRA

For his lifetime of musical achievement, the name of Frank Sinatra is added to the list of recipients of our annual award for outstanding contributions to the quality of American musical life. The others have been Mabel Mercer, Jascha Heifetz, Arthur Fiedler, Richard Rodgers, Beverly Sills, Earl Hines, Aaron Copland, Benny Goodman, and

Eugene Ormandy. Portrayed on this month's cover by Al Hirschfeld, Sinatra is the subject of an article by Gary Giddins on page 52.

Sinatra has frequently mentioned that the British-born cabaret singer Mabel Mercer had a strong influence on him during his formative years. Since Miss Mercer was the first recipient of STEREO REVIEW's award of merit in 1975, now seemed the proper time to rename this honor. It will henceforth be known as the Mabel Mercer Award.

-Christie Barter, Music Editor



RECORD OF THE YEAR



STRAVINSKY: Pulcinella; Suites Nos. 1 and 2 for Small Orchestra (Academy of St. Martin-in-the-Fields, Neville Marriner cond.). ANGEL DS-37899.



SUSANNAH McCORKLE: The People
That You Never Get to Love. INNER CITY IC



THE POLICE: Synchronicity. A&M SP-3735



CÉCILE OUSSET: French Piano Music. EMI/ANGEL ASD 4390.



BEETHOVEN: Piano Trios Nos. 3 and 5 (Beaux Arts Trio). PHILIPS 6514 131.



MOZART: Symphonies Nos. 31, 35, 38, 39, 40, and 41 (Academy of Ancient Music; Jaap Schröder and Christopher Hogwood cond.). L'OISEAU-LYRE D172D4.

Honorable Mentions

JOAN BAEZ: Very Early Joan. VANGUARD VSD-79446/7.

BEETHOVEN: Piano Concerto No. 3; Choral Fantasy (Rudolf Serkin; Boston Symphony Orchestra, Seiji Ozawa cond.). TELARC DG 10063.

BIZET: Carmen (Agnes Baltsa, José Carreras, José van Dam, Katia Ricciarelli; Berlin Philharmonic Orchestra, Herbert von Karajan cond.). DEUTSCHE GRAMMOPHON 2741 025.

DAVID BOWIE: Let's Dance. EMI AMERICA SO-17093.

EARL THOMAS CONLEY: Don't Make It Easy for Me. RCA AHL1-4713.

THOMAS DOLBY: Blinded by Science. HARVEST MLP-15007.

BOB DYLAN: Infidels. COLUMBIA QC 38819.

DONALD FAGEN: *The Nightfly*. Warner Bros. 23696-1.

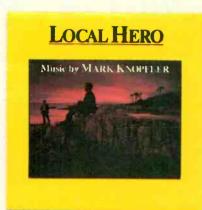
HANDEL: Hercules (John Tomlinson, Sarah Walker, Anthony Rolfe Johnson; Monteverdi Choir; English Baroque Soloists, John Eliot Gardiner cond.). ARCHIV 2742 004. HAYDN: Die Schöpfung (Kristina Laki, Neil Mackie, Philippe Huttenlocher; La Petite Bande, Sigiswald Kuijken cond.). ACCENT ACC 8228/29.

JANÁČEK: Jenufa (Elisabeth Söderström, Lucia Popp, Peter Dvorský; Vienna Philharmonic Orchestra, Sir Charles Mackerras cond.). London LDR 73009.

LIZ MEYER: Once a Day. ADELPHI AD 2009.

KATE AND ANNA McGARRIGLE: Love Over and Over. POLYDOR 422-810 042-1 Y-1.

AWARDS FOR 1983



LOCAL HERO (Mark Knopfler). WARNER BROS 23827-1



WYNTON MARSALIS: Think of One. COLUMBIA FC 38641.



FALLA: The Three-Cornered Hat (Colette Boky, Richard Hoenich; Orchestre Symphonique de Montréal, Charles Dutoit cond.). LONDON LDR 71060.



ROSSINI: Il barbiere di Siviglia (Thomas Allen, Agnes Baltsa, Francisco Araiza; Academy of St. Martin-in-the-Fields, Neville Marriner cond.). PHILIPS 6769 100.



RICHARD THOMPSON: Hand of Kindness. HANNIBAL HNLP 1313.



MICHAEL JACKSON: Thriller. EPIC QE 38112.

MOZART: Piano Concertos Nos. 15 and 21 (Alfred Brendel; Academy of St. Martin-in-the-Fields, Neville Marriner cond.). PHILIPS 6514 148.

MOZART: Piano Concerto No. 32. HAYDN: Piano Concerto in D Major (Steve Lubin; Mozartian Players, Ransom Wilson cond.). ARABESQUE 6510.

MOZART: Opera Arias (Dame Kiri Te Kanawa; London Symphony Orchestra, Sir Colin Davis cond.). PHILIPS 6514 319.

GRAHAM PARKER: The Real Macaw. ARISTA AL8-8023.

PRINCE: 1999. WARNER BROS. 23720-1F.

LOU REED: Legendary Hearts. RCA AFL1-4568.

REICH: Tehillim (Steve Reich and Musicians, George Manahan cond.). ECM ECM-1-1215.

ROLLING STONES: Under Cover. ROLLING STONES
90201-1

SCHUBERT: Duo Sonata for Violin and Piano.
STRAVINSKY:
Divertimento for Violin and Piano (Mihaela Martin, violin; Paul Ostrovsky, piano). Vox Cum Laude VCL 9043.

SHOSTAKOVICH: Symphony No. 5 (Amsterdam Concertgebouw Orchestra, Bernard Haitink cond.). LONDON LDR 71051.

VERDI: Falstaff (Renato Bruson, Katia Ricciarelli, Barbara Hendricks; Los Angeles Master Chorale; Los Angeles Philharmonic Orchestra, Carlo Maria Giulini cond.). DEUTSCHE GRAMMOPHON 2741 020.







"... This tire works amazingly well." Our sentiments exactly. But the words belong to the editors of *Car and Driver* magazine, commenting on the outstanding performance of Eagle GT radials.

Low-profile, steel-belted Eagle GT works so well on the street because it was born at the track. Its tread pattern is derived from the same Goodyear racing rain tire that helped win the 1982 Formula One World Championship.

Which is a big reason why Eagle GT radials have proved so successful. In fact, they've won a national championship. At the 1982 Champion Spark Plug Road Racing Classic.*

We convinced *Car and Driver*. And Chevrolet, too – Eagle GT is standard equipment on the Z28 Camaro.

Now it's your turn. See what Eagle GT can do for you. In the Eagles' Nest at your Goodyear retailer.

Tread shaved to racing depth



The gripping story behind the Z28-Eagle GT.





VANTAGE. THE TASTE OF SUCCESS.

Great Taste with Low Tar.
That's Success!



Low Tar.9 mg

33 R.J. Reymolds Tobacco Co.

Best of the Month

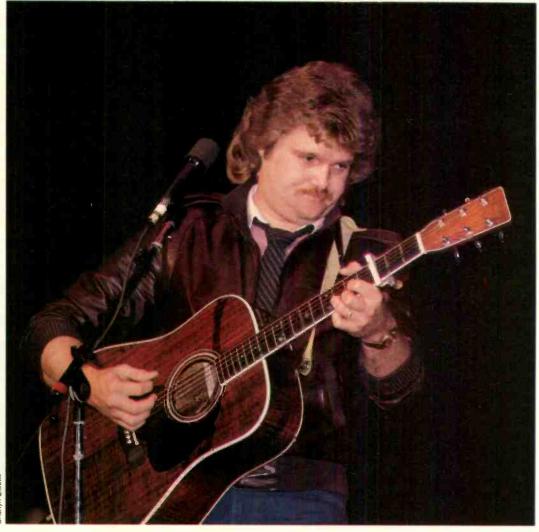
Stereo Review's Selection of Recordings of Special Merit

RICKY SKAGGS BLENDS COUNTRY AND BLUEGRASS IN A LANDMARK ALBUM Music Association's Best Male Vocalist award in 1982, but in 1983 he won none of the four awards he was nominated for. That result was almost as unthinkable as Bill Monroe's hanging up his mandolin to become a heavy-metal star. Not only is Skaggs perceived as something of a country-music messiah—almost singlehandedly reviving interest in the hard-country and traditional bluegrass sound—but he is also recognized as a supremely gifted and dis-

tinguished musician. And if all that weren't enough to earn him another CMA award, in the past year his first Epic albums, "Waitin' for the Sun to Shine" and "Highways and Heartaches," were certified Gold, a sign of commercial success that is easily decipherable by the large CMA voting body.

Whatever the reason for the CMA slight, Skaggs's new Epic LP, "Don't Cheat in Our Hometown," is a spectacularly joyous event—a reason to howl at the moon, send up a flare, or

Ricky Skaggs: radiantly listenable



rivo Ziotnik

hire a skywriter. Whereas his last two albums played down (even ignored) Skaggs's bluegrass roots for an audience that may not have been quite ready for pure, unadulterated backwoods music, "Don't Cheat in Our Hometown" blends his country and bluegrass influences in a way they've never been blended before.

Ironically, most of the album was recorded several years ago when Skaggs was on the Sugar Hill label. For the Epic release, he went back into the studio and added two songs, A Wound Time Can't Erase and Bill Monroe's venerable Uncle Pen (done up anew with lively syncopation); the rest were then remixed digitally from the analog originals.

Two of the cuts here, the Stanley Brothers' A Vision of Mother and Carter Stanley's Keep a Memory, are delivered in straight bluegrass style. Surprisingly, an old Lester Flatt tune, I'm Head Over Heels in Love, comes out sounding more like a glorious roadhouse jammer than a bluegrass classic, and the traditional Children Go Where I Send Thee (here called simply Children Go), performed with Skaggs's in-laws, the Whites, gains an entirely new profile here from his clipped, Southern-gospel-style quartet arrangement.

In the end, though, what is most impressive about this album is how Skaggs's high, lonesome tenor soars unfettered and unaffectedly, sounding more fluid than it has on his previous albums, and how, as producer, Skaggs has brought each instrumental part out and set it in the listener's lap. The new mix is nothing short of exquisite, and, among the numerous stellar soloists, Albert Lee on guitar and Jerry Douglas on dobro deserve special recognition.

"Don't Cheat in Our Hometown" is a landmark album made even more so by its being so radiantly listenable. From the title track to the two songs with Dolly Parton (on which she does her first honest country harmony singing since her Porter Wagoner days), it's a noble and striking effort. a tour de force of indomitable American musical spirit. -Alanna Nash

RICKY SKAGGS: Don't Cheat in Our Hometown. Ricky Skaggs (vocals, guitar, violin, mandolin); the Whites, Dolly Parton (vocals); Albert Lee, Brian Ahern, Hank De Vito (guitar); Glen D. Hardin (piano); John Ware (drums); Emory Gordy (bass); Jerry Douglas (dobro); other musicians. Don't Cheat in Our Hometown; Honey (Open That Door); A Wound Time Can't Erase; A Vision of Mother; Uncle Pen; I'm Head Over Heels in Love: Don't Step Over an Old Love; She's More to Be Pitied; Keep a Memory; Children Go. EPIC FE 38954, © FET 38954, no list

A LOVING PERFORMANCE OF A CHAUSSON MASTERWORK

RNEST CHAUSSON'S Concert for Violin, Piano, and String Quartet was composed immediately after his Symphony in B-flat, which many regard as the most beautiful of all French symphonies. Although the Concert is Chausson's only other instrumental work of comparable proportions, it has never made much headway in the repertoire, and the few recordings of it have had rather brief catalog lives.

A new CBS recording may be just what is needed to change all that. The performance—by Itzhak Perlman, Jorge Bolet, and the Juilliard Quartet—is the first in my listening experience that brings the work fully to life. And a very substantial piece it turns out to be, with voluptuous themes and sumptuous colors quite like those of the symphony. Its structure is different from that of the symphony, however, with four movements instead of three. The added one is a brief but exquisite sicilienne placed between the expansively dramatic opening movement and the slow movement (whose links to the corresponding section of the symphony can hardly be missed).

In his characteristically illuminating liner notes, Peter Eliot Stone points out that Chausson titled the work a "Concert, not Concerto, after eighteenth-century practice." Since this usage is more or less unique to the French, it is probably just as well to continue thinking of Chausson's Op. 21 as a double concerto with string quartet instead of orchestra.

On the evidence of this recording, I suspect that Perlman, Bolet, and the members of the Juilliard must all have loved the music for years and only now found associates who shared their enthusiasm. You can sense their joy in the performance, which offers nothing less than a rediscovery of a little-known masterwork. The sound is glorious too.

-Richard Freed

CHAUSSON: Concert in D Major for Violin, Piano, and String Quartet, Op. 21. Itzhak Perlman (violin); Jorge Bolet (piano); Juilliard Quartet. CBS @ IM 37814. © IMT 37814, no list price.

WAS (NOT WAS): A DIFFERENT KIND OF ROCK/R-&-B ALBUM

OR their new Geffen album, "Born to Laugh at Tornadoes," Don and David Was have assembled a group that sounds as if it includes every session musician in Detroit plus a few famous guest stars, written

Juilliard String Quartet: Chausson comes to life





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a bunch of obscenely intelligent songs that run the gamut from fashionable electro-pop (though harder-edged than usual) to mutated Sixties Motor City rockers to neo-Zappa freak-outs to power pop to lounge pop, and then whipped the whole mess into the most creative and unusual-sounding rock and r-&-b record I've heard in ages. Just for starters, when was the last time you heard an album featuring vocals by both Mitch Ryder (a sizzling Bow Wow Wow Wow) and Mel Tormé (a brilliant rendition of the sinister ballad Zaz Turned Blue)?

There are lots of other highlights: Marshall Crenshaw doing the world's briefest version of Feelings (as background for The Party Broke Up), a thoroughly (and surprisingly) convincing performance by ex-Knack honcho Doug Fieger, even a nicely modulated turn by Ozzy Osbourne. In fact, almost everything here simply oozes brains and personality. The album covers so many bases that I'm amazed a major record company had the nerve to put it out. God only knows who they're going to market it to, since it's a genuinely off piece of work. My guess is that it'll either be a tremendous fluke hit or one of the prime cutout-bin cult items of the Eighties. In either case, don't miss it for a minute.

WAS (NOT WAS): Born to Leugh at Tornadoes. Don and David Was (vocals and instrumentals); other musicians. Knock Down, Made Small (Treated Like a Rubber Ball); Bow Wow Wow Wow; Betrayal; Shake Your Head (Let's Go to Bed); Man vs. the Empire Brain Building; Out Come the Freaks; Professor Night; The Party Broke Up; Smile; Zaz Turned Blue. Geffen/Ze GHS 4016 \$8.98, © M5G 4016 \$8.98.

DAVID MURRAY'S ACCESSIBLE MODERN JAZZ

OMPOSER and saxophonist David Murray's music reflects influences from a variety of sources both past and present. The result is an eclectic style that easily pleases "advanced" listeners at the same time it satisfies the cravings of jazz fans who have a deep respect for the past. Murray, who also appears with the World Saxophone Quartet, has been in New York City since the mid-Seventies, but only now, as he approaches thirty, is he beginning to find an audience outside of SoHo lofts.



David Murray: witty and original



David (left) and Don Was

eral albums by Murray on the Black Saint label, imported from Italy by PolyGram. He has also recorded for a small American company, India Navigation, but his wonderful blend of the traditional, the witty, and the profoundly original has, I'm afraid, eluded the ears of major-label decision makers.

Helping Murray take his steps here is a splendid band of somewhat unconventional instrumentation, unusually heavy in winds and brass. The group swells with talent and their music is simply sensational, both original and artistically valid. Murray and his colleagues deliver clever ensembles with the kind of precision you don't often hear from the avantgarde, and out of these ensembles explode the most wondrous solos.

I rarely hear jazz music nowadays that sends ripples down my spine. "Murray's Steps" starts an avalanche. If you haven't done so already, I strongly recommend that you lend David Murray your ears.

—Chris Albertson

DAVID MURRAY OCTET: Murray's Steps. David Murray (tenor saxophone, bass clarinet); Bobby Bradford (trumpet); Lawrence "Butch" Morris (cornet); Craig Harris (trombone); Henry Threadgill (alto saxophone, flute); Wilber Morris (bass); Steve McCall (percussion). Murray's Steps; Sweet Lovely; Sing Song; Flowers for Albert. BLACK SAINT/POLY-GRAM SPECIAL IMPORTS BSR 0065 \$9.98.



Conductor Bernard Haitink: irresistible momentum

MEMORABLE STRAUSS TONE POEMS IN TOPFLIGHT SOUND

BERNARD HAITINK'S new Philips album of three Richard Strauss tone poems is as fine a demonstration of state-of-the-art digital recording from a major label as I have ever heard. The recording locale (Amsterdam's Concertgebouw), the microphone placement, the quality of performance, and the character of the music all combine to produce a wholly memorable aural and emotional experience.

Top honors go to the second side of the disc, which contains Don Juan and Till Eulenspiegel's Merry Pranks. The musical and dramatic impact of these works is well-nigh flawlessly realized by Haitink and the Concertgebouw Orchestra, and the recording reveals the minutest details without seeming to be coldly analytical. You could almost copy out the scores from what you hear, but beyond this clarity are interpretations that make you forget anything but the pleasure of listening.

There is an irresistible momentum to *Till Eulenspiegel* here, equally in the gentle lyrical interludes and in the more raucous episodes. There is a somber workup to the breathless final chase, ending with a plaster-rattling

roll of the military drums as the court pronounces sentence. I could cite dozens of passages in this recording where you simply hear *more* than ever before, not least among them the piteous cries of the E-flat clarinet before Till's end on the gallows.

Don Juan is played for all the dramatic contrast that can be wrung out of it, with episodes of devil-may-care bravado alternating with the tender love interludes. The famous dissonant F by the trumpet at the close, after Don Juan's final defeat, has seldom sounded so plangent as on this disc. As in Till Eulenspiegel, the orchestra displays a near-stratospheric level of virtuosity.

In Death and Transfiguration on side one, Haitink stresses the lyrical rather than the dramatic elements, saving his big guns for the final Transfiguration music. While the recent reading by Herbert von Karajan may be the most dramatic of all and that by Klaus Tennstedt the most spiritual, by and large Haitink's is the best recorded of the digital versions. Overall, the disc is a must if you love the music or if you want to show off a really fine playback system.

—David Hall

R. STRAUSS: Death and Transfiguration, Op. 24; Till Eulenspiegel's Merry Pranks, Op. 28; Don Juan, Op. 20. Concertgebouw Orchestra, Bernard Haitink cond. PHILIPS ● 6514 228 \$12.98, ©7337 228 \$12.98.

Best of the Month

Recent selections you might have missed

CLASSICAL

- □ J. S. Bach: Gcldberg Variations. LONDON LDR 72013. "... an expansive, thoughtful, clarifying, yet utterly unself-conscious reading" (January)
- ☐ Beethoven: String Quartets Nos. 12-16; Grosse Fuge. RCA ARL4-4509. "The Cleveland Quartet caps its Beethoven series with another winner." (October)
- ☐ Debussy: La Mer; Noctumes. CBS IM 37832. "Excellent performances, superb digital sound." (January)
- ☐ Handel: Hercules. ARCHIV 2742 004.
 "A great work gets a great performance."
 (December)
- □ Rachmaninoff: Symphony No. 3;
 "Youth" Symphony. London LDR 71031.
 "... sensuous and richly nuanced...."
 (December)
- □ Ravel: Gaspard de la nuit. Prokofiev: Piano Sonata No. 6. DEUTSCHE GRAMMO-PHON 2532 093. "... | [ivro Pogorelich's performance is] simply irresistible in its imaginativeness and sweep." (November)
- ☐ Rossini: Il barbiere di Siviglia. PHILIPS 6769 100. "... the best Barber in some twenty years." (November)

POPULAR

- □ Peabo Bryson and Roberta Flack: Born to Love. CAPITOL ST-12284. "... a flawlessly assembled album of contemporary r-&-b...." (December)
- ☐ Guy Clark: Better Days. WARNER BROS. 23880-1. "... the finest album to come out of Nashville this year...." (November)
- ☐ Joe Jackson Mike's Murder. A&M SP-4931. "... captures the thrill, danger, and loneliness of being young in New York in the Eighties." (January)
- ☐ Graham Parker: The Real Macaw.
 ARISTA AL8-8023. '... Intelligent, unsentimental, adult love songs... positively inspirational....' (November)
- ☐ Mitch Ryder. Never Kick a Sleeping Dog. RIVA RVL 7503. "... a nearly perfect comeback album." (October)
- □ Carly Simon: Hello Big Man. WARNER BROS. 1-23886. "... exuberant, sexy, funny, sometimes poignant... Don't miss it." (December)
- ☐ Sissy Spacek: Hangin' Up My Heart.
 ATLANTIC AMERICA 90100-1. "... cuter than a speckled pup in a little red wagon."
 (January)
- □ Deniece Williams: I'm So Proud. Co-LUMBIA FC 38622. "... a showcase for 'the songbird of soul.' " (October)
- □ Neil Young: Everybody's Rockin'. GEFFEN GHS 4013. "... a brilliant goof ... spontaneous sounding and funny." (December)

Popular Music

News Briefs



Gloria Gaynor has a big hit in her latest single, I Am What I Am from the Broadway smash La Cage aux folles. Not surprisingly, Gaynor's version of the song has a strong beat that makes it perfect for the dance floor. It's also perfect for Gaynor since its theme nicely complements her 1979 signature song, I Will Survive.

"Eddie Fisher beat me to the first cover of I Am," she told me recently, "but I think mine is getting the attention. Eddie Fisher—talk about survivors!

"I'll be doing a video of the song too. It's necessary to keep on moving, keep up with things. And I've written

with things. And I've written my first screenplay; in it a pop singer falls in love with a guy who turns out to be from the IRS and investigating her record company."

While surviving may imply a certain loss of innocence, Gloria Gaynor has lost none of her familiar vocal finesse. It's displayed not only on the single but on her new album, "I Am What I Am," on Silver Blue Records.

P.W.

A NEW, considerably expanded edition of Rock Record has been published in paperback in the U.S. by Facts on File (New York, \$9.95 719 pp.). Boldly emblazoning on its cover the fact that it documents some 40,000 albums by an aggregate of more than 35,000 artists, it includes a comprehensive cross-index of rock musicians and every recording date they ever played (even if only on a single track of a given LP). New Rock Record, as it's called, is a labor of love by an English collector, Terry Hounsome, and is unquestionably the best reference book of its

Richard Thompson, 1982
STEREO REVIEW Record
of the Year award winner
and general favorite in these
pages, has found a new outlet. He's the co-author of an
instructional cassette/book
package entitled The Electric
Mandolin. Apparently the
very first home-study method for that electrified instrument, the package, co-written with mandolin innova-

tor Niles Hokkanen, comes with two paperbacks covering theory, technique, and improvisations as well as two tapes demonstrating the material covered in the books (lots of hot soloing), readings from Ambrose Bierce (!), and some comedy routines to "spice things up a bit." Thompson fans or jaded bluegrass fans should check it out. Available for \$31.50 postpaid from Niles Hokkanen, 2140 Thunder-bird Trail, Maitland, Fla. 32751.

IDEO NEWS: Blotto, the underground parodyrock band best known for the single I Wanna Be a Lifeguard, has just completed a video version of that tune and two others of more recent vintage for release as a Sony Video 45. Astute viewers may be puzzled when they see it, however; despite the tune's summery motif, none of the bikiniclad extras has a tan, and the members of the band appear to have slightly blue faces. It seems that the video was shot in the dead of winter at an upstate New York resort. "The hardest part," said lead singer Broadway Blotto, "came when the director told us to go into the water



waist deep. When I dipped my big toe in the lake, it was so cold the toe almost fell off." Fortunately, making videos is not a toe job. S.S.

F your local record or video shop can't come up with the music videos you're looking for, Sony can. The company has instituted an 800 number through which Sony Video 45's can be ordered, in either VHS or Beta Hi-Fi format, at \$20 and \$15, respectively. Artists represented on Video 45's currently available or about to be released include David Bowie, Duran Duran, Rolling Stone Bill Wyman, Rod Stewart, and Elton John. The number to call is 1-800-221-9980.

THE MC 5 was, to put it bluntly, the Clash of the Sixties—a defiantly working-class, explicitly political guitar band (the only group to play the 1968 Democratic Convention), sympathetic to various black musics from Motown to Sun Ra, and in general committed to raising as much hell as possible. Where the MC 5 differed from the Clash was that its members were all virtuoso players; in fact, they may have been the only American rockers who ever really measured up to English heavyweights like the Who.

Heroes in their hometown (Detroit), the MC 5 never sold a lot of records, but they've become near-legendary since their early-Seventies demise, and they've moved on. Singer Rob Tyner is now a photojournalist; guitarist Wayne Kramer, after a stint in the pokey on a drug rap, has become a fixture of the Manhattan rock demi-monde; and guitarist Fred "Sonic" Smith is back home married to Patti Smith. Now comes a cassette-only recording that proves the legend is more than deserved.

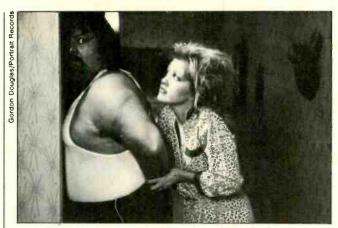
"Babes in Arms" (ROIR A122) collects various outtakes and alternate mixes from the MC 5's three major-label albums as well as independent singles unavailable since the Sixties, unreleased items, and even the uncensored version of their notorious Kick Out the Jams, most of which is incandescent. Even when the political sentiments seem dated and naïve, the sheer ferocious energy of these guys as an ensemble more than compensates.

It's a terrific tape, with informative liner notes by Kramer and the group's exmanager and guru, John Sinclair. Available at smarter record stores or directly from ROIR, 611 Broadway, Suite 214, New York, N.Y. 10012. S.S.

JAGGER TO TELL ALL! Bantam Books has announced the acquisition of American rights to the forthcoming autobiography of head Rolling Stone Mick Jagger. Scheduled for publi-

cation next autumn, this "full story" of Jagger's life from childhood to the present, according to Bantam, is being written in collaboration with John Ryle, literary editor of the Sunday Times of London. Also according to Bantam, the book is "sure to be of interest" to all those who have followed Jagger's career "and the impact of his worldwide celebrity over the last twenty years," which should guarantee a best-seller. In view of the generally obfuscatory interviews Mick has always given, however, I'll be surprised if the book is even half as revealing as another recent Bantam memoir, ex-President Jimmy Carter's Keeping Faith. S.S.

GRACENOTES. The Moody Blues drummer Graeme Edge has just invested in a chain of hair salons operating out of Milwaukee but due to go nationwide momentarily. . . The twelveinch disco versions of songs from the new Rolling Stones album (Undercover of the Night/Feel On Baby) are billed as "extended"



Wrestler Albano trapped by bantamweight Lauper

cheeky mixes" for reasons no one seems clear about. . . . Dionne Warwick's new version of the classic Sixties Carole King song Will You Still Love Me Tomorrow? features some surprise background vocalists who probably didn't need to rehearse-none other than the tune's original performers, the Shirelles. . . . The portly gentleman grappling above with Cyndi Lauper (the Blue Angel vocalist now gone solo) is none other than Captain Lou Albano, the

former champion bad-guy wrestler. The two met while making Cyndi's first video, also starring her real-life mom, her dog Sparkle, and amiable folk-rocker Steve Forbert as her boy friend. . . . Rutles Fans of the World Unite: Eric Idle's hilarious Beatles send-up, the mock-documentary All You Need Is Cash, an NBC-TV movie of a few years ago, is finally available in video formats courtesy of Mike Nesmith's Pacific Arts Corporation.

Disc and Tape Reviews

By CHRIS ALBERTSON • PHYL GARLAND • ALANNA NASH • MARK PEEL PETER REILLY • STEVE SIMELS • JOEL VANCE

THE BEACH BOYS: Rarities. The Beach Boys (vocals and instrumentals). With a Little Help from My Friends; The Letter; I Was Made to Love Her; You're Welcome; The Lord's Prayer; Bluebirds Over the Mountain; and seven others. CAPITOL ST-12293 \$8.98.

Performance: Has its moments Recording: Variable

This is not exactly found art, but if you're an old Beach Boys fan like me you'll be glad to have it. It's ephemera, mostly, but it's interesting ephemera. From the historical point of view, the valuable find here is *Land Ahoy*, a nicely period surf curio deleted from the Boys' very first al-

Explanation of symbols:

• digital-master analog LP

© = stereo cassette

1 = digital Compact Disc

® = eight-track stereo cartridge

(9) = monophonic recording

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

bum back in 1962; from the artistic, there's a revelatory early mix of Good Vibrations that provides some insight into Brian Wilson's creative processes in the days when he still had any. The rest, including B-sides, outtakes from the "Wild Honey" period, a 1968 live track, and even a German-language version of In My Room, are of variable quality. Actually, having heard a couple of recent Beach Boys bootlegs that are floating around, I'm not convinced this is the most significant collection of rarities that Capitol could have unearthed, but since they've bothered, they deserve at least a B+ for effort. Mild fun.

DARYL HALL AND JOHN OATES: Rock 'n Soul Part 1. Daryl Hall and John Oates (vocals); instrumental accompaniment. Adult Education; Say It Isn't So; Sara Smile; Kiss on My List; Private Eyes; Rich Girl; and six others. RCA CPL1-4858 \$9.98, © CPK1-4858 \$9.98.

Performance: Good Recording: Good

With the exception of Say It Isn't So and Adult Education, newly recorded, this is a Hall and Oates "greatest hits" package

which includes all of the duo's top singles on RCA and She's Gone from their days on Atlantic. No one who's listened to a radio in the last five years could have escaped hearing Hall and Oates. They are craftsmen, and they know how to write a hit with a hook. The earlier selections in this retrospective show that they started out as blue-eyed soul singer/writers, but they increasingly moved away from black music as their hits continued. Their sound is now clever-sometimes mechanical-pop. Not so long ago they said they had let their drummer go in favor of a percussion machine. Their music is something like that. JV

RECORDING OF SPECIAL MERIT

JUNIOR: Inside Lookin' Out. Junior Giscombe (vocals); other musicians. Communication Breakdown; Women Say It; Sayin' Something; F.B. Eye; and five others. MERCURY 812 325-1 M-1 \$8.98, © 812 325-4 M-1 \$8.98.

Performance: Refreshing Recording: Satisfactory

Junior Giscombe is an original whose talent cannot be defined by the common



John Anderson

NOME-FACED John Anderson was a big winner at the Country Music awards in 1983 (Single of the Year, Horizon Award), and, once again, critics wrote that the voice behind Swingin' is another in the long line of George Jones imitators. But while Anderson, who came to country from amateur rock-'n'-roll, admits that Jones was one of his idols (he even pulls off-mike like him), the real influence on his style was Levon Helm, the brilliant ex-drummer and singer for the Band.

I'd like to be able to say I figured that out from listening to Anderson's previous albums (the truth is, he told me), but it's pretty apparent anyway from Anderson's new Warner Brothers LP, "All the People Are Talkin'." Anderson established himself several years ago as one of a handful of true hard-core country singers, but on this, his first self-produced album, he also reaches back to his rock-'n'-roll roots for Black Sheep (a true Levon Helm soundalike), Haunted House (which Anderson is too young to remember in its original form), and the title tune, All the People Are Talkin', written by Fred Carter, Jr., who also produced Levon Helm's "American Son" album.

Unlike Helm, however, Anderson writes a fair amount of his own material (he co-wrote his award-winning Swingin' and the follow-up hit, Goin' Down Hill),

and with his sensitive delivery of the majestic An Occasional Eagle, the new album is beginning to prove that Anderson can handle a ballad as well as hard-driving honky-tonk. My feeling about Anderson is that he can handle just about anything he's given, including production duties. There aren't many people in country who can phrase as effectively as he can or deliver a tongue-in-cheek lyric with such restrained acerbity, and I think he's been correctly perceived as one of the music's high hopes.

As for the Levon Helm influence—well, I happen to be a fan of Levon myself. Besides, Merle Haggard started out emulating Lefty Frizzell, Loretta Lynn used to sound like Kitty Wells, and the great George Jones wanted to be both Hank Williams and Roy Acuff. That's not bad company, now is it? Keep an eye on this guy.

—Alanna Nash

JOHN ANDERSON: All the People Are Talkin'. John Anderson (vocals, guitar); vocal and instrumental accompaniment. All the People Are Talkin'; Blue Lights and Bubbles; Haunted House; Look What Followed Me Home; Black Sheep; Let Somebody Else Drive; An Occasional Eagle; Things Ain't Been the Same Around the Farm; Call On Me; Old Mexico. WARNER BROS. 23912-1 \$8.98, © 23912-4 \$8.98.

categories of pop, rock, soul, or reggae. He borrows what he wishes from all these genres, but he disdains the worn-out clichés of contemporary popular music. For his latest release, he composed most of the music and wrote all the lyrics, which are frequently whimsical. The best example of his little song-stories is F.B. Eye, with its deft jabs at the power structure, although there are no dull tracks here. An appealing album.

RECORDING OF SPECIAL MERIT

HUEY LEWIS AND THE NEWS: Sports. Huey Lewis and the News (vo-

cals and instrumentals). The Heart of Rock & Roll; If This Is It; I Want a New Drug; Walking on a Thin Line; Bad Is Bad; and four others. CHRYSALIS FV 41412, © FVT 41412, no list price.

Performance: Very good Recording: Very good

Huey Lewis is a refreshing and reassuring surprise. He's genial, funny, and accomplished while working within an ordinarily dour and pompous form, the white bar band playing Fifties-style black blues. Most groups of that type are riddled with a true-believer attitude and do not play with an ensemble concept. But Lewis and

the News are a fusion group; the band is a crack outfit that works with Lewis's vocals like some kind of perpetual-motion machine.

Not only is Lewis one of the few blues singers with perfect diction, he is also a dead-on harmonica player in the style of Jimmy Reed. His lyrics have wit, taste, and a vocabulary that hasn't been equaled since Chuck Berry's glory days. He is also daring and comfortable enough to parody himself psychologically (You Crack Me Up) and to identify and dismiss the emotional excuse for narcotics (I Want a New Drug). Finally Found a Home is a charming description of what it means to be a musician, and Bad Is Bad is a chuckle word-play on slang and reality. All this and good old rock-and-roll too. Who could ask for more?

PAUL McCARTNEY: Pipes of Peace. Paul McCartney (vocals, bass, guitar, keyboards); vocal and instrumental accompaniment. Say Say Say; The Other Me; So Bad; The Man; Sweetest Little Show; Average Person; and five others. COLUMBIA QC 39149, © QCT 39149, no list price.

Performance: Disappointing Recording: Excellent

McCartney's last album, "Tug of War," was his best in many years, so you might think that "Pipes of Peace," recorded at the same time and held back from release until now, would also be high quality. Alas, it's not. McCartney chose the best cuts from the complete recording session for "Tug of War." The leftovers on "Pipes of Peace" are generally vapid dazzle, the kind of thing typical of McCartney during his Wings years.

There are three cuts on "Pipes of Peace" that pass muster. Two of them were written in collaboration with Michael Jackson (The Man and Say Say Say) and performed with him in one of those "star team" pairings that have become frequent of late. The third redeeming item, by McCartney alone, is So Bad, one of his more appealing ballads, but it is sung in an embarrassingly high key at the outset. Who does he think he is, Michael Jackson? The remainders are as dull as cold wonton. Tug of Peace is a throwaway. Pipes of Peace is preachy. Average Person is meant to be funny, but McCartney's sense of humor was always forced and of the ain't-I-cute stripe. Hey Hey, an instrumental with Stanley Clarke, is a waste of Clarke's time.

But McCartney is McCartney, not so much a musician now as an entertainer. If you accept that, "Pipes of Peace" is well-crafted entertainment.

JOHN COUGAR MELLENCAMP: Uh-Huh. John Cougar Mellencamp (vocals); vocal and instrumental accompaniment. Crumblin' Down; Pink Houses; Authority Song; Warmer Place to Sleep; and five others. RIVA RVL 7504 \$8.98, © RVC 4 7504 \$8.98.

Performance: Fraudulent Recording: Okay

Previous albums by John Cougar—before he began reusing his real last name,

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Bring your own system to life with this 220 watt per channel, at 8 ohms, from 20hz to 20,000hz, with no more than 0.025% total harmonic distortion, audiophile amplifier.

It has an actual frequency response that stretches from 5hz to 100,000hz and a signal to noise ratio of 100db.

This top of the line Full Complementary Balanced Bridged audiophile amplifier is made in the U.S. by Audiometric, an upscale division of one of America's top audio manufacturers.

Just as with any other power amp, it can be hooked directly to any preamp. But, Audiometric has made a special interface exclusively for DAK that also allows it to be used with your own receiver.

Here's how it works. You attach the interface's 'black box' to your receiver's speaker terminals with the included standard speaker wire.

It loads your amp's outputs with an 800 ohm load, not the usual 8 ohm load. This means that your amplifier works virtually 1/100th as hard, so in effect, your receiver's amplifier becomes a preamp.

And for all practical purposes, distortion headroom and frequency response won't be limited by your receiver's amp.

The output from the interface feeds through standard patch cords into the amplifier. Once you've connected your speakers to the Audiometric 220 watt per channel amp, get ready for an incomparable kaleidosopic explosion of sound.

And, as far as controls, you'll use your receiver or preamp exactly as you do now. The only difference will be the massive proportion and fine detail of the musical sound you'll experience.

FULL COMPLEMENTARY BALANCED BRIDGE

This system of amplification actually includes speaker behavior within the scope of amplifier performance. A Balanced Bridge amp forces the speaker systems to exactly reproduce musical signals from the amplifier.

Technically speaking, the Balanced Bridge system is like a combination of 4 amps. It's almost as if there were two amps for each channel.

The positive side of each speaker system is driven by one amp and the negative or ground side is driven by the other. So, the speaker itself actually becomes the interactive part of the amplifier.

This system literally assures perfect symmetry of the positive and negative sides of each cycle and absolutely locks the speaker into compliance with the signals produced by the amplifier.

It's important to note that the major difference isn't just the frequency response and ultra low distortion when measured at the amplifier.

The major difference is the fact that these specs, are carried out through your speakers for you to hear as massively powerful, but incredibly pure clean sound.

THE BOTTOM LINE

This Full Complementary Bridged Amplifier will deliver authentic musical truth. It has a super fast slew rate, transient intermodulation distortion (TIM) is not discernible, and because the transistors never shut off, you can just about forget crossover or notch distortion.

You'll hear pure uncolored unbelievably powerful sound that will send shivers up and down your spine and peel the paint from your walls.

The difference you'll hear with this amp won't be subtle. It's like opening a door. The music just seems to expand. At low levels there's a fullness and richness of sound that's breathtaking.

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smaller amps suffer as they try to produce full orchestral passages.

Most people think that more power (more watts) just makes for louder sound. That's not even half true. High power makes for clean pure unrestrained transparent sound at any listening level with virtually any speaker systems.

AUDIOMETRIC

If you're really into audiophile components, it won't be hard to figure out which of the few companies making 220 watt per channel audiophile amps is responsible for this amplifier.

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To order your 440 watt Audiometric 441 Definition Series Power Amplifier with 220 watts per channel with the special interface 'black box' for use with any receiver, call toll free or send your check, not for the \$600 to \$1000 you'd expect to pay, but send just \$349 plus \$12 for postage and handling. Order Number 9765. CA res add 6% sales tax.

No matter whose receiver or preamp/ amp you now have, the purity and thundering power of this amp will revolutionize the sound of your stereo system.

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Jennifer Holliday

So far, Jennifer Holliday's reputation as a soul singer has been based exclusively on her performance as Effie, the mistreated singer in the Broadway hit Dreamgirls. Her show-stopping rendition of And I Am Telling You I'm Not Going was so riveting, both on stage and in the original-cast recording, that she earned not only a Tony Award but a small place in show-business history.

"Feel My Soul," Holliday's album debut, puts her to the test as a solo performer. With a showcase production by Maurice White, who also shaped Deniece Williams's auspicious first release a few years ago, it proves that Holliday's promise was no illusion. The material is by some of the best songwriters in the business— White himself, Ashford and Simpson, and Ross and Gino Vannelli-though not always out of their top drawers. The arrangements are smooth, and Holliday puts the songs across with admirable authority. At times there is some overreaching, but there are also plenty of moments when her work triggers an inner shout in the listener, the kind of deep personal response achieved by only the very best soul singers.

Probably the high point here is 1 Am Ready Now, which almost seems a response to Holliday's Dreamgirls hit. She is equally effective in her lusty interpretation of White's Change Is Gonna Come and in gospel writer Edwin Hawkins's pensive This Day, a modern hymn of simple, profoundly moving beauty, especially at its close when Holliday is joined

by a back-up choir.

Like Deniece Williams, Jennifer Holliday has an extensive background in gospel music, and both play comfortably with melodies, weaving complex and intense embellishments. But there is a world of difference in the textures of their voices and their vocal styles. While Williams has a high, clear, almost bird-like sound, Holliday's voice is thick and rich. resonant and full-bodied. If Holliday continues along the line "Feel My Soul" charts out, the progress of her career should be interesting and gratifying to -Phyl Garland

JENNIFER HOLLIDAY: Feel My Soul. Jennifer Holliday (vocals); vocal and instrumental accompaniment. Just Let Me Wait; I Am Ready Now; This Game of Love (I'm Never Coming Down): 1 Am Love; Shine a Light; Just for a While; My Sweet Delight; Change Is Gonna Come; This Day. GEFFEN GHS 4014 \$8.98. © M5G 4014 \$8.98.

Mellencamp—including 1982's chart-topping "American Fool," have been criticized as cheap Springsteen facsimiles. "Uh-Huh" will be similarly chastised for sounding sacrilegiously like the Rolling Stones. But although these are accurate enough appraisals of Mellencamp's raw. elemental, and derivative sound, both criticisms miss a crucial point. There is plenty of room for two Bruce Springsteens or two Rolling Stones-or even twenty, provided the music is honest.

Mellencamp's easy move from the black-top, blue-collar affairs of the heart on his earlier records to the careless arrogance of "Uh-Huh" suggests a rootlessness and superficiality that go beyond merely copping someone else's sound. While he likes to pass himself off as some sort of symbol of the common man, "UhHuh" manifests very little real affection for common people.

Mellencamp's mind seems to be on other things these days. Things like stardom. On Jackie O, he faces off with a social climber ("so you went to a party at Jacqueline Onassis"). Just knowing someone in a position to be invited to one of Jackie's parties must be a big step for this Indiana boy. Then there are the poolside debauches a rock star has to put up with, which he documents in Serious Business. And through everything now, you keep hearing Mick Jagger and Keith Richards instead of the Boss. Between insulting the people who listen to his music and whining about the hassles of success, John Cougar Mellencamp has fashioned a record that should alienate everyone who listens to it.

MIDNIGHT STAR: No Parking on the Dance Floor. Midnight Star (vocals and instrumentals). Electricity; Night Rider; Slow Jam; Feels So Good; and four others. SOLAR 60241-1 \$8.98. © 60241-4 \$8.98

Performance: Promising Recording: Excellent

Midnight Star's "No Parking on the Dance Floor" is a two-faced album that combines the purely functional with the more substantial-happily not on the same tracks. The popular parts of the album (from what I hear on the radio these days) consist of repetitive, highly synthesized bumps and phrases designed to give you a workout on the dance floor. As such, those tracks succeed admirably, but while the DJ's concentrate on such plastic fare as Electricity and Wet My Whistle, Freak-a-Zoid and the title track have much more to offer. There are some fine voices in this nine-piece Ohio group, and, instrumentally, they know how to lay down an ever-so-mellow beat. I recommend lending your feet and body to the dance cuts, but you should also treat your ears to Night Rider, Feels So Good, and Slow Jam.

ELLIOTT MURPHY: Murph the Surf. Elliott Murphy (guitars, harmonica, vocals); instrumental accompaniment. Continental Kinda Girl; Off the Shelf; Baby, I've Been Thinkin': Modern Romance: You Got It Made; and five others. COURT-ISANE KMH 709232 \$8.98 (from Plexus Records, P.O. Box 270, Gedney Way Station, White Plains, N.Y. 10605).

Performance: Undistinguished Recording: Okay

Although he hasn't been heard from in some time, Elliott Murphy once had a fairly respectable cult following, mostly on the strength of his literate, angry lyrics. "Murph the Surf," recorded for a small independent label, finds little change in Murphy. He's still an exceptional lyricist—and an unexceptional musician. "Murph" is a succession of situation and character sketches centered mainly around charismatic or powerfully sensuous women. The songs are packed with crisp, perceptive images and a good bit of randy detail, but there is a brooding feel to most of the lyrics. In his direct, sometimes snarling delivery, Murphy reminds one of Lou Reed, Bob Dylan, or Neil Young. But the paucity of the music-energetic but uninspired three-chord rock-is no match for the written words.

ANNE MURRAY: A Little Good News. Anne Murray (vocals); instrumental accompaniment. That's Not the Way; I'm Not Afraid Any More; Heart Stealer; Come On Love; The More We Try; and five others. CAPITOL ST-12301 \$8.98, © 4XT-12301 \$8.98.

Performance: Comfortable Recording: Good

Every time Anne Murray opens her mouth to sing, all I can think of is shoes, women's Cuban-heeled walking shoes. I'm not into fetishes, so why has this

image been with me since I first heard her many years ago? Listening to her new album helps to explain why. First of all, her songs seem to be chosen with comfort for her voice and style as a prime recommendation. Second, her performances have a thick-ankled sturdiness that makes her material sound as if it's been around since Pocohantas. And third, her voice insists on the old-fashioned virtues of melody and direct communication.

While I've been thinking of shoes, Murray has been busy turning out twenty American chart hits and getting three Grammy awards, eighteen Junos, and six Gold and two Platinum albums. Like its predecessors, "A Little Good News" has placed on the charts and will probably stay there for a while. It differs from them only in that on the title song she uses a synthesizer and some electronic effects for the first time on. She might get to the Wedgie class yet.

P.R.

RAINBOW: Bent Out of Shape. Rainbow (vocals and instrumentals). Stranded; Can't Let You Go; Desperate Heart; Make Your Move; Fool for the Night; and five others. MERCURY 815 305-1 M-1 \$8.98, © 815. 305-4 M-1 \$8.98.

Performance: Good, but . . . Recording: Very good

High-decibel lead singing by Joe Lynn Turner and occasional horror-movie pipe-organ effects spark this album by the heavy-metal English group Rainbow. The material here is mostly standard and depends on the verve of the players and Turner's lead vocals to put it over. Rainbow has been around for a while—it was formed by Deep Purple founding member Richie Blackmore in 1975—and, despite changing personnel, it seems to be marking time. "Bent Out of Shape" is a capable job, but it doesn't go anywhere much. I suppose it's good experience for the band members, though.

RECORDING OF SPECIAL MERIT

RUFUS AND CHAKA KHAN: Live—Stompin' at the Savoy. Rufus (vocals and instrumentals); Chaka Khan (vocals); other musicians. You Got the Love, Once You Get Started; Dance with Me, Tell Me Something Good; Stop On By; Pack'd My Bags; Stay; Ain't Nobody; and eight others. WARNER BROS. 23679-1 two discs \$11.98, © 23679-4 \$11.98.

Performance: Electric Recording: Good

When it came to pure musical energy, rhythmic thrust, and electrifying performance, few popular vocal-instrumental groups of the early Seventies surpassed Rufus, an integrated and influential soul-rock group that came blowing out of Chicago eleven years ago. Foremost among the assets of this popular ensemble were the voice, singing style, and stage presence of lead singer Chaka Khan.

It was Khan's voice, with its laser-beam edge and brassy aggressiveness, that made the group sound unlike any other band on the boards.

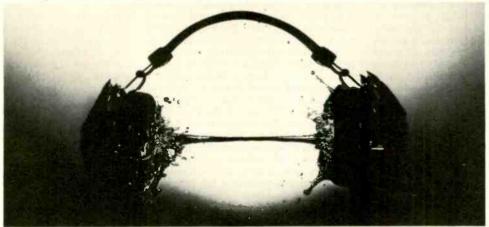
This good thing came to an end in 1978 when Rufus and Khan decided to go their separate ways, but in 1982 they got together again for a one-time series of concerts at the Savoy Theater in New York City. Preserved on this new two-disc set are some of the best numbers they ever cut, worked over with the fire and inspiration that fed the group's reputation in the past. The songs and performances, clearly stimulated by the audience, are so musically sturdy, imaginative, and carefully put together that even familiar material seems fresh.

The fourth side is devoted to four newly recorded studio cuts. Without the live audience, they seem a little flat in comparison. The most interesting of the new tracks is Khan's reading of Don't Go to Strangers, the song that established Etta Jones as an outstanding interpreter of jazz ballads in the Sixties. And a hauntingly lovely song it is. After sailing along in her finest ballad style for most of it Khan blasts out with a few tasteless bars of excess, but she manages to find her way back to home base, and the number comes across as almost a knockout. This is a wonderful album, made extra special because it was intended as the last pairing of Rufus and Chaka Khan.

(Continued on page 83)

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Compact Discs on the Warner/Elektra/Atlantic Labels

WHEN I heard demonstrations of Compact Discs, first in a couple of stores, then in the listening room at STEREO RE-VIEW, I was very impressed with the sound as well as the look of the equipment. I realized, of course, that I was being introduced to these laser-read recordings under optimum conditions, and I shaped my judgment accordingly. As it turns out, I probably attributed too much of their good sound to the high quality (and price) of the amplifiers and speakers used in these demonstrations, for what I heard when I first plugged a CD player into my modest system at home was just as awesome. From the moment I pressed the play button for Bella Davidovich's rendering of Chopin's Fantaisie-Impromptu, my living room was filled with music of a clarity and presence no analog disc could possibly match.

Yes, indeed, I am totally sold on Compact Discs. Mind you, I was listening to Davidovich on Pyramid Metronome-3 speakers, and the source was a Philips CD demo disc, but when I switched to my much less expensive Sharp speakers and began listening to some of the first twenty popular-music CD releases from the Warner/Elektra/Atlantic group, the result was no less impressive. In fact, you can't really begin to appreciate the giant technological leap represented by the Compact Disc system until you test it on average equipment.

CD software was scarce at first, but now I see a growing number of CD releases in record shops, at least in New York, and more and more labels are entering the market. WEA's initial CD releases are made by PolyGram in West Germany, and, as far as I can determine, only two, "The Tango Project" on Nonesuch and Donald Fagen's "The Nightfly" on Warner Bros., were originally recorded digitally. That the others sound so clean and distortion-free dramatically demonstrates just how much loss there usually is in the transfer of analog tapes to analog discs. When I compared the LP and CD versions of George Benson's 1976 hit album, "Breezin'," the difference recalled the time I brought home my first long-playing record—it sounded very quiet to ears that had previously heard only 78's. I suppose all things are relative, but it's hard to imagine how this CD could be improved upon. There is literally no extraneous noise that the human ear can detect, and it is as if one were listening to an altogether different mix; I heard the percussionist do things that simply do not come through on the LP.

I have never been a fan of Talking Heads, and hearing the group on CD hasn't changed that, but someone at WEA obviously thinks well enough of the Heads to have included two of their albums in the CD release, 1980's "Remain in Light" and last year's more palatable "Speaking in



Linda Ronstadt

Tongues." Whatever you may think of the music, the sound is excellent. The same goes for Al Jarreau's "Jarreau," which I find more to my own liking musically. Jarreau's voice wears the new technology well, but, then again, his music wears well, period. And speaking of longevity, while CD's are not indestructible, they aren't nearly as delicate as LP's—minor external scratches, dust, and fingerprints are seen but not heard.

The slightly rough-edged voices of singers Randy Newman and Stevie Nicks are also fine CD candidates. Newman is represented by "Trouble in Paradise," which marked his return to the catalog after an absence of three years. Despite having numerous reservations about it, reviewer Steve Simels called Newman's record "a bright, likable album, consistently rewarding to listen to." I agree. Nicks is another artist deemed worthy of two CD releases: "Bella Donna," the hit album with which she launched her solo flight from Fleetwood Mac in 1981, and her recent followup, "The Wild Heart." Last October "The Wild Heart" received a less than favorable review here from Alanna Nash, who very correctly pointed to Nicks's weakness as a songwriter. She described the recording, however, as "sublime"—make that ultra sublime for the CD version.

If you are a Linda Ronstadt fan, rejoice. She too has a couple of CD's in WEA's initial batch. "Get Closer" is an eclectic 1982 collection that perhaps goes off in too many directions. I prefer Ronstadt's "Greatest Hits," which is more sensibly programmed, including her versions of such classic soul stuff as Tracks of My Tears and Heat Wave and even items originally released on Capitol.

Obviously, we will see many more recent and not so recent analog recordings being released in the new medium, and I suppose even some treasured mono recordings will eventually find their way to CD, as many 78's got onto LP's. Don't expect that to happen right away, but once you have heard the Compact Disc, the sound of most LP's will leave much to be desired.

—Chris Albertson

GEORGE BENSON: Breezin'. George Benson (vocals, guitar); orchestra. Masquerade; Affirmation; Lady; and three others. WARNER BROS. 3111-2, no list price.

AL JARREAU: Jarreau. Al Jarreau (vocals); vocal and instrumental accompaniment. Boogie Down; Mornin'; Black and Blues; Trouble in Paradise; Save Me; and four others. WARNER BROS. 23801-2, no list price.

RANDY NEWMAN: Trouble in Paradise. Randy Newman (keyboards, vocals); other musicians. I Love L.A.; I'm Different; Same Girl; The Blues; and eight others. WARNER BROS. 23755-2, no list price.

STEVIE NICKS: Bella Donna. Stevie Nicks (vocals); vocal and instrumental accompaniment. Bella Donna; The Highwayman; Leather and Lace; After the Glitter Fades; and six others. ATCO 38139-2, no list price.

STEVIE NICKS: The Wild Heart. Stevie Nicks (vocals); vocal and instrumental accompaniment. Wild Heart; If Anyone Falls; Gate and Garden; Stand Back; and six others. MODERN/WEA 50071-2, no list price.

LINDA RONSTADT: Get Closer. Linda Ronstadt (vocals); vocal and instrumental accompaniment. Get Closer; The Moon Is a Harsh Mistress; I Knew You When; Easy for You to Say; and six others. ASYLUM 60185-2, no list price.

LINDA RONSTADT: Greatest Hits. Linda Ronstadt (vocals); vocal and instrumental accompaniment. You're No Good; Love Is a Rose; Heat Wave; Tracks of My Tears; and eight others. ASYLUM 64106-2, no list price.

TALKING HEADS: Remain in Light. Talking Heads (vocals and instrumentals). Once in a Lifetime; Listening Wind; The Overload; The Great Curve; and four others. SIRE 6095-2, no list price.

TALKINGHEADS: Speaking in Tongues. Talking Heads (vocals and instrumentals). Burning Down the House; Slippery People; Swamp; Moon Rocks; and five others. SIRE 23883-2, no list price.

THE TANGO PROJECT. William Schimmel (accordion); Michael Sahl (piano); Stan Kurtis (violin). La cumparsita; Por una Cabeza; Yira yira; La violetera; Caminito; and eight others. Nonesuch 79030-2, no list price.

FRANK SINATRA: The Dorsey/Sinatra Radio Years, 1940-42. Frank Sinatra (vocals); Tommy Dorsey and His Orchestra; Axel Stordahl and His Orchestra. I'll Never Smile Again; The Night We Called It a Day; The Lamplighter's Serenade; The Song Is You; Night and Day; and six others. RCA & AFL1-4741 \$8.98, © AFK1-4741 \$8.98.

Performance: Some historic Recording: Well restored

The cuts that feature Sinatra in radio performances with the Dorsey band are interesting simply because it is Sinatra performing, but the songs, including such gems as I'll Take Tallulah, are fairly mediocre. As a footnote we get Sinatra's spoken farewell to the band and introduction of his successor, Dick Haymes. Also included is the famous Axel Stordahl session of January 1942 in which Sinatra was first recorded as a solo artist rather than as a band singer. His famous, inimitable personal style had already begun to develop, and all four tracks-The Night We Called It a Day, The Song Is You, Night and Day, and The Lamplighter's Serenade—make it clear that his really was a new voice in American pop and not merely a band singer with strings. Also included is the legendary Dorsey/Sinatra reading of I'll Never Smile Again. P.R.

RICKY SKAGGS: Don't Cheat in Our Hometown (see Best of the Month, page 71)

SURVIVOR: Caught in the Game. Survivor (vocals and instrumentals). Caught in the Game; Jackie Don't Go; I Never Stopped Loving You; Ready for the Real Thing; and five others. Scotti Brothers QZ 38791, © QZT 38791, no list price.

Performance: Bullish Recording: Good

AOR bands such as Survivor are more commercial enterprises than musical ones; their albums are commodities, not works of art. Why not acknowledge this, then, and review their releases with the keen eye for the bottom line of a financial analyst judging the performance of a Fortune 500 company?

Survivor is a solid concern with good penetration in a mature market. They've adopted a wait-and-see product-development strategy, allowing other bands (Journey, for instance) to do the initial R&D work, then going after their own share of the market with a virtually identical sound, hoping to build quick brand recognition through high-visibility marketing (Eye of the Tiger gave them the foothold they needed). They operate from an extremely strong position on guitar and keyboards and may even be overcapitalized on lead vocals. But their inability to fashion a well-defined image in a saturated marketplace may be their undoing; the complete lack of innovation is a distinct weakness. Short-term forecast: Survivor should continue to be bullish for as long as AOR demand holds steady. Long-term prospects will depend on how effectively the band can retool if that heavy, three-chord arena-rock sound ever goes the way of the V-8 engine.

THIRD WORLD: All the Way Strong. Third World (vocals and instrumentals). Love Is Out to Get You; Swing Low; Lagos Jump; and five others. COLUMBIA FC 38687, © FCT 38687, no list price.

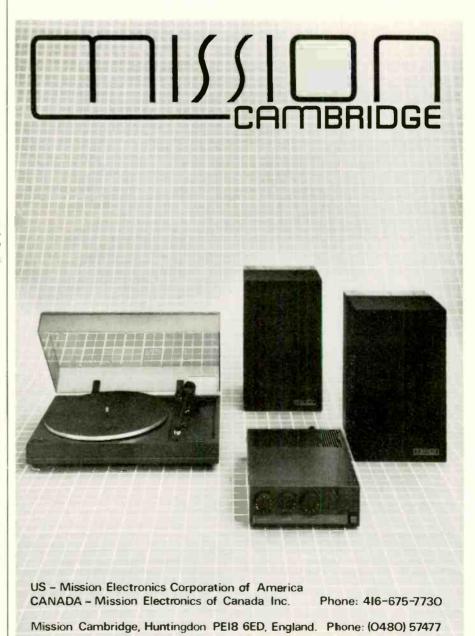
Performance: Refined Recording: Good

If any reggae band ever reaches the Las Vegas circuit, it'll be Third World. This is not to disparage the group; they simply set reggae's commercial standards. Their crushed velvet harmonies, squeaky-clean sound, and strong pop orientation create some troublesome contradictions for a band whose milieu and very name argue for quite a different kind of music.

As a cultural statement, "All the Way Strong" is like a Care package full of Baby Ruth bars. As an example of the possibilities for refinement and subtlety in regage, it's a complete success. There's not a weak song on the album, from the slick Love Is Out to Get You to the Jamaican doo-wop of Seasons When. No one is going to rise to rebellion on the strength of this record, but few will be able to keep from rising to dance to it either. M.P.

WAS (NOT WAS): Born to Laugh at Tornadoes (see Best of the Month, page 72)

(Continued on the next page)



CIRCLE NO. 50 ON READER SERVICE CARD



Mental As Anything

MENTAL AS ANYTHING'S U.S. debut album, "If You Leave Me, Can I Come Too?," was an engaging mix of Tex-Mex and rockabilly-influenced rock, delivered with a healthy dose of Australian devil-may-care. The group's new "Creatures of Leisure" may lack some of the good-natured humor of that first record, but it is a more consistently imaginative and satisfying piece of work.

Beneath the rockabilly rhythm lies a strange, quirky sensibility. Mental As Anything may, in fact, be the offbeat Aussies that Men At Work were supposed to be. In Spirit Got Lost, for instance, you discover that the narrator, who begins by moaning about the economy, is dead ("the people down here are too bony for kissing"). One thing that contributes to this record's schizophrenic quality is that four of the group's five members share in the songwriting-none contributes less than two or more than three songs. When all four look at the same subject, such as the breakup of a relationship, it comes out in four totally different ways: Let's Not Get Sentimental, by Martin Plaza, is unemotional and pragmatic; Brain Brain, by Peter O'Doherty, internalizes the pain; Fiona, by Greedy Smith, turns it aggressively and self-assertively outward; and Float Away, by Reg Mombassa, is self-recriminating. And while all the songs on the album more or less suggest Roy Orbison by way of Dave Edmunds, subtle things happen with the music too. Mombassa favors a tougher guitar sound and a heavier beat, O'Doherty is more apt to season a tune with spacy, psychedelic effects, and Smith tends to inject a Mersey Beat.

If it has a fault, "Creatures of Leisure" suffers from arrangements that are a bit too thin to rock as energetically as this kind of music warrants. This may be the first band of five musicians that sounds more like one of three. But that's a minor quibble for a record that swings and intrigues at the same time. —Mark Peel

MENTAL AS ANYTHING: Creatures of Leisure. Mental As Anything (vocals and instrumentals). Spirit Got Lost; Float Away: Brain Brain; Bitter to Swallow; Close Again; Nothing's Going Right Today; Working for the Man; Fiona; Seems Alright to Me; Drinking of Her Lips; Red to Green; Let's Not Get Sentimental; Business & Pleasure. OZ/A&M SP-4946 \$8.98, © CS-4946 \$8.98.

RECORDING OF SPECIAL MERIT

THE WHITES: Old Familiar Feeling. The Whites (vocals and instrumentals); Jerry Douglas (dobro); Ricky Skaggs (guitar, fiddle); other musicians. You Put the Blue in Me; I Wonder Who's Holding My Baby Tonight; Blue Letters; Hangin' Around; Follow the Leader; When the New Wears Off of Our Love; and four others. WARNER BROS./CURB 23872-1 \$8.98, © 23872-4 \$8.98.

Performance: Updated Recording: Very good

Buck White and the Down Home Folks—or the Whites, as they're now

called—have been kicking around in one incarnation or another since 1962, and through those years they've earned themselves an international reputation in bluegrass circles. Their real break, however, came in the late Seventies when they started opening concerts for Emmylou Harris and appearing with her on TV. Then Ricky Skaggs, who helped blaze a bluegrass path through commercial country music, married Sharon White in 1981 and immediately began to move Buck White and the Down Home Folks into the center spotlight.

For their Warner Bros, debut album, producer Skaggs has filed the rough edges off the Whites' bluegrass sound, just as he

has for his own work, and he offers a subtle blend of bluegrass, old-time country, and jazzy Western swing, all presented in a modestly hip, updated style. That is not an easy thing to accomplish with a family band from Portsmith, Arkansas, but Skaggs has done it by ferreting out a careful sampling of traditional material and finding a series of well-crafted new country songs written with an old-time feel. His production, as important to the group's success as the songs, brings both the vocals and the almost all-acoustic instrumentation so out-front as to place them practically in your lap. The result is that the Whites have three Top-Ten singles off the first side.

Aside from Skaggs's ear for quality material and instrumental placement, the key to the Whites' new popularity is Sharon and Cheryl's remarkable vocal harmonies, delivered in a straightforward, confident, and determined style. "They sing like angels," Emmylou Harris once said, and it's true that there's no harmony quite like family harmony. Overall, the Whites may not sound so "down home" any more, but they still sound pretty darn good.

A.N.

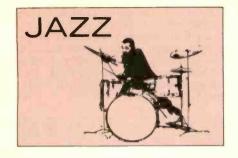
RECORDING OF SPECIAL MERIT

X: More Fun in the New World. X (vocals and instrumentals). New World: We're Having Much More Fun: True Love (Part One); Poor Girl; Make the Music Go Bang; Breathless; I Must Not Think Bad Thoughts; and six others. ELEKTRA 60283-1 \$8.98, © 60283-4 \$8.98.

Performance: Remarkable Recording: No frills

I'm not sure why this band hasn't done it for me in the past. Perhaps it was the miasma of doomy fatalism that informed their lyrics, or maybe it was that the doomy fatalism was a little too Hollywood to ring true. (At least one observer reckoned that these guys seem closer spiritually to the Eagles than to the Sex Pistols.) In any case, while an aura of boozy self-loathing is still detectable in some of X's music here, one song is called We're Having Much More Fun, and the rest of the album sounds like they mean it. As a result, you might call these kids the Thinking Man's Punk Band if that weren't too much a contradiction in terms.

Working in a genre with seemingly narrow stylistic limits, X manages to display a pretty astonishing range of musical influences, all of which seem thoroughly digested. In addition to their trademark early-Airplane vocal harmonies, there are echoes here of rockabilly, the blues, traditional country, and even the kind of stilletto-heeled Latin funk the Rolling Stones dabble in on occasion. Yet almost all of these songs have as much breakneck thrash and guitar Sturm und Drang as you could want. My only reservation concerns Ray Manzarek's production; an album as musically rich as this one really cries out for a little more sonic sheen than Manzarek provides. Still, this is one of the more substantial pieces of rock-androll I've heard in quite a while, and, like the band says in one song here, I hope it gets on the radio.



RECORDING OF SPECIAL MERIT

DAVE FRISHBERG: The Dave Frishberg Songbook, Volume Two. Dave Frishberg (piano, vocals); Steve Gilmore (bass); Bill Goodwin (drums). Dodger Blue; My Attorney Bernie; The Wheelers and Dealers; Another Song About Paris; Blizzard of Lies; and five others. OMNISOUND N1051 \$8.98 (from Omnisound Records, P.O. Box 128, Delaware Water Gap, Pa. 18327).

Performance: Engaging Recording: Quite good

Dave Frishberg's talent deserves a wider audience, and this second "Songbook" is bound to bring him that. I recorded Frishberg twenty-three years ago as pianist with a Bud Freeman quartet, but he has since revealed a talent that stretches way beyond the jazz piano. There is a good sampling of his keyboard agility here, and he sings too, but this is a record that highlights his work as the writer of sophisticated, lyrical, and often cynical songs.

If this album had contained only My Attorney Bernie, Blizzard of Lies, and Useless Waltz, it would be worth its price, but there is so much more, from Marilyn Monroe, a loving tribute, to Dodger Blue, an ode to the L.A. team that already has stirred the emotions of some of its fans. I also love . . . but what's the use?—I could not possibly sell you on this album as well as Dave Frishberg himself does. If this is your first encounter with the man, be prepared to part with another \$8.98 for Volume One. I guarantee that you won't be able to resist it.

JIM GALLOWAY: Thou Swell. Jim Galloway (soprano saxophone); Jay McShann (piano); other musicians. Black Butterfly; Just a Gigolo; Sweet Sue; Humoresque; Wrap Your Troubles in Dreams; and four others. SACKVILLE 4011 \$8.98 (from Sackville Recordings, Box 87, Station J, Toronto, Ont. M4J 4X8, Canada).

Performance: Reflective Recording: Good

Saxophonist Jim Galloway, originally from Scotland, has lived in Canada since 1964 and is quite active on the Toronto jazz scene. In the past few years, Galloway has also made appearances at numerous European festivals, but he remains relatively unknown in this country except by musicians, many of whom are well acquainted with his firmly rooted, bouncy style.

In this new Sackville release, recorded a couple of summers ago, Galloway and

pianist Jay McShann, with excellent rhythmic support from bassist Don Thompson and drummer Terry Clarke, slide effortlessly through a familiar repertoire representing composers from Gershwin and Ellington to Dvořák, whose *Humoresque* gets a brisk, stompy rendering. On the whole, this is not particularly adventurous music, but it caresses the ears nicely.

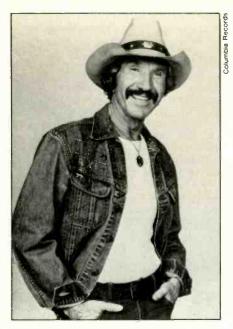
RED HOLLOWAY: Hittin' the Road Again. Red Holloway (vocal, alto, tenor, and baritone saxophones); Shuggie Otis (guitar); Dwight L. Dickerson (keyboards); Richard Reid (bass); Jimmy Smith, Gerryck King (drums). No Tears

(Over You); Sylvia Is Her Name; Russell Square; and three others. JAM 014 \$8.98 (from Jam Records, 1737 DeSales Street NW, Suite 300, Washington, D.C. 20036).

Performance: Good Recording: Good

His name may not be familiar to you, but Red Holloway has been a very busy jazzmusician. He toured with Sonny Stitt from 1976 to 1982 and has also worked with Bill Doggett, John Mayall, Roosevelt Sykes, Lionel Hampton, Ray Brown, and other lights. From 1968 to 1982 he was talent coordinator for the Parisian Room in Los Angeles. With the demise of





Marty Robbins: "A Lifetime of Song"

MARTY ROBBINS (1925-1982) was one of the greatest talents ever to grace country-and-western music. I purposely add the "western," which is regarded as an almost archaic suffix these days, because Robbins was one of a handful of people who worked to keep cowboy music alive and because his gunfighter ballads, including the classic El Paso and Big Iron, occupied a unique niche in a large catchall musical form. An animated performer who never lost sight of the notion that people go to concerts to be entertained, Robbins was also a prolific songwriter, with some five hundred songs to his credit. But he is remembered primarily as a singer, and his voice-which had developed into a positively magnificent instrument by 1959, when he wrote and recorded his nearly five-minute saga of a cowboy and his love for the Mexican Feleena—remained remarkably rich and fluid until his death in 1982 at the age of fifty-seven.

Columbia recently released "A Lifetime of Song," a lovingly packaged two-record memorial set of Robbins's recordings for the label (he left Columbia for MCA during a brief period in the early Seventies). Even a casual listener will be struck by Robbins's exceptional power and control as a vocalist (listen to the extraordinary swell and soar of his voice on the bridge in El Paso) and by his enduring contributions to several varied and disparate musical genres. Through the years Robbins had bona fide hits not only with cowboy, or western, music but with pure, undiluted country (Begging to You), rockabilly and country-blues (That's All Right, Knee Deep in the Blues), border music (Adios Amigo, Devil Woman), and, in the Fifties, even whitewashed rock-'n'-roll and mainstream pop (Singing the Blues, A White Sport Coat), making him one of the earliest genuine crossover artists. Most of these hits are preserved here in chronological order. I would have dropped one or two of the mid-Sixties cuts to include You Gave Mea Mountain and Honkytonk Man, but I am impressed almost as much by the care taken in presenting this anthology as I am by the quality of Robbins's work.

Robbins was a thoroughly decent fellow and a heck of a nice guy, so much so that Nashville sometimes took him for granted, believing, I suppose, that he'd be around forever. "A Lifetime of Song" only underscores how hard it is to imagine country music without him.

—Alanna Nash

MARTY ROBBINS: A Lifetime of Song, 1951-1982. Marty Robbins (vocals); vocal and instrumental accompaniment. Tomorrow You'll Be Gone; I'll Go On Alone; That's All Right; Knee Deep in the Blues; Singing the Blues; A White Sport Coat; The Story of My Life; Don't Worry; Ruby Ann; Devil Woman; El Paso; Big Iron; The Hanging Tree; Ribbon of Darkness; El Paso City; I Walk Alone; My Woman, My Woman, My Wife; Among My Souvenirs; Return to Me; Some Memories Just Won't Die. Columbia C2 38870 two discs, © C2T 38870, no list price.

the club and the passing of Sonny Stitt, Holloway's now leading his own group for tours and recordings.

Equally facile on tenor and alto sax, Holloway is a very experienced musician. All the material is his except for Swifty, a neo-bop piece which he plays with elfin delight. Although there's nothing wrong with Holloway on uptempo numbers, I prefer the two ballads here, No Tears (Over You) and Music for Making Love. The former was written with Bill Doggett's guitarist at a time when Holloway was recovering from a bad experience, and the latter came from an assignment to write material for a porno album. He

used both occasions to make very pleasing and convincing music. J.V.

L.A. JAZZ CHOIR: Listen . . . L.A. Jazz Choir, Sue Raney, Carl Anderson (vocals); instrumental accompaniment. Bye Bye Blues; Let There Be Love; It Had to Be You; Hurry On Down; and six others. Mobile Fidelity Sound LAB MFSL1-096 \$16.99.

Performance: Tired Recording: Excellent

The L.A. Jazz Choir is one of those aggregations that seem to take themselves more than a bit seriously, so seriously, in

fact, that they succeed in draining most of the life out of whatever they perform. This group can create some very pretty sounds, particularly on a slow standard such as *It Had to Be You*, but in livelier material they seem almost tired. The half-speed-mastered recording is excellent, but it's rather a waste.

P.R.

RECORDING OF SPECIAL MERIT

LOONIS McGLOHON: Loonis in London. Loonis McGlohon (piano); Pete Morgan (bass). A Foggy Day; A Time for Love; Tangerine; Send In the Clowns; and seven others. AUDIOPHILE AP-166 \$7.98 (from Audiophile Records, 3008 Wadsworth Mill Place, Atlanta, Ga. 30032).

Performance: Suave Recording: Good

This is an enormously pleasant and relaxed recital by Loonis McGlohon, who is usually found accompanying some of our finer singers. The album was recorded in London, but the style is firmly international and sophisticated. McGlohon's treatment of that faded pop-blossom Tangerine, for instance, is direct, unsentimental, and totally unpatronizing. His performances of two songs that he wrote with Alec Wilder, Blackberry Winter and Where Is the Child I Used to Hold, are probably definitive.

P.R.

RECORDING OF SPECIAL MERIT

MARK MORGANELLI: Live on Broadway. Mark Morganelli (trumpet, flugelhorn); James Spaulding (flute, alto saxophone); Walter Bishop, Jr., John Hicks (piano); Vic Juris (guitar); Ray Drummond (bass); Billy Hart, Jo Jones, Jr. (drums); Guilherme Franco (percussion). Nardis; Well, You Needn't; All of You; Silver Quarter; and three others. JAZZ FORUM JFR 001 \$9.98 (from JCOA/New Music Distribution Service, 500 Broadway, New York, N.Y. 10012).

Performance: Encouraging Recording: Good live pick-up

Trumpeter Mark Morganelli's love of bop music is expressed enthusiastically on this album recorded in late 1982 at the Jazz Forum. Located on Broadway in New York, the Jazz Forum is Morganelli's realization of a dream, a loft where the flame can be kept burning. With a stellar cast on hand, it burned brightly on the night these recordings were made. Morganelli himself reaches the level he seems to aspire to more often than not, and he certainly deserves an "A" for spirit. I would rather hear an occasional miss in an otherwise honest, zesty performance than to sit through a flawless but uninspired solo. Speaking of inspiration, pianist Walter Bishop, Jr., appears only on I Could Write a Book, but his chapter is one of the album's highlights. John Hicks, whose piano is heard on the rest of the selections, is also fine, and there is superb input from guitarist Vic Juris, but James Spaulding impresses me most. He is an extraordinary flutist, and we ought to hear more of him on records.

(Continued on page 88)

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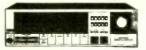
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DAVID MURRAY OCTET: Murray's Steps (see Best of the Month, page 74)

RECORDING OF SPECIAL MERIT

GEORGE RUSSELL: Live in an American Time Spiral. George Russell's New York Band (instrumentals). Ezz-thetic; D.C. Divertimento: Time Spiral. SOUL NOTE SN 1049 \$9.98.

Performance: Superb Recording: Excellent remote

Twenty-three years ago, when I was preparing the notes for his Riverside album 'Stratusphunk," George Russell told me that "Any valid movement in jazz must be firmly rooted in the past. When these roots are firmly identifiable, the music is all the more exciting, because it's new and old at the same time." I could not agree more, and I am happy to hear that Russell clearly still holds that belief. The proof is in "Live in an American Time Spiral," a Soul Note import featuring Russell's superb 1982 New York band. Years have passed since Russell opened ears with Cubana-Be/Cubana-Bop, but his music has lost none of its vitality, and, unlike some of his successful contemporaries, he has never settled into a comfortable groove. If you have one ear to the ground and the other perked up for something new and adventurous, this is

precisely the album for you. George Russell has never received the recognition his creativity cries out for, but at least someone is still recording his work. Don't miss this one.

SPYRO GYRA: City Kids. Spyro Gyra (instrumentals). City Kids; Serpent in Paradise; A Ballad; Nightlife; Islands in the Sky; and three others. MCA MCA-5431 \$7.98, © MCAC-5431 \$7.98.

Performance: No sweat Recording: Excellent

While this is an altogether pleasant record, what with Jay Beckenstein's effortless jazz/funk forays on sax and the equal facility of Tom Schuman and Jeremy Wall on keyboards, I see real problems coming for Spyro Gyra. Over their last several releases, they have simply stopped growing, and they now seem content to go on producing the same polished but predictable music again and again. I guess that's up to them. But I see no compelling reason for their fans to go on buying new albums indistinguishable from three or four they already have.

RECORDING OF SPECIAL MERIT

THE HENRY THREADGILL SEX-TET: Just the Facts and Pass the Bucket. Henry Threadgill (flute, clarinet, alto and baritone saxophones); Olu Dara (cornet); Craig Harris (trombone); Deidre Murray (cello); Fred Hopkins (bass); Pheeroan Aklaff, John Betsch (bass). Gateway; Cremation; Black Blues; A Man Called Trinity Deliverance; and two others. ABOUT TIME AT 1005 \$8.98 (from JCOA/New Music Distribution Service, 500 Broadway, New York, N.Y. 10012).

Performance: Excellent Recording: Good

The jazz press is paying some attention to Henry Threadgill these days, probably because he combines a fresh approach with a professionalism that is all too often lacking in so-called new music. Threadgill's music does not need a label to distinguish it from other forms of jazz; it has a strong character of its own. Among its ingredients is a measure of free form, but, unlike some groups under that particular umbrella, Threadgill's seven-piece "sextet" steers clear of musical free-for-alls. The structure sounds looser than I suspect it actually is, and that reflects the excellence of the musicians who, like good actors, can deliver locked-in material as if they had just thought it up.

Threadgill himself is responsible for all six compositions on this new album. There is not a weak moment here, just some that are better than others. As you can hear on Gateway, even the rough edges sound good when the spirit moves. This music draws on the past for its overall sound, dips deep into an earthy blues bucket, then sways whimsically with today's winds of change. (There is something Weillian about it, in fact.) Threadgill moves the past into the present with respect and skill. How sadly typical that music of such high caliber and originality should appear only on a small, independent label.



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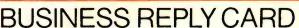
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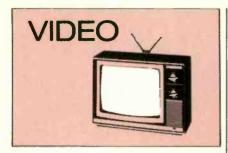


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DANSPAK, Man Parrish: Hip Hop. Be Bop (Don't Stop). Shox Lumania: Falling; Pointy Headgear. Richard Bone: Alien Girl. Living: Boat Talk. Sony stereo Video 45, VHS \$19.95, Beta \$15.95.

Performance: Audio-visual drivel Recording: Fine

This compilation of post-post-disco dance music (club hits that never got much radio play) should find two readymade audiences out there in videoland. The first, consisting of trendies, disaffected young artists, and anybody else who makes a habit of staying out till six in the morning, will probably recognize the songs. The second, encompassing the remaining Sixties acid-casualties, will be able to appreciate the decidedly secondhand psychedelic special effects that are the major visual motifs. For the rest of us, "Danspak" is tough sledding. The only moments of even casual interest come from Richard Bone, whose Alien Girl is a moderately amusing modernist update of Chuck Berry's Little Oueenie rendered in an almost straightforward visual style. Everything else is just too with-it for words. The best that can be said about the music here is that it all sounds like a protracted commercial for Casio keyboards. Louis Meredith

EARTH, WIND & FIRE: In Concert. Earth, Wind & Fire (vocals and instrumentals). Let's Groove; In the Stone; Where Have All the Flowers Gone; Shining Star; I've Had Enough; Reasons; Devotion; Gratitude; and six others. PIONEER LASERDISC PA-83-039 CX stereo, extended play \$24.95.

Performance: Energetic Recording: Good sound, fair video

Once the lengthy, overly theatrical introduction has been dispensed with, there is a whole lot of hopping, kicking, finger pointing, stomping, and just plain walking around on "Earth, Wind & Fire in Concert," taped at the Oakland Coliseum during the last two days of 1981. Unfortunately, all that movement, choreographed by George Faison, tends to get in the way of the music. There are times when the group's four singers look like overgrown Menudos. Fortunately, they don't sound like Menudo. EW&F has more to offer than silly choreography and gaudy costumes. There is indeed some good listening on this fifty-eight-minute disc-such as Philip Bailey's falsetto vocals and Johnny Graham's guitar workbut if it cannot be presented with more honesty and regard for the medium than this, I would prefer a smaller serving on an audio-only record. C.A.

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Streisand's "Yentl"

ONE of the most amazing things about the phenomenal Barbra Streisand is that she can make almost anything work theatrically. Her belief in herself and her incredible talent subjugate any material she chooses to perform. She has never been "right" for any part in a casting director's sense; rather, she has created the characters she has played out of various aspects of herself. In the same way she has re-created the songs she's chosen to sing. Even with such a superb song as Memory, her most recent hit, she altered the emotional texture to suit her own idea of what the song meant. Streisand's latest and most ambitious work of self-expression is the film Yentl, in which she stars and which she produced and directed as well. Adapted from an Isaac Bashevis Singer story about a girl who masquerades as a boy so she can attend the Yeshiva (Hebrew school) in nineteenth-century Poland, Yentl has a score by Michel Legrand with lyrics by Marilyn and Alan Bergman. I haven't seen the film yet, but the new Columbia soundtrack album is in some ways a disappointment, in other ways a confirmation of Streisand's artistic seriousness and dedication.

What's disappointing is that the music is mostly not very effective on its own, apart from the movie. Legrand's work is in his usual wispy, pastel style, the Bergmans' lyrics are self-consciously "simple" and "plain," and Streisand's performances are so restrained that they often sound like recitative. Most of the songs are soliloquies in which Streisand, as Yentl, either comments on the screen action or sings to people who do not appear, such as her dead father. It is obviously a thoroughgoing, cumulatively affecting acting performance, but track by track,

song by song, just listening to it becomes a little boring (this is the first time I've ever used that word in connection with Streisand). And matters aren't helped much by the production, which is so slick and glossy that very often what are meant to seem heartfelt expressions of emotion sound like expensive TV jingles about a brand of "homemade" bread or the joys of long-distance telephoning.

What's admirable nonetheless is that Streisand clearly made the artistic decision to put the score and the soundtrack at the service of the film rather than using the film as a vehicle for her singing. In Yentl Streisand is first and foremost an actress—who also happens to sing. The character of Yentl was obviously more important to her than knock-'em-dead vocal histrionics. And her success is clear precisely because after listening to the album you realize that a big chunk of experience is missing; seeing the film.

Nevertheless, for all this ars gratia artis, rest assured that Streisand hasn't given up commercial show-biz just yet. The last two tracks on the album are studio rerecordings of the two "big" numbers in the movie, The Way He Makes Me Feel and No Matter What Happens. Phil Ramone produced these, Barbra belts them out in her accustomed fashion, and the character of Yentl disappears in the charts. Did I forget to mention that Barbra Streisand is also very smart?

-Peter Reilly

YENTL (Alan and Marilyn Bergman-Michel Legrand). Original motion-picture soundtrack. Barbra Streisand (vocals); orchestra, Michel Legrand cond. COLUMBIA JS 39152, © JST 39152, no list price.



KOYAANISQATSI (Philip Glass). Original-soundtrack recording. The Western Wind Vocal Ensemble; Philip Glass Ensemble, Michael Reisman cond. ANTILLES ASTA-1 \$9.98, © ZC ASTA-1 \$9.98.

Performance: Numbing Recording: Okay

The movie Koyaanisqatsi is a pretty-to-look-at but stultifying psychedelic throw-back, a big-budget version of the kind of mushily mystical experimental films Ed Emshweller and others were doing twenty years ago. Since it's being marketed by none other than Francis Ford Coppola, though, it has made something of a commercial splash. The soundtrack album will probably do equally well thanks to Philip Glass, currently our only serious contemporary composer with a broad-based audience.

Glass was clearly the right man for this job. He's so fashionable at the moment that one tends to forget what a mystical Sixties throwback he is too. This score, like all his work, requires something of a leap of faith on the part of the listener; you either enjoy being bludgeoned by interminably repetitive little motivic fragments or you don't. Personally, I think Donal Henahan of the New York Times got it right when he described Glass's stuff as being the apotheosis of the Czerny exercise. On the other hand, Koyaanisqatsi does sound kind of nice when you're doing the chores.

ZORBA (Fred Ebb-John Kander). Broadway revival-cast recording. Anthony Quinn, Lila Kedrova, Debbie Shapiro, Robert Westenberg, others (vocals); orchestra, Randolph Mauldin cond. RCA ABL1-4732 \$9.98, © ABK1-4732 \$9.98.

Performance: Bloated Recording: Good

Here's Anthony Quinn back in what seems to have become his life's workcreating the persona of Zorba the Greek. Quinn's Zorba is a wheezing, belching old bore, forever bullying everyone around him to "leeve life to de foolest, my child." That is, when he isn't busy dancing, breaking plates, or ogling middle-aged matrons who tingle at the mere sight or smell of him. Fred Ebb and John Kander's musicalization of Nikos Kazantzakis's great novel contains a few amusing novelty numbers, such as No Boom Boom. Unfortunately, Quinn dominates it all with his bloated portrayal. Lila Kedrova plays the old whore, Hortense. Robert Westenberg plays the young wimp whom Zorba teaches. I played the new Iron Maiden album for relief. P.R.

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Classical Music

News Briefs



SOPRANO Kiri Te Kanawa, whose "Songs of the Auvergne" album on London Records currently figures among the Top Ten on Billboard's classical chart, has signed an exclusive five-year contract with London. Over those years Dame Kiri willrecord five operas for the company, as well as a number of solo albums. Among the latter is volume two of the "Songs of the Auvergne," due for early spring release.

N February 14 Nonesuch Records, the classical wing of the Warner Bros. group, celebrates its twentieth anniversary, and it's worth noting that Keith Holzman, who has steered the company on its upward path for the past few years and who will see it into the next twenty, is in fact the brother of Nonesuch founder Jac Holzman, who launched the label in New York in 1964.

Sixty titles were released by Nonesuch that first year, and "all but two or three of them," according to Keith Holzman, "remain in the current catalog." Among the early ones is the set of Bach's Brandenburg Concertos conducted by Karl Ristenpart, still cited in STEREO REview's "Basic Repertoire" as one of the four best.

There are about

hundred titles in the Nonesuch catalog today, representing the broadest repertoire base of any company in the business. "There's not a lot we won't record," says Holzman. "We will continue our wide-ranging policies, which includes looking for music of value that has vet to be recorded. Essentially, our name tells it all-and is certainly apt for who we are and what we do."

HE late Arthur Rubinstein signed with RCA in 1940 and remained an exclusive RCA recording artist for the rest of his life; he died a year ago December at the age of 95. During that extraordinary span of active years Rubinstein produced more than two hundred RCA recordings, nearly a third of which are still available. To honor him posthumously the label is releasing, over the course of the year, a set of five multiple-record albums titled "Rubinstein: The Chopin Collection." All of the recordings, dating mostly from the Fifties, are being digitally remasteredwhich means they will be ready for instant transfer to Compact Disc when the time comes. . . . Angel has released a series of four albums on its Seraphim label called "The Young Rubinstein" covering a good deal of the same repertoire. They were recorded some twenty years earlier when the pianist was on the EMI roster.

ERMAN-BORN conductor G Michael Gielen, music director of the Cincinnati Symphony and artistic director of the Frankfurt Opera, will additionally be taking on the often-recorded Southwest German Radio Orchestra; he becomes its chief conductor effective with 1986-1987 season.

In the U.S. Gielen's exposure to record buyers has taken a quantum leap forward with his recent Cincinnati Symphony recordings for Vox Cum Laude. The latest, a coupling of Berg's Lyric and Lulu Suites, is reviewed in this issue. Upcoming albums are devoted to the music of Richard Strauss (Death and Transfiguration and Metamorphoses) and Busoni (excerpts from Dr. Faustus and incidental music from Gozzi's Turandot).

TIMELY import from A EMI/Pathé Marconi is the handsomely produced two-record soundtrack al-

Nonesuch's Keith Holzman (left), Sequoia Quartet cellist Bob Martin, and composer Mel Powell



bum drawn from Peter Brook's La Tragédie de Carmen—timely because it looks as though the controversial eighty-minute stage version will be packing them in at Lincoln Center for a good while yet.

Actually the French package derives from only one of the three Carmen films (same production, three different casts) shot at the Bouffes du Nord, the one-time burlesque house that serves as director Brook's Paris base and where this production scored its initial success two and half years ago. Thus only one of the

three Carmens was lucky enough to make it onto records; she is Israeli soprano Zehava Gal, and being the best-equipped vocally, she was (and is) certainly the right choice. Unfortunately she is not one of the five (!) rotating in the title role in New York, but her Don José on the recording, Laurence Dale, and the other singers and actors-seven in allare in the New York production. The musical direction, as well as the effective restructuring and rescoring of Bizet's music, is by veteran French composer-conductor Marius Constant. C.B.



Gal and Dale in Peter Brook's La Tragédie de Carmen

Disc and Tape Reviews

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

J. S. BACH: Toccata and Fugue in D Minor (BWV 565); Passacaglia and Fugue in C Minor (BWV 582); Fugue in G Minor (BWV 578); Fantasia and Fugue in G Minor (BWV 578); Fantasia and Fugue in G Minor (BWV 593). Marie-Clair Alain (organ). RCA/ERATO → NUM 75053 \$10.98, ⊕ MCE 75053 \$10.98; ⊕ ECD 88004, no list price.

Performance: Grand Recording: Very good

Playing on the 1971 organ of the Collegiate Church of Saint-Donat, Marie-Clair Alain presents strong, straightforward performances of a group of well-known works by Bach. Although Alain's style is not historically authentic, her playing is marked by clarity, rhythmic vitality, and grandeur that give full expression to the music's own magnificence. The organ boasts thirty-seven registers, but Alain mainly uses the bright-sounding stops, eschewing an orchestral approach to the instrument. This works very well in all of the Bach originals, but the composer's transcription of a Vivaldi Concerto in A Minor would profit from a greater contrast between the solo and tutti sections. Nonetheless, this is fine playing in impeccable taste.

BARBER: Adagio for Strings (see BERNSTEIN)

Explanation of symbols:

• = digital-master analog LP

© = stereo cassette

1 = digital Compact Disc

⊕ = direct-to-disc recording
 ⊕ = monophonic recording

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

BEETHOVEN: Symphony No. 9, in D Minor, Op. 125 ("Choral"); Fantasy in C Minor for Piano, Chorus, and Orchestra, Op. 80. Margaret Price (soprano); Marilyn Horne (mezzo-soprano); Jon Vickers (tenor); Matti Salminen (bass); Emanuel Ax (piano); New York Choral Artists; New York Philharmonic Orchestra, Zubin Mehta cond. RCA • ARC2-4734 two discs \$25.96, © ARK2-4734 two cassettes \$25.96

Performance: Con amore
Recording: Very good

This album documents the February 2, 1983, gala concert of the New York Philharmonic at Avery Fisher Hall. A jacket footnote tells us that the album "includes rerecorded material," which presumably means that a certain amount of patchwork was incorporated from studio sessions. But these essentially live performances come off with verve and a sense of occasion. The contributions of pianist Emanuel Ax in the Choral Fantasy and of the beautifully matched quartet of star soloists in the Ninth Symphony are especially hoteworthy.

Zubin Mehta's approach to the Ninth seems to me an attempted compromise between the rhythmic steadfastness favored by Toscanini and Weingartner and the uniquely freewheeling, organic reading of Furtwängler. The steadily flowing elements recall the former conductors' performances, and the peak dramatic points—such as the great descent to Dflat following the second of the two slowmovement fanfares and its counterpart in the great outburst on "vor Gott!" in the finale—are decidedly Furtwänglerian. (An interesting aspect of having the Choral Fantasy coupled with the Ninth Symphony is to hear this identical progression as written sixteen years earlier on the words "und Kraft" in Kuffner's lines in praise of music.)

For me the opening movement seems a bit cautious much of the way here. Mehta's emphasis on its lyrical aspects detracts from the music's inherent sense of urgency and inner struggle. I have no such complaints about the scherzo, and the slow movement flows nicely, with the inner textures expertly interwoven. Salminen's bass recitative is a high point of the finale. Vickers's tenor solo has a truly heroic ring, as well it should, and the New York Choral Artists acquit themselves splendidly. The New York Philharmonic, in its first recording with Mehta for RCA, performs with both alertness and finesse throughout (the famous horn solo toward the end of the slow movement is a good example).

This album appears to be the first digitally mastered Beethoven Ninth released by a U.S. label, and by any standard it is amply effective both as to sonic impact and sense of space. The latter quality, indeed, is quite unusual since the recording was done in an audience-packed Fisher Hall. The sound of Emanuel Ax's fine performance in the Choral Fantasy is excellently captured, and the problems of balance between the solo piano, chorus, and orchestra are neatly handled by the RCA production team.

D.H.

BERG: Lulu, Suite (1934); Lyric Suite (arr. for string orchestra). Kathleen Battle (soprano, in Lulu Suite); Cincinnati Symphony Orchestra, Michael Gielen cond. Vox CUM LAUDE © VCL 9042 \$10.98, © D-VC\$ 9042 \$10.98.

Performance: Very good Recording: Very good

This appears to be the first recording of Berg's suite of five excerpts from his unfinished opera Lulu since Pierre Boulez's Deutsche Grammophon recording of the full opera as completed by Friedrich Cerha. This is also one of the few separately



Horne Sings Handel

T is surprising that a recorded showcase for Marilyn Horne's unique mastery of Handel's music has been delayed so long. She is, as we know, unparalleled in the special demands of Handel's intricate vocal writing. She pours her soul into those flowing, bel canto cantilenas, savors every demisemiquaver of Handel's tortuous roulades, and sings up a storm in those martial tunes that forever anticipate victory over one thing or another.

Horne has marvelous opportunities to do all of these things in a highly representative sampling of Handel's Italian arias, many of them quite unfamiliar, on a new Erato/RCA album. In sumptuous vocal form, she spins endless and accurate runs, descending into lusty chest tones and rising again with joyous ease, smiling away the music's wicked challenges. The disc probably contains more notes per groove than any other. So what if Horne hits two or three of them off center when she ticks off so many hundreds with pinpoint accuracy?

Her special brand of Handelian virtuosity occasionally sacrifices purity of tone, which she can produce at will, for some daredevil flourish. For my taste, some of the embellishments are overdone, though they would probably seem restrained if they could be compared with those employed by the singing stars of Handel's time. In any case, Horne successfully differentiates between the tone appropriate for the "heroic" arias of Rinaldo. Arsace, and Orlando and that needed for the meltingly feminine music of Poppea in Agrippina and Almirena in Rinaldo. (She sang the last in a production new to the Met in January.)

Some of Handel's most inspired operatic music is offered here, virtuosically sung and brilliantly recorded. In "Or la tromba," long a Horne concert specialty, the trumpet work of Guy Touvron matches her fearless singing and agility. A triumphant release. —George Jellinek

HANDEL: Operatic Arias. Rinaldo: Or la tromba; Cara sposa; Venti, turbini; Cor ingrato; Lascia ch'io pianga. Serse: Ombra mai fu. Partenope: Furibondo spira il vento. Agrippina: Bel piacere. Orlando: Fammi combattere. Marilyn Horne (mezzo-soprano); I Solisti Veneti, Claudio Scimone cond. Erato/RCA © NUM 75047 \$10.98, © MCE 75047 \$10.98.

available recordings of the string-orchestra version of the Lyric Suite, which differs in various details of balance from the original work for string quartet. Certainly the central Allegro misterioso, with its muted ponticello and col legno writing in the outer sections, provides a terrific virtuoso exercise for even the most proficient string orchestra.

Conductor Michael Gielen is an old and practiced hand in advanced twentieth-century repertoire, and in both works he elicits from the Cincinnati Orchestra playing of wholly convincing intensity and alertness. Kathleen Battle, one of the most brilliant of today's young sopranos, manages the taxing tessitura and highly convoluted line of Lulu's Song with the utmost ease and brings dramatic conviction to the final lamentation by the Countess.

This release was my first encounter with a chromium-dioxide Dolby-B-encoded cassette made from a digital tape master, and the results are every bit as impressive in texture and detail as the direct-metal-mastered LP disc. Major factors in the sonic success are the acoustic

excellence of Cincinnati's concert hall and the intelligent and sensitive microphone placement by producers Marc Aubort and Joanna Nickrenz.

D.H.

BERNSTEIN: Symphonic Dances from "West Side Story"; Overture to "Candide." SCHUMAN: American Festival Overture. BARBER: Adagio for Strings.

Los Angeles Philharmonic Orchestra, Leonard Bernstein cond. DEUTSCHE GRAMMOPHON © 2532 085 \$12.98, © 3302 085 \$12.98.

Performance: Lively, racy Recording: Damped down

In spite of the presence of Schuman and Barber, this record is really part of DG's Bernstein on Bernstein. Like most of the others, it is a live recording. Unlike preceding ones, it was made not in Israel but on the West Side indeed—in Los Angeles. The dances from West Side Story, although orchestrated by Sid Ramin and Irwin Kostal "under the supervision of Leonard Bernstein," can be considered an indubitably authentic part of the Bernstein canon. This is, as one would expect,

a lively and racy performance, but the recording's curiously close, almost intimate feeling tends to emphasize the contradictions in the music as well as bringing out its jazz and show-music qualities. Fortunately the players don't give a damn about these problems. These are orchestral musicians who integrate American styles into their European training, and the category questions are irrelevant. Some of the same comments apply to the potpourri of side two: the Thirties American popular-symphonic style of Schuman, the neo-Baroque Barber (exquisitely played), and the series of musical gags that constitutes the overture to Candide. What unites all this is simply the largeness of the appetite that gathers it all in. The Barber is extreme in its anguish, the Candide in its manic humor. Only the recorded sound is damped down; everything else is heightened, intensified as only Bernstein can do it.

RECORDING OF SPECIAL MERIT

L. BOULANGER: D'un matin de printemps; D'un soir triste; Harmonies du soir; Nocturne; Cortège; D'un vieux Jardin; D'un jardin clair. Eric Parkin (piano); Barry Griffiths (violin); Keith Harvey (cello). DELIUS: Cello Sonata. Julian Lloyd Webber (cello); Eric Fenby (piano). Three Piano Preludes; Polka, Zum Carnaval. Eric Parkin (piano). UNICORN-KANCHANA O DKP 9021 \$13.98 (from Harmonia Mundi USA, 2351 Westwood Boulevard, Los Angeles, Calif. 90064).

Performance: Eloquent
Recording: Excellent

Lili Boulanger, younger sister of Nadia, was acknowledged as an important composer when she died in 1918 in her twenty-fifth year. She produced a large body of works, and five years before her death she became the first woman to win the Prix de Rome. The seven works recorded here identify Boulanger as a composer who must have found her own voice remarkably early. Most appealing are the first two, miniature tone poems for piano trio composed in the last year of her life and rescored for orchestra before she died. The poignant D'un soir triste, at a little more than eleven minutes the longest by far of the pieces on this side, is an intensely tragic and yet remarkably subtle work, the sort of thing that creates an aural world of its own. I'd like to hear the orchestral setting, and I can't imagine how both versions could remain for so long so completely unknown to us. The first trio piece is actually an arrangement of an aria from Boulanger's cantata Faust et Hélène, the work that won her the Prix de Rome. The next two pieces, for piano solo, and the last two, for violin and piano, are slighter and a bit less individualistic but remarkable for their sumptuous yet clear coloring.

Delius, of course, is a much betterknown composer than Lili Boulanger, but his Cello Sonata is about as unfamiliar as the Boulanger pieces recorded here. It is a lovely discovery in this eloquent, thoroughly idiomatic performance by Julian Lloyd Webber and Eric Fenby, who was Delius's amanuensis in the composer's final years. Here, by way of spoken preamble, Fenby reads a passage from his book Delius As I Knew Him describing a performance of the sonata at the beginning of his relationship with the composer some fifty-five years ago. The solo pieces that fill out the side are less imposing but interesting enough in their own terms. The polka, Delius's first published work (Jacksonville, Florida, 1885), is an agreeable piece in a music-hall style.

Both composers are extremely well served on this beautifully recorded disc, and so is the listener in being given these opportunities to acquaint himself with works of character and substance in performances that will probably stand as definitive for some time

BOULEZ: Eclat-Multiples; Rituel. Ensemble InterContemporain; BBC Symphony Orchestra, Pierre Boulez cond. CBS M 37850, © MT 37850 no list

Performance: Excellent Recording: Clear, not lively

Funny how some things turn out the opposite of what they seem. Boulez, the sternest and most intellectually forbidding of the old avant-garde, now sounds sensual and dramatic. Eclat, which first appeared in the 1960's as a work-in-progress, is a composition in fantastic sonorities. Multiples, now the second part of a work-still-in-progress, is an even richer tapestry, not only because of its scoringwhich includes nine violas and a bassett horn—but also because it incorporates a decade or more of orchestral experience. And it includes regular rhythmic pulsation, something that was verboten in new music only a few years earlier.

I remember one European composercritic scornfully describing rhythmic regularity in a new work as "isochronism"a sort of terminal musical disease. Well, after years of being out, isochronism is in. It is a major element of Boulez's tribute to his confrère, Bruno Maderna-a dramatic, foreboding, and almost Mahlerian Rituel. I don't know if I actually like Rituel, but it is impressive and very different from earlier Boulez. One of the many contradictions and oppositions in Boulez's work is that this once fiery and influential leader of the avant-garde has taken an almost minor place in the history of recent new music (much of his recent output is on this disc), but the force of the musical personality is certainly still undeniable.

RECORDING OF SPECIAL MERIT

BRAHMS: Concerto in A Minor for Violin, Cello; and Orchestra, Op. 102; Tragic Overture, Op. 81. Anne-Sophie Mutter (violin); António Meneses (cello); Berlin Philharmonic Orchestra, Herbert von Karajan cond. DEUTSCHE GRAMMOPHON **4**10 603-1 \$12.98, © 410 603-4 \$12.98; © 410 603-2, no list price.

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for distinguished recorded interpretations. The ones that really stand out, however, are those that convey the sense of a threeway give-and-take between the two soloists and the conductor. Happily, Herbert von Karajan and his two superb young soloists, the phenomenal Anne-Sophie Mutter and Brazilian Tchaikovsky Competition laureate António Meneses. have given us a digitally mastered performance that communicates this chamber-music rapport to an intense degree. In short, this is a fascinating amalgam of youthful passion and enthusiasm with the wisdom of age, and it illuminates a late Brahms masterpiece that has had the reputation of being a bit gnarly.

There is nothing crabbed or gnarly about it here. Each of the opening statements by the cello and subsequently the violin, after the orchestra has said its piece, bespeaks a kind of passionate partisanship, but one between equals. Meneses displays a big, though not domineering, cello tone, and Mutter's violin holds its own with fire and brilliance. Karajan and the Berlin Philharmonic, abetted by an excellent, fairly closely miked recording, do a remarkable job of clarifying without overemphasizing the complex inner textures of the opening movement. The andante, essence of late-Brahms mellow lyricism, is a joy. Of more than usual interest here is the relatively easy pacing of the rondo finale. There is no slackness, however, and the three-way dialogue is altogether enhanced.

By way of filler, Karajan delivers a reading of the *Tragic* Overture that is somewhat on the stately side but replete with inner polyphonic and rhythmic detail, as well as peculiarly appropriate darkly burnished sound quality. All told, an immensely satisfying disc.

D.H.

CHAUSSON: Concert in D Major for Violin, Piano, and String Quartet, Op. 21 (see Best of the Month, page 72)

DEBUSSY: Songs (see Collections—Marni Nixon)

DELIUS: Cello Sonata; Three Solo Piano Works (see BOULANGER)

FAURÉ: Songs (see Collections—Marni Nixon)

RECORDING OF SPECIAL MERIT

FOOTE: Piano Trio No. 2, in B-flat Major, Op. 65; Three Character Pieces for Violin and Piano, Op. 9; Three Pieces for Cello and Piano, Op. 1. Joseph Silverstein (violin); Jules Eskin (cello); Virginia Eskin (piano). NORTHEASTERN NR 206 \$9.98.

Performance: Splendid Recording: First-rate

In the last half-dozen years or so the phonograph has been allowing us to "rediscover" Arthur Foote. Until then, about all we were likely to hear of his music

were the Poem for flute and strings and the Suite in E Major for string orchestra-not that either of those works has been exactly overexposed. The Piano Trio in B-flat, introduced in December 1908, four months before the première of the suite, is another of Foote's mature works and one of his most substantial. Indeed, if it bore the name J. Brahms instead of A. Foote, music of such substance would surely have been part of the basic chamber-music repertoire for the last seventy-five years. Its three movements are packed with the sort of solid harmonic interest, dramatic contrast, and good tunes (if not particularly memorable ones) that delight both players and listeners. Certainly they do that in this splendid, obviously affectionate performance by two Boston Symphony Orchestra string principals and a pianist deservedly well known for her activity on behalf of neglected American works of the late-Romantic period.

The two duo works are briefer and much earlier than the trio. The cello pieces were completed in 1881, when Foote was twenty-eight, those for violin four years later, but they are similarly Brahmsian in character and similarly fastidious in construction. And again, the performances are truly committed. The sound is absolutely first-rate in terms of balance, focus, and overall realism, and the pressing I received was exceptionally quiet. (Opp. 1 and 9 could have been fitted on a single side, though.)

R.F.



HANDEL: Rinaldo (Excerpts). Beverly Wolff (mezzo-soprano), Rinaldo; Arleen Augér (soprano), Almirena; Rita Shane (soprano), Armida; Raymond Michalski (bass), Argante. Orchestra of the Vienna Volksoper, Stephen Simon cond. Vox/TURNABOUT TV 34795 \$5.98, © CT 4795 \$5.98.

Performance: Lusty Recording: Excellent

However much I may seem to favor Handel's operas and oratorios done on early instruments with authentic performance practice, I must admit that it can also be wonderful to hear them with a full modern orchestra and sung in a full-blooded operatic "can belto" style. Handel's music can take it, as Stephen Simon proves with these all too few highlights from Handel's "debut" London opera.

Beverly Wolff creates a passionate Rinaldo; her steely voice is perfect for castrato roles. Rita Shane, as the seductive Armida, is sensuous in her amorous guiles and terrifying in her rage. Although her interpolated coloratura and high notes have nothing to do with the Handel style, they are so thrilling that I can easily forgive her. Arleen Auger sings the hit tune, "Lascia ch'io pianga," with beautiful simplicity, and Raymond Michalski's belligerent Argante is full of animal virility. If you are intimidated by full-length Handel in the authentic style, you may certainly revel in these beautifully re-S.L. corded highlights.

HANDEL: Recorder Sonatas, Op. 1: No. 2, in G Minor; No. 4, in A Minor; No. 7, in C Major; No. 11, in F Major. Hans-Martin Linde (recorder); Christopher Hogwood (harpsichord); Pere Ros (viola da gamba). ANGEL © DS-73983 \$12.98, © 4XS-73983 \$9.98.

Performance: Charming Recording: Good

This is certainly one of the best collections of Handel recorder sonatas to come out recently. The selection is excellent, and Hans-Martin Linde's razor-sharp performances sparkle with delightful ornamentation. Rather than relegating the harpsichord to the background, the engineering allows Christopher Hogwood to be as much an equal partner sonically as he is musically. Pere Ros completes the ensemble with supple support on the gamba.

S.L.

MONTEVERDI: Balli e Balletti. Tirsi e Clori; L'Orfeo (excerpts); De la bellezza; Il ballo delle ingrate (excerpts); Volgendo il ciel. Patrizia Kwella (soprano); Anthony Rolfe Johnson, Lawrence Dale, Alan Woodrow (tenors); Monteverdi Choir; English Baroque Soloists, John Eliot Gardiner cond. Erato/RCA © NUM 75068 \$10.98, © MCE 75068 \$10.98.

Performance: Delightful Recording: Fine

This is the perfect album for those who love Monteverdi's dance music but are

bored with his recitatives. John Eliot Gardiner has solved the problem, if it exists, by mixing dance pieces with the dance portions of longer works and presenting them in sparkling performances by excellent singers and players. S.L.

MOZART: Piano Sonatas (Complete). Jean-Bernard Pommier (piano). M&C ◑ DP 70.002/007 six discs \$47.88 (from Harmonia Mundi USA, 2351 Westwood Boulevard, Los Angeles, Calif. 90064).

Performance: Thoughtful Recording: Fine

Jean-Bernard Pommier's readings of Mozart's piano sonatas are basically very good. His pianism is marked by a clear, limpid touch and a judicious exploitation of the coloristic possibilities of the modern piano. His phrasing is clear, and his sense of rubato keeps the rhythms supple; the openings of new sections are announced most effectively. Pommier is essentially a lyrical player, which is perfect for the slow movements and especially telling in the last movement of the great C Minor Sonata, K. 457, where his alternation of fire and pathos is striking. Unfortunately, he uses the same lyrical approach in some movements (such as the opening ones of K. 238 and K. 333) where a crisper touch and more brilliance are needed. Pommier's use of the pedal and his coloration are wonderful in the C Minor Fantasia, but at times his pedaling covers what his left hand is doing as it

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Levine's Mozart

DDLY enough, the same pairing of Mozart's Eine kleine Nachtmusik and Posthorn Serenades offered on the new Deutsche Grammophon recording by James Levine with the Vienna Philharmonic was also recorded by George Szell and the Cleveland Orchestra during Levine's tenure there as assistant conductor. And I imagine that Szell would have been altogether delighted with the dash and style his erstwhile protégé brings to these quintessentially Mozartian scores.

The thrice-familiar Eine kleine Nachtmusik seems fresh again in this reading, which is wonderfully detailed and tender enough in the lyrical episodes without becoming sentimental. The opening movement is enlarged in scale by taking the repeats in the exposition and the development. The textural interweaving of the coda in the finale is a joy to hear when played with such deftness and clarity and recorded with just the right weight and transparency.

The Posthorn Serenade is one of the de-

lights of Mozart's occasional music. Its high point is the pensive fifth movement, marked Andante, which serves as the contrasting element in this predominantly festive and ceremonial score. The sixth movement offers the most intriguing instrumental colors with its featured flautinno and posthorn—the latter the genuine article in this case. Every moment here has its particular delights, and Levine and the Vienna players respond with a fine combination of sensitivity and verve to their alternations of wit, tenderness, folk motifs, and exuberant festivity.

The recording is first-rate too. This is one more in a string of exceptionally satisfying discs to come from James Levine in recent years.

—David Hall

MOZART: Serenade in G Major (K. 525, "Eine kleine Nachtmusik"); Serenade in D Major (K. 320, "Posthorn"). Vienna Philharmonic Orchestra, James Levine cond. DEUTSCHE GRAMMOPHON ◑ 2532 098 \$12.98, ⊚ 3302 098 \$12.98.

dilutes the clarity and rhythmic life of the right-hand figurations.

For a pianist who is so obviously devoted to Mozart, it seems odd that Pommier has not studied recent research on ornamentation. While incorrect ornamentation cannot spoil a good performance, it is irritating to hear trills taken from the principal note before the beat, appoggiaturas misread, and chords broken to, rather than from, the beat. This sort of thing was excusable ten years ago, but there is no justification for it today. Aside from the wayward ornamentation and other minor matters noted, however, this is a fine set that definitely puts Pommier in the ranks of serious Mozart players. The sound is first-rate. S.L.

MOZART: Symphony No. 28, in C Major (K. 200); Symphony No. 41, in C Major (K. 551, "Jupiter"). Dresden State Orchestra, Sir Colin Davis cond. Philips © 6514 206 \$12.98, © 7337 206 \$12.98.

Performance: Hearty Recording: Very good

This is big-orchestra Mozart but not overbearingly so. Like the late, great Sir Thomas Beecham at his best, Sir Colin Davis brings to these works a fine combination of robustness and sensitivity. The Salzburg ceremonial-styled K. 200 has a tendency to sound a bit precious and mannered in some hands, but not here. The muted strings of the slow movement provide a lovely moment of contrast, and

to the *presto* finale Davis and the Dresden State Orchestra bring a full measure of exuberance.

The Jupiter Symphony is, of course, the pièce de résistance, and Davis gives it a near-Beethovenian grandeur, underlined by the exposition repeats in the end movements. Noteworthy too is the careful attention that is paid to the rests in both the first movement and the finale, which raises the implicit tension of the musical discourse. In the minuet, Davis tends to soften the rhythmic pulse in favor of lyrical flow. The finale comes off with great spirit, and its complex textures are beautifully illumined by a most responsive ensemble and a recording that is full-bodied, warm-toned, and transparent. D.H.

RACHMANINOFF: Piano Concerto No. 3, in D Minor, Op. 30. Jean-Philippe Collard (piano); Orchestra of the Capitole de Toulouse, Michel Plasson cond. ANGEL S-37923 \$9.98, © 4XS-37923 \$9.98.

Performance: Extroverted Recording: Good

This and Jean-Philippe Collard's recent Angel record of the Rachmaninoff Second Piano Concerto is part of a 1978 EMI/Pathé Marconi package encompassing all four of the piano concertos and the Paganini Rhapsody. As with the C Minor Concerto, this highly gifted artist emphasizes the nimble and extroverted aspects of the score rather than any Slavic expressive mannerisms. As sheer pianism, his work is impeccable, and, perhaps in keeping with his generally brisk manner in the extended opening movement, he uses Rachmaninoff's shorter cadenza. The orchestral collaboration under Michel Plasson is solid and sympathetic, the recording good.

RESPIGHI: Fountains of Rome; Pines of Rome; Feste Romane. Orchestre Symphonique de Montréal, Charles Dutoit cond. LONDON © LDR 71091 \$12.98, © LDR5 71091 \$12.98; © 410 145-2, no list price.

Performance: Brilliant Recording: Likewise

The acoustic surround of l'Église St. Eustache in Montreal is ideal for the cineramic tonal vistas of Respighi's Roman cycle, and Charles Dutoit's orchestra digs into the music with a will. The most striking effects are in such episodes as the children's play in the "Pines of the Villa Borghese" and in the almost horrifyingly graphic "Circenses" in Feste Romane. On a more poetic level are the fine distance effects achieved in the "Pines Near a Catacomb" with the trombones intoning the Clemens Rector from the Gregorian liturgy. The "Giubileo" section of Feste comes off almost as well.

For me this Fountains of Rome, the earliest and most truly poetic of the three sets of tone poems, well played as it is here, lacks the ultimate sense of aching nostalgia at eventide called for in the last pages of the Villa Medici episode. Much of what sounded spectacularly brilliant and beautiful at first hearing of this disc did not quite stand up under repetition, especially in comparison to some other

performances I have heard both on and off records. Even some of the more obviously colorful bits miss fire: the solo mandolin is a bit close at hand in the magical Ottobrata music in Feste, and while the organ sub-bass pedal is spectacularly audible in the "Pines of the Appian Way," the percussion seems to get lost in the tonal shuffle. For sonic exhibitionists, however, this and the Catacombs movement of Pines and the outer movements of Feste Romane will more than justify investment in this disc.

ROZSA: String Trio, Op. 1; Piano Quintet, Op. 2. Leonard Pennario (piano); Endre Granat, Sheldon Sanov (violins); Milton Thomas (viola); Nathaniel Rosen (cello). SINE QUA NON © 79068 \$7.98.

Performance: Eloquent Recording: Very good

These recordings were issued in disc form eight or nine years ago and are still listed in Schwann as available on Orion. I never happened across either of them, but I enjoyed discovering these well crafted, substantial works on this fine-sounding new cassette in SQN's Seven Star Chrome series, which puts the handsome performances and the music itself in the very best light. As the opus numbers indicate, these are Miklós Rózsa's earliest works, though Christopher Palmer advises in his very comprehensive notes (unusually generous for a cassette) that the String Trio was revised many years after its 1927 composition and designated Op. la. (Grove shows this work's title, by the way, as "Trio-Serenade.") A good job all around; recommended. R.F.

RECORDING OF SPECIAL MERIT

SCHUBERT: String Quartet in D Minor ("Death and the Maiden," D. 810); Quartettsatz in C Minor (D. 703). Amadeus Quartet. DEUTSCHE GRAMMOPHON O 2532 071 \$12.98, © 3302 071 \$12.98.

Performance: Exciting Recording: Very good

This is not mellow Viennese-style playing. It is rough going much of the way; the Amadeus players dig in and scrap their way from one end of these scores to the other. I love it. I have never thought of Schubert or Haydn or Mozart as elegant tea-party composers or as divine children taking dictation from heaven but rather as passionate, down-to-earth, and all-toohuman artists whose reality has been misrepresented and romanticized by history-by operettas called Blossom Time as well as by clever plays carrying the same name as the D Minor Quartet.

The Amadeus Quartet, not as well known in the U.S. as it might be, is a London-based group of Anglo-German make-up. Their playing has a drama and excitement rarely found in chamber music today (although common enough in years past). These great Classical scores are not statues frozen in some imaginary time capsule labeled "fidelity to the written notes" but rather scripts that require real people to re-create them with passion and purpose from the inside out.

It is useless to quarrel with interpretive

decisions like those made here by the Amadeus Quartet, as if there were one way and only one way to realize the classics. What counts is force of conviction and a deep understanding that comes from a kinetic sense of the musical dynamic and flow-the sound and feel of the music itself, not just its look on the page or some musicological research into historic performing style. Most modern Classical performances diminish the music through excessive "faithfulness," through staying clear of everything but the written directions. These performances increase the written music to a larger-than-life size by filling it with the aspirations-literally, the breath-the energy, the imagination of the performing musicians. This is a warts-and-all recording, and it's exciting stuff.

SCHUMAN: American Festival Overture (see BERNSTEIN)

R. STRAUSS: Death and Transfiguration, Op. 24; Till Eulenspiegel's Merry Pranks, Op. 28; Don Juan, Op. 20 (see Best of the Month, page 75)

RECORDING OF SPECIAL MERIT

VIVALDI: Concertos for Two Violins in D Major (RV 511 and 513); Sonata in A Major for Two Violins and Continuo, Op. 1, No. 9; Sonata in D Minor for Two Violins and Continuo, Op. 1, No. 12 ("La Follia"). Stanley Ritchie, Jaap Schröder (violins); Fortunato Arico (cello); Albert Fuller (harpsichord); Aston Magna, Albert Fuller cond. NONESUCH @ 79056-1 \$11.98, © 79056-4 \$11.98; © 79-56-2, no list price.

Performance: Brilliant Recording: Excellent

The string players of Aston Magna perform these Vivaldi works with energetic brilliance and a sense of elegance and refinement. Soloists Stanley Ritchie and Jaap Schröder both produce a silvery, taut sound that makes Vivaldi's steely figurations cut through the ensemble with laser-like precision. The highlight of the record is the D Minor sonata with its variations on La Follia. Great technical demands are made not only on the two violinists but also on the continuo players, and they are ably met by Fortunato Arico and Albert Fuller. This is great Vivaldi. S.L.

COLLECTIONS

JULIAN BREAM: Dedication. Bennett: Five Impromptus. Walton: Five Bagatelles. Davies: Hill Runes. Henze: Royal Winter Music. Julian Bream (guitar). RCA • RL 25419 \$13.98, © RK 25419 \$13.98 (from International Book & Record Distributors, 40-11 24th Street, Long Island City, N.Y. 11101).

Performance: Exquisite Recording: Gorgeous

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Brendel's Schumann

WHILE attending to virtually all of Beethoven's music, a good deal of Liszt's and Schubert's, and the Mozart piano concertos, Alfred Brendel has recorded very little Schumann. His Philips album of the Kreisleriana and Kinderszenen (9500 964) inspired considerable enthusiasm, however, and his new one for the same label of the Fantasiestücke, Op. 12, and the Fantasia in C Major, Op. 17, should provoke still more.

These are the sort of performances that really leave a critic with very little to say—except to urge everyone to hear them. The Fantasiestücke are superbly characterized, and the sudden change of mood in the concluding Ende vom Lied is devastating in its stark understatement. The Fantasia in C here receives a vaster

and grander realization than in Brendel's earlier recording of it, which circulated a few years back on Vanguard. But while it is on a very grand scale, it is never inflated; there is not a note without meaning, and yet the impression is one of almost improvisatory spontaneity.

The short of it is that I cannot think of another recorded performance of either work that is quite as gripping, that makes it quite so urgent that the music be listened to and listened to again. And the recorded sound itself is splendid.

-Richard Freed

SCHUMANN: Fantasiestücke, Op. 12; Fantasia in C Major, Op. 17. Alfred Brendel (piano). PHILIPS **①** 6514 283 \$12.98, © 7337 283 \$12.98.

musicians who play it really well ever figure out how to write well for it. The modernists have had their problems with it from the start,

There are occasional exceptions. By far the most successful guitar music on this album is the Walton, but that is because it is the least original and the most dependent on classical and folk elements (at that, Walton worked hard with charts to solve the technical problems). Peter Maxwell Davies succeeds by a crafty (in both meanings of that word) feeling for the instrument as a resonator and by being short-winded (short-strummed? shortplucked?). The Henze is full of felicities, but its lengthiness and choppiness is not mitigated by some gorgeous passages and a program note that refers the various movements to Shakespearean characters. Richard Rodney Bennett's Five Impromptus are brief, attractive excursions on a twelve-tone row. Need I add that everything is beautifully played? The digital recording is fabulous.

MARNI NIXON: Songs by Debussy and Fauré. Debussy: Mandoline; Beau soir; Il pleure dans mon coeur; Romance; Fètes galantes, I and II. Fauré: Le Secret; Mandoline; Les Berceaux; Au bord de l'eau; Prison; Notre amour; Après un rève; Les Roses d'Ispahan; Clair de lune. Marni Nixon (soprano); Armen Guzelimian (piano). MUSICAL HERITAGE SOCIETY MHS 4699Z \$7.75 (plus \$1.95 postage and handling charge from the Musical Heritage Society, 14 Park Road, Tinton Falls, N.J. 07724).

Performance: Good Recording: Good

Fauré and Debussy are often fascinatingly coupled in song recitals, especially when parallel settings of the same poem are contrasted, as is the case here with Verlaine's Mandoline and Clair de lune (the latter figures among Debussy's Fètes Galants). Both composers challenge the interpreter, asking for the subtlest skills of nuanced, intimate communication

arising from the cultivation of the elusive "French style." Marni Nixon enters into that rarified area with many of the required attributes. She is sensitive to the poetic texts, and her French is good. There are no mannerisms in her singing, but neither are there any individual inflections that would make it memorable. There are some imaginative touches here. however. Nixon's Au bord de l'eau is a deliberately unsensuous, almost child-like reverie, and to Debussy's eerie Colloque sentimental (in Fêtes galantes II) she brings just the right kind of distant, disembodied tone. Her voice is a smallish but charming instrument, most appealing in the upper midrange, somewhat trembly above, and lacking solidity in the bottom notes.

The singer and pianist Armen Guzelimian work well together in a coordinated flow that is essential in the songs of both composers. The piano is accorded too much presence in the Debussy Mandoline, but the balances are better later on, and the overall sound is fine. Nixon has provided pertinent annotations to go with full texts and translations. G.J.

LUCIANO PAVAROTTI: Mattinata. Caldara: Alma del core. Ciampi (attrib. Pergolesi): Tre giorni son che Nina. Bellini: Vaga luna. Durante: Danza, danza, fanciulla. Giordani: Caro mio ben. Rossini: La Promessa. Gluck: Orfeo ed Euridice: Che farò senza Euridice. Tosti: L'alba separa dalla luce l'ombra; Aprile; Chanson de l'adieu; L'ultima canzone. Donizetti: Il barcaiolo. Leoncavallo: Mattinata. Beethoven: In questa tomba oscura. Luciano Pavarotti (tenor); Philharmonia Orchestra, Piero Gamba cond; National Philharmonic Orchestra, Antonio Tonini cond. LONDON OS 26669 \$9.98, © OS5 26669 \$9.98.

Performance: Pavarotti in form Recording: Good

There is a strange symmetry in the way Luciano Pavarotti's latest recital disc is put together. The first six songs on each side fit more or less into a serenade pattern, but the final selection on both sides is a death-related lament. Coincidence?

Nine items here are new additions to the tenor's recorded repertoire, and five, including the title song, are repeats from earlier releases. The songs and arias involved are all reasonably familiar except Donizetti's *Il barcaiolo* (*The Boatman*), which vacillates between an ornate aria and a sailor's ditty. Even Pavarotti cannot redeem it.

The tenor is in good voice throughout. employing nice mezza-voce effects for tonal variety and occasional tasteful ritards for expressive purposes, and though he pours ample sentiment into these songs, he does so within musical bounds. Only his careless habit of ending words with a vowel sound regardless of the text persists and, for me, mars a conscientious artistic effort. The arrangements by Alexander Faris are good for a recital of this kind. True, the music of Caldara, Pergolesi, and Giordani should not be sung with such a lush-sounding orchestra, but this is not a record aimed at the Baroque G.J.

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The Basic Repertoire

By Richard Freed

OR some years critic Richard Freed, a contributing editor of STEREO RE-VIEW, has listened to all available recordings of the nearly two hundred symphonic works that form the essential core of orchestral programs and classical record collections, selecting those versions he considered the best. We have published his choices in a pamphlet, which we have updated annually, and we are now publishing his selections of the best current recordings of the Basic Repertoire in a regular series in the magazine. If you want the pamphlet, the most recent updating (1982) is available for \$1 (check or money order) and a stamped (40¢) self-addressed No. 10 envelope; send to Basic Repertoire, P.O. Box 506, Murray Hill Station, New York, N.Y. 10156.

- ☐ MOZART: Symphony No. 29, in A Major. All the really distinguished versions have disappeared—only temporarily, I hope. Sir Colin Davis's remake with the Dresden Orchestra is quite good, but the layout, splitting the accompanying No. 39 for turnover, is gratuitously irritating (Philips 6514 205, © 7337 205). On the same label, Davis's earlier version with the London Symphony (Festivo 6570 207, © 7310 207) or Neville Marriner's remake (9500 652, © 7300 755) might be easier to take.
- MOZART: Symphony No. 35, in D Major ("Haffner"). The Czech conductors Zdeněk Košler (Supraphon 1110 2806) and Rafael Kubelik (CBS ◑ IM 36729) both excel in genial, warmhearted readings, Kubelik taking repeats in the delicious slow movement. In the budget department, Monteux's only Mozart symphony record is endearing but none too well recorded (Turnabout TV 34831), while Szell shows up well on cassette (Odyssey ⓒ YT 35492).
- MOZART: Symphony No. 36, in C Major ("Linz"). Both Kubelik and Košler offer outstanding performances of this work along with the Haffner Symphony. Bernstein's Vienna Philharmonic recording, now reissued at a lower price on London Jubilee (JL 41025, © JL5 41025), and Otmar Suitner's with the NKH Orchestra (Denon ◆ OX-7156) are on the same exalted level.
- MOZART: Symphony No. 38, in D Major ("Prague"). The classic Peter Maag/London Symphony recording, with all repeats, still rates top honors (London STS 15087). Bruno Walter's pre-war Viennese recording retains its unique charm (Turnabout ™ THS-65063), but sonic considerations rule it out for one's only version. The best candidates for that position are Kubelik's expansive reading (CBS → IM 36730) and Otmar Suitner's, with his Linz (Denon → OX-7156).

- ☐ MOZART: Symphony No. 39, in E-flat Major. Böhm's final version (DG 2531 206, © 3301 206) and the similarly authoritative one by Kubelik (with his Prague on CBS ◑ IM 36730) offer the strongest combinations of interpretation and sound. The final Colin Davis remake is spoiled by the frustrating side layout (with No. 29 on Philips ◑ 6514 205, © 7337 205). Szell's cassette is a good buy (Odyssey © YT 35493).
- ☐ MOZART: Symphony No. 40, in G Minor. Herbert Blomstedt's new recording with the Staatskapelle Dresden is superb in every respect (Denon ◑ OF-7041, ⑤ 38C37-7002). Kubelik's is profound and probing, if less overtly dramatic (CBS ◑ 1M 36703, ⑥ IMT 36703, ⑥ MK 36703). Böhm's final version (DG 3530 780, ⑥ 3300 780) and Klemperer's economical reissue (Angel RL-32098, ⑥ 4RL-32098) are also first-rate.
- ☐ MOZART: Symphony No. 41, in C Major ("Jupiter"). Blomstedt's Jupiter, packaged with his G Minor, is generous with repeats, gorgeously recorded, and in the same class interpretively as the great recordings coupled with No. 40 by Kubelik (CBS ◑ IM 36703, ⑤ IMT 36703, ⑥ MK 36703) and Böhm with the Vienna Philharmonic (DG 3530 780, ⑥ 3300 780) as well as Eugen Jochum's (with the Schubert Eighth on DG 2530 357). The budget choice is Klemperer's (Angel RL-32098, ⑥ 4RL-32098).
- □ MUSSORGSKY/RAVEL: Pictures at an Exhibition. Claudio Abbado and the London Symphony edge out just about every earlier recording of this showpiece; each of the pictures is marvelously characterized, and the sound is superb (DG • 2532 057, © 3302 057, © 410 033-2). The vintage recording by Fritz Reiner and the Chicago Symphony, newly remastered at half speed (RCA ATL1-4268, © ATK 1-4268), and the one by Sir Georg Solti with the same orchestra some twenty years later (London 1 LDR 10040, © LDR5 10040, © 400 051-2) are nearly as impressive. Ormandy's RCA remake, now remastered digitally, is the best of the bargain bunch (AGL1-5209, © AGK 1-5209).
- □ ORFF: Carmina Burana. The early stereo version conducted by Václav Smetáček still strikes me as the most persuasive account of this work, and it's also now one of the least expensive (Quintessence PMC-7122, © P4C-7122). The biggest sonic splash is made by Robert Shaw on CD (Telarc © CD-80056). Somewhat brighter-sounding than Smetáček's and more consistently satisfying musically than Shaw's is the recording by Kurt Eichhorn with glorious soloists on Eurodisc (86827, © 401167).

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