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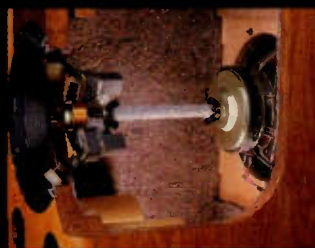
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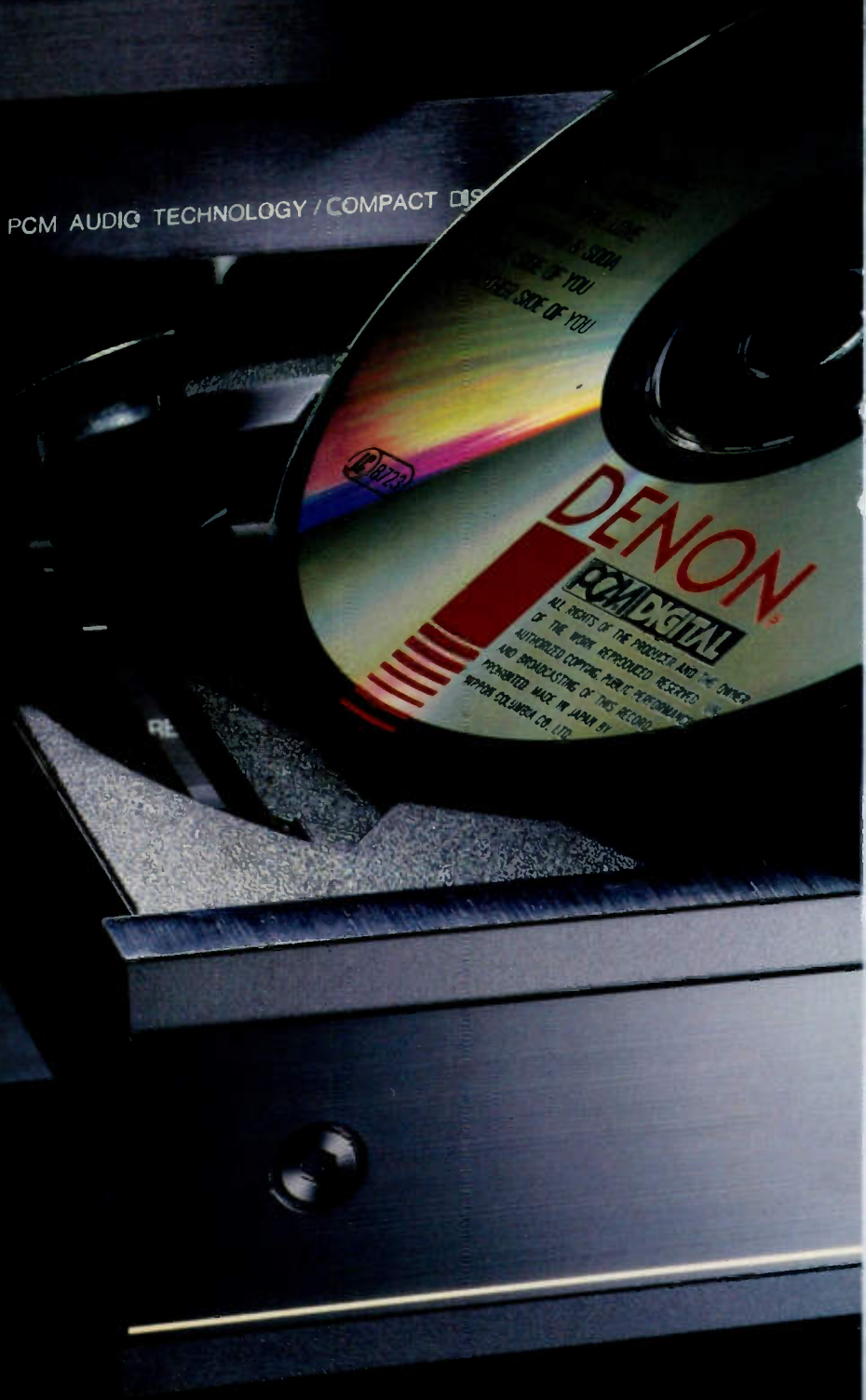


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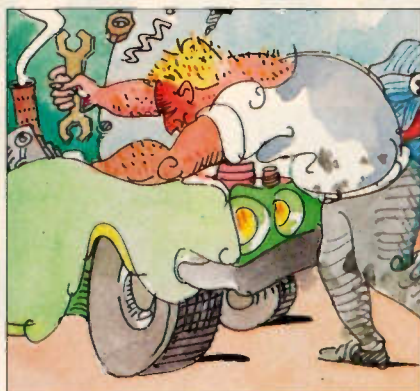
DENON

DESIGN INTEGRITY





Tested: Tandberg receiver, four more



Tips on choosing an autosound installer



Equipment designs with the user in mind

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On the cover: at right, NAD's MR-13 monitor/receiver (with remote); rear left, the ADS R-4 receiver; front left, Mitsubishi's M-RAV1 remote unit; front center, Brionvega's remote unit



Cover design: Joanne Goodfellow
Cover photo: David A. Wagner

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FrontLines

Progress in FM Tuners?

By Michael Riggs

Last month, contrasting the Onkyo T-G10 FM tuner with the bulk of its competition, Bob Long noted that "the last few years have not been a vintage era for FM tuners." In this month's review of the Tandberg TPR-3080A receiver, he gives a specific example: "The 1.0-dB capture ratio is a particularly striking index of . . . [the Tandberg's] excellence. A decade ago, any top-of-the-line model would have been in this ballpark. Today, with all the emphasis on extra features, we are asked to accept capture ratios of 2 dB and greater, even in very pricey equipment."

What I've been noticing are the sensitivity measurements. Ten years ago, top-of-the-line tuners typically weighed in with stereo sensitivity measurements of 36 dBf or so; these days, we seldom see better than 38 dBf, and 40 to 44 dBf is not uncommon. Now, in many areas, this doesn't matter unless you're an ardent DXer with a rotatable outdoor antenna. And as we were at pains to point out back in the days when sensitivity was all anyone seemed to pay attention to, other factors are equally important—often more so. But we didn't mean that manufacturers should relax and not worry about it.

At the same time, there have been a couple of other interesting trends in tuner design. Ironically, one has been the development of special noise-reduction schemes designed to improve effective stereo sensitivity—that is, to reduce the signal level at which noise becomes objectionable in stereo reception. In the main, these operate by diminishing channel separation, especially at high frequencies. This works for the same reason that stereo reception is noisier than mono. In FM, noise increases with frequency, and the difference (L-R) signal used to derive two separate channels is broadcast on a 38-kHz subcarrier. Consequently, it is inherently a good bit noisier than the mono (L+R) baseband signal, which cuts off at 15 kHz. If you use less of the difference signal, thereby reducing channel separation (making the output more nearly mono), you get less noise. This is a reasonable trade-off, since channel separation can get fairly low, particularly at high frequencies, without great loss of stereo effect.

Another direction in tuner design has been toward greater adjacent-channel selectivity. Selectivity is a measure of a tuner's ability to receive only the station frequency to which it is tuned. Poor selectivity can result in interference from neighboring stations on the dial. Because it is difficult to make a tuner adequately selective against a strong adjacent station (that is, one only a single channel away from the tuned station), the FCC allocates FM frequency assignments to keep stations in any given locality at least two channels apart. Therefore, for most people most of the time, the relevant specification is alternate-channel selectivity, which is much easier to obtain.

But if you want to pick up stations outside your immediate area, adjacent-channel selectivity can suddenly become at least as important as sensitivity. A number of manufacturers have recognized this and developed tuners capable of prodigious feats in this regard—to surprisingly good effect.

Both noise reduction and high adjacent-channel selectivity are worthwhile additions to the FM listener's arsenal of weapons against poor reception. However, they should not serve as high-profile substitutes for less obvious but nonetheless important attributes. It has been distressing to find tuners decked out with all the latest and greatest of these performance-enhancing attributes but having, for example, basic stereo sensitivities on the order of 40 dBf or worse. It is like having one hand undo the work of the other.

The moral is: Look for performance, not just the presence of highly touted features that are supposed to give the desired results. Look at the specifications, read the test reports, and take a little time to learn what to look for. It can help you get a little more enjoyment from your equipment than you might have otherwise, or maybe even save you from an expensive mistake. □

THE CLEVELAND QUARTET DEFENDED

I am writing in response to Thomas Hathaway's review of the recording of Schumann's Piano Quartet and Piano Quintet by Emanuel Ax and the Cleveland Quartet [December 1988]. I am willing to accept a divergent view of this or any performance, and it is perfectly acceptable for Mr. Hathaway to dislike the Cleveland's playing, although I personally find his opinion ridiculous. What I find totally unacceptable is his speculation at the end of the review that perhaps the Cleveland Quartet "no longer plays as marvelously as it used to."

Regardless of his opinion of this recording, he does not have enough data to support such a claim. It would seem, rather, that we are present at the birth of a rumor—an unfounded and rather nasty one, at that. Those of us who live in Rochester, where the Cleveland Quartet is in residence at the Eastman School of Music—and who have the privilege of hearing the group perform on a regular basis—are in a position to assure Mr. Hathaway that the Clevelanders remain what they have been for 20 years: one of the premier chamber-music groups in the world today.

Perhaps I am being too harsh with Mr.

Hathaway. Conceivably he was having an off day. But it is also possible that he no longer writes intelligent, objective reviews—which would be sad if it were true.

S. Rackovsky
Rochester, N.Y.

Thomas Hathaway replies: The letter is amusingly written, but reader Rackovsky does not really provide "sufficient data" to demonstrate that I was wrong about this particular Cleveland Quartet disc (to call my observations "ridiculous" is not to give data, it is merely to snort). The fact is that the quartet does not, anymore, play as consistently well as it used to—not on this record, and not in the first half of a recent recital in Toronto. However, I and the rest of the world are relieved to hear that it still plays well most of the time—as it did in the second half of the Toronto recital. And Rackovsky should be glad to have discovered that I am still objective enough to report when even so esteemed a group as the Cleveland plays badly.

SIBERRY DEBUT: THE MISSING?

I enjoyed Kate Waller's August 1988 review of Jane Siberry's current album.

However, *The Walking* isn't Siberry's third record, it's her fourth. I recall reading about a self-titled debut LP made for her Canadian label, Duke Street, from which her American releases are licensed.

Philip David Morgan
Saint James, N.Y.

You're half right: Siberry's three American records—No Borders Here, The Speckless Sky, and The Walking—were indeed preceded by a Canadian album simply called Jane Siberry. Thanks for the correction. That LP, however, was not released by Duke Street. Rather, it was (and still is) available independently from Sib Productions, P.O. Box 291, 238 Davenport Rd., Toronto, Ont. M5R 1J6, Canada. Siberry is currently working on a new record, scheduled for release in August.—Ed.

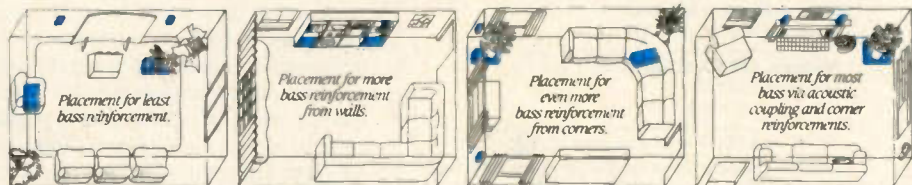
APPROACHES TO EQUIPMENT REVIEWING

I am writing in reply to your "Front Lines" column in the January 1989 issue. I consider myself a serious audiophile and am a staunch advocate of "subjective" equipment evaluations. I feel you respond too reactively in proclaiming that there has been a call for the abandonment of ob-

"They... Play Music And Make It Sound Like Music... Unobtrusively... At A Bargain Price."

Julian Hirsch
Stereo Review, Sept. '88

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What Henry Kloss tells his friends:

Every time I came out with a new speaker at AR, KLH, or Advent, my friends would ask me, "Henry, is it worth the extra money for me to trade up?" And every time I would answer, "No, what you've already got is still good enough."

But today, with the Introduction of Ensemble, I tell them, "Perhaps now is the time to give your old speakers to the children."

L E T T E R S

jective testing of equipment specifications. Instead, it is my belief that laboratory measurements are important, but tell only half the story.

In this day and age, a few measurement units here or there hardly make a difference in the "whether or not I should buy" aspect of an audio product. For example, is a CD player with a THD measurement of 0.001 percent really better sonically than one with a 0.002-percent reading? Not necessarily, although you would have your readership believe that this is a solid basis (all else being equal) on which to make a buying decision. The one with the higher nominal level of distortion might, in fact, be better not only in other, more or less important objective figures, but might actually sound better!

The crux of my argument is really that reproducing recorded music by any method at all is indeed a compromise when compared to a live performance—a "distortion." It should thus make some sense that the audio consumer's responsibility to him- or herself is to choose the most desirable-sounding distortion. Subjective reviewing does just this: It describes sonic characteristics of a product without blind

dependence on a meter reading. As you say, objective measurements help to tell the acceptable from the unacceptable. But they do not adequately describe what it is like to own a particular component—from the standpoint of long-term reliability, human-interface characteristics, or sonic similarities or differences (where perceived)—in comparison with a competing product.

I both note and applaud Robert Long's review of the Revox B-226 Compact Disc player, also in the January issue. He provides the reader with a subjective sense of what it would be like to own the unit in one's very own listening room. He even goes so far as to indicate that it makes some CDs sound "sweeter" or "have more punch." These values do not clearly relate to any known specification, but they bespeak his feeling of satisfaction with the machine. A specification table or list of measurements can never do this by itself.

Peter M. Scialli
Charlottesville, Va.

Editor-in-Chief Michael Riggs replies: I have read any number of attacks, over the

years, on the type of laboratory testing that *HIGH FIDELITY* performs on equipment. They have ranged from relatively mild criticisms such as yours—which contend that bench testing is good as far as it goes, but fails to tell the whole story (something I certainly would acknowledge in the case of loudspeakers, for example)—to claims that such testing is misleading and that the ear is the only true and reliable arbiter of component quality. Given that the fundamental point of high fidelity is good sound, the idea that you can learn all you need to know by listening is seductive. Certainly the ear is a key element in the reviewing process: We listen carefully to every product we test. But this is not enough. Some important aspects of component performance are difficult to evaluate by ear—amplifier power output, for example. Others may be misunderstood in the absence of measurements that explain why we hear what we do from a product or that throw into question whether we really have heard what we think we have.

I am worried by the sheer quantity of poorly controlled, misinformed "subjective" equipment reviewing that I see these days, especially in the British press, which seems to have pulled entirely loose from its

bass units can be tucked out of the way—on the floor, atop bookshelves, or under furniture. The satellites can be hung directly on the wall, or placed on windowsills or shelves. No bulky speakers dominate your living space, yet Ensemble reproduces the deep bass that no mini speakers can.

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once secure moorings in reason, technical expertise, and careful investigative method. In their place, we get reams of entertaining but ultimately rather empty prose attributing all manner of marvelous sonic effects to amplifiers, turntables, and even wire—products that both technical evaluation and ordinary experience would lead one to consider audibly neutral when made with reasonable care and operated under normal conditions. These conclusions often are propped up with quasi-scientific explanations that fall apart under even the lightest scrutiny and an almost mystical faith that everything has a distinctive sound and that progress toward an unattainable goal of complete sonic transparency will continue forever in every category of equipment.

Often there is a barely concealed prejudice that very costly products must be audibly superior to reasonably priced ones, that the use of expensive, high-grade materials must yield sonic dividends, that if a manufacturer becomes very successful it must be because its owners have sold their audiophile souls to the devil, or that equipment designed (or even just built) in the Orient must be inferior to that of Western origin. All of this bespeaks, to me, a certain decadence. All of it is wrong and inimical to real progress in music reproduction; all of it has the potential to seriously mislead technically naive readers.

We have never suggested that a component that produces only 0.001 percent harmonic distortion will sound better than one that generates 0.002 percent distortion. In fact, we don't report distortion figures lower than 0.01 percent—for the very reason that such figures are sonically irrelevant. (Actually, anything less than 0.1 percent probably is benign; but we're conservative.) On the other hand, the decision to stop at that point was a specific response to the distortion wars of the 1970s, and one could argue that we carry other measurements, such as channel separation, to equally immaterial extremes. I actually would like to go back to following the distortion down as far as we can, just because I find it interesting to see exactly what the engineers have managed to do—even when the result is better than it needs to be.

But in all cases, we have been at pains for many years to explain periodically that everything has a threshold of audibility and that, beyond a certain point, one number is as good as another. Audio technology has reached a level of refinement at which some types of components—amplifiers (exclusive of phono stages), CD players, and many other purely electronic devices, in particular—are typically so good in all critical respects that they can add no sound of their

own and therefore can be audibly indistinguishable when operated within their design limits. This by no means reduces the value of reviews of such components, which define for potential buyers those important design limits beyond which the product will audibly distort signals passing through it and catch instances in which a product falls short of the sonic perfection it should be capable of (usually because of frequency-response errors, possibly those induced by the specific components hooked up).

We do report any sonic character that we detect in a product. This is routine for loudspeakers, phono cartridges, and signal processors, and from time to time a reviewer may indicate that he has heard something interesting from a CD player or even an amplifier. In these latter cases, the reported sound characteristic often is described as extremely subtle and possibly the result of unconscious bias, as in the review you cite. (Does a CD player sound better or worse than usual because of unusually good or bad D/A converter linearity, or does the reviewer merely think that it sounds ever so slightly sweeter or grittier because he is swayed by a set of numbers or a brand name?) We also try to convey the feel and overall quality of products under test—which, as you say, are not characteristics that mere laboratory analysis can convey.

"Please don't shoot the pianist, he's doing his best." Oscar Wilde's remark about America might fit the battle of the testers versus the subjectivists you write about in your January 1989 "Front Lines" column. Both may be doing their best, but both miss much of what is needed to evaluate equipment fairly.

Is the equipment well built, rugged, durable, reliable, and long-lasting? Is it repairable, or will a breakdown mean "Throw it away and get a new one"? Is it likely to become obsolete soon? . . . Many obviously audible defects are skipped over by both the testers and the subjectivists. Who mentions tape-modulation noise? Yet on a cassette it is a far more serious issue than the frequency response above 12 kHz or so. At 10 kHz or above, you hear not a pure tone but mostly the hiss of modulation noise; although this noise is caused mostly by the tape, the machine can affect it, too.

Also, sound quality in the midrange often is compromised by attempts to achieve measured response out to 18 kHz and beyond. The 18 kHz sounds mostly like hiss, even if it measures fine (and few people can hear above 14 to 16 kHz anyway). Because its midrange is much better,

a machine that can record to 10 or 12 kHz often sounds better than one that goes to 20 kHz.

All results should be repeatable by most testers or subjectivists. The excesses of the subjectivists—who alone can hear huge differences between mostly identical cables or capacitors, for example—include presenting themselves as unquestionable experts possessed of superior equipment and perception and intimidating others into hearing or claiming to hear nonexistent differences between these items. But this craze will pass, like all fads.

Donald Bisbee
Columbus, Ohio

In general, we agree. Unfortunately, it is very difficult to evaluate equipment reliability. (We guess you could say that we have no reliable way of doing so.) Although you are correct that there is little or no benefit to extending cassette-deck (or any other) response beyond 15 or 16 kHz, good high-frequency response should not preclude excellent midrange performance. If you get the extreme treble by underbiasing the tape, then yes, you may have a problem. But in properly designed decks, this is not the case.—Ed.

IMPERIAL OPINIONS

When reading audio publications from the U.K., I've noticed something funny that took a while to sink in: When they are reviewing an amplifier, it sounds as if they are reviewing a pair of speakers. One reads that "it was pumping out bass with rare clarity" or that "the midrange sounded as if the saxophonist were in the room with you." If comparable amplifiers have distinct, observable sonic characteristics, why don't our American magazines point them out in their reviews?

Bruce Fox
Takoma Park, Md.

See the letter entitled "Approaches to Equipment Reviewing" and my response to it. There is a lot of very imaginative writing in the British audio press these days—and in some quarters of the American press as well. We would report the sort of stuff you cite, if it actually were present.—Ed.

CORRECTION

Our April test report on the Onkyo T-G10 grossly overstates its price, which in fact is just \$850. (The reviewer, by the way, really did believe the price was the \$2,200 we listed when he wrote the report.)—Ed.

All letters should be addressed to The Editor, HIGH FIDELITY, 825 Seventh Ave., New York, N.Y. 10019. Letters are subject to editing for brevity and clarity.

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Pioneer's Nautica line: the KEH-6070TQR head unit and AD-MR90 cover

Sailing, Sailing . . .

For seafaring audiophiles, Pioneer's new Nautica line will keep you afloat in good sound with a high-power, quick-release auto-reverse cassette receiver, a waterproof, protective "bubble" covering for the receiver, and two Maxxial speaker systems. The speaker systems include the TS-MR165 (\$200), a two-way model with a claimed frequency response of 35 Hz to 18 kHz, and the TS-MR163 (\$150), a dual-cone model that is said to extend treble response to 20 kHz. Both systems use a 6½-inch water-resistant, injection-molded, carbon-fiber-blended polypropylene woofer and have a high-energy strontium magnet and rated sensitivity of 88 dB. The TS-MR165 also has a 1¼-inch titanium reflex horn tweeter. Each speaker system ad-

ditionally features: heat-resistant, weatherproof-resin grilles; fiberglass-reinforced polyethylene frames; moisture-protected magnet circuitry; and corrosion-proof parts such as gold-plated lead wires and connection terminals.

The head unit in the Nautica line is the KEH-6070TQR (\$450), with a DIN-sized, quick-release chassis so the unit can be taken from car to boat—or removed for security. Power output is rated at 25 watts through two speakers or 15 watts through four. Dolby B noise reduction is included in the tape section, and the tuner features Pioneer's Quartz-PLL electronic Super-tuner III circuitry, aimed at improving reception in signal-crowded coastal areas, as well as extending AM-frequency capabilities to take advantage of new AM-band frequencies recently assigned by the

Federal Communications Commission (FCC). An AUX input is provided for easy add-on of a CD player. As additional protection, there's the AD-MR90 (\$50), a waterproof cover. The cover is fully compatible with any style of head unit, whether shaft-type or DIN-front- or DIN-rear-mounted. *Pioneer, P.O. Box 1720, Long Beach, Calif. 90801-1720.*

How Is the Air Up There?

Any loudspeaker system is certainly in a rarefied region when it costs \$25,000, but it's worth paying attention to, if only because techniques first tried in these models often drift down to what's reality for most of us. MB Quart's Aera loudspeakers feature a truly omnidirectional tweeter: a 4-inch sphere of two perfectly matched halves of nickel/cobalt alloy, wrapped with spiral copper windings. Within this sphere, a permanent magnet is housed in a soft-iron spherical shell. As in traditional speakers, the signal put out by the amplifier produces a magnetic field in the sphere; but instead of the forward/reverse, piston-like movement of a speaker cone, the nickel/cobalt sphere expands and contracts, creating a pulsating, spherical radiating pattern that spreads the music over a full 360 degrees. Quart says this "magnetostrictive" design yields a much wider frequency and transient response than traditional paper cones. Prototype spheres of up to 20 inches, capable of frequency ranges from 800 Hz to 50 kHz, are being tested, along with alternate ferromagnetic materials.

The 4-inch tweeter in Quart's Aera has a claimed frequency range of 5 to 50 kHz, with less than 1 percent total harmonic distortion (THD), and requires only a half to a third the power needed to attain similar levels from conventional tweeters. More important, since the music is spread in all directions by the radiating sphere, you don't have to sit at a precise point between the two speakers for optimum soundstage and imaging: You'll get the proper balance at *any* point in the room (at least over the range covered by the tweeter). Besides the magnetostriction tweeter, the Aera has a 2-inch dome midrange driver and a 10-inch woofer. Total frequency response is from 28 Hz to 50 kHz. Crossover frequencies are 700 Hz and 5 kHz, with slopes of 24 dB per octave. The speakers weigh in at 101 pounds and are 48 inches tall by 13 wide by 16 deep. They are available in piano-varnish black or white. *MB Quart, 25 Walpole Park S., Walpole, Mass. 02801.*



—Leonard Feather, Celebrated Jazz Critic for the L.A. Times, Washington Post News Service and Author of many books including "The Jazz Years—Earwitness to an Era."

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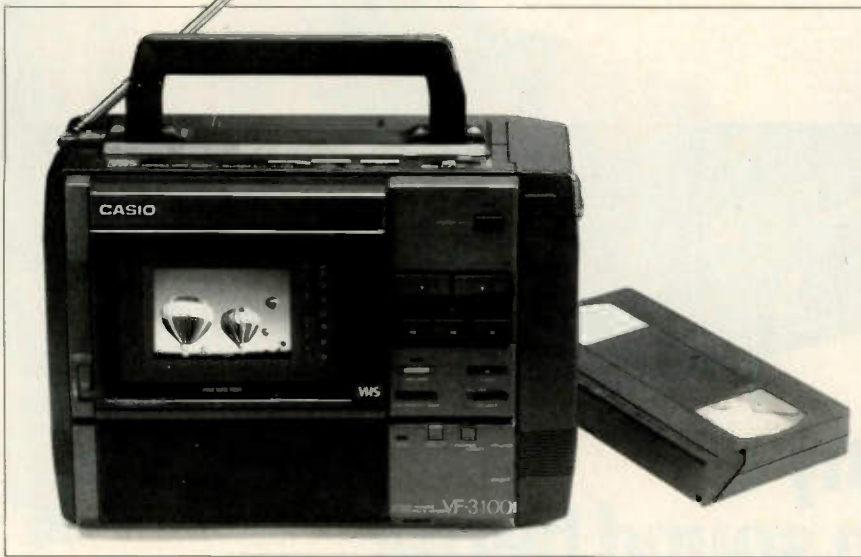
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Casio's totable VF-3100, a combination TV/VCR unit

Totable TV/VCR

You won't have to go without, if you take along Casio's VF-3100, a portable TV/VCR unit (\$999). The VF-3100 tips the scales at a tad over 6½ pounds and measures about 10½ by 7½ inches. The unit takes standard ½-inch VHS cassette tapes, so you can rent a movie or record a TV program onto a regular VHS tape. Recordings can be made in either standard two-hour or extended six-hour mode. The TV section features VHF and UHF reception, a high-resolution color liquid-crystal display (of twisted-nematic type) with a 3½-inch screen. Also included are a built-in speaker and a rod antenna. A sleep timer enables you to record as much as two hours of programming while the unit is unattended or while you're sleeping. Additional features include jacks for video in/out, audio in/out, earphone, external power, and antenna. The VF-3100 can be run off household current or off a car battery with additional adapters; its battery will last for two to four hours before recharging. *Casio, P.O. Box 7000, Dover, N.J. 07801.*

Keep Clean, Use a Bib

No matter how careful you are, your cassette recorder is bound to pick up some dirt. Audio-video care specialist Bib has rolled out a new kit to help you take care of your music. To use Bib's A-632 audio-cassette care system (\$13), a specially formulated tape-head cleaning fluid is applied to a nonabrasive cleaning material—which is then inserted into the machine and played

through. The kit also comes with swabs to be used with the cleaning fluid for removing stubborn dirt from the recording and playback heads, erase head, pinch roller, capstan, and tape guides. A cleaning brush is used for dust and dirt around the tape travel path. All of these cleaning products are housed in a clear storage case that is the size of a double-CD jewel box. *Bib, P.O. Box 27682, Denver, Colo. 80227.*

A Lot in a Little

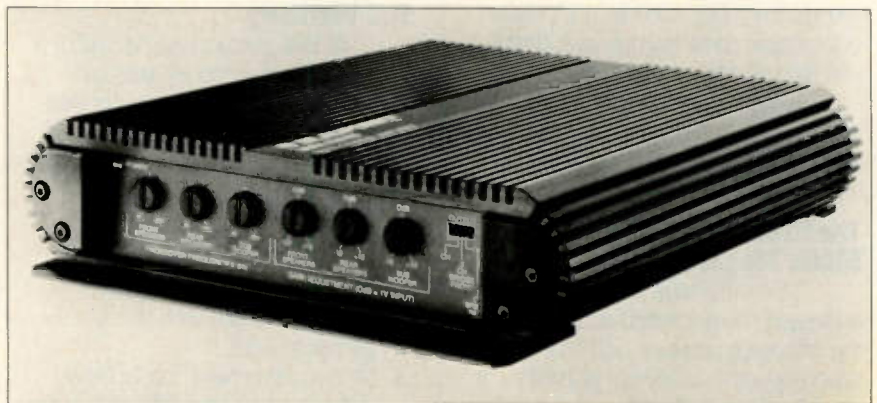
Blaupunkt's new BMA 5350B automobile power amp (\$850) has a lot of extras tucked inside, so you don't need to buy additional components that would take up more space and cost even more to install. The Power Source 350 is a five-channel, 350-watt amp with a fully integrated electronic crossover network, as well as a "smart" power supply that apportions power among the output amplifiers and

carefully regulates the signal quality. Within the unit are four 50-watt satellite amplifiers (bridgeable to 2X 100 watts) and a 150-watt subwoofer amp. When they are bridged, a switch governs which set of speakers the amp controls; in this way, two or more BMA 5350Bs can be hooked together without complex patch-cord networks. The crossover section features individually variable frequency and level controls for the front, rear and subwoofer outputs. These can be adjusted separately to control front/rear balance and to adjust for differing speaker sensitivities.

As for the power supply, tight regulation is a must in cars. At normal listening levels, the BMA 5350B's average draw is about 8 amps; at the highest momentary power peak, Blaupunkt claims the draw on the electrical system will not exceed 44 amps—which, it says, is less than half that of many comparably powered car amplifiers. What's more, the power supply is said to monitor the dynamics of the music and external load in order to spread the power to where it's needed. For instance, if the music is bass-heavy, the dual power supply will direct more current to the subwoofer. Other specifications include no more than 0.1 percent THD from 20 Hz to 20 kHz and a dynamic headroom of 2 dB. Signal-to-noise for full outputs is 110 dB for the satellites and 95 dB for the subwoofers. Made in the United States, the Power Source 350 measures 12½ inches long by 12 wide by 2¾ high. *Blaupunkt, P.O. Box 4601, North Suburban, Ill. 60198.*

A Toy Is a Toy Is a Toy

We may be on the cutting edge of technology and spending big bucks on our stereo and video equipment, but they're really just toys for big tots. Now Sanyo is bringing-
(Continued on page 80)



Blaupunkt's BMA 5350B is more than just a mobile power amp.



Answers to Readers' Questions

By Larry Klein

Flat Sound

Recently I told a friend that I had built my own speakers from scratch. To my annoyance, he immediately asked, "How flat are they?" Are we so wrapped up in specs that we forget the basic goal: good sound the way we like to hear it? I spent more than 50 hours reworking my ported speakers so I could have a lot of bass, the way I like it. Don't get me wrong: Specs and test reports are definitely helpful. But keep in mind that you're spending money to have sound the way you want to hear it, not as some expert says it should be.

*Peter Walsh
Rochester, N. Y.*

If you had written about choosing the paint color for your living-room walls or selecting a blend of coffee, I would not argue with the subjectivity of your approach (although many tastes probably would differ). Everyone has a right to his own tastes, and "good" in that context is properly defined as that which satisfies. But there is an important difference between sound reproduction (as with an audio system) and sound production (as with a musical instrument). When the goal is to reproduce sound, then the system that's doing it must not add any special sonic characteristics of its own. If you prefer speakers that always readjust the original tonal balance of the program material in a given direction, so be it. But then your speakers, by definition, are not providing high fidelity reproduction. Theoretically, fidelity to the original is what hi-fi is all about.

Planned Obsolescence?

I use my equipment at least four hours a day, and next year my integrated amplifier will be ten years old. How does wear affect audio equipment, and how long will it be before the planned obsolescence sets in?

*Howard Schultz
Elliston, Va.*

Congratulations to your amp on its tenth birthday! Before answering your wear question, I'd like to discuss "planned obsolescence"—a term that seems to be fading from popular use. Actually, the term (and the alleged practice it describes) never made much sense: What most people really meant by it was planned deterioration. In other words, certain parts or components supposedly were designed to have a short life and a high replacement cost, thereby encouraging the purchase of a new whatever. But it seems to me that the ill-will engendered by premature breakdown would cause consumers to avoid the faulty brand when considering a replacement, thus defeating the presumed purpose of planned obsolescence.

The loudest complaints of planned obsolescence usually occur when a new audio format threatens to render

obsolete someone's treasured collection of program material. A pertinent example is the switch from 78s to LPs, LPs to cassettes and then to CD, and so forth. The obsolescence in those cases was, in truth, planned, in the hope of bringing greater fidelity—or in the case of cassettes, greater convenience—to music collectors. The general public (unlike some audio magazines and would-be trendsetters) does not automatically extend a warm welcome to every new style or direction in audio—or any other category! Witness, for example, the marketplace fiascos of micro components, the Elcassette, and, lately (in Japan), DAT. (I suspect that the failure of Japanese consumers to jump onto the DAT bandwagon is the main reason there isn't a more vigorous effort by manufacturers to get the format into the United States.)

Now, to the wear question. Solid-state devices, unlike vacuum tubes, do not wear out through use. This is not to say that transistors never break down, but rather that their lifespan extends far beyond that of tubes. Transistors and integrated circuits handling small signals are extremely reliable and, when properly manufactured and used, can have an operating life of several hundred years or more. Devices handling large amounts of power and heat (such as the power transistors in an amplifier or its power supply) may ultimately flex themselves to death from the repeated heating/cooling cycles they undergo during normal operation. Other parts, mostly large electrolytic capacitors, can go bad over time for a variety of mechanical and chemical reasons. In any case, most engineers would not think of these problems as being brought on by wear, per se.

Stacking Separates

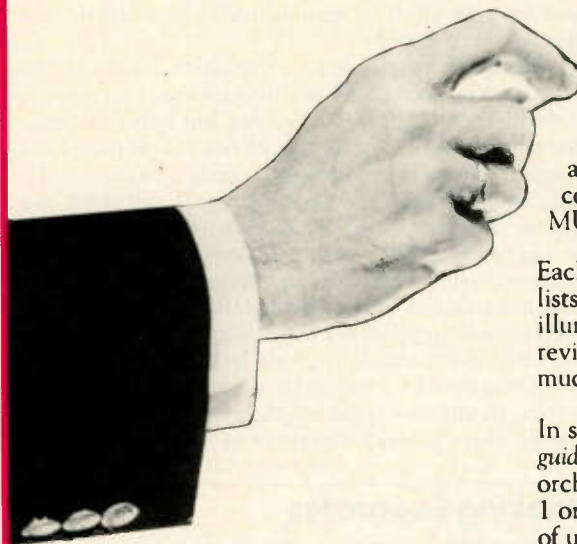
In audio stores, I always see components arranged in neat vertical stacks. Yet when I try to arrange my equipment similarly, I hear hum—particularly from the phono input. What's the problem?

*Edward Evans
Bethpage, N. Y.*

Stacking can cause hum if the transformers or motors in one component are thereby brought close to high-gain amplifying circuits in another component. I assume your equipment is either old or of mixed brands and hence was not designed for compatible stacking, like many new components. Another slight possibility is that the rubber or plastic feet on one of your components are missing and metal-to-metal chassis contact is causing ground-loop hum. If that's the problem, an easy cure is to isolate the chassis by using 1-inch squares of cardboard. (Be sure to avoid impeding air circulation through the bottom perforations of an amp.) □

We regret that the volume of mail is too great for us to answer all questions.

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More Mail From Readers

By Robert Long

Continuing my responses to reader mail . . . A fellow from San Marcos, Calif., signing himself "a confused consumer," complains that he can't figure out what the differences are supposed to be between the various tape formulations of similar description but different price from each of the major suppliers. Good point: I get confused, too. To some extent, most tape makers tend to assume a good-better-best value scale, but that can be misleading: Price is not a reliable index of the recording quality you'll get.

Along with tape price, you must consider the quality of the signals you'll be recording. A dB or two less noise, which may be the "breakthrough" the tape ads are touting, can go totally unnoticed if there already is some hiss in your source material—for example, from a commercial cassette or from a vintage LP or 78 (particularly if the latter are worn). And at the top of the blank-cassette scale, you will pay dearly for that extra, sometimes-inaudible quiet. The same considerations may be true even with superb source material, if you are not a careful recordist. If the extra dB or so of dynamic range is in the new tape's headroom, rather than lowered inherent noise, but you record everything at the same level regardless of the tape you're using, your S/N (signal-to-noise ratio) will remain the same.

More perplexing, however, are the sensitivity and bias requirements of the tape versus what your deck is set for. The newer, "more perfect" formulations tend to be more sensitive and need higher bias current than the older ones. While these factors are associated with better *potential* performance, by themselves they don't constitute better absolute performance. A brand-new supertape may even degrade quality to some extent in decks that are adjusted for a previous generation of premium tapes. If your deck has adjustable bias or sensitivity, you can make use of a new tape's capabilities. If not, you're better advised to make some test recordings on a variety of cassettes and then standardize on whatever sounds best—or, if you have the necessary equipment, *measures* best.

While it's a classic demonstration of capitalism at work that major tape companies put as much effort as they do into ever-improved formulations and shell designs in order to gain "market share," I do wish successful tapes could be left alone. If the XQ-II (or whatever) you buy today were kept the same as it's always been, and all that engineering were put into the NEW! IMPROVED! ZQ-IIS for owners of brand-new decks to pig out on, sonically speaking, I'd be happier. As it is, we can never be quite sure what we're getting.

Peaks and Averages. One reader who evidently likes to assemble his own musical programs on tape, rather than simply record the selections as they come off the disc, complains that he has a great deal of trouble matching levels between selections, though he previews his up-

coming tracks by sampling the signal on a meter.

There are two kinds of level "meters" in regular use today, and both are important for good results when you're mixing recording sources. One is the ubiquitous peak-reading display, which is important to evaluate what recording level is optimum—that is, just short of overload on the loudest peaks. The other is your ear, which tells you how loud the music actually *sounds*. (Forget old-fashioned moving-needle VU meters; they're useful only to experienced professionals.)

Depending on the peak-to-average ratios of the selections you're monitoring, these two measurement devices can tell you very different things. If you set the gain for levels that are optimally equal from the technical point of view, the perceived sound levels still can be quite different. To solve the riddle the right way, you have to determine relative overall recording levels for all the pieces you're going to dub, monitor the whole lot for the highest peak that must be accommodated in the dub, and gauge everything else from that setting. The alternative, which takes practice, is to "ride gain"—that is, gradually sneak the level up (for improved S/N) during the selections you know won't threaten overload and then sneak it back down before a more demanding selection comes along. Done right, this is unnoticeable, and it will make the levels seem to match when each new selection starts.

Trojan Degausser? Letters keep coming in about those little devices that you pop into the cassette well and "play" to clean and degauss (demagnetize) the heads. Are they safe? Are they effective? Are the battery-powered models any better than those that contain revolving permanent magnets to do the degaussing?

It's impossible to make a blanket statement about them—or even about a single brand, since designs and even suppliers change fairly frequently. Some are not very effective, it's true. One that I've tried (among the first on the market) used a fabric tape winding onto a drive spool to (1) buff the head, (2) revolve a permanent magnet, and (3) reel in the magnet, gradually moving it away from the head to demagnetize it. When the tape broke, the magnet wouldn't move away from the head, gaussing instead of degaussing it.

While I'm jaundiced on the subject because of that experience, many decks are almost impossible to degauss with the usual AC "wands." Still, one school of thought denies that degaussing is necessary in a properly designed modern deck (especially if it's a two-head model in which the recording bias will self-demagnetize the record/playback head), and that it is more likely to do harm than good if performed improperly. Deck cleanliness is far more important than degaussing. Nevertheless, if you *must* degauss, you're probably best advised to use an AC- or battery-powered degausser (whether mounted in a cassette shell or not), applied sparingly and carefully. □



8mm Videotape Comes to Life

By David Ranada

On February 8, Sony became the first company in the United States to announce products incorporating the high-band 8mm system—now renamed Hi8. Introduced were an advanced camcorder, the CCD-V99 (\$2,200), and a multifeatured VCR, the EV-S900 (\$2,000), that should be available as you read this. Other Hi8 products from the system's developers—Aiwa, Canon, Fuji, Konica, Hitachi, Matsushita, Maxell, Sanyo, Sony, and TDK—are expected.

The picture-quality improvements provided by Hi8 over standard 8mm resemble those available from S-VHS and ED-Beta over their respective standard formats. The principle improvement consists of a significant increase in luminance resolution. This stems, as in the other advanced VCR systems, from an upward shift in the luminance-carrier frequency (in this case from 5 MHz to 7 MHz), a change that makes Hi8 tapes unplayable on normal 8mm VCRs, although standard 8mm tapes are playable (and recordable in standard mode) in Hi8 machines.

Sony, preferring to avoid a "numbers game," has been reluctant to state a luminance-resolution figure for Hi8. However, from the bandwidth specifications, I calculate a theoretical maximum luminance resolution for Hi8 of approximately 430 lines. This compares extremely favorably with the same calculations for standard 8mm, S-VHS, standard VHS, and Super-Beta, which have 265, 430, 235, and 260 lines, respectively. Since the potential luminance resolution of a TV broadcast or cablecast is about 336 lines, only three consumer-video formats can record a TV program with no major loss in picture detail: Hi8, S-VHS, and ED-Beta (which has a potential resolution of more than 500 lines).

This exemplifies the fixation of consumer-product companies on not-necessarily-relevant specifications, since the resolution performance of these three home VCR systems *exceeds* that obtainable from all present-day professional analog-videotape formats, including $\frac{3}{4}$ -inch U-Matic, 1-inch type C, $\frac{1}{2}$ -inch Betacam, Betacam SP, and $\frac{1}{2}$ -inch M-II. These systems have resolutions of around 330 lines (360 lines for Betacam SP and M-II), which is all that is really needed for any program intended for broadcast. Where the pro systems excel is in areas less glamorous to the average consumer, but which are important to pro applications and which should be equally so to videophiles. Such specs as signal-to-noise ratio (S/N), for both luminance and chrominance, and color resolution are generally better with the pro formats.

Because Hi8's color-encoding system is unchanged from the standard 8mm technique, what color-noise improvements there are with Hi8 equipment probably stem from the new tape required to record Hi8 signals. Sony has introduced two tapes for use with Hi8 equipment: an evaporated-metal cassette and an improved metal-particle formulation (\$22 and \$16 for 120-minute lengths,

respectively). The evaporated-metal tape—the first of its kind on the market—is said to provide 5-dB-higher carrier output than a standard 8mm metal-particle tape, and the Hi8 metal-particle is 3 dB better. These figures can be translated more or less directly into video S/N improvements of equivalent magnitude.

And the net result of all these changes? An extremely good-looking picture. In a private demonstration of the new Sony equipment, a recording of a resolution-wedge test pattern showed the VCR had approximately 400 lines of resolution. Luminance and chrominance noise were noticeably lower than in the standard 8mm format. With evaporated-metal tape, much of the resolution and noise-level improvements carried over to the LP (four-hour) speed.

My viewing was done on a monitor having separate luminance and chrominance inputs in the form of a multipin Y/C connector as used on Super VHS units. The availability of Y/C connections on Hi8 products not only reduces such cross-interference between luminance and chrominance with Hi8 tapes, but improves standard-8mm playback as well. At the private demo, I just happened to have with me a standard-8mm recording of a "color bars" test signal. When playing this tape, luminance/chrominance artifacts such as "hanging dots" and "dot crawl" were visible when the Hi8 components' standard (composite) video outputs were used but were totally eliminated when their Y/C connectors were employed.

Such picture improvement during playback of old-format tapes is also available through S-VHS, which is undoubtedly the home video system posing the most direct competition to Hi8. While I'll have to withhold many of my Hi8-vs.-S-VHS comments until I can perform a controlled comparison, I can safely state that Hi8 picture quality is at least comparable to that obtainable with Super VHS.

Nevertheless, in one area S-VHS is still ahead: editability. Because of their high picture quality, S-VHS and Hi8 obviously have immense appeal to high-end video enthusiasts and video semi-pros. S-VHS is now being promoted to video pros, and a wide range of editing products is available for the system, including, most critically, S-VHS recorders capable of both synchronization with external equipment and frame-accurate editing. Sony's new EV-S900, despite its panoply of cueing and editing capabilities, cannot be locked to an external sync signal, nor can it be used for frame-accurate editing. Since these two abilities are absolute requirements for full creative use of a videotape medium, I certainly hope that at least one future Hi8 deck will incorporate them. Then, accurate editing—combined with Hi8's extremely high image quality and the 8mm system's already high audio quality, compact size, and long recording time—should give S-VHS a very good run for its (and your) money. □

Report preparation supervised by Michael Riggs, David Ranada, Beth C. Fishkind, Robert Long, and Edward J. Foster. Laboratory data (unless otherwise indicated) is supplied by Diversified Science Laboratories.

Test Reports

Some years ago, I made the rounds of the major Scandinavian audio companies, attempting to answer the question "How come high fidelity design in this corner of the globe is so individual—so free from the me-too syndrome that dominates componentry in the rest of the world?" What answers I found had little substance, though I had

FM with the last-tuned station playing. This already poses a minor problem in that output from the tuner section is relatively high; if you were last playing, say, LPs—particularly if your cartridge's output is unusually low—you may find the level annoyingly loud. But you soon learn to preset the volume while the receiver is muting.

Tandberg TPR-3080A FM Receiver



DAVID A. WAGNER

a great time looking for them. And still I wonder: How come?

The Tandberg TPR-3080A is radical—unlike any other receiver I know of. In fact, the only model that it resembles at all is its sibling tuner (TPT-3031A, reviewed December 1988), with which it seems to share many a chromosome—to say nothing of circuit boards. Familiarity with no other design will prepare you for the way the 3080 works, so if you disdain to read instruction manuals, be forewarned.

Once an initial, 15-second muting period is over, the receiver comes on set to

Initially, an F appears in the small window at the left of the front panel. The F remains while you're tuning by frequency (either manually or with the automatic-seek option) and is replaced by a preset number when you step through the 16 options. If you press STORE once, a preset number shows up to indicate which slot the tuned frequency will be stored in. A second press—to confirm that this is the preset you want to use—stores the frequency and puts a P in the window. From this, it appears that F is for frequency and P for preset, though I can't find these mnemonics so defined

Dimensions: 17¼ by 5 inches (front), 13¾ inches deep plus clearance for controls and connections.

AC Convenience Outlets: None.

Price: \$1,995; optional RMK-3080 rack-mount kit, \$150; optional rosewood endpieces, \$75.

Warranty: "Limited," one year parts and labor.

Manufacturer: Tandberg Audio A.s., Norway.

U.S. Distributor: Ortofon, Inc., 122 Dupont St., Plainview, N.Y. 11803.



COMPROMISING WITH YOUR TAPE IS LIKE COMPROMISING WITH ANY OTHER COMPONENT IN YOUR SYSTEM.

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anywhere in the otherwise fine manual.

The front-panel controls use stepper buttons, whereas most designs would use numerical keypads or rotary selector switches. You must step upward or downward to move from one preset to another, for example. The buttons for source selection step in one direction only: FM, aux, CD, Tape 1, DAT/video (that is, Tape 2), phono, and back to FM. Since there are separate buttons (and LEDs to indicate which sources have been chosen) for the listening (monitor) source and that for recording, you can listen to one while you record another as well as dub in either direction between the two tape options. If you set the switches to dub onto the source deck, no feedback occurs—presumably because the receiver's internal switching logic prevents it. Trying to use the monitor stepper for tape/source comparison purposes, however, is awkward at best. For such real-time comparisons, set the recording stepper to the source, the monitor stepper to the deck, and use the deck's own source/tape-monitor switch.

The deployment of the round stepper buttons and those used as switches runs somewhat against the intuitive grain, though it's easily mastered. The source and monitor steppers are grouped with a tone-defeat button (which is engaged at power-on), while the tone controls themselves are beneath the tuning buttons far-



The RC-3000 remote is supplied with the 3080.

ther to the right and are undifferentiated from the balance knob beyond them.

The first of the tuning buttons engages the mono mode and doesn't influence other sources. Next is a button for interstation mute, which is normally on. (There is no output-attenuating "mute," although the speaker buttons—for two pairs—can be used to kill it altogether.)

The remainder are for up and down search and for manual/automatic mode.

The window above these buttons displays frequency, which advances (or retreats) in half-channel (0.1-MHz) steps. The second decimal place in the display, which remains at zero in receivers sold here, allows for the 0.05-MHz stepping

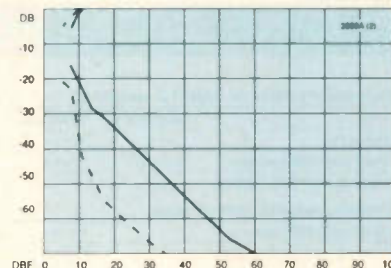
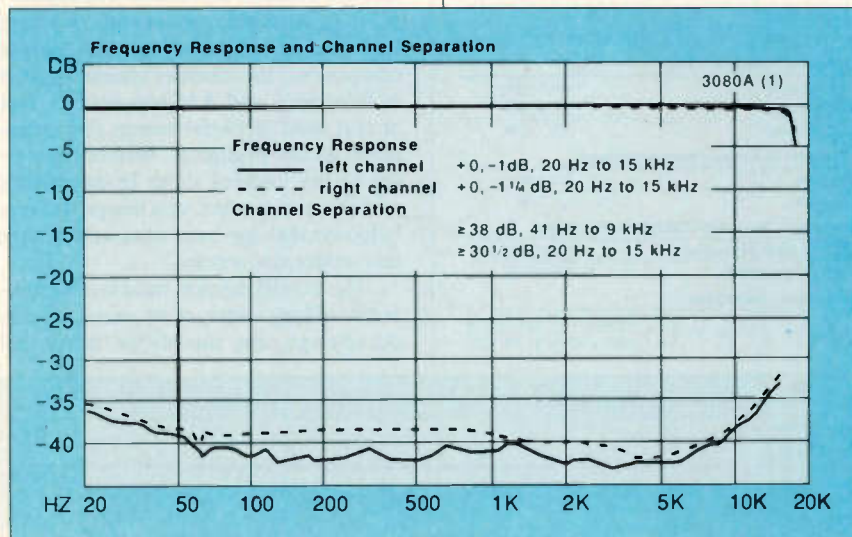
necessary in countries where narrower FM channel assignments exist. Two on/off indicators in the same window light up for a center-tuned channel and for a detected stereo subcarrier. The third indicator, marked "signal," fades with weak signal strength, though I found it to be relatively unhelpful for antenna orientation.

The RC-3000 wireless remote (powered by four AAA cells) supplied with the 3080 is the same as that provided with the 3031A tuner; it also can control a Tandberg preamp, cassette deck, and CD player. Its keypad enables direct entry of preset numbers. In addition to tuner functions (bidirectional seek and manual tuning and interstation muting), it adjusts the volume, switches the tone defeat, and steps the source selectors. The listening source can be chosen by pressing the left end of a rocker bar; to avoid accidents while a recording is in progress, the recording source can be altered only by pressing the opposite end of the bar plus a separate recording switch.

The antenna input accepts slip-on 75-ohm coaxial connectors but not the threaded F connectors that are standard in the United States. Tandberg supplies a balun adapter for 300-ohm twinlead only. The MC phono inputs are supplied with shorting jumpers to minimize noise pickup; you can use either these pin jacks or those for an MM cartridge, but not both simultaneously. AC convenience

Test Reports

FM Tuner Section

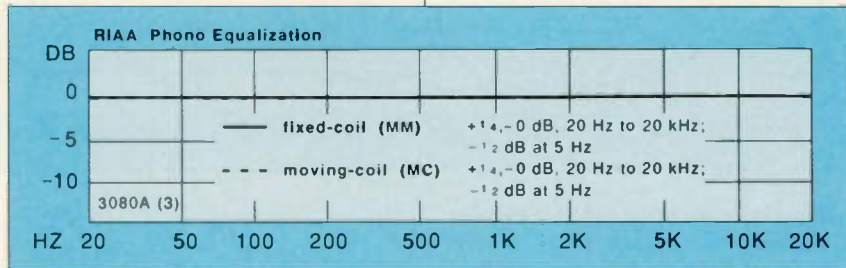


Stereo sensitivity (for 50-dB noise suppression)	36 1/4 dBf at 98 MHz, with 0.32% THD+N (37 dBf at 90 MHz, 36 dBf at 106 MHz)	
Mono sensitivity (for 50-dB noise suppression)	13 dBf at 98 MHz	
Muting threshold	20 1/2 dBf	
Stereo threshold	see text	
Stereo S/N ratio (at 65 dBf)	70 3/4 dB	
Mono S/N ratio (at 65 dBf)	74 3/4 dB	
Capture Ratio	1.0 dB	
Selectivity		
alternate channel	61 1/4 dB	
adjacent channel	4 3/4 dB	
Harmonic Distortion (THD+N)		
	stereo	mono
at 100 Hz	0.19%	0.19%
at 1 kHz	0.07%	0.05%
at 6 kHz	0.09%	0.08%
Stereo Pilot Intermodulation	0.09%	
Intermodulation Distortion (mono)	0.03%	
AM Suppression	67 dB	
Pilot (19-kHz) Suppression	70 dB	
Subcarrier (38-kHz) Suppression	> 105 dB	

Test Reports

Amplifier Section

Rated Power	
8 ohms	19.0 dBW (80 watts)/channel
4 ohms	20.0 dBW (100 watts)/channel
Output at Clipping (at 1 kHz; both channels driven)	
8-ohm load	19.9 dBW (98 watts)/channel
4-ohm load	21.1 dBW (130 watts)/channel
Dynamic Power (at 1 kHz)	
8-ohm load	20.8 dBW
4-ohm load	22.5 dBW
2-ohm load	23.3 dBW
Dynamic Headroom (re rated power)	
8 ohms	+ 1.8 dB
4 ohms	+ 2.5 dB
Harmonic Distortion (THD; 20 Hz to 20 kHz)	
at 19.0 dBW (80 watts)	≤ 0.039%
at 0 dBW (1 watt)	≤ 0.016%
Frequency Response	
	+0, -1/4 dB, < 10 Hz to 48 kHz
	+0, -3 dB, < 10 Hz to 190 kHz



Sensitivity & Noise (re 0 dBW; A-weighting)

	sensitivity	S/N ratio
aux input	13 mV	80 3/4 dB
fixed-coil (MM) phono	0.15 mV	65 dB
moving-coil (MC) phono	11 μV	72 1/4 dB
Phono Overload (1-kHz clipping)		
fixed-coil (MM) phono	50 mV	
moving-coil (MC) phono	3.6 mV	
Input Impedance		
aux input	11k ohms	
fixed-coil (MM) phono	49k ohms; 120 pF	
moving-coil (MC) phono	150 ohms	
Output Impedance (to tape)		
from aux input	2,400 ohms	
from phono inputs	2,400 ohms	
from tuner section	3,200 ohms	
Damping Factor (at 50 Hz; re 8 ohms)	260	
Channel Separation (at 1 kHz)	74 dB	

outlets, which are outlawed in some countries, are omitted. The speaker connections are heavy, screwdriver-driven fittings that work best with large spade lugs but will accept bared leads.

It should come as no surprise that the tuner performs very much like the TPT-3031A—which means that it is very fine indeed. Channel separation was measurable, if not audibly, better and distortion and noise a hair lower in the separate component; the receiver squeaks past it in selectivity and AM suppression. But at this level of performance, the differences all are negligible. Without resorting to any folderol about IF-bandwidth switching or the like, this design delivers behavior that can bear comparison with any model at any price.

The 1.0-dB capture ratio is a particularly striking index of its excellence. A decade ago, any top-of-the-line model

tion, if you want it, can be constructed via the tone controls; no volume-related adjustment is offered.

The amplifier section is altogether innocent of negative feedback, according to Tandberg. This offers no opportunity for the usual mechanism blamed for creating transient intermodulation and related distortions, but it does require that the amplifier circuitry establish its own electrical equilibrium before output is enabled; otherwise, surges or DC voltages (ordinarily corrected instantaneously by the feedback) could prove worrisome. That is, in fact, the reason for the automatic muting period at power turn-on.

The way in which the power measurements rise with decreasing load resistance is a reassuring index of ability to cope with low-impedance speakers, and the actual power figures attained are more than ample for a receiver. And, though it's almost gilding the lily to say so, listening quality proved excellent throughout the tests.

In sum, the individuality of the 3080A is more than a matter of mere quirkiness: It represents a vision of what fine listening should be. The engineering is, for the most part, extremely polished and the matrix in which it is served up is exceptionally uncluttered. Competing models tend to come on like adult Busy Boxes by comparison, and seldom sound as good for all their Technicolor kitsch.

Robert Long

would have been in this ballpark. Today, with all the emphasis on extra features, we are asked to accept capture ratios of 2 dB and greater, even in very pricey equipment, although a few premium tuners and even an occasional receiver do come in near 1 dB.

The phono section's frequency response resembles that of the tuner in being flatter than most of its ilk. With either input pair, the curves exhibit a broad treble rise of as much as 1/4 dB and an even more insignificant one in the bass. There is no infrasonic filtering, so be sure to choose your arm-cartridge match carefully. The dynamic range of the phono section is arguably the least impressive element in the whole receiver, but it proved no practical limitation with the fairly typical equipment I played through it.

The tone controls are quite well behaved. The bass peaks at above 35 Hz for maximum boost and bottoms below 20 Hz, with the maximum effect changing in frequency between these extremes, depending on the degree of control rotation. The adjustment range runs over ±15 dB at 50 Hz. The treble curves are a little more symmetrical about the 0-dB axis and yield maxima of a little over ±10 dB at 20 Hz. Loudness compensa-

ABOUT THE dBW

We currently are expressing power in terms of dBW—meaning power in dB with a reference (0 dBW) of 1 watt. The conversion table will enable you to use the advantages of dBW in comparing these products to others for which you have no dBW figures.

WATTS	dBW	WATTS	dBW
1.0	0	32	15
1.25	1	40	16
1.6	2	50	17
2.0	3	63	18
2.5	4	80	19
3.2	5	100	20
4.0	6	125	21
5.0	7	160	22
6.3	8	200	23
8.0	9	250	24
10.0	10	320	25
12.5	11	400	26
16.0	12	500	27
20.0	13	630	28
25.0	14	800	29

It's funny how a knack for making one product gets lodged in a specific geographic area, rather like a wildflower strain, and continues to flourish there over many years. Cambridge, Mass., has long been a breeding ground for loudspeaker companies, just as Cambridge, in England, has harbored electronics manufacturers. And Scotland—a country with no other outstanding ties to audio that I know of—has been astonish-

from a compliant belt, to isolate it from any motor-generated vibration. On the platter is an antistatic, antivibration mat with a surface that might be described as grainy: not ribbed, but not quite smooth, either. The Enigma tonearm is a straight tubular design with provisions for mounting a standard (as opposed to P-Mount) cartridge, counterweight tracking-force adjustment, and spring-loaded adjustable antiskating. A damped cueing

Ariston Icon Turntable



DAVID A. WAGNER

ingly prolific in single-play turntables. Not only has it produced many companies and designs, but it has come up with some of the most interesting and best, to boot. And among these, a relatively unpretentious, though certainly not unworthy, entry is the Ariston Icon.

The Icon is essentially a refinement of Ariston's least expensive turntable, the Q Deck, at very little increase in price. It incorporates a damped base (or plinth, as the British call it) with four isolation feet and a two-speed DC drive motor, a sub-chassis holding both the turntable bearing and the arm mounting and isolated from the main chassis by a three-point suspension, a tonearm, a clear dust cover, and a power supply.

The heavy aluminum platter is driven

lever is supplied as well; so is a pre-mounted Ortofon OM-20 cartridge in the standard version, although you can also buy the Icon without pickup.

All but the power supply may be considered "classic" elements for a precision single-play model. To minimize the possibility of induced AC hum in the output signals, Ariston has moved the power supply out of the main chassis and put the transformer and rectifier out near the power socket, in the form of a standard molded 12-volt supply (made for Ariston in Taiwan), such as you might get with a portable cassette deck or radio. Thus, only DC enters the chassis to drive the motor. Speed regulation is electronic; the belt doesn't change pulleys when you switch between 33 $\frac{1}{3}$ and 45 rpm. ►

Dimensions: 16 $\frac{1}{4}$ by 13 $\frac{1}{4}$ inches (top), 5 $\frac{1}{4}$ inches high with cover closed; additional 9 $\frac{3}{4}$ inches above and 2 $\frac{1}{2}$ inches at back required to open cover fully.

Price: \$520 with Ortofon OM-20 cartridge; \$450 without cartridge.

Warranty: "Limited," two years parts and labor.

Manufacturer: Ariston Acoustics, Ltd., Scotland.

U.S. Distributor: Ariston Acoustics, Suite 309, Paramus Plaza IV, 12 Route 17 N., Paramus, N.J. 07652.

Test Reports

All measurements except effective tonearm mass were made with the supplied Ortofon OM-20 cartridge in place.

Speed Accuracy (105 to 127 VAC)

at 33 rpm	≤ 2.5% fast
at 45 rpm	≤ 0.4% fast

Wow & Flutter (ANSI weighted peak)

average	± 0.04%
peak	± 0.065%

Total Audible Rumble (ARLL)

	≈ -74 dB
--	----------

Effective Tonearm Mass

	≈ 11 1/2 grams
--	----------------

VTF-Gauge Accuracy

no measurable error to 2.0 grams	
scale reads 0.1 gram high at 2.5 and 3.0 grams	

Total Lead Capacitance

	220 pF
--	--------

Ariston evidently assumes—not unreasonably—that anyone choosing such a turntable will not be an unwashed novice. The brief owner's manual thus takes a good deal for granted (though what it does say is couched in clear, idiomatic English—without even a Scottish burr). For example, the bearing well into which the platter spindle must be inserted is fitted with a red plastic cap: an excellent idea to keep the oil, if any has been applied, from leaking during transit. Some turntables we've tested required a thorough cleaning before shipment between test sites, as well as relubrication each time they were set up. The Icon manual doesn't mention this cap, so dummies like me may mistake it for some sort of space-age, friction-free plastic bearing and attempt to insert the spindle into it.

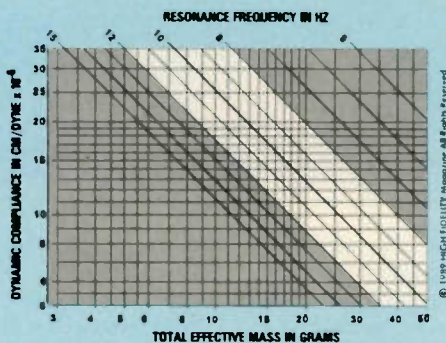
Actually, however, setup is very easy as long as you have some wits and keep them about you while you work. The main chassis is delivered with the tonearm (and the Ortofon OM-20 cartridge if, like us, you choose that option) in place and ready to go. All you have to do is remove a locking screw, reach through an access hole in the platter to hold the drive belt away from the drive surface, drop the platter spindle into the bearing well, place the belt over the drive pulley, and add the platter mat.

You're ready to go as soon as you balance the arm (including mounting the cartridge, if necessary, and adjusting its

overhang with the supplied gauge), plug the output of the DC power supply into the turntable base and its AC plug into a socket, and connect the phono leads and ground. You will also want to add the acrylic dust cover, but you'll have to puzzle out how the hinges are supposed to be oriented. They will only work one way, but the manual ignores the matter.

The finished ensemble is handsome and true to type. The one surprising touch is what looks like a piece of a squash ball at the front-left corner of the top plate. It is the speed-change switch, which works on the push-push principle to toggle between 33 1/2 and 45 rpm. And here we arrive squarely at the only area in which serious fault might be found with the design: For a turntable of this overall quality, measured speed is surprisingly wide of the mark, at least with our test unit.

The disparity is negligible at 45 rpm, where typical home AC voltages at the wall socket will yield a speed that's only about 1/4 percent fast. But 33 1/2, which surely will be of far more interest to purchasers of such a model, runs up to 2 1/2 percent fast—that is, about a quarter-tone sharp in pitch. Our normal criterion for this parameter is ± 1 percent. The actual measurements show that speed increases somewhat with voltage in each case; the 105-volt measurements both are 0.2 percent slower than those at 127



TONEARM/CARTRIDGE MATCHING GRAPH

By means of this nomograph, you can quickly and easily determine the compatibility of any cartridge and tonearm we have tested. Ideally, the arm/cartridge resonance frequency (indicated by the diagonal lines) should fall at 10 Hz, but anywhere between 8 and 12 Hz will assure good warp tracking and accurate bass response. (It is usually okay to let the resonance rise as high as 15 Hz, although we don't normally recommend this.)

Begin by looking up the weight and dynamic compliance shown in the cartridge report and the effective mass listed in the turntable or tonearm report. Add the weight of the cartridge to the effective mass of the tonearm to get the total effective mass. Then find the point on the graph where the vertical line for the total effective mass intersects the horizontal line for the cartridge's dynamic compliance. For a good match, this point should fall in the white region, between the 8- and 12-Hz diagonal lines.

You can back-figure compliances and effective masses for cartridges and tonearms tested before we began reporting these figures directly (in January 1983). For cartridges, look up the vertical resonance frequency (measured in the SME 3009 Series II Improved tonearm) and the cartridge's weight. Add 15 grams (the SME's effective mass) to the cartridge weight to get the total effective mass. Then find the intersection of the vertical line representing that mass with the diagonal line representing the measured resonance frequency. Now you can read the compliance from the horizontal line passing through the point of intersection.

For tonearms, look up the vertical resonance frequency as measured with the Shure V-15 Type III cartridge. Find the intersection of the diagonal line for that frequency with the horizontal line representing the Shure's dynamic compliance of 22.5 x 10⁻⁸ cm/dyne. Reading down the vertical line on which the point of intersection lies will give you the total effective mass of the arm with the Shure V-15 Type III mounted in it. Then subtract 6.3 grams (the weight of the V-15 Type III) to get the tonearm's effective mass.

Because of differences in measurement techniques, manufacturers' specifications for compliance and effective mass often differ from our findings and may therefore yield inconsistent results if used with this graph.

volts, with the 120-volt figures falling squarely in the middle.

How grievous a sin it is to reproduce music a quarter-tone sharp is very much a judgment call. Many users probably would notice no difference unless their attention were called to it in some way. Unfortunately, I became aware of the lab data before I had a chance to hear the turntable, and I couldn't shake the impression that records sounded subtly shrill or pushed on it. A/B turntable comparisons always are awkward (and, without *identical* cartridges and arms, invalid) and proved nothing, one way or the other. That is, the pitch difference can be heard, but the long-term impression it creates remains totally subjective. This fault, by the way, may result from a simple misadjustment of the motor-drive circuitry and may be specific only to our sample.

In all other respects, behavior is exemplary. Warped records play well, with no audible warp wow on any disc I tried. Tapping on the top plate with any reasonable force while a record is playing

produces no audible artifacts. As with any turntable I've tried that had a unified arm-platter subchassis, heavy footfalls can induce wow or even mistracking if the floor beneath is (like mine) on the springy side, but I count this as a fault in turntable placement, rather than in the turntable itself. And, whether or not it was a result of the power-supply arrangement, I felt that bass frequencies were cleaner than I am used to hearing from an analog turntable.

Basically, the Icon is my kind of record player. Any automation more elaborate than the arm-lift-and-power-off at disc's end that the Icon supplies—mercifully welcome when you're unwilling or unable to do these things manually—can get in the way. And the more features and parts, the more opportunities for misbehavior and failure. The Icon is designed along time-proven lines and avoids the esoteric—and often extremely costly—means to grab attention employed by some other manual models in the much-abused name of technological progress.

Robert Long

In NAD's eyes, better doesn't necessarily have to mean bigger, and its MR-13 13-inch monitor proves it. Although there is no dearth of full-featured large-screen and projection monitor/receivers on the market, it's pretty slim pickings when it comes to models smaller than 19 inches. Most are simple, low-cost TVs and lack the features videophiles expect: direct-video inputs, cable compatibility, stereo reception, and that video sine qua non, a high-quality picture. If you haven't the floor space or viewing distance for a large-screen TV but you still want top performance and would appreciate a small, lightweight monitor, NAD's MR-13 will definitely be of interest.

The MR-13 mates a 9-MHz TV chassis to a 13-inch, 0.6mm-pitch, black-matrix picture tube that NAD says will deliver a theoretical horizontal resolution of 470 lines. Our calculations show, however, that such a dot pitch can deliver a maximum of about 330 lines of horizontal luminance resolution. (Maximum resolution equals 15.24 times the diagonal screen width in inches divided by the dot pitch in millimeters.) But that's also about the limit of what is possible with a broadcast NTSC or Super VHS signal, and is far more than any standard-format VCR will deliver. The point is made in any case: The MR-13's small picture tube need not limit picture detail, though you might have to sit clos-

er to the screen to see it.

To make optimum use of this potential, the MR-13 is outfitted with both standard and S-video inputs that, oddly, are independently selected. That is, if you intend to use the MR-13 with two direct-video sources, one must be an S-video source and the other a "standard" (composite-video) source. For the foreseeable future, however, many videophiles are more likely to have two composite-video sources that they would like to use with the MR-13, and that will mean either much patching and repatching of cables or the purchase of an outboard video switchbox.

The MR-13's phase-locked-loop TV tuner covers 139 channels, including the mid-band, super-band and hyper-band cable channels as well as all VHF and UHF broadcast channels. The tuner provides MTS-stereo reception including decoding of the SAP (Separate Audio Program) channel, if desired. There's a low-power (4 dB, or 2.5 watts, per channel) internal stereo amplifier that can be switched between the unit's built-in speakers or an external set that you would connect to the push-to-insert connectors on the rear panel.

Two sets of audio line outputs are provided. On one, the level and response are not affected by the MR-13's volume, bass, and treble controls; on the other, they are. The latter outputs are meant for connection to an external power

NAD MR-13 Monitor/Receiver

Test Reports

amp; the former can be used for recording. A single pin-jack video output also is provided for recording broadcasts or for dubbing from a direct-video source (such as a videodisc player).

Once you have selected the desired cable-reception mode (from among standard, HRC, or IRC options) and programmed the channel memory (using the auto-programming controls hidden behind the MR-13's flip-down front door), there is no need to touch the on-chassis controls again. Operation can be

on the remote are the power switch, the TV/video control (which cycles through the TV-tuner, composite-video, and S-video sources), the MTS button (cycling through stereo, SAP, and mono reception), and the volume and channel up/down buttons. Adjustments to bass, treble, and audio balance, as well as to the five standard video parameters (contrast, brightness, sharpness, color, and tint) are made via five buttons on the remote or by a similar control arrangement behind the front-panel door. To



DAVID A. WAGNER

Dimensions: 15¼ by 13¾ inches (front), 14½ inches deep.

Price: \$429.

Warranty: "Limited," one year parts and labor.

Manufacturer: Made in Japan for NAD (USA), 575 University Ave., Norwood, Mass. 02062.

controlled entirely from the supplied wireless remote. Many controls—among them, full audio muting, the timer/clock functions (which can control the sleep timer: up to three hours in ten-minute increments), selection of broadcast or cable reception, RECALL (which displays the time and selected channel number on the screen), REVIEW (which toggles between the currently and previously selected channels), and the channel-number buttons (which give you direct access to any channel)—are available only on the remote.

Available on the front panel as well as

help you make these adjustments, the settings are shown by a bar graph on the screen and the appropriate label. A reset control returns all adjustments to the factory settings, which correspond to midpoint values for all functions except contrast, which is set at the factory to maximum (more about this later). In short, you are getting a great deal in such a small monitor.

In Diversified Science Laboratories' bench tests, the MR-13 tuner proved itself, on the whole, at least the equivalent of other fine video tuners. Video response extends beyond the color-burst

frequency for a potential resolution of approximately 300 to 320 lines—again, essentially as much as one can expect from the NTSC system. Luminance level is about 1 dB high, chrominance level 2½ dB low; both are well within acceptable limits. Gray-scale linearity is perfect (an extreme rarity), and the reported chroma differential-gain error occurs entirely at the brightest scene level, where it is unlikely to be offensive. The chroma differential-phase error is distributed throughout the different luminance steps but is acceptably low. Chroma phase accuracy, while not the finest we've measured, also falls well within acceptable bounds.

Audio response is reasonably flat but less extended than on a number of other tuners. The sharp rolloff above 11 kHz without doubt helps the MR-13 achieve excellent rejection of the horizontal-scan component. The bass control provides a ±9 dB range at 50 Hz, the treble control about ±7½ dB at 10 kHz. Audio signal-to-noise ratio is very good with typical video images, but, as usual, there is some buzzing with highly repetitive test patterns. Levels and impedances of both output pairs should present no problems whatsoever when you are connecting the MR-13 to ancillary equipment.

The picture tube used by NAD is said to have a wider color range, particularly in the tint and saturation of the reds and greens, than that provided by conventional phosphors. I concur. The reds and greens are substantially deeper (less orange and lime-colored, respectively) than on typical monitors. The blues, too, are excellent, but that's true more often than not with recent tubes. All three basic rasters are perfectly pure.

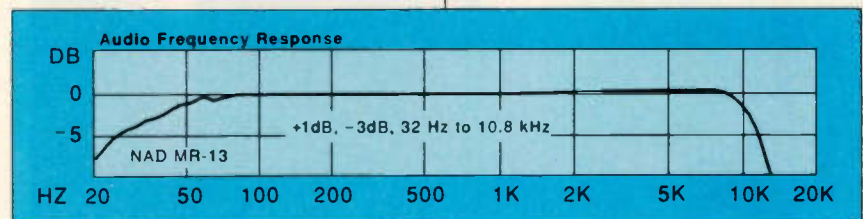
Our sample of the MR-13 had very little overscan, and the picture was well centered, especially along the horizontal axis. The convergence was close to perfect over most of the screen; only in the extreme lower-right corner did misconvergence exceed 1 millimeter. Geometric linearity was essentially perfect along both axes: Lines were straight and circles round everywhere on the screen. Vertical interlace was essentially perfect, and no signs of ringing on abrupt black-to-white transitions could be seen, even with NAD's use of "second-differential edge enhancement."

Black retention is excellent, and the gray scale is more uniform than I've seen on many larger monitors. Especially impressive is how "neutral" the grays were. They leaned neither toward blue (too cold) nor toward red (too warm). Chroma differential gain was equally good, although I did note a slight color shift

(otherwise known as chroma differential-phase error) at the lowest two luminance levels.

NAD has chosen the maximum contrast level as its "factory setting." This does provide a snappy, punchy picture that immediately grabs your attention in a showroom, but it leads to a certain amount of "blooming" (1 to 1½ millimeters) that limits the horizontal resolution to approximately 220 lines and effectively renders the sharpness control useless. In fact, with a multiburst test pattern, picture resolution actually *improved* as the sharpness was reduced—because doing so lowers the high-frequency drive level and reduces blooming. Setting the contrast control to midscale eliminates the blooming almost completely (even with brightness advanced to three-quarters maximum) and improves the resolution to approximately 270 to 300 lines, depending upon whether the test is made with a multiburst generator or a wedge test pattern.

Despite the blooming with maximum



contrast, I like this set. The color rendition is absolutely superb: well saturated when it should be, with nice pastels when they're in order. Flesh tones are exceptionally realistic, and the pure reds and greens are noticeably better than average. When I reduced the contrast to midscale, the resolution seemed to improve. Then again, I knew that it would, and I'd be hard pressed to say that if I hadn't known how blooming and resolution were interrelated, I wouldn't have preferred NAD's factory setting. Chalk up another winner for NAD.

Edward J. Foster ▶

REPORT POLICY

Equipment reports are based on laboratory measurements and controlled listening tests. Unless otherwise noted, test data are provided by Diversified Science Laboratories. The choice of equipment to be tested rests with the editors of High Fidelity. Samples normally are supplied on loan from the manufacturer. Manufacturers are not permitted to read reports in advance of publication, and no report or portion thereof may be reproduced for any purpose or in any form without written permission of the publisher. All reports should be construed as applying to the specific samples tested. High Fidelity and Diversified Science Laboratories assume no responsibility for product performance or quality.

Video Monitor Section

All measurements were made through the composite (direct) video inputs.

Horizontal Resolution

with factory control settings	≈ 220 lines
with contrast control at midpoint	≈ 270 lines

Interlace	perfect
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Overscan

horizontal	≈ 6%
vertical	≈ 5%

Centering

horizontal	left ≈ 0.5%
vertical	down ≈ 1.2%

Blooming	see text
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TV Tuner Section

All measurements were taken at the direct audio and video outputs.

Audio S/N Ratio (mono; A-weighted)

best case (no color or luminance)	57 dB
worst case (multiburst pattern)	23 dB

Residual Horizontal-Scan Component (15.7 kHz)	-55 dB
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Maximum Audio Output (100% modulation)

fixed output	0.46 volt
variable output	1.00 volt

Audio Output Impedance

fixed output	1,000 ohms
variable output	820 ohms

Video Frequency Response

at 500 kHz	+ 1/2 dB
at 1.5 MHz	flat
at 2.0 MHz	- 1/2 dB
at 3.0 MHz	- 1 1/4 dB
at 3.58 MHz	-3 dB
at 4.2 MHz	-20 dB

Luminance Level	11% high
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Gray-Scale Nonlinearity (worst case)	none
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Chroma Differential Gain	≈ 16%
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Chroma Differential Phase	≈ ±6°
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Chroma Error

	level	phase
red	-2 dB	+ 2°
magenta	-2 1/4 dB	+ 4°
blue	-2 dB	+ 2°
cyan	-2 1/2 dB	+ 8°
green	-2 1/4 dB	+ 7°
yellow	-2 1/4 dB	+ 8°
median error	-2 1/4 dB	+ 5°
uncorrectable error	± 1/4 dB	± 3°

Pioneer TZ-9 Loudspeaker



DAVID A. WAGNER

Dimensions: 14½ by 48¾ inches (front), 20¾ inches deep.

Price: \$4,000 per pair.

Warranty: "Limited," two years parts and labor.

Manufacturer: Pioneer Electronic Corp., Japan.

U.S. Distributor: Pioneer Electronics (USA), Inc., 2265 E. 220th St., Long Beach, Calif. 90810.

The Elite line, of which the TZ-9 is the flagship loudspeaker, represents the cream of Pioneer's crop. As with other units in the series—for example, the CD player's "pioneering" use of linear 18-bit converters—the TZ-9 incorporates the latest in high-tech design.

As seems to be much more common overseas than in the United States, Pio-

internal loss of titanium.

The low frequencies also receive unusual treatment, though in this case the innovations are in construction rather than materials. One of the reasons the system has two 10-inch cone woofers (with bass-reflex loading) is to reduce cabinet vibration. The two drivers are mounted directly back-to-back on the front and rear panels, and a rigid metal bar runs between their magnet assemblies. This bracing technique is said to reduce unwanted cabinet vibrations. The woofers are driven in-phase—which means they move in opposite directions from each other. With the TZ-9, low-frequency distortion is therefore reduced not by cancellation of even distortion harmonics (which would be the result if the woofers were driven out-of-phase), but rather by the reduced excursion each cone must undergo in order to generate a given sound level.

Additional measures have been taken to reduce cabinet vibration and driver-to-driver interference. One-inch-thick paneling is used in the enclosure, with the exception of the 1¼-inch front panel. The midrange and tweeter are mounted on their own 1-inch internal baffle to isolate them from woofer vibrations and thus reduce intermodulation and Doppler effects. Although the corners of the cabinet are cut away and rounded off to reduce diffraction effects, all this wood still leads to a very massive enclosure: 143¼ pounds out of the carton. I recommend you unpack a TZ-9 by laying the carton on its side, slitting open the *bottom*, and carefully lifting the speaker up and the carton off the speaker. I, of course, discovered the advantages of this method by opening the *top* of the carton—which led me to a cycle of exhausting end-over-end enclosure flips.

Diversified Science Laboratories' test data on the TZ-9's impedance is at variance with Pioneer's 4-ohm rating. True, the impedance does dip to that figure at around 120 Hz and down to 4.8 ohms at 30 Hz. But the impedance averages 8.7 ohms from 20 Hz to 20 kHz and 7.5 ohms between 250 Hz to 6 kHz. Unless you plan to run the TZ-9s in parallel with speakers having low impedances at 30 and 120 Hz, the Pioneers should be relatively easy loads for any good amplifier.

The TZ-9, like its Pioneer professional studio-monitor bretheren, can play *loud*. Not only is its sensitivity on the high side, making it easier to drive to room-filling levels with a moderate-powered amplifier, but when the TZ-9 is pushed hard, the speaker's distortion remains—and sounds—quite low. The

neer has here attempted to gain audible advantages through materials engineering. Specifically, the diaphragms for the 1-inch dome tweeter and 2½-inch midrange driver are made of a new substance: ceramic graphite. This is produced by baking an "appropriate organic material," as an engineering white paper puts it, together with graphite. The resulting blend—said to be 99.99-percent pure carbon—is claimed to possess the three main desiderata of a high-frequency driver material: It is light (for high efficiency), rigid (for a wide frequency range), and has some internal loss (so as not to resonate). Pioneer says that ceramic graphite has 20 times the bending stiffness and twice the

lab's 90-dB sound-pressure level (SPL) test measured distortion through the whole audio band of less than 1 percent (except for around 40 Hz, where it was about 1½ percent). Even at 100-dB SPL, the highest test level, distortion above 100 Hz remained below 1 percent (except for a peak of 2¼ percent around the lower crossover frequency). Probably because of the dual-woofer arrangement, low-bass distortion at 100-dB SPL was also excellent (less than about 2½ percent from 100 Hz on down to 32 Hz).

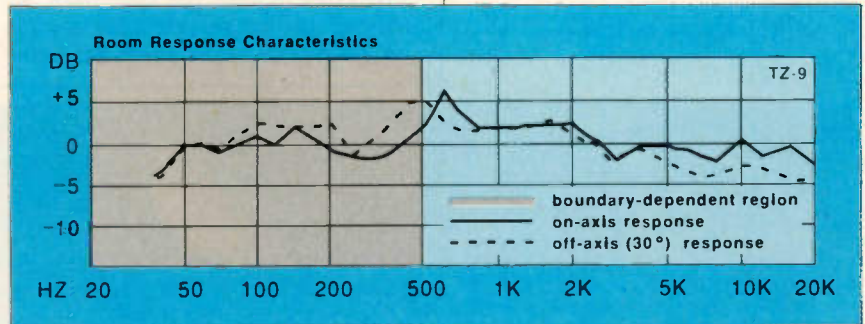
In the 300-Hz tone-burst test, the TZ-9 accepted the full output of the lab's test amplifier (27.6 dBW, or 578 watts) and produced a calculated peak sound-pressure level of 120 dB at 1 meter. Needless to say, I never managed to make the speaker run out of steam before my ears did. Pioneer gives the "rated power" for the TZ-9 at 60 watts per channel, which I think is just about right (you can go slightly lower if the amplifier has unusually good dynamic headroom).

Pioneer recommends placing a TZ-9 at least 20 centimeters (about 7¼ inches) away from any wall, and DSL followed the tip by placing it 31 inches away. The resulting on-axis response trace is quite smooth. Indeed, the dip at around 300 Hz commonly seen in our speaker test data is practically nonexistent—a felicitous by-product of the placement of the two woofers, in all likelihood. Except for a 5-dB peak around 500 Hz, the on-axis response can be characterized as $\pm 2\frac{1}{2}$ dB from 40 Hz to 20 kHz. There is a definite overall downward slope, however, from 500 Hz to 20 kHz. Off-axis, the results were less good, with the reappearance of a slight 300-Hz dip and a distinctly rough rolloff from the midband on up.

This rolloff, which indicates reduced high-frequency dispersion, seems to be a deliberate design choice. Page 1 of the TZ-9's manual, under the heading "Adjusting the volume of medium and high-pitched sound (in order to obtain a more natural sound quality)," states that "As one moves away from directly in front of the speaker [sic], the sound decreases." And so it does: This is one "speaker" with a definite "sweet spot." It is located approximately at ear level (when seated) *directly in front of* the speaker. For optimum sound quality with the TZ-9s, I found that they have to be aimed directly at the listening position. Doing otherwise somehow leads to a slightly boxy sound quality that is unseemly for a speaker in this price range. Also a factor is the variation in midrange frequency balance with listening height. This must stem in part from interference between

the midrange and woofer, which are separated by a considerable distance compared to the wavelength of sound at the woofer/midrange crossover frequency (at 600 Hz; the tweeter crossover occurs at 4 kHz). This driver configuration may also be responsible for the 500-Hz peak in the measured responses. During an in-store audition of the TZ-9, it is best to *sit down*.

Aside from these characteristics, the



sound, though not tonally neutral, is generally excellent. It is always "forward," but applies no artificial zing to massed classical strings—a critical test of overall balance. Voice reproduction was very good, with no boominess on spoken male voice: a result of the relatively flat response below 250 Hz. This response characteristic also generated no "disco boom," even with disco, which had impact but no annoying thumping. Low-bass extension is very good, and deep pipe-organ pedal notes (down to around 30 Hz) posed no problem. Imaging was very solid, though at times I felt that the high-frequency overtones were being pulled speakerward when they should have appeared, aurally, in the same image location as the corresponding fundamentals.

As good as it is playing classical music, I found the TZ-9s to be even better devices for playing nonclassical music, not unlike a studio monitor. In well-recorded pop material, the moderately restricted high-frequency dispersion seemed to enable higher volumes to be reached without harshness, enhancing the speaker's already impressive ability to play loud without distortion. This is a most desirable trait, and is not always found in similar models. Pioneer's white paper states that among the main design goals for the TZ-9 were (1) the capability to handle wide dynamic range digital-audio signals and (2) use of "the most advanced technology available." In these two goals, the company has succeeded admirably. The TZ-9 is an outstanding example of the state-of-the-art in Japanese speaker design. *David Ranada* ▶

Sensitivity (at 1 meter, 2.8-volt pink noise)

92 1/2 dB SPL

Average Impedance (250 Hz to 6 kHz)

7.5 ohms

Denon DCD-3520 Compact Disc Player

With a candor that's as refreshing as it is unusual, a statement in the press handout announcing the DCD-3520 Compact Disc player (and other models employing Denon's 20-bit Delta digital-to-analog converter) reads: "The real point is not how many bits you have, but how linear you can make the conversion process." Indeed. While the Bit Wars rage around it, Denon is one of the few companies to have taken to heart this basic truth. So although the fact that the 3520 uses 20-bit converters would make headlines

just independent rectification and regulation, as in some other units) for the analog and digital circuitry, which helps to isolate them from each other. And the Cannon-style (XLR) output jacks, for 600-ohm balanced bridges, are not only rugged and professional, but are unique, I believe, among the CD players we've tested.

For the average audio system, there are conventional pin jacks as well: two pairs. The output level of one is fixed; that of the other is adjusted at the same knob that determines the level fed to the



DAVID A. WAGNER

Dimensions: 17¼ by 5¼ inches (front), 13¼ inches deep plus clearance for connections.

Price: \$1,500.

Warranty: "Limited," one year parts and labor.

Manufacturer: Nippon Columbia Co., Ltd., Japan.

U.S. Distributor: Denon America, Inc., 222 New Rd., Parsippany, N.J. 07054.

elsewhere, here it's the care with which each converter is adjusted for linearity that is allowed to claim the limelight. In this, Denon's top model, not only is the most significant bit (MSB) hand-tuned, but so are the next three bits down—a degree of factory adjustment rarely encountered, even with those other players whose converter systems are designed to allow it.

The player is physically impressive, as well. It is exceptionally heavy—in part, because of metal plates that must be almost a quarter-inch thick, attached to the bottom panel of the chassis as part of an elaborate antivibration design. There are separate power transformers (not

front-panel headphone jack. There are also three digital outputs on the back panel. One is optical; two are electrical (each supplying both channels of data, of course), using gold-plated pin jacks like those for the analog signals but color-coded in orange instead of in red and white. You can leave these digital pin-jack outputs off or turn on either or both at a front-panel switch.

The features available on the front panel are divided into two classes: "normal" playback (the manual's term), using the readily accessible controls on the uncluttered upper panel, and "advanced" playback, using the controls behind a pop-down door along the bottom

of the panel. Anybody familiar with Compact Disc players will be able to operate the main controls without recourse to the manual, and most users should find these controls sufficient most of the time.

The advanced controls include keypad track seek; programming of as many as 20 selections; repeat (of a single track, the whole disc, a programmed sequence, or an A-B looping); auto-space (which adds a four-second pause between selections); recueing to a user-set point; time selection (by track/minutes/seconds) of start and stop points; and index seek. This last enables you to cue directly to the indexing within tracks on those discs that have it—which more would, if more players were equipped with this feature. You can also switch the display from elapsed time within the current track to remaining time within it or remaining time on the whole disc or programmed sequence. And—an elegant touch—it's possible to turn off the panel's time display, its track "calendar," or both, once you have completed your business with them.

The supplied RC-213 wireless remote, powered by two AAA cells, offers a full complement of these controls, including volume adjustment and the "advanced" functions. The remote also has an AUTO EDIT button that I can't find explained in the owner's manual. The infrared window on the handset's business end wraps around to the top and bottom

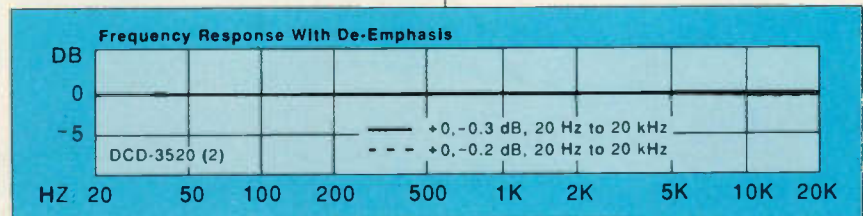
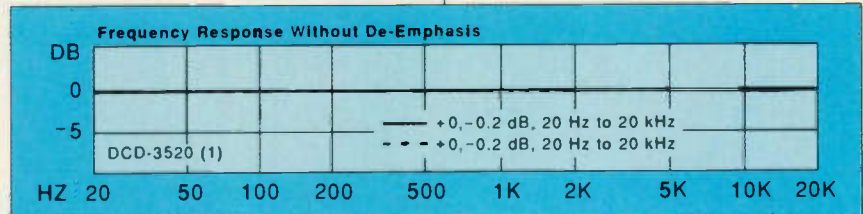


The 3520's supplied RC-213 remote unit

surfaces, evidently to prevent the vertical angle at which the remote is held from being significant.

With all Denon's talk, reluctant or not, of 20-bit operation, the first measurements to look at in this model are those for linearity. As advertised, they are superb. At medium-low levels, where

even some supertech linear 18-bit decoders in competing products we've measured are beginning to lose it, the error here stays unmeasurably low. It becomes (barely) measurable only at very low levels (-70 and -80 dB) and then actually becomes unmeasurable once again at the ultralow levels where uncorrected error in the MSB of competing models can make a shambles of the data. And with our sample of the 3520, even where the error is measurable it's utterly negligible. All premium CD players should be this good, but very few are.



Frequency response, too, is exemplary. The eight-times-oversampled filter (a proprietary Denon design) yields a very sharp cutoff just above 20 kHz. At 20 kHz there is essentially no attenuation at all, and only a tiny droop appears in the curves in the extreme treble, centered near 15 kHz. Among the distortion data, that for THD plus noise at 19 kHz and -24 dB stands out as being considerably worse than any other datum found in these tests; but at 0.052 percent it is still quite inaudible.

The remaining figures in our data column are simply too good to require further comment. Using the Pierre Véron test disc (which is a much more stringent test of error handling than the Philips), all disruptions up to 1mm were handled successfully, and only the minimum-pitch cut caused misbehavior even with 1mm dropouts.

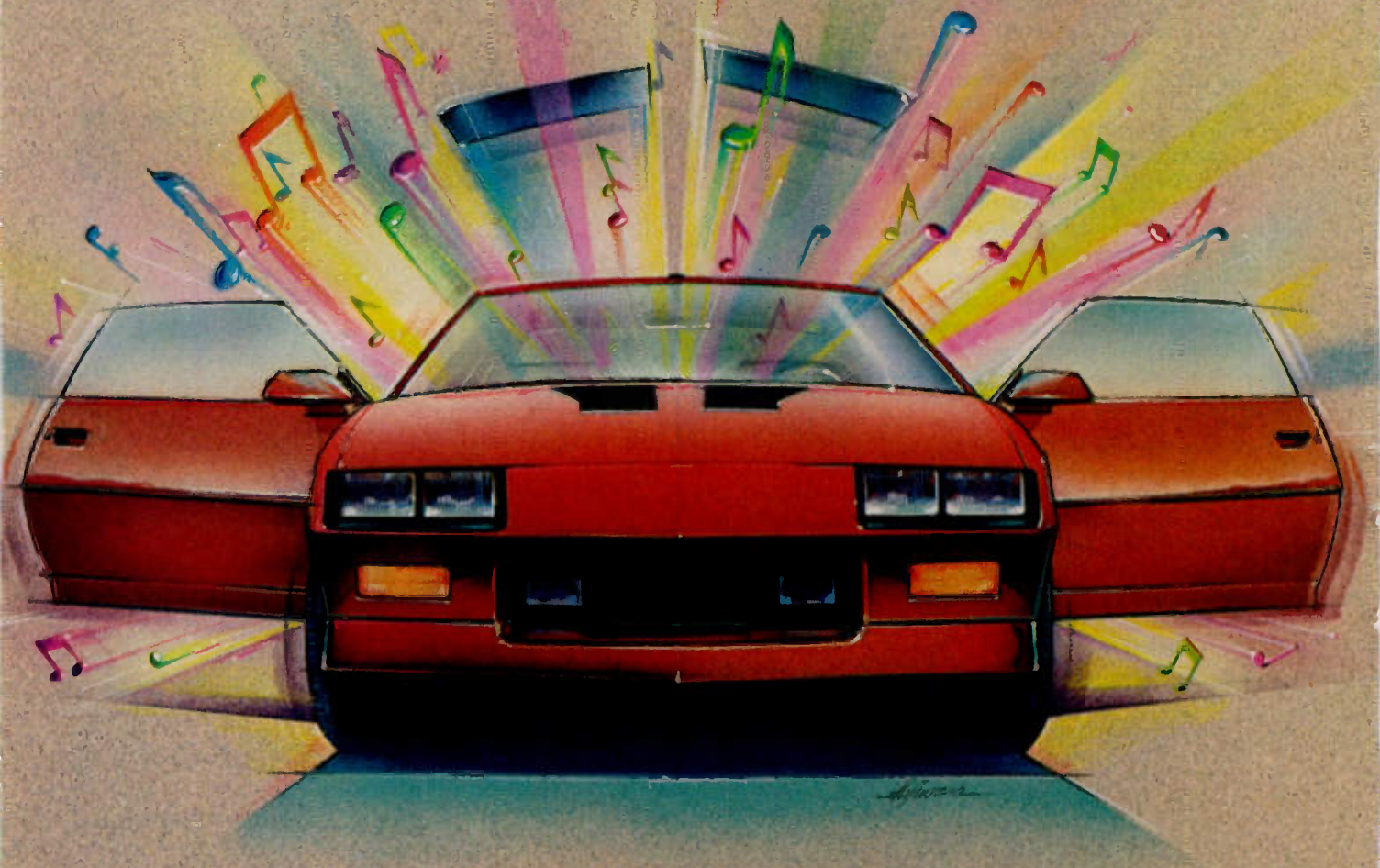
There are times when the race to ever higher levels of technology in the already high-tech CD medium strike me as sheer overkill. Denon, on the other hand, has done something truly significant with its technology in the DCD-3520. This is an exceptional Compact Disc player, and one that should satisfy all types of listeners, whether for its technical design as such, its wealth of features, or its sound quality.

Robert Long

All data were obtained using the Sony YEDS-7, CBS CD-1, and Philips 410 055-2 and 410 056-2 test discs.

Channel Separation (at 1 kHz)	115 ³ / ₄ dB
Channel Balance (at 1 kHz)	± 0.1 dB
S/N Ratio (re 0 dB; A-weighted)	
without de-emphasis	116 dB
with de-emphasis	116 dB
Harmonic Distortion (THD+N; 40 Hz to 20 kHz)	
at 0 dB	< 0.01%
at -24 dB	≤ 0.052%
IM Distortion (70-Hz difference; 300 Hz to 20 kHz)	
at 0 dB	0.025%
-10 to -30 dB	< 0.01%
Linearity (at 1 kHz; dithered below -60 dB)	
0 to -60 dB	no measurable error
at -70 dB	+0.1 dB
at -80 dB	+0.2 dB
at -90 dB	no measurable error
at -100 dB	no measurable error
Tracking & Error Correction	
maximum signal-layer gap	> 900 μm
maximum surface obstruction	> 800 μm
simulated-fingerprint test	pass
Maximum Output Level	
fixed line output	2.14 volts
variable line output	2.13 volts
balanced line output	2.19 volts
headphone output (at clipping)	6.41 volts
Output Impedance	
fixed line output	300 ohms
variable line output	325 ohms
balanced line output	600 ohms
headphone output	105 ohms

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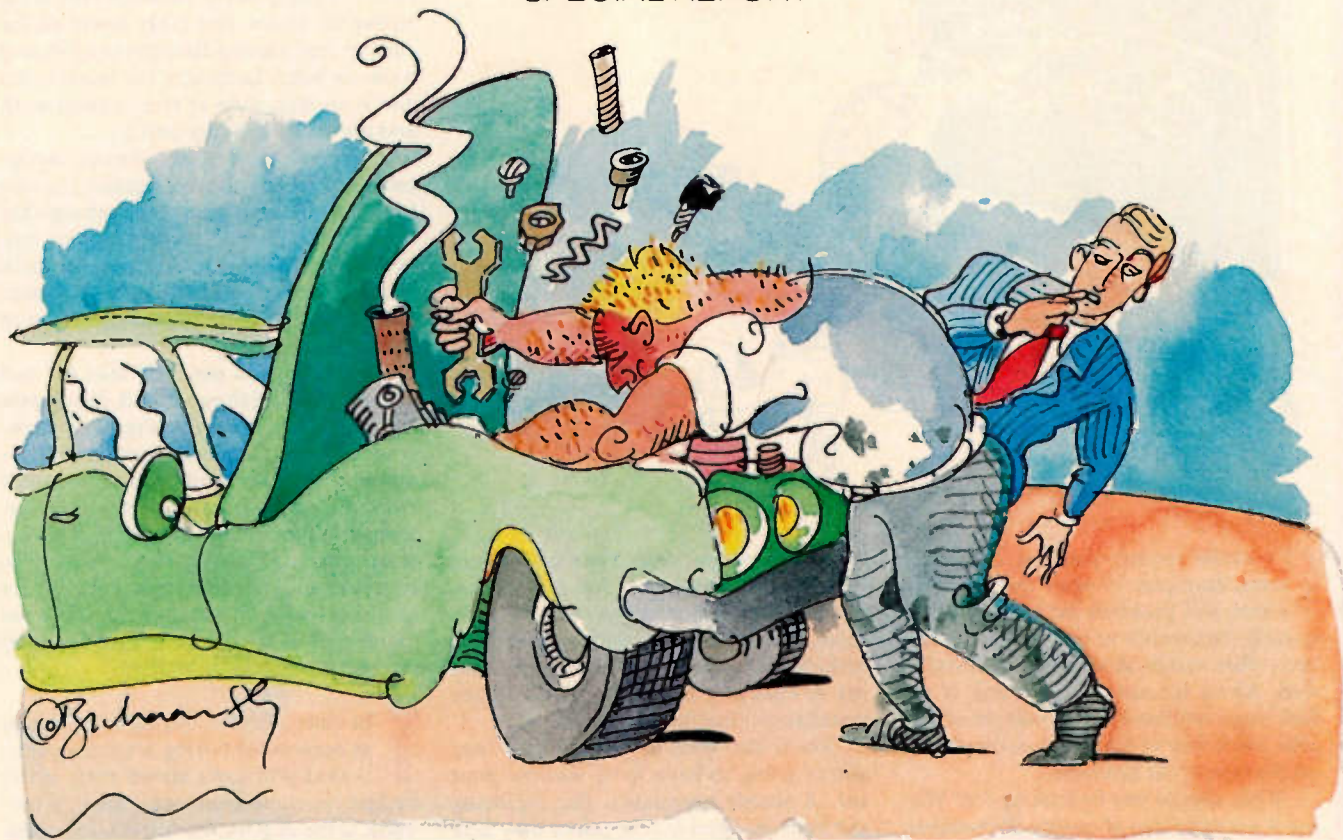
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CAR STEREO

SPECIAL REPORT



How to Pick an Autosound Installer

As if shopping for car components weren't difficult enough, the thought of a stranger tinkering with the delicate wiring of your automobile, and possibly slicing and dicing various parts of its anatomy to make room for a stereo system can be scary. Automobile electrical systems have grown increasingly computerized and, likewise, car stereo equipment has become more sophisticated, possibly beyond the range of the average installer to understand. And that's not all—consider the vast variety of skills today's installer needs: everything from a knowledge of basic electronics design and computers through upholstery and carpentry. Yikes.

And yet, there *are* qualified installers around and you can learn how to spot them. Most likely you'll buy your equipment from the same shop that will install it. So while you look for *what* to buy, begin to size up whether these are the folks you are going to trust to "operate" on your car.

A lot can be determined just by looking around the store. Brand names are a way of sizing up the sophistication of the shop.

With a little homework, you can familiarize yourself with the quality names in car stereo and see whether the dealer carries any of these. The increased complexity of car stereo equipment has caused manufacturers to get pickier as to who carries their products; a poor installation job can re-

A road guide through the criteria of quality

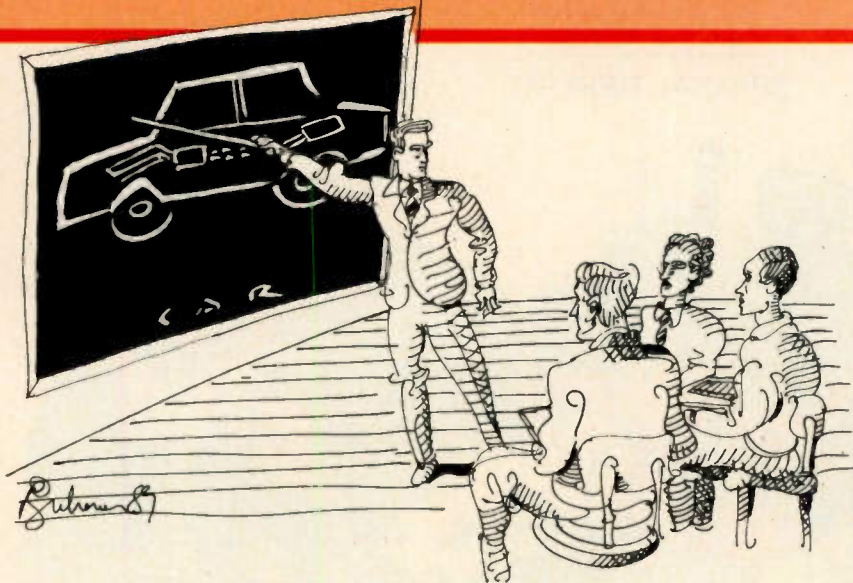
BY BETH C. FISHKIND

flect badly on an otherwise excellent piece of equipment. To this end, many car audio companies are focusing heavily on installation training programs for their dealers.

Ask which training programs, if any, the shop's installers have completed. Unfortunately, there is no industry-wide body in charge of certifying qualified installers. However, two groups based in Washington, D.C., have started the ball

rolling. A representative from the Car Audio Specialists Association (CASA) says that it and the Consumer Electronics Group of the EIA (Electronics Industry Association) are in the preliminary stages of looking into developing certification of car stereo installers. However, until that's done, you'll have to analyze a potential installer's qualifications yourself.

In addition to manufacturers' training programs, courses in autosound installation are now springing up as part of schools' curricula. This is a response to both the advancing technology of cars and autosound equipment and the industry's shortage of installers. Luzerne County Community College in Nanticoke, Pa., has developed a two-year Associate Degree program in mobile-electronics installation. In Los Angeles, the Unified School District, in conjunction with Al & Ed's Autosound, of Monterey Park, Calif., graduated 20 students from a two-year training program. This effort is expected to produce between six and twelve installers a year, and may be expanded, if it proves to be successful. ▶



If a dealer *sounds* qualified, ask to see some examples of prior installations. There will probably be a demo car—usually the owner's or one of the employee's—that serves as a showcase installation. Along the same lines, many of the best shops will have a photo album of past jobs. See if they've done any previous work on the type of car you have.

What should you be looking for? Wiring is a telltale sign of quality: Remember, neatness counts. Check the wiring harnesses, to see whether the wires have been bundled neatly and properly tucked away. Also look at the wiring in the door speakers. Has it been installed through the door with grommets or just strung panel-to-panel? On the best jobs, you won't even see the wiring—which means the installer took the time to hide it. If wires are exposed, they should be neatly bundled and tied nicely. Additionally, power-cable wires to the battery should be high-quality heavy gauge, and all wires should be run through a fuse at the battery. Cosmetic integration is another key to good work: Does the equipment look as if it belongs there, or does it look thrown on? For instance, the head unit should be mounted flush in the dash, not protruding.

Keeping neatness in mind, ask for a tour of the work area, known as the installation bays. A messy work area could be a warning of the kind of work the shop does. However, don't be surprised if you are denied access to the installation bays because of insurance considerations. If that's the case, ask to take a look at some recently completed cars.

Another way to spot good dealer/installers is by the questions *they* ask *you*. The installer should take a look at your car and ask you what you want done. Then he can tell you what he has done with this type of car or system in the past, or if he's

ever worked on your type of vehicle before. You should get a full explanation of what will happen to your car. Furthermore, keep in mind that you might want to make future upgrades: If you plan on adding or changing equipment, don't let the installation limit future options.

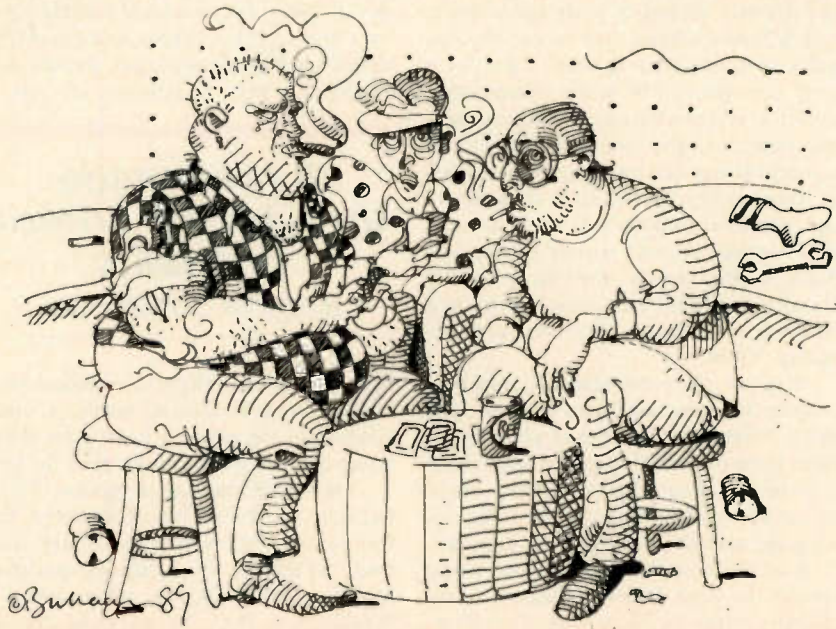
You'll also want to find out how long you're going to have to be without your car. A simple installation like replacing the head unit and four speakers may take only a few hours, but if you decide to go the route of a component system (head unit, power amps, crossover, woofers, tweeters, and subwoofers), you can expect to be without your wheels for at least a day. And if a separate enclosure for subwoofers has to be built, tack another day onto that. Also, since it affects installation time, find out whether the installer carries an adequate supply of customizing materi-

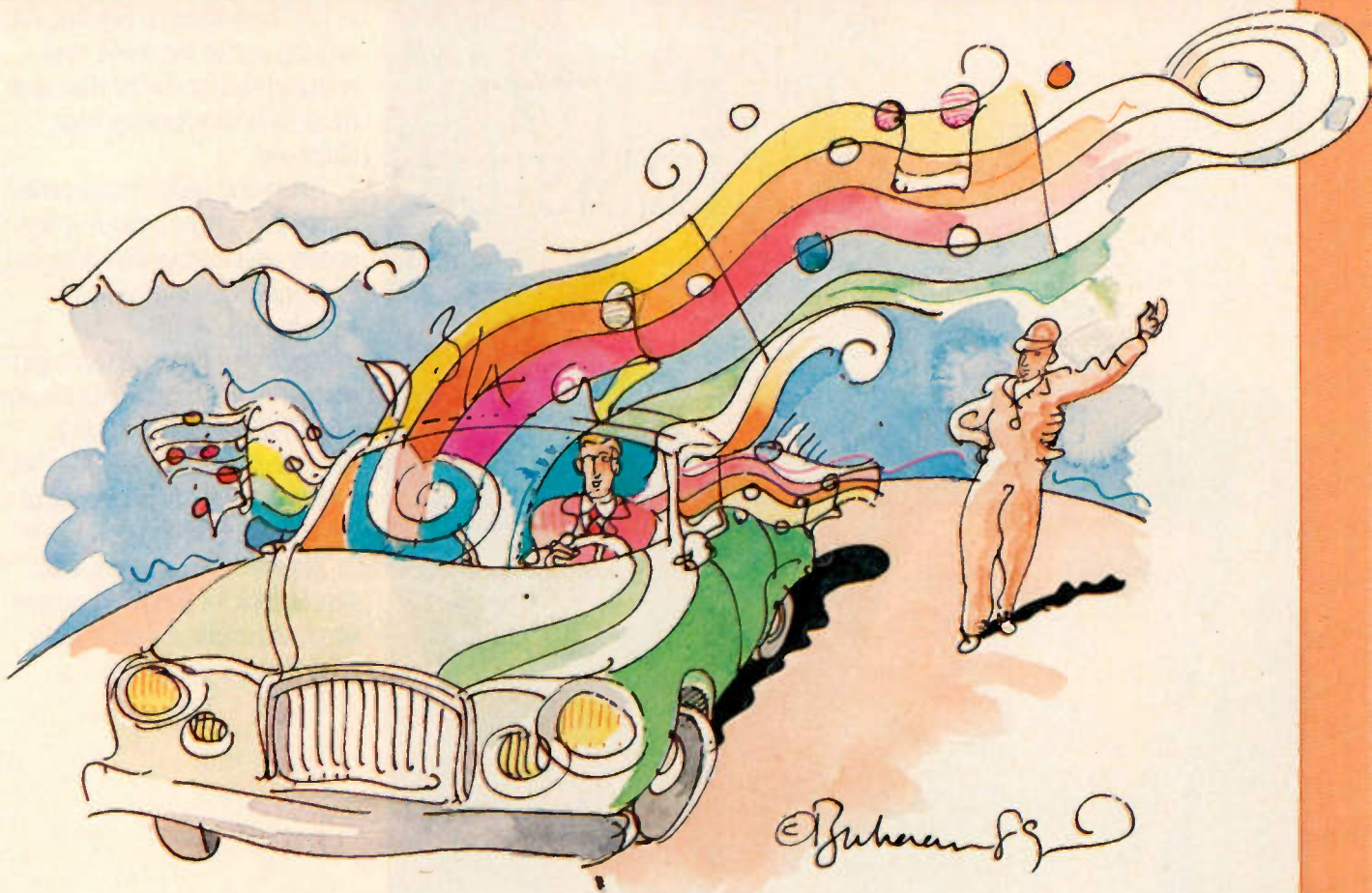
als, such as antennas, matching grille cloths and upholstery, mounting brackets, wiring harnesses, and other essentials for custom jobs. Having the right supplies and tools on hand facilitates the installation and is an indication of true custom work and the detail that goes into it.

Once you have selected your equipment and settled on your installer, be sure to go over the condition of the car together before installation. Note any existing rips in the fabric, dents, etc. This way, both you and the installer can be upfront about damages—if any—to the car as a result of installation.

But before you say, "I'll take it!" and give the installer the go-ahead, check with your auto insurance broker regarding coverage of your autosound system. For instance, removable head units may be dealt with differently from those that are permanently mounted in the dash. And because coverage varies from company to company and state to state, a quick call for some insurance information may save you extra grief in the event of theft or other damage.

The rude shock of buying a car stereo, as opposed to buying a home system, is that you can't spend your entire budget on equipment—you have to earmark some dollars for installation costs. These costs can vary pretty wildly, depending on the type of car you own and the complexity of the system you desire. To have a component system installed, manufacturers and dealers give a rough estimate of tagging between 15 to 25 percent of your total budget for installation costs. If you have a \$1,500 total budget, you should plan on spending \$1,125 to \$1,275 for the equipment; the rest goes for installation.





For a less sophisticated setup—say, a head unit and four speakers—figure about one to two hours at an hourly labor rate of usually \$35 to \$50.

Can you save yourself a little money by trying to do it yourself? Neither installers nor component manufacturers recommend this. Access to components can be difficult. Sometimes you have to take things apart to get to them; but when you put them back together, “you’ve got three or four screws left over and you wonder, ‘Where did these go?’” says Rick Lozano, who spent some time on the installation side and is now autosound manager at Polk Audio.

“We do more repair for those that got in over their heads,” adds Dean Jeancola, mobile-electronic operations manager for Sound Advice in Fort Lauderdale, Fla. It used to be that the worst a backyard installer could do was “blow out the brake-lights,” he points out. “But today, if you mess with the wrong line, you could blow out a \$2,000 computer system.” Paying a professional installer his worth might be cheaper.

Installation can make or break the quality of an autosound system. A poor installation can make a good system sound bad; on the flip side, a quality installation

can make an average system sound pretty good. And a professional installer can tell you what sounds best in your car. “If the installation isn’t done properly, you won’t get the full potential of the components you selected,” says Jeancola, who considers installation just as important as the hardware selected.

Despite the shortage of installers, those available today are better than ever, according to manufacturers and installers. New technologies, including not only cel-

lular phones but also the increased complexity of both autosound components and cars, have led the way. The industry is now aware that installers must be skilled technicians, and through good training programs and higher salaries “new and better blood” is being attracted, according to Jeancola. The choice, then, is not so much one of avoiding a butcher, but deciding on how much quality, detail, sophistication, and money you want to put into your autosound system. □

It's Show Time!

One way to develop an eye for what a good installation looks like is to get a copy of the *Official Judges' Guide to Alpine's Car Audio Nationals*. The Car Audio Nationals is a yearly contest designed to recognize quality autosound systems—not necessarily which one's the loudest. The guide has a thorough discussion of what to look for in installations, but the best part is the photos and diagrams that compare below-average, average, and above-average installation techniques for such areas as wiring and cosmetic integration.

The 1988 version is still available for \$11.95 by calling 1-800-441-4226. You can also get information about upcoming Car Audio Nationals events.

Going to autosound contests is another way to scope out the best-of-the-best. You'll be able to see the work of some installers and get word-of-mouth recommendations for others. Another group that sponsors competitions is the National Autosound Challenge Association (NACA, P.O. Box 7402, Riverside, Calif. 92513-7403). And be advised: Things can get loud. **B.C.F.**

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CAR STEREO

SPECIAL REPORT

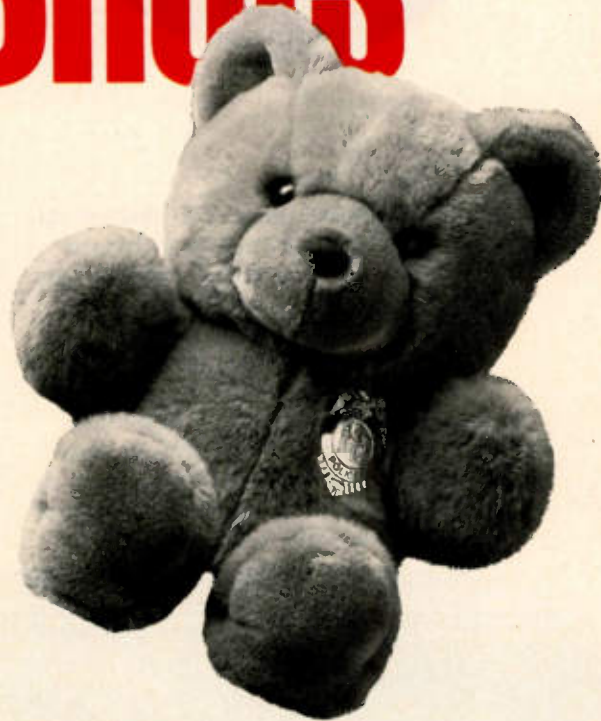
The world of autosound options just keeps rolling along. Familiar names in car stereo continue to develop new products, while those best known for home audio are merging into the autosound lanes. The key is flexibility: Most of the products here let you decide the best way of integrating them into your autosound system.

BY BETH C. FISHKIND

Sound Shots



Joining Linear Power's line of hand-built mobile amps is the Model 4302 (\$425), a four-channel unit rated at 30 watts per channel. The lowest rated load impedance is 4 ohms. The four channels can be used for separate front and rear stereo outputs or with an electronic crossover as part of a bi-amped system. Input sensitivity for each of the two pairs of channels is separately adjustable, and RCA jacks accommodate any preamp- or speaker-level input signal from 150 millivolts to 5 volts. The 4302 is guaranteed for one year (two years if installed by a Linear Power dealer).



This little teddy is ready with a 110-dB hug for the ears of would-be car thieves. Security Bear (\$80), from Rabbit Systems, senses changes in air pressure within the car to detect when someone's messin' with it. When detection occurs, a siren in the bear lets go with a 110-dB wail—intense enough to ward off intruders. No wiring or complicated installation is needed; power is supplied by D-cell batteries. Just give it a seat in your car and connect it via an unobtrusive, coated cable designed to keep the little guy from being easily removed. Also included is a key-ring remote control unit for arming and disarming the detection unit and siren. ►



Take your CD collection for a spin in Panasonic's new CQ-E850 (\$750), a removable-type CD player with AM/FM tuner and electronic controls. The CD player offers programmability, and the quartz digital tuner section has 24 presets. In the audio section, a LOUDNESS switch compensates for the loss of bass in quiet passages.



JBL's T-903 (\$299) is a three-way, 6-by-9-inch loudspeaker in the company's new Grand Touring line. The T-903 features a 1-inch pure titanium transducer for covering the range between 3.5 and 6.5 kHz and a 12mm pure titanium dome for higher frequencies. JBL claims titanium makes for better high-frequency definition and is unaffected by sun, moisture, and vibration. Woofer coil formers are made of a special synthetic material for high power handling without damage over extended periods. A specially milled rectangular wire lets JBL wrap more wire around the voice coil—increasing speaker efficiency and reducing distortion.

After starting the car CD changer category a couple of years back, Sony is now rolling out a third-generation Disc Jockey, the CDX-A30 (\$700). It features four-times oversampling, a claimed signal-to-noise ratio of 93 dB, and an "oil-damper" suspension system for vibration resistance. The ten-disc magazine is compatible with all Sony ten-disc home and car CD changers, so you don't have to shuffle CDs back and forth from holder to holder. Control



options for operating the changer include a number of remote commanders that will work with certain Sony and other manufacturers' tuners. The unit can also be controlled via selected Sony in-dash FM/AM cassette units.



Denon says its new CAMI line—short for Car Audio Modular Interface—will enable you to upgrade almost any factory head unit. Central to the concept is the DCL-410 level control (\$100), which matches the speaker-level outputs of a car's existing radio to the line-level inputs of separate component amplifiers. Two pairs of speaker- or line-level inputs can be used in any combination. The DCL-410 can be switched from 4 to 8 volts. Controls for input sensitivity and output level permit matching the DCL-410 to any type of head unit and amplifier. Using other CAMI components, you can add a CD player to your existing autosound system.





The KSC-9900 loudspeaker system (\$449 per pair) from Kenwood is one of the company's first designs for trucks. Using a bass-reflex enclosure, the two-way system features a 10-inch woofer and a 2-inch cone tweeter with magnetic fluid in the gap—which Kenwood says makes for better efficiency. What's more, to prevent the possibility of overload from excessive inputs, both speakers have a tweeter protector circuit. Frequency response is rated as 40 Hz to 20 kHz; impedance is 4 ohms. The KSC-9900s measure 19½ inches wide by 13⅞ inches high by 6⅞ inches deep.

Long a respected name in home audio, Hafler has entered the autosound market with a line of speakers and electronics, including this MA-1 two-channel MOSFET amplifier (\$449). Used as a stereo amp, the MA-1 puts out 100 watts per channel into 4 ohms; when bridged into one channel, the amp is rated at 200 watts per channel into 8 ohms. Signal-to-noise ratio is said to be greater than 100 dB unweighted, and frequency response is 10 Hz to 70 kHz, ±3 dB. Hafler says total harmonic distortion is less than 0.1 percent. Other features include RCA inputs, variable input sensitivity, internal and external fuses, and fully discrete components. The MA-1 measures 12 inches long by 8 inches deep by 2½ inches high.

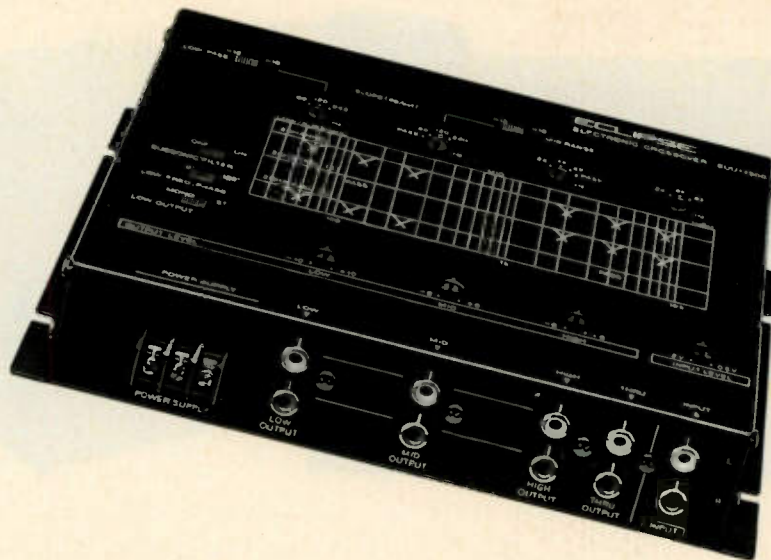


Marantz's Model 701 cassette/receiver (\$799) incorporates four 20-watt amplifiers. A large reverse LCD display shows a variety of control functions, including volume settings and seven-band graphic equalizer and adjustable soundstage functions. The equalizer can separate front and rear EQ to compensate for car/system acoustics. Dolby B and C and DBX noise reduction are offered, along with stereo AM. To deter theft, the 701 has a security code that shuts down the unit if it is removed by an unauthorized person. Additionally, the 701 has a built-in alarm that operates through the speakers, and it is packaged with window stickers that announce the automatic security systems. ▶



To deter would-be thieves, Aiwa offers a new addition to its line of stealth-designed cassette/receivers, the CT-X4500 (\$380). The unit has a removable mounting system as well as a security cover that swings down over it. In the receiver is a 50-watt power amp and an AM/FM stereo digital frequency-synthesis tuner with Auto Tuning Reception Control for improved FM reception. The cassette section has auto-reverse, Dolby noise reduction, and metal-tape capability. Aiwa's CT-X4500 fits a DIN-size chassis and has a CD-in jack for a portable CD player, RCA pre-out terminals, power antenna lead, and key-off standby.

You get four components in one package with Sansui's RE-6i receiver (\$750): a full-logic, auto-reverse cassette deck; a computerized Super Fidelity AM/FM stereo tuner; a computerized seven-band graphic equalizer; and a 25-watt-per-channel stereo amplifier. The tuner has numerous features to enhance performance, such as Multipath Distortion Block (MDB), which reduces multipath noise by blending between stereo and mono operation as the signal changes; a Pulse Noise Blocker (PNB) is said to eliminate ignition noise and noise caused by lightning. In the tape deck, frequency response for metal tapes without noise reduction is 30 Hz to 18 kHz; for normal tape it's 30 Hz to 17 kHz. Rated signal-to-noise ratio with metal tape is 55 dB with Dolby off and 67 dB with Dolby B. The amplifier section has an AUX input for Sansui car CD players.



The EUU-1300 (\$200) is the first multi-channel electronic crossover network from Eclipse Mobile Sound Systems. Eclipse's system can be set to enhance a certain speaker configuration or to suit your particular listening tastes through separate low- and high-emphasis settings for a two-way system and optimal low, mid, and high crossover points for a three-way system. Frequency response is 10 Hz to 50 kHz, ± 3 dB; rated signal-to-noise ratio is more than 100 dB. Total harmonic distortion at 1 kHz is said to be 0.01 percent. System expansion can be done via the unit's RCA terminals for inputs and for low/infrasonic, mid-range, high, and bypass outputs. □



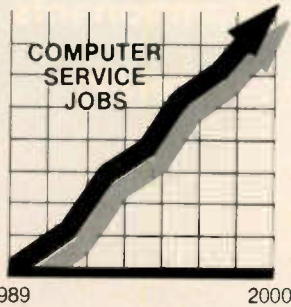
You'll always find your way home with Sentrek's New Directions (\$150), a digital electronic car compass and indoor/outdoor thermometer that can be mounted in or under the dashboard like a small stereo equalizer, or in some cars, installed in the center console between the front seats. Sentrek says New Directions is user-installable in much the same way as a remote radar detector. Once it's in place, you can tell which way you're driving by the display of one- and two-letter abbreviations for the eight principal compass points (N, NE, E, SE, S, SW, W, NW). Similar units are available as a new-car option, but Sentrek says New Directions has the advantage that its display indicates whether or not the unit has been calibrated, or "told" the direction of true north.



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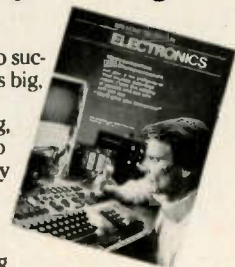


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A PERFECT

Do your audio and video components
treat you like a friend...
or are they untamable monsters?

BY CARLETON SARVER



The ADS R4 receiver keeps frequently used controls out in the open; others are concealed on a tilt-out panel (bottom left).

In selecting new audio or video equipment, you are likely to concentrate on its performance, and certainly sound and picture quality ought to be paramount factors in your choice. But you wouldn't want to take home an expensive component, no matter how excellent its credentials, only to discover that it was very difficult to use or that its appearance was so distressing that you had to cover it up whenever company came over.

An audio-video product's performance is determined by the quality of its *engineering*; and its ability to be easily controlled and fit comfortably into its surroundings is determined by the quality of its *design*. What I am referring to is generally known as

"industrial design" in the United States. Since this awkward term suggests nothing so much as the engineering of factory machinery, here I'm simply going to use the word "design."

Good design is not merely a matter of cosmetics—a point many manufacturers have yet to comprehend, much less master. A pleasing appearance is but one result of good design. The most important factor beyond good looks is "ergonomics," or "human engineering," which determines how easily a component or system will interact with you. Operating a system with poor ergonomics can be an ongoing annoyance. Like a headache that won't go away, bad design can seriously detract from the

FRIENDSHIP



Controls are distinctively shaped and carefully grouped on this NAD 6300 cassette deck.

main purpose of an entertainment system: to bring you aural or visual enjoyment.

Just as technical performance varies widely from one product to another, so does design. Some products are a delight to live with. Others, even after years of familiarity, remain unfriendly and unwelcome guests. You can, however, by careful in-store examination, filter out such goods before they get through your front door.

Not all audio and videophiles are born with the same tastes in control complexity. At one extreme are the virtual electronic engineers who want to direct every nuance of a system. Others want system access to be as simple as possible, thank you.

At least one manufacturer, ADS, attempts to satisfy both kinds of users. Its control philosophy is an excellent example of a *hierarchical* approach to design. The controls of its Atelier series of audio components fall into three levels (see photo, above left). The first consists of controls that are quite frequently used, such as those for source selection and volume. These are openly visible on the front panel and permit operation even by someone unfamiliar with the unit. The second level is confined to controls that are essential, but that are operated less often—tone controls and balance being two examples. These, therefore, reside on a panel normally concealed (it's shown flipped down in the photo). The



From left to right: ADS RC1, Bang & Olufsen Master Control Panel 5500, Brionvega, Soundstream R-1, Mitsubishi M-RAV1, Proten AS-3000R, Meridian 209, and Bang & Olufsen Beolink 1000 Terminal.

The World's Eight Great Remotes

Of the many remote controls found throughout the world, I've selected eight that I find outstanding. My principal criterion was superlative design, exemplified in both good form and good function. In my view, each of these eight could be in a museum's design collection—and some already are. Each one reflects careful, intelligent thinking that is highly responsive to a user's needs, yet each is different from the next in design philosophy.

To give credit where it is long overdue, I am mentioning the designers' names. Without their efforts, these remotes would simply not have happened. Keep it in mind, too, that for every designer there are many unnamed engineers whose close collaboration has been equally vital. Among other things, they have created innovative control software of a mind-boggling complexity so that your listening and viewing can be easier.

ADS—by Peter Hartwein and Dieter Rams. The top panel of the ADS RC1 can be lifted to reveal one of seven different pages, each devoted to a specific audio-video category. Each page has 25 buttons, so a total of 175 buttons are available in addition to the universal buttons below the panel. This solution permits a large and effective number of buttons to be contained in a very small space. It can be used hand-held or on a table.

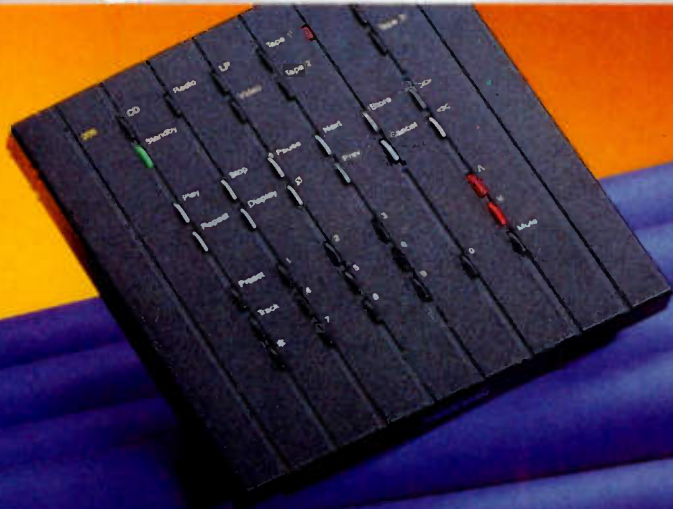
Bang & Olufsen—by Jakob Jensen. Because of its substantial size, the tabletop Master Control Panel 5500 can hold a large number of buttons without crowding. It is unique in having two-way communication with a central audio system: It not

only transmits infrared commands, but also receives and displays status information. A knob permits rapid, precise variation of volume and other settings.

Bang & Olufsen—by David Lewis. The Beolink 1000 Terminal is an alternative for B&O owners who prefer a hand-held remote. Its simple appearance belies its tremendous power—it can control an entire audio and video system, not to mention room lighting! Buttons control similar functions of different audio or video sources, reducing button count.

Brionvega—by Mario Bellini. Color-coded buttons are not only functionally useful but add a touch of playfulness to this remote, used with TV sets of Brionvega, an Italian manufacturer whose sets are not sold in the United States. Favorite stations can be programmed into 40 presets. For each preset, optimum brightness, color, fine-tuning, antenna selection, and antenna position can be individually memorized. The remote can select from seven external video sources, and also controls teletext and basic VCR functions.

Meridian—by Allen Boothroyd. The Meridian 209's stunning, compelling form makes it a constant visual delight, even when not being used. Buttons are relatively few and are clearly arranged in simple, logical groups. As a system remote, it controls all functions of Meridian components. Its die-cast magnesium housing is designed for tabletop use.



Mitsubishi—by Patton Design and Mitsubishi Design Center. Used with the company's Home Theater Systems, the M-RAV1 hides infrequently used controls under a sliding cover. This hierarchical concept, coupled with "menus" displayed on the TV screen, greatly reduces the button count. A display on the remote identifies sources, and buttons light up for operation in the dark. The infrared emitter is located partly on the underside, so that it is properly aimed even when the remote is held at a comfortable angle.

Proton—by Reinhold Weiss. The AS-3000R remote is supplied with Proton's AI-3000 compact audio system. Perfect in nearly every respect, it is a superb example of a simple, yet well-detailed, design. Buttons control only those functions that are used often, making it unusually easy to operate. Color-coding further contributes to uncomplicated operation. It is comfortable to hold, by virtue of molded ridges on the underside, rubber inserts on the sides, and a softly rounded lower edge. All buttons can be easily reached by the average thumb.

Soundstream—by Patton Design. Although the R-1 has been designed, principally, to operate Soundstream audio components, many of its buttons can be programmed to operate other equipment. In total, as many as 11 different audio and video sources can be controlled. Buttons not only are carefully grouped according to function, but also vary in shape and size. As a result, they can be located by feel, even in the dark. Dual infrared emitters enable the remote to be operated without critical aiming.

C.S.

third group is reserved for functions, like input-sensitivity matching, that only the audio perfectionist might ever want to use. Some of these are accessible on the flip-down panel, others are programmed by the remote. Thus, according to ADS, an Atelier system can be enjoyed by someone who has no special audio or video skills, yet can satisfy many outright fanatics.

Other design-conscious manufacturers—Adcom, Meridian, NAD, and Soundstream, among them—prefer to keep all controls visible. To reduce the number of knobs and buttons, these manufacturers reduce the number of controls to a minimum by omitting any functions that they decide are superfluous. Then they carefully separate the controls into logical groupings. Buttons and knobs may be

A PERFECT

distinguished by color, size, and shape. NAD's panels are perhaps the most sophisticated example of this approach (see photo, page 43), one that permits operation by "feel" alone.

Note the prominent use of knobs on the NAD deck. In this day of microprocessor-based control systems, knobs are often considered something of an anachronism. Yet quite a few manufacturers go out of their way to retain them, at least on the front panel, actually incurring extra production cost. Why? Because the lowly knob allows adjustments to tuning or volume with a remarkable combination of speed and precision. So don't make the mistake of thinking that knobs are outmoded.

WHAT'S WHAT

When selecting a new audio or video component, be sure that the panel lettering is easy to read. Unfortunately, gray lettering upon a gray or black background is distressingly common and is a true annoyance if used for the rear-panel connections. If you cannot avoid such a poorly designed component, or are already afflicted with one, just keep a small flashlight handy—as I do next to my VCRs!

Control labeling ought to use words or symbols that unconfusingly identify the function; you shouldn't have to keep the instruction manual at hand. This is especially true of infrequently used controls. To cite a bad example, one surround-sound unit on the market has a knob labeled "Mode." You'd think it would select one of several surround modes. Wrong. It actually adjusts soundstage width and should have been labeled as such.

In a singular insult to your intelligence, many manufacturers of audio and video components apparently believe that the more controls and displays they cram onto the front panel, the better. However, most users, usually after living with such gaudy gear for a while, will find that they actually need less "technoflash" than they thought. You would do well to think ahead to that day, and manufacturers would do well to emulate the restraint shown by the products of Adcom and ADS, for example. They might also study Meridian's panel designs, in which transparent buttons light up to indicate operational status and manage to be both functional and visually appealing at the same time.

When you are evaluating a component, don't omit taking a look at the rear panel. First, you'll be able to determine whether the inputs and outputs are of the type and quantity that you need. Also note that manufacturers often place some initial setup controls (such as an MC/MM phono input switch) on the rear panel. Such controls may belong there, but could be very difficult to adjust once the component has been placed in a cabinet or against a wall.

THE POTATO PATCH

In the old days there were no remote controls. Later, in the 1960s, wireless TV remotes became popular, planting the first seeds for what would become today's crop of couch potatoes. The remote control is now often the primary—if not the sole—"interface" between you and your system, and of more operational importance than the front panel. For this reason, you should carefully evaluate the remote control of any equipment you're thinking of buying. In this regard, be forewarned that many dealers will not show you the remote control unless you ask. They have had too many handsets mistakenly (one hopes) carried away in coat pockets.

In some equipment the trend is toward putting all possible functions on the remote. Many television sets no longer have visible controls on the set itself and retain only vestigial buttons for emergencies (such as when you temporarily lose the handset or when its batteries suddenly die). Some VCRs and audio components are starting to go this route. If you're shopping for new audio equipment, you will find good performers that run the gamut: front-panel control only, panel plus remote control, and full control only from a remote.

Which you select is a matter of personal preference. Fitness buffs may prefer the extra exercise that an occasional trip to the volume control brings. Others of us prefer to remain motionless. Lifestyle questions aside, there's a strong operational argument for remote control of many audio functions. Subtle adjustments like balance, bass, and treble are best made from the listening position. And with the far more complex adjustments demanded by a surround-sound system, only extremely rabid exercise fanatics would enjoy endless trips to the equipment shelf. New remote-control technologies have virtually eliminated any degradation of the audio signals themselves, which was something of a problem with earlier methods.

REMOTE DESIGN

I can safely state that most remote controls are atrociously designed—this perhaps being a throwback to their previous status as a minor accessory. More often than not, they have a very large number of very tiny buttons crammed into a very small space. Functions are assigned to regularly spaced, equal-sized buttons in seemingly random fashion. Gray-on-gray lettering is not uncommon and is often unreadable in low room light. Some remotes require dead aim at the equipment, forcing your wrist into an uncomfortable position. Perhaps their designers assume that you have the skinny fingers of an extraterrestrial, are equipped with a night-vision magnifier, and are a skilled sharpshooter to boot!

Designing a "user-friendly" remote is, unfortunately, difficult. For a hand-held unit, the designer must construct a shape that is comfortable to hold and operate with one hand. Ideally, it should be possible to reach all buttons with the thumb, taking into account that many people are left-handed. Buttons should be easy to identify and not spaced so close together that the wrong ones get pressed. Also, you should not have to press an excessive number of buttons to activate a function. And finally, a hand-held remote should still work when held at a comfortable angle (see illustration, opposite page).

Knobs are very handy devices, but if you want an audio-only remote control with a knob, you'll find only two of them: Bang & Olufsen's Master Control Panel 5500 and the remote for the new Hafler IRIS preamp. Introduced by Sony, jog/shuttle knobs for speed and still-frame control also appear on the remotes of several manufacturers' high-end VCRs and videodisc players. Take special care when you are examining any jog/shuttle knob on a remote. Placement of the assembly in the wrong location on the handset can make it difficult to use with one hand.

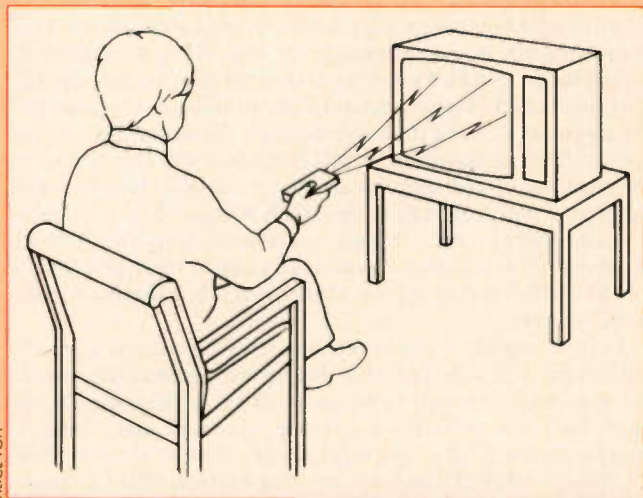
THE SOFTWARE TOUCH

It takes far more than simply design—however superb—to produce a successful remote. The function of a remote's buttons, and what they *do*, are determined by control software. This program-

FRIENDSHIP

ming is usually contained in a microprocessor that is part of the equipment being controlled. Control software is written by engineers specializing in this discipline. The programs for a complex, interactive audio-video system can easily take several such specialists more than a year to write and "debug."

If this software is poorly thought out, it can make component control a frustrating experience. For example, the handset of a certain laserdisc player requires an exceedingly lengthy string of button presses just to change from one variable speed to another. It doesn't help that the buttons are illogically situated to begin with. By the time you've got the right speed, the scene you wanted to examine is long gone, requiring that you search backward—with still another button! A highly regarded CD player of another



ALICE TOFF

A well-designed hand-held remote should emit infrared signals straight ahead when held at a comfortable angle. Few do.

brand presents a different problem: If you place it into pause—so that you can take a telephone call, perhaps—it will automatically shut down after four minutes. Its software engineers must be accustomed to very short phone conversations.

Nowhere do the differing approaches of control-software authors show up as clearly as in TV-channel selection. A few brands require you to press the one or two digits of the channel number, plus ENTER. This means that as many as three button presses, and never fewer than two, are required to change channels. A somewhat better method, favored by RCA, requires that you enter two digits for each channel, including a leading zero for Channels 2 to 9. A third method is similar to the last, but gives you the option of entering only a single digit for the lower channels. The system will wait about two seconds to make sure a second digit is not forthcoming, before it switches to the new channel. This third method requires only one or two button presses and is fortunately quite common. The only difference between all these methods is the way the control software is written.

Some manufacturers take great pains to minimize the number of button presses you must make to carry out a command. In this regard, Bang & Olufsen may be unmatched. For example, with its audio systems, if a cassette is in the tape deck, all you need do to

listen to it is press the remote's TAPE button. The audio system will switch on, the tape input will be selected, and the cassette will play. Now, that's friendly.

Another tenet of B&O's control philosophy is worth noting: Specific remote buttons carry out similar functions no matter which audio or video source is being used. For example, the fast-forward button will carry out that function for either an audio or videocassette recorder. For a CD player, it will scan forward. For FM and AM listening, it will scan upward to the next active frequency. Ideally, this studied commonality should enable a non-technical user to assimilate control routines with little effort.

SYSTEMATIC

In 1978, Bang & Olufsen became the first company to introduce an integrated audio system with a unified remote control. But the concept didn't really catch fire within the industry until 1984, when RCA introduced its blockbuster Dimensia audio-video system, the first to be totally integrated and incorporate interactive functions. Dimensia introduced another new, and now important, concept: status indicators for both audio and video sources displayed on the TV screen. While on-screen displays themselves were not new, they had previously been confined to such basic tasks as channel readouts. The RCA engineers who labored years to develop Dimensia had set new directions, soon to be followed by the rest of the industry.

Dimensia also borrows from the computer world in offering on-screen "menus" for control commands. One advantage of this select-from-a-list concept is that it allows a very large number of commands to be carried out with a relatively small number of buttons. One disadvantage is that some functions may take more button presses to execute. In any event, the menu approach has been adopted by quite a few manufacturers. Among them, Mitsubishi's Home Theater audio-video systems stand out. A team of Mitsubishi engineers from both this country and Japan were given the freedom to develop a fresh approach to system control. At the same time, designers in both countries cooperated to produce an extraordinary remote control (see "The World's Eight Great Remotes," page 44). In conjunction with on-screen menus, the M-RAV1 handset permits complete system control with very few buttons.

Many integrated systems offer unusual ease of operation. However, to obtain the full benefit of this ease, your system must consist of a single manufacturer's equipment. Fortunately, some of these systems offer performance that is so high in every respect that there are few rational reasons to reject them. Even so, many audio- and videophiles will want to assemble a system from components of different brands. With such mixed systems, programmable remotes offer the seductive promise of complete control.

Unfortunately, the programmable remote has yet to be perfected. Most of them suffer from the button crowding discussed above. Currently available models successfully reproduce almost all remote codes. But that's just not good enough, since it means you may still have to keep one or two original remotes at hand. Only a few programmable remotes give you the essential ability to label buttons according to their functions for each different piece of equipment. Indeed, one current programmable unit comes with its own accessory notebook, in which you are expected to keep notes of which key operates which function! ▶

A PERFECT FRIENDSHIP

VIDEO GLITCHES

In general, audio components have long offered good control, even of the finest sonic nuances, in keeping with audio's longstanding emphasis on performance. Only recently have video manufacturers begun to upgrade performance, and this time lag is reflected in the relatively primitive control capabilities of most video components.

For example, no audio manufacturer would think of marketing an FM tuner or receiver without some sort of manual tuning function. But as I pointed out in "Clearing the Picture" [November 1988], only two TV brands—Proton and Tera—offer fine-tuning. Commendably, they will be joined by B&O's upcoming Beovision system, which will include a VCR and a 26-inch monitor. Not only are these components' fine-tuning systems adjustable, but their settings can be memorized separately for each channel, improving both performance and, once all the settings have been memorized, ease of use.

Similarly, the Beovision system will enable you to memorize optimum tint for each channel—which should help reduce unwelcome variances when you are switching from one channel to another. Even more operating simplicity would result if contrast, brightness, color, and relative audio level could be matched and memorized for each channel. Once set, you would rarely have to make such adjustments again.

Even if you have a TV set with excellent control capabilities, once you attach a cable converter, some or most of these functions go down the tubes (along with picture quality, in the case of many cable systems). Your set's remote will not tune in scrambled channels, and timer-activated VCR recording of a descrambled channel can become a nightmare, if it is possible at all. Timer-capable programmable remotes offer only a makeshift solution. Still, this situation is changing too, thanks to a new socket, called an "EIA Multiport" (or an "IS-15" port), on the back of some TV sets and VCRs. Most cable systems should eventually be able to provide you with a special converter that plugs into the Multiport. The converter will have no controls and can be hidden. Your TV remote will then function normally on all channels, including the scrambled ones to which you subscribe. The Multiport is, or will soon be, available in selected TVs of several brands: B&O, RCA, Panasonic, and Quasar. It will also be in B&O's video recorder, permitting timer recording on scrambled channels, and, given the importance of cablecasting in this country, it will probably show up in other VCR brands soon.

FITTING IN

Those who banish their stereo equipment to the basement recreation room are often demonstrating remarkably good taste. They realize that equipment of poor appearance is best seen when it is invisible. Even taking into account that tastes vary, you'll doubtless want the equipment you buy to enhance your home, not degrade it. And satisfying appearance is an essential ingredient of good design.

Not every manufacturer takes the same approach to the look of its products. ADS, for example, believes that performance and function should largely determine the appearance of its audio equipment. Its Atelier components and loudspeakers demonstrate that such an approach can result in a finely detailed, highly attractive result. Even the backs of its components and many of

its speakers are fully finished, with provisions for concealed wiring. By contrast, with most brands, when it comes to connections, you're in your own wiring jungle.

B&O designs its systems to blend into existing room environments. To this end, most of its audio and video components have some reflective surfaces so as to take on the color of the surroundings. Some of B&O's audio components can be mounted flat against a wall. Most of its speakers are also designed for wall mounting, not only saving floor space but also integrating themselves into a room's architecture. High-performance speakers can be built *into* a wall—so as to present only their acoustic grilles to the room. The concept has proven so popular that quite a few manufacturers—including ADS, Boston Acoustics, Polk, and KEF—are producing such models.

All in all, I know of only seven companies with audio and video equipment of world-class design: Adcom, ADS, Bang & Olufsen, Meridian, NAD, Proton, and Soundstream. Such products, both functionally superb and a delight to the eye, are must-see and must-use. Coming in close behind are the electronic components of Acoustic Research, Audio Dynamics, and Harmon Kardon (and you should take this as strong, not faint, praise). Over the years, if only from time to time, both Nakamichi and Yamaha have also produced notable designs. And many Sony TV sets have uncommonly intelligent design, particularly their distinctive rear-projection models that avoid the clunky, box shapes of other manufacturers.

Even if you direct your purchases toward products of excellent design, you will inevitably end up with some components that may be just too ugly to be safely left out in the open. This is particularly true of VCRs, audio-video receivers, and videodisc players. Further, the dual vulgarities of massive, chromed feet and (fake) wood end panels are infecting components of all kinds at an alarming rate. Of course, if you hide such equipment from view, even in the same room, you'll probably lose the capability of remote control from your viewing/listening position. Fortunately, there is an easy remedy to this problem: Install a remote-control relay system (which, unfortunately, may not be attractive itself).

You may have noticed that I've exalted a mere handful of manufacturers in this article. I wish I could have included far more, and perhaps there are some small companies I have missed (some high-end audio gear is gorgeous, though it's sometimes a pain to use). But these few companies mentioned are the only ones I know that strive for *excellent* design, as defined earlier. That their number is so pitifully small is a consequence of the indifference that most audio and video manufacturers exhibit toward design—especially in its ergonomic aspect.

If you're truly insistent on good design, your choices are definitely limited. Within those limits, however, you'll find some celebrated performers—proving that truly great design is rarely just skin deep. And although some of these products are quite expensive, others—like some from Adcom, NAD, and Proton—are moderately priced indeed. That leaves no good reason to put up with "user-hostile" equipment. □

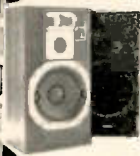
Carleton Sarver is an industry consultant who would like to have a remote control that doesn't get lost for days at a time.

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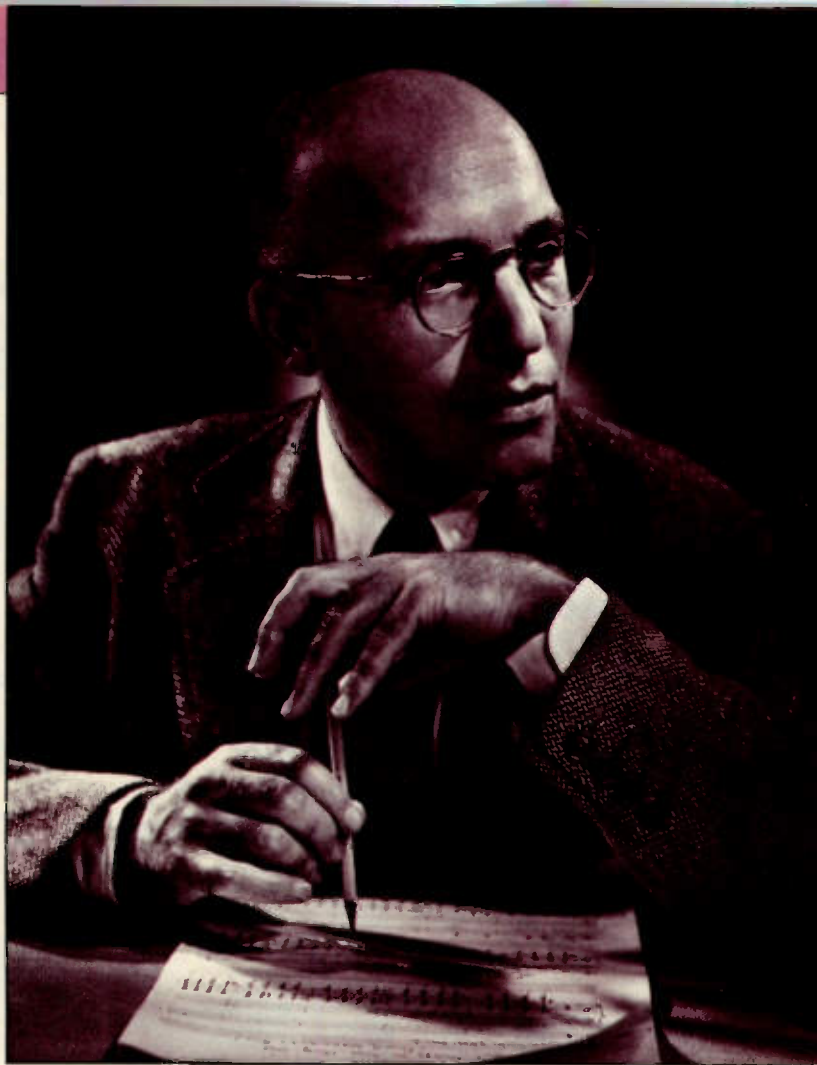
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HIGH FIDELITY ARCHIVES

THREEPENNY ROMANCE

Kim Kowalke, one of this country's leading authorities on Kurt Weill, shares the opinion I have held on *The Seven Deadly Sins* ever since Lotte Lenya's premiere recording of it in 1956. Kowalke calls it "the crowning masterpiece of [Weill's] European career." For the composer of *The Threepenny Opera* and *Mahagonny*, that says a lot. It also automatically makes any new recording of this wonderful score something special.

On first consideration, Julia Migenes would seem an inspired choice for Weill's anomalous "ballet with song," his final collaboration (in 1933, in Paris) with Bertolt Brecht. Weill wrote the work's principal solo part for Lenya, his wife, a richly gifted but untrained singer who never did learn to read music. (A male quartet represents the protagonist's family, with the

New reissues keep
Lenya's legend
alive, and a new
generation comes
to terms with her
"interpretations"
of Weill.

BY PAUL MOOR



mother's part sung by a basso profundo.) Migenes, whose versatility has enabled her to build a flourishing "crossover" career, employs a voice here that contrasts strongly with her "operatic" voice, which starts about an octave above middle C, beyond the demands of this score. Lenya's own range dropped drastically in pitch over the decades; to record this work, she commissioned a transposition of the score (privately printed in 1955 by "Karoline Weill-Davis"; i.e., Lenya), and this recording, perplexingly, uses that lower version. By the time Lenya died in 1981, her recordings of Weill's music had made her a daunting model. She showed little mercy for anyone who deviated from that model—in spite of the fact that she herself deviated from Weill's scores to sometimes startling extents.

Present-day interpreters must thus decide which to acknowledge: Weill's score or Lenya's documentation. In numerous details, one detects that Migenes has studied Lenya and tried to take over certain mannerisms—fillips that worked for Lenya but don't for almost any other singer. For instance, Lenya turned into a personal trademark her mannerism of hitting a long note on pitch and then immediately sliding downward. She did that simply because she had to; she lacked the trained singer's ability to sustain a tone. When almost any other singer tries to emulate that, as Migenes does here occasionally, it sounds affected and phoney. I take even stronger exception to Migenes's deliberately changing some note values; this starts only 19 bars into the work ("... erfahren können"). Also, she doesn't even begin to exploit the bits of spoken dialogue. Lenya's expertise turned the isolated word "lächerlich" (ridiculous) into a transparently self-serving commentary on her character's mendacity; Migenes literally throws it away. She also overlooks the whistling-in-the-dark, wish-fulfilling function of the phrase "Nicht wahr, Anna?" whenever it comes up.

When it comes to playing fast and loose with Weill's score, though, conductor Michael Tilson Thomas goes substantially farther. He starts the Prologue (marked *Andante sostenuto*) at a clip that poses problems for the transmission of Brecht's savagely trenchant poetry and seems to ignore completely the problem eventually created by having to reprise that music—at that tempo—in the work's bitterly satirical elegiac ending. Weill mischievously marked the second movement ("Sloth") *Allegro vivace*, but Thomas whips it along at such a clip that it becomes not only restless and agitated but downright frantic. He repeatedly arrogates to himself the imposition of his own will on Weill. In "Pride," where Weill marked an orchestral section "fast waltz," Thomas takes off like a scared rabbit. This makes it aesthetically expedient (between rehearsal numbers 15 and 16) to shift down at least one gear quite abruptly, for the sake of the singer, and then start racing again. Weill wanted that movement ended without a *ritardando*, but Thomas attenuates it agonizingly to a dead halt. One could extend this list of violations considerably.

The engineers have done a generally good but sometimes sloppy job, for which the producer himself must at least share the blame with the conductor. In the Prologue, for instance, Weill punctuated the first syllable of "*kleines Haus*" with an inspired single triangle stroke. But on this

recording, you won't even hear it.

If this release's star allure can win new friends for *The Seven Deadly Sins*, so much the better. Its appearance probably means, regrettably, that we will have to wait even longer for a CD reissue of Lenya's own inimitable—but monophonic—version. Pity. The filler (witlessly billed here as "Little Threepenny Music," destroying Weill's tongue-in-cheek Mozartean allusion) provides a pleasant potpourri, for winds and percussion, of the hit tunes from *The Threepenny Opera*. (Julia

Facing page: Kurt Weill poised over one of his scores. It is said that he composed with the sound of Louie Lenya's voice in



Migenes; Stuart Kale, Roderick Kennedy, Alan Opie, Robert Tear; members of the London Symphony Orchestra, Michael Tilson Thomas, conductor. Steven Epstein, producer. CBS Masterworks 44529 [D], CD, cassette. Playing time: 55:22.)

Listening, for the first time, to Ute (pronounced Oota, more or less) Lemper—in *Uta Lemper Sings Kurt Weill*—makes me lament that Lenya didn't live to hear her. (During Lenya's final years, Teresa Stratas became something of a protégée, as well as a close and devoted friend, and it particularly distresses me, in writing about an artist I so vastly admire, to have to say that I find Stratas's recorded Weill interpretations misguided.) Lemper seems

his head. But Lenya (posed above with Berlin's Brandenburg Gate in the background) frequently sang his music in a fashion that deviated from the score.

to me, quite simply, the best female Weill singer to come along since Lenya set the standard, so long ago.

She has an intimate, cabaret type of voice that, from time to time, reveals excellent vocal technique. As a teenager she participated not only in the Salzburg Musical Seminar but also in Vienna's Max Reinhardt Seminar. I have already mentioned Lenya's inability to sustain tones; Lemper has no such difficulty whatsoever.



She also has a considerable range, and in "I'm a Stranger Here Myself" she shoots up all the way to an isolated, electrifyingly unexpected but true high B flat. Add intelligence, taste, and exceptionally clear diction and you have in Lemper a rare find for this repertory. In addition to all that, conductor John Mauceri has resisted the temptation to tart up Weill's original economical orchestration (as even Luciano Berio did in the Weill songs Cathy Berberian recorded). Also, he sticks commendably to the score—and by doing so reminds us, in place after place, that Lenya frequently did not. One especially welcomes the several esoteric pre-1933 selections and the three American songs, for which Weill had the uniquely gifted Ogden Nash as lyricist.

Some German critics have hailed

Lemper as the successor of both Lenya and Marlene Dietrich. I can hardly recommend this delicious recording too enthusiastically. (*Aufstieg und Fall der Stadt Mahagonny*: "Alabama-Song," "Denn wie man sich bettet." *Das Berliner Requiem*: "Zu Potsdam unter den Eichen." *Die Dreigroschenoper*: "Die Ballade von der sexuellen Hörigkeit," "Die Moritat von Mackie Messer," "Salomon-Song." *One Touch of Venus*: "I'm a Stranger Here Myself," "Speak Low," "Westwind." *Der Silbersee*: "Cäsars Tod," "Fennimores Lied," "Lied des Lotteriegagenten." "J'attends un navire" ["Je ne t'aime pas"]. "Nannas Lied." *Ute Lemper; RIAS Berlin Chamber Ensemble, John Mauceri, conductor. Michael Haas, producer. London 425 204-2 [D], CD, cassette. Playing time: 50:14.*)

When Lenya supervised her almost-more-than-complete version of Kurt Weill's first worldwide hit, *Die Dreigroschenoper*, Goddard Lieberson at Columbia Records had given her carte blanche. First, she hired Wilhelm Brückner-Rüggeberg, a compliant second-string conductor at the Hamburg State Opera, whom she had already successfully browbeaten into recording *Mahagonny* exactly the way she wanted it, even though that not infrequently deviated from what Weill himself had set down. She immersed herself in 1957 Berlin's sumptuous theatrical life, and the cast she chose included a few surprises: as the rakehell Mackie, for instance, a specialist in the German classics, but a bit on the square side; as Polly, an aristocratic ingénue whom the stage role of Anne Frank had made famous; as Frau Peachum, a formidable old battleship who had played the widow Begbick in Berlin's first *Mahagonny*; as Herr Peachum, Prague's Mackie of almost three decades earlier; as Tiger Brown and Lucy, two pillars of Berlin's cheeky, hep political *Kabarett* Die Stachelschweine (The Porcupines); as Interlocutor and *Moritat*-singer, a brilliant comedian whose mouth discharged quintessential *Berlinerisch*.

It all came out extremely well, but here again the presence of a genuine, strong-willed producer would have helped. At the end of Lenya's most famous song (in Eng-

lish, "Pirate Jenny"), for example, her interpretation of two important spoken words ("Alle!" and "Hoppla!") had radically changed over three decades from the coolly offhand to the savagely vindictive; one need only check the 1928 version (Telefunken TH 97012)—made under Brecht's immediate influence—to discover its striking theatrical superiority. When time came to record "The Pimp's Ballad," only the intercession with Lenya of CBS's project photographer [*the present reviewer, Paul Moor—Ed.*] effected even an approximation of the slumpy electric Hawaiian steel-guitar solo so memorable in the original recording; the orchestra contractor had simply neglected to line up the proper instrument.

The later recording, reissued by CBS on CD, interpolates much Brecht material (especially spoken) not found in Universal Edition's printed score. It also included entire new stanzas, even one entire song ("Fight About the Property") never before performed. Universal had declined to print the raunchy "Ballad of Sexual Dependency" at all; this recording included a final stanza that the original producer found too gamy even for 1928 Berlin. CBS, incidentally, misspells the surnames of Trude Hesterberg and Wolfgang Gruner and gratuitously adorns Johanna von Koczian's surname with two diacritical markings she herself never used. (*Trude Hesterberg, Johanna von Koczian, Lotte Lenya, Wolfgang Neuss, Erich Schellow, Willy Trenk-Treibitsch, et al.; chorus; Sender Freies Berlin Orchestra, Wilhelm Brückner-Rüggeberg, conductor. Lotte Lenya, production supervisor. CBS Masterworks 42637 [A], CD only. Playing time: 68:23.*)

The Weill reissue titled *Berlin & American Theater Songs* gives us sonically excellent CD versions of two Columbia LPs: ML 5056 (minus four numbers) and KL 5229 (complete). The four omissions obviously fell victim to the decision to scrunch everything onto one CD; these include, alas, two gems (the "Tango Ballad" from *Happy End* and the extraordinary, unnerving "Ballad of the Drowned Girl" from *Das Berliner Requiem*) and two musicological rarities (from *Der Silbersee*, composed to Georg Kaiser's text). Here again, the effort would have benefited from the strong hand of an honest-to-God recording producer. In *Die Dreigroschenoper*'s "Barbara-Song," for instance, in the dominant-seventh chord preceding the refrain, Weill flatted the fifth, but in this recording (unlike the complete one) this fine, characteristic detail

eluded the conductor, the luxuriantly arpeggiating pianist, and Lenya herself. It definitely would have made Weill wince—and probably explode. (“Alabama Song,” “The Ballad of Mack the Knife [Moritat],” “Barbara-Song,” “Bilbao-Song,” “A Boy Like You,” “Foolish Heart,” “Green-Up Time,” “Havanna-Lied,” “It Never Was You,” “Lonely House,” “Lost in the Stars,” “Saga of Jenny,” “Seeräuber-Jenny,” “September Song,” “Sing Me Not a Ballad,” “Speak Low,” “Stay Well,” “Surabaya-Johnny,” “Trouble Man,” “Wie man sich bettet.” Lotte Lenya; chorus; Roger Bean and Maurice Levine, conductors. CBS Masterworks 42658 [A], CD only. Playing time: 72:01.)

The booklet that accompanies CBS’s CD reissue of *Street Scene* contains an unusually interesting 1947 article by Weill himself. Three years before his early death (at only fifty), he stated: “Among all the theatrical works I have written, operas, operettas, musical plays, musical comedies, ballets, pageants—about twenty-five altogether—*Street Scene* [to a book by Elmer Rice and lyrics by Langston Hughes] occupies a niche of its own. It means to me the fulfillment of two dreams which I have dreamed during the last twenty years and which have become a sort of center around which all my thinking and planning revolved.” After citing his stage works up to *Die Dreigroschenoper* (1928), he says, “. . . I began to dream of a special brand of musical theater which would completely integrate drama and music, spoken word, song, and movement. . . . But not until. . . *Street Scene* did I achieve a real blending of drama and music, in which the singing continues naturally where the speaking stops and the spoken word as well as the dramatic action are embedded in overall musical structure. . . . When I arrived in this country, in 1935, another dream began to get hold of me—the dream of an American opera. . . . *Street Scene* became to me the fulfillment of two dreams.”

This ambitious recording (there are 26 roles) hits the high spots and has a strong cast. I vividly remember Brian Sullivan and Polyna Stoska as Peter Grimes and Ellen Orford at the Met, where Norman Cordon also had a long and distinguished career, and Maurice Abravanel’s advocacy for Weill began well before they both fled Nazi barbarism in 1933. (*Norman Cordon, Anne Jeffreys, Polyna Stoska, Brian Sullivan; chorus; Maurice Abravanel, conductor. Goddard Lieberman, producer. CBS Masterworks 44668 [A], CD only. Playing time: 52:18.*)

Even with all these nits, not to mention a number I have left unpicked, one must welcome these releases purely for their availability. CBS still has in escrow not only Lenya’s superb original recording of the *Sins* but also her Hamburg recording of 14 excerpts from *Happy End*, that hasty, optimistic sequel to *The Threepenny Opera* which flopped in spite of its rich Brecht lyrics and one of Weill’s richest scores. German CBS issued it as a

From the standpoint of personality, Julia Migenes (facing page) has a great deal in common with Lenya,



two-LP set (88028) along with the first recording of the *Sins*—a set to kill for, if you can track it down.

Get set for a latter-day Lenya explosion. Bette Midler holds an option to portray Lenya in a film, and a biography by Donald Spoto is on the way in late spring, one that should startle some people. I had long known that during Lenya’s almost indescribably squalid childhood in a Viennese slum, poverty and hunger had forced her to turn to streetwalking at the age of eleven, but Spoto has discovered that after she fled Vienna, to live with an aunt in Zurich, she found herself forced to register with the police there as a prostitute.

In view of what Charlotte Karoline Wilhelmina Blamauer, a.k.a. Lotte Lenja, then Lenya, transformed herself into, she leaves one awed with respect. □

though her attempt to take over Lenya’s mannerisms sounds affected. The striking Uta Lemper (above) comes closer to the standard set by Lenya and actually surpasses the latter in technique.

RESTORING

If you're a serious fan of popular music, I think you'll agree that one of the most heartening by-products of the CD revolution has been the growing trend on the part of many record companies toward reissuing out-of-print music from their archives. By means of digital technology, many long-lost or long-abandoned recordings from artists both great and small have found their way back to the marketplace, dressed in spanking new audio clothes, ready to be discovered by a brand-new generation of listeners (or rediscovered by past generations, as the case may be). That these technological breakthroughs—advances that make it possible for so much of this music to actually sound clearer and brighter than it did when originally released—should dovetail so neatly with the current heightened appreciation

of the roots of modern pop is a coincidence both remarkable and fortuitous, as it affords us one of those rare opportunities to take stock musically (and thus culturally), to evaluate where we come from and where we might be headed.

For the music industry, too, this is proving to be an especially significant moment in time, because the record companies themselves are sharing in this rediscovery as never before. Vault shelves that just a few years ago were inches thick with decade-old dust are now being scoured in hopes of unearthing treasures—whose re-release makes sense both commercially and aesthetically for this new, eager audience. Except perhaps for the mid-1960s, when the American folk revival and the British rock invasion threw some much-needed backlight on their respective

genre's forbearers, it's hard to think of another time in pop music history when there was such simple respect for the achievements of the past. That's one of the main reasons why it has been a rewarding experience for me to serve as executive producer of RCA's Heritage Series, whose purpose is to once again make available (in many instances for the first time in more than 50 years) classic recordings by some of the finest and most influential American country, folk, blues, and gospel artists of the first half of this century.

Working on the Heritage Series has proven to be a great learning experience for me as well. As a longtime music critic and historian, I came into this project with a good working knowledge of RCA's exceptional back catalog in country and blues: During the '20s, '30s, and '40s, RCA Victor recorded such country giants as the Carter Family, Jimmie Rodgers, the Delmore Brothers, the Blue Sky Boys, Bill Monroe, Milton Brown, and Ernest Stoneman, and such blues stalwarts as Sonny Boy Williamson, Arthur Crudup, Sleepy John Estes, Roosevelt Sykes, Tampa Red, Big Joe Williams, and Leadbelly. I also had a fairly good idea of the kind of material I wanted to include in particular packages for the series. What I didn't know much about, however, is the intricate and painstaking technological process through which the material, after being found by a search of serial numbers in the RCA vaults, could be transformed into the collections we've been able to produce.

So far, RCA has released four Heritage Series CDs: *Ragged but Right: Great Country String Bands of the 1930s* (RCA 8416-2), *Are You from Dixie? Great Country Brother Teams of the 1930s* (8417-2), *Sonny Boy Williamson and Big Joe Williams: Throw a Boogie Woogie* (9599-2), and *Leadbelly: Alabama Bound* (9600-2). The uniform high quality of the music notwithstanding, there is a connective thread

Charlie (left) and Bill Monroe are one of the Great Country Brother Teams, while Leadbelly (facing page) has a CD of his own.



HARMONY

running through all the many tracks we've included in these packages, and that is—I'm proud to say—that all of them have been restored to the best possible sound quality without any unwarranted sonic enhancement or alteration. At no point did we attempt to artificially "modernize" any of the material by technical means: What you hear is, we hope, as close as humanly possible to the complete sound created by the artists themselves at the time the music was first recorded.

How were we able to do it? Well, because all the tracks were made before the advent of recording tape, the process began with the transfer to digital tape of the music found on the surviving original source—the ten-inch metal master plates derived from the wax lacquers on which the music was first recorded by RCA, either in official recording studios or in makeshift field operations (hotel rooms, empty warehouses). The primary ingredient for a successful restoration is having that original source from which to work, and we've been extremely fortunate (so far, anyway) in that nearly all of the masters we ordered from the vaults were indeed found. Moreover, in many cases, they had been handled only minimally. Masters, after all, are used to make pressings, and in the '20s and '30s, even "hit" country and blues recordings rarely sold more than a few thousand copies, thus leaving the masters relatively clean.

I should mention here that, failing the uncovering of the original source, one is forced to turn to either a second-generation master (be it plate or tape) or, as a last resort, a regular pressing. This explains why some digitally remastered albums don't seem to sound as good as others (outside of just plain bad engineering). Bernardo Cosachov, the transfer engineer in our technical crew for the Heritage Series, demonstrated this in the studio one day by playing a scratched-up 1930 master of the Allen Brothers' "A New Salty Dog" and then a mint pressing made from that master. Even though the master was in poor condition, it had more audible information than the pressing—information

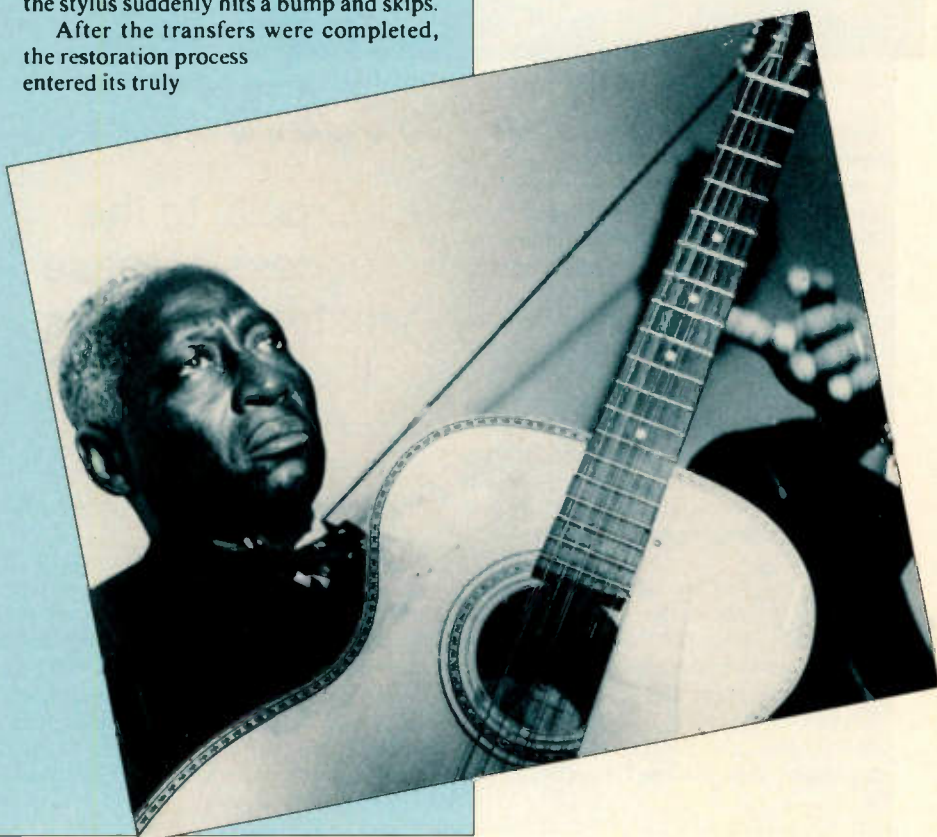
that, once transferred from metal plate to digital tape, could be brought back to life.

The transfer operation is an extremely sensitive one, especially when you're working with metal masters. In theory, it's simple: You play the master on a turntable, just as you do a record, and transfer the music onto tape. In practice, it's anything but simple. Because the cutting needles used by the waxmasters of old would often deteriorate, the grooves cut into metal masters can vary wildly, even on songs done at the same session. And because, as with any record, you need the right stylus to get the best sound, the transfer engineer may have to try ten or more different styli before finding the proper one. And that's for *each* master. As you'd expect, the transfer engineer needs to be a person with great patience as well as great skill—especially on those unfortunately not-so-rare occasions when you get to within ten seconds of the end of a successful transfer and the stylus suddenly hits a bump and skips.

After the transfers were completed, the restoration process entered its truly

FROM FIELD RECORDINGS OF THE '30S TO DIGITAL REPRODUCTION OF THE '80S: WITNESS FIRSTHAND THE RESURRECTION OF LEGENDARY COUNTRY AND BLUES MATERIAL FOR RCA'S HERITAGE SERIES OF CDS.

BY BILLY ALTMAN



RESTORING HARMONY



Big Joe (shown with homemade ten-string) shares a disc with Sonny Boy.



Blinded in infancy, Riley Puckett plays on Great Country String Bands.

high-tech phase. The digital tapes were sent to the San Francisco firm Sonic Solutions, whose specialty is the computer-assisted noise reduction system called No Noise. For technical details on the system, see David Ranada's "Bits & Pieces" column in the August 1988 issue of this magazine; meanwhile, I can report that No Noise does eliminate scratches, ticks, and most other extraneous sounds from tapes without really changing the music itself. This is a godsend to audio restorers, as the whole "dated" feeling one would get from an old recording full of pops and clicks is wiped out, freeing the producers to concentrate on bringing out the music.

When the tapes returned from California, our digital engineer, Joe Lopes, entered the picture, lending his deft hand to the final sonic adjustments and shadings that allowed everything our digital producer, John Snyder, and I wanted to hear from a particular track to come through loud and

Crucial to the success of these restorations was the application of No Noise.

clear. During this methodical homestretch, Snyder spent a great deal of time translating into technical terms my lay requests to, say, balance the sound of Charlie Monroe's guitar with that of brother Bill's mandolin, or to make sure that we could hear all four members of the Golden Gate Jubilee Quartet singing behind Leadbelly on the chorus of "Midnight Special."

Finally, when we were satisfied that the tracks couldn't be improved upon any more, we went ahead with the digital remastering.

For a passionate music fan like myself, it has been terribly exciting to help expedite the rebirth of such timeless sounds as the Delmore Brothers' fingers sliding across their guitar frets on "I've Got the Big River Blues," the Blue Sky Boys' breathtaking harmonies on "I'm Just Here to Get My Baby Out of Jail," Patsy Montana's yodel on "Montana Plains," Leadbelly's driving 12-string guitar on "Good Morning Blues," and the intermingling lines of Big Joe Williams' and Robert "Nighthawk" McCoy's guitars behind Sonny Boy Williamson on "Good Morning School Girl." And it's been quite a lot of fun, too. □

Billy Altman has been writing about popular music for nearly 20 years. He is now at work on six more Heritage Series releases.



Edited by Ted Libbey
and Ken Richardson

One of a Kind

Herbert von Karajan and the Vienna Philharmonic came to New York at the end of February and gave three concerts in Carnegie Hall for which even the city's music critics had a hard time finding adequate words of praise. It was the second time the Philharmonic had appeared in New York this season—but neither the members of the orchestra nor the many Austrian music lovers who flew to America just for the occasion (including some hard-bitten members of the Viennese press) said that they had experienced anything like the week's music-making in a long time. The performances were glorious reminders of what we go to concerts for, and the ovations accorded the eighty-year-old conductor were genuine and overwhelming.

There was a strong feeling here that these concerts—devoted to music of Franz Schubert, Josef and Johann Strauss II, and Anton Bruckner—would be Karajan's last in America. But that feeling alone could not possibly have accounted for the fervor of the performances, or for the extraordinary involvement of the audience, which was unprecedented in my experience. In spite of being nearly crippled, Karajan still has the most remarkable podium command of any conductor in the world today, and he showed even the skeptics that his power to hold the attention not only of musicians but also of audiences is undiminished.

Not since Toscanini has a conductor aroused the kind of fascination Karajan does. To be sure, a part of that fascination is bound up with questions of his past, but the truly compelling aspect of these concerts was what Karajan made happen on the stage, both in rehearsal and in performance. Schubert's *Unfinished* Symphony seemed newly minted, a model of finesse and tonal beauty, while in the works of the Strauss brothers that followed it, Karajan and the orchestra reveled in subtleties of phrasing and expression probably no one else knows are there. By contrast, Bruckner's monumental Eighth found the Philharmoniker playing as if their lives depended on it. The score was magnificently sustained for its 90-minute length; thanks to Karajan's careful pacing, the large paragraphs were literally breathtaking and the performance achieved a shattering cumulative effect.

In the past few years, relations between Karajan and the Berlin Philharmonic—whose "conductor for life" he was named in 1955—have unfortunately become rather strained. But Karajan's rapport with the Viennese, to judge from what happened at Carnegie, is as good as it has ever been in the 40 years he has worked with them.

Those who were lucky enough to get to these concerts will not soon forget them. And who knows when music-making like this will come our way again. *Ted Libbey*

Chuckle and Hum

Recent *New York Times* headline: "These Days, Rockers Are a Somber Bunch." Indeed, must Bono leave the room before the rest of U2 can have a good time? If your sense of musical humor is starving, here's a pack of stuff that has kept me laughing of late.

Start with some roots, early '60s: *Sibling Revelry: The Best of the Smothers Brothers and My Son, the Greatest: The Best of Allan Sherman*, both on premier yuks label Rhino. The former snares the freshness of the duo's club act, with music ("The Saga of John Henry") and without ("Mom Always Liked You Best"). The latter honors the original Weird Al, parodist of everything from "A Taste of Honey" ("A Waste of Money") to "Hava Nagila" ("Harvey & Sheila"). This hour-plus CD also has "Hello Muddah, Hello Fadduh!"—which appears, too, on *Dr. Demento Presents the Greatest Novelty CD of All Time* (Rhino again), a 19-cut sampler of the six-LP set. Some *real* roots here, including Tom Lehrer's '53 "Poisoning Pigeons in the Park" and Nervous Norvus's '56 "Transfusion" (which makes Bloodrock's "D.O.A." resemble a picnic). Plus more recent howlers like "They're Coming to Take Me Away, Ha-Haaa!" and "Star Trekkin'."

Trekkies should also grab *Golden Throats: The Great Celebrity Sing-Off* (Rhino yet again—am I getting any payola for this?). The highlight of this album, culled primarily from actual LPs made by '60s TV stars, is William Shatner lurching through "Lucy in the Sky with Diamonds" and "Mr. Tambourine Man." Hear also Joel Grey's cocktail-jazz "White Room," which certainly would liven up Jack Bruce's *Willpower*—as would "Theme from an Imaginary Midget Western," off Adrenalin O.D.'s *Cruising with Elvis in Bigfoot's UFO* (Buy Our Records, P.O. Box 363, Vauxhall, N.J. 07088). This cut is an O.D. original, though, as are the rest (except for two covers, one of 'em Henry Mancini's "Baby Elephant Walk"). Most post-punk-hardcore-whatever is already funny, so these guys figure they might as well make it funnier with tracks like "My Mother Can't Drive" and "Something About . . . Amy Carter." Experts in this field are the Dead Milkmen, whose *Beelzebubba* (Enigma) strangles popular culture. Sample lyric: "I'm gonna shoot somebody if they don't stop talking about *East Enders*."

But no one beats the unintentionally hysterical Shaggs, three sisters who, at dad's urging, recorded two dozen songs from '69 to '75—all now available on *The Shaggs* (Rounder). With its long liner notes, two newly released tracks, and *remixing and remastering from the original tapes*, this CD is itself an unintentional parody of digitalmania. The playing is transcendently terrible.

Next month, in Part 2 of our laughfest: Slavic Beatles, *The Best of Louie, Louie*, and more! *Ken Richardson*

Sawallisch Stars in



STRAUSS, R.: Die Frau ohne Schatten.

① *Kollo, Studer, Schwarz, Muff, Vinzing, various artists; Tölzer Boys' Choir, Bavarian Radio Symphony Orchestra and Choir, Sawallisch. Angel EMI CDCC 49074 (D, 3).*

This release is billed as the first uncut recording of Richard Strauss's monumental *Die Frau ohne Schatten*, which was completed in 1917 and first performed in 1919. Those who admire the opera will probably recall Karl Böhm's world-premiere recording, made in 1956 with the Vienna Philharmonic, a very young Leonie Rysanek as the Empress, and a cast that included Christel Goltz as the Dyer's Wife, Hans Hopf as the Emperor, Paul Schoeffler as Barak, and Elisabeth Höngen as the Nurse. In 1985, Deutsche Grammophon issued as the first version available on Compact Disc a recording taken from live performances that were conducted by Böhm in Vienna in 1977. On that occasion, the Vienna State Opera Orchestra was in the pit, and the cast featured Rysanek once again as the Empress, Birgit Nilsson as the Dyer's Wife, James King as the Emperor, Walter Berry as Barak, and Ruth Hesse as the Nurse; unfortunately, the production came about a decade too late for most of the leading participants. Both that recording and the 1956 account present the score with substantial cuts, and that alone is reason enough for obtaining this new set from Angel EMI.

Strauss

Die Frau ohne Schatten took more of Strauss's time than any of his other works, and for Hugo von Hofmannsthal's libretto the composer wrote some of his most imaginative and powerful music. The mystic scenario revolves around the Empress, a goddess-like creature who is unable to bear children (symbolically, she cannot cast a shadow); because of this, her husband, the Emperor, is to be turned into stone. The evil Nurse and the Empress leave their lofty home and descend to earth to bargain for the shadow of a mortal woman. They choose the Dyer's Wife, who is unhappy in her simple marriage.

The composer of the opera, flanked by two views of the conductor at the recording sessions

But the Empress, even though she has the power to take the Dyer's Wife's shadow, refuses to do so, thus gaining salvation for herself and for the Emperor. The Dyer (Barak) and his wife are reunited in a faithful, loving relationship, and all ends happily as the voices of Unborn Children are heard in the distance.

The leading singers in this new *Frau* range from the superlative to the disappointing. Not since Ljuba Welitsch sang *Salome* has a Strauss singer been so totally identified with a role as Leonie Rysanek has been with the Empress. While the present Empress, Cheryl Studer, does not have the sheer vocal power or the rich tone characteristic of Rysanek in her prime, she is an accurate, sensitive soprano, who manages the difficult role effectively, often singing eloquently. Those used to Christa Ludwig's portrayal of the Dyer's Wife will find Ute Vinzing's performance here somewhat hard and effortful, and not always on pitch. Hanna Schwarz gives a strong characterization of the Nurse, but it, too, is not without touches of strain.

The set's major disappointment, however, is tenor René Kollo, whose singing as the Emperor is marred by a consistent and unpleasant wobble. EMI's turning to Kollo, at this stage in his career, to sing a role as taxing as the Emperor again proves what a dearth of tenors we have today. That said, the small role of the Voice of a Young Man is sung gloriously by Canadian tenor Paul Frey, and although relative-

ly new to the operatic scene, he sounds here as though he would have been quite suitable for the role of the Emperor. Alfred Muff, another young singer, is outstanding as Barak, and the supporting cast is strong. The Tölzer Boys' Choir is extraordinarily appealing as the Unborn Children, producing appropriately ethereal sounds throughout, particularly at the close of the opera.

The real star of this recording is conductor Wolfgang Sawallisch, whose overall concept and judicious balancing of textures prove equally remarkable. Sawallisch is perhaps today's most underpublicized major conductor, and it is welcome news that he will be making further recordings for EMI. The Bavarian Radio Symphony Orchestra plays beautifully for him, with massive power when necessary and outstanding contributions from the brass.

The recording is a coproduction of the Bavarian Radio and EMI, and the engineering team has placed the voices at a distance, creating an effect rather like that of a live performance heard halfway back in an opera house. There is a touch more resonance than I would like, and the orchestral detail is sometimes muddled as a result, but the sonic quality overall is excellent. There are 44 cueing bands on the three CDs, and a handsome 300-page libretto accompanies the set.

In sum, although it has its flaws, this *Frau* offers many splendors. Someday, perhaps, one of the glorious Böhm performances from the late 1960s or early 1970s will be reissued; of course, the cuts will still be there—which means that anyone wishing to have *Die Frau ohne Schatten* complete will still want to have this set. At least for now . . . because it has been reported that Decca/London is planning to record the opera with Georg Solti conducting and a cast yet to be determined. Playing time: 3:10:51. *Robert E. Benson*

BACH: Suites for Solo Cello (3).

Casals. Angel EMI CDH 61028 (A).
 ① Suites: in G, B.W.V. 1007; in D minor, B.W.V. 1008; in C, B.W.V. 1009.

BACH: Suites for Solo Cello (3).

Casals. Angel EMI CDH 61029 (A).
 ① Suites: in E flat, B.W.V. 10010; in C minor, B.W.V. 10011; in D, B.W.V. 10012. Leave it to old Johann Sebastian. . . . Probably during his years (1717–23) at the court of Prince Leopold of Anhalt-Cöthen, he wrote these six three-move-

ment suites for a marginal instrument, unaccompanied, playing only a single melodic line with an occasional fillip of chording to establish the harmony—and he attained a level of excellence that nobody since has ever even approached.

Musicologists knew these suites existed, but the scores puzzled almost everybody. Had the part for the keyboard accompaniment got lost? Did Bach never get

masterpieces to mature for 36 years before finally consenting to make his first recording of them, between 1936 and 1939. One can summarize a critical assay of these performances in four words: Casals set the standard. The accounts sound almost incredibly good in these CD rejuvenations, and EMI has placed us all in its debt with this superb reissue. Playing times: 56:55 (61028); 73:26 (61029). *Paul Moor*



Pablo (or, in Catalanian, Pau) Casals, who set the standard for performances of Bach's cello suites

around to writing it? Robert Schumann apparently thought so, for he himself composed piano accompaniments to them—ostensibly, more fool he, to make them worth performing. The originals had languished for 166 years, until a thirteen-year-old Catalanian prodigy, Pau Casals, found a copy of the set on a dusty shelf in a Barcelona secondhand shop one day in 1889. Casals, regarded today by almost all his colleagues as the greatest cellist of all time, rescued them from oblivion singlehandedly—and, along the way, revolutionized the traditional technique of playing the cello.

In spite of pressure from His Master's Voice in London, Casals obstinately permitted his interpretation of these unique

BRAHMS: Ein deutsches Requiem, Op. 45.

Bonney, Schmidt; Concert Association of the Vienna State Opera Chorus, Vienna Philharmonic Orchestra, Giulini. Günther Breest, prod. Deutsche Grammophon 423 574-2 (D). □

Those who know the *German Requiem* already, and who want more than one interpretation of it, will find this new one from Carlo Maria Giulini worth hearing. The performance is directed sensitively, and it is not slow, as some of Giulini's other recent recordings have been. The audience in this live recording is inaudible (the few perceptible splices suggest that the CD derives from more than one performance and perhaps from the rehearsals as well).

However, those who want a first re-

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ording of the *Requiem*—or a definitive one—should acquire Otto Klemperer's justly celebrated 1961 performance, which has been reissued on Compact Disc by Angel EMI (CDC 47238, two discs). Klemperer makes more out of the distinctions between joined and separated notes, he varies the tonal shading of the choir more, and he achieves greater transparency and better balance between orchestra and chorus than Giulini does, with the result that what seems like a succession of seven similar movements in Giulini's recording comes across in Klemperer's as a coherent progression of related movements that have subtle but significant differences in texture, harmony, and color. In addition, the greater transparency both of the performance and of EMI's recording makes Klemperer's version seem more animated than Giulini's even where Klemperer's actual tempos are slower.

Klemperer has the better choir and soloists, too. Dietrich Fischer-Dieskau strains to sing loudly enough once or twice on the older recording, but on Giulini's new one Andreas Schmidt is vocally and musically inadequate all of the time. Barbara Bonney, although she sings beautifully, sounds as youthful as she is, and therefore she is less convincing in offering a mother's comfort than Elisabeth Schwarzkopf is in Klemperer's account. Giulini's chorus is undistinguished, the women's voices in particular being unattractive in tone and at times disturbingly quavery.

One word of caution: The Klemperer recording has been carelessly remastered, so much so that notes are lopped off in one or two places. I would want it anyway, but the company ought to do the job over and offer an exchange to anyone who bought the CDs that were first issued. Playing time: 73:32. *Thomas Hathaway*

BUTTERWORTH: A Shropshire Lad.
VAUGHAN WILLIAMS: Fantasia on a Theme by Thomas Tallis.

English String Orchestra, Boughton.

① *Nimbus NI 1407 (D).*

CHOPIN: Berceuse, Op. 57; Études (4); Nocturnes (2).

Perlemuter. Nimbus NI 1409 (D).

① *Études: Op. 10, Nos. 1, 3, 6; Op. 25, No. 12. Nocturnes: Op. 15, No. 1; Op. 62, No. 1.*

MENDELSSOHN: Symphony No. 4, in A, Op. 90 ("Italian").

Scottish Chamber Orchestra, Laredo.

① *Nimbus NI 1408 (D).*

What, I hear you cry, do these vastly disparate releases have in common besides the label? Well, note their respective playing times. All come from Nimbus's new Classic Single series, providing smaller programs of CD quality at cut-rate prices.

Vlado Perlemuter, especially in France, where he has trained generations of pianists, has a justified reputation as an

old master, particularly with Chopin. He performs these works with elegance and eloquence. Jaime Laredo's Scots make Mendelssohn's Italy sound convincingly vivacious and invigorating: music as joyous Esperanto! Finally, this sumptuously recorded, umpteenth version of the *Fantasia on a Theme by Thomas Tallis* can hold its own against the competition, but the beautiful Butterworth rhapsody, evoking A. E. Housman's tender poems, makes the disc especially attractive. (The composer, who was killed at thirty-one in World War I, might well have become one of England's greatest.)

The leaflet leaves unexplained all the non-string instruments that crop up startlingly in the English String Orchestra when it gets to the Butterworth. Playing times: 25:43 (1407); 26:31 (1409); 28:44 (1408). *Paul Moor*

CHAMBONNIÈRES: Harpsichord Works.

Lengellé. Lyrinx LYR CD 066 (A).
(Dist. by Harmonia Mundi, U.S.A.)

Pavane; Suite in F; La Drollierie; Le Printemps; Suite in C; Suite in G; Pavane; Gaillarde/Double de la Gaillarde.

Jacques Champion de Chambonnières (c. 1601–1672) will be a new name to most listeners, despite the fact that he occupies an important place in the history of French keyboard music. Credited with solidifying that most French of forms, the dance suite, he was also the teacher of a number of important composers of the next generation, including Louis Couperin. This recital by harpsichordist Françoise Lengellé appears to be the first appearance of his music on disc, and even if our interest in Chambonnières is more historical than musical, it is good to have him represented in the catalog.

It is important to keep in mind Chambonnières' pioneer role when listening to these works, for one is repeatedly struck by the thought that his successors employed his forms with considerably greater success than he. Not that the works themselves are unattractive; rather, they continually fall short of profundity, lacking the harmonic daring of the work of German and Italian contemporaries and the sensuousness of the next French generation. Also missing is the pointed rhythmic drive and virtuoso display that enliven the works of Chambonnières' followers in the French school. Pleasant exceptions are the bold giges that conclude two of the suites and the passacaglia "*Le Printemps*," with its unique use of arpeggiation.

There is nevertheless a slightly generic quality to Chambonnières' music, and little overt change in mood between sections. Lengellé contributes to the impression by failing to vary tempo and attack as much as she might, though her playing is generally stylish and technically assured. The

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recording is clear but unexceptional. In sum, a disc I will return to with pleasure, but not very often. Playing time: 46:34.

Christopher Rothko

FAURÉ: Requiem, Op. 48.

De los Angeles, Fischer-Dieskau, Puig-Roget; Chorale Élisabeth Brasseur, Paris Conservatory Orchestra, Cluytens. René Challan and Victor Olof, prods. Angel EMI CDC 47836 (A).

FAURÉ: Requiem, Op. 48*; "Pelléas et Mélisande" Suite, Op. 80; Pavane, Op. 50f.

Te Kanawa, Milnes*; Montreal Symphony Chorus*†, Montreal Symphony Orchestra, Dutoit. Paul Myers, prod. London 421 440-2 (D). □*

Why has Gabriel Fauré's music never achieved the vast popularity abroad that it continues to enjoy in France? A Parisian friend, reverting to the oenophile's idiom, once explained to me that "it doesn't travel well." Aside from the songs—some of them delicious—most of Fauré's music familiar to American audiences can be put on a single Compact Disc, as is the case



André Cluytens

with this new recording from Charles Dutoit on London.

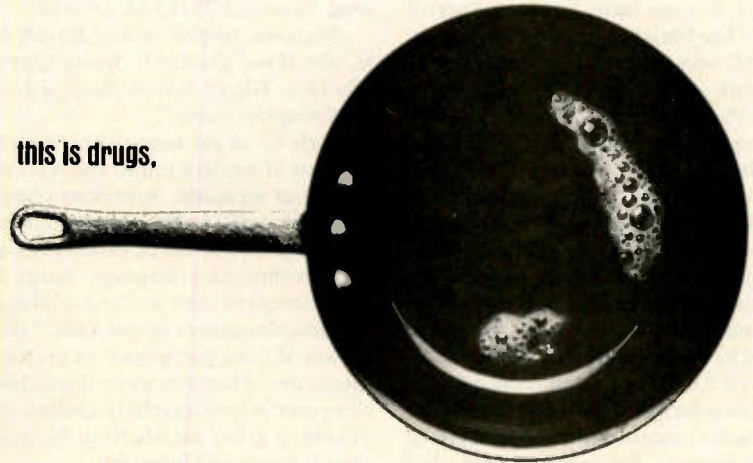
Roger Nichols's informative notes here quote a 1902 letter from the composer to a friend recording his own personal conception of death "as a joyful deliverance, an aspiration towards a happiness beyond the grave, rather than a painful experience." That, Fauré specified, also should apply to performances of his Requiem, which had had its premiere in its completed form in 1900.

André Cluytens years ago erected a milestone for recordings of this masterpiece with an account, newly reissued on CD, that enlisted two ideal soloists: Vic-

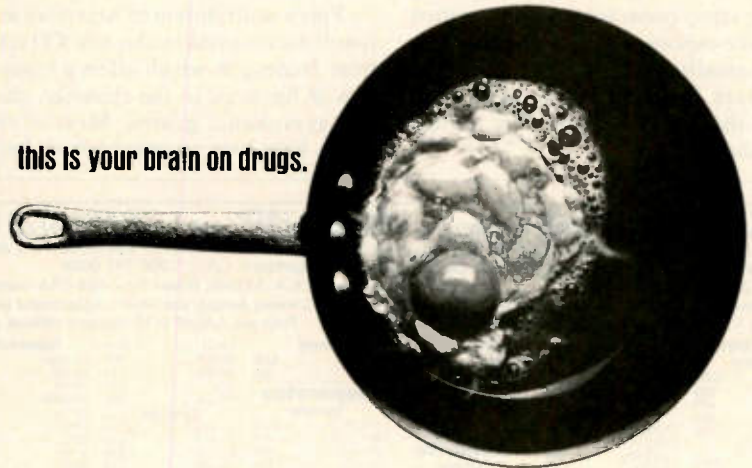
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toria de los Angeles and Dietrich Fischer-Dieskau. Of subsequent recordings of the Requiem to come to my attention, Dutoit's comes closest to matching that earlier one, perhaps because of the conductor's manifest respect for Fauré's intention. The composer himself served as regular organist in Paris's great Église de la Madeleine, and Dutoit enhances the liturgical atmosphere by giving the organ more prominence than would most conductors. (Oddly, London leaves the Montreal organist anonymous.) Dutoit also brings out important, illuminating interior orchestral lines that are customarily slighted. Kiri Te Kanawa's voice radiates the ravishing but celestial quality demanded by the soprano solo part. For my taste, however, Sherrill Milnes's fine baritone lacks the mahogany timbre his part requires, but he handles his music with sensitivity.

The *Pelléas* incidental music owes its existence to G. B. Shaw's platonic innamorata, Stella (Mrs. Patrick) Campbell. When she wanted to play Mélisande in Maeterlinck's play in London and Debussy refused permission to adapt excerpts from his opera, she had the imagination and taste to commission a new score from Fauré, and rarely has any play, anywhere, profited by such beautiful enracinate music.

Dutoit for some reason (conceivably, just because he had a fine chorus on hand) has chosen to record the *Pavane*, not in its original version—for orchestra only—but with the sappy poem subsequently written to it at the caprice of the rich woman who had originally commissioned the score from Fauré. Roger Nichols neglects to tell us how that sat with Fauré. Not terribly well, I should think.

Listening to the Cluytens recording of the Requiem, nicely spruced up by CD technology, makes it again clear that De los Angeles, among the great singers of our era, belongs in a class by herself; so does Fischer-Dieskau. On the other, practical hand, London gives you about 37 percent more music than EMI does—surely a consideration. Playing times: 63:11 (London); 39:55 (Angel EMI). *Paul Moor*

FINE: Various Works.

*Dane**, *Jolles**; *Cantata Singers**, *New York Woodwind Quintet*, *Lydian String Quartet*, *New York Chamber Symphony**, *Los Angeles Chamber Orchestra***, *Hoose**, *Schwarz***; *Judith Sherman*, *prod. Nonesuch 79195 (A, D)*. © □

*Notturmo, for Strings and Harp**; *Partita, for Wind Quintet*; *String Quartet*; *The Hour Glass**; *Serious Song: A Lament for String Orchestra***.

Though he swam near the experimental currents of modern music and felt the undertow of serialism, American composer Irving Fine (1914–1962) never drowned in those depths, nor did he expostulate a private revolutionary language. Aaron Copland eulogized him as "one of the most cherishable natures of our time," though he was also no participant in prairie Romanticism. Fine was more a neoclassical composer whose carefully crafted works provided great satisfaction because of their lyricism and formality.

Fine's contribution to American music is well documented by this new CD release from Nonesuch, which offers a cross-section of his work in the chamber, choral, and symphonic genres. Most of these scores have been recorded before, but the

present performances are in each case at least as good as their now generally unavailable predecessors on LP.

The opening gem of the collection is the magical *Notturmo* for strings and harp (1951). This is a lovely, ingratiating work



Irving Fine

of autumnal ripeness. "What if Mozart were alive today?" Fine seems to be asking himself. The New York Chamber Symphony, under Gerard Schwarz, plays the quarter-hour piece a good deal faster than did Lukas Foss and members of the Brooklyn Philharmonic in their CRI recording; I prefer the languor of the latter, though I find Schwarz perfectly fine (no pun). The recording is good, but could be more transparent.

The *Partita* for wind quintet (1948) won the award of the New York Music Critics Circle as the best chamber-music work performed in the 1949 season. It is a beautiful, Stravinskian romp full of invention and sparkle, superbly performed here by the New York Woodwind Quintet. Fine's slightly knotty side is shown in his *String Quartet* (1952), in which he attempts a taming of 12-tone technique that, curiously, resolves itself into some lovely, spiky music that could have come out of a Janáček quartet. A brilliant performance is turned in by the Lydian String Quartet.

Few American composers have written as gratefully or as ingeniously for the human voice as Fine. From his fair number of choral works, Nonesuch chose for this collection *The Hour Glass*, choral settings of six poems by Ben Jonson, which are given scintillating performances by the Cantata Singers under David Hoose. The CD closes with Fine's *Serious Song: A Lament for String Orchestra* (1955), in a performance reissued from an earlier Nonesuch

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release—*American Music for Strings* (D 79002)—which was recorded in 1980 with Schwarz leading the capable Los Angeles Chamber Orchestra. *Serious Song* is a symphonic elegy—"an extended aria for string orchestra," as Fine called it—that has genuine weight and beauty. It lacks only that little something, so apparent in both the *Notturmo* and the *Partita*, to qualify as a minor classic. [*Serious Song* is not included in the LP and cassette versions of this program.—Ed.]

For the quality of the music, the caliber of the performances, and the imaginative programming, this CD is a clear winner. Playing time: 70:16. *Robert R. Reilly*

GOSSEC: *Missa pro defunctis*.

① *Degelin, De Reyghere, Crook, Widmer; Maastricht Conservatory Chamber Choir, Musica Polyphonica, Devos. Michel Garcin, prod. Erato ECD 75359 (D). (Dist. by BMG Classics.)*

In 1760, composer François-Joseph Gossec (1734–1829), then twenty-six years old, penned his *Missa pro defunctis*. It is a young man's Requiem, which may account for its also being known as the "Mass for the Living." The startling effects Gossec achieved in this extraordinary work, which I confess made it hard for me to sit still while I was listening, are reason enough to greet Erato's recording as a revelation.

The musicological significance of the score, considered one of the greatest liturgical compositions of its time, is worth mentioning. This performance is based on a newly discovered, and supposedly final, version in Gossec's own hand. It is not difficult to hear, in nascent form, effects more fully exploited in the liturgical music of other composers who must surely have learned from this impressive piece: Mozart, Beethoven, and, especially, Berlioz (listen to Gossec's trailblazing *Mors stupebit*). But what is most impressive is the music itself. Although it lasts almost an hour and a quarter, the piece never flags. It sustains a level of invention that certainly invites a resurrection of the composer's other works, including more than 30 symphonies and orchestral settings. Caught between the Baroque and the Classical periods, this Requiem exhibits no transitional discomfort; it is rather a confident, full-blooded, and moving piece. Certain effects may be pushed to the point of mannerism (the vocal affectations in the *Dies irae*, for instance), but the writing rarely crosses the border.

Louis Devos delivers a lively performance with the 36-member Musica Polyphonica (using original instruments), the excellent Maastricht Conservatory Chamber Choir, and fine soloists. [*It's nice to see the Low Countries honoring one of their own; Gossec was of Walloon Bel-*

FORMAT KEY

<p>Ⓞ LP Ⓢ Cassette Ⓛ Compact Disc</p>	<p>Ⓜ Videocassette Ⓟ Videodisc</p>
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RECORDING INFORMATION

(A) Analog original (D) Digital original

Large symbol at left margin indicates reviewed format. Small symbols following catalog number of reviewed format indicate other available formats (if any). Catalog numbers of formats other than the reviewed format are printed only if their basic numbers differ substantially from that of the reviewed format. Arabic numeral in parentheses indicates number of items in multi-item set.

gian extraction.—Ed.] His fresh approach makes clear what must have thrilled the audiences of Gossec's time, and brings to the surface something that may, perhaps, thrill listeners in our own as well. The sound is excellent. Playing time: 73:50.

Robert R. Reilly

MOZART: *Le nozze di Figaro*.

① *Desderi, Rolandi, Stilwell, Lott, Esham, various artists; Glyndebourne Chorus, London Philharmonic Orchestra, Haitink. John Fraser, prod. Angel EMI CDCC 49753 (D, 3).*

At first glance, it seems almost inexplicable that a record company, having agreed in advance to record an opera production because on paper it looked as if it were going to be a good one, should carry on with the plan—especially with a work as well represented on records as *The Marriage of Figaro*—once the rehearsals and perfor-

mances had made it plain that there was going to be nothing worth preserving. Perhaps once a deal is made, these projects—with their artists' contracts, union agreements, studio commitments, advance promotion, and the rest of it—develop a momentum of their own that is hard to resist.

However, in this instance there may have been more to it than that. To begin with, this *Figaro* was one of three productions marking the 50th anniversary of the opening of the Glyndebourne Festival and of the release of the original Glyndebourne recordings—of which the first, in 1934, was also of *Figaro*.

Second, this album, like the recording of *Così fan tutte* that preceded it, was sponsored by one Vincent Meyer, "a young Frenchman" who, we are informed by a note prominently positioned at the front of the libretto, "is closely and increasingly associated with the world of professional music, in which, amongst other things, he is President of the Philharmonia Orchestra." The syntax of the credit suggests that it was written by Meyer himself, and its extraordinary five-paragraph length suggests that his sponsorship was so nearly complete as to give him control over the project. Perhaps that is how Glyndebourne gets to make records under the reduced arts funding in England today. If so, too much fun shouldn't be made of the people with money who step in to help. But for Meyer's sake, I hope he has enough money, and for EMI's sake, I hope that he paid for the whole thing, because the recording, which must have been costly, is unqualifiedly superfluous.

Not one role in this new set is sung with vocal or musical distinction, and a number

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of the prominent ones are sung with considerably less than that. The orchestra plays leadenly right from the opening bars of the overture, and Bernard Haitink conducts with neither verve nor delicacy. Regrettably, not recommended. Playing time: 178:01. *Thomas Hathaway*

MOZART: Symphonies: No. 34, in C, K. 338; No. 35, in D, K. 385 ("Haffner"); No. 39, in E flat, K. 543.

London Mozart Players, Glover. Brian B. Culverhouse, prod. ASV CD DCA 615 (D). (Dist. by Harmonia Mundi, U.S.A.)

After the recent appearance of several disappointing Mozart symphony series on both period and modern instruments, the release of these superb performances by the comparatively unknown Jane Glover is good news.

Glover appears to be fairly well established in England, where she is director of

the beginning and end of a phrase. One result of Glover's sensitivity to all this is a transparency of texture that is more discriminating and revealing than the kind usually obtained by encouraging all the instruments to make themselves heard equally (something often done on records with the help of the microphones). Another result is the animation and purposefulness of these performances, which I think derive—as I believe Glover's powerfully expressive phrasing must—from her sense of the direction and point of Mozart's harmonic progressions.

But even listeners who aren't certain they will understand much about harmonic progressions should respond to the vitality, beauty, and clarity of these performances. The players use modern instruments, but that is not at issue: The only other Mozart symphony recordings I have heard in the last 15 years that are as impressive as these are the few Benjamin

machine. The recording time is generous, and the notes speak of this disc as part of "a major project of Haydn and Mozart recordings for ASV." Playing time: 74:02.

Thomas Hathaway

SCARLATTI, A.: La Giuditta.

Zádori, Gémes, Gregor, Minter, De Mey; Capella Savaria, McGegan. Hungaroton HCD 12910 (D). (Dist. by Qualiton Imports, Ltd.)

With this fine recording of Alessandro Scarlatti's *La Giuditta*, Nicholas McGegan and his Capella Savaria continue their enterprising perusal of ignored masterworks of the Baroque. Although it is quite an early work (c. 1690), there is no hint of immaturity in this short but thoroughly engaging oratorio. The action is set in the besieged Judean city of Bethulia; Judith (Giuditta), the heroine, saves the city by ensnaring the Assyrian general, Oloferne, and cutting off his head.

The work is virtually indistinguishable from an opera. The pace of the action is swift, with a minimum of recitative, and the arias capture our attention but do not overstay their welcome. More than by any particular aria or scene, one is struck by Scarlatti's total mastery of the genre. His command of dramatic elements shines through, as does his ability to paint the action in bold colors: The trumpets, for instance, shout of royalty and war, while the strings sing sweetly of hope and better times.

The principals are, on the whole, quite accomplished. Mária Zádori is a standout in the title role, a convincing singer who is able to achieve a lightness of touch without sacrificing her very full tone. Katalin Gémes, as the cowardly Prince Ozia, shapes her phrases with great care, while József Gregor makes an imposing and colorful Priest. By far the most impressive member of the cast is Belgian tenor Guy de Mey, who sings the part of the Assyrian Captain. De Mey's voice is primarily a lyric one, but there is no lack of expression. Every word he sings has weight and meaning; he thoroughly convinces us of his conversion, and of the Judean victory to come. In light of De Mey's accomplishments, it is a shame that Drew Minter does not make a more commanding Oloferne. There is simply not enough conviction in his singing; he is far too polite when seething with rage, and not terribly involved when overcome with passion. Fortunately, his pleasant, not overly florid counter-tenor voice keeps him from offending.

McGegan conducts a brisk, bubbly performance, but never at the expense of conveying the music's sentiment, and his period-instrument band plays with a robustness and perkiness that more than compensates for its occasional lapses in intonation. The recording is nicely focused,



Conductor Nicholas McGegan, staunch advocate of such neglected works as Scarlatti's "Giuditta"

the Huddersfield and London Choral Societies as well as of the London Mozart Players, which she took over in 1984 on the retirement of its founder, Harry Blech. She has conducted the English National Opera, the Glyndebourne Festival touring company, and at the Royal Opera, Covent Garden. She has also written and presented two BBC television series, one of them on Mozart.

Glover has a remarkable ear for this composer's subtle modifications of harmony and for the color changes he achieves by shifting the emphasis from one group of instruments to another between

Britten made shortly before he died. Especially welcome is Glover's performance of the powerfully affecting Symphony No. 39, in E flat, K. 543, a work usually mentioned in the same breath as the other two last symphonies—the G minor and the *Jupiter*—but played less often.

Two minor reservations: The orchestra, which is very good and well reproduced, would sound less overpowering if it had been recorded with less reverberation. And on my review copy the last movement of the E flat symphony would not play all the way through on a portable player, although it tracked flawlessly on my home



MINI-REVIEWS OF THE LATEST COMPACT DISCS

By Robert E. Benson, Paul Moor, Christopher Rothko, Terry Teachout, and James Wlerzbicki

MARKEVITCH, FOURNET, CONCERTGEBOUW: RUSSIAN WORKS

Igor Markevitch (1912–1983) was one of the most dynamic conductors of the middle years of this century and was well known for his fine Tchaikovsky recordings. This anthology of Russian music—one of the most expertly played available—features Markevitch's 1964 Concertgebouw recordings of the *Festive Overture 1812*, Rimsky-Korsakov's *Russian Easter Overture*, and Borodin's "Polovtsian Dances," from *Prince Igor*. I have always admired these performances in their LP incarnation, but listening to them on CD, it is obvious that there was much more on the master tapes than ever was conveyed before. The sound is warm and rich, more solid than on LP. *Russian Easter* is given a particularly vibrant reading, and if you enjoy a large-scale *1812*, and don't insist on cannons in the finale, you'll derive much pleasure from Markevitch's interpretation.

Two 1959 recordings by Jean Fournet with the same orchestra fill out the budget-price disc. Borodin's *In the Steppes of Central Asia* is beautifully serene, with the distinctive Concertgebouw winds in fine form, but Mussorgsky's *Night on Bald Mountain* comes across as somewhat tame. Playing time: 60:48. (Philips 422 276-2.) *R.E.B.*

LISZT WALTZES, PIANO WORKS: HOWARD

This generous bouquet of 14 pieces claims to contain Franz Liszt's complete concert waltzes for piano, aside from "juvenilia, a few album-leaves, early versions, and works based upon other composers' music"—with the little *Ländler*, in A flat, and the *Albumblatt in Walzerform* tossed in for good measure. Liszt scholars will welcome Leslie Howard's inclusion here in the *Mephisto Waltz* No. 4 of three pages of sketches Liszt left for an *andantino* section; Howard completed the composition of the piece in 1978. An Australian, trained in Italy and England and now living in London, Howard plays with dazzling virtuosity, clarity, and poetry. Liszt wrote some of the most difficult piano music ever, but Howard's staggering technique makes it sound like child's play. This entire recording radiates charm and will almost certainly introduce you to a lot of delightful material you never before had

had the chance to discover. Playing time: 74:40. (Hyperion CDA 66201. Dist. by Harmonia Mundi, U.S.A.) *P.M.*

BRITTEN, VAUGHAN WILLIAMS FOLKSONG ARRANGEMENTS: TEAR

This CD contains a well-balanced selection of Benjamin Britten's ingenious folksong arrangements, including "O Waly, Waly," "The Ploughboy," "The Salley Gardens," "The Ash Grove," and "Oliver Cromwell." Robert Tear's sturdy, vigorous singing and Philip Ledger's crisp accompaniments give considerable pleasure, although those who remember the recordings of Sir Peter Pears are likely to find Tear a shade too hearty for comfort. Eight Vaughan Williams arrangements bring the disc in at just over an hour. Complete texts and good notes by Keith Horner and Michael Kennedy. Playing time: 63:23. (Angel EMI CDM 69423.) *T.T.*

TELEMANN CONCERTOS: DE ROOS, RICERCAR CONSORT

From Belgium's Ricercar label comes an intriguing collection of Telemann orchestral works featuring recorder. Fine as the pieces are, this release is particularly notable for its excellent orchestral playing—anyone who still thinks of Baroque violins as sounding screechy and anemic should have a listen to the Ricercar Consort. Recorder player Frédéric de Roos turns in zesty performances in three double concertos, joined by a different soloist in each. The Concerto in A minor for Recorder and Viola da Gamba is given an unabashedly vigorous reading that emphasizes its Italian flavor. Gambist Philippe Pierlot's bold, incisive playing is a joy, and he demonstrates a great sense of interaction with both De Roos and the orchestra.

The Concerto in F for Recorder and Bassoon is a less impressive work, save for its meditative *grave* third movement, yet it receives an athletic rendition from bassoonist Marc Minkowski and the ensemble. More intriguing is the E minor Concerto's pairing of recorder and flute, in which the similar sound but distinct melodic voices of the two instruments make for particularly rich interplay. Telemann's remarkable invention is again displayed in the unusual "Oriental" Presto that concludes the piece. A rhythmically vivacious and very French-sounding suite, in A minor, ends the disc on a rather different but

equally satisfying note. The digitally recorded sound is of demonstration caliber, with rich, gutsy string tone and a consistently excellent balance between soloists and orchestra. Playing time: 74:04. (Ricercar RIC 044021. Dist. by Harmonia Mundi, U.S.A.) *C.R.*

BARTÓK QUARTETS NOS. 1, 2: CHILINGIRIAN QUARTET

Béla Bartók's six string quartets do not lack representation on records, yet producers of Compact Discs have been slow to give these masterworks the sort of attention that has been lavished on the Hungarian composer's flashier, more easily accessible showpieces for orchestra. Today, a handful of complete sets—including those by the Takács, Berg, and Emerson quartets, plus several reissues—are available on CD, but with music of this depth there is always room for another way of looking at things, and so an especially warm welcome can be extended to the first installment in the London-based Chilingirian Quartet's new, three-CD series on Chandos.

In terms of tempo, the Chilingirian's way with the Quartets Nos. 1 and 2 is closer to the readings by the Guarneri Quartet (RCA) and the Tokyo Quartet (Deutsche Grammophon) than to any of the other (LP) packages on my shelf. But the sound is considerably more mild—not so much smoother in execution as simply less aggressive in interpretation. While this approach is often well enough suited to the lyric content of the first and second movements of the Quartet No. 1 (1908), it seems to deprive that work's finale—and the whole of the denser, more acerbic Quartet No. 2 (1917)—of some vital energy. Playing time: 56:05. (Chandos CHAN 8588. Dist. by Koch Import Service.) *J.W.*

VLADIMIR HOROWITZ: "LIVE AT CARNEGIE HALL"

This three-CD set contains material recorded at Vladimir Horowitz's 1965 and 1966 "comeback" recitals and at a 1968 recital that was televised by CBS. The fare ranges from sonatas by Mozart, Haydn, and Scarlatti to Liszt's *Vallée d'Obermann* and Horowitz's own *Carmen Fantasy*. The interpretations, as always with Horowitz, are at times willful and perverse, but the best of these famous performances, in particular Scriabin's Tenth Sonata and

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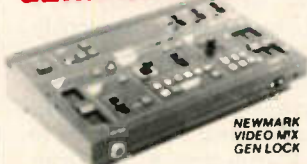
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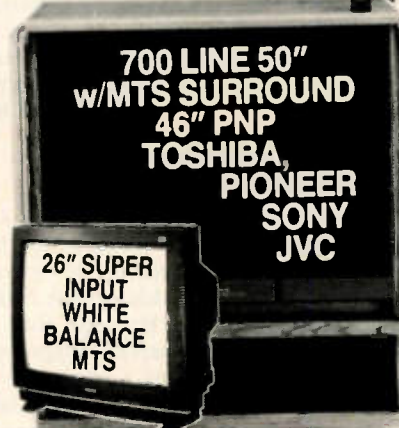


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Debussy's *L'Isle joyeuse*, are unforgettably thrilling. The sound, however, is hissy and short on headroom, the liner notes useless. The Schumann C major Fantasy and the Bach/Busoni Toccata, Adagio, and Fugue contain no internal bands or index points. (This is standard practice at CBS, which doesn't seem to understand that long works require access points—whether or not they have movement breaks.) Two different versions of the Chopin G minor Ballade are included, as is a lot of loud and well-deserved applause. Playing time: 3:33:18. (CBS Masterworks M3K 44681.) *T.T.*

PROKOFIEV CELLO MUSIC: FERSCHTMAN, BRAUTIGAM

A new CD on the Dutch Etcetera label serves as a reasonably impressive introduction to the work of Dimitri Ferschtman, a Soviet-born cellist in residence in the Netherlands since 1978. The material is all by Prokofiev: the only two works he actually wrote for cello and piano (the Ballade, Op. 15, and the Sonata in C, Op. 119), plus a generous selection of tuneful transcriptions (of the March from the Opus 65 *Music for Children* piano suite, as well as of segments of three ballets: the Adagio from *Cinderella*, the Waltz from *The Stone Flower*, and a set of five movements from *Chout*). Ferschtman's interpretations, and those of accompanying pianist Ronald Brautigam, hold to the mainstream; the cellist's playing is warm, solid, and apparently grounded on secure technique. Playing time: 49:49. (Etcetera KTC 1059. Dist. by Qualiton Imports, Ltd.) *J.W.*

PALESTRINA MASS, MOTETS: CHAPELLE ROYALE, HERREWEGHE

This disc of five motets and the *Missa Assumpta est Maria* is ravishly sung by the choir of La Chapelle Royale under Philippe Herreweghe. Although the choir, at 22 voices, may be a bit larger than is ideal, it produces a positively sumptuous sound, which is aided by a spacious and well-focused recording. Herreweghe has chosen the motets well—the *Sicut cervus* and *O beata et gloriosa trinitas* are particularly poignant.

These performances date from 1980, and in the context of our evolving views of Renaissance performance practice and style in recent years, I am surprised by the somewhat reserved approach and rather slow tempos adopted here. Herreweghe's readings are marked by a pervasive tranquillity, a certain mellowness and relaxed quality that allows one to bask in Palestrina's luxurious sound world. Yet, attractive though it is, the smoothness and serenity begin to make all the works sound the same. The emotional neutrality of the performances leaves the *Ave Maria*, for ex-

ample, neither joyful nor mournful but suspended in limbo. Moreover, these are not very dynamic readings, having little rhythmic push or contrast between sections. All the same, Herreweghe avoids some of the excesses of expressive pointing that have become common today. On the whole, the mass fares somewhat better than the motets, thanks to slightly perkier tempos and greater momentum. Playing time: 43:28. (Ricercar RIC 008029. Dist. by Harmonia Mundi, U.S.A.) *C.R.*

STOCKHAUSEN WORKS FOR CLARINET, BASSET HORN: STEPHENS

This disc will probably appeal only to the most esoteric of avant-gardists. The first work, *In Freundschaft*, comprises 11 mini-movements for solo clarinet: an Introduction, a Formula, six movements called CYCLE, two called Explosion, and a Synthesis of the Two Layers. Except for occasional multisonics (the wind player's equivalent of the string player's double stops), you have in all three pieces naught but a single woodwind line, unaccompanied—clarinet again in *Amour* and basset horn in *Traum-Formel*.

Suzanne Stephens (b. Waterloo, Iowa) won a prize at Darmstadt's annual avant-garde conclave in 1972 and has loomed large among Stockhausen's acolytes since 1974; he composed *In Freundschaft* as a birthday gift for her in 1977. She plays both instruments with a virtuosity and a range of timbre bordering on the incredible. In the accompanying leaflet, the master himself provides musical examples from the works and admonishes the auditor, with his accustomed severity, how to listen to them. Playing time: 47:24. (Deutsche Grammophon 423 378-2.) *P.M.*

ARLEEN AUGÉR: "LOVE SONGS"

This recording by soprano Arleen Augér is an anthology of 25 songs about love, and it is as disarming as it is disorganized. The program wanders all over the map and, in the end, becomes pretty monotonous. Still, Augér's sweetly straightforward singing, despite some plummy diction in the English-language numbers, is more than attractive enough to justify her seemingly random choice of material. Dalton Baldwin's accompaniments are wonderfully shapely and tasteful.

If you've been holding your breath for a recital program that juxtaposes Lerner and Loewe with Mahler and Quilter, wait no longer. If you'd rather have heard Augér and Baldwin in, say, a complete recording of Aaron Copland's *Twelve Poems of Emily Dickinson* or Francis Poulenc's *Fiançailles pour rire* (snatches of both are included here), you're out of luck. The churchy acoustic captured by producers Amelia Haygood and Carol Rosenberger

is not quite right for this kind of material. Playing time: 68:26. (Delos DCD 3029.) *T.T.*

MARCHAND HARPSICORD MUSIC: HAUGSAND

Ketil Haugsand brings us a very attractive disc of the two surviving suites for harpsichord—the *Pièces de clavecin*, Books 1 and 2—by Louis Marchand (1669–1732). These are traditional French dance suites, yet both have a particular elegance and grace that prevent them from ever becoming formulaic. Haugsand, too, does his part to spark our interest; his readings are slightly cautious but always rhythmic, idiomatic, and sensitively phrased. He is especially adept at imbuing each movement with its own particular flavor, inviting one to envision the dances on which the music is based. The first suite is certainly the more imposing of the two, but what the second lacks in impact it makes up for in buoyancy. A very fine, close recording captures a beautiful, full-bodied, but unidentified instrument. This CD is highly recommended, despite its short playing time (36:04). (Simax PSC 1007. Dist. by Qualiton Imports, Ltd.) *C.R.*

KREISLER WORKS FOR VIOLIN AND PIANO: SHUMSKY, WOLFRAM

Okay, so it's fluff—but what delectable fluff! Like Leonard Bernstein in our own time, violinist Fritz Kreisler (1875–1962) led a double life as one of the supreme musicians of his age and as an unsurpassed composer in some of the lighter genres (in Kreisler's case, Viennese operetta music and luscious *Kaffeehaus* melodies). Since Kreisler composed primarily for the instrument he played so superbly (you've missed something very special if you've never discovered his recordings of the Brahms and Beethoven concertos), all the pieces here play like a house afire.

Oscar Shumsky exemplifies far too large a number of superb American artists whom this country's overcommercialized managerial structure has on its conscience. Even in music of this sort, Shumsky proves that in his prime he ranked alongside almost all the greatest violinists of his time, but for one reason or another he never received the recognition in America that he so richly deserved. England, quite rightly, welcomed him, and there (also for ASV) he recorded all the Mozart sonatas (with Artur Balsam) and all the Bach solo sonatas and partitas.

The indication "Vol. 4" on this collection of Kreisler violin and piano works makes me hope that ASV will also reissue Shumsky's other three Kreisler programs on CD. You've rarely heard such violin-playing wizardry. Playing time: 50:26. (ASV CD ALH 971. Dist. by Harmonia Mundi, U.S.A.) *P.M.*



EC IS
HERE
THERE
and
EVERY.
WHERE

ELVIS COSTELLO: Spike.

© *Elvis Costello, Kevin Killen, and T Bone Burnett, prods. Warner Bros. 25848-1.* □ ◻

Elvis Costello (a.k.a. Declan "D.P.A." MacManus) released his last two albums in 1986, a characteristically prodigious outpouring. On the first, *King of America*, the angry young cryptographer modified his bite and bark, offering a set that explored options befitting a maturing troubadour—musically more acoustic if not altogether mellow, lyrically still lashing but willing to dial the anger down to a simmering brood. The second, *Blood and Chocolate*, perhaps inspired by the paying public's huge indifference to the first, was a surprising reversal, a return to form—an asskicker. The cumulative effect of the two LPs was to make Declan's Costello a more complicated pretense, an invention of

many parts. Those expecting some kind of melding to take place on this year's *Spike* will be disappointed: This is a mixed bag of moods, the kind of hit-and-miss variety show that will please fans but, I suspect, win no new converts.

The musical range of *Spike* is suggested by its various recording sites: London, Dublin, New Orleans, Hollywood. Elvis gets poppish with co-writer Paul McCartney ("Veronica" and "Pads, Paws, and Claws"—a natural collaboration, as El's been lifting Brit Invasion riffs from the gigo), tries out some Van Morrison licks with Allen Toussaint ("Deep Dark Truthful Mirror"), and gets classically new wave ("... This Town ..."). But what prevents *Spike* from being a forgettably clever potpourri like 1984's *Goodbye Cruel World* is the adroit use of guests like the Dirty Dozen Brass Band, legendary jazz

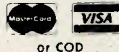
bassist Buell Niedlinger, and the odd Irish folkie—as well as the presence of a few extraordinary songs (makes *all* the difference). "Tramp the Dirt Down" and "Any King's Shilling" are by far the best political sketches MacManus has devised, achieving just the right mixture of outrage and compassion without shading into righteousness or worse (compare with the album's closer, "Last Boat Leaving," which tips over in a sea of self-pity). Also effective is "Chewing Gum," a weird comic-book urban-funk deal that works on a couple of levels—as harangue, nonsense song, soap opera (for emotional antecedent, hear "White Knuckles" on 1981's *Trust*)—and is topped by a hang-loose vocal rich with insinuation.

Not everything here is as fresh as those three songs; "Miss Macbeth" and "Satellite," small pleasures and all, could be the

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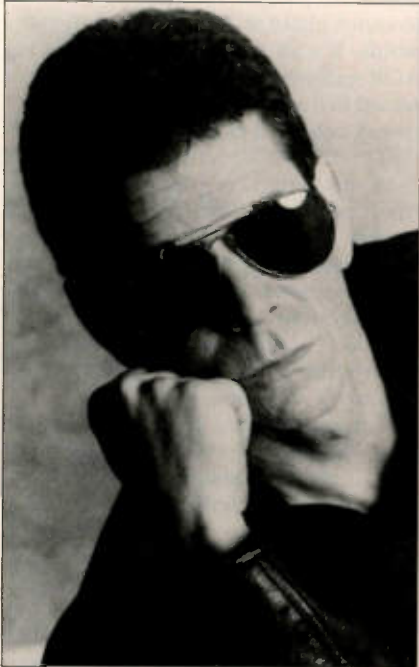
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work of a Costello mimic. But *Spike*, unfocused and anticlimactic after his two most purposeful discs, still has enough peaks to sustain the faithful. *Richard C. Walls*

LOU REED: New York.

Lou Reed and Fred Maher, prods. Sire
 25829-2. □ □

From the earliest Velvet Underground recordings of the '60s through his nearly two decades of solo work, Lou Reed's stories,



WARING ABBOTT

Reed's fury is powered by a four-piece band . . .

analyses, love songs, lurid hallucinations, and flat-out rants comprise a seminal rock and roll neorealism. Could anyone think that escape from "all the dead bodies piled up in mounds" was a fanciful notion in 1967? Could anyone else have written "I'm Waiting for the Man," or "Candy Says," or even "Disco Mystic"?

Eight blithely blind years of Ronald Reagan (and Ed Meese and James Watt and . . .) have left rock and roll hearts with a lot more neo than realism, and Reed has increasingly felt himself called to redress the imbalance. Part self-prescribed purgative, part meditation on decay and death, and part arch affirmation of the dim possibility of survival against dismal odds and Himalayan indifference, *New York* serves as a passionate beginning to the difficult task at hand.

His stories, as always, are exquisitely observed. Little Pedro, trying to make

himself disappear from the "Dirty Blvd.," and Sam, a disabled vet reeling under the weight of memory in "Xmas in February" as he stares at the Vietnam War Memorial, are astonishing characters, as accurately drawn as they are hapless. Reed's jeremiads—"There Is No Time," "Busload of Faith," "Strawman"—are, well, just that. Sometimes stirring, sometimes troubling, they spew forth with such force and such seniority that there's no meaningful parallel in today's marketplace.

The impact of the four-piece band is equally powerful. With this album, a career-long obsession with snarling electricity and feedback undertow has finally been perfectly realized. Melded with unvarnished vocals (a man possessed, Lou even starts to sing again on a few tracks!) and sophisticated use of dynamics, this CD offers a stunning distillation. Whether you ride the subways or the freeways, *New York* captures the clear-eyed foolishness and cold-eyed fury of great rock and roll.

Jeff Nesin

Editor's note: According to a sticker on its CD packaging, "New York is one of the first CDs able (with use of the new CD + Graphics players) to display graphics on TV sets. The audio remains perfect on every CD+G. In this case, the bonus is your ability to watch Reed's words displayed on five channels: English, Spanish, French, German, Italian. CD + Graphics equipment can be purchased starting July."

BOB MARLEY: Bob Marley.

Various prods. Urban-Tek UTC 3002.
 □ □ □ (Dist. by Slam, 6201 Santa Monica Blvd., Hollywood, Calif. 90038.)

BUNNY WAILER: Liberation.

Bunny Wailer, prod. Shanachie 43059.
 □ □ □ (37 E. Clinton St., Newton, N.J. 07860.)

Releasing old Bob Marley tracks has been something of a cottage industry (spurred recently by a multitude of CD imports) since the undisputed reggae king's death in 1981. *Bob Marley* is yet another sampling of the prolific songwriter's early output before his breakthrough on Island Records in 1973.

Overseen by Danny Sims, who signed Marley to his JAD label in 1966, this collection offers eight "previously unreleased" tracks originally recorded between 1968 and 1972. (Most of this material has in fact appeared in different versions on other similarly questionable posthumous albums.) Overdubbed to the

hilt with state-of-the-art techno-dance gimmickry and new background vocals, these songs obviously have little to do with Marley's original intentions and, at times, sound more like disco than reggae. The only saving grace is "Caution," one of the tracks that is indeed newly available. Lyrics recount the rainy nighttime tale of Marley's arrest for riding in an unlicensed car. Though the song is slickly dressed, it has a powerful horn arrangement, and



. . . while Wailer's is diluted with joyous horns.

Marley's persistent vocal does shine through. Elsewhere, if one forgets for a moment the album's outrageous doctoring, "Soul Almighty" is genuinely funny, with its takeoff on "Land of 1,000 Dances." Otherwise, *Bob Marley* is the worst kind of tampering for profit.

Bunny Wailer, who after the death of Peter Tosh is now the lone survivor of the Marley core unit, has added *Liberation* to the slew of solo records he has quietly released since 1976. This one, with its songs of racial injustice and poverty and with a gatefold cover that reprints in full the United Nations' Universal Declaration of Human Rights, is a departure for reggae's elder statesman, whose *Rootsman Skanking* and *Rule Dance Hall* recently celebrated the lighter, good-times nature of Jamaica's music. In the terse, Mutabaruka-like spoken introduction to the bruiser "Botha the Mosquito," he equates the South Afri-

can prime minister with "Hitler and Mussolini, the Anti-Christ." Yet the diatribe is diluted by Wailer's sweet voice and the joyously swaying horn arrangements that approach calypso, sorely lacking Marley's guitar-jabbing edge. Wailer is at his most politically effective when he keeps the rollicking to a minimum, as on the mournful but hopeful "Rise and Shine." Meanwhile, a good candidate for crossover single is "Didn't You Know," delivering a "be the best you can" message reminiscent of Stevie Wonder's reggae flirtations.

Larry Jaffee

compilation of the group's early live LPs *Good News* and *We All... Everyone of Us*) and the 70-minute *Live at Carnegie Hall* could be considered "Best Of" releases, thematically if not musically, because they encapsulate both the terrible beauty and the well-meaning corn of Sweet Honey. Songs such as "More Than a Paycheck" or "How Long?," both on *Breaths*, convey the easy lilt of Afro-Caribbean rhythms or the biting growl of Delta blues while expressing the frustration and stridency born of unfulfilled expectations. *Carnegie Hall* has more of the same, with poetic ex-

of either lyrics or song; I'd almost rather read the depressing news in the paper. But for those of you taken with the social critiques of Tracy Chapman or the breathtaking technique of Bobby McFerrin (or even Western Wind), either of these CDs will let you know that if you don't worry, you ain't gon' be happy. Don Palmer

THE REPLACEMENTS: Don't Tell a Soul.

⊙ *Matt Wallace and the Replacements*, prods. Sire/Reprise 25831-1. □

Each of the last two Paul Westerberg Band waxings was markedly more nondescript than its predecessor (for me, "Skyway" was the only cut on 1987's *Pleased to Meet Me* that ever sank in), and the new one is a complete chicken-lipped bore, with no beat, no character, nothing to clutch ahold of, hardly any memorable words. It's an attempt to reach that big AOR audience, but if John Waite made a record this anonymous (and he has, many times), nobody'd pay attention.

The sellout's smart, in a way. This band was never very good at hard rock in the first place: Hard rock bands need *rhythm sections*. So it's no surprise that, once again, the limpest moments offer more regurgitation/liquidation of ancient rockforms to suggest "wildness" (i.e., "I Won't" 's allusions to "Honey Hush"). What's new is that, for a change, the ballads aren't much better.

Supposedly, *Don't Tell a Soul* is the least "autobiographical" Replacements LP. To my ears, though, these Minnesota Skinnies are still trying to prove they're nervous and sensitive and screwy, which we know is a lie 'cause the sound tells us they're confident young professionals (albeit cynical ones, but what yups aren't?). The chronic studiofied preciousness (*Sgt. Pepper*-sized nose-blowing, overdubs and flourishes everywhere, a coda that's an even flabbier parody of U2 than "The Ledge") is maybe the questionable legacy the 'Mats have inherited from wisp-pop ancestors like Dwight Twilley and Big Star, but the emasculated drum pulse is just condescension.

"Asking Me Lies" is the closest Westerberg's ever come to politick-pandering, the self-pity of "They're Blind" the closest he's ever come to Julian Lennon. "I'll Be You" is the only song with anything resembling a hook, and the Bellamy Brothers used its cleverest phrase ("rebels without a clue") last year. If I listened really close about 40 times, maybe I'd find a quotation or two for Bartlett's, but I shouldn't have to. And I'll admit that I can imagine maybe "Talent Show" or "Rock 'n' Roll Ghost," in a less stifled context, having some small effect on my psyche. Problem is, rock 'n' roll records are supposed to be *music*. And on *Don't Tell a Soul*, there isn't any. Chuck Eddy



ROLAND L. FREEMAN

Two live CDs offer more than two hours of Sweet Honey's quarrelsome, haunting music.

SWEET HONEY IN THE ROCK: Breaths.

⊙ *Steve Rathe and Evelyn M. Harris*, prods. Flying Fish FF 70105. (1304 W. Schubert, Chicago, Ill. 60614.)

SWEET HONEY IN THE ROCK: Live at Carnegie Hall.

⊙ *Steve Rathe and Bernice Johnson Reagon*, prods. Flying Fish FF 70106. □ (2). □

Bernice Johnson Reagon, Smithsonian scholar and de facto leader of Sweet Honey in the Rock, once described this six-woman ensemble as *avant-garde not* because it defines some fleeting trend or dabbles in the values of contemporary shock. Instead, the exploration and redefinition of the music of her great-grandparents, or our ancestors, gives shape and meaning to a music that was truly of the artistic vanguard. The irony of such a claim is that most listeners may dismiss or enjoy the roots of Sweet Honey as nostalgically soothing. The sometimes quarrelsome, sometimes serene music on these two CDs, however, is anything but—unless you subscribe to the old notion that we should comfort the afflicted and afflict the comfortable.

The 67-minute *Breaths* (a CD-only

coriations of multinational corporations and international debt. When the bracing, sustained harmonies mesh with the informative power of the lyrics, the result is not only enchanting but exhilarating. And both CDs accentuate the depth, the richness, the congregational wail that gives Sweet Honey a haunting sound of voices reverberating through generations.

At times, especially on collections of this length, the group gets bogged down in the topical without the imagistic support

FORMAT KEY

- ⊙ LP/EP
- ⊙ Videocassette
- ⊙ Cassette
- ⊙ Videodisc
- ⊙ Compact Disc

Large symbol at left margin indicates reviewed format. Small symbols following catalog number of reviewed format indicate other available formats (if any). Catalog numbers of formats other than the reviewed format are printed only if their basic numbers differ substantially from that of the reviewed format.

"In Short Order": Note that these mini-reviews provide only the reviewed format and its catalog number.

Arabic numeral in parentheses indicates number of items in multi-item set.

EITHER/ORCHESTRA: Radium.

Accurate AC 3232-CD. (117 Columbia St., Cambridge, Mass. 02139.)

New-wavey moniker notwithstanding, the Either/Orchestra, a smallish big band (four brass, three reeds, rhythm), is working the tradition—albeit with wit, originality, and “free jazz” garnishings. Some of the wit is of the heat-of-the-moment variety, some conceptual: the medley pairing Thelonious Monk’s “Nutty” with “Ode to Billie Joe,” the wide-ranging big-deal production of “Willow Weep for Me” (capped by acid blues guitar), the pratfalling baritone sax intro to Charles Mingus’s “Moanin’” (itself preceded by actual moaning from the band). But despite the hijinks, when it gets down to dishing out the improvisational goods, these guys deliver. Quickly you get the message: The tongue-in-cheek stuff is meant to disarm you. These are serious jazz cats, players with a future. Total time is 65:55.

Richard C. Walls

BUCK OWENS AND THE BUCKAROOS:

Live at Carnegie Hall.

Country Music Foundation CMF 012-D. (4 Music Square East, Nashville, Tenn. 37203.)

Furthering the much-deserved rediscovery of Buck Owens (via Dwight Yoakam’s tributes and Buck’s own comeback album, *Hot Dog!*) is this freshly minted CD reissue of his wondrous 1966 Carnegie Hall concert. The Buckaroos play with sparkling virtuosity and sensitivity behind the legend’s plaintive vocals on classic cuts like “Act Naturally” and, in a Beatles quid pro quo, on a fun-filled, heretofore-unreleased knockoff of “Twist and Shout.” As explained in Paul Kingsbury’s informative liner notes, the picking is so hot that when the late great guitarist Don Rich solos in the middle of “Love’s Gonna Live Here,” the awed maestro can’t help but pause and salute him. An added benefit of the CD, if you wish to skip the between-songs patter, is the ability to cue directly to the start of each track.

Jim Bessman

JON BUTCHER: Pictures from the Front.

Capitol CDP 90238.

If there must be AOR, then at least we have Jon Butcher. His third effort for Capitol (after two solid releases for Polydor) is tight enough to strike radio gold. The lead-off track, “I’m Only Dreaming,” could be about Butcher’s recognition of the diffi-

culties of breaking onto playlists—and what compromises may have to be made: “If I stand my ground/Will I know when to leave?” His husky but smooth voice carries sometimes predictable lyrics (“Waiting for a Miracle”) and complements sweet, fuzzy guitar riffs (“Might as Well Be Free”). And Butcher was putting moody instrumentals on his albums long before Joe Satriani had a label: “The Mission” serves as a follow-up to “Churinga” (from his previous recording, 1987’s *Wishes*), while “Come and Get It” is a tasty funk-and-groove workout.

Michael K. Mettler

DOUG SAHM: Juke Box Music.

Antone’s ANT 0008. (2928 Guadalupe, Austin, Texas 78705.)

Doug Sahn goes back to his original source for this, his first American release in who remembers how long. For him, the source is Gulf Coast rhythm and blues, which ruled from Corpus Christi to New Orleans in the ‘50s and ‘60s and which had its own variant in Sahn’s native San Antonio. Take the sonorous horn sections of the Crescent City and play them with the swaying Mexican tinge of the Alamo City, mix in some biting guitar from people like Guitar Slim and T-Bone Walker, use some piano triplets for texture, and put it all to those loping Texas shuffle rhythms. For good measure, Sahn throws in a couple of the greasy ballads that were the Texas equivalent of doo-wop. There’s only one original here, but the covers are obscure enough to seem new, and the band—long-time compadres like Rocky Morales on tenor saxophone and Charlie McBurney on trumpet, joined by guests like guitarist Wayne Bennett from the classic Bobby “Blue” Bland groups—is more than up to the task. So what if Doug stumbles now and again reaching for his falsetto or whatever? This is indeed juke box heaven.

John Morthland

MACHINE GUN: Machine Gun.

MU Records MU 1001-CD. (Dist. by New Music Distribution Service, 500 Broadway, New York, N.Y. 10012.)

Machine Gun plays untamed fusion, which is to say what fusion might sound like if it had developed along lines true to the expressive prerogatives of the music rather than according to the dictates of the marketplace. Basically a guitar-sax-bass-drum combo with occasional flute and taped vocal miscellany (including so-so

poetry), the group conveys a continual sense of urgency, of crisis being lived through—sometimes rhythmically hyped (“Fancy Products” and “Prancing in Your Bed,” the latter a reworking of Ornette Coleman’s “Dancing in Your Head” theme), sometimes describing a more broody landscape, lunatic and abandoned to fester (“Dive,” “Trinity Rain”). The intensity is upped a notch during the second half of this Compact Disc, with guest Sonny Sharrock: His corrosive guitar cussin’ over the 3-D bump and grind of “Muffy’s 1st Date” is especially fine. Hot trax for avant-raunch devotees.

Richard C. Walls

EMMYLOU HARRIS: Bluebird.

Reprise 25776-2.

These ten romantic ballads include strong cuts inflected with rock (“Heaven Only Knows”) and bluegrass (“Heartbreak Hill”) and a country version of Johnny Cash’s “I Still Miss Someone,” once a Gram Parsons staple. “Icy Blue Heart,” “Lonely Street,” and “A River for Him” are perfect vehicles for Emmylou Harris’s crooning. The album has enough of a twang to personalize the tenderness, while a rich blend of driving acoustic guitar, strings, electronic seasoning, and blithe turns-of-phrase keeps the sentiment from sinking to syrup. The spacious sound accommodates soloists with room to spare, and nothing sounds grafted-on or forced. *Bluebird* is an exciting release that improves with each hearing.

Richard Price

BRUCE COCKBURN: Big Circumstance.

Gold Castle D2 71320. (P.O. Box 2568, Hollywood, Calif. 90078.)

It’s hard to believe Bruce Cockburn once sang “Laughter.” Thanks to Reagan’s ‘80s, Canada’s Left-leaning songwriter isn’t laughing anymore. On *Big Circumstance*, with clenched-teeth intensity, he sings a eulogy to rain forests, rips Big Business, and worries about the wounded ozone—all in the opening, hard-hitting single, “If a Tree Falls.” The attacks continue on “Where the Death Squad Lives” and “Radium Rain.” Cockburn was calling attention to Third World troubles long before it became fashionable, but in the manner of a weary activist, his frustration and exhaustion are now seeping through. Cockburn’s reason is still fierce and true. It’s his rhyme that’s a bit drained.

Eric Boehlert

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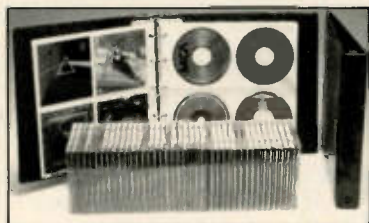
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(Continued from page 65)
to Kuibyshev.

The month before, a personal order from Hitler had said: "A capitulation of Leningrad or Moscow is not to be accepted, even if offered." Another, on September 29, stated, in italics: "The Führer has decided to have St. Petersburg [Leningrad] wiped off the face of the earth." Hitler wanted it surrounded, "razed to the ground" by bombardment, its three million inhabitants annihilated. The hideous 900-day siege, from September 1941 to January 1944, reduced the Leningraders to eating pets, rats, mice—and finally, in some instances, corpses—in order to stay alive.

After the war ended, the Soviet government awarded Leningrad, as an entire city, the approximate equivalent of our Congressional Medal of Honor. And in his stirring Seventh Symphony, Shostakovich erected a monument to his fellow Leningraders' superhuman endurance and heroism. By more reticent, non-Slavic, specifically Anglo-Saxon standards, the score's unbridled, unabashed emotionalism entails considerable risk, but Neeme Järvi (a born Estonian, himself also a Leningrad Conservatory graduate) does not shy away from all its inherent blood and thunder, nor from the throbbing, bleeding heart it



Neeme Järvi

wears on its sleeve. His Scots enthusiastically follow him to the barricades, and the Chandos engineers have captured the hortatory, heroic sound thrillingly. Playing time: 69:06.
Paul Moor

VIVALDI: The Four Seasons, Op. 8, Nos. 1-4*; **Concerto for Two Violins, Strings, and Basso Continuo, in A minor, Op. 3, No. 8f.**

Peabody*†, Rood†; *Philharmonia Virtuosi, Kapp. Gregory K. Squires, prod. ESSAY C1001 (D).* (Dist. by Koch Import Service.)

After Richard Kapp's *Philharmonia Virtuosi* turned in superficial readings of Bach's six *Brandenburg* Concertos for CBS, they recorded—with some changes of personnel—these marvelous performances for a small New York company [*in fact, Kapp's own—Ed.*] of Vivaldi's *The Four Seasons* and his fine *Concerto in A minor* for two solo violins and strings. The playing is breathtaking in its accuracy, verve, and musicality; the string tone is warm and transparent (the players use modern instruments); the ensemble playing is wonderfully together; and the recorded sound is clean, resonant, and agreeable. I have not heard any recording of either work to surpass this one. Playing time: 49:19.
Thomas Hathaway

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Wearing a new generation of electronics users with Sanyo Fisher's Robo line

(Continued from page 14)

ing a bagful of goodies to players in the three-to-eight-year-old set. The Robo line includes a stereo cassette player (Robo 1,

\$89), a talking clock (Robo 2, \$79), a digital voice recorder (Robo 3, \$79), and a telephone with lockable keypad (Robo 4, \$139). Sanyo says its intent is to stimulate

curiosity and give children confidence in operating modern electronics. (Who knows? It may be this generation that will finally be able to program a VCR.)

Robo components are made from strong ABS plastic and colored in bright red, blue, yellow, and green panels that are interchangeable. Highlights of the line include the digital voice recorder, which can record two messages of 16 seconds each or one message of 32 seconds, using an IC chip for memory storage instead of analog tape. The telephone features three color-coded, one-touch memory buttons for storing numbers. For older children, the ten-key touch pad can be unlocked so they can learn to dial their own numbers. The phone also includes a hold function with two built-in melodies: "It's a Small World," and "The Mickey Mouse Club Theme." Sanyo Fisher (USA), 21350 Lassen St., Chatsworth, Calif. 91311-2329.

Low-Resonance Raid

Phantom Acoustics says its "Shadow" system (\$1,790 per pair) attempts to control low-frequency room resonances in order to stop the room from reacting as a resonant chamber to sounds generated in it. The net result is said to consist of a cleaning up of room effects that would otherwise mar bass reproduction and an increase in perceived clarity.

The Shadow consists of two columns standing 83½ inches high by 9½ inches in diameter, with a base "footprint" of 15 inches diameter. They weigh in at about 45 pounds each. Each column has two active "suppression" modules—both containing a microphone, servo-amplifier, and transducer—located at the top and bottom of the column. The system is designed for placement in the corner of a room, where the greatest concentration of pressure occurs and where room resonances, also known as "standing waves," build up.

Phantom Acoustics claims that by actively inhibiting the formation of these pressure zones, the Shadow suppresses room resonance before it starts. What's more, the company says the Shadow's active capabilities even allow absorption of the out-of-phase bass radiation to the rear of a planer loudspeaker for extended bass and tighter low-frequency dynamics. The columns are powered from an external supply, but the Shadow is completely self-contained and automatic and requires no connection to any other component in the audio system. Phantom Acoustics/In Concert, 12919 Earhart Ave., Auburn, Calif. 95603.

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