

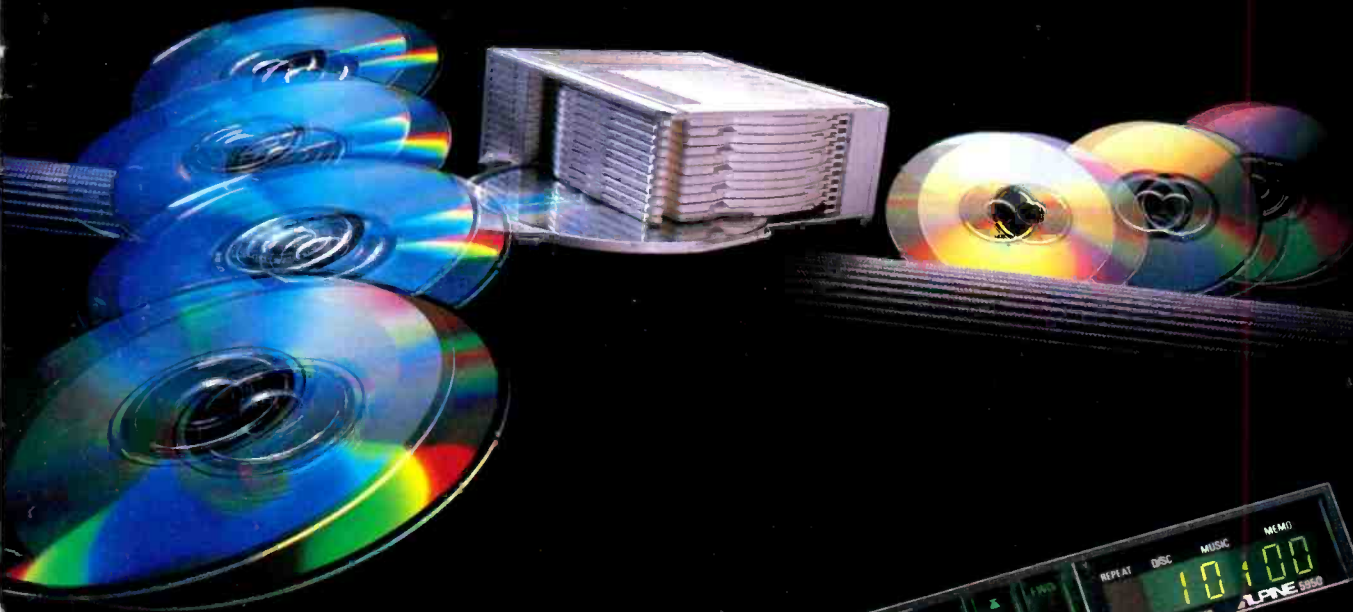
Stereo Review

MAY 1987 ● \$2.25

**CAR STEREO SYSTEMS:
HOW TO BUY EQUIPMENT
CD PLAYERS FOR THE ROAD**

**A HI-FI SALESMAN'S
SHOPPING STRATEGIES**

**LAB TESTS: DENON CD
PLAYER, SHURE A/V AMP,
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*Ivan Berger, Audio, April, 1986



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CIRCLE NO. 27 ON READER SERVICE CARD

BULLETIN

by Christie Barter and
William Burton



CD BARGAINS

Mid-price CD's are here! The PolyGram group of classical labels has just launched a series of compact discs wholesale priced to sell at \$9.98 retail. Each series—Deutsche Grammophon's Galleria, London's Jubilee ADRM, and Philips's Silver Line Classics—offers ten titles in its initial mid-price release, with five more each to follow in the next two months, for a total of sixty titles. And each of the three series is studded with the names of best-selling artists in performances of best-selling repertoire. . . . A leading independent entering the American market with mid-price CD's is Harmonia Mundi, the French label devoted mostly to early music. Its initial release of ten titles under the *Musique d'abord* (or Music First) logo, aims for the same price point of \$9.98. . . . The twenty titles in the CBS Masterworks Great Performances series on CD are being re-priced as a mid-price line, and all future titles in the series will be similarly priced.

MORE DAT DECKS

In the wake of Aiwa's announcement that it would sell a digital audio tape (DAT) recorder in Japan, other manufacturers are now scrambling onto the DAT bandwagon. Matsushita said that its Technics SV-D1000 would be on sale in Japan for 198,000 yen (approximately \$1,300). Marketing plans for the United States were said to be undetermined. Like the Aiwa deck, the SV-D1000 cannot make direct digital copies of compact discs because it will not record at the CD sampling rate of 44.1 kHz. And neither deck can make direct digital copies of discs or tapes with digital copy-prohibit codes.

Sony's DAT deck, the DTC-1000ES, oversamples at four times the ordinary rate and will not record at the CD sampling

rate either. It has remote control and is priced in Japan at 200,000 yen (about \$1,316).

Other DAT recorders are expected to be introduced in Japan this spring by JVC, Luxman, Onkyo, Sharp, Sansui, Kenwood, Hitachi, Sanyo, and Pioneer. American marketing is thought to depend on the progress of Senate Bill 506, which would prevent DAT decks without copy-guard circuits from being sold in the U.S.

MUSIC NOTES

Music's man of the year, judging from the record-industry awards recently handed out in Los Angeles and London, was Paul Simon. His controversial "Graceland," which received a Grammy as album of the year, earned him an award as the year's best international solo artist from the British record industry as well. . . . *That's What Friends Are For*, written by Burt Bacharach and Carole Bayer Sager, won a Grammy as song of the year. It also raised some \$750,000 for AIDS research in the Arista recording by Dionne Warwick "and friends." . . . Sir Georg Solti was awarded his twenty-sixth Grammy this year, for his London recording of Liszt's *A Faust Symphony*, thereby setting a record. No other artist has won as many Grammys in any field. . . . Andrés Segovia, who celebrated his ninety-fourth birthday this year, was given an honorary doctorate by the Manhattan School of Music for "his far-reaching influence on the guitar and its music."

TECH NOTES

Standards for a compact disc "single" format—a CD that is only 3.14 inches (8 centimeters) in diameter and holds about twenty minutes of music—are now being developed by Sony. The CD singles would play both in standard CD players and in miniature portable CD players of the future. . . . Fuji, Scotch, and TDK are announcing special tapes for Super-VHS video recorders, which will be available when the decks hit the stores, perhaps as soon as next fall. Unlike the many similar grades of

videotape already on the market, S-VHS tape will be significantly different from non-S-VHS videotape. . . . dbx has demonstrated a prototype of a spectrum analyzer that uses music, not test tones, to evaluate the frequency response of concert halls so that equalization can be changed during performance.

ADS/PORSCHE SYSTEM

ADS and Porsche are the latest audio and automotive companies to join forces. The factory-installed Porsche system combines a Blaupunkt cassette tuner and CD player with ADS amplification and speakers. Total power of 180 watts is claimed for the six-channel bi-amplified system. Only three hundred Porsche 911's with the ADS system are to be sold in the U.S. Other options make the price of the car vary from \$75,000 to \$85,000. Price of the audio system: under \$10,000.

MUSIC LOST AND FOUND

A treasure in musical manuscripts and other unpublished material has been identified as the work of George Gershwin, Jerome Kern, Richard Rodgers, and other great American showmen. Discovered in a Warner Bros. warehouse in Secaucus, New Jersey, in 1982, the music had been stored by the film company in crates—eighty of them—over half a century ago. The recently completed inventory turned up previously unknown or long-forgotten songs (in the case of Kern's *Show Boat*, almost thirty minutes of music that was dropped from the show), original orchestrations and parts that had been presumed lost, and the complete scores to a number of musicals remembered, today, in name only.





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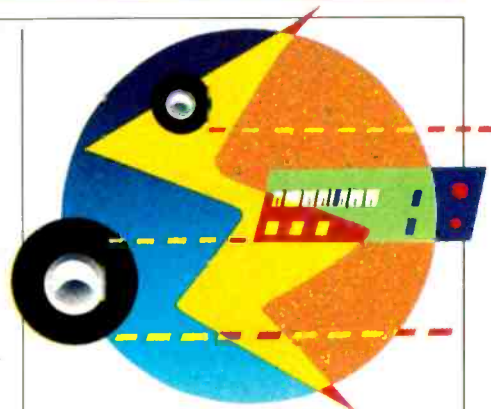
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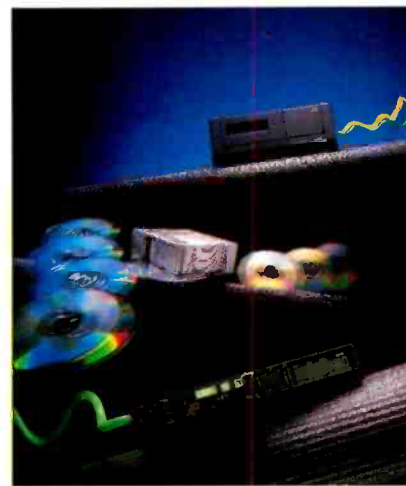
Cover: *The Alpine Model 5950 trunk-mounted car CD changer; for more on car CD equipment, see page 59. Design by Sue Llewellyn, photo by Hing/Norton.*



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SPEAKING MY PIECE

by Louise Boundas



Special Interests

IN February this magazine celebrated its twenty-ninth birthday, so with the May issue it is four months into its thirtieth year. Now, most people approaching thirty become more conscious of what their lives have been and what they want their lives to become. It is a time of examination and assessment. Perhaps it is also a pretty good time in the life of a magazine to examine what it is about.

Since I just became Editor in Chief of STEREO REVIEW, I have been thinking about the direction of the magazine a great deal in these last few months. I don't mean to suggest that I've never thought of it before—for almost fifteen years, I have been working with other editors to shape every issue of the magazine. Monthly deadlines do not permit editors to step back and define objectives very often, but I think we have all kept some of the same things in mind: authority, credibility, usefulness, readability, style. Surely those are goals of most editors of most magazines, and they are still ours. Beyond those general objectives, however, are some that are more specific to STEREO REVIEW. It is, after all, a magazine for people with special interests.

In 1958, at the top of the contents page of the first issue of the magazine, the editors quoted the compos-

er Ralph Vaughan Williams: "Until actual sound is produced, music does not exist." It is still the business of the editors of STEREO REVIEW to address the concerns of people who are interested in recorded music and equipment that reproduces it. Perhaps "interested" is not strong enough—the readers and editors of this magazine are *involved* with the sound of music.

The main thing all of us have in common, of course, is that we listen to music. Music has infinite variety, though, and people listen differently to different kinds of music. The music itself excludes no one who can hear, and we do not take an exclusionist attitude toward it at STEREO REVIEW. We think it is *okay* to listen to rock without having to make excuses for not listening to Bach. It is unlikely that any of today's pop music will be around as long as Mozart's Clarinet Concerto, say, but the point is not its transience or immortality but the pleasure we derive from listening to it.

Unless the music sounds good, however, there is very little pleasure in listening to any of it. And that is where the equipment comes in.

We are fortunate in having more and better audio equipment to choose from today than ever before, but having more options means making more decisions. To help you make those decisions, we report on technological advances and new equipment. We provide buying guidance and articles about getting the most from the components you already own or are considering. We publish around seventy test reports a year. And we do not think you should have to have a degree in electrical engineering to read the magazine and get the information you need to make your decisions. Our articles and test reports are written in plain English, simple and as clear of jargon as we can make it. The graphics make sense too.

The magazine is never perfect. Every month when we examine it as it comes off the press, we find things that we might have done differently, that we might have made better. As the technology changes and as our readers' needs change, the magazine will change. But its objectives will not. That's a promise. □

Stereo Review

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basic concept of stereo is that a much more lifelike three-dimensional sound is achieved by having 2 different signals, each played back through a separate speaker and each meant to be heard by only one ear apiece (L or R). So quite simply, a mono loudspeaker is designed to be heard by two ears at once while true stereo loudspeakers should each be heard by only one ear apiece (like headphones). The revolutionary Polk SDAs are the first TRUE STEREO speakers engineered to accomplish this and fully realize the astonishingly lifelike three-dimensional imaging capabilities of the stereophonic sound medium.

"A stunning achievement"

Australian HiFi

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Stereo Review Magazine

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"You owe it to yourself to audition them."

High Fidelity Magazine

SDAs allow you to experience the spine tingling excitement, majesty and pleasure of live music in your home. You must hear the remarkable sonic benefits of SDA technology for yourself. You too will agree with Stereo Review's dramatic conclusion: "the result is always better than would be achieved by conventional speakers... it does indeed add a new dimension to reproduced sound."

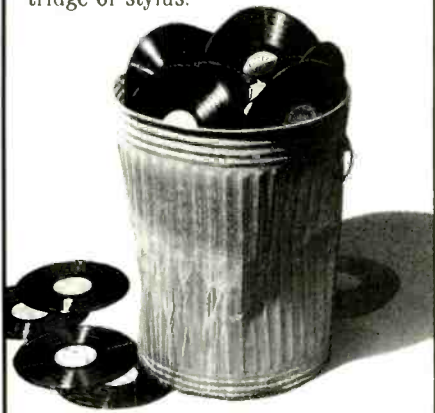
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LETTERS

Digital Audio Tape

Thanks for Steve Birchall's excellent article on digital audio tape (DAT) systems in the March issue. Too few details about this new format have been available. As usual, STEREO REVIEW provided complete and comprehensible explanations of many of the issues involved.

What I can't understand is the idea that these new decks may not allow direct CD-to-tape dubbing. When are the powers that be going to realize that the vast majority of people tape for their own use, not to make a profit illegally? I tape many, if not most, of my records and CD's for convenience, for programmability, and to protect the original copy. No one is denied rightful profit from this activity. The DAT deck would be a useless investment if copy protection is included.

If the DAT format ends up in the manner your article suggests, I think I'll stick to CD's and analog copies made on a good conventional cassette deck. The future of DAT is not bright under these conditions.

GERALD M. JARVIS
Canton, MI

After reading your article on DAT, I couldn't help but think what a bunch of greedy bastards the recording industry must be. With the enormous amount of revenue that modern electronics allows the industry to generate, they should not whine so much about the small percentage lost to copying. It seems to be a classic case of wanting to have your cake and eat it too.

Fears that widespread copying (the article said something about *each* consumer potentially making "thousands" of copies) will destroy the recording industry is nothing but bluster. Didn't Bruce Springsteen's latest collection go gold the same day it was released? Evidently somebody's high-speed duplicator broke down, forcing the public to shell out thirty bucks for some music they were planning on getting illegally.

Instead of chasing after every lost dime and making a general pest of themselves, the recording industry should confine their efforts to what is reasonable and quit hassling the consumer. And to any congressperson who reads this, tell the recording industry to take a hike—or, in the famous words of the great sage, "Awkwitcherbellyakin."

STEVE LEE
Tulsa, OK

It's certainly not my desire to contribute to the financial burden or devastation of anyone, but performing artists and the recording industry have yet to *prove* any hardship as a result of private

tape recording of copyright material for private use. Conceding the *possibility* of revenue loss as a result of private recording, there is a probable, if only speculative, argument in the industry's favor. A *reasonable* royalty fee on blank tape is a fair, if imperfect, solution. Using copy-guard protection of software or designing equipment that limits the usability of both software and hardware may constitute consumer fraud.

As for commercial pirating, the punishments should be as severe as possible against those who are guilty, and *only* those. Copy protection in any form, on the other hand, locks *everyone* out of the house whether they live there or not! I am convinced that the majority of the public is honest. I, for one, resent being wrongly accused and treated as a thief! My resentment may well have to express itself through severely curtailed spending of my hard-earned dollars for compromised software or hardware.

DAVID W. YOUNG
Bernalillo, NM

Steve Birchall's article on DAT mentions a "reasonable" tax or fee on blank tape. In view of the fact that I do not copy to avoid buying, *nothing* could be reasonable [in my case].

BERNARD KINGSLEY
Durham, NC

I wonder why the hi-fi industry would allow such a sure-selling product as DAT to go down the tubes by not allowing consumers to record compact discs. Tapes won't last forever, and to think DAT would ruin CD is naïve. Existing tape formats didn't ruin the vinyl record, did they?

PATRICK WELLS
Madison, WI

Steve Birchall made an interesting comparison between DAT copy-protection schemes and those used in the computer-software industry. Copy-protection schemes are an absolute pain in either case. The audio industry should learn from the computer industry's mistakes.

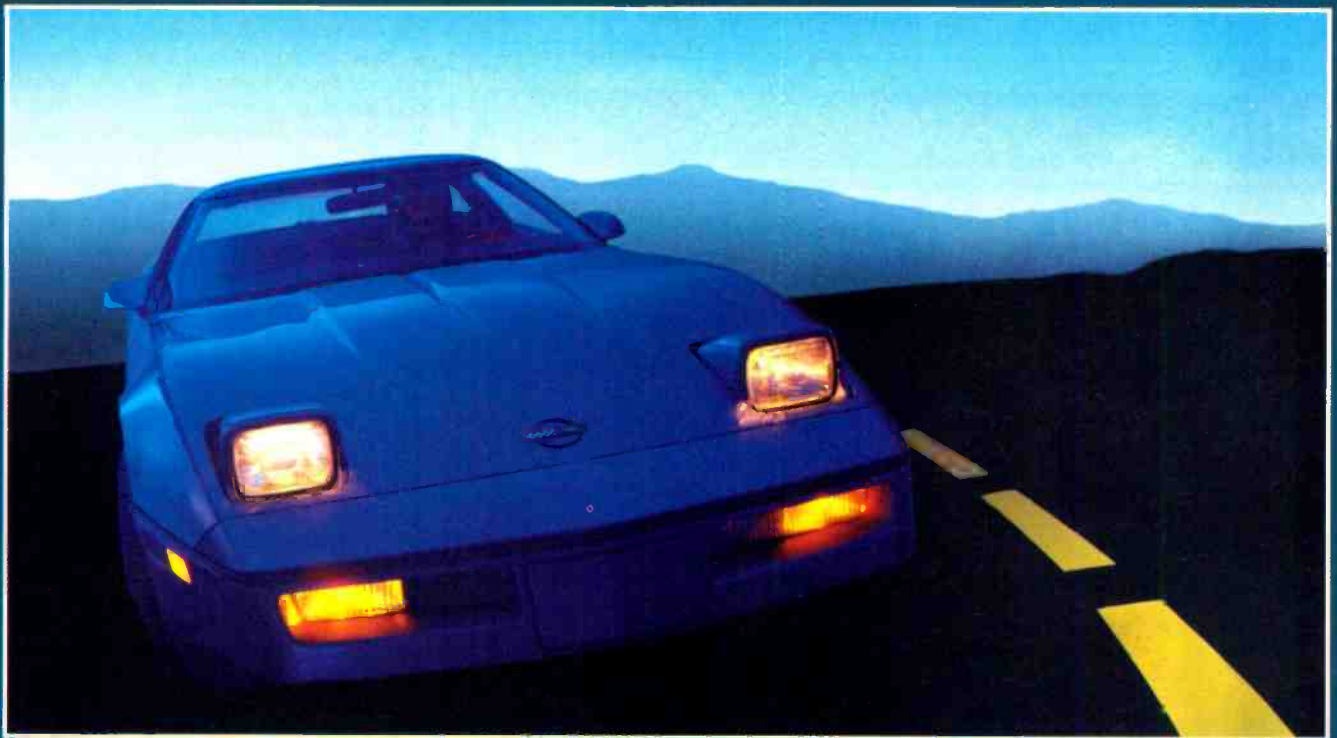
Where possible, people will make an effort to avoid using programs—or, in this case, formats—that incorporate annoying copy-protection schemes. I, for one, will *not* be buying DAT if I am restricted in what I can copy. I do not want to go through the same aggravation as I did with computer software. It's not worth it!

PETER KOTSINADELIS
Somerville, NJ

Fire Town

My hat goes off to Steve Simels for his March "Best of the Month" review of

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LETTERS

Fire Town's "In the Heart of the Heart Country." It keeps my faith knowing that quality bands like Fire Town haven't been totally lost in the heap.

These guys are Wisconsin's best-kept secret. But you can go on surprising me as much as you want. Way to go!

MARK SEVERSON
Brookfield, WI

It is refreshing to see that at last someone outside Wisconsin has discovered Fire Town. Butch Vig and friends have been rocking the Madison area and the Midwest for close to ten years as Spooner. Their two albums, "Every Corner Dance" and "Wildest Dreams" (also on Boat Records), didn't sell many copies, but they treated those who found them

to some of the best guitar-based melodies available.

MIKE BROOK
Milwaukee, WI

Beta Defenders

In his March "Video Basics" column, "A Checklist for the First-Time VCR Buyer," William Wolfe states that "SuperBeta VCR's record and play back pictures that are up to 20 percent more detailed than even those of VHS HQ VCR's, and that is an appreciable difference." Then he goes on to make the unqualified statement, "It shouldn't pressure you, though, to go Beta."

Why make a judgment on video equipment based on standards that you would not apply equally to the evaluation of audio equipment? STEREO REVIEW promotes and endorses the finest of audio equipment regardless of the quantity in circulation. In fact, many manufacturers of elite audio equipment are in the minority when measured on a volume-of-sales basis.

In any case, millions of Beta VCR's are in the hands of consumers, and this market is not being ignored. Major motion pictures are released in VHS and Beta. It is a fact that videophiles prefer Beta. To suggest that we are "an endangered species" is, to say the least, absurd. As for buying a second-rate VCR because a friend has one, please spare us this betrayal of the standards STEREO REVIEW represents.

TONY LOUIS
Gladstone, MI

I am getting very tired of hearing that "Beta VCR's are an endangered species." How long have we been hearing that? Also, the idea that prerecorded Beta videotapes are hard to come by is hogwash. Sure, not every gas station carries Beta tapes, but all decent rental locations do.

I like it that the Beta tapes I rent have not always been played until they are loaded with dropouts, that I don't have to wait a month to see the latest releases, and that I don't have to worry about Macrovision copy protection screwing up the picture.

The fact that Beta Hi-Fi works in all speeds is one reason to stick with Beta. Friends of mine are dumping their VHS Hi-Fi machines because they hear head-switching noise in the audio at the slower speeds. I understand that VHS manufacturers will not guarantee that their hi-fi modes will function properly at the slower speeds. And VHS HQ is a joke! You never know what part of HQ you are getting. I don't need a brighter picture. I want the best picture possible.

Do yourself a favor: compare the quality of the picture in the two

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LETTERS

formats. Many of us Betaphiles have decided to stick with a higher-quality image and audio that doesn't sound like it has a 60-Hz hum.

KENT WINRICH
Waukesha, WI

I don't rent tapes all that often. I mostly use my Beta VCR to record off cable for more convenient viewing. One plus for the Beta format in my mind is that at the fastest speed (for best picture quality) in both formats, using most commonly available tape lengths, VHS allows for two hours of taping and Beta delivers three. That is why I chose Beta, and I don't regret it.

RICK USACK
Kent, WA

William Wolfe replies: Nine out of every ten Americans interested in purchasing a VCR will choose a VHS-format model. The introduction of Super-VHS VCR's, which will produce pictures with about 400 lines of horizontal resolution, may make that a perfect ten out of ten. Then again, maybe not. Until VHS VCR's incorporate high-quality editing circuits, Beta—and Sony's SL-HF1000 SuperBeta Hi-Fi VCR in particular—will remain the videophile's choice.

Equipment Buying Guide

The "Equipment Buying Guide" in the February issue was very good. The prices given, however, were very high compared with what the items are selling for. Example: the Teac PD-400 compact disc player is listed as \$449. I just purchased this fine unit for \$159. Now, I know the store made a profit at \$159, so why would Teac give you such an inflated price?

PATRICK MCANISH
Long Beach, CA

As you say, it was Teac that gave us the price. All the prices given in the buying guide were manufacturers' "suggested list prices." It would take a Harvard MBA and an intense understanding of American and Japanese manufacturing and trade relations to explain the wide differences between list and "street" prices. Chances are, however, that the store did not make much of a profit, if any, in selling you a \$449 Teac CD player for \$159.

What happened to the tape-deck section of your February "Equipment Buying Guide"? Even the March tape issue didn't include a guide to tape decks, just blank tape. I particularly missed the section this year because I wanted to upgrade my cassette deck.

MARK BOSIN
Appleton, WI

We plan to run an updated tape-deck buying guide this summer. Stay tuned.

Record of the Year Awards

For many years I have regarded STEREO REVIEW's "Record of the Year Awards" issue as the highlight of the year, and I base many of my purchases on your awards. I think, however, that you need another category or criterion for your awards, such as "greatest pleasure." I and a great many of my friends are not single-minded about music and find that symphonies and operas are not the only things in life to buy or listen to. Our unanimous choice for the disc giving us the greatest pleasure is "In Love" by Julia Genes-Johnson.

DONALD E. PETERSON
San Francisco, CA

It seems your staff missed the best rock album of 1986: R.E.M.'s "Life's Rich Pageant," which also qualifies as the Great American Rock Album of the Eighties.

MARK FERGUSON
Salt Lake City, UT

Charles Mingus

In Chris Albertson's review in December of the MCA Impulse! jazz reissues, one of the reissues discussed was Charles Mingus's "The Black Saint and the Sinner Lady." The listing at the end of the review, as well as its text, gives Mingus's first name as "Charlie."

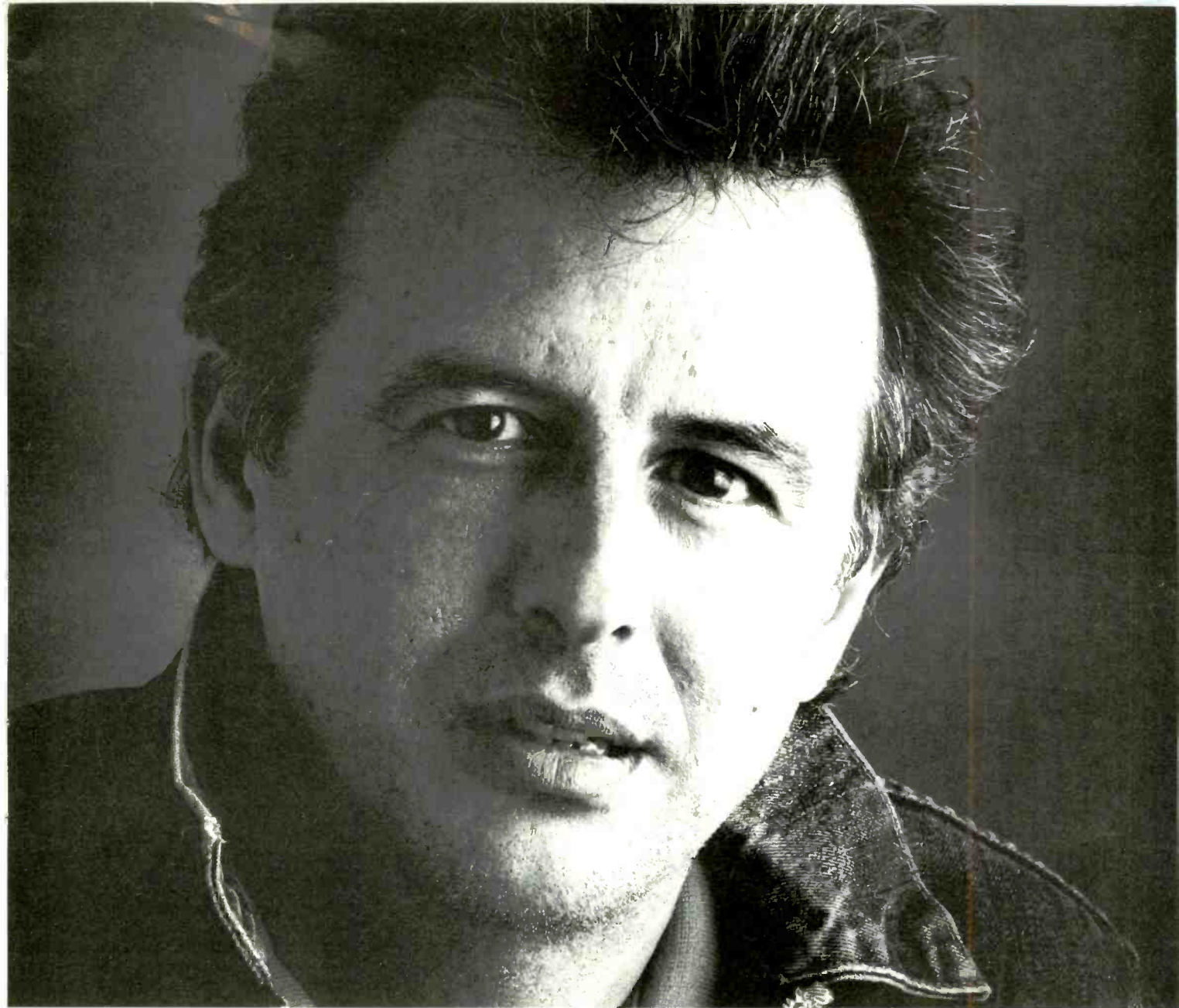
It was perhaps twenty to twenty-five years ago when Mingus, who fought hard to gain the respect he was due as a musician and as a man, made it clear that he wished to be referred to by his correct given name: Charles.

A small point, one might imagine, but it was an important one to Mr. Mingus. It has been an unfortunate American tendency to trivialize the contributions of serious jazz musicians by tagging them, without their acquiescence, with condescending diminutives—like putting your arm around someone you don't know.

Mingus's given name was Charles, not "Charlie." I hope STEREO REVIEW will remember that in future references to him as "Charlie" in the recent reissue, they have insulted the legacy of a man who was one of our greatest jazz artists and an untiring campaigner for black human rights.

ROBERT E. ENDIAS
Kalamazoo, MI

MCA did, indeed, call Charles Mingus "Charlie" on the cover of this reissue. We regret that we repeated the error rather than pointing it out.



“How Big An Amp Do I Really Need?”

Contrary to popular belief, lots of amplifier power isn't necessarily the solution to getting lots of dynamic range from your system.

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by Ian G. Masters



Reference Systems

Q After much research, I have assembled what I believe to be a state-of-the-art stereo system. But I'm not sure—sometimes I think it sounds great, and then at other times it seems to lack something. Is there a reference system I can compare my setup with to determine whether or not I have achieved what I set out to do?

STEPHEN FOX
St. Louis, MO

A This is definitely the 64-kHz question! If there were such a system, every audiophile would have one, and all controversies about how to design—and how to evaluate—audio components would come to an end. It's a natural enough question, though. In any field, consumers have always sought to identify "the best" so that, even if they choose not to purchase it, they will at least have some idea of how close they have come and will be able to choose their compromises with eyes open.

There is some doubt as to whether any product can truly claim to be the ultimate in its class—is Dom Perignon really the best champagne? Audio enthusiasts have resisted appointing a king of the hill to a striking degree. What is one audiophile's reference standard is fatally flawed to another. The lack of unanimity is part of what makes audio interesting and fun, but it also means that if there is, indeed, a "state of

the art" system, no one knows what that is.

Open-Reel to Cassette

Q I have a large number of open-reel tapes that I would like to dub onto cassettes for playing in my car, but I am hesitant to buy a cassette player because of the difference in tape speed. Can I copy tapes recorded at 7½ or 3¾ ips onto cassettes at 1⅞ ips?

GEORGE SANTOE
Beverly Hills, FL

A Certainly. The speed at which a recording was originally made has very little to do with the speed of a copy. Of course, a particular piece of tape must always be played back at the same speed as it was recorded, but the music it contains is not permanently encoded with that speed.

When it is playing back a tape, the signal at a recorder's output does not differ in any significant way from that of a tuner, a CD player, or any other high-level source. Consequently, it can be fed to the inputs of a cassette deck and recorded in normal fashion. The cassette machine doesn't care where the signal came from or how it has been stored.

Parallel Amplifiers

Q My television set has a built-in amplifier that I have connected to an extra pair of speakers. The improvement in sound quality is vast, so I would like to add an inexpensive receiver and tape deck. I could feed the line-level outputs of the TV set to the receiver, but then I could not use the set's remote volume control, which affects only the amplifier output. Could I simply connect both the TV's amplifier and the receiver to the same speakers, or would this create problems?

MAARTEN HEILBRON
Toronto, Ontario

A It could do serious damage to the output stages of both amplifiers and so should not be attempted. When you are using the receiver, say, to drive the speakers, it will also be driving the TV set's amplifier from the wrong end—something that it is not designed to accept. The internal impedance of this second amplifier is so low that the functioning one is likely to see it as a short circuit, and it could burn out in seconds.

There is a simple solution, however. Simply insert a speaker-line switch that will connect the speakers to the receiver in one position and to the TV in the other; any double-pole, double-throw (DPDT) switch will do as long as it can

handle the wattage of the larger amplifier. You might be tempted to use an ordinary speaker-selector switch, wired in reverse, but that's not a good idea as virtually all of them have a position for connecting both pairs of speakers (or, in this case, both amplifiers) at once.

One alternative you might try is to ignore the receiver's amplifier section altogether and feed its tape-monitor output (or preamplifier output, if it has one) to the audio input jacks of the TV set. This would have the advantage of allowing you to use the TV's remote volume control even when listening to FM or tapes. If you do choose this option, and use the tape-monitor outputs as a source, you will have to feed your tape deck to one of the receiver's high-level inputs rather than to the tape input. There may be a drawback to this arrangement, however: unless your TV set has stereo capability, you'd have to do all your other listening in mono too.

Constant Power

Q Is it better to leave components such as amplifiers or preamplifiers on all the time or just to turn them on when you intend to use them?

JEFFREY A. KNICHEL
Mahwah, NJ

A The jury is still out on this question. There are some who feel that certain components take a while to stabilize after power has been applied, so AC should only be removed if the equipment will be idle for an extended period; otherwise it should be left on with the level controls all the way down. This theory has resulted over the years in a number of components that can't be switched off.

The fact that such devices have been in the minority suggests that most audio designers don't feel there is much risk in turning the power on and off. There are some exceptions, however: tube equipment, for instance, does have to warm up, so it makes some sense to turn it on a fair while before you do any critical listening. Also, like light bulbs, the filaments in vacuum tubes will eventually burn out, and their life can be extended by minimizing turn-on power surges.

For conventional solid-state equipment, keeping the power on all the time is a bit of a power drain, but audio equipment doesn't draw much in any event, particularly when it is not amplifying anything. On the other hand, any component with moving parts—turntables, cassette decks, CD players, and so forth—is subject to mechanical wear and should be turned off when not in use. Motors turning 24 hours a day will have significantly shorter lives than those that are allowed to rest.

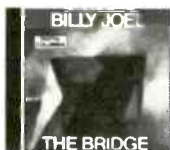
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VIDEO BASICS

by William Wolfe



Do You Need a Monitor/Receiver?

THINK of a monitor/receiver as a flexible, high-quality display screen for your audio/video home entertainment system. Or, more simply, think of it as the ultimate TV set.

A monitor/receiver has direct video inputs for a videocassette recorder, a videodisc player, or both. Direct connection results in a better picture than the only alternative—using the antenna jacks on both units—because it does away with the quality-degrading process of converting video signals to radio-frequency (RF) signals.

The picture on a monitor/receiver is as good as the signal being fed into it—in other words, the monitor/receiver will not visibly degrade or interfere with the incoming signal. Features like comb filters and special noise-reduction circuitry retrieve picture detail otherwise lost in video noise, and they do as much for prerecorded tapes as for broadcast, cable, or satellite TV programs. The results are impressive: monitor/receivers are rated to produce

pictures with 330 to as many as 600 lines of horizontal resolution (the standard measure of picture detail). Basic TV sets that do not merit monitor/receiver status produce pictures with about 250 lines, and that's an appreciable difference.

Newly designed picture tubes—including ones that are tinted, flat and square, or angled—and automatic adjustments for color, fine tuning, and ambient room light help to improve other important characteristics of the picture you see on your screen.

A monitor/receiver is also easily connected to an audio receiver, preamplifier, or integrated amplifier using the set's stereo audio-output jacks. This setup routes the audio channels from all connected video sources through your hi-fi system. Depending on the system's level of sophistication, soundtracks can then be tailored by tone controls, equalized, digitally delayed, or enhanced by surround sound. Another option is to connect a pair of powered loudspeakers to those same stereo audio outputs or to the speaker terminals included on the back panels of some monitor/receivers.

Many monitor/receivers have built-in MTS (stereo TV) decoders, and most others are equipped with jacks for connection of an optional decoder. The decoder enables you to hear stereo TV programs in stereo and to receive a separate (mono) audio program if any is broadcast. You can also record stereo TV programs if a stereo or hi-fi VCR is connected to the monitor/receiver, but only if you are there to activate the VCR. "Time shifting"—programming your VCR to record TV shows in your absence—utilizes the VCR's tuner, so time shifting stereo TV requires that your VCR have its own stereo TV tuner.

Monitor/receivers are available in many screen sizes, which are always measured diagonally. The smallest models have screens that measure 3½ inches, while the largest have screens that measure 40 inches. One-piece projection TV's with the kind of features found on monitor/receivers measure up to 50 inches. Many models with screens measuring 9 inches or less are touted as portable and can be powered by bat-

tery packs and car batteries in addition to house current (AC).

Monitor/receivers can offer many features that make viewing more convenient, though many of them are not available on models with smaller screens. For instance, most monitor/receivers in the 13- to 50-inch range come with feature-packed wireless remote controls. The newer remotes often control cable boxes and the same manufacturer's VCR's, and some even operate VCR's that are made by other manufacturers.

Digital monitor/receivers can display two images at one time with a feature called picture-in-picture (PIP). Two video sources are required, though, and at this writing only one model, from Sony, has dual video tuners built in. With the others, a second source must be provided by an outboard video tuner or a connected VCR.

Digital circuitry is also used to improve pictures. Toshiba's CZ-2697, for example, uses digital "non-interlace" technology to increase picture detail—but the jury is still out on the new technology's effectiveness.

Personal computers can be connected to some monitor/receivers via a back-panel RGB (red-green-blue) input, but the two components must be compatible. Virtually all monitor/receivers have cable-compatible tuners, insuring that the tuners can accept and switch between the many channels afforded by cable and that connection of a cable box will not result in wiring and switching nightmares. And many manufacturers are making "designer styled" monitor/receivers with "mauve" and "sand" cabinets, so you can buy a set that complements the decor of your room.

Do you need a monitor/receiver? If you plan to integrate your audio system with a rapidly expanding video system, the answer is a resounding "Yes." The only tradeoff, as you might expect, is price. Monitor/receivers are often twice as expensive as basic TV sets with the same screen size. But for the serious audio/video enthusiast who wants the best picture quality and the most flexibility, a monitor/receiver is well worth the price. □

Challenging Design.

FOR UNDER \$500 YOU CAN OWN AN AMPLIFIER JUDGED TO HAVE THE EXACT SOUND CHARACTERISTICS OF AN ESOTERIC \$3000 MODEL.

Bob Carver recently shocked the staid audiophile world by winning a challenge that no other amplifier designer could ever consider.

The new M-1.0t was judged, in extensive listening tests by one of America's most respected audiophile publications, to be the sonic equivalent of a PAIR of legendary, esoteric mono amplifiers which retail for \$3000 each!

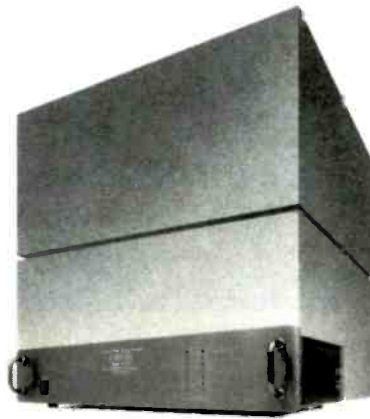
CARVER'S GREAT AMPLIFIER CHALLENGE.

Last year, Bob Carver made an audacious offer to the editors of *Stereophile Magazine*, one of America's exacting and critical audio publications. He would make his forthcoming amplifier design sound exactly like ANY high-priced, esoteric, perfectionist amplifier (or amplifiers) the editors could choose. In just 48 hours. In a hotel room near *Stereophile's* offices in New Mexico! As the magazine put it, "If it were possible, wouldn't it already have been done? Bob's claim was something we just couldn't pass up unchallenged."

What transpired is now high fidelity history. From the start, the *Stereophile* evaluation team was skeptical ("We wanted Bob to fail. We wanted to hear a difference"). They drove the product of Bob's round-the-clock modifications and their nominees for "best power amplifier" with some of the finest components in the world. Through reference speakers that are nothing short of awesome. Ultimately, after exhaustive listening tests with carefully selected music ranging from chamber to symphonic to high-impact pop that led them to write, "...each time we'd put the other amplifier in and listen to the same musical passage again, and hear exactly the same thing. Or

the second day of listening to his final design, we threw in the towel and conceded Bob the bout. According to the rules... Bob had won."

BRAIN CHALLENGES BRAUN. Below is a photo of the 20-pound, cool-running M-1.0t. Above it are the outlines of the pair of legendary mono



amplifiers used in the *Stereophile* challenge. Even individually, they can hardly be lifted and demand stringent ventilation requirements. And yet, according to some of the most discriminating audiophiles in the world, Bob's new design is their sonic equal.

The M-1.0t's secret is its patented Magnetic Field Coil. Instead of increasing cost, size and heat output with huge storage circuits, Magnetic Field Amplification delivers its awesome output from this small but powerful component. The result is a design with the dynamic power to reproduce the leading edge attacks of musical notes which form the keen edge of musical reality.

A DESIGN FOR THE CHALLENGES OF MODERN MUSIC REPRODUCTION. The M-1.0t's astonishingly high voltage/high current output and exclusive operation features make it perfect for the demands of compact digital discs, video hi-fi and other wide dynamic range playback media. The M-1.0t:

- Has a continuous FTC sine-wave output conservatively rated at 200 watts per channel.*
- Produces 350-500 watts per channel of RMS power and 800-1100 watts momentary peak power (depending on impedance).
- Delivers 1000 watts continuous sine wave output at 8 ohms in bridging mode without switching or modification.
- Is capable of handling unintended 1-ohm speaker loads without shutting down.
- Includes elaborate safeguards including DC Offset and Short Circuit Power Interrupt protection.

SHARE THE RESULTS OF VICTORY. We invite you to compare the new M-1.0t against any and all competition. Including the very expensive amplifiers that have been deemed the M-1.0t's sonic equivalent. You'll discover that the real winner of Bob's remarkable challenge is you. Because world class, superlative electronics are now available at reasonable prices simply by visiting your nearest Carver dealer.

*** SPECIFICATIONS: Power, 200 watts/channel into 8 ohms 20Hz to 20kHz, both channels driven with no more than 0.15% THD. Long Term Sustained RMS power, 500 watts into 4 ohms, 350 watts into 8 ohms. Bridged Mono power, 1000 watts into 8 ohms. Noise, -110dB IHF A-weighted. Weight, 20 lbs.**



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by Julian Hirsch



Answering the Mail

LETTERS from readers are regularly forwarded to me by STEREO REVIEW's editors. While I regret that not every letter can be answered personally, some of those of general interest can be dealt with occasionally in this column.

One such letter comes from a reader who has a reasonably good stereo system in which his low-priced, ten-year-old speakers are clearly the weakest link. But when he listened to other speakers costing many times as much as his in a dealer's demo room, some of them with advertised frequency-response limits as low as 20 Hz and as high as 40,000 Hz (!), he heard no significant improvement. Even in A/B comparisons in his own home, he could not tell the difference between his old speakers and newer ones.

He does note that his old speakers sound "wonderful" with CD program material—and "remarkably better" than with either cassettes or LP records (his tape deck and rec-

ord player are typical mid-price components, well below the state of the art even in their time). Thinking that his ears might be at fault, he had his hearing tested and found that it was perfectly normal (even better than normal according to one doctor).

He then asks why, if a person's hearing can be certified as "normal" with a test that covers (at most) a 50- to 10,000-Hz range, speaker manufacturers bother to claim response limits as low as 20 Hz or as high as 40,000 Hz?

This gentleman has fallen into the same trap that has snared so many audio enthusiasts, and no doubt will continue to do so far into the future: the mistake of equating wide frequency response with "high fidelity." A wide frequency-response range is *one* facet of the hi-fi picture, but in my view it is not the most important one. Before denouncing this heresy, think of all those people whose hearing is *not* "normal," who may have severe losses in hearing sensitivity in certain frequency ranges or even across the full spectrum. Yet I doubt that even they would have much difficulty in distinguishing a live performance from a recorded one reproduced through loudspeakers.

To the extent that "hi-fi" implies an audibly faithful, or at least believable, re-creation of a live listening experience, it seems to me that full-range frequency response is neither necessary nor sufficient to achieve this result. After all, most music has little or no energy at the frequency extremes, so their attenuation or elimination should make no important difference in the sound.

That said, let me make it perfectly clear that wide-range response is still a very desirable characteristic for speakers to have, given a sufficiently high quality level in the overall system. Unfortunately, there is really no satisfactory way to correlate any of the myriad possible "frequency response" ratings of a loudspeaker with its sound or with its appeal to any particular listener. Unlike other audio components, a speaker simply does not have a single overall frequency response that can uniquely define its sound character.

The same reader was also puzzled by the different ways that frequency-response specifications are presented. Briefly, if a component's output fluctuates within a total range of, say, 10 dB from 20 to 20,000 Hz, there are several ways of describing that variation. One might be, "frequency response 20 to 20,000 Hz within 10 dB overall," which says nothing about where in the spectrum the output falls above or below some "normal" reference level. Another way of saying exactly the same thing, if no reference frequency is stated, is "20 to 20,000 Hz \pm 5 dB."

A more meaningful approach, however, is to establish the "0-dB" reference level at some specific frequency, such as 1,000 Hz. If the speaker's output never drops below -2 dB relative to its 1,000-Hz level, but has one or more peaks of +8 dB, it can be said to have a response variation of "+8, -2 dB." If, on the other hand, its response is fairly flat, not rising more than 2 dB above its 1,000 Hz level, but drops to -8 dB at the limits, at 20 or 20,000 Hz, we would say that its response varies "+2, -8 dB."

Since the number of response irregularities and the frequencies at which they occur can have as important an effect on a speaker's sound as their magnitude, it should be obvious that a graphic representation—a frequency-response curve—is the most meaningful way to describe the response of a speaker (or of any other component). You should never forget, however, that even the "most meaningful" description of a speaker's response may have very little to do with how

Tested This Month

Denon DCD-3300

CD Player

Shure AVC 20

Power Station

KEF Model 102 Speaker

Magnum Dynalab

FT 101 FM Tuner

Beyer DT 990 Headphones

TECHNICAL TALK

much its sound will please or displease any individual listener.

One of the few truths that might be extracted from this situation is that as *all* of the many possible frequency-response measurements of a speaker become smoother and cover a wider range, there is a very good chance that its sound will be perceived by a larger group of listeners as being improved. Even so, I would not expect universal approval.

As you see, I haven't answered our reader's basic question. I am not sure that there *is* an answer other than the old "cop-out" of, "If you like it, buy it; if you don't like it, don't buy it."

And now for something completely different (apologies to Monty Python). In the February issue, I attempted to answer a reader's questions about the combined effect of several signal-enhancement devices, such as the Carver Sonic Hologram preamplifier with Polk SDA

speakers. From my own experience, I did not recommend using these two together. Since both systems expand the sound stage by phase and amplitude modification (using electronic and acoustic means, respectively), it is likely that in combination neither would give its best performance.

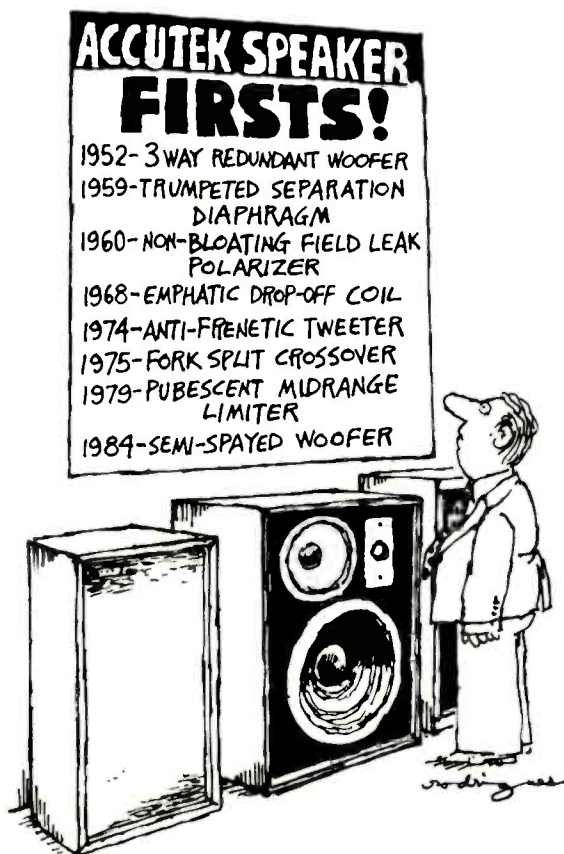
Another reader reports completely opposite results, however, experiencing a strong enhancement when the Polk and Carver systems are used together. In part this may reflect what is presumably a totally different listening environment from my own, and in part it may reflect his use of different recordings than mine. Both systems respond most dramatically to recordings that have little coherence between their left and right channels (such as certain "gimmicked" popular recordings); they do little or nothing to enhance well-blended stereo programs. In any case, our different

experiences illustrate, once again, the point that when you are comparing two of anything, *everything else* must be held constant. And that includes the listeners, no two of whom will hear exactly the same thing.

In the same column, I also recommended against using a subwoofer or electronic bass enhancer, such as Audio Control's Phase Coupled Activator, with the Carver Sonic Hologram or the Polk speakers. My view—which I pointed out was *not* based on actual experience with such a system configuration—was based on the more than ample bass from the Polk SDA speakers and the tendency of the Carver circuit to give the sound a subjective bass enhancement.

Well, I was very wrong! I have since had an opportunity to use the Phase Coupled Activator in my system, and it works just fine with the Sonic Hologram. Although I no longer have the large Polk SDA speakers, I speedily learned that the Audio Control device does not add any warmth or artificial heaviness to the program. It merely synthesizes deep-bass fundamentals from signals in the upper-bass range. I doubt that it would significantly color the sound of *any* speaker, and it is certainly compatible with the Carver Sonic Hologram. My apologies to Audio Control for the earlier statement.

Finally, another error of mine was called to my attention by an alert reader. Noting my statement (also in the February issue) that the Mission Argonaut speaker had the lowest bass distortion in my experience, this sharp-eyed correspondent—with a keen memory to match!—reminded me that in July 1986 I said much the same thing about the Klipsch Forté, which had even *lower* bass distortion. I plead guilty to a fallible memory, although I offer the mitigating circumstance that between those two reports I tested about fifteen other speakers, some of them having outstanding bass properties. I guess I do not have total recall of the data from the well over 3,000 product tests I have performed (including several hundred on speakers). This really wasn't *too* serious a slip, was it? □



Bass vs. Space

It's an old dilemma: To tolerate those large, room-dominating loudspeakers for the sake of true bass? Or sacrifice bass for the sake of more living space?

The classic solution to this problem—a solution that allows even efficiency-dwellers ample bass *and* space—is the satellite/subwoofer speaker system. Simply put, the mid-range and high frequencies are delegated to a pair of small satellite loudspeakers, placed for optimum stereo imaging. The bass is handled by a single large subwoofer unit, which can be hidden virtually anywhere in a room. (How? Frequencies under 100 hz are nondirectional;

the ears can't tell where they're coming from. So one subwoofer suffices.)

The most common kind of satellite/subwoofer system is "passive" (externally powered), such as the Ccnton Plus C.

Active Advantages

The Canton Plus Beta subwoofer looks much like the Plus C, but does the job quite differently. That's because it's "active" (internally powered).

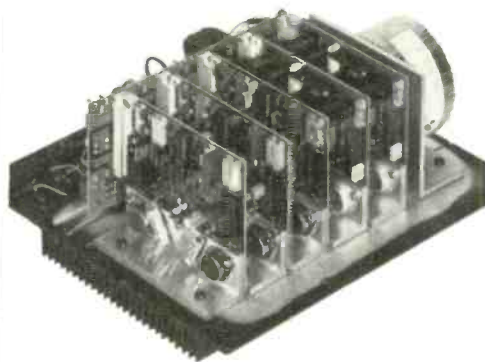


Canton's Plus Beta active subwoofer.

Don't have a preamp? No problem, your receiver can drive the Plus Beta too. The amplified power from your receiver is dropped down to preamp line level and the Plus Beta amplifies this signal through its own three amplifiers.

Canton has a variety of satellites to choose from: minis, indoor/outdoor, ultra-thin speakers or bookshelf units.

Featured at right are the Plus S mini speakers. Like most Canton products, they are available in black, white or walnut.



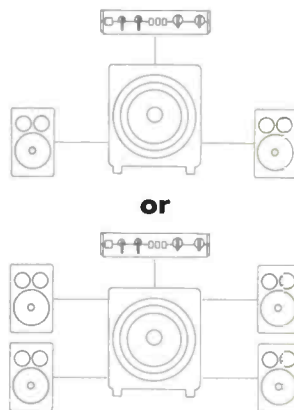
The Plus Beta contains three discrete power amps with digitally controlled active filters. They are frequency-driven and provide dynamic soft clipping for overload protection. The bass amplifier is rated at 100 watts RMS power; the satellite amps at 80 watts RMS per channel. THD is less than 0.01%.

Three advanced power amplifiers are built in, one custom-designed for the subwoofer and one each for the satellites. The active crossover network has three selectable crossover frequencies, allowing unparalleled flexibility in matching the Plus Beta with satellites. There is also an input sensitivity control and a bass level control.

Consequently, the Plus Beta can be used with a wide



The Plus Beta's control panel allows adjustment of: crossover point, for perfect matching with any satellite loudspeakers; input sensitivity, to optimize preamp compatibility; and bass level control to adapt for room characteristics.



The Plus Beta can accommodate an extra pair of satellites, either

In the same room or as extension speakers in another room.

variety of satellites. For example, Canton's affordable and very compact Plus S or the high-performance Karat 100. If desired, the Plus Beta can accommodate two pairs of satellites. By way of driving the Plus Beta, virtually any preamp or receiver will do, whether a high-end unit such as the Canton EC-P1 or a more modest design.

Where space is at a premium, but the awesome dynamic range of digital program sources can't be missed, there's no better option than an active subwoofer such as the Canton Plus Beta.



A Plus Beta subwoofer/satellite system can be driven by any preamp, such as Canton's EC-P1.

Find out more about the entire Canton product line by visiting an Authorized Canton Dealer and picking up Canton's 1986/1987 40-page Loudspeaker Journal.

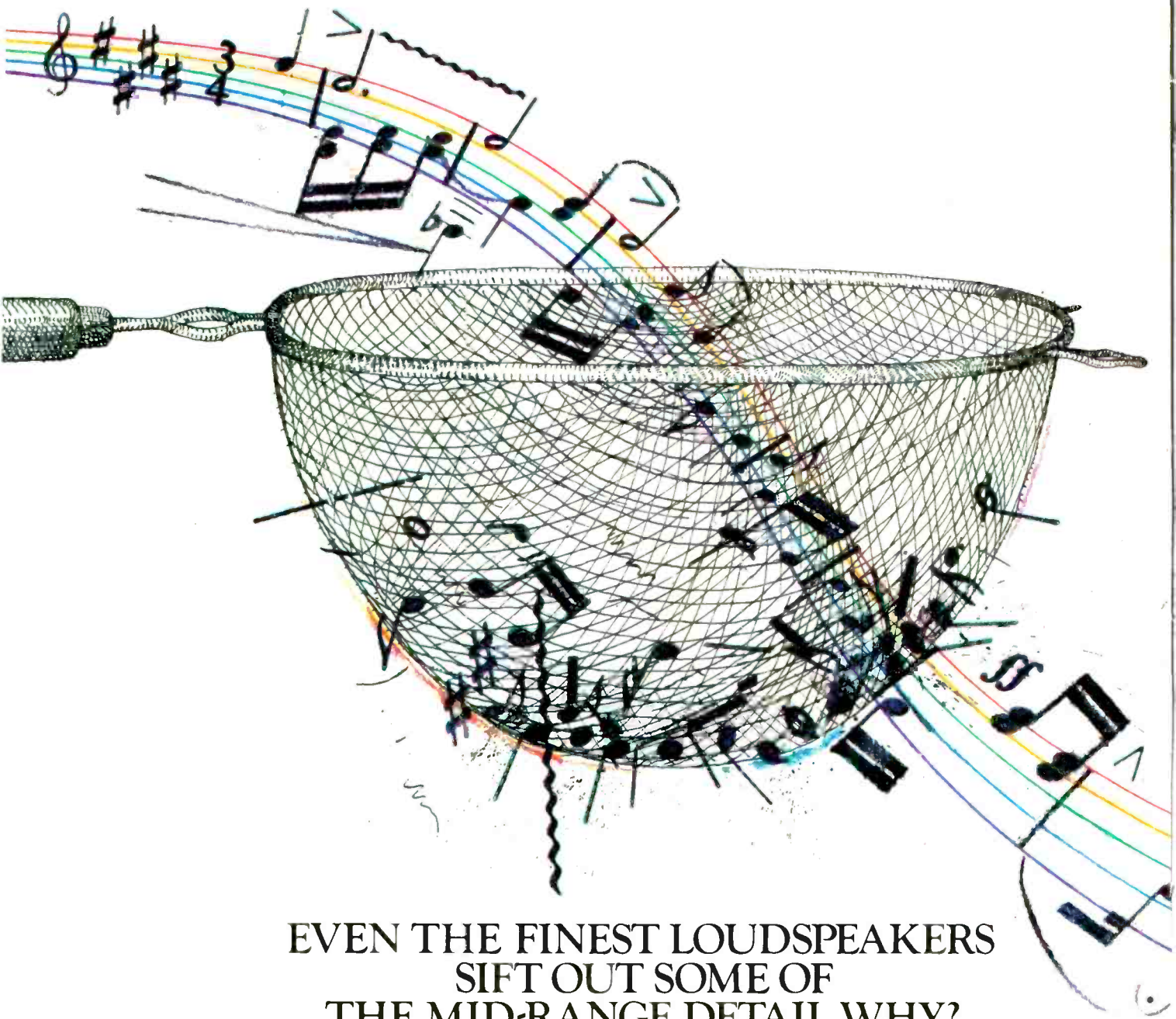
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At Altec Lansing® on the other hand, we've designed our new line of loudspeakers to recreate every subtlety of recorded music. To give not only the highs and lows but everything in between.

The secret of Altec Lansing's extraordinary timbre, texture and detail? A polyimide mid-range that produces an expansive stereo image to give you pure uncolored sound. In fact, Altec Lansing loudspeakers are so uncompromising, so revealing, they prompted J. Gordon Holt of *Stereophile* magazine to write, "I have been hearing more going on in (the mid-range of) old, familiar recordings than I have ever heard before... instrumental sections are suddenly resolved into many individual instruments rather than a mass of instruments," and they compelled him to add that Altec Lansing's speakers have "high end sweetness and openness... with astounding inner detail."

What's more, our woofers provide unparalleled low frequency definition that beautifully complements the flawless performance of our mid and high frequency drivers. How? With woven carbon fiber cones that are rigid yet lighter than paper or

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The unique features like these, that make our home loudspeakers so impressive, also extend into our automotive loudspeakers. In addition, our automotive loudspeakers have features like Thermoisolate™ construction and high temperature resistant materials to assure lasting performance even in the extremes of a demanding auto environment. As a result, you'll capture the same details in your car as you do at home.

Listen to Altec Lansing loudspeakers for yourself and hear how much detail you've been missing. Call 1-800-ALTEC88 for information and the Altec dealer nearest you (in Pennsylvania 717-296-HIFI). In Canada call 416-496-0587 or write 265 Hood Road, Markham, Ontario L3R 4N3, Canada.



Carbon Fibers in Woofer Cone

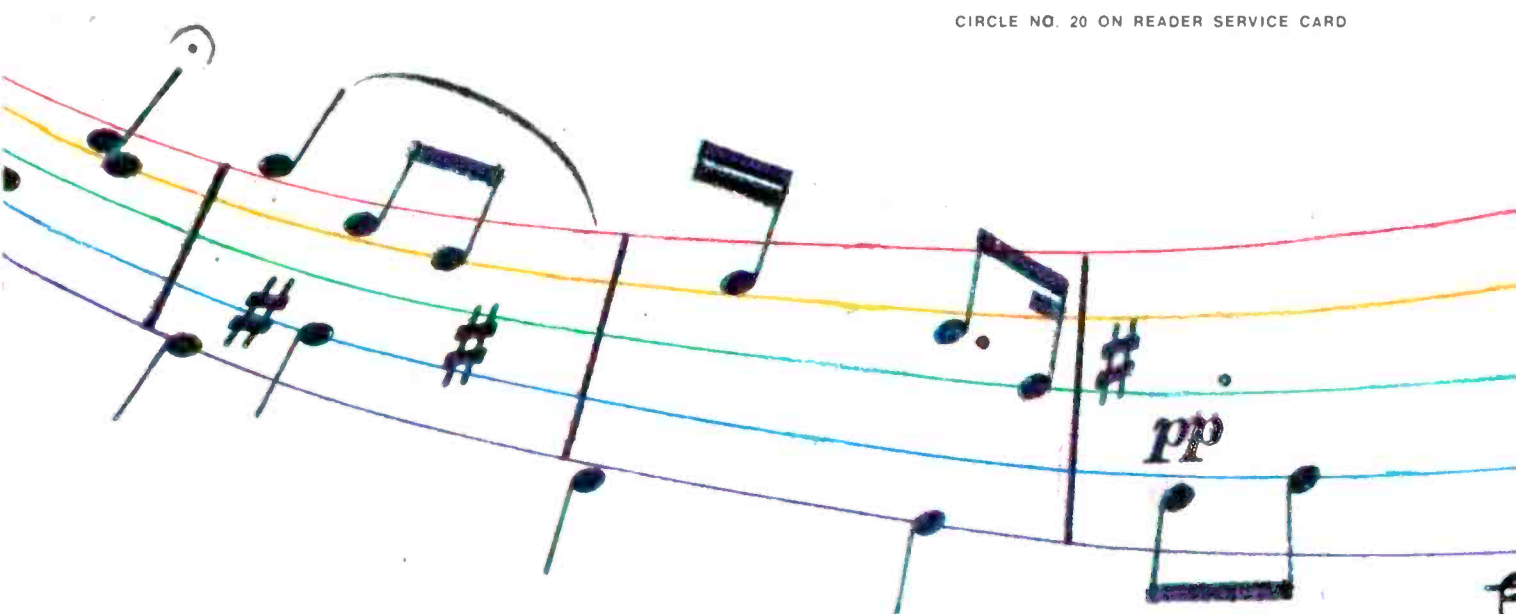


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Mid-range



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Amazing but true: people can spend hours choosing a car receiver—and then pay no attention to the speakers. Obviously, they've never heard what a difference really good car speakers can make. They haven't experienced the muscular punch of deep bass or the breath-taking intimacy of clear treble.

In short, they've never heard AR car loudspeakers.

At some companies, speakers are an afterthought. At AR, they're a way of life. This attitude is amply demonstrated in the superior power handling of our liquid-cooled tweeters. It's evident in AR's preference for full crossover networks. It's expressed in every mica-filled polypropylene driver, every solid steel frame, every wire-mesh grille. AR even created a car amplifier to make these speakers sound their best.

AR car speakers range from most affordable to most luxurious. They're easy to install. But once they're in, you'd no sooner change them than change your car.

Acoustic Research. We speak from experience.



TEST REPORTS



DENON DCD-3300 CD PLAYER

Julian Hirsch, Hirsch-Houck Laboratories

THE Denon DCD-3300, the company's top-of-the-line CD player, contains many design refinements designed to extract the maximum sound quality from compact discs. Among these is an improved version of Denon's Super Linear Converter, which is said to eliminate the small amounts of crossover distortion that can occur in a conventional digital-to-analog (D/A) converter as the waveform crosses the zero-volt-axis.

Denon custom trims each D/A chip during its manufacture, adding a correcting signal current to reduce distortion below the residual noise level. Two separate D/A converters are used in the DCD-3300, eliminating even the 11-microsecond

time displacement between the stereo channels that occurs when a single converter is multiplexed. The DCD-3300 also uses quadruple oversampling (that is, a 176.4-kHz sampling rate) and a combination of digital and analog filtering to give improved group-delay characteristics (lower phase distortion).

Unusual steps were taken to isolate the player's digital and analog circuits from each other. It contains five separate power supplies with two transformers—one for digital circuits, the other for the analog sections. The digital and analog sections are constructed on separate circuit boards and are optically coupled for maximum isolation.

In addition to two sets of conventional analog audio outputs, one at

a fixed level and the other adjustable by a front-panel knob, the DCD-3300 has two Cannon connectors providing a balanced 600-ohm stereo output for professional or broadcast applications (some home audio manufacturers are also providing balanced *input* jacks for CD players). There are also two balanced digital outputs (prior to the D/A conversion) for direct connection to digital tape recorders or other components equipped to process the signals in digital form. Finally, a stereo digital signal is also available for optical transmission through a supplied 5-foot fiber-optic cable.

The mechanical construction of the DCD-3300 is as unusual as its electronic features. Severe external vibration or jarring can cause audible mistracking by a CD player, but even small amounts can sometimes overtax a player's error-correction circuits and introduce more subtle, but nonetheless real, distortions.

TEST REPORTS

To minimize the effects of vibration on the DCD-3300, the pickup assembly that supports the laser is mounted on a subchassis made of Bulk Molding Compound, a ceramic-like material molded with glass fibers. The subchassis is then suspended on coil springs with visco-elastic dampers. The system's resonant frequency is below 18 Hz, which effectively excludes airborne or other external vibrations. A heavy, rigid molded material is also used for the disc holder and the disc tray in order to minimize resonances in that part of the player.

The nonmoving parts of the DCD-3300 received equal attention in Denon's search for a vibration-free design. A heavy copper-plated main chassis adds mass to the structure as well as providing an ideal electrical ground surface. The entire chassis is enclosed in heavy-gauge aluminum panels, and the bottom is formed of two metal plates bonded in a sandwich with a visco-elastic layer between them. A damping plate is also bonded to the inside of the top plate. Finally, the entire

player is supported on large, heavy isolating feet made of solid brass.

The end product of these efforts is a player that is only moderately large but surprisingly heavy. The DCD-3300, which is finished in black with gold lettering, measures about 17 inches wide, 14¼ inches deep, and 4 inches high, but it weighs just over 30 pounds.

Conventional flat pushplates control the basic transport functions. The level from the front-panel headphone jack and the variable rear line output is adjusted by a small knob, and a similar knob activates either or both of the coaxial digital output jacks on the rear. A row of small buttons, numbered 0 through 9 and +10, can be used to access any track directly or to program the player for up to twenty track selections in any order. A PROGRAM/DIRECT button toggles between the two modes of operation.

The display window, in the center of the panel, presents an exceptionally complete view of the player's status. During play it shows the current track and index numbers, the

number of the next track to be played (a real convenience in programmed operation), the numbers of all the unplayed tracks, the elapsed time in the current track, and the number(s) of the selected digital outputs, if any. It also shows the presence of a loaded disc in the machine and whether the play or pause mode is in effect.

When a disc is first loaded, the display shows its total number of tracks and playing time. An additional indicator, which we have not seen on other CD players, shows whether a disc was recorded with pre-emphasis. If it was, a de-emphasis circuit in the player is automatically switched on.

Below the selector buttons is a hinged section of the panel that swings down when pressed, revealing seven pushbuttons used for special programming or access requirements, including cueing by index number or time within any track. The CALL button shows the numbers of programmed tracks on the display, REPEAT causes the entire disc (or programmed sections of it) to be repeated indefinitely, and CLEAR deletes all programming information. The TIME MODE button switches the time display between the remaining time on the disc or on the current track and the elapsed time on the track. Finally, the AUTO SPACE button inserts a pause of several seconds between tracks for convenience in making tape dubs with silent intervals that will permit automatic music search with a suitably equipped deck.

The suggested retail price of the Denon DCD-3300 is \$1,600. It is supplied with a wireless remote control for all its playing and programming functions. Denon America, Dept. SR, 27 Law Dr., Fairfield, NJ 07006.

Lab Tests

Through the middle and high frequencies, the response of the Denon DCD-3300 was the flattest we have measured from a CD player. There was no discernible change in output level from 300 to 20,000 Hz (the variation was well under 0.02 dB), and there was a smooth rise to about +0.2 dB at 20 Hz. The two channels had identical responses.

FEATURES

- Copper-plated chassis with heavy-gauge aluminum enclosure
- Sandwich construction of base and top for reduced vibration sensitivity
- Low-resonance molded disc holder and tray
- Linear motor for fast disc access
- Three-spot laser tracking system
- Quadruple oversampling with digital and analog filters
- Separate circuit boards and power transformers for analog and digital sections, with optical coupling
- Fixed- and variable-level analog line outputs
- Balanced 600-ohm analog outputs for professional use
- Two coaxial digital outputs selectable from front panel
- Optical digital output with supplied 5-foot cable
- Direct access to programs by track, index, or time
- Fluorescent display to show complete operating status of player
- Programming for up to twenty selections in any order
- Track stepping in either direction
- Fast search in either direction with audible sound
- Auto Space to insert 4-second pauses between tracks
- Full-function wireless remote control

LABORATORY MEASUREMENTS

Maximum output level: 2.0 volts
Total harmonic distortion at
1,000 Hz: 0.0019% referred to
0 dB, 0.0045% referred to -10
dB, 0.013% referred to -20 dB
Signal-to-noise ratio (A-weighted):
107.2 dB
Channel separation: 106 dB at
1,000 Hz, 87.5 dB at 10,000 Hz,
82 dB at 20,000 Hz

Frequency response: +0.2, -0.0
dB from 20 to 20,000 Hz
Cueing time: less than 1 second
Cueing accuracy: A
Impact resistance: top, A; sides,
A+
Defect tracking: tracked all
maximum-level defects on
Philips TS5A test disc



SOMETIMES THE MAN WHO HAS EVERYTHING HAS A FEW THINGS TOO MANY.

There's one problem with having all those components in your system. All those remotes in your way. And trying to find the right one when you need it can really test your self-control.

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even supervise a Sony® Trinitron® TV. Simply place it head to head with almost any infrared remote, press the matching buttons, and it learns the operating codes in minutes, putting your entire system in the palm of your hand.

And if your system changes, Control Central will change right with it, reprogramming for any new addition.

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TEST REPORTS

delivering almost exactly 2 volts from the fixed output terminals, with an imbalance of 0.18 dB. The headphone output into a 600-ohm load was a very high 8.1 volts at the clipping point, sufficient to generate an uncomfortably loud volume level with good 600-ohm phones.

The phase shift between channels varied from 0.7 degree at the middle frequencies to only 2.5 degrees at 20,000 Hz, a negligible shift that can be credited to Denon's use of dual D/A converters. The channel separation (averaged in both directions) was 119 dB at 100 Hz, narrowing to 106 dB at 1,000 Hz and 87.5 dB at 10,000 Hz. The A-weighted noise level was -107.2 dB referred to a 0-dB test-signal level.

Dynamic range—defined as the ratio of the output from a 0-dB signal to the total distortion content of the playback from a -60-dB (1,000-Hz) test signal—was 96 dB, exactly as rated. The distortion contained all the odd-order harmonics from the third to the nineteenth.

The DCD-3300 had no difficulty in tracking all the calibrated defects on the Philips TS5A test disc. Its linear motor was able to shift the laser very rapidly over the playing surface of a disc, yielding a slew time from Track 1 to Track 15 of the Philips TS4 disc of less than 1 second (our stop watch indicated about 0.8 second, a good part of which was undoubtedly our own reaction time). The cueing from

Track 17 to Track 18 of that disc, which have no silent interval between them, was perfect.

Comments

The extraordinarily robust construction of the DCD-3300 gave it the feel of a concrete block. There was no "tinny" sound when I rapped the case with my knuckles or palm. In fact, the solid thud that resulted was reminiscent of what I have experienced when applying a similar treatment to a couple of recent loudspeaker systems employing unusual internal bracing.

In our previous tests of CD players, we have often felt that their propensity to mistrack when rapped or bumped was closely related to how much their often flimsy metal covers vibrated under this treatment. The DCD-3300's behavior was consistent with this conclusion. My most violent blows on its sides had no effect on the playback, and the only way I could induce a skip was by a very hard blow with the palm of a hand to its top, right over the disc mechanism—a test that hurt me more than the DCD-3300!

Befitting its status as the top-of-the-line CD player from a company that pioneered digital recording more than a decade ago, the Denon DCD-3300 is a thoroughly outstanding product. It is difficult to imagine any other player being significantly better, within the constraints of the CD format.

Obviously, the DCD-3300 provides almost every operating convenience one could desire. The only omissions we can think of from its galaxy of operating features are phrase repeat, which allows any user-defined portion of a disc to be repeated, and a random "shuffle play" mode. In compensation, perhaps, its TIME SEARCH mode provides an uncommon means of access to any part of a disc.

Like some other manufacturers of notably good CD (and other) components, Denon makes the "improved sound" of the DCD-3300 the basis for its claims of superiority over competing products. Here I must abstain, since (unlike some other people) I have never been able to hear any differences between CD players whose frequency responses were identical within about 0.2 dB and which were otherwise performing as intended. I dutifully paired up the DCD-3300 with another excellent player, put identical discs in them, cued them up, and matched their levels (thanks to the level control on the DCD-3300, this was an easy task). Try as I might, I could detect no audible difference between them.

Of course, this was not a definitive test. Different discs, amplifiers, speakers, rooms, and listeners might produce different results. The point is that even if such differences are real, they must be very minor indeed. If a listener considers them important enough to warrant spending more money—well, that is why we have a hi-fi industry!

In any case, I consider the DCD-3300 to be one of the most impressive products I have reviewed lately, thanks to its designers' no-holds-barred approach to eliminating every possible weak spot, no matter how trivial. And some of its strong points, like its mechanical construction, are not at all trivial. I wish that other manufacturers would build their CD players as solidly as this one (although the prices would doubtless rise as a result). Anyone who appreciates fine workmanship should remove the covers of the DCD-3300 and compare it with a \$400 player. There are very real differences, regardless of their sound.

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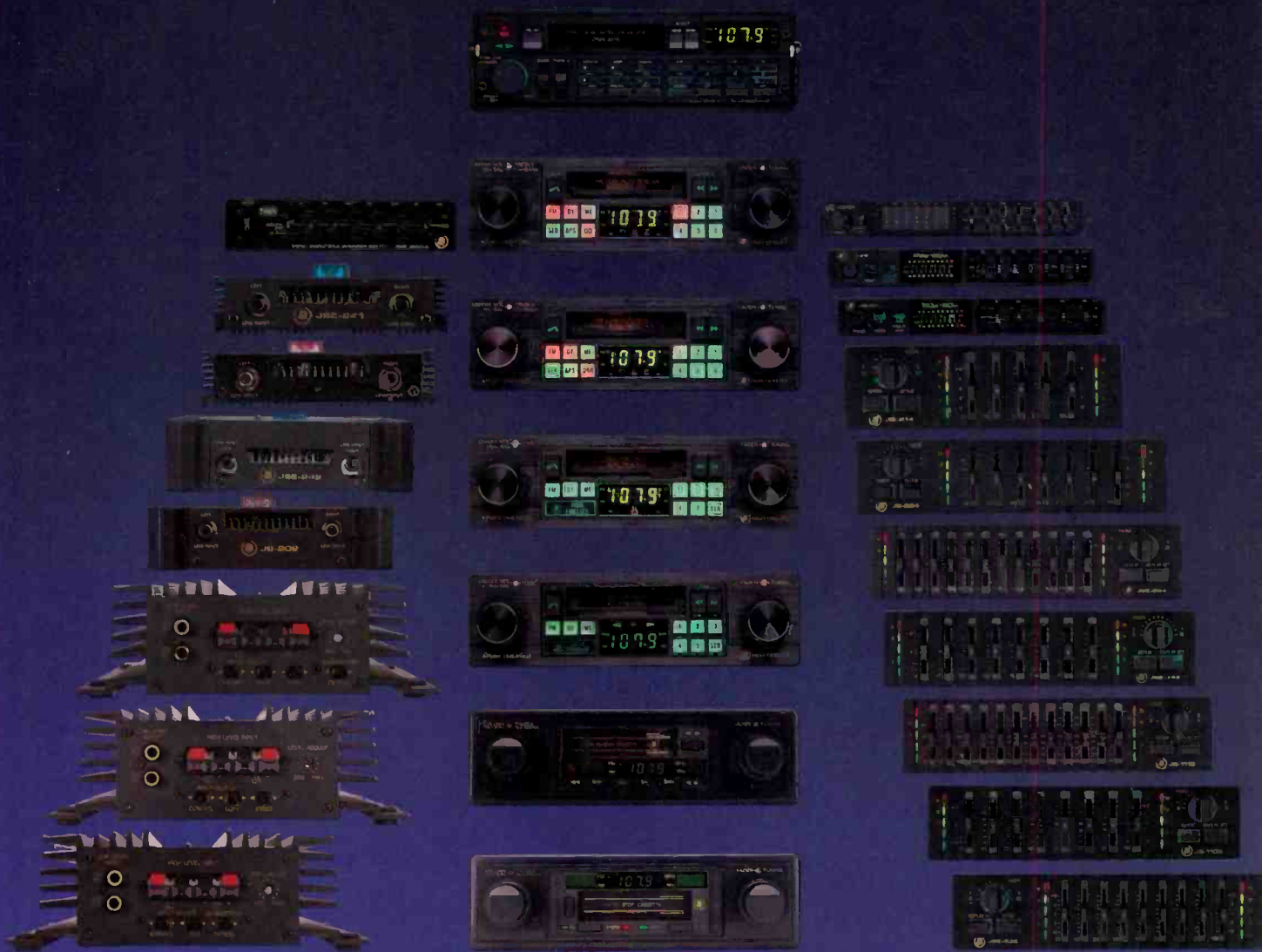
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JOOK LEUNG

SHURE AVC 20 POWER STATION

Julian Hirsch, Hirsch-Houck Laboratories

SHURE'S AVC 20 Power Station is called a Video/Hi-Fi System Expander, but it is actually a complete audio/video control and amplification center. It contains four separate 30-watt power amplifiers, which can be bridged to form a pair of 60-watt amplifiers, with a rated distortion of 0.1 percent from 20 to 20,000 Hz into 8-ohm loads. The preamplifier section has inputs for three high-level sources, a phono cartridge, and a tape deck.

The AVC 20's audio signal-processing features—which can be bypassed for normal stereo reproduction—include Dolby Surround, two additional stereo enhancement modes based on matrixing and

time-delay circuits, and a synthetic-stereo mode for enhancing mono programs. Its conventional audio features include a noise filter and separate tone controls for the front and rear channels.

Pushbuttons or pushplates are used for all the normal operating functions of the AVC 20, most of which can also be performed from its wireless infrared remote control. The balance control is unusual: a square plate about 1½ inches on a side that's pivoted at its center and shifts the program balance toward the front, rear, right, or left depending on which side of the square is pressed. To its left is a square luminous display (called SURROUND INDICATOR) that shows the approxi-

mate distribution of program energy among the four corners of a hypothetical listening room.

Volume adjustments are made in 2-dB steps, with a total volume range of about 80 dB. Small square buttons select the operating mode—bypass, synthetic stereo, CONCERT SURROUND, SPATIAL SURROUND, or Dolby Surround—and illuminated symbols above them identify the selection. Similar buttons activate the balance display, a noise filter, audio muting, mono input selection, and VOLUME RESET. The reset control restores the balance settings to a neutral (balanced) condition—an important feature since there is no visible indication of the actual (as opposed to relative) values of these adjustments—and returns the amplifiers to a low volume setting, which usually requires a considerable increase to restore a listenable program level.

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The AVC 20 can be changed from its normal four-channel mode to bridged "Balanced Transformerless" (BTL) operation by moving a slide switch located on the rear apron and changing the speaker connections. A display on the front panel indicates when the BTL mode is selected.

A pair of indicators marked UPPER LIMIT and LOWER LIMIT show when the volume control is at its maximum and minimum settings (the LOWER LIMIT indicator also lights when the muting button is pressed). The AVC 20 can be programmed for three preset volume levels, which are instantly selectable through buttons on the remote control but not on the front panel.

Lights on the panel do identify the selected level. A hinged strip across the bottom of the front panel conceals a number of small knob-operated controls, including separate bass and treble tone controls for the front and rear channels, input level and balance adjustments, and the expansion and reverberation time adjustments for the synthetic-stereo and CONCERT SURROUND modes. A three-position IMAGE ENHANCER slide switch is provided for accentuating video picture contours.

The Image Enhancer feature is one of the few obvious clues to the video aspects of the AVC 20's design. Looking at the rear apron reveals that each of the three high-level inputs (marked A-V INPUT 1, 2,

or 3) is designed to accommodate a video source, with separate jacks for its video and stereo audio program components. There are also two independent video-monitor output jacks for connection to monitors or TV sets equipped with video inputs.

Also on the rear apron are input/output jacks for a conventional audio tape deck as well as separate PRE OUT and MAIN IN jacks for the front and rear amplifiers. The pre-out/main-in jacks allow an existing hi-fi system amplifier to be used for either the front or rear channels while the other pair is driven by the AVC 20 in its bridged mode.

There are two mono output jacks that carry the sum of the left and right front channels at a nominal 1-volt line level for a center-channel speaker or a subwoofer with a separate amplifier. Two of the three AC convenience outlets are unswitched. The speaker terminals accept the stripped ends of the wires and grip them firmly when their locking levers are closed. Speakers having impedance ratings between 8 and 16 ohms are recommended.

The output transistors of the Shure AVC 20, and their large heat sinks, are mounted entirely within the cabinet. Numerous ventilation holes in the top and bottom plates provide ample cooling by convection. The metal cabinet, finished in black, measures 17 inches wide, 13 $\frac{3}{8}$ inches deep, and 4 $\frac{5}{16}$ inches high, and the unit weighs 21 pounds. Price: \$599. Shure, Dept. SR, 222 Hartrey Ave., Evanston, IL 60202.

Lab Tests

An hour of preconditioning at one-third rated power left the top of the AVC 20's cabinet only slightly warm, and at no time during our subsequent tests did it become much warmer than that. The 1,000-Hz output (two channels driven) clipped at 60 watts into 8-ohm loads, 90 watts into 4 ohms, and 88 watts into 2 ohms (a far lower impedance than the amplifier is rated to drive). Bridged BTL operation gave only a modest increase in the clipping power limit: 94 watts into 8 ohms and 108 watts into 4 ohms. Dynamic-power tests showed even more headroom, with outputs

FEATURES

- Four 30-watt amplifiers, bridgeable to form two 60-watt amplifiers
- Magnetic phono input
- Program inputs for three audio/video sources (two VCR's, one videodisc player)
- Audio/video recording and dubbing facilities for two VCR's
- Inputs and outputs for one audio tape recorder
- Synthetic-stereo mode for mono programs
- Three stereo enhancement modes: CONCERT SURROUND, SPATIAL SURROUND, and Dolby Surround
- Switchable for mono operation
- Switchable noise filter
- Separate bass and treble tone controls for front and rear channels
- Electronic volume control
- Electronic four-way balance control with illuminated SURROUND INDICATOR to show directional characteristics of program
- Wireless remote control for most functions
- Three programmable volume presets selectable from remote control

LABORATORY MEASUREMENTS

- 1,000-Hz output power at clipping:** normal mode, 60 watts into 8 ohms, 90 watts into 4 ohms, 88 watts into 2 ohms; bridged BTL mode, 94 watts into 8 ohms, 108 watts into 4 ohms
- Clipping headroom** (relative to rated output): normal, 3 dB (8 ohms); BTL, 1.95 dB (8 ohms)
- Dynamic power output:** normal, 72 watts into 8 ohms, 112 watts into 4 ohms; BTL, 138 watts into 8 ohms, 190 watts into 4 ohms
- Dynamic headroom:** normal, 3.8 dB (8 ohms); BTL, 3.6 dB (8 ohms)
- Harmonic distortion (THD + noise)** at 1,000 Hz into 8 ohms: normal, 0.053% at 1 watt, 0.021% at 10 watts, 0.013% at 30 watts; BTL, 0.105% at 1 watt, 0.038% at 10 watts, 0.02% at 60 watts
- Maximum distortion** (from 20 to 20,000 Hz into 8 ohms): 0.12% at 3 watts (20 Hz)
- Slew factor:** greater than 25
- Sensitivity** (1-watt output into 8 ohms): phono, 1.45 mV; A/V (high-level) inputs, 27 mV
- Phono-input overload:** 54 to 73 mV
- A/V-input overload:** 1.15 volts (see text)
- A-weighted noise** (referred to a 1-watt output): phono, -64.7 dB; A/V inputs, -80.6 dB
- Phono-input impedance:** 50,000 ohms in parallel with 160 pF
- RIAA phono-equalization error:** ± 0.5 dB from 20 to 20,000 Hz
- Noise filter:** -3-dB response at 6,500 Hz; minimum response, -9.5 dB at 9,000 Hz
- Internal time delay:** 20 ms
- Tone-control range:** 100 Hz, +12, -10.5 dB; 10,000 Hz, +9.5, -10 dB

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Pictured above, left to right are: The T95, T55, T65, and, the TL900, TL500, TL600.

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of 72 watts into 8 ohms and 112 watts into 4 ohms. In the BTL mode, the dynamic power was an impressive 138 watts into 8 ohms and 190 watts into 4 ohms.

The distortion at 1,000 Hz into 8 ohms was typically between 0.05 and 0.012 percent for power outputs from 1 to 50 watts. Even with 4-ohm loads (for which the amplifier is not rated), the distortion was in the vicinity of 0.02 percent at most power outputs up to 80 watts. At the rated 30 watts per channel into 8 ohms, the distortion (including noise) was about 0.1 percent from 20 to 300 Hz.

For higher frequencies, we were able to use a 400-Hz highpass filter in the distortion analyzer to eliminate low-frequency power-line noise that was not harmonically related to the signal frequency. The distortion measured 0.03 to 0.04 percent from 1,000 to 20,000 Hz. At lower power outputs the distortion characteristics were similar, with lower numerical values.

The amplifier's slew factor exceeded our measurement limit of 25, and its reactive-load factor was 2.8 dB at 63 Hz. It was stable with complex reactive simulated-speaker loads, although a 10,000-Hz square wave at moderate levels caused its protective relay to shut it down momentarily.

The high-level inputs had a sensitivity of 27 millivolts (mV), and the phono-input sensitivity was 1.45 mV. The high-level inputs can easily be overloaded, however, if the INPUT VOLUME knob behind the hinged panel is set too high and the main electronic volume control is used to establish a comfortable listening level. In the worst case we measured, the high-level overload occurred at 1.15 volts, which is likely to result in serious distortion from many sources, including CD players. The correct procedure, as explained in the instruction manual, should be followed carefully. The phono preamplifier also overloads at relatively low inputs, between 54 and 73 mV from 20 to 20,000 Hz, but this is not likely to cause problems with typical stereo cartridges.

The tone controls of the AVC 20 had conventional characteristics, with a sliding bass-turnover fre-

quency (from approximately 100 to 500 Hz) and treble curves hinged at about 3,000 Hz. Most of the controls' effects took place near the ends of the knob rotations, with halfway settings doing little more than shifting the overall volume by 1 or 2 dB.

The RIAA phono equalization was very accurate, within about ± 0.5 dB from 20 to 20,000 Hz. The phono-input impedance was 50,000 ohms in parallel with 160 picofarads of capacitance. The noise filter had an unusual effect, introducing a notch of almost 10 dB at 9,000 Hz (the response was down 3 dB at 6,500 Hz) but attenuating the higher frequencies only slightly (the response returned to a -2.5 -dB level at 15,000 Hz).

The internal time-delay circuit of the AVC 20 provides a fixed 20-millisecond (ms) delay, but this delay is used differently in the several signal-processing modes. In Dolby Surround, the rear (ambience) channel is derived by matrixing to form a difference signal (L-R) and then delayed by 20 ms. The CONCERT SURROUND feature, however, applies the 20-ms delay to the front-channel stereo program and feeds the delayed signals to the rear amplifiers. At the minimum setting of the CONCERT SURROUND control knob, there is only a single delayed signal. As the knob is turned, the signal is recirculated to provide additional delays at 20-ms intervals, each at a lower level than the preceding one. We observed at least seven delayed signals before their level dropped more than 20 dB relative to the first one.

The SPATIAL SURROUND mode does not use time delay, apparently relying on matrixing to create different signals in the two rear channels from the original stereo program. The synthetic-stereo mode, principally for use with mono programs but also usable to alter the spatial distribution of stereo programs, apparently uses a combination of time delay and frequency contouring to achieve its effect.

Comments

The Shure AVC 20 Power Station is clearly a product whose performance has not been skimmed in any

important respect. In particular, it proved to be a surprisingly powerful amplifier with an overall quality well beyond what we would have expected from a component whose primary purpose is presumably to enhance video sound. If desired, the AVC 20 can do a first-rate job as a hi-fi system amplifier, with remarkably little sacrifice of either the features or performance expected from such a product.

We were, however, frustrated by the slow rate of volume change using either the front-panel control or the remote-control buttons. Changing from the upper volume limit to effective inaudibility (by no means the full range of the control) took 5 seconds, and the return required a glacially slow 15 seconds. The AVC 20's electronic volume control is clearly no substitute for an old-fashioned knob, although we recognize its convenience for use in a video system. A motor-driven potentiometer would have been a better approach. Also, the SURROUND INDICATOR balance display is essentially a cosmetic feature, conveying little information beyond what should be obvious to any listener (it can be switched off if desired).

The CONCERT SURROUND mode was able to add a worthwhile ambience enhancement to most stereo programs. It was not the equal of a full-featured time-delay processor, but since those are typically sold for considerably more than the price of the complete AVC 20, that was not surprising. The SPATIAL SURROUND mode gave another, somewhat different effect to the sound, but it also strongly accentuated the background hiss in a stereo FM program. The noise filter was not effective against this hiss, although it may be more useful on video background noise.

For anyone wishing to build a first-rate audio/video system, the Shure AVC 20 Power Station offers convenience and performance at a reasonable price. It is difficult to see how one could do as well for the same price with any combination of separate components, and the advantages of having a single remote control and a minimum of external cables are undeniable.

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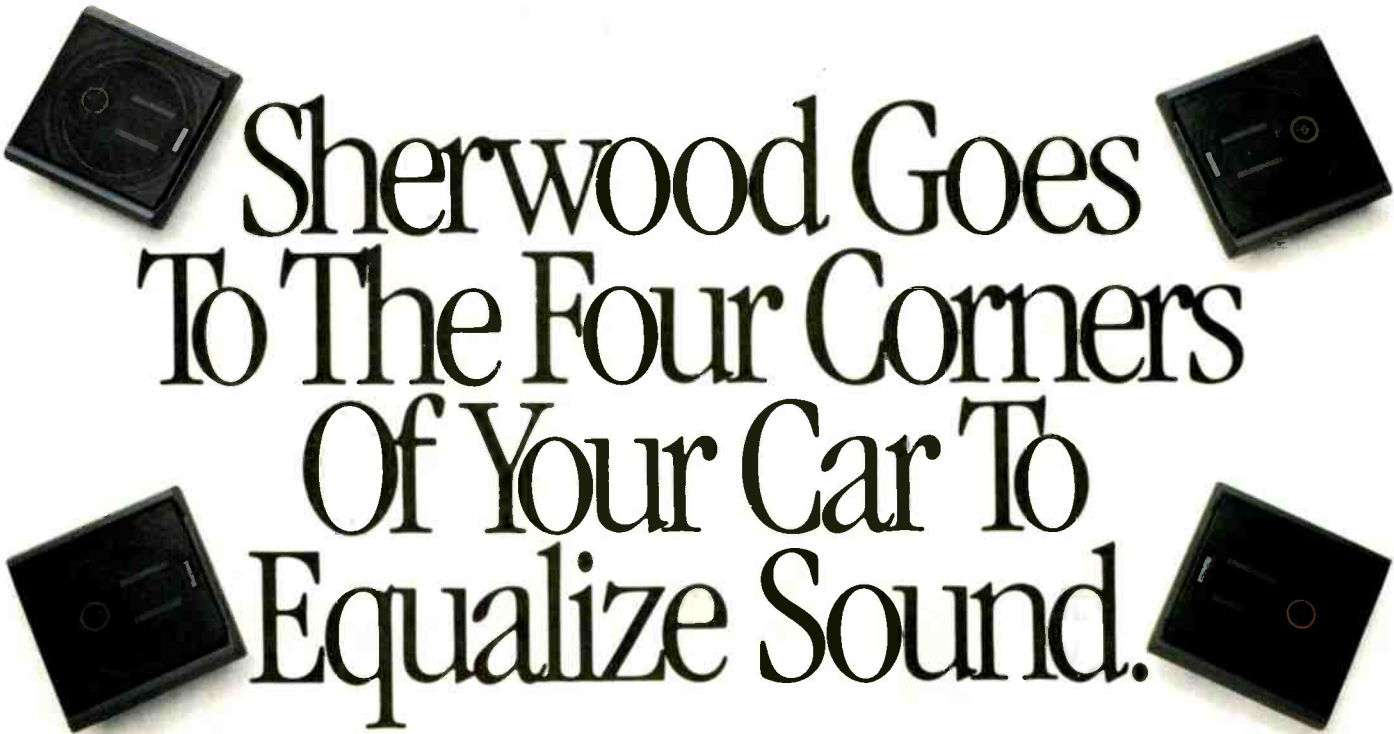
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KEF MODEL 102 LOUDSPEAKER

Julian Hirsch, Hirsch-Houck Laboratories

THE Model 102 from KEF, one of the company's Reference Series loudspeakers, is a very compact two-way system with exceptional bass response for its size, which is close to minispeaker proportions. Its 6-inch Bextrene-cone woofer operates in a sealed enclosure, and the high frequencies are channeled to a 1-inch soft-dome tweeter. The walnut-finished wood cabinet is extremely rigid, and even the black cloth grille is stretched on a solid wood plate that is retained by plastic fasteners.

The frequency response of the KEF 102, at 2 meters distance on axis, is rated as 65 to 20,000 Hz \pm 2 dB and as down only 6 dB at 40 Hz. It is also rated to deliver a sound-pressure level (SPL) of 107 dB on program peaks under typical listening conditions. These figures are indeed impressive for a speaker that measures only 13 inches high, 8 $\frac{1}{4}$ inches wide, and 10 $\frac{1}{4}$ inches deep and weighs a mere 15 pounds.

The bass performance of the system is obtained by using a separate

active (electronic) equalizer, the KUBE (KEF Universal Bass Equalizer), that boosts the bass drive signal by 5 to 6 dB below about 40 Hz while reducing the midrange drive signal in the 2,000-Hz region by about 5 dB. The KUBE Model 2088 supplied with the KEF 102 speakers is meant to be inserted in an amplifier or receiver tape-monitor loop or between a preamplifier and power amplifier. It has a set of tape input and output jacks and a monitor switch to replace those required for its connection to the amplifier.

Pushing in the EXTEND button of the KUBE inserts an additional bass boost that complements the speaker's natural rolloff in the bass region and gives it a nearly flat response to 40 Hz. Another control, marked CONTOUR, shifts the level of the entire bass range (below about 200 Hz) up or down as much as 3 dB to balance the low-frequency sound against the midrange level. The CONTOUR circuit operates independently of the EXTEND control.

The rated sensitivity of the model

102 under anechoic conditions is 92 dB SPL at 1 meter with a pink-noise input of 2.83 volts. Its nominal impedance is 4 ohms, and it is suitable for use with amplifiers capable of delivering between 50 and 200 watts into that load. KEF's computer-designed passive crossover maintains a nearly resistive impedance over most of the audio range, making the Model 102 an "easy" system to drive.

The KEF Model 102, including its KUBE equalizer, is priced at \$790 a pair. KEF, Dept. SR, 14120-K Sullyfield Circle, Chantilly, VA 22021.

Lab Tests

Although they are designed to be suitable for wall mounting, we placed the KEF 102 speakers on stands about 25 inches high and a couple of feet from any room wall. All our response measurements were made through the KUBE, whose frequency response we also measured separately.

In its normal setting, the KUBE boosts the drive signal at 20 Hz by about 10 dB relative to the average midrange level, and the boost increases to 18 dB in the EXTEND setting. These figures must be kept in mind when using the KEF 102 speaker system, since almost any amplifier can be driven into clipping by this much bass boost if the playing volume is too high, and per-

An A/B listening comparison left no doubt of the close kinship between the KEF Model 102 and the 105.2, which sells for about three times its price. At modest volume levels, there was virtually no difference.

manent damage to the speakers could result.

The averaged room response from the left and right speakers was unusually smooth and flat, varying only \pm 2.5 dB from 450 to 20,000 Hz. The directivity of the tweeters became significant only above 10,000 Hz. The close-miked woofer

TEST REPORTS

response reached its maximum in the 200- to 300-Hz range, falling smoothly by about 7 dB from 300 to 2,000 Hz. From 200 to 45 Hz, the output fell at 12 dB per octave in the normal mode and at 6 dB per octave in the extended mode. In both modes, it dropped off at 18 dB per octave below 45 Hz. The sharp cutoff of output above 2,500 Hz suggests that the crossover to the tweeter takes place close to that frequency, although the speaker's specifications do not list the crossover frequency.

The composite frequency response, obtained by splicing the woofer curve to the room-response curve, was flat within ± 2.5 dB from 450 to 20,000 Hz, or within ± 3.5 dB from 40 to 20,000 Hz in the extended mode and from 80 to 20,000 Hz in the normal mode. The system's impedance was 3.5 to 4 ohms from 300 to 20,000 Hz, with a maximum of 19 ohms at 85 Hz and a bass minimum of 5.8 ohms at 43 Hz. The linearity of the speaker's phase shift was demonstrated by its above-average group-delay variation, only ± 0.1 millisecond from 500 to 29,000 Hz.

The system's measured sensitivity was 86 dB SPL at 1 meter with

2.83 volts of pink noise (through the KUBE in its normal setting). Bass distortion was measured with a constant input to the KUBE equivalent to a 90-dB SPL at 1,000 Hz. This input resulted in a very large drive signal at lower frequencies, which was reflected in the distortion readings: 2.5 to 5 percent from 100 Hz down to about 60 Hz but climbing steeply at lower frequencies where the equalizing boost increased rapidly. A 10 percent distortion reading was obtained at 41 Hz (normal) or 45 Hz (extended).

In our pulse-power tests (made without the KUBE), the woofer rattled audibly at 57 watts into its 14-ohm impedance at 100 Hz. At 1,000 Hz, our amplifier clipped at 1,600 watts into the woofer's 3.6-ohm impedance at that frequency, before the speaker displayed any signs of distress. There was a similar result at 10,000 Hz, where the amplifier clipped at 1,560 watts without significant distortion from the dome tweeter.

Comments

Listening to the KEF 102 system, we quickly became aware of its smooth, easy sound—rarely experienced from speakers of its size,

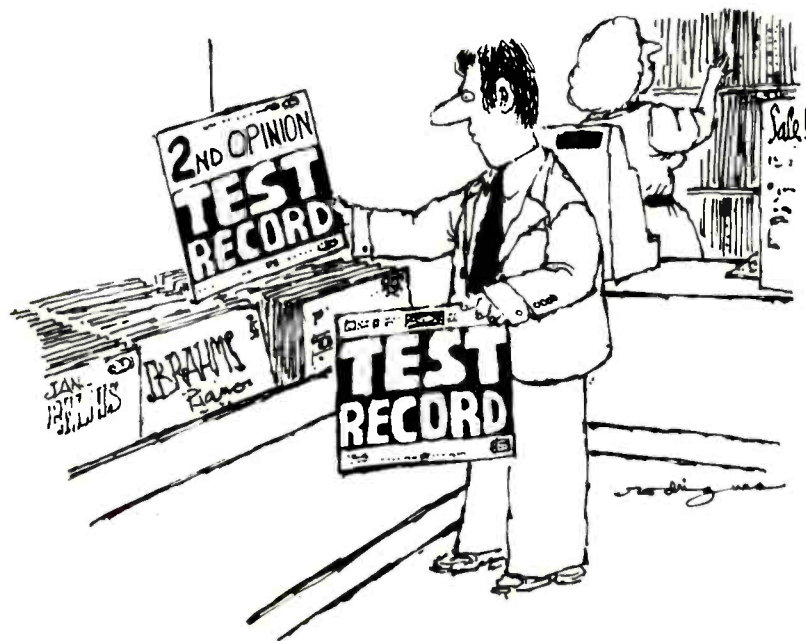
though it should be expected from speakers in its price class. The bass was not at all thin; in fact, the speakers had a tendency to sound "warm," imparting an audible but not objectionable upper-bass boost to most voices. For the most part, however, the sound quality was as neutral as we have come to expect from KEF. The Model 102 even displayed some of the same minor colorations as the KEF 105.2 system we have used for years as our reference speaker.

An A/B comparison left no doubt of the close kinship between the Model 102 and the 105.2, which sells for about three times its price. The two have virtually identical sensitivities and, at least in our room, sound so much alike that in most cases only spatial clues enabled us to distinguish between them when switching back and forth.

It was not too surprising to find the Model 102 even better than the 105.2 in its high-frequency dispersion—its smaller, improved dome tweeter can take the credit for this. At modest listening levels, or when the program did not have unusual amounts of low-bass energy, there was virtually no difference between them. But when there was some high-level bass content, such as the drums in Stravinsky's *Rite of Spring*, the physical limitations of the Model 102's small cone became very audible (as they did in our pulse-power tests). This limitation is especially evident when using the extended-bass mode, which is unfortunately at its best when high-level bass is *not* present.

The KEF 102 is not a miracle, nor is it claimed to be. On the other hand, it can match or surpass the overall sound quality of many full-sized speakers, including some priced well above its range. It is not a "flashy" speaker, it does not have sizzling highs or room-shaking bass, but it *is* one of the most balanced-sounding speakers you are likely to find. If you have been attracted to one of the larger KEF Reference Series speaker systems but find its cost beyond your budget, listen to the Model 102. It might be just what you're looking for.

Circle 142 on reader service card



Remote control sounds great. If the components sound great.

Lots of companies let you run a component hi-fi system from across the room. Some even let you do it with only one remote controller. Sound terrific? That depends... on how the components sound. At Denon, we believe that superior sound is the only thing that makes high fidelity worth the money. And this philosophy is evident in every new Denon remote component.

About the DCD-1500 Compact Disc Player, *Digital Audio* proclaimed, "The Denon engineers who created the

DCD-1500 should be honored in public." Denon's expertise in making pro digital recorders and blank tape is reflected in the three-head DRM-30HX Cassette Deck. The DRA-95VR Receiver uses the same power supply and output circuitry as Denon's acclaimed integrated amps.*

So before you buy components whose most impressive feature is a remote control, get yourself to a Denon dealer. And listen to the remote control whose most impressive feature is the components it controls.

DENON

DESIGN INTEGRITY



*Wood side-panels optional.
Model DRA-75VR Receiver (not shown)
also supplied with remote control.

A car stereo designed for people with ears. And something between them.

Odd as it may seem, most people judge how a car stereo sounds by judging how it looks.

Is it loaded with flashing lights? Littered with impressive buttons?

Then it must be a sterling example of modern technology.

This reaction, while somewhat understandable, never ceases to amaze the 326 car stereo engineers who work for Blaupunkt in Hildesheim, West Germany.

fiddle with a confusing array of buttons and knobs.

Keep this in mind, and it's easy to appreciate the difference between Blaupunkt and other leading brands.

If we don't engineer it, we don't sell it.

While other car stereo makers are content to purchase tape mechanisms, amplifiers, tuners, speaker components, and other vital equipment from outside sources, Blaupunkt

and hybrid chips.

To eliminate wow and flutter in cassette mechanisms, dynamically-balanced heavy brass flywheels are honed to within tolerances of .005 inch.

To make systems easier to operate, controls are arranged in logical fashion. So drivers can operate them by touch, without taking their eyes off the road.

It's a painstaking process. And it's repeated for every product we offer: Cassette receivers. CD players. Amplifiers. Equalizers. Speakers. Antennas. Even the connecting cables.

Few manufacturers go to all this trouble. With every feature. On every product.

Which makes it all the more remarkable that the design stage is only the first step in making a Blaupunkt.

Now comes the hard part.

Tuners are taken from mountain ranges to bustling urban areas to measure radio reception.

Antennas spend weeks in salt baths in order to measure rust resistance.

Literally hundreds of tests are conducted.

To ensure performance at 160°F above zero.

To ensure performance at 5°F below zero. To ensure performance after 24 hours



The Blaupunkt Lexington SQR 46. Complex audio technology engineered to be simple.

They prefer to take a more intelligent approach.

When designing car stereos, don't forget the car.

Blaupunkt might be the only car stereo company that thoroughly understands this simple fact:

A car is a horrible place in which to reproduce true high-fidelity sound.

It requires an incredible effort to overcome challenges like road noise and vibration. Shrill glass surfaces. Cushiony seats. Bad reception. Temperature variations. And the obvious principle that a driver has better things to do than to

engineers do almost everything from scratch.

To pack more technology into a smaller space, Blaupunkt engineers design their very own circuitry

Controls are designed to ensure ease of operation even while wearing racing gloves.





The mountains of Europe are just one of the obstacles Blaupunkt engineers have had to overcome to improve radio reception.

of punishing vibrations.

Last year alone, Blaupunkt engineers spent hundreds of thousands of hours testing.

And once a new model is approved for production, you might imagine that Blaupunkt

to up to 400 additional tests.

Why do we do it?

If you're a rational person, you almost begin to wonder why on earth Blaupunkt goes to such incredible lengths.

Perhaps because customers

brings you up-to-the-minute traffic reports in many major U.S. cities. And it's a standard feature in most new Blaupunkt receivers.

A thank you. And an invitation.

While we appreciate this opportunity to explain how well Blaupunkts are built, we are regretfully unable to demonstrate how good they sound.

For that, we invite you to visit the independent car stereo specialist near you who sells, services, and installs our products.

Check your Yellow Pages under "Automobile Radios & Stereo Systems."

Or call 1-800-237-7999, and we'll be happy to direct you.

Because frankly, while you may be surprised by how much goes into a Blaupunkt, you'll be even more amazed by what comes out.



Standard in VW and BMW (Europe), and worldwide in Ferrari, Porsche, and Audi.

engineers might relax a bit.

Wrong.

Every individual component is tested before assembly.

Then tested again during assembly.

Then the finished product is placed on a computer stand and tested before shipping.

But even that isn't enough.

Spot checks at random during assembly subject units

have come to expect it.

Customers like you.

And customers like Lotus. Porsche. Audi. Rolls-Royce. Aston-Martin. Ferrari. Just to name a few.

But a more important reason is simply because that's the way they do things over in Hildesheim, West Germany.

Since 1932, when Blaupunkt introduced the first car radio to

Europe, Blaupunkt has been obsessed with automotive sound.

It's hard to argue with the results.

Over the years, Blaupunkt has earned hundreds of patents in the field of automotive sound.

Example: ARI, a remarkable technology that

Why do Blaupunkt products perform so superbly? They're designed to work together. We engineer everything ourselves. Most manufacturers don't.

Blaupunkt technicians in specially equipped vans cover the globe to test products.



BLAUPUNKT

BOSCH Group



TEST REPORTS



MAGNUM DYNALAB FT 101 FM TUNER

Julian Hirsch, Hirsch-Houck Laboratories

THE Canadian-made Magnum Dynalab FT 101, which covers only the FM band (88 to 108 MHz), is perhaps the last of the analog tuners—and the only *new* one to come our way in some years. Its tuning knob, a vanishing feature on today's digital tuners, varies the setting of a potentiometer whose output voltage controls the frequency of a voltage-controlled oscillator. A heavy flywheel provides the silky, freewheeling action that used to be a hallmark of a good tuning mechanism.

The only other controls on the handsome pale-gold panel are five lever switches for power, mono/stereo mode, wide/narrow IF bandwidth, AFC, and muting. Three fairly large illuminated meters are the most visible front-panel features. In the middle is a zero-center tuning meter whose pointer indicates the correct tuning setting. To its right is the RF input meter, which reads relative signal strength, and to its left is a multipath indicator.

The FT 101's only obvious concession to digital technology is a large green frequency readout below the tuning meter. An internal fre-

quency counter measures the frequency of the local oscillator and subtracts the 10.7-MHz IF frequency, so that the readout shows the actual frequency (to the nearest 0.1 MHz) to which the tuner is set.

The rear apron of the tuner contains an F-type coaxial connector for a 75-ohm FM antenna and two pairs of gold-plated audio output jacks. Marked HI and LO, these jacks carry the audio signal at two different fixed levels for compatibility with preamplifiers (such as a few British models) whose line-level inputs are designed to operate with low-level input signals. A transformer is supplied for use with 300-ohm FM antennas, and its screw terminals allow it to function as an adaptor for connecting feeder wires or lugs to the coaxial connector.

A Magnum Silver Ribbon FM Power Sleuth adjustable dipole antenna is supplied with the tuner. The Silver Ribbon's base can be placed on any horizontal surface, and the length and orientation of its elements can be adjusted for best reception.

The front panel of the FT 101, which is slotted for rack mounting, is 19 inches wide and 3 $\frac{3}{8}$ inches

high. It weighs 12 pounds. Price: \$629. Magnum Dynalab, Dept. SR, 8 Strathearn Ave., Brampton, Ontario L6T 4L9.

Lab Tests

For our measurements we used a distortion analyzer to tune the FT 101 for minimum measured distortion at low signal levels, and we did not change the setting for measurements made at higher input levels. Tuner parameters that are usually dependent on IF bandwidth were measured in both the wide and narrow modes.

The channel separation of the tuner was unusually uniform across its full frequency range of 30 to 15,000 Hz and was not affected appreciably by the bandwidth setting. The audio output level from a 100-percent modulated signal was 1.1 volts from the HI jacks, 0.35 volt from the LO jacks.

The frequency response was quite flat, measuring +1, -0 dB from 30 to 15,000 Hz. The 19-kHz pilot-carrier leakage was a respectable -70 dB, and hum was -62 dB. Stereo channel separation (wideband) was a maximum of 35 dB at 100 and 1,000 Hz, dropping to 34 dB at 10,000 Hz. Capture ratio and AM rejection were good.

Comments

Unlike digital-synthesis tuners, which can be set only to precise fre-



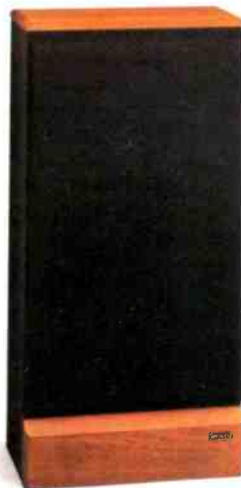
SPEAKERS BUILT UPON THE BELIEF THAT MUSIC IS MEANT TO BE PLAYED, NOT PLAYED WITH.

When we built the first Advent® in 1968, we believed music should sound exactly the way the artist had intended. Nothing added. Nothing taken away.

Just music.

Since then, trends in speaker design have come and gone. But the Advent philosophy has remained the same. You'll know why when you listen to our current line of loudspeakers. They've been designed with the latest technology, yet preserve the clean, accurate sound Advent is known for.

All our speakers feature high efficiency long throw woofers, ferrofluid-filled tweeters and are compact disc ready. The Advent Maestro takes this performance even further with a mica-



filled polypropylene dome midrange, 750 watts of power handling capability and a sound diffraction baffle. (Designed to enhance stereo imaging and broaden the musical soundstage.)

Wherever you put an Advent, you know it will look great. Our famous solid hardwood tops and bases go perfectly with any decor and there's an Advent for virtually any size room.

If you want to hear music with a little something extra, listen to any loudspeaker. If you want to hear the truth, listen to an Advent.

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Sound as it was meant to be heard.



TEST REPORTS

quencies (such as 104.3 MHz) and generally do not allow vernier adjustment of the frequency, an analog tuner can be set to any frequency in its tuning range. This means that, also unlike a digital tuner, it is not subject to inherent (and generally unknowable and uncorrectible) frequency errors. We often find in our test of digital tuners that the calibration is in error by a number of kilohertz (as many as 30 or 40 in some cases). As a result, the distortion is often increased. This can degrade the usable-sensitivity measurement, although it has little effect at higher signal levels.

An analog tuner treats the radio

often with the aid of an AFC (automatic frequency control) system. The meter on the Magnum Dynalab FT 101 was accurate, with correct tuning always corresponding to a center pointer position, but it was not sufficiently sensitive to insure minimum distortion.

Although the various sensitivity, noise, and distortion readings we obtained did not coincide exactly with the measurements made by the manufacturer on our test sample (a common occurrence with FM tuners), the errors were not serious. In some cases our readings were *better* than those from the manufacturer.

We were disappointed in the in-

feature of car stereo tuners, where its function is to minimize rapid background-noise fluctuations during the wide signal strength variations that occur while the car is in motion. The rationale is that the noise will remain at a nearly constant, and acceptable, level over a wide range of signal strengths, although the channel separation is reduced at lower signal levels. In practice, this usually means that only fairly strong signals are heard in stereo, while weaker ones are essentially heard in mono.

It is not clear why Magnum Dynalab has chosen to build this system into a high-quality home tuner, but the result is basically mono operation at inputs under about 20 dBf and only partial stereo until the level reaches about 50 dBf (a fairly strong signal). The benefit, in this case, is a signal-to-noise ratio (S/N) of about 50 to 55 dB at weak signal levels (where blending takes place), increasing to approximately 70 dB for strong signals.

The FT 101's AFC circuit had a very mild action. It was virtually impossible to tell—either from listening, the meter readings, or the tuning “feel”—whether or not the AFC was turned on.

The instruction booklet for the Magnum Dynalab FT 101 is quite complete and informative, although it makes only passing mention of the multipath meter that is one of the tuner's most prominent front-panel features. Presumably movement of this meter's pointer indicates multipath distortion. Of all the stations we received in suburban New York using the Silver Ribbon antenna, only one produced a multipath-meter movement greater than the width of the pointer.

Our impression of the Magnum Dynalab FT 101 was of an elegant-appearing, easy-to-use FM tuner whose overall sound quality was impeccable. Anyone with a trace of nostalgia for the “good old days” of analog tuning (and we confess to sharing that feeling on occasion) will find the delightfully smooth, easy tuning of the FT 101 a refreshing contrast to the myriad buttons, plates, and levers that have virtually eliminated knobs from our tuners.

Circle 143 on reader service card

FEATURES

- Analog tuning
- Digital frequency readout
- High- and low-level output jacks
- Selectable wide or narrow IF bandwidth
- Switchable AFC
- Switchable muting
- Nondefeatable automatic channel blending for low-level signals
- Coaxial F connector for 75-ohm antenna, adaptor for 300-ohm antenna
- Supplied with Magnum Silver Ribbon dipole antenna

LABORATORY MEASUREMENTS

- Usable sensitivity (mono):** 16.2 dBf (1.8 μ V in 75 ohms)
- 50-dB quieting sensitivity:** mono, 17.5 dBf (2 μ V in 75 ohms); stereo, 38 dBf (21.8 μ V in 75 ohms)
- Signal-to-noise ratio at 65 dBf:** mono, 72 dB; stereo, 68 dB
- Harmonic distortion (THD + noise) at 65 dBf:** mono, 0.17%; stereo, 0.21%
- Capture ratio at 65 dBf:** wide bandwidth, 1.6 dB; narrow bandwidth, 2.8 dB
- AM rejection at 65 dBf:** 59 dB
- Selectivity:** alternate-channel, 47 dB wide, 58 dB narrow; adjacent-channel, 5.5 dB wide, 10 dB narrow
- Stereo threshold:** gradual, not measurable
- Muting threshold:** 24 dBf (4.35 μ V in 75 ohms)
- Stereo channel separation at 100, 1,000, and 10,000 Hz:** 35, 35, 34 dB
- Frequency response:** 30 to 15,000 Hz \pm 1, -0 dB

band as a continuum and thus, ideally, can be set to the exact frequency of the signal source, realizing its minimum distortion and optimum sensitivity performance. This ideal assumes, however, that the tuning indicator, if any, is both sensitive and accurate enough to identify the correct frequency or that the user can hear the difference as the tuning is adjusted. In practice, these conditions are rarely realized.

Since it is usually impossible to hear even the several percent of distortion that can result from moderate mistuning, the user of an analog tuner must depend on the accuracy and sensitivity of the tuning meter,

adequate indicator sensitivity, however. The meters gave evidence of working well, and if the tuning and multipath meters were several times more sensitive, they could be truly useful. We also would prefer to see a 300-ohm antenna input in addition to the 75-ohm coaxial connector. The omission is especially odd since the Silver Ribbon antenna, an excellent dipole, has only spade-lug outputs for 300-ohm receiver inputs and must be used with the FT 101's 300- to 75-ohm transformer.

The FT 101 is the only home FM tuner we can recall that has nondefeatable automatic signal-controlled channel blending. This is a common

The one and only now offers you



the one-of-a-kind 10 disc changer



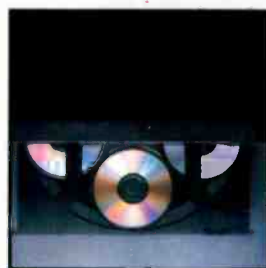
or choose 5 disc changer.

and listen for over ten hours. And since it's the only changer with a magazine compatible with the Sony Car DiscJockey, you can get even greater mileage from your CD music library.



CIRCLE NO. 7 ON READER SERVICE CARD

Speaking of high performance, the CDP-C10 offers advanced programming, shuffle play and direct disc and track



selection. Then there's the affordable CDP-C5F. Its unique carousel design gives you over five hours of music, with 32-track programming, four repeat modes and the fastest access time of any changer anywhere. Both changers feature remote control and renowned Sony technology like the Unilinear Converter/digital filter and aspheric lens laser optics for superior CD player performance.

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TEST REPORTS



BEYER DT 990 HEADPHONES

Julian Hirsch, Hirsch-Houck Laboratories

THE Beyer DT 990 is a lightweight, circumaural 600-ohm stereo headphone set that was designed to meet the criteria for a subjectively uniform frequency response established by Gunther Thiele of the German Radio Institute in Munich. By making a series of measurements using tiny probe microphones inserted into listeners' auditory canals, Thiele was able to determine the actual frequency spectrum of the sound that reached their inner ears after modification by the external ear structure.

Thiele used this technique to compare the ear's response to test signals from loudspeakers (in a re-

verberant chamber) with the response when the same signals were applied through headphones. These comparisons enabled him to establish the headphone equalization needed to make the two responses identical. His study showed that most popular high-fidelity stereo headphones are deficient to some degree in this respect, even though their frequency response might appear to be relatively flat when measured in the conventional manner on an "artificial ear" stereo headphone coupler.

Using Thiele's criteria for headphone equalization, Beyer's engineers designed the DT 990, which is internally equalized to give a rela-

tively uniform "diffuse field" response characteristic. The frequency response is rated (without a stated tolerance) as 5 to 35,000 Hz. Although the DT 990 is a circumaural headphone (that is, the ear cushions surround the wearer's ears), its earpieces have open backs and do not exclude ambient sounds. According to Beyer, the newly designed diaphragm and moving-coil assembly is about 40 percent lighter than the moving system of its popular DT 880 headphone.

The light plastic headband of the DT 990, which supplies the force needed to hold the earpieces against the ears, contains a soft leatherette inner band that rests comfortably on the wearer's head. Its position on the outer band is adjustable for a comfortable fit and cannot shift accidentally. The earpieces are made of molded plastic, with soft foam cushions, and pivot for proper coverage of the ears. The short, separate cords emerging from the earpieces merge into a coiled cord fitted with a molded plug, providing a maximum extension of about 12 feet. The headphones (without cable) weigh 230 grams, or about 8 ounces. Price: \$175. Beyer/Dynamic, Dept. SR, 5-05 Burns Ave., Hicksville, NY 11801.

Lab Tests

Since we measured the frequency response of the Beyer DT 990 on a standard headphone coupler (and were limited to a 20- to 20,000-Hz measurement range), we could not verify its response rating. In fact, given the strong effect of the coupler design on this measurement, especially at high frequencies, and the lack of meaningful published response curves for most headphones, such verification is almost never possible in headphone measurements.

We can say, however, that the response of the DT 990 was flat within 2.5 dB overall from 90 to 3,600 Hz, sloping off gently to about -6 dB at 20 Hz. At higher frequencies the measured output increased considerably (and became irregular, as is typical of coupler measurements). Between 10,000 and 17,000 Hz, it averaged 10 to 12 dB higher than through the midrange. The



The concert continues with the Ford JBL Audio System.

Imagine the music of 12 speakers driven by 140 watts...

Just imagine a car audio system that could really deliver music as rich and powerful as a live concert.

Imagine music emanating from 12 JBL speakers—specifically equalized and adjusted to the surrounding environment and deftly capable of reproducing digitally accurate full-range, high fidelity sound.

- 12 JBL speakers including 2-6" x 9" woofers, 2-3½" midrange speakers and 2-7/8" tweeters located in the rear deck; 2-5¼" woofers mounted in the doors; and 2 tweeters and 2 midrange speakers in the instrument panel. Selective frequency fading so all woofers remain in operation at controlled levels when faded front/rear.

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- 140 watts TSP—4 amplifiers, 35 watts per channel into 4 ohms at 1000 Hz with .07% THD. 105 dB SPL maximum acoustic output. Excursion control computer with continuously variable loudness compensation and automatic overload protection.

Then stop imagining and hear the real thing for yourself, exclusively at your Lincoln-Mercury dealer today.

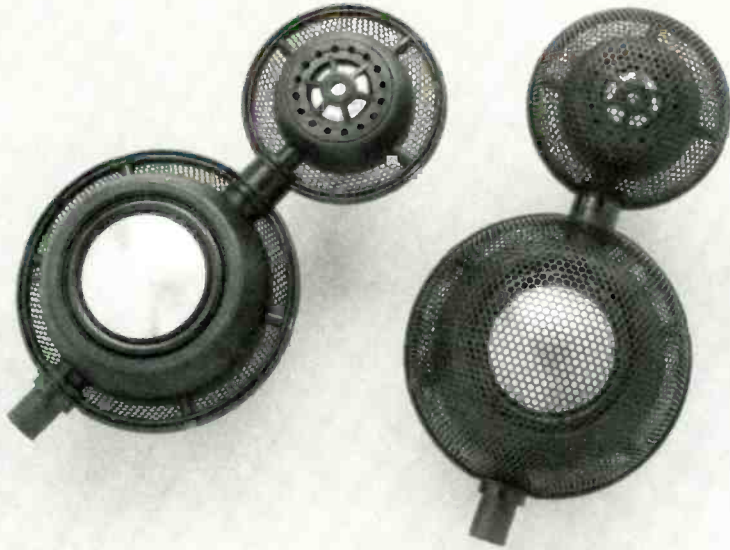
JBL loudspeakers are featured in world renowned sound systems everywhere, including Tokyo's NHK Hall, Los Angeles Music Center, Tanglewood Music Shed, Frankfurt Opera House and now the Lincoln Continental and the Lincoln Town Car.

CIRCLE NO. 70 ON READER SERVICE CARD



AUDIO SYSTEMS

TEST REPORTS



The Shape Of Things To Come.

For years physicists have agreed that the ideal loudspeaker would imitate an "acoustically pulsating sphere"—a ball that radiates music omnidirectionally. And for years companies have been trying to design speakers based on this model. Many of their efforts have been interesting, but most have fallen short of the mark. So far short that many people have given up on the idea of a *true* omnidirectional speaker as being "a thing of the future." But at Magnat® the future is here today. We believe (as does virtually every audio critic in Europe) that our Magnasphere® series loudspeakers come closer to that theoretical ideal than any others ever designed.

Where conventional speakers use cones or domes for midrange and high frequency drivers, Magnaspheres use revolutionary ball-shaped, baffle-free transducers that emanate uniform sound waves *in all directions*. The sonic performance of the Magnaspheres is so real, so uncannily natural, they've already accomplished something no other product has ever done—they've won a record *three* "Decibel d'honneurs," France's highest audio award.

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sensitivity of the phones was almost exactly as rated, producing a sound-pressure level (SPL) of 96 dB though the flat region with a 1-volt input. Its impedance was 600 ohms over almost the entire audio range, reaching a maximum of 750 ohms between 60 and 120 Hz.

Beyer also rates the DT 990's distortion as less than 0.2 percent and its maximum power-handling capacity as 100 milliwatts (about 116 dB SPL), corresponding to a 7.75-volt input. These ratings are based on DIN standards with which we are not familiar, but we measured the phones in our own way and were highly impressed with the results. The total harmonic distortion, with inputs from 0.5 to 8 volts, was between 0.3 and 0.6 percent at 1,000 Hz and between 0.4 and 0.8 percent at 100 Hz. At both frequencies the acoustic output from the phones clipped at 8.5 volts input, corresponding to an SPL of about 115 dB. This is about the highest level consistent with safe listening, and the DT 990 delivered it with negligible distortion.

Comments

The Beyer DT 990 phones delivered a superb sound, ranking among the best dynamic headphones we have used. Compared with some other high-quality phones, whose response had not been equalized to meet the Thiele diffuse-field criteria, the DT 990 had a noticeably light, airy, and extended top end. The low and middle frequencies were also quite free from coloration, which was consistent with the phones' measured flatness and the absence of the peaks and valleys that are characteristic of many headphone response curves.

We confirmed that the DT 990 can play *very* loud without sounding strained or distorted (and, of course, without requiring much amplifier power—any 10-watt amplifier will drive them to their limits). Aside from their excellent sound, these phones were remarkably comfortable to wear, having no tendency to press on one's head or ears. No matter how you look at them, or listen to them, the Beyer DT 990 is an exceptional set of headphones.

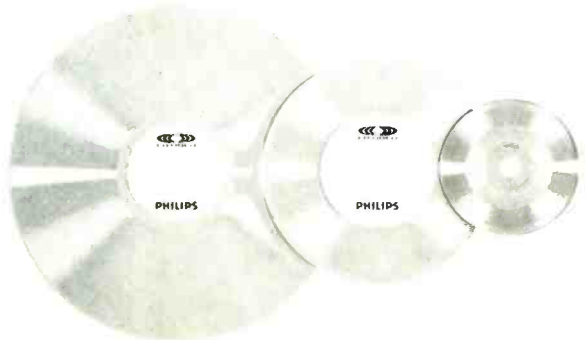
Circle 144 on reader service card

CD VIDEO ARRIVES



The Magnavox Combi CD-V player accepts standard CD's, 5-inch CD-V's, and 8- and 12-inch videodiscs.

So that a CD-V (second from right) can be easily distinguished from a standard CD (far right), it will be gold in color.



REPORTED BY
MICHAEL SMOLEN

AMSTERDAM, March 17—The Compact Disc Video (CD-V) system was introduced here today by Magnavox. Combining existing CD digital audio with high-quality video, the new system can play a 5-inch disc containing 5 minutes of video and 20 minutes of audio, a standard compact disc, an 8-inch videodisc with 40 minutes of material, or a 12-inch videodisc with up to 2 hours of programs.

Developed by parent company Philips and supported by Yamaha and Matsushita, the first Magnavox CD-V machine, called a "Combi" player, automatically identifies which type of optical disc has been loaded. When a standard compact disc is loaded, the machine begins playing at the normal 500 rpm. If a CD-V disc is detected, the player accelerates to the higher rotational speed of 2,700 rpm required for video playback. The CD-V player also offers the programming capabilities of standard CD or videodisc players.

To insure compatibility with future technologies, the CD-V player has direct digital input/output connections for future optical-disc applications. The CD-V system was developed by Philips as a logical extension of the CD digital audio system and incorporates the CD technical standards. All of the approximately 180 CD licensees, therefore, are automatically licensed for CD-V.

The new CD-V player is expected to be introduced at the Summer Consumer Electronics Show in Chicago, with an estimated retail price of \$750, and Magnavox expects it to be available to U.S.

dealers shortly after the show.

Recording giant PolyGram has announced full support of the system and claims it will have roughly 250 CD-V singles available for sale at introduction. A CD-V single will retail for about \$8. □

GEARING UP FOR CAR STEREO

How to buy the right audio equipment for your kind of car and your kind of listening

BY IAN G. MASTERS

THE love affair between driving and music has been going on for more than sixty years. During most of that time a car either had a radio or it didn't—there was practically no choice of *which* radio it might have. But as people became more critical about the quality of sound in their home systems, many sought to achieve the same quality in their vehicles. The audio equipment offered by the car manufacturers was almost always woefully inadequate for this purpose, so it fell to the car accessory companies—and later the conventional hi-fi manufacturers—to fill the gap with audio components that came somewhat closer to real high-fidelity sound.

As a result, the automotive stereo market has become a huge business, and there is now an immense range of products on the shelves. Some of

it is of dubious quality, to be sure, particularly at the low end of the price scale, but there is also a lot of very fine equipment available, in some cases approaching the level of a good home system.

Faced with this proliferation, it is often difficult for a consumer to make a choice. As with anything else in audio, however, a well-thought-out process of elimination can reduce the candidates to a manageable number.

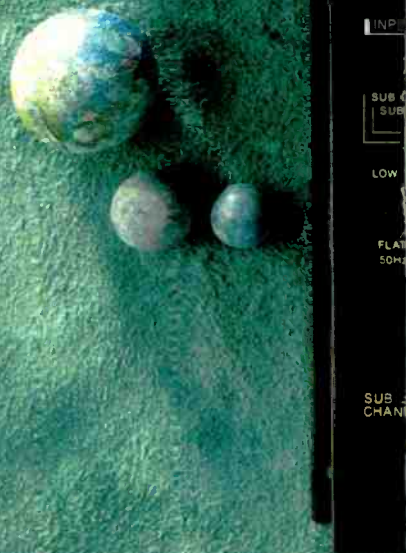
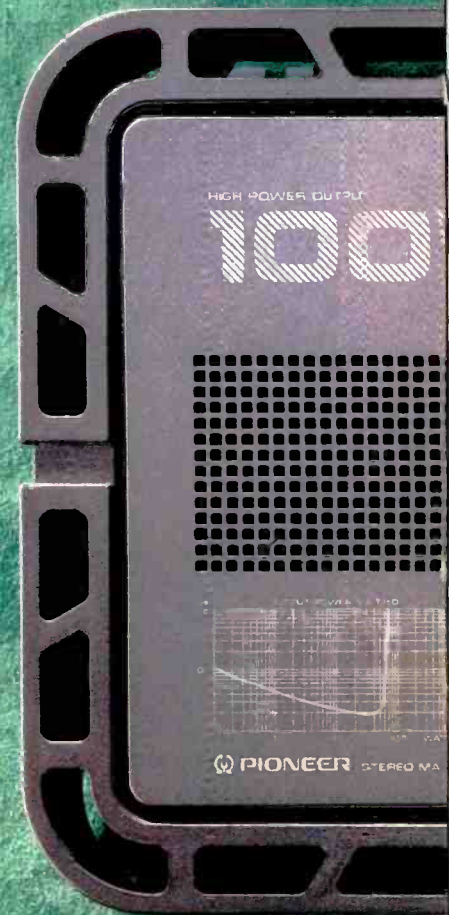
The first thing to consider is whether to buy your new car with an audio system supplied by the auto maker. Until very recently, the only way to obtain good sound was to buy a car *without* a factory-installed system (or to remove it) and then put in equipment made by a specialty autosound manufacturer. Not surprisingly, the auto companies were not very happy about this practice, and they began to

Pioneer's GM-203 power amplifier (top left) delivers 45 watts per channel into 4 ohms and has three different types of inputs. Price: \$270.

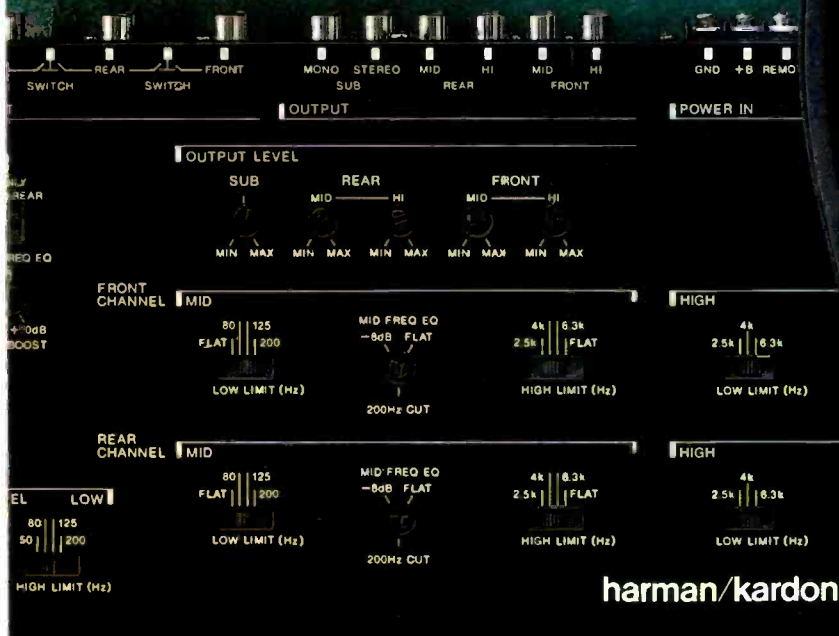
Yamaha's DIN-size YCR-50 cassette receiver (top right) slides out of a permanently installed chassis mount to deter theft. Price: \$400.

Polk's three-way MM6900 speaker (right) features polymer-laminate cones, 150 watts power handling, and butyl surrounds. Price: \$200 a pair.

Harman Kardon's CXO-1 active-crossover system controller (bottom) has adjustable low-to-mid and mid-to-high crossover points. Price: \$225.



IRVIN BLITZ



harman/kardon



Jensen's JXL-653 Triax speaker has a 6½-inch cone woofer, a 2-inch cone midrange, and a 1½-inch polycarbonate dynamic dome tweeter with a Nomex voice coil. Its first-order high-pass crossover is said to give a clean, accurate frequency response, and it can handle 65 watts of continuous power. Mounting depth is 1⅜ inches. Price: \$110 a pair.

Sansui's GT-X7000A cassette tuner has eighteen FM presets, six AM presets, quartz-PLL digital-synthesis tuning, an Automatic Stereo Reception Controller, a Pulse Noise Blocker, stereo/mono and local/distant switches, repeat play, and a loudness control. Price: \$700.



upgrade the quality of the sound systems they offered as original equipment.

Now, factory-installed stereo systems are much closer in quality to the stereo components that are available from independent companies, and some luxury cars from Detroit even include audio systems built around speakers from specialty hi-fi manufacturers such as Bose, JBL, and Infinity. In theory, good factory-installed systems have an advantage over systems bought separately because they were designed specifically for the cars in which they will be used. On the other hand, the range of options available for any given car tends to be very limited, and the systems are fairly expensive, so to assemble a system that meets *your* needs exactly, you will probably end up looking mostly at "after-market" components.

Before you start shopping, analyze your listening habits and decide what it is you want your car stereo system to do. If most of your driving is urban and you listen primarily to radio, a "head unit"—the electronic heart of any car stereo system—that features a sophisticated tuner is probably your first priority, and a more rudimentary tape deck may be tolerable.

Tuner and Tape Options

Tuner sections offer a number of options, but, naturally, each of these carries a price tag. You should select the functions that will best suit your listening habits, then shop for a unit that includes those functions and very little more. If you only listen to a small number of stations, for example, paying for a dozen or more station presets would be a waste. If you drive mostly on the highway, sophisticated electronics to minimize such urban problems as multipath distortion become less important, while tuner sensitivity and such niceties as auto-blend become more useful. Stereo AM is an option in many radios, but if you never listen to AM, or if there are no stereo-AM stations in your area, you might well dispense with it—although the presence of this feature usually indicates a better AM section overall, which may appeal to you even if its stereo capabilities are never used.

As for the tape deck, the first thing to look for is compatibility with the recorder you have at home. Most of us play tapes copied from

Sony's CDX-R88 CD tuner is supplied with a separate power amplifier. A half-DIN-size auto-reverse cassette deck is available as an add-on. Preamp outputs and an auxiliary input provide additional flexibility. Price: \$750.



Complementary mirror-image transistors and local-feedback loops are said to make the Hi-Fonics Zeus power amplifier deliver better sound with longer service life for both it and connected components, especially speakers. Price: \$650.



The 6 x 9-inch TL900 speaker from JBL has a polypropylene woofer and a titanium-laminate 1-inch midrange and ¾-inch tweeter. The tweeter is covered with a "contact lens" intended to provide even dispersion and a flat frequency response. Nominal impedance is 4 ohms, maximum power handling 100 watts, and frequency response 45 to 21,000 Hz ± 3 dB. Price: \$195 a pair.





Hallmarks of the ADS PQ10 bridgeable power amplifier (top) are a compact enclosure, discrete transistors, and a floating-rail power supply said to provide high dynamic headroom. Price: \$440.

Nakamichi's TD-1200 II cassette tuner (middle) has an anti-theft system, a microprocessor-controlled transport, three tone controls, Dolby C, and a Super Linear Torque motor. Price: \$1,395.

Yamaha's YGA-618 equalizer/amplifier (bottom) has five frequency bands, two preamplifier outputs, and controls for adjusting the output and crossover frequency of a subwoofer. Price: \$179.

records or CD's, so it makes sense to take advantage of the highest technology available. If your home system is capable of recording with Dolby C or dbx noise reduction, you should consider a car unit that can play these tapes back properly. But if you expect to play only commercially recorded tapes, it may be more sensible to save your money and buy a car tape player with Dolby B only, as most prerecorded

The automotive stereo market has become a huge business, and there is now an immense range of products on the shelves. A lot of very fine equipment is available, in some cases approaching the level of a good home system.

tapes use that system. An increasing number of prerecorded cassettes use Dolby C, however, and players capable of decoding Dolby C tapes are invariably able to play back Dolby B cassettes as well, so it is worth considering a deck with the more advanced system even if you have little immediate use for it.

A great many car tape players—perhaps the majority—feature autoreverse playback. There is no doubt that this is an extremely convenient function, but there is a disadvantage: head alignment is much more difficult to maintain with bidirectional playback, so there is a greater risk of sonic problems. Purists are likely to buy one-way decks for this reason. Whether the bother of having to flip tapes over manually is offset by the potential sonic improvement, however, is very much a matter of a user's personal preference.

Many recent decks automatically disengage the capstan when the car's ignition is turned off. It's very easy to forget to turn off the tape deck when you park your car, but leaving the mechanism engaged can damage both the tape and, more important, the pinch-roller, so this feature is definitely worth the investment.

Going Digital

You may even decide that a tape deck is unnecessary. It is becoming more and more common to find head units that incorporate a compact disc player in place of the cas-



sette deck. The sonic advantages of the CD can be very attractive, but digital sound is not as dramatically superior on most car systems as it is at home, and sometimes the increased dynamic range can be a positive *disadvantage* in the noisy environment of a car. If the loud sounds are right, the softer passages may disappear; if the pianissimo bits are audible, levels may be deafening when the musicians pull out the stops.

Still, if you are building up a library of compact discs, you may well wish to play them on the road, and there are plenty of machines that will let you do it. One alternative is to add a portable CD player to a more-or-less conventional system. Some cassette radios have inputs for just this purpose, and there are also accessories that will allow you to feed a CD player's signal to an existing car stereo system, either through the FM antenna or the cassette player.

Power

Most of the head units you are likely to look at contain everything needed to provide an adequate signal to the speakers used in the majority of car stereo systems. Sometimes that's not enough, however. You may decide on an elaborate speaker array that can't be driven satisfactorily by the low-power amplifiers built into such units, or you may find it desirable to use a graphic equalizer to tailor the system's sound to your car.

"Booster" amplifiers, which take the relatively low-level output of a conventional head unit and re-amplify it, constitute one solution, and such an amplifier can easily be added to an existing system. Or, for better sound, you might buy a cassette tuner or CD tuner, which contains everything *except* an amplifier, and use an external amp to drive your speakers.

Speakers Are the Key

As with home audio, speakers are the hardest part of a car stereo system to select—and the most important. Your choice of speakers will be determined not only by their sound quality but to a great extent also by the physical constraints of the car itself. Ideally, four identical speaker systems would be placed in the four corners of the vehicle, but this is rarely practical. A more typical installation might have a pair of full-



The KEF GT-200 subwoofer/satellite system has an 8-inch woofer using a coupled-cavity bass-loading design similar to the KEF 104/2 home speaker. Maximum output is 110 dB sound-pressure level. The 1-inch tweeter has an aluminum-coil former and ferro-fluid cooling. Price: \$575.

range units in the rear and a smaller pair of high-frequency speakers up front. But the size and shape of the car's rear deck, front doors, and dashboard—the places speakers are usually put—may determine what you can buy.

In turn, the speakers you choose will influence the sort of amplifier complement you require: the more speakers you have, the more power you will need. And since virtually all car speakers are designed to operate with an impedance of 4 ohms, extra speakers should ideally be

As with home audio, speakers are the hardest part of a car stereo system to select—and the most important. In turn, your speaker choice affects the amplification you'll need.

driven by their own amplifiers to avoid excessive current demands.

Some judicious listening to good, working car systems—your friends', for instance—may well suggest which brands are likely to provide a sound you like. Listening to a typical dealer display is less satisfactory because there is rarely much of an attempt to duplicate the acoustic environment of a typical car, much less *your* car. Narrowing things down by casual, but careful, listening should make the selection a bit easier, particularly if you then shop around for a retailer you trust who carries that brand.

Picking a good dealer is extremely

important—there are lots of charlatans out there who are only too willing to perform radical surgery on your car, whatever the sound might turn out to be. Find one who knows what he is talking about and is willing to analyze your car for you before you make an equipment choice. If possible, have a look at other work he has done.

The Big Audition

Unless major structural changes are involved, have the retailer install the speakers you have selected. (Don't even *think* of doing it yourself—installing car stereo is something best left to the pros, and particularly to the pros who are selling you the equipment.) If you are considering surface-mounted speakers, installing them will be much easier, as they can simply be parked in position, but most cars have cutouts for flush-mounted speakers, at least in the rear deck, so even these should not pose an insurmountable problem. If the dealer balks at this procedure, shop elsewhere.

Once the speakers are in place, the electronic components can be attached to them without actually being mounted in the car, and you can begin to get some idea of how the whole system will sound. Your power requirements and whether you'll need equalizers and such should become clear once you audition the basic components in their ultimate location.

Even when you have determined the nature of the electronic equipment you will need, be prepared to change your mind if it won't fit. Cars vary widely in the room they provide for such niceties as stereo equipment, and more than one audiophile has had to alter his "perfect" system out of all recognition for the simple reason that it wouldn't go into his car. Take heart, however. In almost all cases you will be able to find something of comparable quality that will not pose such problems. If he's any good at all, your dealer will be able to suggest alternatives.

Putting together a first-class car stereo system is like putting together any other audio system. It takes time, knowledge, patience, and, above all, a clear idea of what you want before you start. Then persevere; good stereo sound on the road is finally available, and you'll love what it can do for the driving experience. □

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BY AMEE EISENBERG

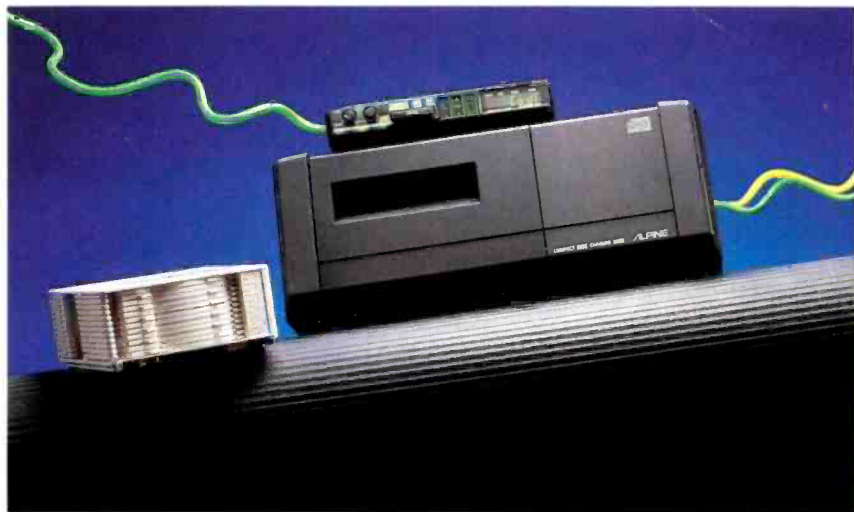
Ready for a little digital traveling music? Add a compact disc player to your car system.

WHETHER you drive a rustbucket or an RV, a bomber or a BMW, your need for tunes in the car is undeniable. And if you have a CD player at home, climbing behind the wheel of your traveling listening room just isn't much fun if you can't spin your favorite discs. So the time has come to speak of car CD players.

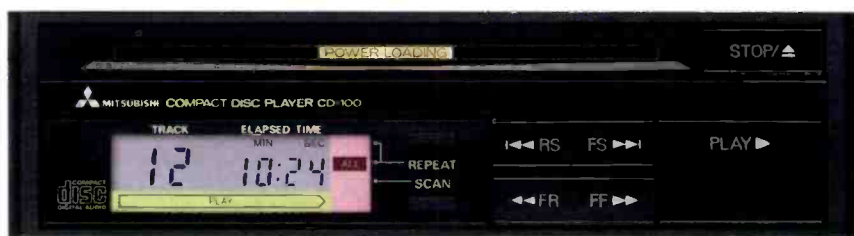
A car CD player will be roughly at least a \$500 investment. Installing one may require cutting holes in your car's dashboard or console, adding separate power amplifiers, and upgrading your speakers. Adding a CD player to your car may also invite theft and require the installation of an alarm system. And because the quality of sound is superior to anything a car cassette player can produce, your social

Sony's CDX-R7 (above) was the first in-dash car CD player to come with an AM/FM tuner. The tuner electronics are in a separate module with jacks for front and rear external amplifiers. The CD player's controls double as tuner controls, providing eighteen station presets and skip and search modes in both directions. Price: \$700.

ILLUSTRATION BY JEAN TUTTLE



MING/NOKTON



VITTORIO SARTOR

Alpine's trunk-mounted Model 5950 CD changer (top) has a unique Control Card that lets you preprogram up to thirty selections from a twelve-disc magazine at home, avoiding the possible dangers of on-the-road programming. Price: \$1,500.

The Mitsubishi CD-100 (middle) has an exclusive floating damper system and thermal/moisture protection to maintain optimal playback under poor road conditions. Available in five differ-

ent systems: with a 25-W/ch equalizer amplifier, \$700; with a cassette tuner, \$870; with a cassette tuner and a 25-W/ch amp, \$900; with a 50-watt cassette receiver, \$870; or with a 100-watt cassette receiver, \$900.

Denon's DCC-8900 (bottom) is a CD tuner featuring a theft-proof slide-out chassis, a Super Linear digital-to-analog converter, and a thermal shut-down circuit to prevent overheating. Price: \$850.

life will never be the same. No, from the moment you install that CD player, "friends" (including some you've never met before) will insist on climbing into *your* car whenever you go anywhere.

Assuming you can withstand the sudden surge in popularity, the increased anxiety for your car's safety, and the emptiness of your piggybank, remember that the CD shares many of the cassette's disadvantages in a car. Neither reacts well to extremes in temperature. Both must be protected from dirt. And both come in a plastic box that's awkward to manipulate with one hand.

You remain undeterred. You need great sound in the car. Okay, you want it, someone makes it. All you have to do is decide how you want to add the CD player to your existing system.

Plugging in a Portable

The most economical way to add CD sound is by connecting a portable CD player to your existing sound system. A number of in-dash cassette receivers, such as Jensen's JXL-55 and Proton's 214 CD, include front-panel switching and input jacks for an external CD player. Jensen also sells a device, the J1470 adaptor, that provides a 9-volt power source, stereo inputs, and all the necessary connections for plugging the portable into your existing system. The J1470 works with any CD-ready in-dash receiver.

Older in-dash receivers that have preamp outputs can be connected to portable CD players through Parasond's CDS-1 and an external power amplifier. The CDS-1 is a "black box" that provides stereo inputs, power, volume control, and preamp outputs for the extra power amplifier.

In introducing its latest portable CD player, the D-10 (\$350), Sony acknowledged that car use is a major reason for purchasing a portable. For the D-10, Sony offers such optional car accessories as the CPA-1 car cassette adaptor (\$40), the CPM-100 mounting plate and flexible mounting bracket (\$75), and the DCC-120 car-battery cord (\$37).

There is a host of other good portable CD players on the market from such companies as Panasonic,



Technics, Pioneer, Quasar, Sanyo, Fisher, JVC, Hitachi, Realistic, and Toshiba. Recoton's CD-20 cassette adaptor will let you listen to any of them through your car's in-dash cassette radio. The CD-20 does not supply power, so your portable will have to run off its own batteries.

Other companies that manufacture car CD adaptors include Hartzell and ORA Electronics. One advantage of using a portable CD player in the car is that it's easy to unplug it and take it along when you leave, so it's not apt to get stolen (unless you leave it sitting on the seat of the car).

In-Dash Options

In-dash car CD players have generally required the installation of an additional power amplifier, because their electronics are so bulky that fully combining CD and amplifier functions in one unit hasn't been possible. The usual approach to designing an in-dash CD receiver is to divide it between two separate chassis. The head unit sits in the dash, has a pretty face, and holds the disc player and control circuitry. The AM/FM tuner electronics and the power supply are housed in a second box discreetly installed somewhere else in the vehicle, usually under the dash or the floorboard carpeting. But technological advances have miniaturized both CD and receiver electronics sufficiently that we will soon see in-dash units with a CD player, tuner, and amplifier all in one chassis.

All automotive CD players can perform certain basic functions. They can begin play with any track on the disc, they can rapidly scan a disc in either direction, and they can pause and resume play at the same place. And some CD players can also remember a user-programmed sequence of tracks.

A few players can perform more sophisticated programming functions, such as remembering very long sequences or remembering track sequences on more than one disc. It is questionable how useful programmability is in the car. I find the idea that the guy in back of me is programming his CD player instead of watching traffic conditions pretty scary.



Sanyo's FT EC2 (top) is a CD tuner with preamplifier outputs, fast skip and fast search in both directions, programming for up to sixteen tracks, and a theft-detering security system. Suggested retail price is \$700.

Fujitsu Ten's SD-1110 (middle) is a \$550 CD-only unit that features an emergency eject system, digital filtering, music scan, and disc repeat. Its frequency response is rated as 5 to 20,000 Hz \pm 1 dB.

Yamaha's YCD-1000 (bottom) uses a cartridge loading system to eliminate on-the-road fumbling with discs and jewel boxes. It also features digital filtering and is rated for a response of 5 to 20,000 Hz \pm 0.5 dB. The unit includes a preamplifier/control section with bass, treble, volume, and balance knobs. Price: \$549; extra cartridges, \$5 each.



The Technics CQ-DP5 (top) features an outboard AM/FM tuner section with a DC-to-DC converter, an FFI single-spot laser, tone and loudness controls, fifteen-track programming, twelve FM and six AM station presets, and disc repeat. Price: \$700.

Kenwood's KDC-9R (middle) has a built-in AM/FM tuner. It offers an electronic volume control with LED level indicator, a dual fader control, a 20-dB attenuator, auto loading, a pause control, fast skip and search in both directions, a three-spot laser, and disc repeat. Price: \$659.

The JVC XL-C30 (bottom) has a cartridge loading system to reduce driving distractions and protect valuable CD's from the elements. Other features include a special anti-vibration system, direct track access, and microcomputer-controlled programming. The built-in AM/FM digital synthesis tuner offers twenty presets, auto seek, and auto recall. Price: \$700.

CD-only units, such as Sony's CDX-5 (\$600), have been available for a while. Unless you already have a lot of power in your system, adding one of these to your car will increase potential dynamic range so much that you'll probably want to add an external power amplifier.

Some CD-only decks work with single-disc cartridges into which you preload your discs. These protect the disc while eliminating on-the-road fumbling with jewel boxes. Blaupunkt's CDP-05 (\$550), JVC's XL-C30 (\$700), and Yamaha's YCD-1000 (\$549) all use a cartridge system. While such systems allow casual on-road handling of your CD's, every disc you play in these machines must be put into a cartridge. Be aware of the extra expense (usually about \$20 per cartridge) of purchasing enough cartridges to hold an adequate disc library. The alternative—switching discs from cartridge to jewel box while driving—frightens me even more than the guy programming disc selections in heavy traffic.

Denon's DCD-8900 (\$850) is designed to appeal to people who like their cars an awful lot. The head unit features twenty-four-station preset capability, controls designed to be easily identifiable by touch, and the same digital-to-analog (D/A) conversion circuitry as Denon's home CD players. A thoughtful touch is the availability of a display-light conversion kit that allows the lights on your CD player to match the other lights on your dashboard. The head unit is built into a slide-out chassis as a theft deterrent, while the power-amp/tuner section remains bolted inconspicuously under the dashboard, rug, or passenger's seat.

Pioneer's new DEX-77 CD tuner (\$800) is also geared toward theft prevention. Included in its electronics is a four-digit Secret Code feature. Once power to the unit has been removed, the unit will operate again only after the correct code has been re-entered. Of course, this won't necessarily prevent a theft, but it will give the victim the minor satisfaction of knowing that the thief can't use the player either. Pioneer's Last-Address Memory, however, may be a more useful function



of digital electronics. In the event that bumpy roads jar the laser, the DEX-77 is unlikely to mistrack because it always keeps the address of the last pit read in its immediate memory. This feature allows it to resume playing quickly and exactly where it left off.

Selecting the right CD player for your car will hinge on two issues—ergonomics and economics. A little comparison shopping is sure to get you a bargain, though a list price of \$300 remains a dream.

Sanyo's FT EC1 (\$650) and FT EC2 (\$580) offer a twist on the portable plug-in story. These CD tuners feature input jacks for a portable cassette player. While the CD and tuner electronics are all in one box, these units do require an outboard power amplifier.

Kenwood's KDC-9R (\$849) CD radio beeps to confirm control commands. That's a great convenience when traffic demands you keep your eyes on the road. Better still, when the beeping gets on your nerves, you can shut it off.

Alpine's Model 7902 (\$850) features the Alpine T-10 II tuner, which is designed for high-quality radio reception. Panasonic's CQ-E800 (\$700) and the Technics CQ-DP5 (\$840) are dual-chassis, in-dash CD radios that feature eighteen station presets and fifteen-selection programming for the CD players. Sony's CDX-R7 (\$700) offers eighteen presets, a digital clock display, and all the standard CD player features in a dual-chassis system. Its large, round volume knob is easier to handle than the flat push-button controls popular with most car stereo companies.

Trunk-Mounted Changers

The dashboard isn't the only place to spin discs in a car. If your car has room in its trunk, both Sony and Alpine offer multidisc changers. This type of car CD player holds the discs in the trunk in a preloaded, multidisc magazine, while control

functions and disc selection are handled by an in-dash head unit or a wired remote control.

Sony introduced the DiscJockey CDX-A10 (\$1,000) last year. It stores up to ten discs in the trunk of your vehicle while providing a control unit that allows complete programming access to the loaded discs. The CDX-A10's control unit, called the Remote Commander, fits in your hand and doesn't need to be mounted on anything. Even back-seat drivers can play with the controls. Options include the XT-10 AM/FM tuner module. The ten-disc magazines can be used in Sony's CDP-C10 home CD changer as well. Alpine's new Model 5950 CD changer (\$1,500) not only stores up to twelve discs in its magazine, it also includes a gadget called the Control Card that allows you to program the playback sequence in the comfort—and safety—of your living room!

The Way to Go

Selecting the right CD player for your car will hinge on two issues—ergonomics and economics. Much of the equipment currently available is nice looking and great sounding. Installing a CD system isn't much different from installing a cassette-based system. Unless you're familiar with sophisticated car installations, however, you should definitely hire a professional to install the system.

As you're shopping, keep in mind that you'll be operating your car CD player while you're driving your car. Try adjusting the unit with your eyes shut. If you can't feel the differences between the controls, think again about installing it in your automobile.

Thanks to the ferocity of the audio marketplace, a little comparison shopping is sure to get you a bargain, though a car CD player with a list price of \$300 remains a consumer dream. Technological development still has to be paid for, and assembly lines still have to be geared up to build car CD players.

The costs of the new technology will be reflected in car players' prices for at least another year. But if you want to enjoy the best sound on wheels, it's cheap at the price. □



Blaupunkt's CDP 05 CD player preamplifier (upper unit in photo) accepts both low- and high-level inputs. It features automatic cartridge loading, a floating shock-resistant disc drive, a three-spot laser, pause control, and fast skip and search in both directions. Frequency response is given as 18 to 20,000 Hz \pm 3 dB. Price: \$550. Shown below it is Blaupunkt's matching Houston SQR 06 cassette receiver (\$750).



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Acoustic Research, 330 Turnpike St., Canton, MA 02021-2703. (617) 821-2300. *Amplifiers, speakers.*

ADS (Analog and Digital Systems), One Progress Way, Wilmington, MA 01887. (617) 658-5100. *Amplifiers, signal processors, speakers.*

Aiwa America, 35 Oxford Dr., Moonachie, NJ 07074. (201) 440-5220. *Cassette receivers, speakers.*

Alaron, 185 Park St., P.O. Box 550, Troy, MI 48099. (313) 585-8400. *Cassette receivers, equalizer/amplifiers, speakers.*

Allsop, 4201 Meridian St., P.O. Box 23, Bellingham, WA 98227. (206) 734-9090. *Accessories.*

Alphasonik, 701 Heinz Ave., Berkeley, CA 94710. (415) 548-4005. *Amplifiers, signal processors, speakers, accessories.*

Alpine Electronics, 19145 Gramercy Place, Torrance, CA 90501. (213) 326-8000. *Cassette receivers, cassette tuners, CD components, amplifiers, equalizer/amplifiers, signal processors, speakers.*

Altec Lansing, Milford, PA 18337. (800) 258-3288. *Amplifiers, signal processors, speakers.*

AM Products, 1051 Clinton St., Buffalo, NY 14206. (416) 731-2022. *Accessories.*

American Audio, 636 Forbes Blvd., South San Francisco, CA 91080. (415) 872-1331. *Cassette receivers, equalizer/amplifiers.*

ARA Manufacturing, P.O. Box 534002, Grand Prairie, TX 75053. (214) 647-4111. *Cassette receivers, amplifiers, equalizer/amplifiers, speakers.*

Audia, 5500 Rosecrans Ave., P.O. Box 749, Lawndale, CA 90260. (213) 973-1100. *Cassette tuners, amplifiers, signal processors, speakers.*

Audio Control, 6520 212th S.W., P.O. Box 9966, Lynnwood, WA 98036. (206) 775-8461. *Signal processors.*

Audio Pro by Sonic Research, 180 Sunny Valley Rd., New Milford, CT 06776. (203) 354-9332. *Speakers.*

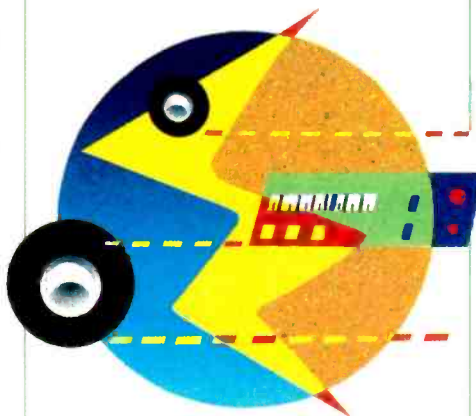
AudioSource, 1185 Chess Dr., Suite G, Foster City, CA 94404. (415) 574-7585. *Speakers.*

Audiovox, 150 Marcus Blvd., Hauppauge, NY 11788. (516) 231-7750. *Cassette receivers, amplifiers, equalizer/amplifiers, signal processors, speakers.*

Autotek, 1447 N. Carolan, P.O. Box 4391, Burlingame, CA 94011. (415) 348-6640. *Cassette receivers, amplifiers, equalizers, speakers.*

Babb Corporation, 3234 Towerwood, Farmer's Branch, TX 75234. (800) 433-3303. *Speakers.*

Becker Electronics, Rt. 145, East Durham, NY 12423. (518) 634-2571. *Speakers.*



Discwasher, 4309 Transworld Rd., Schiller Park, IL 60176. (312) 671-5680. *Accessories.*

EPI (Epicure Products), 25 Hale St., Newburyport, MA 01950. (617) 462-1000. *Cassette receivers, speakers.*

FAS Industries, 1476 Camden Ave., Campbell, CA 95008. (408) 371-8580. *Cassette receivers, amplifiers, equalizer/amplifiers, signal processors, speakers.*

Fischer America, 175 Route 46 W., Fairfield, NJ 07006. (201) 227-9283. *Accessories.*

Ford Audio Systems, 17000 Rotunda Dr., Room B240, Dearborn, MI 48121. (313) 322-6523. *CD components.*

Fujitsu Ten Corporation, 19281 Pacific Gateway Dr., Torrance, CA 90502. (213) 327-2151. *Cassette receivers, CD components, amplifiers, signal processors, speakers.*

Fultron (Arthur Fulmer Inc.), 2nd and Gayoso, P.O. Box 177, Memphis, TN 38101. (901) 525-5711. *Cassette receivers, amplifiers, equalizer/amplifiers, speakers.*

Gold Sound, P.O. Box 141, Englewood, CO 80151. (303) 761-6483. *Speakers.*

David Hafler Co., 5910 Crescent Blvd., Pennsauken, NJ 08109. (609) 662-6355. *Amplifiers.*

Harman Kardon, 240 Crossways Dr. W., Woodbury, NY 11797. (516) 496-3400. *Cassette tuners, amplifiers, signal processors.*

HiFonics, 845 Broad Ave., Ridgefield, NJ 07657. (201) 945-8880. *Amplifiers, signal processors, speakers, accessories.*

Hirschmann of America, Industrial Row, P.O. Box 229, Riverdale, NJ 07457. (201) 835-5002. *Accessories.*

Hitachi, 401 W. Artesia Blvd., Compton, CA 90220. (213) 537-8383. *Cassette receivers, amplifiers, speakers.*

Hitech Mobile Sound, 7916 N.E. 19th Ct., Vancouver, WA 98665. (206) 573-1055. *Cassette receivers, amplifiers, speakers, accessories.*

Impact Industries, 1469 Gage St., San Bernardino, CA 92408. (714) 796-8351. *Cassette receivers, amplifiers, speakers.*

Infinity, 9409 Owensmouth Ave., Chatsworth, CA 91311. (818) 709-9400. *Amplifiers, speakers.*

Intraclean by American Recorder Technologies, 4395 Valley Fair Rd., Simi Valley, CA 93063. (805) 527-9580. *Accessories.*

Jamo, 425 Huehl Rd., Bldg. 3A, Northbrook, IL 60062. (312) 441-8585. *Speakers.*

JBL, 240 Crossways Park W., Woodbury, NY 11797. (516) 496-3400. *Speakers.*

Blaupunkt, 2800 South 25th Ave., Broadview, IL 60153. (312) 865-5200. *Cassette receivers, cassette tuners, CD components, amplifiers, equalizer/amplifiers, signal processors, speakers.*

Boston Acoustics, 247 Lynnfield St., Peabody, MA 01960. (617) 532-2111. *Speakers.*

B&W Loudspeakers, Anglo-American Audio, P.O. Box 653, Buffalo, NY 14240. (416) 297-0595. *Speakers.*

Canton North America, 254 First Ave. N., Minneapolis, MN 55401. (612) 333-1150. *Speakers.*

Carver Corporation, P.O. Box 1237, 19210 33rd Ave. W., Lynnwood, WA 98036. (206) 775-1202. *Cassette tuners, amplifiers.*

Cerwin-Vega, 555 E. Easy St., Simi Valley, CA 93065. (805) 584-9332. *Speakers.*

Clarion, 5500 Rosecrans Ave., Lawndale, CA 90260. (213) 973-1100. *Cassette receivers, amplifiers, equalizer/amplifiers, signal processors, speakers.*

Concord Electronics, 25 Hale St., Newburyport, MA 01950. (617) 462-1000. *Cassette receivers, amplifiers, speakers.*

Coustic, 4260 Charter St., Vernon, CA 90058. (800) 227-8879. *Cassette receivers, amplifiers, equalizer/amplifiers, signal processors, speakers.*

Craig Corporation, 921 W. Artesia Blvd., Compton, CA 90220. (213) 537-1233. *Cassette receivers, amplifiers, equalizer/amplifiers, speakers.*

Delco Electronics, 700 E. Firman St., Kokomo, IN 46902. (317) 451-8461. *CD components.*

Deltasonik, 701 Heinz Ave., Berkeley, CA 94710. (415) 548-4005. *Amplifiers, signal processors, speakers.*

Denon America, 27 Law Dr., Fairfield, NJ 07006. (201) 575-7810. *Cassette receivers, CD components, amplifiers, signal processors, speakers, accessories.*

CAR STEREO MANUFACTURERS

Jensen, 4136 N. United Parkway, Schiller Park, IL 60176. (312) 671-5680. *Cassette receivers, amplifiers, equalizer/amplifiers, speakers.*

Jet Sound, 2575 El Presidio St., Long Beach, CA 90810. (213) 637-1001. *Cassette receivers, amplifiers, equalizer/amplifiers, signal processors, speakers, accessories.*

JVC Corporation of America, 41 Slater Dr., Elmwood Park, NJ 07407. (201) 794-3900. *Cassette receivers, CD components, amplifiers, equalizer/amplifiers, signal processors, speakers.*

Kenwood Electronics, 1315 E. Watson-center Rd., Carson, CA 90745. (213) 518-1700. *Cassette receivers, cassette tuners, CD components, amplifiers, equalizer/amplifiers, signal processors, speakers, accessories.*

Kraco, 505 E. Euclid Ave., Compton, CA 90224. (800) 421-1910. *Cassette receivers, equalizer/amplifiers, speakers, accessories.*

Linear Power, 11545 D Ave., Auburn, CA 95603. (916) 823-7891. *Amplifiers, signal processors, speakers, accessories.*

Magnum Loudspeakers, One Mitek Plaza, Winslow, IL 61089. (815) 367-3811. *Speakers.*

Majestic Electronics, 14614 Lanark St., Panorama City, CA 91402. (800) 432-2961. *Cassette receivers, amplifiers, equalizer/amplifiers, signal processors, speakers.*

Marantz, 20525 Nordhoff St., Chatsworth, CA 91311. (818) 998-9333. *Cassette receivers, amplifiers, speakers.*

Maxxima (Div. of Panor Corp.), 137 Express St., Plainview, NY 11803. (516) 935-5311. *Cassette receivers, amplifiers, equalizer/amplifiers, speakers.*

MEI by Mansoor Electronics, 310 Alden Rd., Markham, Ontario L3R 4C1, Canada. (416) 475-8444. *Cassette receivers, amplifiers, equalizer/amplifiers, speakers.*

MGT (Div. of Magtone Electronics), 20445 Gramercy Place, Suite 204, Torrance, CA 90501. (213) 533-5877. *Amplifiers, equalizer/amplifiers, signal processors, speakers, accessories.*

Mitsubishi Mobile Electronics, 800 Biermann Ct. Mt. Prospect, IL 60056. (800) 323-4216. *Cassette receivers, CD components, amplifiers, speakers.*

Morel Acoustics, 414 Harvard St., Brookline, MA 02146. (617) 277-6663. *Speakers.*

MTX Electronics, One Mitek Plaza, Winslow, IL 61089. (815) 367-3811. *Speakers.*

Mustang Electronics, 11 West 30th St., NYC 10001. (212) 239-8760. *Cassette receivers.*

Nakamichi USA Corp., 19701 S. Vermont Ave., Torrance, CA 90502. (213) 538-8150. *Cassette tuners, amplifiers, signal processors, speakers, accessories.*

U.S. Omnivox Corp., 16617 Valley View Ave., Cerritos, CA 90701. (800) 952-5621. *Amplifiers.*

Ora Electronics, 20120 Plummer St., P.O. Box 4029, Chatsworth, CA 91313. (818) 701-5848. *Speakers, accessories.*

Orion, 306 South River Dr., Tempe, AZ 85281. (602) 968-7356. *Amplifiers, signal processors.*

Panasonic, One Panasonic Way, Secaucus, NJ 07094. (201) 348-7000. *Cassette receivers, CD components, amplifiers, equalizer/amplifiers, speakers.*

Parasound Products, Wharfside, 680 Beach St., #400, San Francisco, CA 94109. (415) 397-7100. *Speakers, accessories.*

Phase Linear by International Jensen, 4134 N. United Parkway, Schiller Park, IL 60176. (312) 671-5680. *Speakers.*

Philips Auto Audio, 230 Duffy Ave., Hicksville, NY 11802. (516) 931-6200. *Cassette receivers, cassette tuners, CD components, amplifiers, equalizer/amplifiers, signal processors, speakers, accessories.*

Pioneer, 2265 E. 220th St., Long Beach, CA 90810. (213) 835-6177. *Cassette receivers, cassette tuners, CD components, amplifiers, equalizer/amplifiers, signal processors, speakers.*

Polk Audio, 5601 Metro Dr., Baltimore, MD 21215. (301) 358-3600. *Speakers.*

Polydax Speaker Corp., 10 Upton Dr., Wilmington, MA 01887. (617) 658-0700. *Speakers.*

Precision Power, 7901 East Pierce St., Scottsdale, AZ 85257. (602) 947-1444. *Amplifiers, signal processors.*

Proton, 737 W. Artesia Blvd., Compton, CA 90220. (800) 772-0172. *Cassette receivers, cassette tuners, amplifiers, equalizer/amplifiers, signal processors, speakers.*

Pyle Industries, 501 Center St., Huntington, IN 46750. (219) 356-1200. *Amplifiers, signal processors, speakers.*

Realistic (Div. of Tandy Corp.), 1300 One Tandy Center, Fort Worth, TX 76102. (817) 390-3885. *Cassette receivers, amplifiers, equalizer/amplifiers, signal processors, speakers, accessories.*

Recoton Corporation, 46-23 Crane St., Long Island City, NY 11101. (718) 392-6442. *Accessories.*

Rockford-Fosgate Corp., 613 S. Rockford Dr., Tempe, AZ 85281. (800) 821-2349. *Amplifiers, preamplifiers, signal processors, speakers, accessories.*

Sabre Sound, 702 Colorado, #440, Austin, TX 78701. (512) 482-0846. *Speakers.*

Sansui Electronics Corp., 1250 Valley Brook Ave., Lyndhurst, NJ 07071. (201) 460-9710. *Cassette receivers, cassette tuners, amplifiers, equalizer/amplifiers, signal processors, speakers.*

Sanyo, 1200 Artesia Blvd., Compton, CA 90220. (213) 537-5830. *Cassette receivers, CD components, amplifiers, signal processors, speakers, accessories.*

Sentrek Industries, 751 Racket Club Dr., Addison, IL 60101. (312) 628-6767. *Cassette receivers, amplifiers, equalizer/amplifiers, signal processors, speakers.*

Sharp, Sharp Plaza, Mahwah, NJ 07630. (201) 529-8200. *Cassette receivers, speakers.*

Sherwood, 13845 Artesia Blvd., Cerritos, CA 90701. (213) 926-6337. *Cassette receivers, amplifiers, equalizer/amplifiers, speakers.*

Sony, Sony Dr., Park Ridge, NJ 07656. (201) 930-1000. *Cassette receivers, CD components, amplifiers, equalizer/amplifiers, signal processors, speakers.*

Soundstream Technologies, 2907 W. 182nd St., Redondo Beach, CA 90278. (213) 214-4652. *Cassette receivers, cassette tuners, amplifiers, signal processors.*

Southern Audio Services, 2909 Crater Lake, Baton Rouge, LA 70814. (504) 924-9964. *Speakers.*

Sparkomatic, Routes 6 and 209, Milford, PA 18337. (717) 296-6444. *Cassette receivers, amplifiers, equalizer/amplifiers, speakers, accessories.*

Speakerlab, 735 N. Northlake Way, Seattle, WA 98103. (206) 633-5020. *Signal processors, speakers.*

Stillwater Designs, 1210 S. Main, Stillwater, OK 74074. (405) 624-8510. *Speakers.*

Sunkyong, 30 Congress Dr., Moonachie, NJ 07074. (201) 440-5006. *Cassette receivers, amplifiers, equalizer/amplifiers, signal processors, speakers.*

Technics, One Panasonic Way, Secaucus, NJ 07094. (201) 348-7000. *Cassette receivers, cassette tuners, CD components, amplifiers, signal processors, speakers.*

Visonik by Hirschmann of America, Industrial Row, P.O. Box 229, Riverdale, NJ 07457. (201) 835-5002. *Speakers.*

Yamaha Electronics, 6600 Orangethorpe Ave., Buena Park, CA 90620. (714) 522-9189. *Cassette receivers, cassette tuners, CD components, amplifiers, equalizer/amplifiers, signal processors, speakers.*

Zapco, 2549 Yosemite Blvd., Suite E, Modesto, CA 95354. (209) 577-4268. *Amplifiers, signal processors.*

Before you listen to a Jensen JXL, we suggest warming up with something a little less exhilarating.



If you're about to buy car speakers or a car receiver, it's important to warn you about Jensen® JXL's. The sound of a JXL is so dynamic that if you're not prepared for it, listening to one could be dangerous.

Exciting sound from exciting speakers.



What could be more exciting than a JXL? Each model is

compact disc ready and handles the accurate sound of today's digital recordings with ease.

They pack a lot of power, too. Polycarbonate dynamic cone tweeters and long throw woofers give the JXL's up to 175 watts of peak power handling. And thanks to their very efficient design, the JXL's get plenty of volume out of any receiver.

Listen to a JXL receiver and you're ready for anything.



If our speakers don't take your breath away, our receivers will. They've all been designed with the most advanced technology money can buy. Features like Dolby "B," Auto Reverse Tape Transport, Phase Locked Loop tuning, Seek, Scan and Automatic Program Control.

In the unlikely event you need even more excitement, the JXL-45 and JXL-55 have Pre-Amp outputs and compact disc player inputs. So you can add an amplifier or CD player to your system whenever you're ready.

So, go jump off a building. Put your head in a lion's mouth. Do whatever it takes to prepare yourself for the exhilarating sound of a JXL.

Then go down to your local Jensen dealer and experience the real thing.



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JENSEN®

We make music a moving experience.

STRATEGIES FOR EQUIPMENT SHOPPING

**Common-sense
advice from
a hi-fi salesman
on where,
when, and how
to buy**

by Charles Curtis

If you've seen the film *Ruthless People*, you'll remember the scenes in which a hi-fi salesman uses sly innuendo, false enthusiasm, and a sneaky trick or two to bamboozle hapless customers into buying things they don't want. For me and my colleagues in the retail stereo business, those episodes—like live-action versions of Charles Rodrigues cartoons—were the highlights of the movie, because we know that such incidents take place every day in real-life sound emporiums across the country.

My years on the sales floor have taught me that not even an audiophile who is otherwise well informed will know the best way to identify a good piece of equipment in the store and get it to his listening room. While shark-like sales tactics are not the rule, they are only one possibility for which a smart stereo shopper must prepare himself.

First Things First

Your first decision is one of the most important: Where will you shop? Will you go to one of the "electronics supermarkets" or to a smaller, more specialized store? The supermarkets are often more conveniently located, are more likely to carry their own financing plans and in-store service facilities, and are sometimes able to offer large dis-

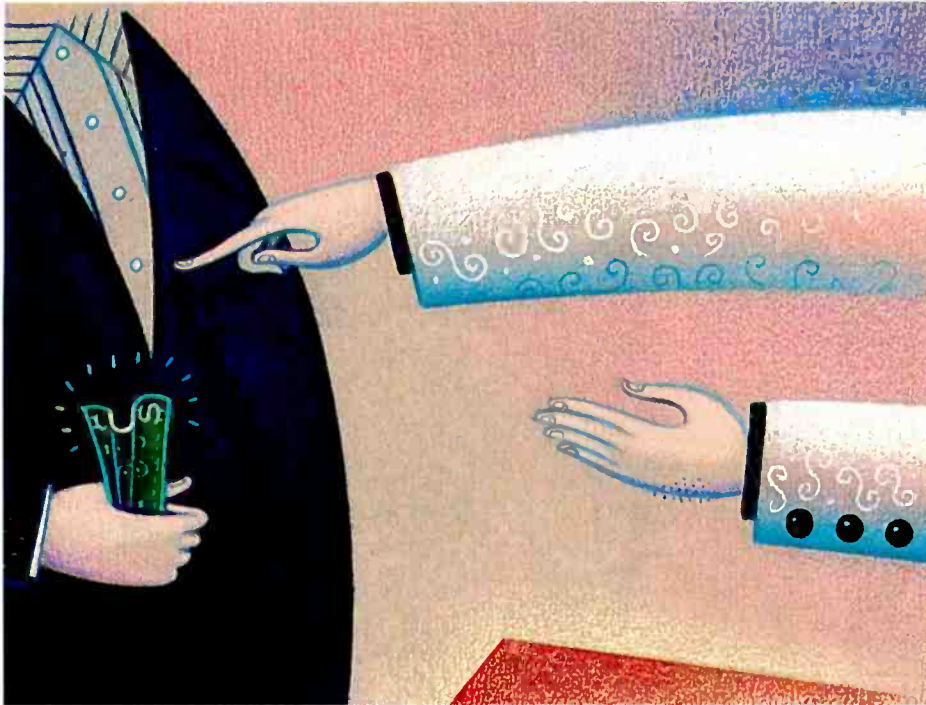
counts by making up the "bite" in volume. The specialist retailer, on the other hand, usually provides more personalized and knowledgeable service along with the capability and willingness for more extensive demonstrations. Quite often, it's a matter of discovering where you feel more comfortable.

Once you've decided *where* to shop, it pays to plan *when* to shop. Hi-fi hunters, like duck hunters, can benefit from knowing the right time and the right season. Great bargains can often be found in the middle of summer, when stores are at the end of the fiscal year, floor traffic is light, and owners want to clear the shelves for the new fall line.

Early January is also a good time for bargain hunters, as there are usually post-Christmas sales, but it can be a busy time in the stores since people are spending their holiday gift money. The slow months from February to May (when people start buying graduation presents) offer good opportunities to talk with salesmen. Heavily advertised blow-out sales are becoming an almost weekly occurrence. But many retail chains do have one sale a year where they sell equipment for only cents above cost. You can find out whether a store has such a sale, and when, just by asking a salesman.

The latest state-of-the-art equip-





Go ahead and ask if the posted price can be discounted. Suggested list prices are often a good 30 to 50 percent more than what the store actually paid for the products.

ment usually appears in stores in late summer and autumn, in time for the back-to-school rush. But if you wander into my store on a Saturday three weeks before Christmas, the busy conditions won't allow me to give you the treatment I can devote to the guy who comes in on a weekday afternoon—especially if he's been thoughtful enough to phone ahead for an appointment. (This courtesy will only be appreciated in one of the specialty stores. Phoning a supermarket for anything more than its business hours or address will make you the butt of a week's worth of jokes.)

You can earn my respect—and my full attention—by doing a little preliminary leg work and by not coming in “cold.” Read the advertisements in your local paper and test reports in magazines like *STEREO REVIEW*. Conduct a “browsing only” expedition or two, and plan how your upcoming purchase will fit in with your current equipment, listening room, and habits.

It's wise to “feel out” a salesman in an introductory chat to gauge his knowledge and honesty. Ask him, “Is there a big sound difference between CD players?” or “Does the placement of the speakers in my room really affect the sound?” An unqualified “Yes” to the first question or a flat “No” to the second means that you are dealing with a fool or a liar. Take your business elsewhere.

☺ *Now Hear This*

After you have found a salesperson you can trust, it's time to listen to some specific components. The product demonstration is the fun part of your visit, but the ultimate usefulness of this ritual depends on you. Go ahead and bring your spouse or Significant Other, but leave small children at home. (I can't concentrate on your needs if I have to keep Junior from punching in the exposed speaker cones.) Solicit my personal opinions, but keep in mind that my enthusiasm for a particular unit or manufacturer's line may stem less from its audible benefits than from its relatively high profit margin. Perhaps the manufacturer is offering salesmen a “spiff,” or cash bonus, on selected items, or is running a sales volume contest. And it's not especially significant if I tell you, “I own this myself”—not only do we all hear differently, but you can bet I paid a lot less for the item than you would. Be on guard, though, if *any* salesman tries to warn you against a product he doesn't carry. He may just not want to recommend something that will make you walk out of his store and give your money to someone else.

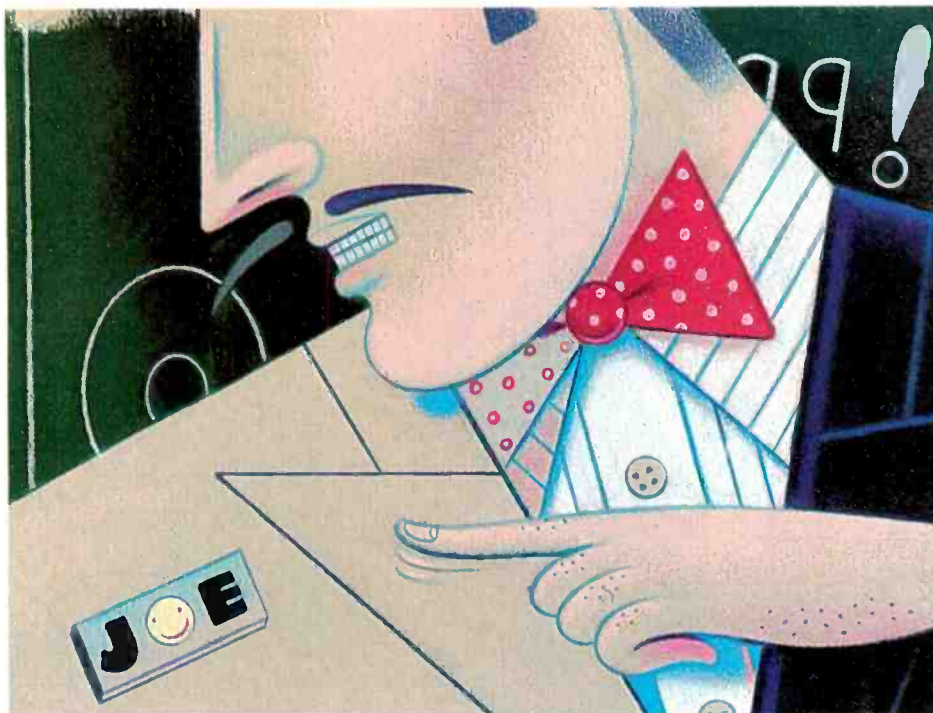
Shopping for specific types of equipment requires specific demo techniques:

☐ *Speakers.* Always bring your own music, preferably on compact

disc. Otherwise, I'll play you mine, which I guarantee will sound wonderful on the equipment I'm showing you, whether or not it has anything to do with what you listen to at home. Don't try to compare more than two pairs of speakers at a time—it's unnecessarily confusing. Have me position the speakers as they will be in your home, which will help you get *some* indication of how they will really sound there. And compare speakers only when they're placed side by side or near one another. Most important, make sure that I keep the volume levels of the pairs you're comparing as close to the same as possible, since otherwise the more efficient (louder) model will almost always sound better than its rival.

☐ *Amplifiers.* Tell me about your speakers, your room, and the volume levels at which you typically listen so that I can better assess your power requirements. In the demo room, listen for signs of strain on loud or intricate passages. Make sure the amplifier doesn't run too hot for your planned location, especially if it will be enclosed in a cabinet. If you plan to run two or more pairs of speakers in parallel, be sure that the amplifier you buy can safely drive the resulting low-impedance load (check the owner's manual).

☐ *Tuners.* The kind of antenna you have, where you live, and the location of your favorite stations' transmitters all have far more to do



Solicit my personal opinions, but keep in mind that my enthusiasm for a particular unit or line may stem less from its audible benefits than from its relatively high profit margin.

with the quality of reception you'll get than the circuitry in the vast majority of today's separate tuners. For that reason, an in-store comparison of tuners is not very useful. Instead, concentrate on the published specifications, taking care to note if the measurement parameters used by the manufacturers are the same. The most important specs are capture ratio, 50-dB quieting, usable sensitivity, and alternate-channel selectivity.

□ *Compact Disc Players.* If I claim that there is a sound difference between CD players, make me prove it—using your CD and your headphones (or the store's best pair). Note the extent of features such as remote control and programmability. Tap any unit you're considering to check for shock resistance. Examine its response time to commands and the "feel" of its controls—are they solid and positive?

□ *Cassette Decks.* Don't use commercially prerecorded tapes when auditioning a cassette deck. Instead, record a few passages from your own music source in the store, again using headphones to listen to the results. If you're upgrading, you may want to bring in one or two tapes made on your current machine to check how well the azimuth agrees with its prospective replacement. A mismatch in azimuth alignment will make your old tapes sound lifeless on your new machine.

□ *Turntables.* Many retailers now fear that vinyl-record players will be the eight-track-tape machines of the 1990's, thanks to the CD. Selection is dropping, and product improvements are few and far between, so your best bet is to focus on reliability. Does the turntable feel solid and resistant to shock? Is there a minimum of "bells and whistles," or questionable features? Be sure to ask my advice (and my reasons for it) about a cartridge that is well matched to the turntable and tone-arm of your choice.

☺ *Paying the Piper*

If you are going from store to store to nail down your choice, you may want to listen to equipment a second time. That's fine, but keep in mind that if you don't buy something after the second listen, the salesman may give up on you, and he is likely to warn his colleagues not to waste their time on you. Unfair? Maybe. True? You bet.

Now we come to the part that is the least fun: payment time. Now, the psychology and practice of haggling is too complex to discuss in detail here, but go ahead and ask if the posted price can be discounted. Unless the item is already steeply marked down, a good starting point is 10 percent or so off the "manufacturer's suggested list price." Suggested list prices are often a good 30 to 50 percent more than what the store actually paid for the products.

Speakers, accessories, and phono cartridges usually have a particularly high markup percentage and are more often discounted. Buying several pieces at one time can net you a package deal. Some stores even prefer cash to plastic or checks and will shave their prices accordingly. Perhaps the best bargains are demonstrator or display samples of the unit you covet; they almost always have an identical warranty and pose no more risk of breakdown than still-in-the-box components, especially solid-state items such as amplifiers and tuners.

Check into whether the store offers an extended warranty. Repairs can be costly, and purchasing a service contract may be a wise move, particularly with highly mechanical pieces such as tape decks, turntables, and CD players. You can shop for the best extra-warranty deal, and many stores will be happy to sell you "health insurance" on a unit you bought elsewhere.

Finally, try to hit me up for free extras such as speaker cable, record cleaners, connection cables, and cartridge installation. It never hurts to ask.

In the end, it all comes down to this: an audio shopper who exercises a little common sense along with his ears can make the hunt as rewarding as the catch. Those who don't may find themselves bit players in a comedy skit in which the joke is on them. □

EASY LISTENING ON COMPACT DISC

BY WILLIAM LIVINGSTONE



PHILIPS RECORDS

Lamfir plays nostalgic pop standards and light classics on the panflute.

MUSIC has as much power to alter moods as some fairly potent drugs do. Besides soothing the savage breast, it can stir crowds to demonstrations of patriotic fervor, stimulate lazy people to get up and dance, and make strong men weep.

There are times, however, when we'd like to listen to music that doesn't call forth strong emotions. When you're washing the car, painting the bathroom, or having friends over for drinks, you may not feel like dealing with the Rolling Stones' defense of Satan, Aida's farewell to earth, Bob Dylan's gloomy meteorological forecasts, or the metaphysics of late Beethoven.

Sometimes you just want music that sounds pretty, promotes optimism, and suggests that your world

is a reasonably attractive place to live in. It exists in great quantity in the category commonly known as "mood music," "beautiful music," or "easy listening."

In its simplest forms this music is used in elevators, nursing-home corridors, and airport waiting rooms to keep people from becoming irritated or depressed. More imaginatively arranged and played, it makes a good sonic background for light conversation. It can keep you from becoming bored with repetitious work, and it's an excellent accompaniment to driving.

Those who require unalloyed heavy-metal, opera, jazz, or symphonic masterpieces look down on easy listening and claim that it does not sufficiently engage the heart or mind. The need for this music is so great, however, that it made rich

men of conductor André Kostelanetz, bandleader Lawrence Welk, and the late pianist Liberace.

Those men perfected the blend of light classics and standard popular songs in pretty arrangements that is the essence of easy listening. Vocals are used sparingly, if at all, but a few bird songs and sounds of nature may be introduced. Some recordings by Kostelanetz, Welk, and Liberace have been released on compact disc, but there are many others that deserve your attention. I've picked a group that I think serve their mood-elevating function well and are sonically worthy of good home systems and car stereo installations. Whether you play it as background music at home or in the car, there is no need to apologize for music that keeps you cheerful and thinking positively.

EASY LISTENING

MANTOVANI FAVOURITES.

LONDON 820 368-2 (38:36).

MANTOVANI PRESENTS HIS CONCERT SUCCESSES.

LONDON 820 352-2 (51:30).

Mantovani and His Orchestra.

The radiant sound of Mantovani's orchestra, compounded of cascading strings and shimmering flutes and brass, became a standby of the beautiful-music radio stations. Like Kostelanetz, Mantovani made popular songs sound classier and made the classics sound more popular. "Mantovani Favourites" includes such things as *Danny Boy*, *Dream*, *The Whiffenpoof Song*, and *Auld Lang Syne*. "Concert Successes" includes his theme song, *Charmaine*, as well as *Hora Staccato*, *Moon River*, *Greensleeves*, and *Capriccio italien*, among others. I should warn you that the latter CD also includes applause and spoken introductions by Maestro Mantovani, in case interruptions of that kind bother you.

TOMITA'S GREATEST HITS CD.

Electronically created by Isao Tomita. RCA 5660-2 (70:19).

At the synthesizer Isao Tomita smoothes out some of the sonic peaks and valleys of the fanfare that opens Strauss's *Also sprach Zarathustra*, and he smoothes out some of the emotional wrinkles of the *Infernal Dance* from Stravinsky's *Firebird* and a few other classical selections here. He does not, however, take all the ginger out of such things as *Mars* from Holst's *The Planets*. His palette of varied electronic sounds is quite effective on Pachelbel's *Canon* and Anderson's *Syncopated Clock*, and he uses those sounds especially well on the climactic closing section of Mussorgsky's *Pictures at an Exhibition*. Note the very long playing time.

JAZZICAL CLASS.

Wayne Bedrosian and the Los Angeles Concert Trio. PERPETUA 7003 (43:50).

Wayne Bedrosian (piano), Dennis Dow (drums), and Michael George (acoustic bass) serve up a sweet and

spicy mixture of mildly jazzed-up classics (such as a Bach minuet and a Mozart piano concerto) and classed-up pop favorites (such as *Days of Wine and Roses* and *Could It Be Magic*). Their approach works particularly well on *Memory*, *Amazing Grace*, and the theme from *Chariots of Fire*. Digital technology gives this recording more dynamic range than is usual on easy-listening albums.

DIGITAL BROADWAY.

Byron Olson (piano); other soloists; Orchestra Manhattan, Ettore Strata cond. MANHATTAN CDP-7 462882-2 (50:26).

My favorite CD of this batch, "Digital Broadway" includes such standards from the musical stage as *Send In the Clowns*, *Memory*, and *I Loves You, Porgy* along with imaginative choices from *Sweeney Todd*, *Chess*, and *The Mystery of Edwin Drood*. The arrangements, mostly by Byron Olson, are pretty but sophisticated, and the large orchestra, made up of English studio musicians, plays very well indeed. What is most remarkable here is the quality of the recording. The sound is particularly brilliant and clear, and the jacket warns you to set your volume low because of the wide dynamic range. The debut recording of Orchestra Manhattan, this CD

makes me hope that others will soon follow. It is packaged in a cardboard folder, not a jewel box.

ZAMFIR: *Romance*.

Gheorghe Zamfir (panflute); orchestra, Karl Heinz Schäfer and Jean-Louis Bucchi arr. and cond. PHILIPS 810 966-2 (42:42).

Sentiment and nostalgia are the principal things Zamfir pushes, and they are especially appropriate for the haunting, reedy sound of his primitive instrument, the panflute. His program here includes an arrangement of Tchaikovsky themes, the familiar theme from the *Concierto de Aranjeuz*, *Yesterday* by Lennon and McCartney, Billy Joel's *Just the Way You Are*, and other popular songs. Zamfir's first big hit was James Last's *The Lonely Shepherd*, and he looked like a lonely shepherd, but he is now so rich and famous that there's no reason for him ever to be lonely again.

JAMES GALWAY:

The Wayward Wind.

James Galway (flute); Sylvia (vocals); Nashville String Machine; Shelly Kurland Strings; others. RCA RCD1-4222 (35:42).

Like a few other classical superstars, flutist James Galway has had



Flutist James Galway crosses over from the classics to easy-listening recordings with great success. Pleasant and well recorded, his CD "The Wayward Wind" has a mild country flavor.

a number of "crossover" popular hits. This easy-listening album, which was recorded in Nashville, blends folk flavor (*Shenandoah*) and a dash of country (*Don't It Make My Brown Eyes Blue*), with guitars, banjo, harmonica, and beautiful-music strings. The result sounds rather like background music for the final scene of a Western movie in which the lonely cowboy leaves Hole-in-the-Wall and rides into the sunset, confident of a better life beyond them thar hills. There's nary a hayseed in the hair of country singer Sylvia, who appears on two tracks.

MYSTIC MOODS ORCHESTRA:
Moods for a Stormy Night.

Orchestra, sound effects, back-up vocals, Don Ralke arr. and cond. BAINBRIDGE BCD6202 (42:06).

◆
Making love inside on a rainy night is what this album is about. (Did you know that lightning won't strike you if you're in bed?) The music consists of themes from such movies as *Casino Royale*, *Guess Who's Coming to Dinner*, and *Friendly Persuasion* and melodies from such classical works as Rachmaninoff's Rhapsody on a Theme of Paganini and Wagner's *Tristan and Isolde* (these guys are not just kidding around). The stormy sound effects are quite realistic, and the music is lush.

MANNHEIM STEAMROLLER:
Saving the Wildlife.

AMERICAN GRAMAPHONE
AGCD2086 (35:38).

◆
Mannheim Steamroller's Fresh Aire series of recordings by composer Chip Davis (the president of American Gramophone) might best be considered New Age. In terms of instrumental tone color and general optimism, however, "Saving the Wildlife" also fits the easy-listening category. Written as the soundtrack for a PBS documentary on endangered species, it evokes in music the habitats of such threatened animals as dolphins, harp seals, pandas, wolves, and penguins. Realism and humor are added by the use of animal calls and environmental sounds. Davis once said to me, "I love writing music that will really make those speakers sing." This attitude has won him a large following



COLUMBIA RECORDS

◆
Successful recordings have made French pianist Richard Clayderman an international star. Good looks haven't hurt his career.

among audiophiles, and the sound quality on this album is up to his usual high standard.

THE MAGIC CLARINET OF ACKER BILK.

Acker Bilk (clarinet); orchestra. K-TEL CD 6513 (52:21).

◆
Jazz clarinetist Bilk crossed over to pop music with his big hit *Stranger on the Shore* in 1962. It is one of the sixteen pop standards he plays here in easy-listening arrangements. Others are *My Way*, *Let It Be Me*, *Hey Jude*, *Jean*, and *I Left My Heart in San Francisco*. Sounding more like a saxophone than the classical instrument we know from Mozart's quintet and concerto, Bilk's clarinet retains its jazzy character.

RICHARD CLAYDERMAN:
From Paris with Love.

Richard Clayderman (piano); orchestra. COLUMBIA CK 40174 (45:24).

◆
The handsome young French pianist Richard Clayderman has inherited the musical mantle of Liberace, if not his wardrobe or jewels. Clayderman's rather emphatic playing style and his repertoire are both reminiscent of the late Las Vegas star. This album includes pretty ar-

rangements of such songs as *Yesterday*, *Stranger in Paradise*, *Perhaps Love*, and *I Just Called to Say I Love You* as well as Mozart's theme used in the movie *Elvira Madigan*. If the sales figures Columbia claims for Clayderman are true, he is probably the most successful pianist in the world today.

JAMES LAST:
In der St. Patrick's Cathedral.

Noirin Ni Riain (vocals); Monks of Glenstal; Chorus of St. Patrick's Cathedral; orchestra, James Last cond. POLYDOR 823 669-2 (50:50).

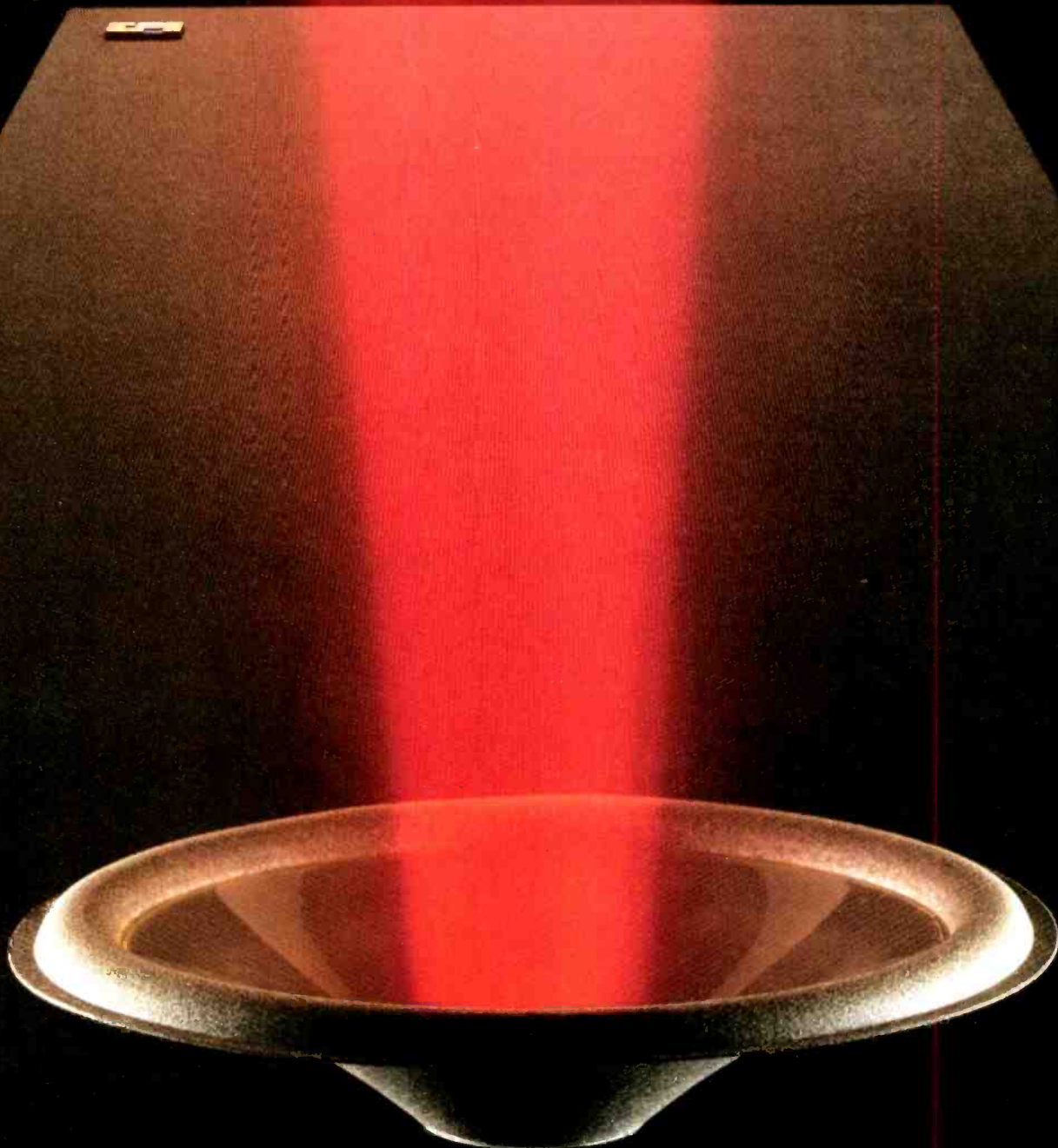
◆
James Last, composer and band-leader, is a sort of German combination of Lawrence Welk and Arthur Fiedler. He has arranged and conducted dozens of dance albums and collections based on such subjects as the signs of the zodiac. Here we have him in St. Patrick's Cathedral (in Dublin, not New York) with easy-listening arrangements of a program that includes the Bach-Gounod *Ave Maria*, *Abide with Me*, *The Holly and the Ivy*, and the theme from Haydn's Trumpet Concerto. Singer Noirin Ni Riain reminds me a little of the Peruvian soprano Yma Sumac. There is some discreet applause on the album, but no spoken introductions. □

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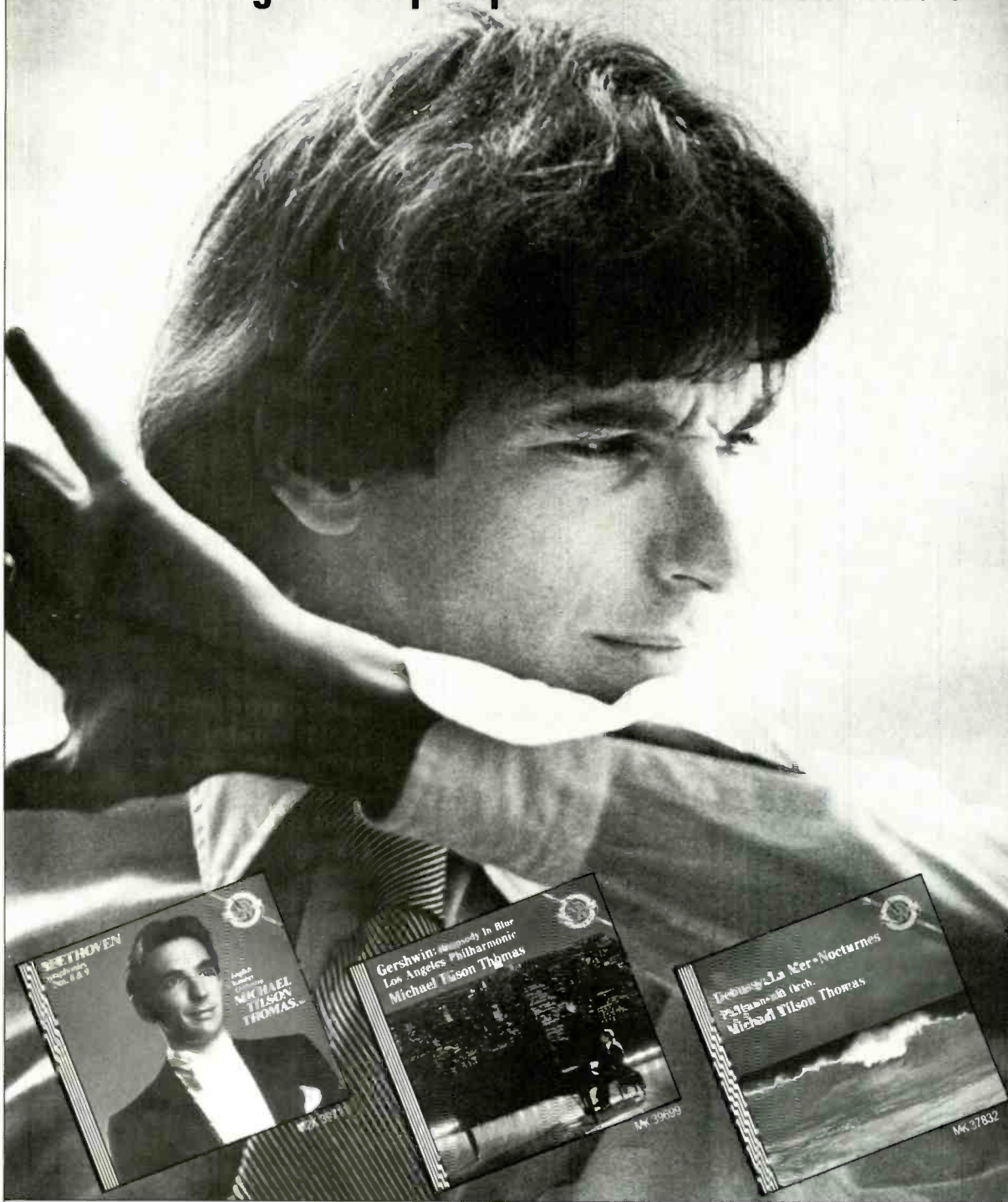
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BEST RECORDINGS OF THE MONTH

Stereo Review's critics choose the outstanding current releases

XTC'S "SKYLARKING": UTTERLY FAB

THIS year marks the twentieth anniversary of the release of the Beatles' "Sgt. Pepper" album, which Capitol will reissue on CD this summer. Anyone inclined to celebrate earlier, however, should look into the new XTC album, "Skylarking," which turns out to be an out-and-out homage to what the Beatles and George Martin wrought back in the Summer of Love. And if that isn't surprising enough in this day and age—what, after all, could be less fashionable?—it's also an utterly fab record on its own terms.

Actually, in many ways it's the great pop album that some of us figured XTC always had in them. In the past, XTC was just a little too clever for its own good, so obsessed with fracturing meter, with sound effects, and with weird harmonic twists that they sometimes lost track of their own songs. Here, however, by taking the musical parameters of "Sgt. Pepper" as a sort of generic idiom and by staying rigorously within them (while taking advantage of twenty years of post-"Pepper" technology), the lads have crafted an album that is still quirky and oozing with creativity and yet as accessible and instantly delightful as its model.

As the title suggests, of course, on some level "Skylarking" is also a colossal goof, and occasionally the band tips its hand explicitly. For example, *Earn Enough for Us*, a marvelously deadpan working-class lament that should be a hit single, sounds suspiciously like a Bruce Springsteen song as it might have been arranged and produced by Paul McCartney in 1967 (how's that for a concept?). Obvious japes like that aside, however, the album is for the most part gorgeously melodic, with dryly witty songs that may be

decked out in period drag but never get arch or camp. In other words, "Skylarking" works. This one gets my vote as the most pleasant surprise of the year. *Steve Simels*

XTC: *Skylarking*. XTC (vocals and instrumentals); Prairie Prince (drums). *Summer's Cauldron; Grass; The Meeting Place; That's Really Super, Super-girl; Ballet for a Rainy Day; 1000 Umbrellas; Season Cycle; Earn Enough for Us; Big Day; Another Satellite; The Man Who Sailed Around His Soul; Dear God; Dying; Sacrificial Bonfire.* GEFLEN GHS 24117 \$8.98, © M5G-24117 \$8.98, © 2-24117 no list price.

RICCARDO MUTI'S SHOWCASE "LA FORZA"

SUMPTUOUS sound and close attention to orchestral detail make Angel's new recording of Verdi's *La forza del destino* a conductor's showcase, the conductor in question being Riccardo Muti. It is Muti's first full-length opera recording since his accession to the post of musical director of La

Scala, and his stirring yet carefully considered interpretation is gloriously projected.

As Leonora, Mirella Freni sings intelligently and with vivid characterization. There are times, though, despite the way Freni's voice has darkened and grown in size, when Leonora may be just a bit too hefty for her vocally (I felt similarly about her Elisabeth in *Don Carlo* a few seasons ago). Placido Domingo's Alvaro is typical of the tenor's work: well thought out, well paced, and of a high order of musicianship. I miss the lyrical quality of the performance he recorded some years ago with James Levine, but the sense of drama here is taut.

As Carlo, Giorgio Zancanaro exhibits a strong, full-bodied, real "Verdi baritone," though as yet it is rather rough; dramatic passages come off well, moments of quieter expression less satisfyingly. Giorgio Surian, Dolora Zajic, Paul Plishka, Sesto Bruscantini, and Ernesto Gavazzi acquit themselves commendably in their important supporting roles, as do the remaining members of the cast. The chorus sings with conviction and spirit.

The enormous dramatic canvas

Dave Gregory, Colin Moulding, and Andy Partridge of XTC: colossal goof



PADDY ECKERSLEY/GEFFEN RECORDS

BEST RECORDINGS OF THE MONTH



Riccardo Muti, Mirella Freni, and Placido Domingo: a gloriously projected Forza

and nearly incredible episodic plot of *La forza* make it a rather sprawling but highly theatrical experience, brought together by some of Verdi's loveliest music. The achievement of this performance is that you forget the opera's weaknesses and glory in its strengths—and that is ultimately to the credit of Riccardo Muti.

Robert Ackart

VERDI: *La forza del destino*. Mirella Freni (soprano), Leonora; Placido Domingo (tenor), Alvaro; Giorgio Zancanaro (baritone), Carlo; Giorgio Surian (bass), Marchese di Calatrave; Dolora Zajic (mezzo-soprano), Preziosilla; Paul Plishka (bass), Guardiano; Sesto Bruscantini (bass), Melitone; Ernesto Gavazzi (tenor), Trabuco. Chorus and Orchestra of La Scala, Milan, Riccardo Muti cond. ANGEL ◊ DSC-3995 three LP's \$35.94, © 4D3S-3995 three cassettes \$35.94, © CDCC-47485 three CD's no list price.

JENNIFER WARNES SINGS SONGS OF LEONARD COHEN

AT first, the idea of Jennifer Warnes singing an album of Leonard Cohen songs seems somehow quaint, a poignant relic in an age of materialism. Warnes, after all, started out as the wire-rimmed folkie of *The Smothers Brothers Comedy Hour* and *Hair*, later to subvert her talent in dreadful movie themes, and finally to arouse attention with her impassioned duet with Joe Cocker in *Up*

Where We Belong. And Cohen, the self-conscious darling of manic-depressives in the Sixties, has had a sketchy history in the last decade, beginning with a fiasco of an album, "Death of a Ladies' Man."

But Warnes, a California Catholic who joined a convent after high school, and Cohen, a Jew from Montreal, long ago found common ground in their quest for an artistic fusion of religious fervor and sexual passion. Through the years, Warnes, out of love for the man and the material, sang back-up on Cohen's tours, and she vowed to record an album of his songs one day, even though initial record-company reaction was that Warnes should be institutionalized for the thought.

Eventually, the burgeoning Cypress label saw the merit of the project, and "Famous Blue Raincoat" was born. It is not only a sampler of some of the finest renditions of Cohen's songs but one of the year's most stirring recordings as well.

Four elements conspire to make "Famous Blue Raincoat" the stunner it is. The most obvious two, of course, are the intrinsic richness of the material and Warnes's remarkable vocal ability—something that never quite came through on her drippy pop hits. The real surprise, however, is the intelligently sexy readings—and witty, thrilling treatment of nuance—that make Cohen's songs positively crackle with the kind of excitement seldom apparent in other performances of his work.

That excitement works to build a spirit of exultation throughout this album, even in some of the most inherently dark and depressing songs, such as the title song, which Cohen rewrote (with only partial success) from a woman's point of view. What really carries the project, however, are the arrangements, alternately handled by Warnes, co-producer C. Roscoe Beck, Van Dyke Parks, and Bill Ginn. No longer shackled to the lone six-string or the predictable five-piece treatment of the Judy Collins era, the Cohen repertoire throbs with new and unexpected life.

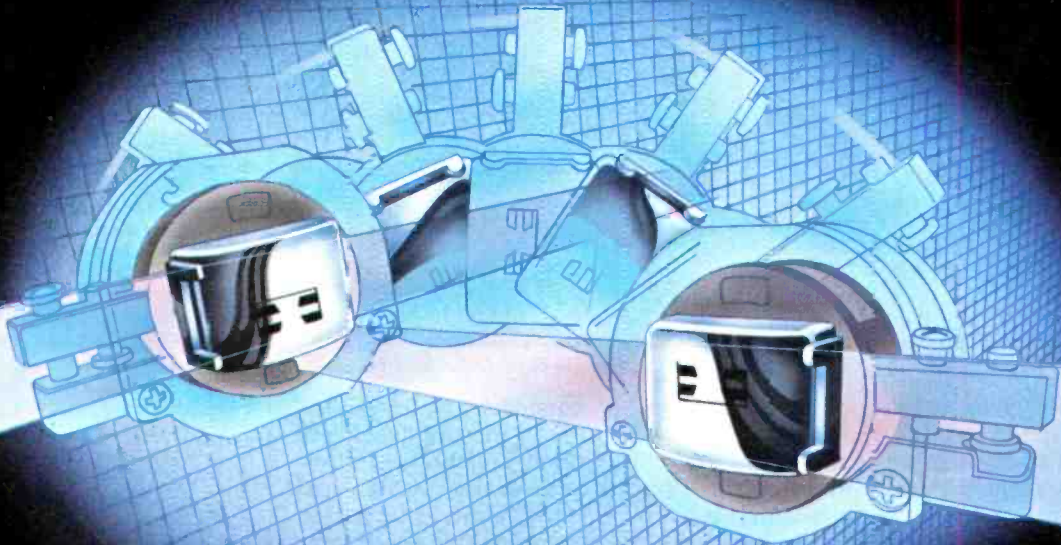
Bird on a Wire, for example, always performed before as a country song, appears here dressed in ceremonial African garb—a direct result of Warnes's pre-"Graceland" obsession with Ladysmith Black Mambazo. And *Famous Blue Raincoat*, usually sinister in a somewhat sleazy way, takes on a new, bluesy dignity with a jazz/chamber-group setting. There's even a rock-oriented, danceable track here, the previously unrecorded *First We Take Manhattan*, an opaque, but

Leonard Cohen and Jennifer Warnes: a spirit of exultation



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BEST RECORDINGS OF THE MONTH

HASHIMOTO/JOHN DUDICH



The Tokyo String Quartet: mellow, vital, elegant—close to perfection

erotically charged tale of intrigue and revenge topped off by Stevie Ray Vaughan's slashing guitar.

In sum, "Famous Blue Raincoat" is at once an ode to sentimentality, an open-faced rise above it, and a standard of sophisticated interpretation. As some of the most cerebral pop to come along in ages, it is also something rarer still—a most enjoyable experience. *Alanna Nash*

JENNIFER WARNES: *Famous Blue Raincoat*. Jennifer Warnes (vocals); Stevie Ray Vaughan, Robben Ford (guitar); Paul Ostermayer (tenor saxophone); Bill Payne (synthesizers); Van Dyke Parks (synthesizer, accordion); vocal and instrumental accompaniment. *First We Take Manhattan; Bird on a Wire; Famous Blue Raincoat; Joan of Arc; Came So Far for Beauty; Ain't No Cure for Love; Coming Back to You; Song of Bernadette; A Singer Must Die*. CYPRESS/POLYGRAM ● 661 111-1 \$8.98, © 661 111-4 \$8.98, © 661 111-2 no list price.

PERSUASIVE BRAHMS FROM THE TOKYO QUARTET

THE Tokyo Quartet's new recording of the first and last of Brahms's three string quartets seems to realize the music's specific character more fully than any others. The performances are aglow with the particular

sort of confident maturity and warmth of heart most of us think of as "Brahmsian" in the best sense. They are mellow, vital, elegant, and overall about as close to perfection as any sort of effort is likely to come in our less than perfect world—or possibly just a little closer. The tenderness of the third movement of the C Minor Quartet is a phenomenal illustration of poignancy and subtlety in ideal counterbalance, as are the folkish vigor and Mozartean poise of the opening vivace of the B-flat Quartet. In short, I'm sure I have never heard a more persuasive performance of either of these quartets, on records or otherwise, and I hardly expect these to be matched, let alone surpassed, very soon.

This CD-only release from Moss Music Group is also a prime example of how chamber music ought to be recorded: the perspective, the instrumental balance, and the clarity of detail all enhance not only the general sense of realism but the specific character of these performances—which, as I've tried to suggest, suit this music down to the ground. If you think you've grown tired of Brahms, this surpassingly beautiful issue is, at the moment, the very strongest corrective I can think of. *Richard Freed*

BRAHMS: *String Quartet No. 1, in C Minor, Op. 51, No. 1; String Quartet No. 3, in B-flat Major, Op. 67*. Tokyo String Quartet. MMG © MCD 10039 no list price.

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POPULAR

- **ALICE COOPER:** *Billion Dollar Babies*. WARNER BROS. 2685-2. "A gilt-lined tinsel toy" (September 1973).
- **MARVIN GAYE:** *Midnight Love*. COLUMBIA CK 38197. "Tingles with excitement" (March 1983).
- **KING CRIMSON:** *In the Court of the Crimson King*. EDITIONS EG/JEM EGCD-1. *In the Wake of Poseidon*. EGCD-2. *Islands*. EGCD-5. *Lark's Tongue in Aspic*. EGCD-7. "Trippy rock" (June 1972).
- **PATTI LABELLE:** *I'm in Love Again*. PHILADELPHIA INTERNATIONAL ZK 38539. "Bound to win you over" (April 1984).
- **TEDDY PENDERGRASS:** *TP*. PHILADELPHIA INTERNATIONAL ZK 36745. "His best" (December 1980).
- **SANTANA:** COLUMBIA CK 30595. "A powerful dose of music" (Best of Month, January 1972).
- **TALKING HEADS:** *Talking Heads* 77. SIRE 6036-2. Their album debut—"atypical punk . . . not deliberately sloppy or offensive" (March 1978).
- **NEIL YOUNG:** *Tonight's the Night*. REPRISE 2221-2. "Direct and free in spirit" (November 1975).

CLASSICAL

- **BERNSTEIN:** *West Side Story, Symphonic Dances; On the Town, Three Dance Episodes; On the Waterfront, Suite; Candide Overture*. Bernstein. CBS MK 42263. "Marvelous" (October 1973).
- **HAYDN:** *Works for Piano Solo*. Walid Akl. BOURG/QUALITON BG 30-43 (fourteen CD's). Complete, for the first time (according to the label) in any format.
- **MOZART:** *Così fan tutte*. Caballé, Baker, Van Allan, Gedda; C. Davis. PHILIPS 416 633-2. "Strong, beautiful, sincere" (April 1975).
- **STRAUSS:** *Also sprach Zarathustra; Till Eulenspiegel; Death and Transfiguration*. Kempe. ANGEL CDC-47862. *Don Juan; Don Quixote; Dance of the Seven Veils*. Kempe. CDC-47865. Performances that "shine with authority, conviction, and commitment" (December 1977).
- **VIVALDI:** *Orlando furioso*. Horne, De los Angeles, Valentini-Terrani, Bruscantini; Scimone. ERATO/RCA ECD 88190. "A rare glimpse of one of the lost glories of Baroque opera" (January 1979).

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by *Christie Barter*
& *Steve Simels*

TWO young Russian-born musicians, both of whom defected from the USSR while performing in Western Europe, are currently emerging as major international recording stars. And both of them have been garlanded

under **Seiji Ozawa**. Next up is an album featuring Vivaldi's *The Four Seasons*, with Mullova as soloist and the Orchestra of Europe conducted by **Claudio Abbado**.

Pianist **Mikhail Rudy** lives in Paris, where he landed after deciding in the mid-Seventies, on tour in France, not to return to his native Russia.

walk, to their nearest record store and grab a copy of *Fire*, Bruce's latest single. Why? Because the B side happens to be a live version of *Incident on 57th Street*, one of his best-ever songs and one that he rarely performs any more—it was unaccountably omitted from the recent best-selling collection "Live/1975-85." Spectacularly beautiful, the live *Incident*, at just over ten minutes, is also, we believe, the longest B side ever. □

REMEMBER those fabulous Sixties? Well, if you don't, **Richie Havens** does. And well he should, since he was one of the baby-boomers' favorite folk singers. What's Richie been up to since Woodstock? Quite a lot, actually. He's lent his familiar voice to those Amtrak and McDonald's jingles you've heard recently, and he's featured on two tracks in MCA's "concept album" based on the Broadway musical *Starlight Express*. He's also gone CD. Just out on Rykodisc is "Richie Havens Sings Beatles and Dylan," a brand-new, all-digital runthrough of such standards (?) as *Eleanor Rigby* and *The Times They Are A-Changin'* (which they ob-

Jackson: not quite classical, not quite fusion



Havens: Sixties standards

viously are) with an all-electric band starring folkie cult figure **Cliff Eberhardt** on guitar. Also look for "Collection," another Rykodisc CD featuring digitally refurbished versions of earlier Havens performances. □

THAT **Joe Jackson** certainly gets around. Since coming to our attention as a competitor in the Elvis Costello Angry Young Man Sweepstakes, Jackson has favored us with a tribute to Louis Jordan ("Jumpin' Jive"), updated Cole Porter ("Night and Day"), dabbled



LAURA LEVINE/JLM PUBLIC RELATIONS



Mullova with Ozawa: a prize winner's recording debut

with honors in major international competitions.

Violinist **Viktoria Mullova**, now in her late twenties, won first prize in the Sibelius Competition of 1980 and a gold medal in the Tchaikov-

Rudy won first prize in the prestigious Marguerite Long Competition and went on to make several recordings, but only recently has he been rediscovered by Pathé. His latest recordings, distributed on CD by Angel, include a Brahms collection (reviewed on page 106) and an album of Ravel, as well as a Schubert recital scheduled for release later this year. □

WE HEARD IT THROUGH THE GRAPEVINE! One of the hottest (and most intriguing) rumors currently making the rounds is that CBS Records is preparing a compilation on CD of all the **Bruce Springsteen** B sides not available on LP. There are a lot of them, and they're nearly all terrific. The fly in the ointment is that the CD, so the rumor goes, will be available only as a promotional release to disc jockeys, critics, and the like. If true, that would make it one of the most eagerly sought-after (and expensive) Springsteen collectibles around, and we hope that CBS will make it available to the public.

Meanwhile, Springsteen fans are advised to run, not



Springsteen: hot B sides

sky Competition two years later. Defecting from the USSR while on tour in Scandinavia in 1983, she came to America and settled in New York. Her first recording, just released by Philips, is a coupling of the Sibelius and Tchaikovsky violin concertos with the Boston Symphony

CHRISTIAN STEINER/PHILIPS RECORDS

EBEL ROBER'TS



in movie scoring (*Mike's Murder*), and recorded the first live, direct-to-tape major-label pop album in years ("Big World").

So what next? Get this: an all-instrumental album. "Will Power," Joe's newest on A&M, features a fifty-piece orchestra (recorded, again, mostly live) running through a series of moody, not-quite-classical, not-quite-fusion pieces with nary a Jackson vocal. (Trivia note: the engi-

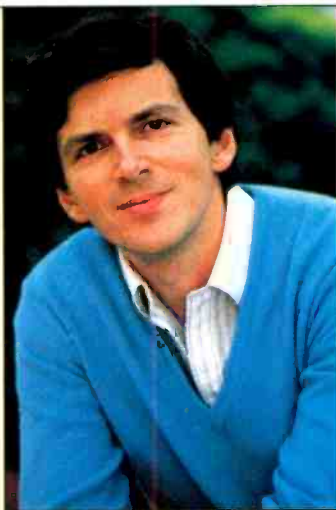
some) with a sound like a slightly rawer, more serious version of the Bangles. Besides "What We Had," Wednesday Week contributed a number to the soundtrack for the new Cannon Films thriller, *Under Cover*, also available on the Enigma label. □

AMONG the handful of young American conductors practicing and perfecting their craft in Europe

La Muette de Portici, in which Fulton conducts a cast headed by Anderson and tenor **Alfredo Kraus**. Both recordings are being distributed here by Angel.

Despite all the activity overseas, Fulton is nominally based in New York. This fall he returns to the city to conduct performances of Verdi's *La Traviata* at the Met, including a Saturday afternoon broadcast December 26. □

GRACENOTES. Switcheroo of the Year: Some buyers of "Polka Time," the latest CD from the apparently immortal **Lawrence Welk**, got a rude shock recently. Seems the disc actually contained the music from the punk-rock movie *Sid and Nancy*. As many as 10,000 of the CD's were mislabeled at a Japanese pressing plant. . . . In a similar mixup, several West Coast fans of the British singer **Kate Bush** were treated to a preview of the new Beatles CD's when some copies of "A Hard Day's Night" were mislabeled as Bush's "The Whole Story." . . . Legendary ex-New York Dolls guitarist and Keith Richards clone **Johnny Thunders** is back with a new album. "Stations of the Cross," a cassette-only release on ROIR, documents a live show taped in 1982 at Manhattan's infamous (and now defunct) Mudd Clubb. . . . Comic **Bob Goldthwaite** (*Police Academy II, III, and IV*) on Huey Lew-

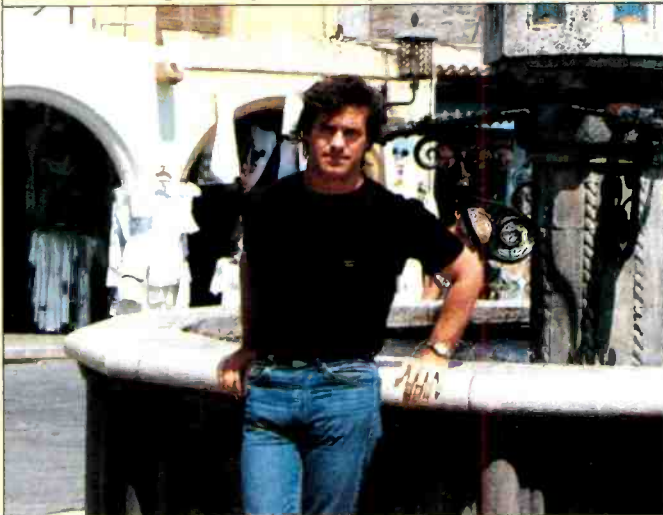


ESTRADA/PATHÉ MARCONI

Rudy: a Russian in Paris

is: "If you saw Huey Lewis walking down the street, would you say, 'Hey, there goes America's leading rock star'? Wouldn't you go, 'Isn't that a friend of my dad'?" . . . Oddest cover version of the year: a remake of the **Beach Boys** classic *Do It Again* by Los Angeles weirdos **Wall of Voodoo**. Also on the new album, "Happy Planet" (IRS), is an original with the intriguing title *Elvis Buys Dora a Cadillac*. . . . **Fire Town**, the Wisconsin band whose independent-label debut, "In the Heart of the Heart Country," we raved about in March's "Best of the Month," just saw their self-produced *Carry the Torch* video introduced on MTV's *120 Minutes*. Way to go, guys. □

Fulton: earning his stripes 'n Europe



VIDEO ARTISTS INTERNATIONAL



WILLIAM JAMES/ENIGMA RECORDS

Wednesday Week: not Just Another Girl Group from L.A.

neers on the project previously worked, although not at the same time, with **Vladimir Horowitz** and the **dB's**). Also new and noteworthy from the peripatetic Jackson: an eight-inch Pioneer videodisc of six songs from the "Big World" sessions. □

QUESTION: Name a band that would make a terrific double bill with 'Til Tuesday. Answer: **Wednesday Week**, an interesting new outfit from L.A. whose "What We Had," just out on Enigma, is one of the better debut albums we've heard lately. Produced by Don Dixon, who did such terrific jobs with the **Smithereens** and **Marti Jones**, **Wednesday Week** comes off as an almost-girl group (only guitarist **David Nolte** has the Y chromo-

some) with a sound like a slightly rawer, more serious version of the Bangles. Besides "What We Had," Wednesday Week contributed a number to the soundtrack for the new Cannon Films thriller, *Under Cover*, also available on the Enigma label. □

these days is **Memphis-born Thomas Fulton**, who, like a generation of conductors before him, has chosen to earn his stripes in the opera house. At this writing, for instance, he is conducting **Massenet's Manon** in Nice, and he is scheduled to conduct **Verdi's Rigoletto** in Hamburg and **Manon** again in Bologna in May and June. Fulton has also recently been making records for EMI's French affiliate, **Pathé Marconi**, in decidedly out-of-the-way nineteenth-century French repertoire. His recording of *Le Postillon de Lonjumeau*, an opera by **Adolphe Adam**, stars two other Americans—soprano **June Anderson** and tenor **John Aler** (see review, page 105). Just completed and due for release by Pathé this summer is **Auber's**

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Discs and tapes reviewed by
Chris Albertson, Phyl Garland,
Alanna Nash, Mark Peel,
Steve Simels

THE BEASTIE BOYS: *Licensed to Ill*. King Ad-Rock, Michael D., MCA (vocals); instrumental accompaniment. *Rhymin' and Stealin'*; *The New Style*; *She's Crafty*; *Posse in Effect*; *Slow Ride*; *Girls*; *Fight for Your Right*; and six others. COLUMBIA FC 40238, © FCT 40238, © CK 40238, no list price.

Performance: *What performance?*
Recording: *Unlistenable*

If I were trying to earn a living as a musician, "Licensed to Ill" would make me think seriously about smashing my instrument and never playing another note. Stupid beyond all reason, the Beastie Boys are the negation of music—three creeps screaming about school, beer, and sex over a rhythm track ripped off from heavy-metal. That so many critics find meaning or humor in this stuff just underscores the legitimate complaint that rock critics know less about music than they do about what's hip.

Rap is a hoax, the musical equivalent of dumping gallons of paint onto a canvas; you can always find some pompous jerk who'll write a thirty-page theoretical explication of it when the paint dries. Unless you're under eighteen and really hate your parents, listening to the Beastie Boys is an affectation. Fittingly, it's a painful one. *M.P.*

BILLY BRAGG: *Talking with the Taxman About Poetry*. Billy Bragg (vocals, guitar); Kristy MacColl (vocals); Johnny Marr (guitar); other musicians. *Greetings to the New Brunette*; *Train Train*; *The Marriage*; *Ideology*; *Levi Stubbs' Tears*; and seven others. ELEKTRA 60502-1 \$8.98, © 60502-4 \$8.98.

Performance: *Interesting*
Recording: *Good*

Subtitled "The *Difficult Third Album*" (this guy has the best album subtitles in the business), Billy Bragg's major-label debut finds everybody's favorite post-punk folk singer in generally splendid form. Yes, he's probably still a little too raw for MTV, although more rough edges than usual are softened here, thanks to some splendid guitar work from the Smiths' Johnny Marr. And



FRANKIE GOES TO LIVERPOOL

FEW groups or albums in recent memory have inspired the kind of controversy that greeted Frankie Goes to Hollywood's 1985 debut, "Welcome to the Pleasure Dome." For sheer outrageousness, Frankie proved to be in a class with Prince. Those who dismissed the band for its self-congratulatory hype and self-important attitude missed the point—and one of the best dance albums of the year. "Pleasure Dome," an unashamed paean to the joys of homosexuality, is outrageous. But at a time when rock is in danger of losing its power to outrage, I think we need albums like that.

The most outrageous thing about Frankie goes to Hollywood's second release, "Liverpool," is its title—it's like a second-year ballplayer calling himself "Mr. Cooperstown." They've shelved some of the posturing and self-hype and stepped back from their frank advocacy of specific sexual practices, but that actually makes their job here a lot tougher. Sex was easy, identifiable, and it sold. Now Frankie's tackling the big issues—Maggie Thatcher and the enslavement of the working class, the quality of life and aesthetics in the age of automation. Trouble is, by taking the high road, Frankie is now up against a swarm of British bands covering the same ground.

"Liverpool" is a celebration of sensation and indignation. But you can ignore the sociology and still enjoy what is a fiercely performed and aggressively produced album. Even the clunkers—and there are one or two, like *Is Anybody Out There?*, which goes on for about four minutes longer than it needs to—have enough interesting things going on to keep you hooked. *Warriors of the Wasteland* is a good example of the extravagant sound on "Liverpool." It begins with a spacy, quivering synth theme, creating the restrained tension that's become a Frankie signature. After

a few measures, though, all hell breaks loose as the band lurches into *heavy-metal*. Yes, Quiet Riot fans, the fuzz guitar will send every readout on your system console into the red.

Rage Hard dispenses with melody and substitutes raw energy, attitude, and anger, with Hammond B3 (or an equivalent synth setting—it's getting hard to tell these days) and tribal drums slugging it out while Holly Johnson chants "suicide a go-go." In *Maximum Joy*, staccato drum machine and echoing guitar harmonics are magically twisted together into rhythmic strands, then hammered into a bouncing Caribbean beat. *Watching the Wildlife* opens with pizzicato strings, then waltzes straight into a body-slaming wall of high-distortion guitar. *Lunar Bay* is probably the greatest sonic achievement, with crashing glass, giggling girls, and a deep, bathyspheric bass (all produced on a CMI) pulling against the main beat like an insistent undertow.

What elevates "Liverpool" beyond being simply a state-of-the-art sound-effects scrapbook is the propulsive rhythms that drive every song—if you took away the electronics and made Frankie play with percussion alone, you'd still get a pretty good dance album. What elevates Frankie beyond being just a good dance band—the anger, the ego, and the Jovian libido—may be a little less blatant this time out. But only a little. *Mark Peel*

FRANKIE GOES TO HOLLYWOOD: *Liverpool*. Holly Johnson (vocals); Peter Gill (drums, percussion); Mark O'Toole (bass); Brian Nash (guitar); Paul Rutherford (backing vocals); other musicians. *Warriors of the Wasteland*; *Rage Hard*; *Kill the Pain*; *Maximum Joy*; *Watching the Wildlife*; *Lunar Bay*; *For Heaven's Sake*; *Is Anybody Out There?* ISLAND 90546-1 \$8.98, © 90546-4 \$8.98, © 90546-2 no list price.

EXPLANATION OF SYMBOLS:

- Ⓛ = DIGITAL-MASTER LP
- ⓐ = TAPE CASSETTE
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yes, he's probably a little too parochially English to travel very well. But his insights remain sharp, his word play remains graceful, and his songs are usually tuneful enough to hook you even if you couldn't care less about who wins the next British election.

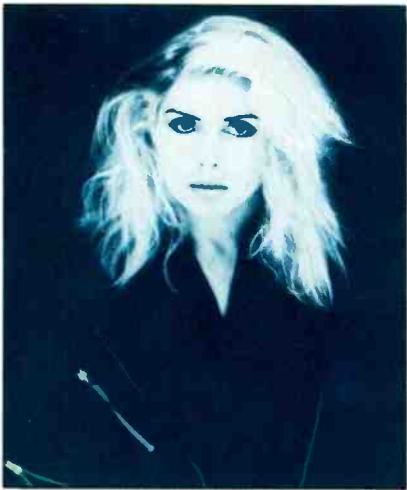
Pick hits: *The Marriage*, in which the protagonist observes ruefully that "marriage is when we admit our parents were probably right," and *Levi Stubbs' Tears*, which, among other things, is one of the nicest tributes ever to the redemptive power of what Noël Coward would have called cheap music. Definitely worth a listen. S.S.

DEBBIE HARRY: *Rockbird*. Debbie Harry (vocals); Chris Stein (guitar); Seth Justman (keyboards); other musicians. *I Want You; French Kissin'; Buckle Up; In Love with Love; You Got Me in Trouble; Free to Fall; Rockbird; Secret Life; Beyond the Limit*. GEFEN GHS 24123 \$8.98, ©MSG 24123 \$8.98, © 24123-2 no list price.

Performance: *High-dreck*
Recording: *High-tech*

Debbie Harry fans, a large group whose membership probably includes every American male who reached puberty in the late Seventies, may recall a certain irony in their heroine's career as chanteuse with Blondie. Simply put, while the band's music became progressively more uninteresting, Harry was improving as a vocalist by leaps and bounds.

"Rockbird" strikes my ears as sound-



Debbie Harry: high gloss

ing pretty much like Blondie might have if they hadn't bored each other to death and broken up. A languid, synth-dominated piece of high-gloss pop with occasional nods to r-&-b styles past and present, it is distinguished solely by the now reassuringly honeyed vocal stylings of its nominal star. Like I said, it's ironic: Harry is singing better than ever these days, but given the parched nature of her new material, I doubt that anyone is going to care much. S.S.

COLIN JAMES HAY: *Looking for Jack*. Colin Hay (vocals, guitar); instrumental and vocal accompaniment. *Hold Me; Can I Hold You?; Looking for Jack; Master of Crime; These Are Our Finest Days*; and five others. COLUMBIA BFC 40611, © BCT 40611, © CK 40611, no list price.

Performance: *Furious*
Recording: *Excellent*

Colin James Hay used to be just Colin Hay, lead singer and songwriter for Men at Work. The Australian band's debut record was a massive hit in this country, but its success was such a shock to the label, CBS, that the label people felt they had to contrive a loonies-from-down-under image for the band, an image that never quite squared with their music. Men at Work promptly nose-dived, which convinced Hay to disband the group and embark on a solo career. I don't think he meant it to be as a watered-down Sting, but that's how it's turned out.

"Looking for Jack" features big sound and production values, but it's a nondescript product nonetheless. The jangling guitars, percolating syncopation, thundering drums, blaring horn charts, and Hay's multitracked vocals give the impression that something important is going on. In fact, though, what's going on is either a sappy love song or an unobservant slice of life that tells you much less than you already knew.

But never mind Hay—what a rhythm section! Drummer Chad Wackerman (nice name for a drummer) plays like someone who's making up for lost time. He's all over his kit, playing with and against the beat in the best Stewart Copeland tradition. And bassist Jeremy Alsop is right there with him, bobbing and weaving, taking solos, and devouring the scenery. Together, they put meat on some pretty scrawny material. Almost makes you forget whose album this is. M.P.

HIPSWAY. Grahame Skinner (vocals); Pim Jones (guitar); Harry Travers (drums); John McElhone (bass). *The Honeythief; Ask the Lord; Bad Thing Longing; Upon a Thread; Long White Car*; and four others. COLUMBIA BFC 40522, © BCT 40522, © CK 40522, no list price.

Performance: *Tough love*
Recording: *Excellent*

Just when you thought the New Romantic wave was dead, Hipsway brings it back to life—without the posturing, bloated instrumentation, or melodrama that almost killed it in the first place. Hipsway is like early Duran Duran, before the yachts and the phony funk. With just guitar, drums, and bass, the quartet hammers out hard-edged pop songs at deliberate, measured tempos, managing to sound like Spandau Ballet, Duran Duran, and ABC put together. Vocalist Grahame Skinner, a baritone,



Colin James Hay: man at work

is like a well-mannered Billy Idol—he pleads, warns, seduces, admonishes, and dares without coming off like a death-cult emissary. Backed by a tight rhythm section playing intricate, stalking arrangements, Skinner and Hipsway have three hit singles in the U.K.—*The Honeythief, Ask the Lord, and The Broken Years*. Any one of them could hit here, too. Enjoy them before they get famous. M.P.

THE HOUSEMARTINS: *London 0 Hull 4*. P.d. Heaton (vocals, harmonica); Stan Cullimore (guitar, vocals); Hugh Whitaker (drums, vocals); Norman Cook (bass, vocals); instrumental accompaniment. *Happy Hour; Get Up off Our Knees; Flag Day; Anxious; Reverends Revenge*; and six others. ELEKTRA 60501-1 \$8.98, © 60501-4 \$8.98.

Performance: *Spirited*
Recording: *Bright*

All rock music is really a form of rebellion, which is why most people stop enjoying it just about the time they hit thirty; by then, you're the bad guys. Nothing distinguishes British rock from American rock more than the nature of its rebellion. An American kid's idea of dissent is Tom Cruise jumping up and down on his mom's couch in his underwear, playing air guitar. British bands are more political, more class conscious. While Ronald Reagan barely rates a mention on U.S. records, Maggie Thatcher is skewered on every other U.K. release.

That's why the Housemartins probably won't find much of an audience in the States. For one thing, they're avowed Marxists, not a popular notion over here. They don't write songs about "partying." Their villains are bankers and bureaucrats, and, more than that, they rage against indifference and complacency. The quartet's music is simple, upbeat, and energetic—like the Smiths, they employ racing tempos, churning rhythm guitar, a snappy backbeat, and dancing vocal harmonies, mixing neo-Mersey tunes and rapid-fire riffing. P.d. Heaton's boyish lead vocals are impatient, his lyrics adamant.

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"London O Hull 4" (a reference to the foursome's home town and a snipe at London's hip music establishment) is a spirited and engaging record, even if it's out of step with most Americans. I admit, though, it made me feel old. At one point, in a song blasting apathy called *Sitting on a Fence*, Heaton sings, "The real problem with this man/is he says he can't when he can/He'd rather not get his hands dirty/He'll still be there when he is thirty" (the italics are mine). Oh, well. I guess I'll just shuffle on back to the home. M.P.

KOOL AND THE GANG: *Forever*. Kool and the Gang (vocals and instrumentals); other musicians. *Victory; I.B.M.C.; Stone Love; Forever; Holiday;* and four others. MERCURY 830 398-1 \$8.98, © 830 398-4 \$8.98, © 830 398-2 no list price.

Performance: *Wholesome*
Recording: *Very good*

Kool and the Gang have survived in the business for eighteen years, primarily because they adjust their style to suit the tastes of the day without compromising their basic musicality. In recent years, they have shifted from a sort of heavy-handed funk to a bright, airy, almost breathy sound that is at times reminiscent of the Sixties. This buoyance is supported by "positive" lyrics about God, peace, love, and patriotism that narrowly avoid sounding corny or preachy.

Kool's new album, "Forever," is their lightest and airiest to date, and it should appeal to a vast cross section of listeners as easy-listening pop. There are tunes to dance to and others that quickly invite you to sing along, and all of them are exceptionally well crafted. Kool and the Gang might be a bit too squeaky clean for some tastes, but I hope they go on forever. P.G.

LITTLE SHOP OF HORRORS (Alan Menken—Howard Ashman). Original-soundtrack recording. Rick Moranis, Ellen Greene, Steve Martin, Levi Stubbs, (vocals); other musicians. GEF-FEN GHS-24125 \$8.98, © M5G-24125 \$8.98, © 2-24125 no list price.

Performance: *The plant steals it*
Recording: *Excellent*

Frankly, I wasn't expecting much from the film version of *Little Shop of Horrors*. The idea of a multi-million-dollar musical remake of a deliberately schlocky black comedy originally shot in four hours on a budget of forty dollars seemed ridiculous on the face of it, and given Hollywood's dismal record of overproducing successful stage musicals, this project seemed destined to be dead on arrival. Happily, such was not the case. The new *Little Shop* turned out to be a visual treat (thanks to meticulous story-boarding by Marvel Comics artist Mike Ploog) and a genuinely funny romp, complete with



Maureen McGovern: an orchestra of vocal instruments

knock-out performances—Steve Martin doing for dentistry what Anthony Perkins did for showers—and, best of all, the incredible mechanical plant Audrey II. Thanks to Jim Henson's brilliant puppeteers and Four Tops lead singer Levi Stubbs, who provided Audrey's voice, this is probably the only film in history that has ever been stolen by a plant.

The soundtrack, unfortunately, is not so thrilling. The Menken-Ashman score never really rises above the level of cabaret pastiche, and though producer Bob Gaudio tries manfully to turn the likes of *Grow for Me* or *Suddenly, Seymour* into genuine songs, abetted in no small measure by some impressive singing from Ellen Greene, at heart *Little Shop's* big numbers are no more than glorified jingles, of little interest without the visuals. As a matter of fact, in the video era this kind of soundtrack recording may well be obsolete. There's really no point in buying it when in only a few months you'll be able to get a hi-fi videotape or videodisc of the movie itself. S.S.

MAUREEN MCGOVERN: *Another Woman in Love*. Maureen McGovern (vocals); Mike Renzi (piano). *I Like You, You're Nice; Long Ago and Far Away; All the Things You Are; I Could Have Been a Sailor; Another Woman in Love;* and nine others. CBS ◉ BFM 42314, © BMT 42314, © CK 42314, no list price.

Performance: *Understated*
Recording: *Nice*

Maureen McGovern, who first came to mainstream attention in 1973 with *The Morning After*, not a particularly worthwhile piece of pop culture, is nevertheless an extraordinarily gifted and disciplined singer. It is a joy, in fact, to listen to the way she plies her voice here like various pieces of an orchestra—the way she goes for a reed sound at times, a brass one at others, and the way she forces the air into her upper register in imitation of a woodwind, especially on Kern and Hammerstein's *All the Things You Are* and Peter Allen's *I Could Have Been a Sailor*. Occasionally she's too evocative of Barbra Streisand, but on

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this otherwise quietly intense collection of standards and corresponding contemporary songs, where she is accompanied only by Mike Renzi's thankfully understated piano, that one flaw is easily forgiven. A.N.

RED CLAY RAMBLERS: *A Lie of the Mind*. Red Clay Ramblers (vocals and instrumentals); vocal and instrumental accompaniment. *Run Sister Run; South of the Border/In the Pines; Honey Babe; I Love You a Thousand Ways; Light Years Away; Red Rocking Chair; Can't Live Without 'Em Blues*; and seven others. SUGAR HILL/RHYKO © SH-8501 no list price.

Performance: *Heart-rending*
Recording: *Very good*

In selecting a group to provide the music for his play *A Lie of the Mind*, Sam Shepard went looking for a band whose music could evoke a raw, rural climate only suggested by the set. With that in mind, it is hard to imagine a better choice than the Red Clay Ramblers, an old-timey string band that seems as durable as the mountains of the band's native North Carolina. A blend of country, folk, Scotch-Irish, blues, and early jazz, with a hint of rock-and-roll, the Ramblers' music owes a lot to the Elizabethan ballad, which rears its head in many of the fourteen songs here.

There is something hair-raising about this music, something genuinely and profoundly affecting. I suspect it has to do with the spirit of a rural people who have endured hard times beyond imagination and have persevered for the sake of life itself. Whatever it is, this CD is a mandatory addition to the collection of anyone who cares about music as a source of truth and beauty, or merely a lifeline to the soul. A.N.

JENNIFER WARNES: *Famous Blue Raincoat* (see Best of the Month, page 78)

XTC: *Skylarking* (see Best of the Month, page 77)

COLLECTIONS
MOSTLY MERCER. Kaye Ballard, Rosemary Clooney, Eydie Gorme, Anita O'Day, others (vocals); instrumental accompaniment. *Blues in the Night; Hooray for Hollywood; Mama Thinks I'm a Star; I Wonder What Became of Me*; and twelve others. PAINTED SMILES PS-1331 \$10.98.

Performance: *Ups and downs*
Recording: *Too close*

Instead of the usual arrangement of one singer doing a whole album of pieces by one songwriter, we have here no fewer than sixteen singers digging into both well-known and obscure songs by one of the greatest of all lyric writers, Johnny Mercer, with music by Arlen, Kern, Warren, Mancini, and others.

Kaye Ballard, Anita O'Day, and, es-

pecially, Rosemary Clooney and Eydie Gorme perform like the first-class artists we know they are. But too many of the ten other ladies (mostly newcomers to me) sound as if they thought this recording was an audition for *The Ethel Merman Story*. The overly close miking also exposes vibrato mercilessly, as well as the tendency of a few of the singers to be a bit wayward in matters of pitch. Still, the good tracks are very good indeed, including Nancy La Mott's *You Must Have Been a Beautiful Baby*, Gorme's *I Remember You*, and Jim Bailey's uncanny impersonation of Judy Garland singing *Out of This World*.

Two of the best tracks, ironically, are not Mercer at all (thus the "Mostly" title). One is an unpublished Gershwin song, *Ask Me Again*, warmly sung by Clooney with Michael Feinstein at the piano, and the other is *Time You Old Gypsy Man*, Yip Harburg's last song (music by Phil Springer), which Ballard has been championing in her club acts and sings here with just the right mixture of flipness and sentimentality. Roy Hemming

ROUND-UP. Frankie Laine (vocals); Ron McCroby (whistler); Men of the May Festival Chorus; Cincinnati Pops Orchestra, Erich Kunzel cond. *Sounds of the West; William Tell Overture; The Magnificent Seven; How the West Was Won; Pops Hoedown; High Noon*; and seven others. TELARC © CD-80141 no list price.

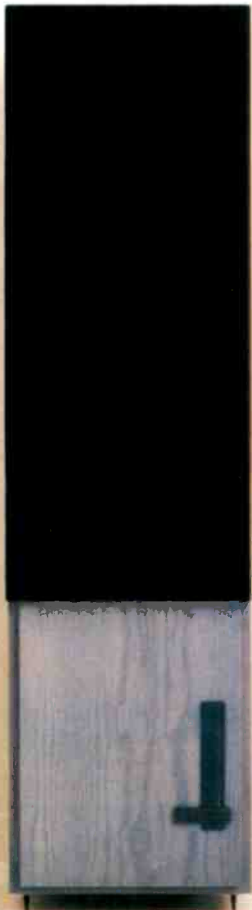
Performance: *Fun out west*
Recording: *Big as all outdoors*

Telarc's CD tribute to Hollywood's idea of the Old West features a lot of excellent music cheek by jowl with some authentic kitsch, and the result is one of the more goofily entertaining releases in recent months. The selections range (no pun intended) from Rossini's 1829 Golden Oldie *The Lone Ranger*—excuse me, the *William Tell Overture*—to Bruce Broughton's 1985 *Themes from Silverado* (a nifty little piece, by the way, and much more evocative than the film itself). Along the way we are also treated to such diversissements as coyote noises and the ever-macho vocal stylings of Frankie Laine. And talk about attention to detail: when a real rifle proved inadequate to the demands of the theme from *The Rifleman*, Telarc's production team found tapes of the original TV gunshots.

The performances and recording are generally superb, although Laine sounds a bit winded during his turn at the *Rawhide* theme (for the real thing, check a younger Laine's original-sound-track rendition on "Television's Greatest Hits Volume II"). Pick hit: Jerome Moross's *Big Country* main title music, rendered here with all the requisite Cinemascope Marlboro Country grandeur. S.S.

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JAZZ

BUNNY BERIGAN: *The Complete Bunny Berigan, Volume Two.* Bunny Berigan (trumpet) and His Orchestra. *Wacky Dust; And So Forth; I Dance Alone; Heigh-Ho; In a Little Spanish Town; Rinkatinka Man; The Pied Piper; Piano Tuner Man; Black Bottom; Trees; Azure;* and seventeen others. BLUEBIRD/RCA 5657-1 • two LP's \$11.98, © 5657-4 one cassette \$11.98.

Performance: *Good Bunny*
Recording: *Acceptable*

I listened to all twenty-eight tracks of "The Complete Bunny Berigan, Volume Two," and while I didn't notice any sloppy editing, the sound is nothing to write home about. The producers of Volume One seem to have approached their task with more consideration for the listener. I compared the two albums and found the sound on the first volume to be considerably warmer. Digital remastering *can* enhance older material, but it has to be done right.

There is no discernible surface noise on this set, just a certain harshness. As for the music, the recordings are presented in chronological order (1937-1938), so you can't fault the producers for the content, which is a mixed bag that includes far too many songs of "stunning mediocrity"—to borrow from Richard Sudhalter's excellent notes. Berigan's orchestra seems to have been assigned more than the usual share of trite material, so we have here an album of more nostalgic than musical value. Still, the leader's trumpet is a constant asset, and there are palatable solos by tenor saxophonist George Auld as well as occasional input from trombonist Ray Conniff. C.A.

KEVIN EUBANKS: *Face to Face.* Kevin Eubanks (acoustic and electric guitars); Marcus Miller (electric bass); Ron Carter (acoustic bass); Ralph McDonald (percussion); Dave Grusin (synthesizer); other musicians. *Face to Face; That's What Friends Are For; Essence; A Silent Waltz;* and five others. GRP A-1029 \$8.98, © D-9539 no list price.

Performance: *Virtuosic*
Recording: *Excellent*

Kevin Eubanks is a musician with style, creative imagination, and extraordinary technical facility, and in his new recording he confirms his talents as an inspired composer as well. His stunningly executed guitar lines are interwoven with the statements of two bassists of very different cut—the funk-schooled Marcus Miller on electric bass and the venerable Ron Carter on acoustic bass—resulting in some challenging and consistently swinging music. The string accompaniment Dave Grusin provides for some selections endows them with a lush texture that never

detracts from the major voices. The embellishment is only a backdrop for Eubanks's brilliant solos in fare that ranges from his own fleet-fingered *Face to Face* through Antonio Carlos Jobim's undulating *Wave* to Burt Bacharach's *That's What Friends Are For*. The choicest moments are when Eubanks joins Carter in Charlie Parker's *Relax-in'* at Camarillo, Wes Montgomery's *Trick Bag*, and the guitarist's own *Ebony Sunrise*. These two superb musicians play almost as one.

It's a wise artist who knows not only what he wants to say but how he wants to say it. Eubanks knows. P.G.

JOE HENDERSON: *The State of the Tenor—Live at the Village Vanguard, Volume 1.* Joe Henderson (tenor saxophone); Ron Carter (bass); Al Foster (drums). *Beatrice; Happy Reunion; Loose Change; Stella by Starlight* (on CD only); and three others. BLUE NOTE BT-85123 \$9.98, © 4BT-85123 \$9.98, © 46296-2 no list price.

Performance: *Exquisite*
Recording: *Excellent remote*

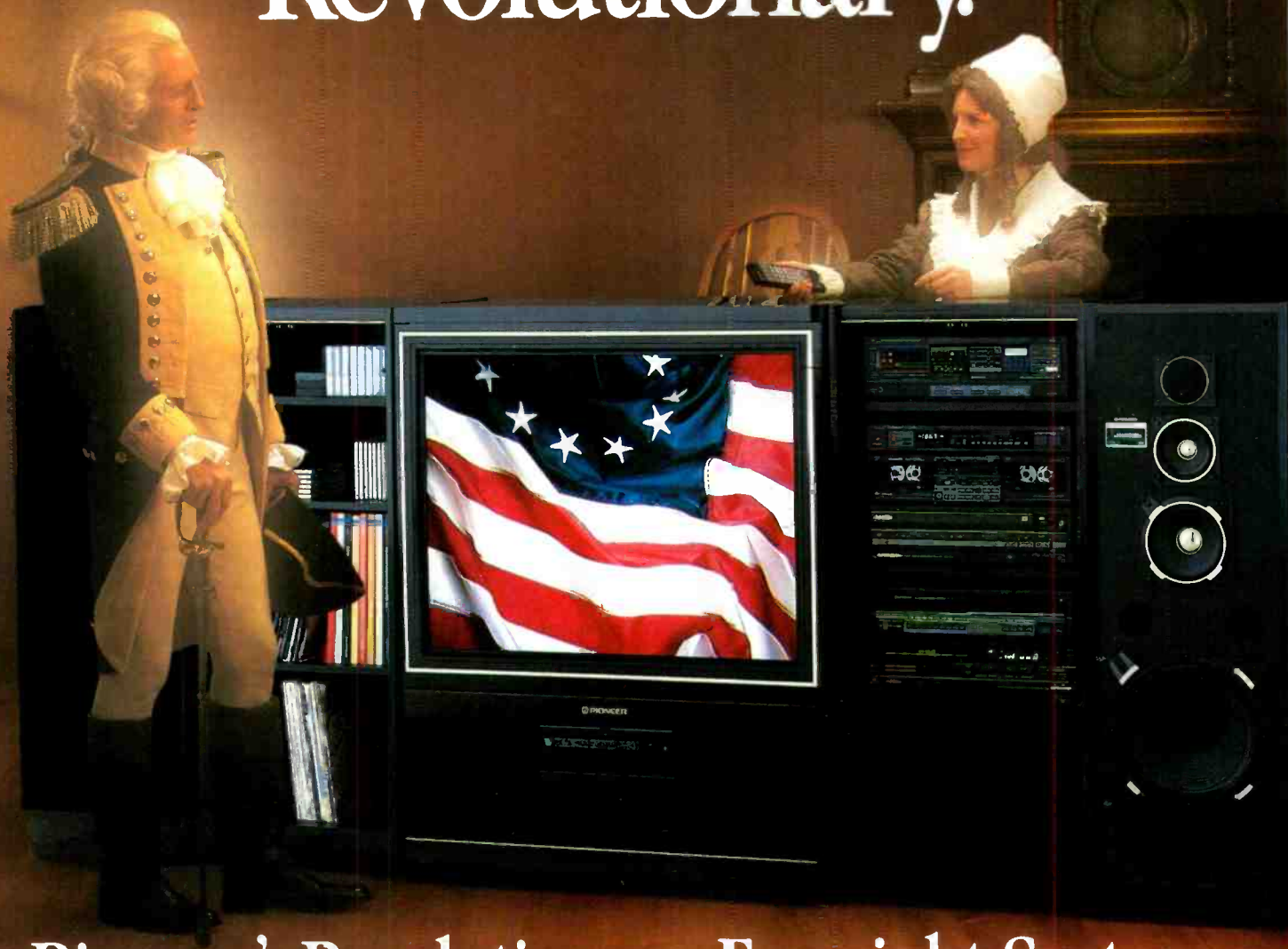
Joe Henderson's fluttery, buttery tenor flights have never sounded smoother than on this 1985 recording made at New York's Village Vanguard. It was writer Stanley Crouch's idea to capture Henderson in a trio setting with bassist Ron Carter and drummer Al Foster, and it works so well that I'm almost inclined to forgive Crouch his exaggerated admiration for Wynton Marsalis. With Foster providing an agreeably subtle percussive cushion, Henderson bounces his ideas off Carter's elastic bass with the greatest of ease and remarkable finesse, but the self-proclaimed "Mercedes of the bass" also makes some articulate solo statements. A highlight of the compact disc is *Stella by Starlight*, which is as much Carter's as it is Henderson's. C.A.

TANIA MARIA: *The Lady from Brazil.* Tania Maria (vocals, piano, keyboards); George Duke (synclavier); Eddie Gomez (bass); Steve Gadd (drums); other musicians. *The Lady from Brazil; I Should Not Call You; Tanoca Vignette; Bronx;* and four others. MANHATTAN ST-53045 \$8.98, © 4ST-53045 \$8.98.

Performance: *Sheer delight*
Recording: *Excellent*

If you are looking for an antidote for malaise, I would suggest a Tania Maria record, especially her new one, "The Lady from Brazil." A rare ebullience in her work combines with quicksilver creativity to guarantee delight, and here, as always, are those infectious Brazilian rhythms and hauntingly bitter-sweet Latin harmonies.

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CIRCLE NO. 55 ON READER SERVICE CARD



Carmen McRae: timeless style

Tania Maria bounds through a broad array of material here, from the sensual cadences of *Valeu*, which she sings in her native Portuguese, through *I Should Not Call You*, which is shaped along the lines of a jazz ballad. But the *pièce de résistance* is a six-minute spectacular called *Bronx* that has such unbridled energy and immediate invention it is bound to leave you breathless. This music is the very essence of Latin-Brazilian-New York soul. P.G.

CARMEN MCRAE: *Any Old Time*. Carmen McRae (vocals); Clifford Jordan (tenor saxophone); Eric Gunnison (piano); John Collins (guitar); Scott Colley (bass); Mark Pulice (drums). *Old Devil Moon*; *Billie's Blues*; *Love Me Tender*; *Tulip or Turnip*; *Have You Met Miss Jones?*; *Body and Soul*; *Mean to Me*; and six others. DENON © 33CY-1216 no list price.

Performance: *Fine McRae*
Recording: *Excellent*

Carmen McRae has recently turned sixty-five, but the years have only improved her voice, which is mellow and characteristically flexible in "Any Old Time." Except for the title selection, taken from the only song Billie Holiday recorded with the Artie Shaw band, this new CD offers a most satisfying hour of fine vocals and accompaniments.

Any Old Time stands out because of the peculiar treatment it is given, with McRae's narrative-style vocal interrupted by what at first seems to be a long silence but is actually a very low-level cymbal solo! According to the liner notes, "Carmen intentionally deswings it." There's a new term for you, but, with so much unintentional "deswinging" going on these days, I suppose we should find a deliberate attempt refreshing.

Mind you, the title tune is still quite pleasant, but it just does not compare

with the rest of the album, which includes some of the best work McRae has recorded in recent years. Throughout the set, she is accompanied by pianist Eric Gunnison, heading her regular trio, and they are occasionally joined by tenor saxophonist Clifford Jordan and guitarist John Collins, whose contributions are considerable. In short, this album, largely standards, is performed in a style as timeless as the music itself. C.A.

DAVID NEWMAN: *Heads Up*. David Newman (flute, alto and tenor saxophones); Kirk Lightsey (piano); Steve Nelson (vibraphone); David Williams (bass); Eddie Gladden (drums). *Ain't Misbehavin'*; *Makin' Whoopee*; *Lover Man*; and three others. ATLANTIC © 81725-1 \$8.98, © 81725-4 \$8.98, © 81725-2 no list price.

Performance: *Fine and mellow*
Recording: *Excellent*

David Newman rose to jazz stardom through the rhythm-and-blues ranks, and the rich blues experience he enjoyed while working for Lowell Fulson, T-Bone Walker, and Ray Charles continues to come through in his music. In 1960, during a long tenure with Charles, Newman signed up with his boss's label, Atlantic, and the association continues in his musically eventful new album, "Heads Up." This digitally recorded quintet date comfortably blends blue funk with a bit of bounce, and it's all a bit of all right. The supporting players, headed by pianist Kirk Lightsey, are well cast, the musical quality consistently good—I must confess my partiality to the group's slow rendering of Fats Waller's *Ain't Misbehavin'*. I'll grant that Newman lacks an instantly recognizable style, and what he plays won't send jazz analysts scrambling for the repeat button, but this is well-grounded, tradition-rich music that everybody can understand and savor. C.A.

WAYNE SHORTER: *Phantom Navigator*. Wayne Shorter (lyricon, vocals, soprano and tenor saxophones); other musicians. *Condition Red*; *Yamanja*; *Remote Control*; and three others. COLUMBIA FC 40373, © FCT 40373 no list price.

Performance: *Trip to nowhere*
Recording: *Very good*

My admiration for saxophonist Wayne Shorter began to fade when Weather Report, the very successful fusion group he co-founded, went stale in the early Eighties. Now he is on his own, and judging by his most recent albums, "Atlantis" and now "Phantom Navigator," the outlook is dismal. "Phantom" has Shorter continuing his seemingly endless journey on an electronic treadmill of programmed percussion and simple melodic phrases that are repeated *ad nauseam*. There are no surprises in this music, no original thoughts, twists, or

turns. According to the accompanying blurb, "The entire LP exemplifies the very best in progressive music composition." If that were really so, I would quickly have my own phantom navigator steer me far away from the current music scene. I hope Shorter can return to making meaningful, adventuresome music—electronic or otherwise. These recent voyages aren't taking anywhere. C.A.

BENNIE WALLACE: *Twilight Time*. Bennie Wallace (tenor saxophone); Ray Anderson (trombone); Dr. John (piano, organ); John Scofield, Stevie Ray Vaughan (electric guitar); Bob Cranshaw, Eddie Gomez (bass); other musicians. *Sainte Fragile*; *Tennessee Waltz*; *Fresh Out*; *Trouble in Mind*; *It It True What They Say About Dixie?*; *All Night Dance*; and three others. BLUE NOTE BT-85107 \$9.98, © 4BT-85107 \$9.98, © CDP-46293-2 no list price.

Performance: *Torrid raunch*
Recording: *Very good*

Although Bennie Wallace's robust, big-toned tenor style is drenched in the Hawkins/Webster tradition, his playing also reflects the later so-called avant-garde form of jazz. On "Twilight Time" he gets into a sizzling rhythm-and-blues bag, with hot help from pianist Mac "Dr. John" Rabennack and guitarists John Scofield and Stevie Ray Vaughan. Aided by various rhythm sections—



David Newman: a bit of all right

which include Bob Cranshaw, Eddie Gomez, Bernard Purdie, and Jack DeJohnette—these keepers of the blues flame bop, bounce, swing, stomp, and sway their way through an unusual program of Wallace originals and off-beat fare like *Is It True What They Say About Dixie?* and *Tennessee Waltz*. The last gets a beautiful, soulful reading by Wallace, who is simply superb throughout this forty-seven-minute excursion into funk. C.A.

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By Drew Kaplan

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The sound is like a shock wave reverberating through your home. It's like the blazing flash and violence released by a lighting bolt as it streaks to the earth. This is the experience you can expect when you first hear digital audio sound.

Forget any experience you've ever had before with stereo. CD audio is an awesome advance that dwarfs the switch we made years ago from 78s to LPs.

Imagine listening to music with a frequency response from 5hz to 20,000hz. And, flutter and wow is "unmeasurable".

The sound quality, and yes, the sonic violence will thrill you. I've spent over 15 years on the test bench and in the studios, and the only equal I've heard to this sound is 'live sound'.

And, live sound doesn't mean the sound you hear at a concert where you are simply listening to the auditorium's PA system. Live sound means sitting right in the middle of the orchestra.

I know, I'm a cellist. And, there's just no sound experience like the sound we hear in 'the pit'.

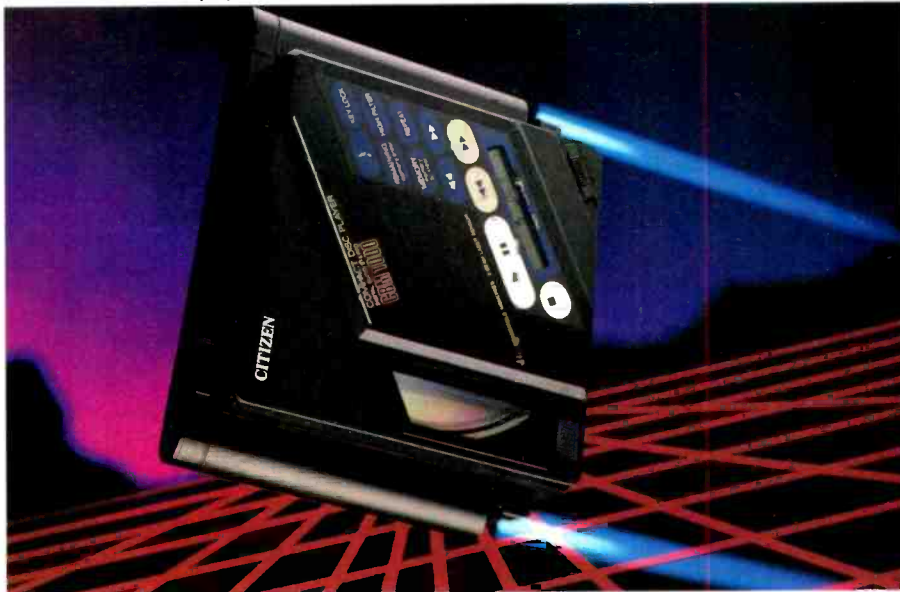
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the next track during play, or repeat the track you are listening to.

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It may strain my credibility to describe any device, let alone a portable that I'm offering for only \$149⁹⁰, as providing sound many times better than anything you've ever heard before. But, use DAK's risk free trial to experience this bigger than life sound for yourself.

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Conventional records and tapes have a dynamic range of perhaps 50 db. Dy-

Bad News For Escort

Dear Customer,

From Drew Kaplan

Escort has ignored DAK's second, one-on-one Maxon versus Escort radar challenge. And frankly, I'm fighting mad. I suppose they have a right to ignore me. But after referring to my challenge as only an "advertising gambit" and calling Maxon's radar detector an off-shore, primitive, and bottom-end unit, I'd think they'd be glad to wipe us out in a head to head duel to the death. But, I'm really mad for two other reasons and I think that you may be as fascinated by them as I am.

Mad Reason 1. Road and Track Magazine held an independent general radar detector test in their September 86 issue.

As far as I can see, Maxon beat Passport in Uninterrupted Alert, and Passport beat Maxon in Initial alert. Now to be fair, neither of us seem to have beaten the other by even 2 seconds at 55 miles per hour. So, we didn't win or lose by much.

And, Maxon's \$99⁹⁰ detector was tested against the \$295 Passport, not the \$245 Escort we challenged. What's interesting is that Road and Track had nice things to say about Passport and even about Escort, which wasn't even included in the tests any more.

Now, if you've been following DAK's challenge, you know we've only been challenging Escort. If you've read Road and Track's tests, you'll be amazed when you read Boardroom Reports, which I've reprinted for you to the right. What's really interesting is that it's the exact same person in both publications.

Actually, Maxon did extremely well. Road and Track only used 'over hill' and 'around curve' tests because on straight-aways the differences weren't worth describing. (Imagine that!)

It's just as I've said in my challenge. I don't think there's much difference between Maxon's and Cincinnati's Radar detectors when it comes to sensing radar.

THE CHALLENGE GROWS

In view of the opinions stated in the article in Boardroom Reports about the \$245 Escort, DAK hereby adds the \$295 Passport to our challenge.

Mad Reason 2. Did you ever hear about the cure for dandruff that was developed in the middle-ages? It was the guillotine. And frankly, I think you should be aware of Cincinnati Micro-

wave's advertising cure for the Rashid VRSS Collision Avoidance System.

The Rashid VRSS system, as described in Popular Science magazine, January 1986, sends out a radar signal on the K band ahead of your car. The good part is that it can help you avoid running into things higher than your front bumper. The bad news is that since it operates on K band, it sets off radar detectors.

Well, hats off to Cincinnati Microwave. I've tested the Passport against the Rashid unit and, as usual, they have done a splendid job. While every other detector I tested, including Maxon's, was driven crazy, theirs didn't utter a peep.

But then, my Maxon hasn't uttered any peeps lately either and let me tell you why. I was on my way to the Far East to visit Maxon, so I asked Tom, a manager at DAK, to purchase and test the Rashid.

Well, did I ever hear from him. First the unit cost \$558 plus about \$100 to install. Then buying it and finding someone to install it took almost a month.

But the real reason he was unhappy was that the recommended method of installation involved cutting a 6½" hole in the front grill of his neat new car.

Well, much to my wife's chagrin, it's now installed in her station wagon.

After installation, it has to be set by an installer. He drives between 15 and 30 miles per hour toward a solid object. When the installer thinks he's reached a safe stopping distance, he adjusts the warning alarms to sound. Then in the future, when a similar distance is reached, lights will flash and an alarm will sound.

Of course, if you accelerate too quickly into a lane behind another car the same alarms can go off.

And, I haven't figured out what to do if

there's a dog in the road, dirt on the radar sensor, or how to compensate for the different stopping distances encountered on dry, wet, icy or snowy roads.

MOST IMPORTANT PART

Speaking of advertising gambits, in virtually every magazine I pick up, I've been seeing Cincinnati's Bad News for Radar Detector ads spelling out the obsolescence of all other detectors.

If it's such an important feature that distinguishes them from us, there had better be some of these devices on the road, or Cincinnati Microwave's credibility may just be on the road as well.

I will add \$10,000 to my Escort/Passport challenge if Cincinnati Microwave can prove that there are even 1000 Rashid units on the road anywhere in the U.S. Oh heck, I'll add \$5000 if they can even find 500. (And, look at this.)

NOTE: There are several other potential collision avoidance systems on the drawing boards and each may have a DIFFERENT FINGERPRINT.

So, if you're a current Escort or Passport owner, I suggest that you find out how many Rashid units there are and what Cincinnati Microwave will do about the 'other' units before you pay \$\$\$ to have your current detector upgraded.

Besides, with over 3,000,000 square miles in the U.S., even 1,000 units would work out to less than one unit for every 3,000 square miles.

If a major car company successfully sells a collision avoidance system, then Maxon will be ready. But, the car companies currently can't even get consumers to pay \$200 for air bags. So, you decide. Is it significant, or an advertising gambit?

Below is the NEW version of the challenge. Escort, a reply please!

A \$20,000 Challenge To Escort

Let's cut through the Radar Detector Glut. We challenge Escort & Passport to a one on one Distance and Falsing 'duel to the death' on the highway of their choice. If they win, the \$20,000 check pictured below is theirs.

By Drew Kaplan

We've put up our \$20,000. We challenge Escort to take on Maxon's new Dual Superheterodyne RD-1 \$99⁹⁰ radar detector on the road of their choice in a one on one conflict.

Even Escort says that everyone compares themselves to Escort, and they're right. They were the first in 1978 to use superheterodyne circuits and they've got a virtual stranglehold on the magazine test reports.

But, the real question today is: 1) How many feet of sensing difference, if any, is there between this top of the line Maxon Detector and Escort's or Passport's? And 2) Which unit is more accurate at interpreting real radar versus false signals?

So Escort, you pick the road (continental U.S. please). You pick the equipment to create the false signals. (Don't forget our \$10,000 Rashid challenge). And finally, you pick the radar gun.

Maxon and DAK will come to your

...Next Page Please



Challenge Continued highway with engineers and equipment to verify the results.

And oh yes, we'll have the \$20,000 check (pictured) to hand over if you beat us by more than 10 feet in either X or K band detection with the Escort, or by 2 seconds at 55mph with the Passport.

BOB SAYS MAXON IS BETTER

Here's how it started. Maxon is a mammoth electronics prime manufacturer. They actually make all types of sophisticated electronic products for some of the biggest U.S. Electronics Companies. (No, they don't make Escort's).

Bob Thetford, the president of Maxon Systems Inc., and a friend of mine, was explaining their new RD-1 anti-falsing Dual Superheterodyne Radar detector to me. I said "You know Bob, I think Escort really has the market locked up." He said, "Our new design can beat theirs".

So, since I've never been one to be in second place, I said, "Would you bet \$20,000 that you can beat Escort?" And, as they say, the rest is history.

By the way, Bob is about 6'9" tall, so if we can't beat Escort, we can sure scare the you know what out of them. But, Bob and his engineers are deadly serious about this 'duel'. And you can bet that our \$20,000 is serious.

We ask only the following. 1) The public be invited to watch. 2) Maxon's Engineers as well as Escort's check the radar gun and monitor the test and the results.

3) The same car be used in both tests. 4) We'd like an answer from Escort no later than July 31, 1987 and 60 days notice of the time and place of the conflict. 5) If Escort can prove that there are 1,000, or even 500 Rashid units in operation, we will present them with the appropriate \$10,000 or \$5,000 check at the beginning of the conflict. And, 6) We'd like them to come with a \$20,000 check made out to DAK if we win.

HOW'S THIS FOR FAIR

Cincinnati Microwave will be deemed the winner and given the check if either

Escort beats Maxon by 10 feet in both uninterrupted and initial alerts, OR if Passport beats Maxon by 2 seconds at 55mph in both uninterrupted and initial alerts. So, DAK wins only if we beat both Escort and Passport.

A tie will exist only if both the \$295 Passport and \$245 Escort fail to beat Maxon's \$99⁹⁰ Dual Superheterodyne RD-1 Radar Detector.

SO, WHAT'S DUAL SUPERHETERODYNE?

Ok, so far we've set up the conflict. Now let me tell you about the new dual superheterodyne technology that lets Maxon leap ahead of the pack.

It's a technology that tests each suspected radar signal 4 separate times before it notifies you, and yet it explodes into action in just 1/4 of one second.

Just imagine the sophistication of a device that can test a signal 4 times in less than 1/4 of one second. Maxon's technology is mind boggling.

But, using it isn't. This long range detector has all the bells and whistles. It has separate audible sounds for X and K radar signals because you've only got about 1/3 the time to react with K band.

There's a 10 step LED Bar Graph Meter to accurately show the radar signal's strength. And, you won't have to look at a needle in a meter. You can see the Bar Graph Meter with your peripheral vision and keep your eyes on the road and put your foot on the brake.



So, just turn on the Power/Volume knob, clip it to your visor or put it on your dash. Then plug in its cigarette lighter cord and you're protected.

And you'll have a very high level of protection. Maxon's Dual Conversion Scanning Superheterodyne circuitry combined with its ridge guide wideband horn internal antenna, really ferrets out radar signals.

By the way, Escort, we'll be happy to have our test around a bend in the road or over a hill. Maxon's detector really picks up 'ambush type' radar signals.

And the key word is 'radar', not trash signals. The 4 test check system that operates in 1/4 second gives you extremely high protection from signals from other detectors, intrusion systems and garage door openers.

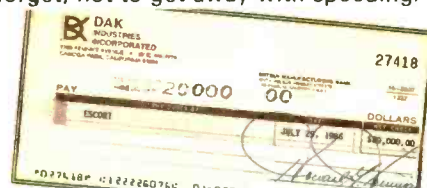
So, when the lights and X or K band sounds explode into action, take care, there's very likely police radar nearby. You'll have full volume control, and a City/Highway button reduces the less important X band reception in the city.

Maxon's long range detector comes complete with a visor clip, hook and loop dash board mounting, and the power cord cigarette adaptor.

It's much smaller than Escort at just 3 1/2" Wide, 4 3/4" deep and 1 1/2" high. But, it is larger than Passport. It's backed by Maxon's standard limited warranty.

Note from Drew: 1) Use of radar detectors is illegal in some states.

2) Speeding is dangerous. Use this detector to help keep you safe when you forget, not to get away with speeding.



CHECK OUT RADAR YOURSELF RISK FREE

Put this detector on your visor. When it sounds, look around for the police. There's a good chance you'll be saving money in fines and higher insurance rates. And, if you slow down, you may even save lives.

If you aren't 100% satisfied, simply return it in its original box within 30 days for a courteous refund.

To get your Maxon, Dual Superheterodyne, Anti-Falsing Radar Detector risk free with your credit card, call toll free or send your check for just \$99⁹⁰ (\$4 P&H). Order No. 4407. CA res add tax.

Special Note: Now that we're challenging Passport, we've added an optional suction cup windshield mount and extra coiled power cord. (Sorry we can't afford to throw them in for free.) They're just \$5⁹⁰ (\$1 P&H) Or. No. 4800.

OK Escort, it's up to you. We've got \$20,000 that says you can't beat Maxon on the road. Your answer, please?

Escort and Passport are registered trademarks of Cincinnati Microwave. Rashid VRSS, and Rashid Radar Safety Brake are registered trademarks of Vehicle Radar Safety Systems, Inc.

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Technical Information. . . . 1-800-272-3200
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 8200 Remmet Ave., Canoga Park, CA 91304

John Tomarin Road & Truck Radar detectors

Today's best radar detectors aren't much bigger than a pack of cigarettes. They weigh less than eight ounces and have exciting new circuitry. **What to look for:**

- **X-band and K-band sensitivity.** Both are used by the police.
- **Different alarm sounds for the different types of radar.** K-band radar is used in the newer instant-on radar units that are used for short-range radar units where police locate themselves out of sight. Listen for intermittent bursts of radiation from this type of radar. Since X-band radar can be detected from as far away as three miles, warning buzz doesn't call for an instant reaction. The driver can gradually slow down as the intensity of the warning crosses. K-band is also used in many automatic garage door openers and home burglar alarms, which makes it much more likely to generate false alarms.
- **False alarm filtering.** Most newer models have specialized circuits that filter out unwanted signals. John Tomarin's Radar Detector has a special filter that filters out unwanted signals from Beach, CA 91304. Monthly, \$17.97/yr.

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September 15, 1986

Good protection for half the price: The same features as the Passport for a suggested retail price of \$230. Major drawback: In bright sunlight it's difficult to tell if the LED lights are on. Others worth considering: B.E.L. Tronics Limited's Micro Eye MKP-LR, \$299.95 and Whatcha, Spectrum 2, \$140.

Our many false alarms. Since many older models don't have good filtering capability, in built-up areas it's almost impossible to determine whether the non-constant buzzing means that speed radar is being used or device gets closer.

- **A proximity indicator.** Good detectors have become almost as popular with thieves as cars. It helps if a unit is simple for the owner to remove whenever he leaves the car.
- **Easy mounting method.** Radar detectors have light-emitting diodes (LEDs) that glow brightly during daylight. Counter-Analog meters that need to be on a numeric scale are less useful—and they can be dangerous, because the driver has to focus on the meter to see exactly where the needle is.
- **Bright visual display.** The best detectors have light-emitting diodes (LEDs) that glow brightly during daylight. Counter-Analog meters that need to be on a numeric scale are less useful—and they can be dangerous, because the driver has to focus on the meter to see exactly where the needle is.

The best at any price: Cincinnati Microwave's Passport. The price is a steep \$295 for this 6 1/2-ounce unit that measures 1/2" high x 4 1/2" deep x 2 1/2" wide. Features: Dual-tone alarm, automatic brightness adjustment of the LED proximity meter, and an audible alarm buzzer that allows the driver to turn the meter off during one radar contact and have it reset automatically for the next encounter. Caution: Don't mistake Cincinnati Microwave's Escort for the Passport. The older Escort is still sold for \$245. It was once the best available but is less technologically sophisticated than both units are available only discounting.



The Remote Blowout Continues

Remote, Remote Control

Now you can have wireless remote control of your X10 system from anywhere in or around your home. Now you can turn on lights as you approach your home in your car, or adjust the brightness of your dining room chandelier as you sit at the table. It's compatible with all other X10 controllers and modules. And, wait till you see DAK's breakthrough prices.

By Drew Kaplan

Forget wall-bound switches. Imagine walking freely around your home, turning lights and appliances on and off.

Look out of a window and turn on your back yard lights. Dim the lamp at the other end of the room. Or, turn on the living room lights as you come downstairs.

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

It actually uses your existing house or office wiring. And if you can plug in a lamp, you can plug-in this system.

It's exciting. Just imagine effortlessly retrofitting your home or office for remote control without ever running a single wire.



NOW IT'S REALLY REMOTE
As sophisticated as the X10 system

has been with Control Consoles, Timers and even Telephone Controllers, it has now gone Hand Held Wireless.

As you can see in my hand (to the left), or flying over my home (above), a new hand held RF radio controlled ultimate console now exists to set you free.

You'll actually be holding remote control for your entire home in your hand. Just touch a rocker switch to turn on or off any lamp or appliance you choose.

There's even 0% to 100% dimming. There are 8 buttons, plus, a switch that lets you select another 8 (more later).

Just imagine the freedom of sitting on your patio as it gets dark. Just touch a button and your patio or yard lights will jump to life. If you'd like to view the stars, just switch off the lights.

It's very romantic under the stars. In fact, it's very romantic in the living room or bedroom as you remotely dim the lights.

It's also a safety/security device as well. If you hear a noise, a button in your hand turns on the lights.

As you drive up to your home at night, just touch a button to turn on your front, side or back yard lights. You'll never have to be in the dark again.

And, if you connect a siren to a module, this wireless remote becomes a portable panic button that goes where you go.

WIRELESS REMOTE EXPLAINED

The handset generates radio waves that won't bother your TV or FM, but will activate its matched plug-in receiver.

The receiver (which is also a plug-in appliance module), then translates the button you've pushed into control codes for ALL the X10 modules in your home.

So, using this remote is basically the same as using any of the wired consoles that I'm about to describe. One receiver will operate up to 8 different modules.

If you have two receivers, a front panel switch lets you select a second 8

modules. So, from the handset, you can operate up to 16 different modules.



HERE'S HOW X10 WORKS

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

This safe, silent encoded signal, travels throughout your electrical system. And, it won't disturb your TV or your FM.

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

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



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

Then, just plug the module into the
...Next Page Please

... Remote Continued wall and the lamp or appliance into the module for instant remote control.

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

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

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

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

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

SOME NEAT IDEAS

You can set several modules to the same number so that the front and rear lights can come on together.

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

In my photography studio, I constantly have to turn on and off the lights. With this remote, I can do it from the camera.

I can turn the lights on in the garage as I walk toward it. And, I can turn on our bedroom lights as I walk upstairs.

You're sure to want a module in your dining room. Eating by subdued light is a real pleasure. And remember, not only do you get full remote control, you get 0% to 100% brightness control.

It's like getting free dimmers thrown in with your remote control. Use it for bedside lamps, swag lamps, ceiling lights, track lights and garage lights.

And, you'll automate your fans, coffee maker, humidifiers and crock-pots.



QUITE A SYSTEM

As you get into bed tonight, think about what you'd do if you heard a noise outside or downstairs. Just push a button.

Think about how nice dimmed lights would be in your bedroom or living room.

If you're at all like me, you'll love all the 'plug-in' things you can do with the new improved wired and wireless X10 Remote Control System. It's backed by X10's standard limited warranty.

THE COMMAND CONSOLE

Imagine that you're watching TV. You can dim the lights from your easy chair.

If you hear a noise, touch a button and your outside flood lights jump to life.

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

You can turn each on or off. You can



dim or brighten lights. And look at this, you can turn all your controlled lights on or off for instant security with the 'All On' and 'All Off' buttons on the console.

You can even move it from room to room because its total installation consists of simply plugging it in.



MINI CONTROLLER

Here's an easy way to have a console wherever you want. This inexpensive console will let you control up to 8 modules exactly like the controller above.

There are 4 buttons plus the 'All On', 'All Off', 'Dim' and 'Bright'. To access 4 more, just slide the '1-4' switch to '5-8'. For just \$9⁹⁰, it's console heaven.

THE TIMER

This sophisticated electronic brain can perform 32 tasks. Just plug it in.

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

If you only want something to happen once, just push the 'Once' button.

There is a 'Daily' button that lets anything you've programmed occur every day. There's a 'Security' button. You can program lights and radios to give your house a lived-in look when you're away.

With The Timer, you can set your window air conditioning to come on an hour before you return from work.

Or, you can have your porch lights come on so you'll never enter a dark house. And, you can set your hall light to come on at 11PM and off at 6AM.

Special Note: Just put in a 9V battery and your program memory will be protected from power failures.

TELEPHONE CONTROL TOO

You can even phone home and control anything. Just plug it into both your

AC line and any modular phone jack.

Then just call your regular phone number, hold up its 'beeper controller', give your 3 digit code, and start controlling.

And, if you own a second home, now you can activate pipe heaters or 'switch on' the house so it's warm or cool and lit.

ULTIMATE REMOTE CONTROL RISK FREE

It's simply thrilling to use. It's security. It's convenience. And, it's fun.

If you aren't 100% satisfied, simply return any component to DAK in its original box within 30 days for a refund.

To order **Any Combination** of Command Consoles, and Modules, call toll free, or send your check as shown below.

Order any combination of Command Consoles and modules you desire.

1) **The Hand Held Wireless Remote plus Receiver-** Lets you control 8 different modules with one receiver, or buy two sets of transmitters/receivers. You'll have two handsets and each will be able to control up to 16 different modules. On/Off and Dim. Just \$49⁹⁰ (\$3 P&H) per receiver/transmitter set. Order No. 4712.

2) **The Control Console-** Lets you control up to 16 different modules. On/Off/Dim/All On/All Off. Just \$19⁹⁰ (\$2 P&H). Order No. 4622.

3) **Mini Controller-** Lets you control 8 modules. On/Off/Dim/All On/All Off. Just \$9⁹⁰ (\$2 P&H). Order No. 4713.

4) **32 Event Clock Timer-** Lets you control 8 modules. Also acts as a command base plus sleep and security extras. Just \$26⁹⁰ (\$2 P&H). Or. No. 9777.

5) **Telephone Responder-** Phone home and control 8 devices. It's also a base. It's just \$39⁹⁰ (\$3 P&H). Order No. 9778.

6) **Lamp Module-** Controls/Dims lamps up to 300 watts plugged into walls. Just \$9⁹⁰ (\$1 P&H). Order No. 9779.

7) **Wall Switch Module-** Controls/Dims lights now controlled by wall switches. 500 watt capacity. Just replace your wall switch with this automated module. Just \$12⁹⁰ (\$1 P&H). Order No. 9780.

8) **Appliance Module-** Control stereos, TVs, or anything with motors. 15 amps, 500 watts, 1/3hp rating. Just \$10⁹⁰ (\$1 P&H). Order No. 9781.



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... Publishing Continued

It simply removes the last thing you did. So, no matter what you do wrong, you're a button away from removing it.

If you don't want a solid line, just spray an area. It's like using a spray can.

Let's say you want to connect two points with a straight line. Use the Angle Line. It produces a computer generated straight line between any two points.

What if you want a circle? Just touch the return key. Then use the diagonal arrow key to enlarge or reduce the circle. If you use the up/down or right/left arrows, you'll get an ellipse.

In the same way you can create squares, rectangles or triangles. And you'll be amazed how many things, from houses to technical drawings, are made up of squares, rectangles, circles and triangles.

But, that's not all. You can choose any of 32 background patterns to fill in enclosed areas or broad lines. And if 32 isn't enough, you can design your own.

There's so much more. You can juggle a picture. Imagine, turning it over or sideways with the touch of a button.

You can copy or move a picture or even part of a picture right on the screen. So, draw it once and copy it or move it.

But, here's my favorite. You can enlarge or reduce any picture or part of a picture right on the screen. So you can change its size equally, or you can stretch it out or make it tall and thin. Wow!

There are 12 included font/sizes. So you can have large or small type in your choice of styles within a picture or integrated with your text.

And, each of the 12 font/sizes can be shown on the screen and printed normally, in bold, in italic, in outline, or in shadow. Plus, you can write normally across the page, up the page, down the page or upside down.

Finally, you can zoom into any small section of the screen and edit your pictures, pixel by pixel. With this kind of power, you don't need to be an artist, just have the ability to push a button.

You can operate this Paint program independently. Or, you can access any picture from within word processing.

So, for banners and pictures, you can

print directly from the Paint Program. Or, for everything previously described, simply access your pictures, captions, graphs or charts through the desktop publishing section.

This program is incredibly powerful, yet you'll be comfortable using it within just a few hours.

Every picture in this ad was created with this program. And, you haven't even seen the tip of the iceberg of its capabilities. For example, if you have a picture on the screen, you can bring a second picture up and join them together.

WHO CAN USE THE SYSTEM

All you need is an IBM PC, AT, XT or 100% compatible with standard IBM CGA or EGA graphics capability. It must have at least 256K, and either two floppy disk drives or one floppy and a hard disk.

Below is a list of some of the dot matrix, ink jet and daisy wheel printers that have been tested with this program. If your printer is compatible with any of these printers, it should work too.

Special Note: Most daisy wheel printers are Diablo 620/630 compatible, so they will work with this program.

Special Note: With a color printer you can print 3 colors plus black text.

C. Itoh 8510, Epson Fx-80, Fx-85, Fx-185, Jx-80 (color), LQ-800, LQ1500, LX80, MX80 with Graftek Plus or Graftrax, RX-80, Hewlett Packard 2225C Think Jet or QuietJet, LaserJet, or LaserJet Plus, IBM 80CPS Graphics Printer, IBM Pro-Printer, IBM 3852 Jetprinter (color), Juki 6100, Mannesmann Tally Sprint 80, NEC 3500, 3510, 3520, 3530, 3550, 5500 series, E023A, NEC Pinwriter P5XL, P6, P7, (single or color), OKIDALA Microline 92, ML92, w/IBM Plug & Play, Microline 193, 20 (color), Panasonic KX-P1091, KX-P1091i, Quadram Quadjet (color), Radio Shack DMP-200, Silver Seal EXP 400, 600, 800 and all EXP series, Star Micronics SG-10, Texas Instruments 855, 865, Xerox (Diablo) 620, 630.

FINAL FACTS

There's a pop down calculator which lets you deposit your results right into your text. A clock/timer picks up the time from your computer, and there's a 7,300 year calendar. They are all available as pop-down windows. Savtek's program is backed by a standard limited software warranty/license. It comes with a superb, easy to use reference manual.

DESKTOP PUBLISHING FOR YOU RISK FREE

Make your ideas explode in front of your readers. When you send out a letter or proposal, let it be really dramatic. They will be your ideas, but you'll be presenting them like never before!

If you're not 100% satisfied, simply return it in unused condition within 30 days for a courteous refund.

To order Savtek's ETG Integrated Word Processing and Graphics Desktop Publishing System for your IBM PC or Clone, call toll free or send your check for the breakthrough price of just \$89⁹⁰ (\$4 P&H) Order No. 4801. CA add tax.

Look at the 12 sample pages I created. You'll see graphs, pictures and charts mixed into my text. I even designed a logo for my newsletter. Just think about the impact you'll make when you present your ideas with a combination of text and graphics. And oh, it's so incredibly easy to use.

IBM is a registered trademark of International Business Machines.

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The grid displays 12 sample pages created using the software. The pages include:

- SMOKING:** A bar chart showing data for 'SMOKING' with categories like 'CIGARETTES' and 'PIPE TOBACCO'.
- IT'S YOUR ORGANIZATION:** A hierarchical organizational chart.
- DESIGN LAYOUTS:** A page with various text boxes, images, and design elements.
- TOTAL PICTURE CONTROL:** A page featuring a map of the United States and other graphical elements.
- BACKGROUNDS:** A page showing different background patterns and styles.
- STRETCHED STRETCHED:** A page demonstrating text stretching and alignment options.
- CHAPTER 2:** A page with a large '2' and decorative elements.
- THE NEWSLETTER:** A page designed as a newsletter with a title, sub-headers, and images.
- HELP FLOW:** A page with a flowchart and text, likely a help document.
- TOTAL CREATIVE CONTROL:** A page with various text boxes and decorative borders.
- BEAUTIFUL PAGES:** A page with decorative borders and text, including 'THANK YOU!!!' and 'HAPPY BIRTHDAY!'.
- IDEA STARTERS:** A page with various icons and images for inspiration, including a bee, a tree, and a house.
- HAPPY VALENTINE'S DAY:** A page with a heart shape and decorative elements for Valentine's Day.



BSR's Endangered Colossus

Prepare for bone jarring bass and dramatically clear highs from these newly developed 15" 3-way 5 speaker systems that nearly missed their chance to charm an audiophile's ear. BSR moved its dbx and ADC divisions into one facility and these speakers almost became orphans. So now, they're yours at a close-out price.

By Drew Kaplan

It's a shame. But, it's also a great opportunity to get a pair of 15" audiophile loudspeakers with the newest in stereo imaging at a market-breaking price.

Imagine a precisely matched mirror image pair of top-of-the-line BSR speakers that can effortlessly recreate the cataclysmic impact of a full orchestral crescendo at full volume and yet offer flawlessly subtle sound detail to 21,500hz.

You'll thrill to thunderous bass all the way down to 26hz. Incredibly rich, full, vibrant sound at low volume will explode with life as you increase the volume.

But before we examine the front speaker complement, the twin overlapping crossovers and the top mounted sonic placement and ambiance speakers, let's see why they were almost orphaned.

You see, BSR, the half billion dollar electronics giant, is the parent company of two of the best names in up-scale audio, dbx and ADC.

Last year dbx developed a new multi-thousand dollar speaker system called the Soundfield One which lets you sit virtually anywhere in your room and have full stereo imaging and terrific sound.

BSR decided to consolidate ADC and dbx into one building (still 2 companies) and put all its speaker efforts into dbx.

POOR JACK

Well, while dbx's engineers were off designing their multi-thousand dollar masterpieces, BSR's Senior Acoustical Engineer (he had been Fisher's Chief Engineer for 10 years during its top end component stereo days), was designing BSR's radically new speaker line.

The revolutionary top of the line 15" stereo imaging pair pictured above will let you enjoy superb stereo imaging without sitting directly in front of your speakers.

But unfortunately, in the consolidation move, BSR's speakers went by the wayside, and so did Jack.

Enter DAK. After a few fearful negotiations and considering the engineering costs BSR had already expended, they agreed to make the speakers just for DAK.

Because there's virtually no BSR overhead left on these speakers, and the R&D was all but complete, we've gotten these speakers for virtually the component costs plus a little BSR labor.

And don't worry about Jack. BSR had him finish the engineering (they really are great people) and they'll pay him a royalty on each speaker we sell. Besides, by the time you read this, Jack is sure to be snapped up as the Chief Engineer at another esoteric audio company.

WHAT'S STEREO IMAGING?

Stereo imagery is the logical separation and interaction between channels. It's the successful creation of a panoramic wall or stage of music rather than the confined, easily located 2 speaker sound. IT'S WHAT'S INSIDE THAT COUNTS

Imagine the full thunder of a kettle drum, or the pluck of a string bass being explosively recreated in your living room. BSR's 15" sub-bass acoustic suspension driver will revolutionize your concept of

low clean bass.

Its magnetic structure weighs a thundering 48 ounces. But that's not all. The magnetic field is developed by the rare earth metal Strontium for state of the art massive but flawlessly controlled bass.

A 38mm voice coil with a 200° centigrade temperature capacity, will handle the most demanding digital or analog recordings. And, a new super rigid cabinet design virtually eliminates coloration due to uncontrolled cabinet resonance.

At low volume, the bass will fill in and envelop you. At high volume, your room, your walls and your neighbors will shake. (Not for apartment dwellers please.)



MATCHED PAIRS

The mid-range and high end of BSR's speakers are truly unique. Front mounted 8" polypropylene mid-range drivers provide rich sound while top mounted 5" polypropylene mid-range drivers provide an open, lifelike ambiance.

Front mounted exponential horn tweeters provide awesome brilliance to 21,500 hz, while top mounted tweeters enhance separation because they are mounted to the outside edge of each speaker.

So, this system has a specific left and a specific right speaker. You'll find wide, but interactive separation that will vastly widen your ideal listening area.

The imagery will give the illusion of musicians actually playing in front of you. Your music will take on a three dimensional quality. You'll enjoy superb stereo imagery regardless of each speaker's specific placement in your room.

MORE SPECIFICS

The exponential horn tweeters, both in front and on the top of these systems, employ 25mm rigid phenol diaphragms for stability and accurate response.

Polyamid-imid binders and ferro-fluid coolant allow for a 300% increase in heat dissipation so you can drive the voice coils up to 200° centigrade.

Now, the mid-range. Both the 8" front firing and the 5" top firing polypropylene drivers reproduce the mid-range frequencies like no ordinary speakers.

It's amazing that so many speaker manufacturers simply slap in 5" paper mid-ranges to reproduce what's really the major portion of the sound spectrum.

BSR's 8" and 5" polypropylene mid-ranges are rigid, exacting drivers that deliver incredibly pure uncolored sound.

They have matched 25mm voice coils, also protected by ferro-fluid and polyamid-imid to 200° centigrade. They are driven by powerful barium ferrite magnetic fields.

NOT QUITE FINISHED YET

To prevent phase shift and cancellation, two totally separate crossover networks are employed in these speakers.

All frequencies below 800 hz are directed to the 15" woofer. The front system routes frequencies above 800hz to the 8" mid-range to take full advantage of its superb reproduction capabilities. Frequencies above 3400hz are routed to the horn tweeter.

The top mounted system routes only frequencies above 1200hz to the 5" polypropylene ambiance mid-range driver, and frequencies above 3400hz are routed to the top sonic placement tweeter.

There are level controls for both the top and front mounted speakers so that you can voice the speakers to match your musical taste and environment.

Note: Only the top tweeters are mounted at the the edges. The front mounted tweeters are conventionally mounted for acoustical symmetry.

Each speaker is fuse protected for up to 200 watts peak, 150 watts continuous power. You can operate these super efficient speakers with as little as 20 watts.

AND OH WHAT A PRETTY FACE

The speaker systems are 30" tall, 19 1/4" wide and 10 1/2" deep. Their lovely oak wood-grain appearance is enhanced by the dark removable grill cloths that beautifully contrast with the rich wood-grain tones. They're a statement of audio elegance when placed in any room. They're backed by BSR's 2 year limited warranty. A COLOSSAL DREAM COMES TRUE RISK FREE

You'll hear depth of sound at low levels that was previously unobtainable. And yes, when you crank up the volume, your music will explode with realism and drama.

Try these speakers in your own system. Then compare them at any Hi-Fi Store with any pair of speakers up to \$1000. If they don't beat all the competition hands down, simply return them to DAK in their original boxes within 30 days for a courteous refund.

To order your matched pair of BSR top-of-the-line 15" 3-way 5 speaker systems with unique stereo imaging risk free with your credit card, call toll free or send your check for DAK's market-breaking price of just \$298 for the MATCHED PAIR plus \$22 for Postage and Handling. Order No. 4352. CA res add tax.

It's a dream system for an audiophile. Sonically pure, thunderously powerful, these BSR speakers will make your future listening years an on-going fabulous, not ear shattering experience.



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By Drew Kaplan

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Discs and tapes reviewed by Robert Ackart, Richard Freed, David Hall, Stoddard Lincoln

ADAM: *Le Postillon de Lonjumeau*.

John Aler (tenor), Chapelou, le Postillon; June Anderson (soprano), Madeleine; François le Roux (baritone), le Marquis de Corcy; Jean-Philippe Lafont (baritone), Biju; Daniel Ottewaere (bass), Bourdon. Ensemble Choral Jean Laforge; Orchestre Philharmonique de Monte-Carlo, Thomas Fulton cond. ANGEL ● DSB-3939 two LP's \$23.98.

Performance: *Charming*

Recording: *Very clear*

Adolphe Adam, the composer of the ballet *Giselle*, once said, "My only aim is to write music that is amusing." He succeeded with *Le Postillon*, and of the more than eighty works he composed for the stage, only that irreplaceable ballet and this light opera are encountered today. If his music lacks the flowing melody of his contemporary Auber or the expertise of the later Offenbach and Chabrier—that major composer of minor works—it is nevertheless witty, tuneful, and ingratiating.

The plot of *Le Postillon (The Coachman)*, concerning mistaken identities linked to a meteorically successful operatic career, is incredible, farcical, and captivating, and it is well supported by the cheerful music on which it rides. John Aler, as the coachman-turned-opera-idol, sings effortlessly and stylishly; his is a true *tenore leggero*, a voice recalling that of Cesare Valetti. It is a pleasure to hear him. As his bride of a few hours (only to be forgotten for ten years), June Anderson sings with agility and a real sense of fun.

Under Thomas Fulton's direction, the chorus and orchestra are equal to the soloists in their musicianship and *élan*, and the well-recorded performance shows Fulton to be a conductor who can easily combine precision with expressiveness. I can recommend this set to anyone who already enjoys French *opéra comique* or who occasionally likes his operatic fare topped with dollops of whipped cream. R.A.

BAX: *On the Sea-Shore* (see BRIT-TEN)

BEETHOVEN: *Symphony No. 1, in C Major, Op. 21; Symphony No. 8, in F Major, Op. 93*. Los Angeles Chamber

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Popular Spanish singer Rocío Jurado

FALLA'S "EL AMOR BRUJO"

DERIVED from the soundtrack of a film by Carlos Saura and released on Angel Records, this very strong performance of *El amor brujo* probably comes closer than any other to Falla's original intentions. He wrote *El amor brujo* (variously translated as *Love, the Magician* or *Wedded by Witchcraft*) as a ballet with songs for the gypsy singer and dancer Pastora Imperio. These days it is usually performed as a concert piece by a symphony orchestra with an opera singer as vocal soloist.

In this music, as in Bizet's *Carmen*, opera singers often become ludicrous in their attempts to sound like a hotsy-totsy gypsy. Until now the most realistic and most idiomatic recordings have been the two with the illustrious Spanish singing actress Nati Mistral. In the present recording the famous pop singer Rocío Jurado sounds even closer to the earth of Andalusia. I think she's wonderful. Her voice is big, and it has the raspy, raw quality produced by great flamenco singers. Her performance is so powerful that when she sings "*Soy la mar en que naufragas*" ("I am the sea in which you will drown"), I'm ready to look for a lifeboat.

Outstanding among young operatic conductors, Jesús López-Cobos brings authenticity, drama, and mystery to his interpretation of this music, but without fake theatricality. The sound is good. Some people will probably be bothered by the balance between the singer and the orchestra. Rocío Jurado is very closely miked, so close that you can almost catch a whiff of garlic on her breath. I rarely mind that.

Side two is given over to snippets of flamenco music from the movie. It's sung by a company of dancers and is pleasant enough, although it is of no great consequence outside the context of the movie. But Rocío Jurado is a singer of consequence, and if you care for Hispanic music you owe it to yourself to hear her. In a recent interview in Spain, the great singer Lola Flores said of Jurado, "Like me, she has no competition." William Livingstone

FALLA: *El amor brujo*. Rocío Jurado (mezzo-soprano); National Orchestra of Spain, Jesús López-Cobos cond. Flamenco music by Antonio Gades and His Dancers. ANGEL ● DS-38338 \$11.98, Ⓢ 4DS-38338 \$11.98, ⓐ CDC-47586 no list price.

Orchestra, Gerard Schwarz cond. *The Creatures of Prometheus Overture, Op. 43*. London Symphony Orchestra, Gerard Schwarz cond. DELOS © D/CD 3013 no list price.

Performance: *Good to splendid*
Recording: *Good to exceptional*

This Beethoven package combines recordings done in three different years in as many different locales. For me the best, both musically and sonically, is the earliest, the First Symphony. It was taped in 1981, by the production team of Joanna Nickrenz and Marc Aubort,

in the ideal acoustic surround of the Bridges Auditorium in Claremont, California. Gerard Schwarz, for his part, had his Los Angeles Chamber Orchestra honed to peak responsiveness, and the result is a performance of brilliance and virile warmth, capped by a wonderfully zestful and snappy finale—chamber-orchestra Beethoven on modern instruments at its best. The depth imaging of the sound is especially effective.

Working in the Santa Ana Auditorium in March 1984, producer-engineer John Eagle took a decidedly more analytic view of the sonic situation, giving

us an Eighth Symphony that is very precisely defined—bright and, for my taste, a bit sterile. Schwarz's reading emphasizes the Classical aspects of the music rather than what I cherish as its "little giant" aspects.

The 1985 London Symphony recording of the *Prometheus Overture* in Henry Wood Hall, with Anthony Hodgson and Tony Faulkner as the production team, is the least satisfying from the standpoint of sound, which emerges here with a decidedly overbalanced low register. Interpretively, Schwarz underlines to the maximum the contrast between the ceremonious introductory pages and the *briso* qualities of the ensuing main melody.

In short, a mixed bag, with the First Symphony representing Schwarz, his players, and Delos production quality at their very best. *D.H.*

BRAHMS: *Fantasias, Op. 116; Intermezzos, Op. 117; Klavierstücke, Op. 118 and 119.* Mikhail Rudy (piano). LA VOIX DE SON MAÎTRE/EMI © 270456-1 \$12.98 (from International Book and Record Dists., 40-11 24th St., Long Island City, NY 11101); EMI/ANGEL © CDC-47556 no list price.

Performance: *Inward*
Recording: *Lifelike*

This is certainly a generous and convenient collection of Brahms's late piano music, and there can be no question of Mikhail Rudy's response to the material or of his technical equipment. In many of these twenty pieces he seems to be exploring and discovering the music for his own pleasure alone. While it can be fascinating to "listen in" on so inward a process, there is a certain trade-off in terms of communicativeness. This sort of reaction is admittedly very subjective, and I would advise anyone attracted by the repertoire to try to hear this disc. It is handsomely recorded, with DMM enhancing the life-like quality. In case you want to know something about this pianist, by the way, I have to report that there is not a word about him on the album, only a photograph that suggests he is in his late twenties. *R.F.*

BRAHMS: *String Quartets Nos. 1 and 3* (see Best of the Month, page 80)

BRIDGE: *The Sea, Suite* (see BRITTEN)

BRITTEN: *Peter Grimes: Four Sea Interludes and Passacaglia, Op. 33.*
BRIDGE: *The Sea, Suite.* BAX: *On the Sea-Shore.* Ulster Orchestra, Vernon Handley cond. CHANDOS © ABRD 1184 \$11.98, © ABTD 1184 \$11.98, © CHAN 8473 no list price.

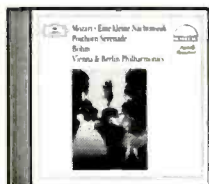
Performance: *Splendid*
Recording: *Impressive*

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offers, among other things, the finest sonic realization of the Sea Interludes and Passacaglia from *Peter Grimes* since the memorable Angel recording a decade ago by André Previn (just rereleased on CD together with Britten's *Spring Symphony*). The wide frequency and dynamic range add up to stunning sonic impact, and the orchestral performance under Vernon Handley is altogether superb. My only minor caveat concerns a slight muddiness in the dense-textured *Storm* interlude, resulting from a spacious acoustic surround that enhances the other sections.

Frank Bridge, who was Benjamin Britten's teacher and has become properly appreciated as a composer only in recent years, is represented by his four-movement orchestral suite, *The Sea*, of 1910-1911. In comparison with the roughly contemporaneous works on the same subject by Debussy and Sibelius, Bridge takes a somewhat more romantic-subjective view of the sea. There are Debussian harmonies, but the feeling of the work as a whole is more along the lines of early Ralph Vaughan Williams or Arnold Bax. The orchestration is gorgeous, as is the playing by the Ulster Orchestra.

The Bax work concluding the program is a dark, moody piece that Graham Parlett edited and orchestrated from a short-score sketch, and detailed knowledge of its programmatic content is hardly necessary to appreciate its hypnotic power. All told, this is a highly recommendable release both for its musical interest and its sound, which on CD is of demonstration quality. *D.H.*

CHOPIN: Waltzes. Maria João Pires (piano). ERATO/RCA ● NUM 75144 \$10.98, © MCE 75144 \$10.98, © ECD 88067 no list price.

Performance: *Silky*
Recording: *Fine*

CHOPIN: Waltzes (Complete). Dmitri Alexeev (piano). ANGEL ● AE-34488 \$6.98, © 4AE-34488 \$6.98, © CDC-47501 no list price.

Performance: *Glassy*
Recording: *Fine*

Playing fourteen Chopin waltzes in the order established by the late Dinu Lipatti, Maria João Pires offers beguiling performances that bring out every nuance of noble display and intimate communication. Her tone is silky, and each phrase is perfectly turned so that the music swirls smoothly and gently.

Dmitri Alexeev, in contrast, produces a glassy tone with a mechanical precision that turns his dancers into icy figures twirling under a strobe light. Not even the five extra waltzes he offers compensate for the chilling pall cast by these performances. *S.L.*

DUPRÉ: Symphony in G Minor for Organ and Orchestra, Op. 25. RHEINBERGER: *Organ Concerto No. 1, in F*



Maria João Pires: beguiling Chopin waltzes

Major, Op. 137. Michael Murray (organ); Royal Philharmonic Orchestra, Jahja Ling cond. TELARC © CD-80136 no list price.

Performance: *Committed*
Recording: *Excellent*

These performances were recorded in the Royal Albert Hall last year, in observance of the centenary of Marcel Dupré's birth. Much is made of this site and its instrument in the annotative booklet, not at all inappropriately, since it was playing the organ of that hall that Dupré made his first appearance outside of France, in 1920, and he returned there fifty years later for his last public appearance, a year before his death, to celebrate the hall's own centenary. The disc itself follows the two performances (after an insufficient pause) with a less than fascinating discussion between Michael Murray and the instrument's curator, Kenneth James.

Murray is, of course, an authoritative, enthusiastic, and splendidly equipped

performer of Dupré's music. Dupré described his *Symphony in G Minor* as being more of a "symphony for two orchestras" than a concerto, and if it fails to be irresistible, it is hardly Murray's fault, or his conductor's. Jahja Ling has the Royal Philharmonic on its toes and apparently as charged up as Murray himself, but the music seems very little more than various intriguing sonorities in search of an idea—let alone a single memorable theme. The Rheinberger is a far more ingratiating piece. Although it *is* an outright concerto, the orchestra is given much more interesting material than in the Dupré symphony and produces a fine richness of colors from its simple instrumentation of just three horns and strings. The performance is a good one, and Telarc's recording certainly leaves nothing of the Albert Hall's organ undisclosed. Owners of audio systems that can reproduce all that this recording holds should perhaps be encouraged to pray to avoid the sin of smugness. *R.F.*



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ELGAR: Romance, Op. 62 (see HERBERT)

HAYDN: String Quartets, Op. 71, Nos. 1-3, and Op. 74, Nos. 1-3 (Hob. III, Nos. 69-74, "Apponyi"). Tátrai String Quartet. HUNGAROTON 12246/48-2 three LP's \$32.94, © HCD 12246/47-2 two CD's no list price.

Performance: *Robust*
Recording: *Fine*

Continuing their recorded cycle of Haydn's string quartets, the Tátrai Quartet turns to the ones commissioned by the amateur violinist Count Apponyi. Although Haydn composed these quartets in Vienna, he actually had London on his mind—and eventual first performances there by the Salomon Quartet. As one London critic put it, the six works "abound in beauties," and each one seems better than its predecessor in a series that culminates in the magnificent *Rider* Quartet.

The Tátrai Quartet is a fine outfit, and it brings just the right amount of robustness and lyricism to these performances. Ever sensitive to the music's changing moods, the players underscore the diversity of the material while adhering to the tightly structured eighteenth-century forms. Let us hope the Tátrai will keep up the good work and finish the cycle. *S.L.*

HERBERT: Cello Concerto No. 2, in E Minor, Op. 30. SULLIVAN: Cello Concerto in D Major. ELGAR: Romance, Op. 62. Julian Lloyd Webber (cello); London Symphony Orchestra, Charles Mackerras cond. ANGEL 4DS-38318 \$11.98, © 4DS-38318 \$11.98, © CDC 47622 no list price.

Performance: *Good*
Recording: *Good*

We are forever reading about this cello concerto of Victor Herbert's because Dvořák is said to have been moved by it to compose his own great cello concerto, but we seldom hear the music itself. This new recording, in fact, seems to be its first in stereo. The mono recordings by Bernard Greenhouse and Georges Miquelle are still supposedly available on LP, in phony stereo, and Greenhouse's playing of the solo part is more eloquent, I think, than Julian Lloyd Webber's, but Lloyd Webber does well with it, and there's no disputing the enormous advantage of up-to-date recording technology with a well-prepared, first-class orchestra.

The Sullivan concerto would appear to be an inspired coupling—both concertos are by composers of Irish background who were trained in Germany and became famous for their operettas (though Sullivan was not himself a cellist, nor actually born in Ireland, as Her-

bert was). This was the only concerto Sullivan composed for any instrument. He wrote it in 1866, when he was twenty-four, for the famous Alfredo Piatti, who introduced it in London and Edinburgh, but it was not heard again till 1910, and then not again till 1953, when Charles Mackerras conducted it on the air. It was never published, and in 1964 the orchestral parts were lost in a fire.

Sir Charles and the Sullivan scholar David Mackie, working from the solo part, their knowledge of the style, and Mackerras's recollection of the 1953 performance, reconstructed the score. Their version was introduced in London in April of last year by the same performers who have now recorded it. It is a pleasant little work, though a less substantial one than the Herbert concerto, and its slow movement, easily the strongest of the three, might easily be taken for Verdi.

Elgar's *Romance* is another curiosity, composed in 1910 for bassoon and orchestra, with an alternative version for cello that remained unheard, according to Lloyd Webber's note, until April 1985. It is in no way memorable, but in its undemanding, mildly ingratiating, and abundantly sonorous way it is a fitting opener for this recorded program—and its presence brings the total playing time up to forty-six and a half minutes. No rediscovered masterworks

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here, but a good deal of charm, and the performances, recording, and documentation are all quite good. *R.F.*

LISZT: *Lieder*. Hildegard Behrens (soprano); Cord Garben (piano). DEUTSCHE GRAMMOPHON ● 419 240-1 \$10.98, © 419 240-4 \$10.98, © 419 240-2 no list price.

Performance: *Intelligent, warm*
Recording: *Fine presence*

While it is unlikely that the songs of Franz Liszt will become standard recital fare, this selection of fifteen illustrates

the pianist-composer's lyric gift in a variety of styles and states of emotion. The songs are not only perceptively sung by Hildegard Behrens; she makes such a real effort to communicate the texts that you're led to feel they would perhaps sound less significant musically in less capable hands. Cord Garben works closely with her to make each song a unity of text, voice, and piano.

Two of the songs are known in other settings. *Es war ein König in Thule* and *Mignons Lied* both use Goethe's poetry, but the former is more familiar as "*Il était le roi de Thule*," from Gounod's

Faust and the latter in Hugo Wolf's version. The one setting of a Petrarch sonnet is especially melodious. Chosen for their musical and poetic contrasts, the songs in this collection are worth consideration, particularly for the taste and total involvement of the artists performing them. *R.A.*

MAHLER: *Symphony No. 9, in D Major*. Concertgebouw Orchestra, Leonard Bernstein cond. DEUTSCHE GRAMMOPHON ● 419 208-1 two LP's \$19.96, © 419 208-4 two cassettes \$19.96, © 419 208-2 two CD's no list price.

Performance: *Intense*
Recording: *Good live job*

There are some fifteen readings of the Mahler Ninth available on LP or compact disc. None of them is less than good from a musical standpoint, and at least half are outstanding. This second installment in Leonard Bernstein's new Mahler cycle for Deutsche Grammophon was compiled from concert performances in Amsterdam in late May and early June of 1985. Interestingly enough, it has something of the raw emotional quality of the 1938 Bruno Walter recording.

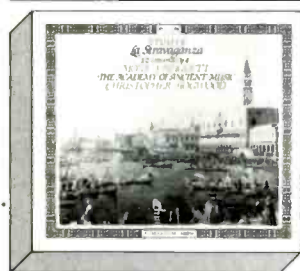
Most immediately apparent, however, are Bernstein's prevailing slower tempos in all the movements except the third, a savage *Rondo-Burleske*, which here gets an appropriately swift and taut treatment in its fast sections. The valedictory adagio, however, takes more than six minutes longer than in his 1967 recording, and it is no easy job for the musicians to sustain the line at this pace. The tempos in the other movements are less radically slow, though there is some ponderousness in at least one episode of the *Ländler*-style second movement. Nevertheless, Bernstein *does* elicit marvelous playing from the Concertgebouw Orchestra in the lengthy codas of the first and final movements. *D.H.*

MENDELSSOHN: *Violin Concerto in D Minor (1822); Violin Concerto in E Minor, Op. 64*. Frank Peter Zimmermann (violin); Berlin Radio Symphony Orchestra, Gerd Albrecht cond. ANGEL ● AE-34475 \$6.98, © 4AE-34475 \$6.98, © CDC-47429 no list price.

Performance: *Lyrical*
Recording: *Spotlights soloist*

The most attractive aspect of this recording is the pairing of Mendelssohn's famous E Minor Concerto with the one he wrote for violin and string orchestra at the age of thirteen. Yehudi Menuhin discovered the youthful manuscript in 1951 and subsequently recorded the work. Young Frank Peter Zimmermann, who won acclaim for his 1985 debut recording of two Mozart concertos, also for Angel, plays it here with brio and great lyrical intensity. The "Hungarian"-flavored final movement is a real little gem.

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by John W. Freeman

THERE'S not much of the typical diva about Roberta Alexander. Tall, slim, angular, and graceful, she looks more like a dancer. Her speaking voice is animated but soft, with a touch of a Midwestern twang (though born in Virginia, she grew up and went to school in Ohio and Michigan), not stagy or projected. There's nothing typical of the diva about her thinking, either. She seems interested in all kinds of music, provided it isn't unvoiced to the point of injuring the voice, and she likes singing in opera, orchestral concerts, and solo recitals equally well.

If she regards recordings with more circumspection, it's because they represent a standard of almost inhuman perfection, at odds with her preference for the spontaneity and rapport of a live performance. Also, the sound of her voice surprises her on records, not always pleasantly. "I've done a couple I don't want to tell you about yet," she confesses, "because I haven't given final approval. I'm not sure whether I like them that much, but after a while I might get more perspective and hear them differently."

A record Alexander *does* like is the one of Charles Ives songs she did for Etcetera, a Dutch label (she makes her home in Amsterdam), which is distributed in the U.S. by Qualiton. These songs are a novelty on the European market, and the record has sold briskly. So have her Etcetera recordings of Mozart and Strauss songs, as well as the *Porgy and Bess* highlights she did for Philips with Simon Estes.

Alexander made her Vienna debut as Cleopatra in Nikolaus Harnoncourt's 1985 production with the Concentus Musicus of Handel's *Giulio Cesare* at the Theater an der Wien. And at the Staatsoper this past winter, her first role was Elvira in Mozart's *Don Giovanni*. How did she get into such a forbidding repertoire, which also includes such roles as Vitellia in *La clemenza di Tito*, Elettra in *Idomeneo*, Fiordiligi in *Costi fan tutte*, and Violetta in *La Traviata*?

"I started like that when I was a student," she says. "Doing so many *Messiahs*, I suppose, was an introduction. I was always attracted to coloratura, and when I saw it was naturally possible with my voice, I started to work on it, did a few Rossini things. Fiordiligi and Vitellia came about because I have a generous chest register. I vocalize to an octave below middle C every day, and I ask my teacher, 'What am I going to do with this?' He tells me, 'Never say that—you don't know when you're going to need it.'



ROBERTA ALEXANDER

"I was always attracted to coloratura, and when I saw it was naturally possible with my voice, I started to work on it."

"Sure enough, in Salieri's *Prima la musica e poi le parole*, which I recorded with the Concertgebouw under Harnoncourt, there's a low D in the cadenza." Since Vitellia also takes a high D, that gives the soprano a full three-octave working range, though mercifully not all in the same role.

Alexander's assignments this spring are marginally less spectacular. After her Metropolitan Opera debut in 1983 as Zerlina in *Don Giovanni*, followed by *Bess* and *Jenůfa* there, she's back for the revival of *La Bohème* that winds up the current season. It's vocally not so taxing, but it *is* a Franco Zeffirelli production, which calls for plenty of stage business and dramatic conviction. She first heard *La Bohème* at age seven: "I started to cry, because it was so beautiful, and I knew then I wanted to be an opera singer."

Berg's Altenberg Lieder, with the Boston Symphony, are also on Alexander's agenda, and this summer she will sing the Countess in *Le nozze di Figaro* at Santa Fe. A more bizarre recent Mozart assignment was the kabuki-style *Clemenza di Tito* in Hamburg: "It was a lot of fun," she gamely reports. "We were in light kabuki makeup with black Grace Jones wigs. Everyone had on a sort of Bruce Lee robe, so you couldn't

tell who was a man and who was a woman, except for Tito, because he had on white."

Alexander says she's a fairly quick study as long as she isn't required to sing from memory, and for this reason unusual repertoire is thrown at her regularly. "I've done my fair share of contemporary music. Not having perfect pitch, I really have to sit down and work out lots of intervals." For help with unfamiliar older music, the soprano relies on her husband, a Dutch musician whose extensive library and knowledge are perennial lifesavers. "He sort of drags me by the hair and says, 'Okay, now you've got to learn this.' He's actually the person behind a lot of my repertoire choices."

Besides singing in Dutch, which she also speaks, Alexander has mastered Czech and Russian, though not conversationally. In addition to *Jenůfa*, in both Czech and German, she did the three soprano roles in Janáček's *Excursions of Mr. Brouček* for a radio concert several years back. When she first worked on this composer's music, she says, "It seemed as if there weren't any real lines, just bits and pieces—until you realize after a while that it all fits into one big sweep, that you're just part of a bigger line, carried by another singer or by the orchestra. Once you understand that, it's very melodic."

On the inevitable question of how best to approach Baroque music, she feels—having worked with Harnoncourt in both his "authentic" (Concentus) and "compromise" (Concertgebouw) modes—that a reduced body of modern instruments, played in as Baroque a manner as possible, is preferable. But she enjoys the lower pitch used by some period-instrument groups because the sound is softer and the singing less pressured. Of a performance of Purcell's *Dido and Aeneas* conducted by Jean-Claude Malgoire she recalls, "I rarely get carried away [while performing]—that can be dangerous—but the final chorus, with the weeping sound of those Baroque strings, was tremendously moving." Happily, this has been preserved for TV.

Alexander has recorded songs of Leonard Bernstein and will soon record some by Samuel Barber and Puccini. She admits to a fondness for some of the less familiar French songs, especially with orchestra, and would like to record a second group of Ives songs: "There are still so many left."

Though she sometimes feels as if she spends most of her life in airports, she adds that Amsterdam's Schiphol is a particularly nice one. Somehow this observation typifies the optimistic realism that makes Roberta Alexander the vital artist she is. □

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On the whole, I find the D Minor Concerto better recorded here, in terms of solo-orchestra balance, than its familiar big brother. The opening pages of the E Minor, taken at a moderate tempo, find the soloist not only rather close at hand but with a touch of wiriness in his E-string tone. Matters improve as the music progresses, and, as in the D Minor, one is aware of Zimmermann's tonal intensity and his fiery and brilliant handling of the cadenzas, especially in the first movement. Zimmermann's lyricism shows to fine advantage in the slow movement, and in the finale he strikes a nice balance between the lyric and the virtuosic. He also has the benefit of a better sonic balance vis-à-vis the orchestra under the thoroughly competent direction of Gerd Albrecht. *D.H.*

MOZART: *Symphony No. 35, in D Major (K. 385, "Haffner"); Symphony No. 41, in C Major (K. 551, "Jupiter")*. Academy of St. Martin-in-the-Fields, Neville Marriner cond. ANGEL © DS-38275 \$11.98, © 4DS-38275 \$11.98, © CDC-47466 no list price.

Performance: *Stunning "Jupiter"!*
Recording: *Very good*

MOZART: *Symphony No. 40, in G Minor (K. 550); Symphony No. 41, in C Major (K. 551, "Jupiter")*. Prague Chamber Orchestra, Charles Mackerras cond. TELARC © CD-80139 no list price.

Performance: *Provocative*
Recording: *Good*

Neville Marriner's ensemble is in top form here, delivering a wonderfully virile and forthright *Haffner* Symphony and a *Jupiter* that is at once imperious and warm. Marriner's rhythmic pointing in the *Jupiter's* opening movement is particularly worthy of note, as is his warm and full-bodied treatment of the slow movement and the strength he brings to the great finale. There are repeats aplenty, including the slow-movement exposition, which I feel makes things a bit long. Although the Mozart autograph indicates no exposition repeat in the first movement, Marriner opts for one, which for me throws the movement out of balance, interrupting what I feel should be a no-nonsense musical discourse. This small matter aside, the performances as a whole are highly satisfying and superbly recorded.

In the recording by Sir Charles Mackerras, we get both fine playing and some unusually stimulating and provocative music making. Modern instruments are used, but otherwise the conductor makes special efforts to adhere to the conditions of Mozart's day, beginning with an orchestra of modest size, a continuo harpsichord (essentially inaudible), and placement of the first and second violins in the classic left-and-right position.

The G Minor Symphony is performed in its original version, without added clarinets. The first movement is swift and lithe, and the slow movement has repeats but no lingering to impede its natural flow. Surprise comes with the minuet, which goes at a fierce clip, and the finale is played with a blood-tingling alertness.

The *Jupiter* is forceful and virile in its end movements, with repeats taken throughout. An interesting and highly effective wrinkle in the slow movement is leaving the second violins unmuted. Again we have a minuet that moves swiftly, and the playing of the finale is notable for both its strong rhythmic pointing and exceptionally clear articulation of the woodwinds. The recorded sound in both performances is excellent, a bit more reverberant than on the Marriner disc but crystal clear. *D.H.*

RACHMANINOFF: *Piano Sonata No. 2, in B-flat Minor, Op. 36; Six Preludes; Three Etudes-tableaux; Moment musical in D-flat Major, Op. 16, No. 5; Daisies, Op. 38, No. 3*. John Browning (piano). DELOS © D/CD 3044 no list price.

Performance: *Short pieces better*
Recording: *Excellent*

As William Livingstone observes in the interview with John Browning that accompanies this new issue, the pianist hasn't played much Rachmaninoff for years, for the reason that he had grown up on the music and on Rachmaninoff's own performances of it and had been simply overawed. But there is a great deal of Rachmaninoff here—seventy-four and a half minutes of it, in fact, for a maximally filled CD.

Browning is not the first to claim to have recorded the magnificent Second Sonata in the original 1913 version without a single cut or modification, but he may be the first actually to have done it. Vladimir Ashkenazy, for whom a similar claim was advanced with his recording for London Records, may be a bit less faithful to that score, but he plays the work with a greater sense of momentum. Browning, for all his enthusiasm and commitment, seems more than a little self-conscious in comparison; he simply doesn't let the music and its moods and colors flow as Ashkenazy does. Browning is first-rate in the shorter pieces, though, and especially in the *Moment musical* in D-flat, marked *Adagio sostenuto*, which he performs with an unlabored eloquence that would have been welcome in the sonata as well.

The recording itself is excellent, but the labeling certainly is not. Delos bills the sonata, confusingly, as "op. 36 no. 2" and doesn't bother to indicate that it has separate movements, let alone how many or how they are marked. The key signature given for the Op. 32/5 prelude is wrong, and none at all is given for the *Moment musical*. *R.F.*

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ROBYN ARCHER SINGS BRECHT

IF there's a poet among the moderns who might rate an album devoted entirely to settings of his lines, Bertolt Brecht would have to be high on anybody's list. Brecht was a political poet and playwright whose work deliberately used popular forms. Many of his poems are really lyrics, and the author, in the manner of the French chansonniers or German cabaret performers, used to sing them, accompanying himself on the guitar.

Robyn Archer, an Australian singer, actress, writer, and director who is well known in Great Britain as an interpreter of Brecht's work, has been joined on a new EMI/Angel CD by another well-known Brechtian, conductor Dominic Muldowney, in a generous sampling of Brecht-as-lyricist.

Brecht was, indeed, an angry young balladeer, but he was no composer. His melodies, represented in this set by two songs under his own name and one attributed to a certain Paul Umlauf, are found objects—traditional melodies or popular tunes ripped off without shame. The original *Mahagonny* songs (one of them is sung here) were first performed and printed this way, but in 1927 they were reset by Kurt Weill for a chamber-opera production at a modern-music festival in Germany. The performance caused an uproar and launched one of the most famous partnerships of the twentieth century.

Brecht's later collaborators, Hanns Eisler and Paul Dessau, were by no means negligible composers. Eisler, a pupil of Schoenberg and Webern, had a successful career in the concert hall and, later, as a film composer (in Hollywood and France). His music was wildly variable in both style and quality, and for some reason Archer and Muldowney have chosen to open their album with two of the duller and more didactic Brecht/Eisler songs. Fortunately, a later Eisler group includes some of that team's most brilliant collaborations.

With the founding of the famous Berliner Ensemble in East Berlin, Brecht often collaborated with Dessau, represented here by two extraordinary songs from Brecht's *Mother Courage: The Song of the Girl and the Soldier* and *Mother Courage's Song*. As Archer sings them, they are perhaps the most exciting on the record.

On the whole, Archer has a strong, clear, hard, precise voice that she keeps under tight control. There are none of the vocal heights or emotional epiphanies of a Stratas or the dark depths of a Lenya, but the performances are clean, focused, intense, and highly antisentimental. At times, however, Archer and Muldowney rush through the music without necessarily capturing the rhythmic excitement they seem to be looking for, and the Weill orchestrations, the ones with which I am familiar, seem to be poorly represented by a direction and a recording style that alters and distances them behind the hard, frontal presence of the singing voice.

Nevertheless, despite all these reservations, this is an exciting album, with many high points. Everything is done in English, and a major effort is made to keep the texts clear and comprehensible. Some of the Weill songs might have had more depth, but the Eisler and Dessau material, most of it still astonishingly little known in this country, is fresh, powerful, and strikingly conveyed. Outside of East Germany (where they naturally perform it in German), you rarely hear these songs at all, let alone this well performed. *Eric Salzman*

ROBYN ARCHER: *Sings Brecht*. Robyn Archer (vocals); London Sinfonietta, Dominic Muldowney cond. *Ballad of Mack the Knife; Cannon Song; Barbara Song; The Ballad of Sexual Obsession; Hollywood Elegies; Ballad of the Pirates; The Song of Surabaya Johnny*; and nineteen others. EMI/ANGEL © CDC-47576 no list price.

RHEINBERGER: *Organ Concerto No. 1, in F Major, Op. 137* (see DUPRÉ)

SCHUBERT: *Piano Sonata in E Major (D. 157); Adagio in G Major (D. 178); Piano Sonata in C Major (D. 279); Fantasy in C Minor (D. 2e); Andante in C Major (D. 29); Minuet and Trio (D. 600 and 610); Ten Variations in F Major (D. 156)*. Leonard Hokanson (piano). NORTHEASTERN © NR 233-CD no list price.

Performance: *First-rate*
Recording: *Exemplary*

It used to be the norm, at least in Central Europe, for conductors to get their grounding in the opera house before moving on to the concert hall. I was reminded of this old tradition, and its effectiveness in the case of so many of the great conductors of the recent past, in listening to Leonard Hokanson play Schubert's piano music. Hokanson, too, has worked a great deal with singers. He is probably best known as Hermann Prey's accompanist—in which role, of course, he has become intimately acquainted with the music of Schubert. Why, indeed, should we not expect accompanists of the stature of, say, Gerald Moore, Franz Rupp, Michael Raucheisen, or Erik Werba to be outstanding interpreters of the sonatas as well as the actual songs of this most songful of the great composers? As far as I know, none of those pianists recorded any solo pieces, but it was a fine idea to have Hokanson do some, and an even better one to have him explore some of the less familiar parts of the repertoire.

As the Deutsch numbers above in most cases accurately indicate, these are all early works. They come from the years 1811-1815, which means they were composed when Schubert was between the ages of fourteen and eighteen (hence the collection's title, "The Young Schubert"), but they are all fully characteristic of their composer—who, after all, composed his first three symphonies and many of his most admired songs in that same period. The C Major Sonata, the only one of these seven works that gets much of a hearing nowadays, constitutes a sort of "anchor" in the middle of this seventy-one-minute program (about the length of many a live recital), and the very substantial set of variations on an original theme brings it to a most satisfying conclusion. The playing throughout conveys the deepest and most loving understanding of the music and a real joy in communicating its qualities without any gratuitous interpretive overlay. The recording itself, as we've come to expect from this label, is exemplary in terms of focus and all-round vividness. *R.F.*

SULLIVAN: *Cello Concerto in D Major* (see HERBERT)

VERDI: *La forza del destino* (see Best of the Month, page 77)

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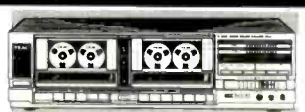
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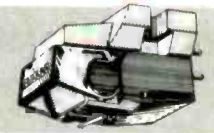


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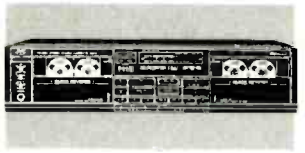


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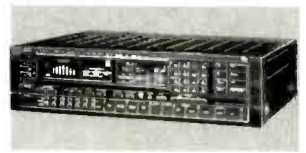


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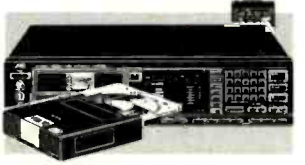
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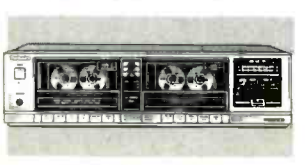
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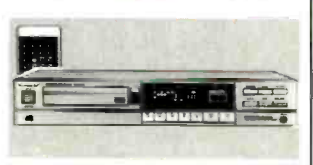
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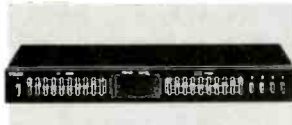


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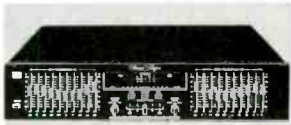
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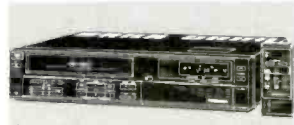
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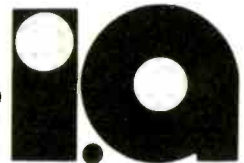
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VIDEO REVIEWS

Discs and tapes reviewed by Robert Ackart, Chris Albertson, Louis Meredith, Alanna Nash

HEART. Heart (vocals and instrumentals). *These Dreams; Never; What About Love?; Nothin' at All.* PIONEER PA-86-M046 LaserDisc \$12.99.

Performance: *Camp classic*
Recording: *Excellent*

Heart's new eight-inch LaserDisc brings to mind Oscar Wilde's comment on the death of Little Nell: one would need a heart of stone not to laugh. A mind-numbing mélange of arena-rock grimacing, under-grad symbolism, and smoke bombs, "Heart" is the most incredible example of pointless budgetary excess yet to have emerged from the primordial ooze of the MTV era. You really have to see it to believe it.

For those who care, the dominant motif is cleavage, and while Heart's Ann and Nancy Wilson are by any objective standard two of the most drop-dead-gorgeous women who ever graced a rock-and-roll stage, they're so heavily corseted that they look less like rock stars and more like the kind of nineteenth-century serving wenches who get bumped off at the beginnings of Hammer horror films.

Other themes include soft-core porn (check out the wardrobe scene in *Nothing at All*), an obsession with pussies (of the housecat and panther variety), and Nancy Wilson's medical problems with her right leg (apparently some rare disease makes her kick the air whenever she feels a chorus coming on).

To be fair, after hearing a song as raggingly beautiful as *These Dreams*, one might be tempted to forgive the band the rampant inanity that surrounds it. But since I'm of the school that believes no good deed goes unpunished, I probably won't. In any case, this is clearly one for the time capsules. *L.M.*

VLADIMIR HOROWITZ: Horowitz in Moscow. Vladimir Horowitz (piano). Works by Scarlatti, Mozart, Rachmaninoff, Scriabin, Schubert, Liszt, Moszkowski, Chopin, and Schumann. MGM/UA 401051 VHS Hi-Fi and Beta Hi-Fi \$39.95; PIONEER PA-87-179 LaserDisc \$29.95.

Performance: *Remarkable*
Recording: *Very Good*

"Horowitz in Moscow" is a live concert around which a documentary has been built. The event, Horowitz's first visit to his native land in sixty years, took place last spring and received a great deal of media coverage. You may have seen portions of this tape aired on the CBS *Sunday Morning* show, but it is



THE STREISAND SPECIALS

FROM the day the term was coined, television's entertainment "specials" have, in the main, been mere variety shows, but occasionally they have lived up to that "special" designation. One that did was aired on April 28, 1965, when a capacity living-room audience discovered gold in a show called *My Name Is Barbra*. It was Barbra Streisand's first extended television exposure, and she made the most of it. For almost an hour this superstar-to-be—who was appearing on Broadway in *Funny Girl* at the time—held the viewers' attention with her songs and wit, and she did it without a single guest soloist. There was Barbra, just Barbra, and a generous cast of musicians, along with the strong presence of Joe Layton, who conceived and choreographed the show. And the same went for its follow-up in 1966, *Color Me Barbra*. Both programs have been released for home video, as "The Streisand Specials," and more than two decades later the magic is still there.

My Name Is Barbra, a black-and-white production, opens with a prelude to the first commercial break: Streisand singing the title song. Then, in a new spoken introduction, she explains that the song was actually part of a Forties cycle by Leonard Bernstein. The first segment opens with *I'm Late*, which also serves as a series of bridges over which Streisand hops and skips on a musical trek past a sizable orchestra whose members are grouped in a variety of settings. In the course of this journey, which includes a cleverly staged step into her childhood, she delivers a seven-song medley that culminates in her big hit *People*. You soon forget that the show is in black and white.

The second segment was unusual for the time because it was taped on location—remember, this was before the advent of minicams, and entertainment

specials were normally strictly studio affairs. Here the setting is Bergdorf Goodman's, the pricy Fifth Avenue shop, and Streisand—alone in the store at night—has a great time trying on expensive furs and Halston hats as she sings a medley of poverty tunes. While delivering the 1929 Bessie Smith classic *Nobody Knows You When You're Down and Out*, she throws an expensive fur to the floor and stomps on it. Bessie once dragged her ermine coat back and forth on the sidewalk in front of Harlem's Apollo Theatre to demonstrate her displeasure with the management.

The last "act" of the show is a concert segment, with Streisand in an evening gown singing eight songs to an audience we hear but never see. It's a classy way to take the final bow.

The following March, CBS broadcast the second Barbra Streisand special, *Color Me Barbra*—in color. Again the creative force behind it all was Joe Layton, and he knew better than to tamper with a formula that had been so successful a year earlier, but this time the opening segment was shot on location at the Philadelphia Museum of Art. Wandering through the halls and corridors of the museum, Streisand views and becomes a part of various paintings. For the middle segment, we are back in the studio on a circus set filled with live animals, all competing for attention during a delightful medley. Then it's Streisand alone again for the closing concert segment—the end of another television triumph.

They don't make specials like these any more, nor is it likely that what you saw in your home at the time was as technically clean as these tapes. Today they are worth many reruns.

Chris Albertson

BARBRA STREISAND: My Name Is Barbra. Barbra Streisand (vocals); orchestra, Peter Matz cond. *I'm Late; Make Believe; Second Hand Rose; Sweet Zoo; When the Sun Comes Out; People; You Are Woman; My Man; I Got Plenty o' Nothin'; The Best Things in Life Are Free; Don't Rain on My Parade;* and eleven others. CBS/FOX 3519 VHS Hi-Fi and Beta Hi-Fi \$29.98, 3519-80 LaserDisc \$29.98.

BARBRA STREISAND: Color Me Barbra. Barbra Streisand (vocals); orchestra, Peter Matz cond. *Yesterdays; Where or When; Try to Remember; Funny Face; Sam, You Made the Pants Too Long; Animal Crackers in My Soup; It Had to Be You; I've Grown Accustomed to Her Face; One Kiss; C'est si bon; Minute Waltz; Gotta Move;* and twelve others. CBS/FOX 3518 VHS and Beta Hi-Fi \$29.98, 3518-80 LaserDisc \$29.98.

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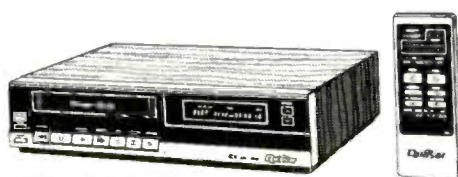
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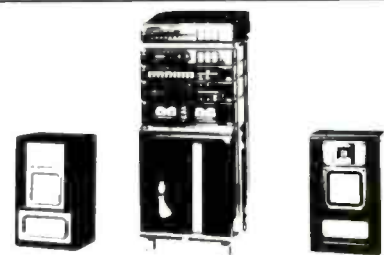
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much better without Charles Kuralt's folksy commentary. Indeed, it does not need any narration. The performance itself, glimpses of awestruck admirers inside and outside of the concert hall, fragments of an interview with Horowitz, and well-inserted documentary footage all tell the story in a most eloquent way.

Between Scarlatti sonatas, Rachmaninoff preludes, and Scriabin etudes, Horowitz is seen walking through the streets of Moscow, paying a nostalgic visit to Scriabin's house, reminiscing about his family members—who, it seems, played poker and whist as well as they did Beethoven and Mozart—and amusingly recalling his first meeting with Rachmaninoff, who had been avoiding him. The focus is on the concert performances, however, as it should be. C.A.

ELVIS PRESLEY: *Elvis Memories*. Elvis Presley, Chet Atkins, Jerry Reed, Jerry Lee Lewis, Sam Phillips, Carl Perkins, Cybill Shepherd, George Klein, others. *Memories; Good Rockin' Tonight; Peace in the Valley; That's All Right; Blue Suede Shoes;* and four others. VESTRON MA1054 VHS Hi-Fi \$29.95, MB1054 Beta Hi-Fi \$29.95, ML1054 LaserDisc \$29.95.

Performance: *All over the place*
Recording: *Varies*

In the ten years since Elvis Presley's unnatural death, a spirited parade of Elvis videos has passed through the stores, all eager to entertain the King's ever-faithful following. If, however, such offerings as "Elvis '68 Comeback Special," "One Night with You," or "This Is Elvis" represent the top of the heap, "Elvis Memories" crawls in at the bottom.

Originally syndicated for television, "Elvis Memories" is made up of familiar stock footage, brief interviews with his associates and any celebrity who would sit still, and home movies. These home movies are not exactly tantamount to the treasures of Tut's tomb, however. With few exceptions, they are merely stage performances shot without sound and overdubbed with records. As for the interviews—well, even people who don't have anything to say have been thrust in front of a camera, such as Mary Jenkins, Elvis's cook, who offers the insight that "He liked hamburger, steak, and string beans. . . ."

Elvis also, of course, had a taste for something stronger, and the most poignant moment here does not come from the gilded fairy tales of his hangers-on but from an interview with the singer promoting his *Aloha from Hawaii* satellite special. With his words so slurred his lips virtually fall over each other, the King announces that he trains for such events by just trying "to stay in shape . . . vocally and mentally." With this snippet, the producers unwittingly offer a glimpse of an American tragedy in the making. A.N.

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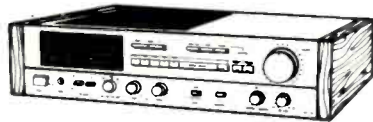
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Pioneer

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Ohm

The Ohm Sound Cylinder speaker uses the company's proprietary inverted-cone Walsh driver, which is said to deliver accurate tonal balance and imaging to a wide listening area. High frequencies are enhanced by a super-tweeter positioned on top of the inverted cone. Frequency response is rated as 42 to 20,000 Hz \pm 4 dB, nominal impedance as 8 ohms. The Sound Cylinder is compatible with amplifiers delivering from 10 to 150 watts continuous power.

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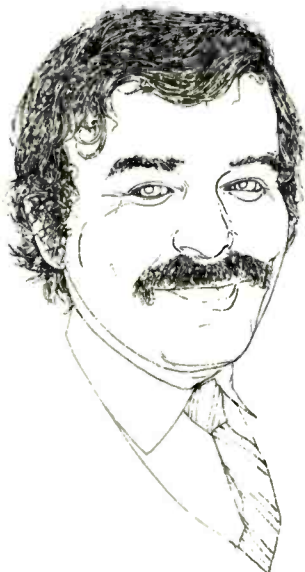


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MAY

by *Ralph Hodges*



Crank 'Em Ups

WHEN you accept a ride in an automobile, there are now more ways the driver can kill you than just by hitting something. For example, we are all increasingly at risk of becoming casualties of excessive sound levels, inflicted not by a broken muffler or the air horns of the sadistic tractor-trailer behind us but by the driver's enthusiasm for the E Street Band.

Car stereo amplifiers are now challenging the highest output ratings ever claimed by home amps at the peak of the power race. But while the home-equipment manufacturers have relented a bit in the interests of rationality and civilization, the car suppliers are just beginning to hit their stride. Said one, after announcing a new product with a wattage figure that caused me to bite through my pencil, "Well, we don't expect anyone to really use all that. He'd have to be crazy, and I certainly wouldn't want to be around. But we can't have our competitors saying that they've got the biggest amplifiers. In this business, that's bad for business."

Later I asked one of his competitors how he'd expect such an amp, or any comparable amp, to fare when connected to a Sears Die-

Hard battery. "Well," he replied, "that is going to depend considerably on the duty cycle of the program signal. However, people who actually own these amps learn soon enough to pack along a spare battery so they have something to get started and drive home with."

And drive home from where? More and more, from the regional "Crank 'Em Up" (or "Rolling Thunder" or "Sound Off") contest, in which motor vehicles with over-achieving sound systems gather in a parking lot or fairground to establish, in the opinion of presumably impartial judges, which of them is likeliest to be heard in Outer Mongolia. These events are becoming hugely popular, especially in the Sun Belt. And because cash prizes may be involved, there has arisen a "professional" class of competitors who drive long distances from contest to contest, often reinvesting their winnings in new equipment to become even more unassailable.

Autosound dealers are finding Crank 'Em Ups to be very effective for promotion and publicity, and autosound manufacturers always do their best to get along with whatever their dealers like. This column is being written the day after the first official meeting of the National Auto Sound Challenge Association (NASCA), essentially a manufacturers' association spearheaded by Rockford-Fosgate and involving such majors as Alpine, Kenwood, and Yamaha. In the coming months NASCA will try to bring uniform judging criteria, good organization, profitability, sponsorship (Coca-Cola, Coors, and Goodyear have been mentioned hopefully), and general orderliness to these affairs. According to Ron Trout, the Rockford-Fosgate delegate, the first meeting did not get much beyond steering-committee appointments, but it demonstrated the resolve and enthusiasm of the members.

In the proposed judging criteria (the final ones are yet to be decided), three categories—sound quality, installation quality, and maximum sound level—are receiving the greatest emphasis. Under the sound-quality heading are frequency response (using pink-noise analysis, with either octave- or one-

third-octave-band resolution and smoothness counting for more than an extended range); noise (with and without the engine running); stereo imaging (audible presence of left, right, and some sort of plausible center scores highest); and sound stage (action ideally occurs up front, with a reinforcing sense of reverberant "fill" from behind). Evaluations of upper-high and lower-low frequencies have also been suggested.

A high-quality installation ranges from good looking to virtually invisible ("factory appearance"), is sturdy, and has all wires neatly dressed and routed with adequate protection. Some consideration may be given to midrange and tweeter placement, although whether this is in the interest of sound quality or the avoidance of door leaks is not clear.

Maximum sound level (sound-pressure level actually, presumably measured at the driver's head position and with no weighting) will probably be determined with music as the program source and the system operating below the point of "extreme" distortion. Both Rockford-Fosgate and Alpine propose an upper limit beyond which the judges won't go, "in the interest of safety and hearing conservation," of 140 dB! Well, at least they seem determined to apply *some* upper limit, although I wonder what meaning "extreme" distortion, "total" distortion, or even *no* distortion has for the human ear at such levels.

Why is all this happening to the innocent pastime of music listening? One theory has it that when a man's home or apartment is no longer his castle (if the neighbors have anything to say about it, anyway), his car still can be, so let 'er rip. Another suggests that prideful audiophiles, formerly limited to a few invited guests in showing off their systems, are now reveling in the chance to blitz entire communities. But let us not be negative about this new manifestation of high-end audio until we've heard it for ourselves. And that should be easy. Just stick your head out the window periodically. If there's a Crank 'Em Up in town, you won't be able to miss it. □



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