

Stereo Review®

AUGUST 1989 \$2.50

THE EUROPEAN
AUDIO TRADITION

THE MAKING
OF A COMPACT
DISC PLAYER

TESTED:
PIONEER CD PLAYER
DUAL TUNER
PRECISE SPEAKERS
...AND MORE

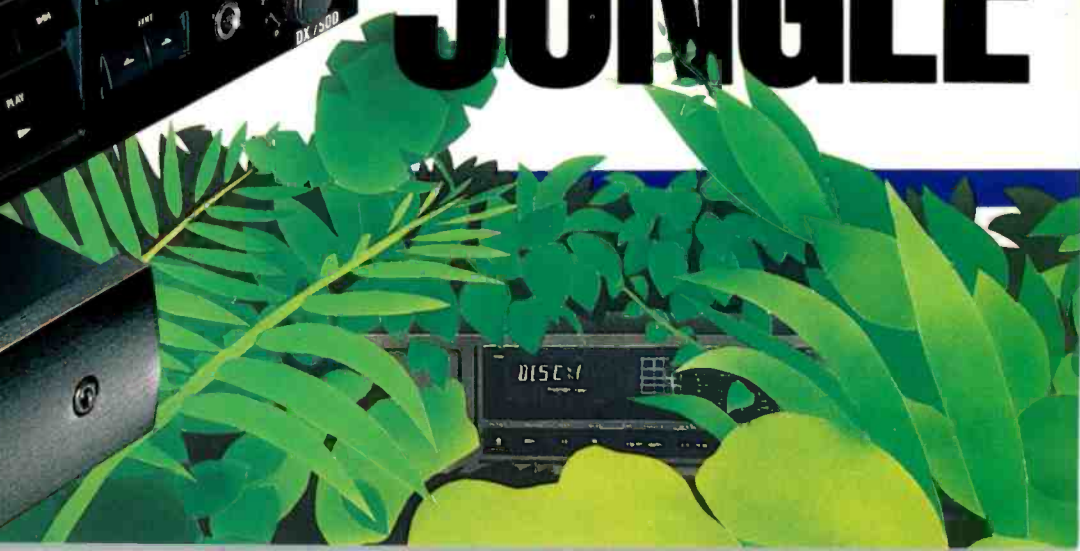


MR DAVID S BUCHANAN
8900 YELLOW WOOD PL
LOUISVILLE KY 40242
08#RB
#259B*****5-DIGIT 40242
#BCH8900Y091#
430492 BCH 8900Y091 741J JAN90





RISING ABOVE THE CD JUNGLE





For most people, buying a CD player is a lot like taking a short stroll along the Amazon. And forgetting your map. Sooner or later, you're going to get lost.

That's because the "jungle of misinformation" about CD players makes it difficult to know what's really important. And what isn't.

Take a quick look at some of the claims—digital bit structures (what are they, anyway?) ranging from 1 to 45. Oversampling rates from 2x to (quick, who's got the latest?) 16x. All this for the sake of a numbers race. And not necessarily for the sake of the music.

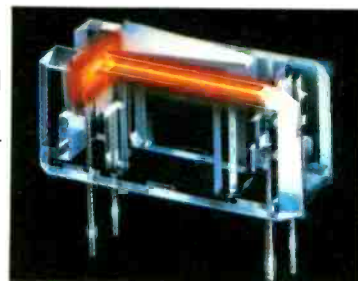
Well, Onkyo offers you a real way through this undergrowth.

Of course, we have an impressive variety of both single- and multiple-disc players. With extraordinary levels of technology in even our most affordable models.

For example, we individually calibrate the critical Digital-to-Analog Converters in our DX-1700 and DX-2700 players to fine-tune their linearity and minimize distortions peculiar to the digital process.



Most of our models also benefit from Opto-Coupling, an Onkyo-developed technology that transmits data optically rather than through conventional wiring for more accurate CD sound.



But for Onkyo, outstanding products are just the beginning. We'll make your journey through the CD jungle even easier with two indispensable guides.

The first is an in-depth explanation of digital bit structures and how they affect musical performance. The second is a down-to-earth journey through all the claims you're likely to run into, as well as the hard facts you'll need to master the CD jungle. And they're available at your Onkyo dealer now.



Onkyo. We'll give you more than just superb CD players. We'll also give you the knowledge you need.

Because it is a jungle out there. And only the fittest survive.

ONKYO®

200 Williams Drive, Ramsey, N.J. 07446 201-825-7950

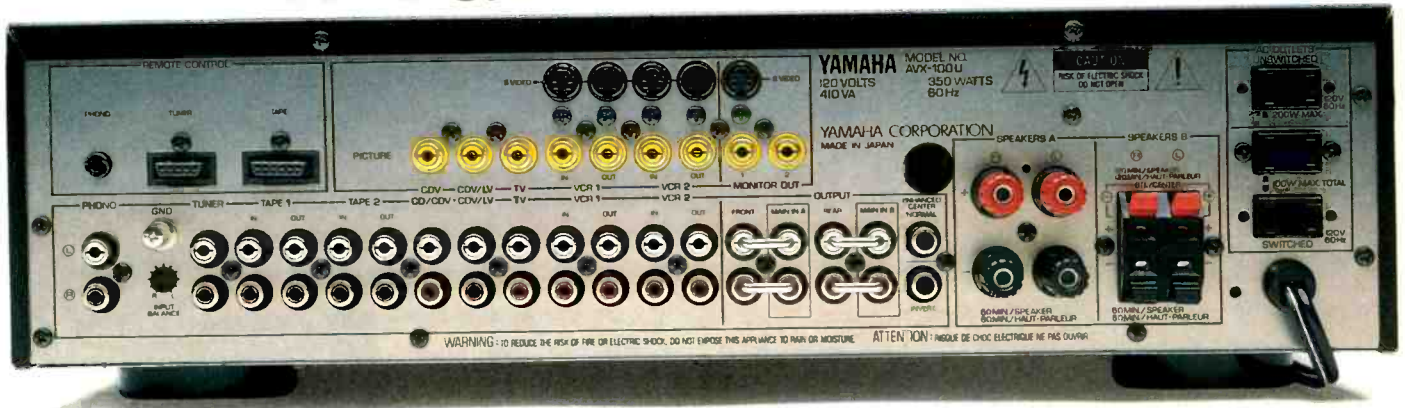
For your nearest dealer, call 1-800-888-8237 and enter code

34510

when asked.



How to patch things up around the house.



Now's a good time to start thinking about home improvements.

We're referring, of course, to that hodge-podge of switch boxes, enhancers, tuner, amps, VCRs, cassette decks, monitors and speakers you affectionately call your home entertainment center.

Which leads us to the new AVX-100U. An incredibly sophisticated 4-channel A/V control amplifier designed to make you the master of all you see and hear.

AVX-100U features 10 audio and 6 video inputs. So you'll probably run out of shelf space long before you run out of input jacks.

You'll also find either 2 or 4-channel operation. With an additional center channel to keep movie dialogue up front where it belongs.

The AVX-100U also has 8 different surround sound modes to enhance the realism of everything you play. Including Dolby Surround that puts you



CD video player



CD player

right in the middle of the action when watching movies at home.



AM/FM tuner



Cassette deck



Satellite receiver



Video monitor receiver



Another cassette deck



Another video monitor receiver



Speakers



Video recorder



Super VHS video recorder



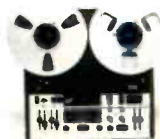
Headphones



Even more speakers



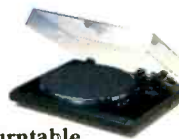
More speakers



Reel to reel



Video camcorder



Turntable

A video enhancer that lets you improve the clarity of any image, regardless of the source you're watching.

RS integrated system remote control, so you can control the AVX-100U and all your RS-compatible components, from across the room.

And an on-screen display for monitoring the operation of the AVX-100U and everything else patched into it, from your video screen.

There's even a title generator that lets you add titles to your favorite videos at the push of a button or two.

Ask your local Yamaha dealer for a demonstration of the new AVX-100U.

No matter how bad a mess you've made of things, he'll have you patched up in no time.



The new Yamaha AVX-100U. The amazing A/V control amplifier.

YAMAHA®

Stereo Review

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Cover: Meridian's Model 205 power amplifier and Model 201 preamplifier, Tandberg's TCD 3014A cassette deck, and KEF's C75 speaker system are some examples of Europe's tradition of audio excellence; see page 48.
Design by Sue Llewellyn, photo by Hing/Norton; furniture courtesy of Clodagh Ross Williams, New York.

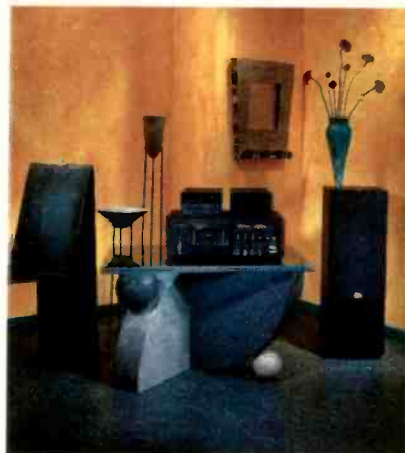
STEREO REVIEW BUYER POLL, SEE PAGE 81
Please fill in if you bought equipment in the past thirty days.
READER SERVICE INFORMATION CARD, FACING PAGE 81
Circle the items you want to know about.



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Motorized main analog volume control. Digitally synthesized AM/FM stereo tuner with 19 presets. 7-band graphic equalizer with Acoustic Memory feature. Record out selector allows separate recording and listening. Video and audio dubbing capability. Cable FM/TV ready. Pre-out and main-in connections.

- Dolby is a registered trademark of Dolby Laboratories, Inc.
- 125 watts RMS per channel, at 8 Ohms, 20-20,000 Hz, 0.1% THD.



PHILIPS FR980. ADVANCED FEATURES FOR THE DISCERNING AUDIO AND VIDEOPHILE.

The engineers at Philips of the Netherlands steadfastly refuse to accept the commonly accepted. The result: The Philips FR980.

Arguably the most sophisticated A/V receiver available today.

Not only does the FR980 provide the world's most advanced technology, it also offers an extraordinary array of options to mix and match audio and video signals. The possibilities are virtually limitless.

Philips has designed and crafted an advanced receiver that keeps you abreast of emerging technologies like CD-V. Further, the FR980 incorporates three audiophile-quality listening modes to pamper you with impeccable sonic authenticity.

Beyond the experience of true Dolby® Surround Sound, the FR980 features two custom equalization

modes: Movie mode to make special audio effects come alive. And Music mode with a more gentle equalization to bring out the best in the newest music videos already encoded with Dolby Surround Sound.

With 125 watts* per channel to drive the main speakers, and 30 watts for both rear surround sound speakers, the FR980 recreates the true theatrical experience.

The world's most sophisticated A/V receiver demands the most sophisticated remote control: a full "learning" type user-programmable remote. It features an alphanumeric LCD screen, and system memory to handle more than 740 different functions from virtually any infrared controlled component, audio or video.

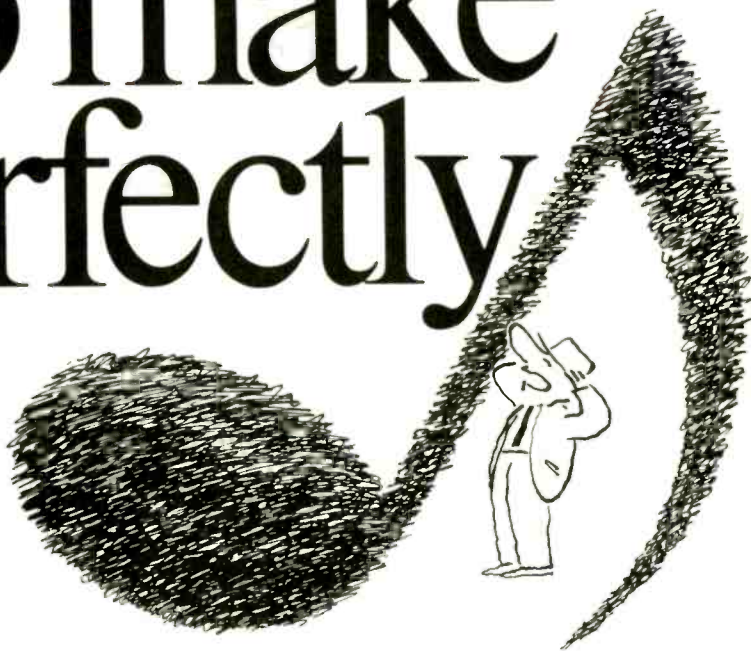
Audition the new FR980 at your Philips audio/video specialist. Call 1-800-223-7772 for the one nearest you.

WORLD-CLASS TECHNOLOGY. EUROPEAN EXCELLENCE.



PHILIPS

Adcom would like to make this perfectly clear.



Regardless of how sophisticated your stereo and video system is, it may never achieve its full performance if plugged directly into an AC outlet. Raw and unprocessed AC power can severely diminish the clarity of audio signals and reduce the resolution of your video picture.

ADCOM's ACE-515 AC Enhancer significantly improves the performance capabilities of your system by filtering and processing raw AC power, unveiling a pure, noise-free power source.

Listen To The Critics

"...the effective suppression of AC 'RF hash' by the ACE-515 improved clarity and lowered noise in all three CD players. . . .the significant improvements in instrumental and vocal harmonic retrieval and hall ambience are superb. . . . it simply appears to allow musical information to be passed through to the listener with less veil and electronic 'haze.'"

—Lewis Lipnick, *Stereophile*, Vol. 11 No. 4, April 1988.

Recommended accessory in *Stereophile*, Vol. 12 No. 4, April 1989.

Line Protection: It Pays For Itself

The ACE-515 also protects your valuable equipment from harmful high-voltage spikes and surges. And, its sequential turn-on/turn-off control circuit guards your speakers from disturbing, damaging thumps.

Again, The Critics Agree

"Electronic equipment (especially digital audio gear) is vulnerable to both annoying and catastrophic power-line problems. Your stereo gear should have line spike and surge protection, with hash filters thrown in too. Line protection—you can pay a little for it now, or you can pay a lot for it later."

—Ken Pohlman, *AUDIO*, November 1987.

For a modest investment, the ADCOM ACE-515 enhances both audio and video clarity while protecting your equipment from damaging line voltage disturbances. Once again, ADCOM lives up to its reputation of offering superior performance at a reasonable cost. For complete technical data, please visit your Adcom dealer. You'll discover the ACE-515 is more than an accessory. It's a necessity.



ADCOM[®]

details you can hear

by *Christie Barter*
and *Rebecca Day*

DOLBY DOES IT AGAIN

A new Dolby noise-reduction system called Dolby S, a modified consumer version of Dolby Labs' professional Spectral Recording (SR) system, could be incorporated in U.S. cassettes and tape recorders by next year. The system is said to reduce noise by up to 24 db at high frequencies, improving the sound quality of analog cassettes to a level comparable with that of digital recordings (see "Signals" on page 20).

CAST YOUR BALLOTS

The 1989 New Music Awards are being sponsored exclusively by Aiwa America. Ballots to choose the best artist or record in six categories are available at participating Aiwa dealers (no purchase necessary to vote). The awards ceremony at the Beacon Theatre in New York City on October 26 will be taped for telecast in December.

CONSUMER ELECTRONICS SHOW

There were approximately 1,300 exhibits at the Summer Consumer Electronics Show held in Chicago June 3-6, and more than 57,000 people attended. Look for "CES Show Stoppers" in the September issue.

TECH NOTES

Sony has incorporated Hughes Aircraft Company's Sound Retrieval System (SRS) into eleven new television sets. The SRS circuitry is said to re-create the ambience and dynamic range of live performances, restoring information in the audio signal that is either masked or altered by stereo recording processes. . . . Canadian company Archer International Developments plans to complete development this summer of a two-channel, computer-based stereo mastering system called QSound, which it says is equivalent to discrete four-channel stereo. . . . Bose has introduced a third-generation Acoustimass speaker system, the

Acoustimass 3 (\$599), and is now offering its Acoustimass AM-5 system (\$799) in white as well as black.

MUSIC NOTES

Among the headliners in the Music and Peace Summit concerts being given at Moscow's Lenin Stadium on August 12 and 13 are Bon Jovi, Mötley Crüe, the Scorpions, and the U.S.S.R.'s own Gorky Park. . . . Featured in PBS's American Masters series this summer are a portrait of the Queen of Soul, Aretha Franklin, on July 24 and *Satchmo*, a documentary on the life of Louis Armstrong, on July 31. . . . By royal decree, the renowned Concertgebouw Orchestra of Amsterdam, which celebrated its hundredth anniversary last year, will henceforth be called the Royal Concertgebouw Orchestra. . . . The first rerelease on CD from the Painted Smiles catalog of Broadway rarities is a Gershwin album starring Barbara Cook and Bobby Short. . . . The Denon and Delos International catalogs of classical and jazz recordings are now being distributed by A&M. . . . Conductor Carlo Giulini is one of the first artists to sign exclusively with the new German-based Sony Classical label.

FINANCIAL AID

Klipsch is planning a limited fall release of a more competitively priced speaker line called Tangent. The two-way speakers, which will retail for about \$300 to \$1,200 each, incorporate horn-loaded tweeters. . . . Revox has lowered the prices for its B150 amplifier by \$300, to \$1,275, and for the B160 FM tuner by \$585, to \$990. Anyone who buys both components is also eligible for \$285 off the purchase of the Revox B126 CD player, which otherwise sells for \$1,275. . . . Luxman has cut the list price of its TP-117 multizone tuner/preamp from \$1,800 to \$1,250.

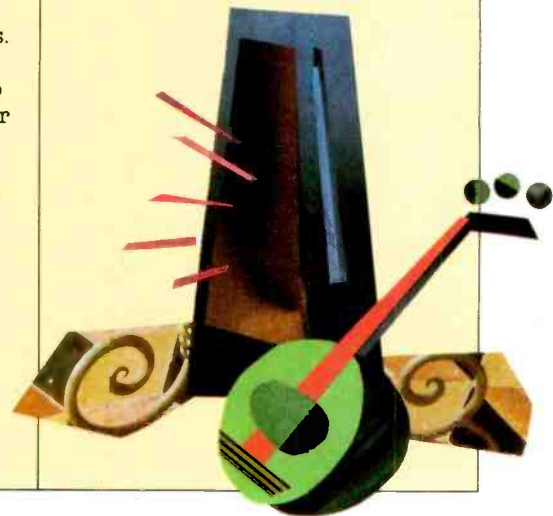
SUMMER READING

If I Can Dream: Elvis' Own Story by Larry Geller and Joel Spector (Simon & Schuster),

based on a secret diary kept by Geller, Presley's close friend, confidant, and spiritual advisor. . . . *Glenn Gould: A Life and Variations* by Otto Friedrich (Random House), a biography of the late Canadian pianist by one of *Time* magazine's senior writers. . . . *The Compact Disc: A Handbook of Theory and Use* by STEREO REVIEW Contributing Editor Ken Pohlmann (A-R Editions). . . . *Rock Movers & Shakers: An A to Z of the People Who Made Rock Happen* edited by Barry Lazell (Billboard), an up-to-date history of rock presented through some 1,000 alphabetical entries from Abba to Zappa.

HONORS

Two developers of compact disc technology—Johannes Sinjou of Philips International and Heitaro Nakajima, a former Sony technology advisor—have won the 1989 Masaru Ibuka Consumer Electronics Award, presented by the Institute of Electrical & Electronics Engineers and sponsored by Sony. . . . The Apogee Acoustics Diva ribbon speaker is part of an exhibit called "Shapes of the Baroque: The Historical Development of Stringed Instruments" that will run from November 1989 through June 1990 at the Smithsonian Institution in Washington. The exhibit is being sponsored by the American Federation of Violin & Bow Makers and the New York Public Library.



RENE KLEIN

The Monitor Series



Monitor 10B

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

“Polk’s Remarkable Monitors Redefine Incredible Sound/Affordable Price”

“At their price, they’re simply a steal” Audiogram Magazine

Monitor 10B

Considered one of the world’s best sounding loudspeakers and, in the words of Audiogram magazine, “At the price they are simply a steal.” The Polk 10B utilizes dual trilaminate polymer drivers coupled to a built-in subwoofer for accurate bass response and superior dynamic range. A 1” dome tweeter perfectly complements the other drivers to insure outstanding reproduction of every type of music.

Monitor 7C

Basically a smaller, less expensive version of the Monitor 10B. By offering superlative performance whether mounted on a shelf or a speaker stand, the 7C is a highly versatile addition to any audio system. How good does it sound? Audio Alternative magazine said, “It is amazing.”

Monitor 5B

Similar in design and performance to the Monitor 7C, however it utilizes an 8” subwoofer (rather than 10”) and is more compact. The 5B represents one of the best values of the entire Monitor Series.

Monitor 5Jr. +

Called the best sounding speaker of its price in the world regardless of size. It achieves life-like three-dimensional imaging which 10 years ago was not available in any bookshelf speaker at any price.

Monitor 4.5

Shares most of the high technology components and rewarding musical performance of the larger Polk speakers at a surprisingly low price. A critically tuned bass duct insures high efficiency and great bass performance despite its convenient compact design.

Monitor 4A

Identical to the 4.5 in a smaller cabinet. Audio critic Lawrence Johnson called it, “an all around star of great magnitude.” The 4A’s affordable price means that no matter how small your budget, you can afford the incredible sound of Polk!

Matthew Polk’s Vision: Superior Sound for Everyone

Polk Audio is an American company that was founded in 1972 by three Johns Hopkins University graduates who were fanatical audiophiles with a common vision. They believed that it was possible to make speakers that performed as well as the most exotic and expensive systems at a fraction of the price. Starting with only \$200, they began by designing and manufacturing the Monitor Series loudspeakers. The Monitor Series combined the advantages of American high technology and durability with European styling and refinement. Over the years an unending stream of rave reviews, industry awards, and thousands of enthusiastic Polk customers have established the Monitor Series as the choice for those looking for both incredible sound and an affordable price. There is no better value in audio equipment today than a Polk Monitor series loudspeaker.

Uncompromising Standards at Every Price

A limited budget does not mean a limited ability to appreciate fantastic sounding music. That’s why we put our best engineering efforts and only the finest materials into every Polk product regardless of price.

Every Polk Monitor Series speaker uses the same trilaminate polymer cone technology as the flagship SDA-SRS 1.2. Every Polk Monitor utilizes a 1” polymer dome tweeter, and most use exactly the same tweeter found in the SRS 1.2. All Polk Monitors employ costly multi-component crossover networks and ¾” thick high density, non-resonant cabinets. Pick up a Polk Monitor 4A, then pick up a comparably priced but larger speaker from a different manufacturer. You’ll notice that the Polk is heavier, more solidly built, and sports a superior fit and finish. Now compare the sound. We are sure you’ll agree with Musician magazine, which said Polk Monitors are: “Vastly superior to the competition.”



Matthew Polk with his incredible sounding/affordably priced Monitor Series loudspeakers. Front row (L to R) Monitor 5Jr. +, Monitor 4A, Monitor 4.5 Back row (L to R) Monitor 10B, Monitor 7C, Monitor 5B

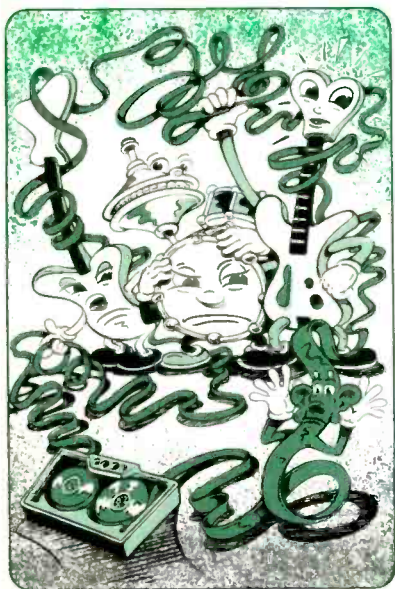
The Thrilling Sound of Polk Monitors

Polk Monitors achieve open, boxless, three-dimensional imaging surpassed only by the SDA’s. Their silky smooth frequency response assures natural, non-fatiguing, easy to listen to sound, while their fast transient response results in music that is reproduced with life-like clarity and detail. In addition, dynamic bass performance, ultra-wide dispersion, high efficiency and high power handling are all hallmarks of Monitor Series performance.

There is a Polk Monitor Perfect for You

Each time you advance through the six Monitor Series models, you’ll immediately hear a remarkable improvement in efficiency, bass response, and output volume. They are designed so that a smaller Polk played in a small room will sound nearly identical to a larger Polk played in a large room. A larger Polk in a small room will, of course, play that much louder with even better bass. No matter what price range fits your budget, there is a spectacular Polk Monitor Series speaker waiting to fulfill your sonic dreams.

**Where to buy Polk Speakers?
For your nearest dealer, see page 98.**



WHY MANY PEOPLE CAN'T GET NO SATISFACTION WHEN THEY TAPE ROCK & ROLL.



Lots of tapes out there think rock & roll is a communist conspiracy to corrupt the youth of America. You'd think each tape comes with its own little censor who snips out all those great, devastating sounds—the ones that really challenge a tape's performance.

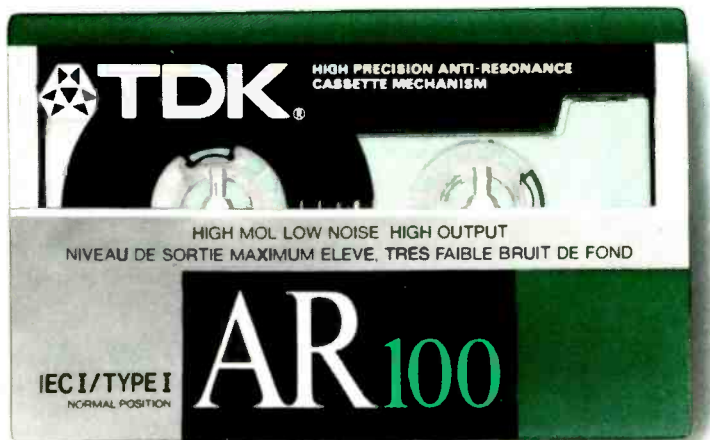
But don't be dismayed. Because there's a new cassette out there that faithfully reproduces the dynamism of rock & roll. From the lowest lows. To the highest highs. It's TDK's spectacular AR—a "normal" position tape that craves high resolution digital sources.

What gives AR its ability to deliver such clean, powerful sound begins with an incredible TDK innovation: NP (non-porous) ferric magnetic particles. Since the particles have no pores, the magnetic energy is far greater. There's also a special binder system and coating technology that insure maximum dispersion and super high packing density.

The results? High and low frequency MOLs (Maximum Output Levels) are -6.0 dB and +6.5 dB respectively. (The low is equal to METAL tape! Wow!) Bias noise is a low -56.0 dB. And the dynamic range is exceptionally wide.

To preserve the integrity of this unparalleled tape, modulation noise has been substantially decreased, thanks to TDK's low resonance HP-AR mechanism and shell. And to get the most from your CD's, it's available in 100 as well as 60 and 90 minute lengths.

Now, AR you satisfied?



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Stereo Review

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more to buy ever!

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California Girl. 00842

Randy Travis: Old 8x10 • Honky Tonk Moon,
Is It Still Over?, etc. Warner Bros. 00088

Tona-Loc: Loc-Ed After Dark • Wild Thing,
Funky Cold Medina, etc. Delicious 01033

Bette Midler: Beaches/Original Motion
Picture Sdtrk. • Atlantic 00793

Paula Abdul: Forever Your Girl, • Straight
Up, Little Smash, etc. Virgin 00933

E.U.: Livin' Large • Buck Wild, plus DaButt
89, etc. Virgin 01102

Mike + The Mechanics: The Living Years
Atlantic 00710

Milli Vanilli: Girl You Know It's True • Title
Song, etc. Arista 01048

R.E.M.: Green • Orange Crush, Pop Song 89,
etc. Warner Bros. 00715

George Strait: Beyond The Blue Neon
Title hit, etc. MCA Digital 01025

TNT: Intuition • Tonight I'm Falling, Wisdom,
etc. Mercury 01087*

James Galway: Greatest
Hits • The Pink Panther,
etc. RCA Digital 73233

Winger • Headed For A
Heartbreak, Seventeen,
more. Atlantic 00830

Bobby Brown: Don't Be
Cruel • Don't Be Cruel,
Roni, etc. MCA 00621

Dion: Yo Frankie • King Of
The New York Streets, etc.
Arista 00825

The Judds: River Of Time • One Man
Woman, Young Love, etc. RCA 01027

Polson: Open Up And Say...Ahh! • Good
Love, etc. Capitol/Enigma 73989

Vanessa Williams: The Right Stuff
Dreamin', etc. Wing/PolyGram 01110

20 Million Dollar Memories • The Everly
Brothers, others. Laurie 20773

Don Williams: One Good Well • Learn To Let
It Go, etc. RCA 62406

AC/DC: Back In Black • You Shook Me All
Night Long, Hells Bells, etc. Atlantic 13772

Breathe: All That Jazz • How Can I Fall,
Janah, others. A&M 00505

Robert Palmer: Heavy Nova • Simply Ir-
resistible, etc. EMI 00035

Chalkovsky, 1812 Overture; • Chic. Sym./
Jolt, more. London Digital 25179

Escape Club: Wild Wild West • Shake For
The Sheik, etc. Atlantic 00804

Too Short: Life Is...Too Short • City Of Dope,
etc. Jive 54041*

Elvis In Nashville, 1956-1971 • A Big Hunk
O'Love, etc. RCA 00833

Bobby McFerrin: Simple Pleasures • Don't
Worry, Be Happy, etc. EMI 64165

Ronnie Milsap: Stranger Things Have Happen-
ed • Houston Solution, etc. RCA 01028

Simply Red: A New Flame • It's Only Love,
Enough, etc. Elektra 01012

Judy Collins: Sanity And Grace • Pretty
Polly, etc. Gold Castle 01039

Restless Heart: Big Dreams In A Small
Town • Eldorado, etc. RCA 24777

The Decline Of Western Civilization, Part II
Metal hits from the film. Capitol 00464

Bruce Hornsby And The Range • Scenes
From The Southside RCA 80187

The Cowboy Junkies: The Trinity Session
Sweet Jane, etc. RCA 01043

Major Glenn Miller & The Army Air Force
Band 1943-44 • RCA/Bluebird 14720

Aretha Franklin: Through The
Storm • Think, title hit, etc.
Arista 01097

Bon Jovi:
New Jersey
00516

Cocktail (Original Soundtrack) • Bobby
McFerrin, Beach Boys, etc. Elektra 00459

Steve Winwood: Roll With It • Don't You
Know What The Night Can Do?, etc.
Virgin 54633

Roxette: Look Sharp! • The
Look, Cry, Dressed For Suc-
cess, etc. EMI 01106*

1969/Original Soundtrack
Original '60s hits.
Polydor 00724

Melissa Etheridge • Don't
You Need, Occasionally, etc.
Island 60352

Enya: Watermark • Orinoco
Flow (Sail Away), others.
Geffen 01041

Beethoven, Sym. No. 9 (Choral) • Norrington
conducts. Angel Digital 00457

Sheena Easton: The Lover In Me • Days Like
This, 101, etc. MCA 00708

Lyle Lovett And His Large Band • Stand By
Your Man, etc. MCA/Curb 00932

INXS: Kick • Need You Tonight, Devil Inside,
etc. Atlantic Digital 53606

Bon Jovi: Slippery When Wet • Never Say
Goodbye, etc. Mercury 43465

Karyn White • Superwoman, Love Saw It, etc.
Warner Bros. 00832

U2: The Joshua Tree • With Or Without You,
more. Island 53501

Samantha Fox: I Wanna Have Some
Fun • I Only Wanna Be With You, etc.
RCA/Jive 00676

Dirty Dancing/Original Motion Picture
Soundtrack • RCA 82522

Dirty Dancing Live In Concert • Hungry
Eyes, Yes, etc. RCA 01026

Chicago: 19 • Heart In Pieces, Runaround,
more. Reprise 54404

Pavarotti At Carnegie Hall • Songs by
Schubert, others. London 15311

Animation • Room To Move, Send It Over,
more. Polydor 01091*

Clint Black: Killing Time • A
Better Man, others. RCA 01112*

Guns N' Roses:
Appetite For
Destruction
70348

Elton John: Reg Strikes Back • Town Of
Plenty, more. MCA Digital 00602

Wang Chung: The Warmer Side Of Cool
Praying To A New God, more. Geffen 01063

Led Zeppelin IV (Runes) • Stairway To
Heaven, Rock & Roll, etc. Atlantic 12014

Crosby, Stills, Nash & Young: American
Dream • Atlantic Digital 00714

Highway 101: 101 • Setting Me Up, Desperate
Road, etc. Warner 00475

"Big Chill" • Heard It Through The Grape-
vine, etc. Motown 33970

The Duke Ellington Orchestra: Digital Duke
GRP • Digital 63356

Anthrax: State Of Euphoria • Antisocial,
Schism, etc. Island 00589

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Vibrations, etc. Capitol 23559

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Lewis, Johnny Cash, etc. Rhino 44534

A Show Of Hands • Marathon, Big
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Elvis Costello: Spike • Veronica, ... This Town..., etc. Warner Bros. 00841
The Police: Every Breath You Take—The Singles • A&M 73924
Holst, The Planets • Montreal Symphony/Dutoit. London Digital 15448
Whitney Houston: Whitney • So Emotional, others. Arista 52854
Kenny G: Silhouette • Tradewinds, title song, etc. Arista 00603
Benny Goodman & His Orchestra: Sing, Sing, Sing, RCA/Bluebird 04857
Raffi: Singable Songs For The Very Young Shoreline 44494
Vixen: • Edge Of A Broken Heart, Cryin', Desperate, etc. EMI 00507
John Cougar Mellencamp: The Lonesome Jubilee • Mercury 34420
Morton Downey Jr. Sings! • Operate Operate, more. Compose/PP1 01082
Rick Astley: Hold Me In Your Arms • Dial My Number, etc. RCA 00684
Nitty Gritty Dirt Band: More Great Dirt Latest hits! Warner Bros. 00818
New Order: Technique • Fine Time, All The Way, etc. Qwest 00938
Dan Seals: Rage On • Big Wheels In The Moonlight, etc. Capitol 00041
Def Leppard: Pyromania • Photograph, Rock! Rock!, etc. Mercury 70402
Barry Manilow: Greatest Hits, Vol. 1 Mandy, Daybreak, etc. Arista 72863
Kiri te Kanawa Sings Gershwin • Summer-time, more. Angel Digital 70258
Skid Row • Youth Gone Wild, I Remember You, etc. Atlantic 01038

Tesla: The Great Radio Controversy • Hang Tough, etc. Geffen 00839
Tracy Chapman • Fast Car, Talkin' 'Bout A Revolution, more. Elektra 53582
Lou Reed: New York • Dirty Blvd., Halloween Parade, etc. Sire 01058
White Lion: Pride • Wait, Tell Me, Hungry, etc. Atlantic 73981
Anne Murray: As I Am • Flying On Your Own, etc. Capitol 00592
38 Special: Rock & Roll Strategy • Second Chance, others. A&M 00599
Joe Sample: Spellbound • U Turn, title song, etc. Warner Bros. 00847
Phil Collins: Buster/Original Motion Picture Sdtrk. • Atlantic 00517
Genesis: Invisible Touch • Tonight Tonight Tonight, Domino, etc. Atlantic 53740
Dwight Yoakam: Buenas Noches From A Lonely Room • Reprise 00009
Horowitz Plays Mozart • Concerto No. 23 in A; more. DG Digital 15436
Van Halen: OU812 • Feels So Good, Cabo Wabo, etc. Warner Bros. 50913

The Cult: Sonic Temple 01015



Fine Young Cannibals: The Raw And The Cooked 01068

Alabama: Southern Star 00914

AND DON'T MISS THESE SMASH HITS

Fleetwood Mac: Greatest Hits 00796
Rod Stewart: Sing It Again Rod 00942
Best Of Dire Straits 00713
Kiss: Smashes Thrashes And Hits 00736
The Judds: Greatest Hits 44578
Best Of Judy Collins 01040
Dave Grusin: Collection 00929
Alabama: Greatest Hits 02047
R.E.M.: Eponymous 00701
Dion: The Wanderer (18 Hits) 00999
Bananamama: Greatest Hits 00616
Dokken: Beast From The East 00717
Hank Williams, Jr.: Greatest Hits III 00840
Best Of Eric Clapton 23385
Elvis Presley: The #1 Hits 72190
Steve Winwood: Chronicles 34501
Lee Greenwood: Gt. Hits, Vol. 2 00661
The Best Of Bad Company 60321
The Very Best Of Connie Francis 23434
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Lynyrd Skynyrd's Innryds 01150
Eagles: Gt. Hits 1971-1975 23481
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Sheena Easton: Greatest Hits 01000*

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LETTERS

American Audio Classics

I am bewildered by Michael Smolen's "American Audio Classics" in June. How could he ignore Acoustic Research? In my opinion, the AR-3 is still the greatest design ever and still sounds as clear, clean, and precise as any speaker today.

GENE JORCZAK
Sauk Village, IL

Your June issue is heartwarming, but Hafler equipment figured as a glaring omission among "American Classics"!

CARLOS E. BAUZA
San Juan, PR

If the purpose of "American Audio Classics" was to restore pride in our nation's manufacturing genius, well and good. I'm struck, however, by the omission of designs by Bob Carver, whose contributions to audio are significant.

MIKE SILVERTON
Brooklyn, NY

I was amazed that you could have ignored the contribution of Gene Czerwinski and Cerwin-Vega, Inc., in the field of loudspeaker design or the development of audio "classics." Cerwin-Vega was the first mainstream manufacturer to acknowledge that consumers want heart-stopping bass.

RONALD N. MAY
Chatsworth, CA

Michael Smolen replies: I did mention the pioneering AR-1 speaker in my introduction, and I never claimed to be presenting a complete portfolio. There are far too many fine American audio products to be covered in one article.

American Loudspeakers

The June issue was outstanding, particularly the article "The Making of an American Loudspeaker" by Ian G. Masters. I met some of the pioneers he mentioned some forty years ago at hi-fi shows in Boston. Rudy Bozak's speakers sounded best to me, and Bozak also supplied plans to build various models. I built a pair of the larger Bozaks, which still sound better than many speakers of today.

ALFRED E. GROSSER
W. Roxbury, MA

Movers and Shakers

I was surprised that Warren Berger's otherwise excellent article on the "movers and shakers in new audio technology" in June did not include at least passing note of that wunderkind of American technology, Bob Carver. It was Carver, after all, who introduced such

state-of-the-art products as the Magnetic-Field Amplifier, Sonic Holography, the Assymetrical Charge-Coupled FM Detector, the Digital Time Lens, and the Amazing Loudspeaker.

Bob Carver breaks the rules. He doesn't approach design problems in conventional ways, and as a result we are often rewarded with breakthrough components.

BERNARD A. DUPONT
Putnam, CT

More New Age Essentials

Regarding Frank Forest's letter in May, which gave a list of recommended "New Age essentials": I, myself, am an avid listener to New Age music, and while I would never challenge a person's right to his opinion, I would like to ask Mr. Forest, in the world of New Age music, what is Vangelis . . . chopped liver?

HERB GOLDMAN
Anaheim, CA

Labeling CD's

As a music librarian with a steadily increasing collection of CD's, I am concerned about handling them in a way that will preserve the collection for future listeners. We have been trying to follow the suggestions in Rebecca Day's April article, "Where's the Rot?," but we have not found a way to label our CD's adequately without breaking the seventh rule: "Don't use markers or gummed stickers to label CD's."

Besides preserving our CD collection for posterity, we must protect it from theft and disorganization to insure its availability on a daily basis. In addition to marking and magnetically sensitizing our CD containers and inserts, we label the discs themselves with a combination of markers and pressure-sensitive labels. The markings must be large enough to deter theft and to be quickly checked by our student assistants. They must also be as permanent as possible.

I have talked with numerous music librarians, and most are using the same methods. I would appreciate any suggestions you have for solving our problems, and I will pass them on to other interested music librarians.

BETH CHRISTENSEN
Music Librarian, St. Olaf College
Northfield, MN

We asked Scott Bartlett, director of sales and marketing for Sony's Digital Audio Disc Corp., about safe CD-labeling techniques. He said: "They've got a problem. In no way would I say there's some kind of generic item people can use to mark CD's. My advice is, don't put anything on them. Instead, figure out a way to

mark the box or something. I can silk-screen a disc with approved inks—that's putting a label on it—but there's a hellacious charge for that."

Amplifier Voltage

There's an error in Ian G. Masters's May "Audio Q&A" column. In reply to a question about doubling an amplifier's power by connecting it to a 220-volt line instead of a 120-volt one, he said that "... an amplifier is designed to work with a certain voltage, but that is always much higher than the AC house current." Well, that was largely true back in the tube era, but it seldom if ever holds today, and certainly not for solid-state designs, which typically operate well below the 120-volt level.

None of this, of course, affects Mr. Masters's basic premise, which is that what comes out of a power transformer is more significant in this context than what goes into it.

KLAUS HALM
East Point, GA

Ian G. Masters replies: The point I was trying to make, as Mr. Halm confirms, was that the line voltage an amplifier is connected to is basically irrelevant to its power output. In doing so, however, I showed my age by suggesting that voltage is stepped up, rather than down, in the power supply. This was once common and still is in many autosound amplifiers, but Mr. Halm is correct in pointing out that it is rarely the case in today's domestic models.

Shirley Bassey

Would it be possible for STEREO REVIEW to tell me what has happened to Shirley Bassey? I have quite a few albums by her (one on CD), but I haven't seen any new releases in quite a long time.

AL COTE
Old Town, ME

Ms. Bassey has been living in Spain. While she has not been particularly active in recent years, she did sing three concerts at Carnegie Hall in New York City this June, followed by dates in Florida and Toronto, and she has a new album out. Titled "La mujer," it is an all-Spanish album on Mercury.

Corrections

Through an editorial error, the great jazz guitarist Django Reinhardt was erroneously identified as a violinist in Phyl Garland's review of the Gipsy Kings album in June. Also, the photo of Bonnie Raitt on page 93 was printed backward; she is not left-handed. □



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NEW PRODUCTS

YAMAHA

Yamaha's DSP-100U Digital Sound Field processor has twelve presets, nine of them with two options, to simulate a variety of actual performance locales—six concert halls, a church, two rock venues, four jazz clubs, two discos, a chamber-music hall, and four movie theaters—as well as decoding standard Dolby Surround. Each of the presets can be altered in several ways by the user. If a TV monitor is used with the system, all settings and changes can be displayed on screen. A wireless remote control is included. The DSP-100U is available in black or titanium-color finish. Price: \$699. Yamaha Electronics, Dept. SR, 6722 Orangethorpe Ave., Buena Park, CA 90620.

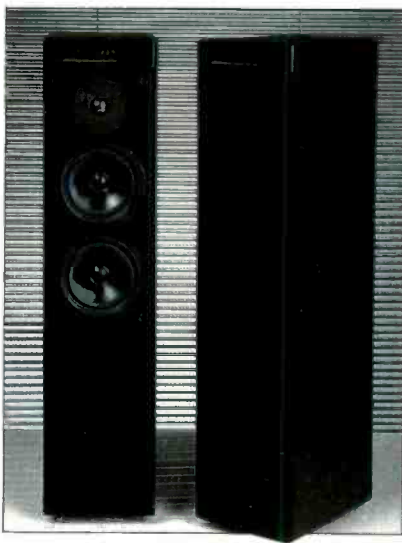
Circle 120 on reader service card



MERIDIAN

Meridian's D600 is a three-way active loudspeaker system that accepts coaxial or optical digital inputs and incorporates the capabilities of a versatile multi-room remote-control system. Signal-processing circuits, digitally controlled analog circuits, an electronic crossover, and three 70-watt amplifiers (one for each driver) are housed within each tower enclosure. Each speaker has two 6¼-inch polypropylene woofers—one for bass frequencies only and one for bass and midrange frequencies—and a 1-inch aluminum-dome tweeter. Dimensions are 35½ x 8¼ x 12 inches, and weight is 71 pounds. Black-ash, walnut, and rosewood finishes are available. Price: \$5,490 a pair. Meridian America, Dept. SR, 14120-K Sullyfield Circle, Chantilly, VA 22021.

Circle 121 on reader service card



TEAC

The Teac W-550R dual-well cassette deck uses a two-motor logic-control mechanism. Features include autoreverse, Dolby HX Pro headroom extension, Dolby B and Dolby C noise reduction, automatic tape-type selection, and blank scan. Wow-and-flutter is rated as

0.07 percent wrms, frequency response as 30 to 19,000 Hz with metal tape. The deck can be controlled remotely with Teac's UR system. Price: \$359. Teac, Dept. SR, 7733 Telegraph Rd., Montebello, CA 90640.

Circle 122 on reader service card



PIONEER

The Pioneer DEH-55 is a DIN-size, front- or rear-mounting car CD receiver with a 20-watt-per-channel amplifier. The CD player incorporates a double-oversampling digital filter and three-beam laser pickup and features repeat and random-play functions. The tuner

has eighteen FM and six AM presets. A built-in noise suppressor is said to eliminate static and ignition noise. Price: \$600. Pioneer Electronics, Dept. SR, 2265 E. 220th St., P.O. Box 1720, Long Beach, CA 90801-1720.

Circle 123 on reader service card

NEW PRODUCTS



BIC AMERICA

The V830 speaker, the top model in BIC America's new Venturi series, features a proprietary vented enclosure with a tapered duct. The three-way system has a 6-inch woofer, a 6-inch mid-range, and a 1-inch soft-dome tweeter. Recommended amplifier power is 20 to 150 watts. Frequency response is rated as 40 to 22,000 Hz -6 dB, sensitivity as 91 dB sound-pressure level at 1 meter with a 1-watt input. Dimensions are 34 1/4 x 9 x 11 1/8 inches. Price: \$800 a pair. BIC America, Dept. SR, 895-E Hampshire Rd., Stow, OH 44224. *Circle 124 on reader service card*

KENWOOD

The Kenwood KR-V9010 audio/video receiver, rated at 130 watts per front channel, 20 watts per rear channel, has Dolby Pro Logic decoding in normal, wide, and phantom modes. Other features include twenty presets for AM or FM stations, adjustable digital delay, a

seven-band electronic graphic equalizer with ten presets, a seven-band spectrum-analyzer display, and a universal remote control. Price: \$850. Kenwood U.S.A., Dept. SR, 2201 E. Dominguez, Long Beach, CA 90810. *Circle 125 on reader service card*



TECHNICS

The SL-PC10 compact disc changer from Technics has a top-loading, five-disc carousel design with a transparent window in the dust cover that allows users to see which discs have been loaded. The player uses a quadruple-oversampling digital filter and dual dig-

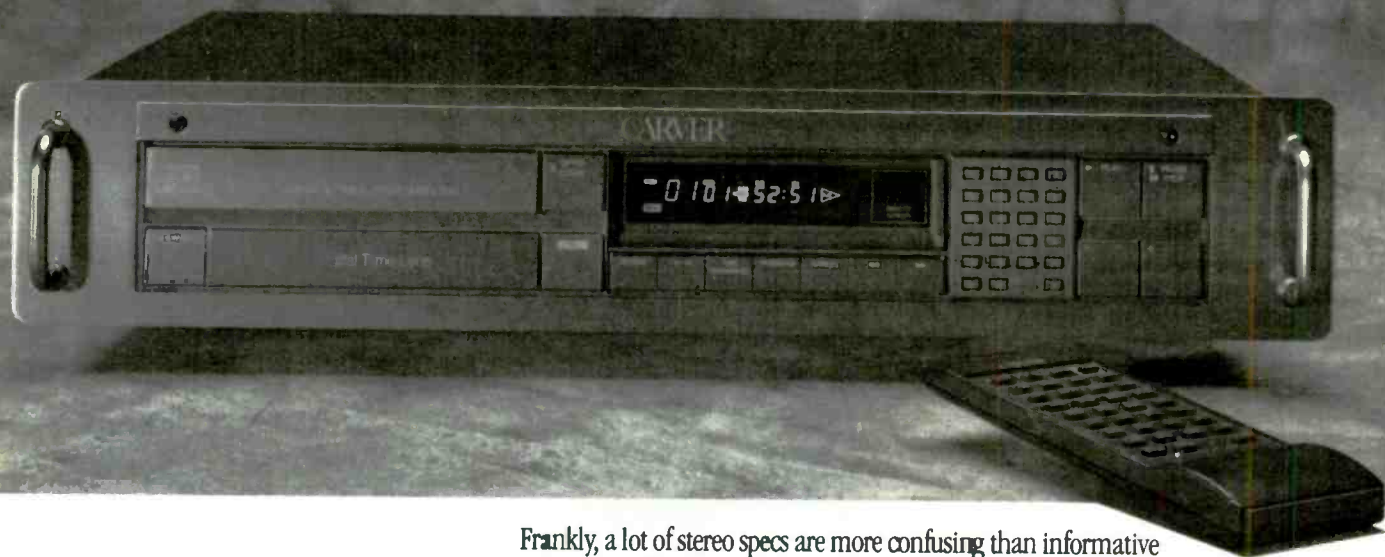
ital-to-analog converters. Features include twenty-track programming, repeat mode, random play, and remote control. Price: \$289.95. Technics, Dept. SR, One Panasonic Way, Secaucus, NJ 07094. *Circle 126 on reader service card*



CONCORD

Concord's CX40x cassette receiver, part of its new seven-unit CXx series, has a Matched Phase tape head, Dual Azimuth Adjust autoreverse, DC motors, and Dolby B and Dolby C noise reduction. The tuner circuitry is said to adjust automatically to provide minimal noise. Switchable for two or four channels, the amplifier section is rated to deliver 12.5 watts into two channels, 4.5 watts into four channels. It has preamp faders and gold-plated preamp outputs. Price: \$349.95. Concord Auto Sound, Dept. SR, 25 Hale St., Newburyport, MA 01950. *Circle 127 on reader service card*

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Frankly, a lot of stereo specs are more confusing than informative. But the benefits of increased digital oversampling rates are tangible and audible. At least when they're incorporated in a player as advanced as the TL-3300. It literally extracts *eight times* more information from a CD than conventional players can. Combined with its ability to resolve amplitude information *400% better* than a 16-bit player, the TL-3300 dramatically reduces noise levels and distortion while enhancing musical detail and faithfully reproducing CDs' full dynamic range. Add dual D/A converters for improved phase linearity, meticulously designed analog output circuitry and Carver's unique Digital Time Lens feature you have a player that can re-define the Compact Disc experience. High-end harshness melts away to reveal the intimate details of the performance and the space in which it was recorded.

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NEW PRODUCTS



CALIBRON

Calibron's Pro 40 circumaural headphones have 40-millimeter samarium-cobalt drivers with 16-micrometer titanium diaphragms. The frequency response is rated as 5 to 30,000 Hz, the sensitivity as 105 dB. The ear cushions are covered with leatherette. Price: \$39.99. Calibron, Inc., Dept. SR, 2950 Lake Emma Rd., Lake Mary, FL 32746.

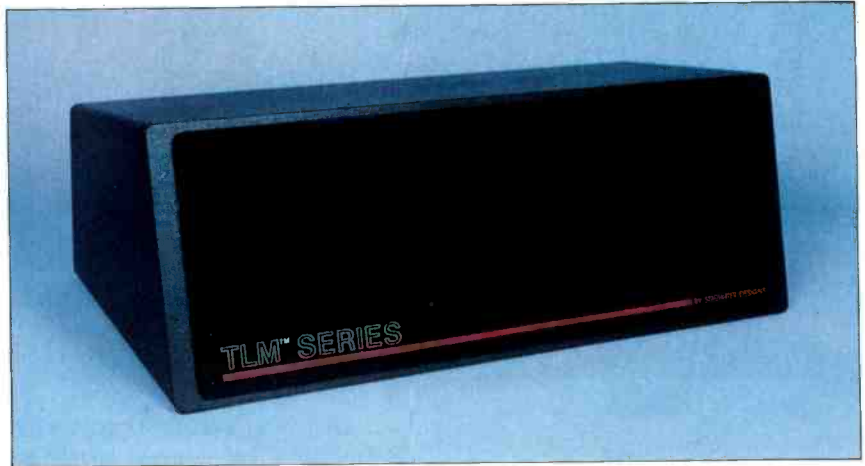
Circle 128 on reader service card

STILLWATER DESIGNS

The Kicker TLM-10 car speaker system from Stillwater Designs utilizes a Transmission Line Midrange enclosure, which is said to prevent reflections against the rear of the speaker cone for a more natural-sounding mid-range. The TLM-10 has two 10-inch copolymer woofers with 1-inch excursion capability rated for deep-bass response down to

19 Hz. High frequencies are handled by a pair of polyester-film dome tweeters. Crossover points are 500 and 4,500 Hz. Overall frequency response is given as 19 to 21,000 Hz. Dimensions are 35 x 12 x 17 inches. Price: \$629.95. Stillwater Designs, Dept. SR, 1210 S. Main St., Stillwater, OK 74074.

Circle 129 on reader service card



ORTOFON

The PPA600 two-channel power amplifier is Ortofon's first electronics product. It is rated for up to 225 watts continuous output per channel into 8 ohms or 350 watts into 4 ohms, both channels driven. Switched into its bridged-mono mode, it is rated for 650 watts into 8 ohms. Its sixteen power MOSFET's are said to produce peak out-

put currents of at least 40 amperes, enabling the amplifier to drive low-impedance or highly reactive speaker loads easily. The unit is protected against electrical or thermal overload and short-circuited output terminals. Price: \$2,000. Ortofon, Dept. SR, 122 Dupont St., Plainview, NY 11803.

Circle 130 on reader service card

MAGNAVOX

Magnavox's CK1050CH miniature color TV set, weighing just 1 1/4 pounds, includes an AM/FM radio. The 3-inch liquid-crystal display is claimed to have 92,160 pixels (picture elements) for good detail. Features include channel memory, channel recall, and on-screen graphics for color, tint, and brightness adjustments. The set has a stereo headphone jack, an input jack so it can be used as a camcorder monitor, and an external antenna jack. It can be operated from house current, a car battery, a rechargeable battery, or six AA batteries (included). Price: \$449. Magnavox, Dept. SR, One Philips Dr., P.O. Box 14810, Knoxville, TN 37914-1810.

Circle 131 on reader service card



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by Ian G. Masters



FM Reception

Q I have been told that high-quality FM reception is more a matter of a good antenna than an expensive tuner. If that's true, how can I receive distant stations that have frequencies close to local ones? Is it possible with an indoor antenna?

KEVIN SELLERS
Lafayette, LA

A For best reception of a distant station, you must do two things. The first is to deliver to your tuner a signal of sufficient strength to rise above the noise inherent in any FM signal. That requires a high-sensitivity antenna, and these are usually fairly large—too large for indoor use in most cases. Antenna height is also important, as FM signals travel in straight lines; the higher your antenna, the less effect the curvature of the earth will have. Unless you live on a hill or on an upper floor of a high-rise apartment, an indoor antenna is unlikely to pull in faraway stations very effectively.

The other requirement is to separate the signals you want from others located nearby in the FM band, particularly if the interfering signals are strong local ones. Like television, the FM band is divided into channels, in this case spaced at 200-kHz intervals. Those that are next to each other (at 99.5 and 99.7 MHz, for instance) are termed "adjacent channels," while those 400 kHz apart (99.5 and 99.9 MHz, say) are called "alternate channels." A tuner's ability to

discriminate between a desired station and others nearby is "selectivity."

Most tuners have little trouble providing good alternate-channel selectivity, so broadcast regulators have made sure that stations in a given geographical area are always at least 400 kHz apart. When you attempt to receive a signal from another area, however, it might well be on an adjacent channel. In that case, good adjacent-channel selectivity becomes important, and that's one of the hallmarks of a high-quality tuner.

Hi-Fi VCR's Overseas

Q I belong to a tape-exchange club based in Britain. Over the years we have used open-reel and then cassette tape, but I have recently started to use my VHS Hi-Fi videocassette recorder as an audio-only medium. I know that the video standards are different here and in the U.K., but I'm not sure about audio. Would a hi-fi tape made on my VCR play properly in Europe?

BILL BAUCUM
Independence, CA

A No. Videocassette recorders sold in countries with the PAL television system (most of Europe, including Britain) are, as you note, incompatible with those sold here or in Japan, and this applies to hi-fi audio recording just as it does to video information, because normally both are recorded together. The only way you could exchange such tapes would be for either you or your correspondent to use a multistandard VCR with hi-fi audio capability.

Calculating Speaker Output

Q I have two pairs of speakers with essentially the same specifications, which I run from a single amplifier with no problems. Is there any way to calculate what the total sound-pressure level (SPL) is when both pairs of speakers are operating?

BARRY A. LOGSDON
Everett, PA

A There is no easy way to make such a calculation because many variables come into play. If the speakers are side by side, for example, the low-bass output will be additive, and the increase in SPL will be 6 dB at the bottom end of the spectrum. If, however, the speakers are in different parts of the room, some frequencies will add while others will cancel out, yielding a total increase of perhaps 3 dB, but at the sacrifice of flat response. At higher frequencies, this process of constructive and destructive interference will occur even if the speakers are very close together. At cer-

tain frequencies you will achieve an increase of 6 dB, at others almost complete cancellation. Again, the overall increase would probably be on the order of 3 dB, but the sound quality itself is likely to be seriously degraded.

The addition of extra speakers to achieve louder sound levels is therefore usually not a good idea. The few decibels gained would be barely noticeable, and the sound quality would almost certainly be inferior to that from a single pair. In addition, the extra speakers would present a very low impedance to the amplifier's output stages, which might well damage them (although that doesn't seem to have been a problem in your case). A much more satisfactory solution is simply to turn up the level control on your amplifier.

Outboard Tweeters

Q In addition to a conventional pair of 6-ohm speakers, I use a separate pair of 8-ohm tweeters wired in parallel. When I'm driving this setup at high levels, am I risking any damage to my receiver's output circuits?

JERRY WILSON
Washington, DC

A You'll probably fry the tweeters long before anything happens to your receiver. It is true that if both sets of speakers were full-range units they would have a combined impedance of less than 4 ohms, and this might cause problems with some amplifiers, particularly since the impedances quoted are only nominal; the actual impedance might well be much lower at some frequencies. But tweeters don't consume a great deal of power—the bulk of an amplifier's output is used to produce low-frequency energy—so your arrangement is not likely to result in amplifier-section damage.

On the other hand, not only do tweeters not need much power, but they can't handle much either. In a full-range speaker system most of the amplifier's output is directed to the woofer, the tweeter receiving only as much as it requires. In your setup, however, the full frequency spectrum is being delivered to the delicate voice coil of the outboard tweeters. They are not likely to last long if you turn up the volume.

In any event, there are acoustic reasons for not employing your arrangement. For one thing, widely separated tweeters are likely to reinforce each other at some frequencies and cancel out at others, resulting in a very uneven overall response. Also, imaging will probably be poor, as much of the directional information in an audio signal is carried by the tweeters; having extra ones will only cause spatial confusion. □

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DOLBY S

by Ken C. Pohlmann

THE digital audio tape (DAT) format is one of the most sophisticated recording technologies available today. It packs data onto tape at 114 million bits per square inch—the first time such a high density has been achieved—using helical scan tracks one-tenth the thickness of a human hair. Remarkable.

The DAT format is also one of the most troubled recording technologies today, and it is still not widely available.

Meanwhile, the analog cassette reigns as the foremost medium for prerecorded and blank media. Thanks to innovations such as Dolby B and Dolby C noise reduction, this once-lowly technology—originally conceived by its inventor, Philips, as a format for office dictation—provides highly respectable fidelity. Recent listening tests conducted by Dolby Laboratories demonstrated that only two out of ninety audio professionals could hear the difference between a CD and a Dolby C recording of it.

Clearly, one of DAT's biggest obstacles is the fidelity of the analog cassette; in the minds of many prospective customers, the analog cassette is good enough, so why bother with DAT? That perception may soon become even more firmly entrenched. As if Dolby B and Dolby C weren't enough, Dolby recently announced the development of Dolby S-type noise reduction, a new and improved consumer system that promises to extend the lifespan of the analog cassette even further.

Dolby S is derived from Dolby SR, the professional noise-reduction system designed to supplant the professional-level Dolby A system. Dolby SR, for Spectral Recording, has been used by recording professionals for almost three years to increase dynamic range by up to 24 dB at high frequencies and up to 10 dB at low frequencies. This surpasses performance with Dolby A, and Dolby SR is more tolerant of level and response errors between encoding and decoding.

Dolby S is similar to both Dolby SR and Dolby C in that all three systems use spectral skewing to fit the audio signal onto the tape. A tape has a certain dynamic range at any given frequency; for optimal performance, the signal must be compressed to match that response precisely. The more advanced Dolby systems use so-called "action response" in their compression modes; Dolby S has both fixed-band and sliding-band processors, used separately or together, to compress any input signal. A "modulation control" circuit watchdogs the spectral skewing to optimize its effect and balance the spectrum of the encoded signal, hence minimizing the audibility of the noise-reduction processing.

Of course, there is more to high-fidelity tape recording than noise reduction. For example, consistency of performance is crucial. Thus, the Dolby S specifications call for enhanced mechanical and electrical performance of cassettes and cassette decks in order to upgrade the overall status of analog tape technology. Only in that way can such an old format compete with newer ones such as CD and DAT.

Specifically, any software or hardware licensee using Dolby S must also agree to a number of other improvements: Low-frequency response must extend to 50 Hz \pm 3 dB; this is important for maintaining proper spectral balance. High-frequency response must be extended at least to 14,000 Hz (modern heads and tapes should have no problem with this). There will be a specification for tape-head azimuth, which must be accurately adjusted to reduce mistracking and high-frequency errors and to improve compatibility. The hardware must provide a means of adjusting record-bias and playback-equalization calibrations either manually or automatically to help insure consistent performance with a wide variety of tape formulations. Moreover, an automatic tape-type sensor and bias/EQ setting will be required. Both the recording and playback circuitry must have a dynamic headroom of 15 dB so as to be able to handle the full response range the tape is able to record. Finally, new specifications may be

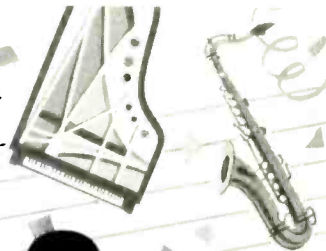
set for wow-and-flutter, distortion, and head-gap tolerances.

Ironically, one of the first victims of Dolby S may be Dolby C. Although Dolby C is widely available on recorders, fewer playback-only machines have the circuit; thus, recording companies have been very slow in releasing Dolby C cassettes, mainly sticking with Dolby B. Dolby C was first introduced as a hedge against CD and DAT, and its failure to spur the evolution of cassette technology beyond Dolby B means that its role will be taken over by Dolby S. Dolby B has been successful, in part, because an encoded tape sounds reasonably good when played back without decoding (minus noise reduction, of course). Not so a Dolby C tape—it needs Dolby C decoding. Thus, one of Dolby S's tricks will be reasonable fidelity (compressed, but without pumping and modulation) when an S-encoded tape is played back with a Dolby B decoder or none at all. This will enhance the marketability of prerecorded Dolby S cassettes, a key to the system's success.

AS one might expect, because of its complexity, Dolby S will be more expensive than Dolby B or Dolby C. The added cassette-deck parts cost for Dolby B is about \$2.50 and for Dolby C about \$5; the parts cost for Dolby S may be \$10 or more. (Multiply any of those numbers by five to determine the final added price to the consumer.) Pending development of Dolby S IC's, Dolby Labs plans to announce final specifications for the system this fall. If all goes well, we could see Dolby S hardware early in 1990 and prerecorded tapes later in the year.

More than just allowing better fidelity, Dolby S would help to simplify analog cassette technology, now plagued by confusion because of different tape formulations, four basic tape types, and multiple noise-reduction systems. With Dolby S, the analog cassette could become more like DAT—one format that's compatible with any player. That would go a long way toward increasing the lifespan of the analog cassette, shortening that of Dolby B and Dolby C, and possibly burying consumer DAT altogether. □

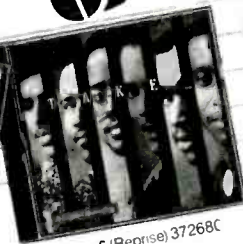
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COUSTIC RX-728

by Ken C. Pohlmann and Julian Hirsch

As more car stereo manufacturers have switched to DIN-E-size head units, it has become more difficult to find up-to-date, standard-chassis models to replace aging car radios. Although the larger DIN-E chassis generally has design and installation advantages for custom systems, it requires a large hole in the dashboard and often won't work as a direct replacement.

Take heart, though: Cooustic has now introduced the RX-728 cassette receiver, a standard-size unit that has the features and flair of a current DIN-size model. And if you're handy, you can even install it yourself.

The RX-728 combines an auto-reverse tape player featuring automatic search, auto-aligned azimuth, and Dolby B and Dolby C noise reduction with an AM/FM stereo tuner that has twelve station presets and automatic-seek tuning. And packed in the same chassis is an amplifier rated for a maximum output of 25 watts per channel.

One disadvantage of a standard-chassis unit is the smaller area available for operating controls. The RX-728, however, fits most of the important controls on its front

panel. The cassette loading slot dominates the panel, and alongside it are the eject, fast-rewind, and fast-forward buttons. The fast-wind controls are both locking, and pushing the opposite button lightly cancels the previous function. When the buttons are pushed together, the tape direction is reversed.

Below the slot are three dual-sided buttons controlling the station presets, six for each band. In the tape mode, four sides of these buttons double for metal-tape selection, Dolby on/off, tape program search (used with the fast-forward or reverse buttons), and Dolby B or Dolby C selection.

Other buttons select automatic station seek, loudness compensation, AM or FM, frequency or clock display, and memory storage. A CD input button activates an auxiliary input stage, allowing a user to listen to a CD player or other source through the receiver.

Of course, the "two big knobs" make an obligatory appearance. As in many car receivers, the left knob controls power, volume, and left/right balance, with a concentric ring to control the front/rear fader. The right knob controls tuning, but it is different from traditional tuning

knobs. Instead of continuously rotating it, you simply nudge it a little to the left for tuning down the band and to the right for tuning up the band. You can jog from one frequency to the next or hold the knob off center for fast scanning. The same knob is pushed in for bass control, and a concentric ring handles treble control. The LCD display shows the time or frequency, the preset number, and the status of other selectable functions.

The RX-728 features a phase-locked-loop frequency-synthesis tuner along with a microprocessor to improve reception. The FM signal strength is constantly monitored and the tuning is automatically adjusted to optimize the signal-to-noise ratio and minimize multipath interference. The design is also said to improve the seek circuit's ability to find strong stations and filter out noise and weak stations.

The tape player has a permalloy tape head and an automatic azimuth-alignment system. A two-track head is used instead of a four-track head; the head is shifted up or down as the tape direction is reversed, maintaining accurate azimuth. The player also has a mechanism to release the pinch-roller when power is turned off so as to prevent a flat spot on the roller. The music-search system automatically finds the next selection in either direction by sensing blank segments on the tape. Price: \$315. Cooustic, Dept. SR, 4260 Charter St., Vernon, CA 90058-2596.

Installation

Installation of the RX-728, as with any standard-chassis unit, requires a bit more work than a DIN-E-size unit does. The first step is to adjust the knobs for the correct center-to-center distance by loosening the shaft nuts, moving the knob shafts, and retightening the nuts. The player is then slipped into the dashboard from behind (remember to remove the transport screw) and secured with more shaft nuts and washers. Cooustic provides a number of grommets and spacers and a bezel to help adapt the RX-728 to your dashboard. A large faceplate slips over the front panel and is held with more shaft nuts. Finally, the



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CAR STEREO

knobs are attached to the shafts. There are also four plastic trim pieces to cover the knob shafts and help provide a more finished appearance.

Electrical connection is fairly standard. There are constant and switched battery leads, a ground lead, and a remote power lead for a powered antenna, external amplifier, or other device. The power leads are fused (6 amperes for power and 0.3 ampere for the memory and clock), and there are noise filters on the power and ground leads. There are four hot speaker leads and two negative leads (for left and right). Two pairs of phono jacks provide for audio output to an external amplifier or an auxiliary audio input.

There is also, of course, an antenna input. The primary wiring harness is run through a molex connector, which pays big dividends any time the unit must be removed from the dash.

There are two illumination leads, amber and green. Either lead can be attached to the car's dimmer terminal to power the display and indicator lights when the headlights are illuminated and to vary the intensity as well. Having two leads presents some interesting possibilities: You could use relays to select green for low beam, amber for high beam, green for normal running, amber when you honk the horn—or any other arrangement you want to devise. If you're lazy (like us), you can

just attach an illumination lead to the remote power lead so the lights go on when the unit is turned on, and that's that.

Road Test

On the road, the RX-728 performed well indeed. Although you would not expect a moderately priced head unit like this to challenge top-end players, the RX-728 was certainly satisfactory in its own right. The tuner did a good job of rejecting RF interference, and it was pretty good at image rejection as well. Sensitivity and selectivity were both good. The tuner was able to pull in and lock onto weak stations in locations where other tuners we have tested had failed. Although the signal-to-noise ratio and channel separation could have been better, they were okay. Of course, changing road and atmospheric conditions make these characteristics difficult to judge in the field. The unusual, multifunction tuning knob worked very well, and being able to move from step tuning to scanning with the same control is convenient. A nice touch.

The tape player also fared well on the roadways. Frequency response was good, and distortion was low. Wow-and-flutter was minor. The search functions and the autoreverse worked flawlessly. The noise levels were reasonable, but some tape hiss was audible at high listening levels.

The amplifier in the RX-728 pumped out plenty of power to drive two pairs of loudspeakers for normal listening. When we turned the volume way up, however, the power shortage was apparent. Although the RX-728 alone is fully adequate for a basic installation, anybody who likes his music loud should consider adding an external amplifier. And, of course, a subwoofer is out of the question without additional amplification.

In summary, the RX-728 is an excellent head unit, a minor marvel at its price. Coustic has done a great job of fitting a lot of features into a small, standard-chassis package, and the tuner, tape player, and amplifier all work together to provide real high-fidelity sound.

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FEATURES

- Autoreverse tape player with automatic azimuth alignment
- Locking fast-forward and rewind
- Automatic program search
- Metal-tape equalization
- Dolby B and Dolby C
- Quartz-PLL frequency-synthesis tuner
- Microprocessor-controlled automatic adjustment for optimal FM tuning
- Automatic seek and scan tuning
- Six AM and six FM presets
- Front-rear fader control
- Switchable loudness compensation
- Active bass and treble controls
- Ignition-off pinch-roller release
- Separate leads for amber and green control-panel selector

LABORATORY MEASUREMENTS

- Tuner Section** (all figures for FM only except frequency response)

Usable sensitivity (mono): 20 dB
50-dB quieting sensitivity: mono, 39 dB; stereo, 44 dB

Stereo threshold: 38.5 dB

Harmonic distortion (THD + noise): mono, 0.6%; stereo, 2.6%

Channel separation (at 1,000 Hz): 46 dB

AM rejection: 55 dB

Selectivity: adjacent-channel, 8 dB; alternate-channel, 78 dB

Capture ratio: 1.5 dB

Image rejection: 47 dB

Frequency response: FM, 30 to 15,000 Hz +1.2, -4 dB; AM (referred to 1,000 Hz), 25 to 3,000 Hz ± 6 dB

- Audio Section**

Tone-control range: 100 Hz +8, -10 dB; 10,000 Hz +7.5, -8.5 dB

Power output at clipping (1,000 Hz): 15.5 watts into 4 ohms, 10 watts into 8 ohms

Harmonic distortion (THD + noise) at 1,000 Hz into 4 ohms: 0.1% at 1 and 10 watts

- Tape Section**

Playback frequency response (31.5 to 18,000 Hz, 120- μ s EQ): forward, +1, -3 dB; reverse, +1, -13 dB

Playback frequency response (31.5 to 18,000 Hz, 70- μ s EQ): forward, +0, -3 dB; reverse, +1, -16 dB

Signal-to-noise ratio (A-weighted, 250-nwb/m level, 120- μ s EQ): no NR, 55.5 dB; Dolby B, 64.5 dB; Dolby C, 71 dB

Signal-to-noise ratio (A-weighted, 250-nwb/m level, 70- μ s EQ): no NR, 59 dB; Dolby B, 66 dB; Dolby C, 70.5 dB

Flutter: 0.12% JIS-weighted, ±0.2% CCI_R-weighted

Speed accuracy: +0.15% error

Crosstalk (1,000 Hz): -49 dB

Fast-forward/rewind time (C-60): 98 seconds

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Sonic Holography® Generator. The CT-Seven is capable of redefining your perception of music by recreating the multi-dimensional sound stage of a live performance. According to some of America's top reviewers, Sonic Holography® "...seems to open a curtain and reveal a deployment of musical forces extending behind, between and beyond the speakers. The effect strains

credibility." And you can create it from any stereo sound source. With your existing speakers.

Useful features and remote control. The CT-Seven includes an ultra-low noise phono stage pre-preamplifier for both moving magnet and moving coil cartridges plus dual tape monitors, CD input and AUX for video sound. Instead of distortion-inducing electronics, the CT-Seven's remote volume control is motorized for smooth control and smoother sound quality.

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And then get ready for another pleasant experience when you discover just how affordable performance like this can be.



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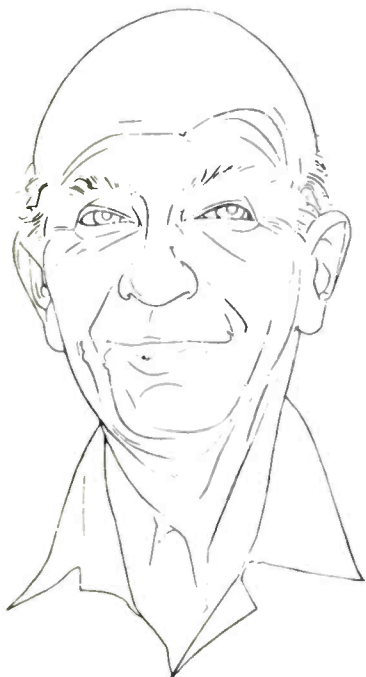
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by Julian Hirsch



REMOTE CONTROLS

DISCUSSING system integration in my June 1989 column, I commented briefly on the unified remote controls often used with integrated systems. Firsthand experience with many of today's complex remote controls suggests that it is time to take a hard look at that subject.

Not too many years ago, remote controls were rare in the hi-fi world. They were typically used with TV sets, which made sense because TV viewing is always done from a distance and having to get up and walk to the set for channel changes can be irksome. A TV remote control is usually simple to use, since no one expects it to make any color or hold adjustments. Anyone can figure out how to use its on/off switch, channel-selector buttons, and volume control.

Although I am not sure when wireless remote controls were first used with hi-fi components, a quick review of back issues of *STEREO REVIEW's Stereo Buyers' Guide*

shows that Bang & Olufsen featured remote control in one of its very expensive (\$2,400) receivers in 1982 and 1983. The next remote-controlled model I found was a top-of-the-line Yamaha receiver in 1984. While there may have been other products (besides receivers) with remote control, they were certainly rare before the compact disc era.

The first generation of CD players, in 1984, lacked some of the niceties we have come to expect in today's models, including remote control in most cases, although it was available with a few models. By 1985, this feature was offered in a number of CD players listed in the *Stereo Buyers' Guide*. Today it is standard in all but the least expensive home players.

In fact, most types of home audio components that have any controls beyond a simple power switch can now be remotely controlled. The list includes tuners, preamplifiers, receivers, signal processors, and most video components (VCR's, video-disc players, and TV sets other than portables).

The obvious inconvenience of having several remote controls cluttering up a coffee table (I had four, one each for a TV set, a VCR, a CD player, and a stereo receiver) makes the "universal" remote control, which is able to "learn" the commands of almost any dedicated remote control, a useful and welcome addition to any reasonably complete audio/video system. Unfortunately, if the universal control's buttons are dedicated to specific functions of certain components not used in the system, they are not only wasted but are likely to confuse the

user. Even though the remote control can be "taught" the command codes used by a different component, there remains the problem of labeling the control keys to show their actual functions in your stereo system.

There are several ways to get around this problem. If the system's components are from the same manufacturer and were designed for

Some remote controls I have seen are studded with more buttons than I'd care to count, totally undifferentiated by color, size, shape, or grouping. They are ergonomic nightmares.

compatibility, the remote control's buttons may be (but aren't always) grouped and labeled to match the requirements of the system, with a minimum of redundancy or confusion. This can be an ideal (and economical) solution, but many people prefer to choose system components from several sources to obtain the exact features they want.

A universal control can be designed so that all or most of its buttons can be switched to learn the commands of several different controllers. For example, in the "video" setting they can operate the TV, VCR, and VDP portions of the system. Setting the switch to "audio" allows the same buttons to operate a receiver, a CD player, and possibly a tape deck. If there is a third option, it can be used for such accessories as surround-sound decoders or digital signal processors (assuming that these components are designed for remote control).

But how do we identify each button correctly when it can serve several different purposes? It's not easy! I am able to use the same set of numbered buttons on my universal controller to select preset tuner channels, CD tracks, and TV channels. Sometimes buttons labeled "play," "stop," or "pause" can function with either a CD player or a tape deck. On the other hand, some-

Tested This Month

*Pioneer PD-71
Compact Disc Player
Dual CT-5040
AM/FM Tuner
Precise Monitor 5
Speaker System
Thorens TD280 MkII
Record Player*

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TECHNICAL TALK

times they cannot! In any case, marking the appropriate functions on the controller with tape or adhesive strips can challenge one's micro-calligraphic abilities.

Another approach to solving this problem is to dedicate as many keys as possible to specific functions. For example, many of the transport controls of a CD player, a digital audio tape player, a videodisc player, and a cassette deck are logically similar (stop, play, pause, fast scan, etc.). Instead of switching perhaps eight

The remote control for the Hafler IRIS system has only twelve buttons and two knobs. The controller and the controlled component are in constant two-way digital communication.

buttons among three different components, their functions could be assigned to twenty-four separate but logically grouped buttons, which could be color-coded as necessary and separated from the other buttons on the controller by contrasting borders. This is like having a miniature of the actual controls of these components in a (reasonably) small hand-held unit. A great idea . . .

Maybe such a product exists, but most of those I have seen fall short of the ideal in various respects. Generally, so many buttons and their markings are packed into a small space that the user is overwhelmed. Even color-coded buttons don't solve *that* problem. Some controllers I have seen (but have not had the courage to use) are studded with more buttons than I'd care to count, totally undifferentiated by color, size, shape, or grouping. They are ergonomic nightmares.

But there are a couple of lights at the end of the tunnel. I have been evaluating several products used in highly integrated (one-brand) systems. Their remote controls, though totally different from each other in concept and operation, overcome most of my earlier objections to system-wide remote-control designs.

Without jumping the gun on our test reports, which should appear in a few months, I think some comments on their remote systems are apropos here.

The Hafler IRIS system consists at present of a tuner and a preamplifier, but it can be expanded to include other audio components as they become available. The system remote control has only twelve buttons, eight of which control all the normal preamplifier and tuner functions (the others are used for muting and transfer of control to other system components), plus two knobs. In the Hafler system, the controller and the controlled component are in constant two-way digital communication, allowing the knobs on the remote unit to adjust volume and channel balance on the preamplifier. Simply touching the corresponding front-panel knobs on the preamplifier transfers control back to them, and a touch on one of the remote-control knobs returns control to it.

The eight buttons select the program source from among the preamplifier inputs, and when the tuner has been selected, they select preset channels and change the tuned frequency. The operation of the remote unit is by far the simplest I have seen in a hi-fi system control, and with a minute's prac-

tice its use becomes automatic. Its basic control functions should be as easily switched to other compatible components (such as a CD player) when and if they are added to the system.

The second "shining light" is part of a highly sophisticated system from Meridian. The company's new D600 digital active loudspeakers can communicate bidirectionally with other components, such as a CD player, preamplifier, and tuner, to form a single-room or multiroom system linked by wired digital control signals. A single relatively large remote-control unit operates the entire system, and although it has some thirty-five buttons, they are well spaced and differentiated by grouping and color. A familiarization period is necessary because this system is very different from any others most of us have seen, but its operation soon becomes intuitive. In spite of its versatility, we did not experience the confusion of searching for the right button out of dozens that is characteristic of using most complex remote controls.

Although neither the Hafler nor the Meridian systems is inexpensive, the type of logical, user-considerate thinking that went into their design should be applicable to more moderately priced products. Let's hope so. □



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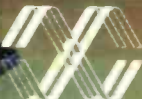
- Hi Fidelity Magazine

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Conclusion: the Paradigm offers excellent performance..."

- Stereophile Magazine

Sound & Vision



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JOCK LEUNG

PIONEER PD-71 COMPACT DISC PLAYER

Julian Hirsch, Hirsch-Houck Laboratories

IN Pioneer's Elite Series of audio components, no effort has been spared to achieve the highest possible level of performance together with rugged construction and elegant styling. The new PD-71 Elite CD player includes such features as an antiresonance chassis and a "multi-floating," shock-resistant isolation system for the laser pickup.

The digital signal is processed by "true" 18-bit digital-to-analog (D/A) converters using eight-times-over-sampling (352.8-kHz) digital filters. Separate converters are used for

each channel to minimize inter-channel crosstalk, and direct wire connections are used where they could shorten the length of the electrical signal path and reduce signal interference. The "bi-filar" power transformer (whose coils are wound in close proximity to each other) is physically isolated from low-level signal circuits to insure that mechanical vibration and external magnetic flux do not interfere with the audio signal.

The PD-71 can be programmed to play up to twenty-four tracks in any sequence, and it has a random-play

mode as well as direct pushbutton access by number to any track or indexed point. These functions as well as transport controls, repeat, time-display selection, and disc-drawer open/close are duplicated on the supplied wireless remote control. The front panel also contains a button to switch the display off (to reduce internal noise pickup) and an output selector (analog, digital, or both). The rear apron of the PD-71 contains both coaxial and optical digital outputs as well as gold-plated analog output jacks.

The Pioneer PD-71 is handsomely finished, with a glossy black-lacquered front panel and rosewood side panels. It measures 18 inches wide, 12 $\frac{3}{8}$ inches deep, and 5 inches high, and it weighs 21 pounds. Price: \$850. Pioneer Electronics USA, Dept. SR, 2265 E. 220th St., Long Beach, CA 90810.

TEST REPORTS

Lab Tests

At a 0-dB signal level, the Pioneer PD-71 had an output of 2.15 volts into an EIA standard load at 1,000 Hz. Its A-weighted signal-to-noise ratio was an impressive 115.3 dB, increasing to 117.1 dB when de-emphasis was activated (which happens automatically when a pre-emphasized disc is played). The quantization noise (with the D/A converter activated) was -96.5 dB, and the EIAJ dynamic range was 97.7 dB. The frequency (speed) error of the playback was a minuscule -0.008 percent.

The PD-71's frequency response was ruler-flat over the audio range from below 20 Hz up to 6,000 Hz, falling to -0.15 dB at 20,000 Hz. The maximum de-emphasis response error was -0.2 dB in the 4,000- to 10,000-Hz range. The channel separation was quite symmetrical and more uniform across the full audio range than in most CD players. Separation was 124 dB at 100 Hz and 113 dB at 20,000 Hz measured from left to right, 125 to 110 dB over the same range measured from right to left.

A spectrum analysis of the noise

output from the player with a silent track also yielded unusually constant, and low, readings across the frequency range, essentially alike for both channels. The noise decreased smoothly from -120 dB at 20,000 Hz to about -142 dB at 30 Hz, with power-line hum components of -127 dB at 60 Hz, -132 dB at 120 Hz, and -130 dB at 180 Hz. There was absolutely no detectable change in noise level when the display was turned off.

The total harmonic distortion (THD) plus noise at a 0-dB level was less than 0.002 percent from 20 to 3,000 Hz, increasing to a peak of 0.0028 percent at 10,000 Hz and falling to 0.0014 percent at 20,000 Hz. At 1,000 Hz, it varied from about 0.002 percent at 0 dB to 0.0012 percent at -80 dB. Low-level spectral analysis of the player's output showed an amplitude error in the digital-to-analog conversion of +1.5 to +2 dB at a -100-dB level. The interchannel phase shift varied linearly from -0.3 degree at 5,000 Hz and below to +1.1 degrees at 20,000 Hz.

The PD-71 cued accurately to tracks unseparated by a time interval from the adjacent track, and its

slew time from the beginning to end of the test disc was a moderately fast 1.5 seconds. It was able to play the 900-micrometer defect level of the Philips TS5A test disc but mis-tracked at the 1,000-micrometer level of the Pierre Verany #2 disc. The isolation from external shock was excellent for blows on the top and very good against side blows.

Comments

The measured performance of the Pioneer PD-71 places it among a handful of top-quality CD players that we have tested. The differences among these players are so minute, unmeasurable without state-of-the-art instruments, that they can be considered equivalent in performance and listening quality.

There are, of course, differences in price and features among this distinguished group of components. All of them perform the expected functions of a deluxe CD player, including direct access to any numbered track or indexed section, and all of them can track the largest defects likely to be encountered on a properly made and tended compact disc, even with unreasonably high levels of external physical shock and vibration.

Everything about the Pioneer PD-71, including the disc drawer, operated with satisfying smoothness, quietness, and precision. Moreover, it presents a strikingly handsome appearance. It is surely one of the best-looking pieces of home audio equipment we have seen. The understated display window, with its large orange numerals, shows everything most people care to know about their CD players without adding extraneous and confusing information. If you want to know more than the current track and index numbers and the elapsed time, the information is available at the touch of a button. Even the compact, and truly complete, remote control is not visually obtrusive.

Last, but not least, the PD-71 is the least expensive player of its class that we have used, bringing the highest level of performance within the reach of a large segment of the buying public. It is a good value as well as a truly "Elite" product.

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FEATURES

- Dual 18-bit D/A converters
- Eight-times-oversampling digital filters (352.8 kHz)
- Direct keypad access to any track or index point
- Programmable to play up to twenty-four tracks in any sequence
- Repeat of track or disc
- Random-play mode
- Selectable analog or digital output
- Coaxial and optical digital output jacks
- Display of track and index numbers, elapsed time on track; switchable to show remaining time on track or disc, total number of tracks, total playing time of disc
- Antiresonance construction to minimize effects of external shock and vibration
- Wireless remote control of most front-panel functions

LABORATORY MEASUREMENTS

Maximum output level: 2.15 volts
Total harmonic distortion at 1,000 Hz: less than 0.002% from 0 to -80 dB
Signal-to-noise ratio (A-weighted): 115 dB
Channel separation: 124 dB at 100 Hz, 120 dB at 1,000 Hz, 111 dB at 20,000 Hz
Maximum phase shift (from 5,000 to 20,000 Hz): 1.1 degrees at 20,000 Hz

Frequency response: +0.01, -0.15 dB from 20 to 20,000 Hz
Low-level linearity error: +1.8 dB at -100 dB
Cueing time: 1.5 seconds
Cueing accuracy: A
Impact resistance: top, A+; side, B+
Defect tracking: tracked 900-micrometer defects on Philips TS5A test disc



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JOOK LEUNG

DUAL CT-5040 AM/FM TUNER

Julian Hirsch, Hirsch-Houck Laboratories

FOR many years, West Germany's Dual was known in the United States as a manufacturer of record-playing components, although from time to time the company also marketed electronic components in Europe. Last year Dual was acquired by another West German electronics manufacturer, and one of the first results of the merger was the introduction of a new Audiophile Concept series of high-fidelity components. Initially, Dual's Audiophile Concept line consists of a tuner, two integrated amplifiers, two receivers, a cassette deck, and a CD player.

The CT-5040 is an inexpensive AM/FM stereo tuner with performance and features not often found in its price range. In addition to the familiar AM and FM frequency bands, it receives the long-wave (LW) AM band (150 to 283 kHz) used in Europe.

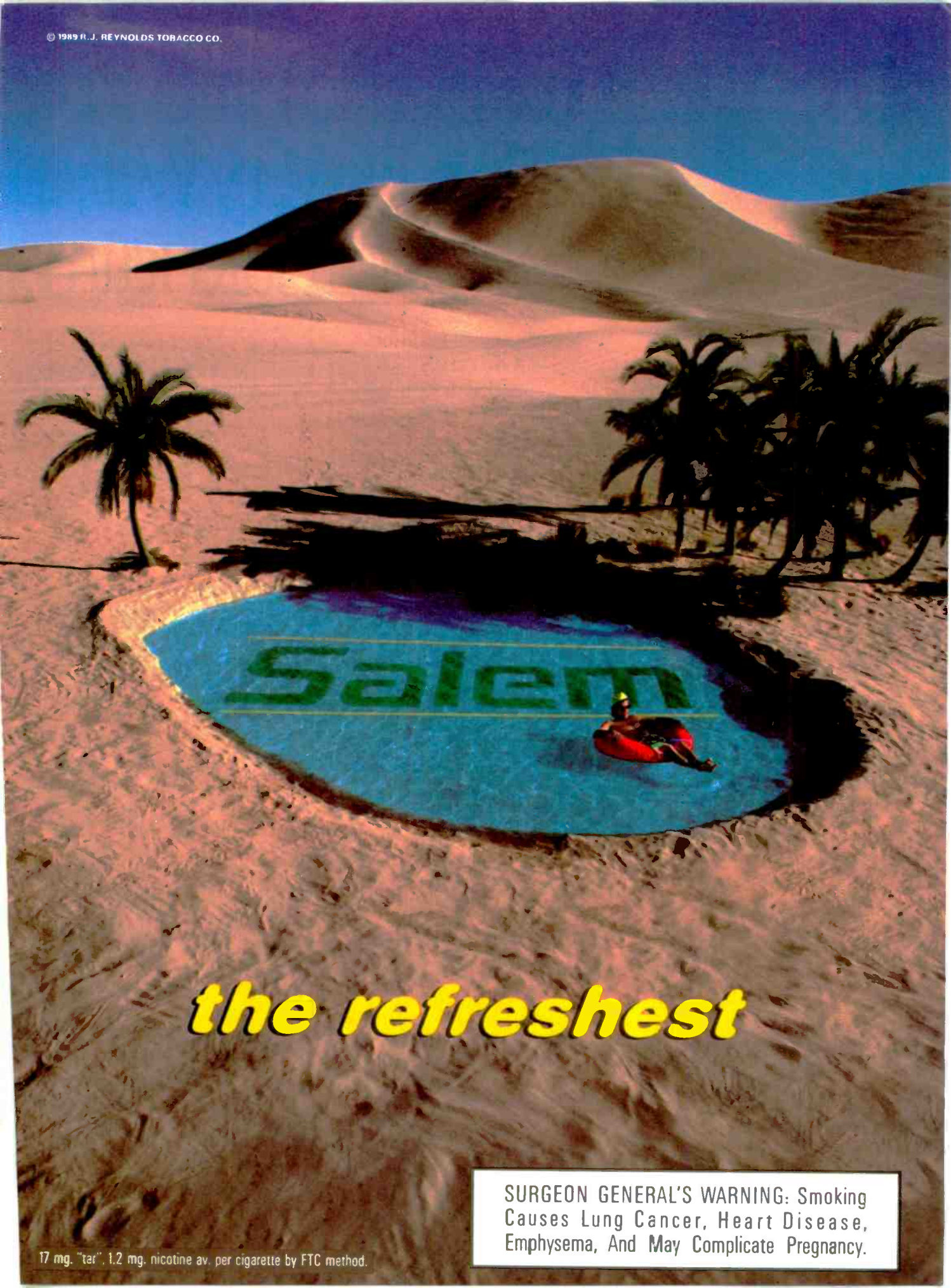
Many of its performance ratings, such as a usable sensitivity of 12 dBf and a 79-dB stereo signal-to-noise ratio, would be expected in a more expensive tuner. Perhaps its most unusual operating feature, however, is the forty-channel preset memory bank, in which each preset can be assigned to an AM, FM, or LW frequency. The presets are programmed and selected by a row of ten numbered buttons; for two-digit assignments, the corresponding two buttons are pressed in sequence.

The digital-synthesis tuning is adjustable in steps of 1 kHz for AM and 10 kHz for FM. The 10-kHz FM tuning resolution may be unique among today's FM tuners—some can be varied in 25- or 50-kHz steps, but 100 and 200 kHz are more typical values. A potential advantage of this fine-tuning feature is the ability to minimize adjacent-channel interference from a stronger signal only

200 kHz from the desired frequency by slightly detuning to favor the preferred signal.

The CT-5040 allows the user to select any frequency in its tuning range directly by entering it on the numbered keypad. The manual tuning button has the usual step and scan modes, but there are some unconventional aspects to the scan function, which is usable only for the FM band. The user can set the signal threshold at which the tuner will stop on a received station during a scan, and pressing the large PROGRAM/FREQUENCY button limits the scan to stations that have been preset; instead of the frequency, their present channel numbers are shown on the display. The frequency display is restored when the button is pressed again.

The display window of the Dual CT-5040 is somewhat unconventional. Its liquid-crystal display (LCD) has exceptionally legible numbers and words that show the tuner's operating status at a glance. It uses a minimum of cryptic symbols; clear English words and recognized international abbreviations are employed instead. For instance, stereo reception is indicated by the



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"They Were Designed To Play Music This They Do Very Well, In At A Bargain Price... It's Hard To Ima

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Henry Kloss, creator of the dominant speaker models of the '50s (Acoustic Research), '60s (KLH), and '70s (Advent), brings you Ensemble, a genuinely new kind of speaker system for the '90s, available factory direct from Cambridge SoundWorks.

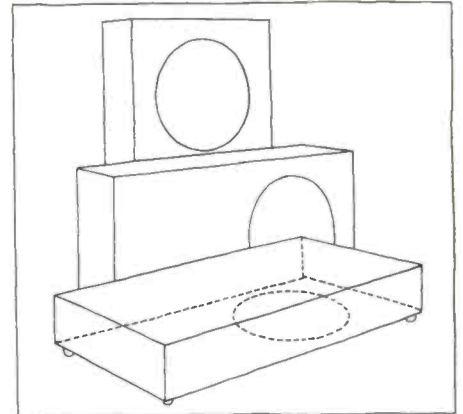
The best sound comes in four small packages.

Ensemble consists of four speaker units. Two compact low-frequency speakers reproduce the deep bass, while two small satellite units reproduce the rest of the music. Separating the low bass on both channels from the rest of the range makes it possible to reproduce just the right energy in each part of the musical spectrum without turning your listening room into a stereo showroom. With clumsy conventional systems, you can either strive for that balance by letting loudspeakers dominate your room, or sacrifice it for less conspicuous speaker placement.

Your listening room works with Ensemble, not against it.

Room acoustics emphasize and de-emphasize various parts of the musical

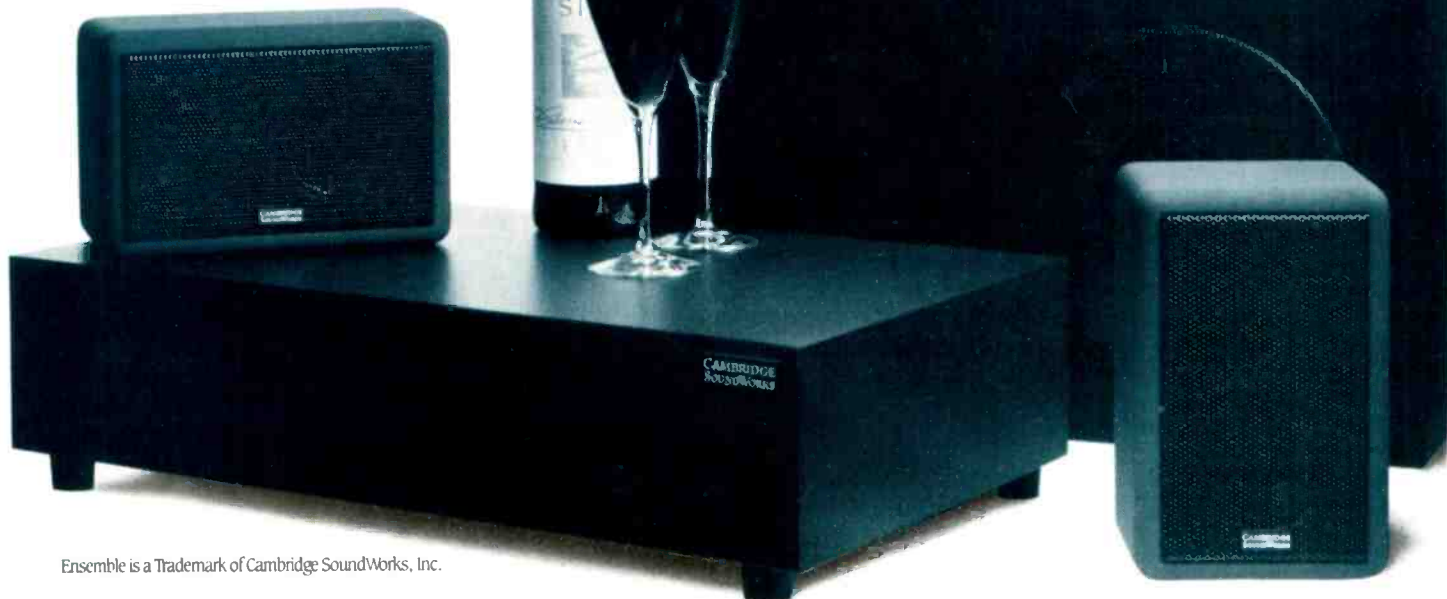
Unlike satellite systems which use a single large subwoofer, Ensemble features separate compact bass units for each stereo channel. They fit more gracefully into your living environment, and help minimize the effects of the listening room's standing waves.



Because low frequencies are non-directional, Ensemble's bass units can be installed horizontally, vertically, facing upwards, or facing downwards.

range, depending upon where the speaker is placed in the room. If you put a conventional speaker where the room can help the low bass, it may hinder the upper ranges, or vice-versa.

Ensemble, on the other hand, takes advantage of your room's acoustics. You put the low-frequency units where they provide the best bass, whether or not that location is good for the high frequencies (and it usually



-And Make It Sound Like Music. A Most Unobtrusive Way, "gine Going Wrong With Ensemble"

Julian Hirsch
Stereo Review, Sept. '88

isn't for any speaker). Then you put the satellites where they provide a well-defined stereo "stage."

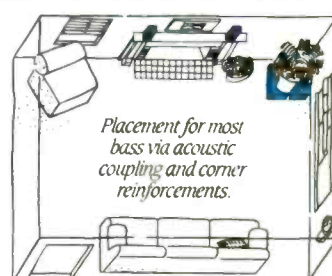
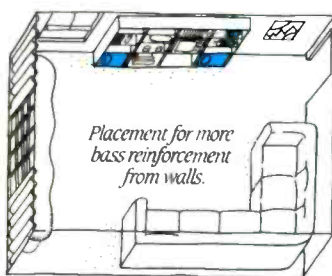
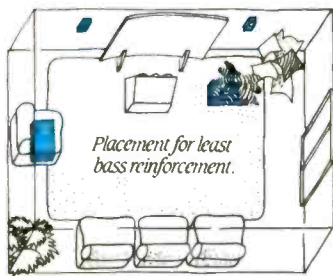
The ear can't tell where bass sounds come from, which is why Ensemble's bass units can be tucked out of the way—on the

in gunmetal gray Nextel, a suede-like finish highly resistant to scratching. We even gold-plate all connectors to prevent corrosion. But perhaps an even bigger difference between Ensemble and other speakers is how we sell it...

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You can put Ensemble's low-frequency units exactly where they should go for superb bass. You can't do this with conventional speakers because you have to be concerned about the upper frequencies coming from the same enclosures as the low ones.

floor, atop bookshelves, or under furniture. The satellites can be hung directly on the wall, or placed unobtrusively on window-sills or shelves (among other possibilities). The result is extraordinary. There are no bulky speaker boxes to dominate your living space, yet Ensemble reproduces the satisfying deep bass that *no* mini speakers can.

Not all the differences between Ensemble and other speaker systems are as obvious as our two subwoofers.

Unlike three-piece satellite systems that may appear similar, Ensemble's four-piece design doesn't cut any corners. We use premium quality components for maximum power handling, individual crossovers that allow several wiring options and cabinets ruggedly constructed for proper acoustical performance. The low-frequency units use the classic acoustic suspension design, and are finished in black laminate. The satellites are finished

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words FM STEREO, correct tuning produces the word EXACT, and a slightly off-center frequency setting is indicated by arrows showing which side of the tuning button should be pressed to reach the center of the channel.

Dual has gone a bit beyond the typical bar display (which the tuner also has) for signal-strength indication. When a station is received, pressing the SIGNAL button replaces the frequency display by numbers such as "36 db." The signal-strength scale extends from "0" to "126 db," but these appear to be arbitrary numbers that do not correspond to a standard reference level.

Another control button, marked ASLS for Automatic Separation Limiting System, activates a signal-controlled channel-blending circuit. Unlike common high-blend systems, the Dual system progressively reduces the channel separation uniformly across the audio range as signal strength decreases. The blending reduces the noise (hiss) level until

the program becomes effectively monophonic. To a degree, the ASLS button replaces the stereo/mono switch found on some tuners, except that it only functions on stereo signals that are below a fully quieted level. It can even be left engaged at all times without significant loss of the stereo function, since its action is progressive and does not unnecessarily reduce the audible channel separation.

Two large buttons select either FM or AM reception. The long-wave (LW) and medium-wave (MW) bands are selected simultaneously by the AM button; when you tune past the limit of either band, the tuner automatically switches to the other.

The rear apron of the Dual CT-5040 contains a 75-ohm coaxial jack for an FM or external AM antenna, a hinged ferrite-rod AM antenna, and stereo audio output jacks. The tuner measures 17¼ inches wide, 9½ inches deep, and 4 inches high, and it weighs 7¾ pounds. Price: \$249. Dual products are distributed by

Ortofon, Dept. SR, 122 Dupont St., Plainview, NY 11803.

Lab Tests

It is surprisingly rare to find a tuner whose measurements agree with its published ratings. Such discrepancies are due in part to the vagaries of RF measurements in the VHF range, and in part to the "optimism" of the ratings supplied by

The Dual CT-5040 is an inexpensive AM/FM stereo tuner with performance and features not often found in its price range, including a forty-channel preset memory bank.

many manufacturers. Another factor is the use of different measurement standards, which may yield results that are not readily convertible to measurements based on another standard.

Although the Dual CT-5040 is rated according to the German DIN standard, the U.S. importer also included a set of EIA performance specifications with our test sample. It was gratifying to see how closely many of our measurements agreed with these figures. The rated usable sensitivity was 12 dbf; we measured 11 dbf. The stereo 50-dB quieting sensitivity, rated as 35 dbf, measured 37 dbf. We even came within 0.5 dB of the claimed 80-dB mono signal-to-noise ratio (S/N), with a 79.5-dB measurement. The stereo S/N fell 4 dB short of the rated 79 dB at the standard 65-dBf measurement level, but it reached 78.5 dB at a slightly higher input of 85 dbf (a number of FM tuners require this higher signal level to attain full quieting in stereo).

Other figures that came about as close to the ratings included mid-range stereo channel separation, rated as 45 dB, measured as 41 dB, and image rejection, 75 dB as rated. The distortion, rated as 0.5 percent, measured 0.3 percent in mono and 0.23 percent in stereo. Unfortunately, the capture ratio was an undistinguished 3.6 dB, although it was

FEATURES

- Digital-synthesis tuning of FM, normal AM, and long-wave (LW) AM bands
- Forty channel presets assignable to any band
- Tuning steps of 10 kHz (FM) and 1 kHz (AM)
- Manual step tuning and direct selection of stations by entering frequency on keypad
- Auto-scan in FM only; user-adjustable signal threshold
- LCD display window with numerical signal-strength display
- Automatic Separation Limiting System (ASLS) to reduce noise on weak FM signals by progressive channel blending

LABORATORY MEASUREMENTS

All figures for FM only except frequency response; measurements in microvolts, or μV , referred to 75-ohm input

Usable sensitivity (mono): 11 dbf (1 μV)

50-dB quieting sensitivity: mono, 13 dbf (1.25 μV); stereo, 37 dbf (19.5 μV)

Signal-to-noise ratio at 65 dbf: mono, 79.5 dB; stereo, 75 dB (78.5 dB at 85 dbf)

Improvement in S/N with ASLS on (stereo): 12 dB at 25 dbf (5 μV), 5.5 dB at 35 dB (15 μV), 0.5 dB at 45 dbf (50 μV)

Harmonic distortion (THD + noise) at 65 dbf: mono, 0.3%; stereo, 0.23%

Capture ratio at 65 dbf: 3.6 dB

AM rejection: 58 dB

Selectivity: alternate-channel, not measurable; adjacent-channel, 21 dB

Stereo threshold: none (separation maintained with weakest detectable signals)

Pilot-carrier leakage: 19 kHz, 75 dB; 38 kHz, less than -90 dB

Hum: -77 dB

Stereo channel separation at 100, 1,000, and 10,000 Hz: 42, 41, and 32.5 dB

Separation with ASLS on: 5 dB at 25 dbf (5 μV), 13 dB at 35 dbf (15 μV), 35 dB at 45 dbf (50 μV), no effect at 65 dbf (500 μV)

Frequency response: FM, 30 to 15,000 Hz, +2.5, -0 dB; AM, 28 to 3,000 Hz +0.9, -6 dB

TEST REPORTS

rated as 2 dB. The selectivity appeared to be unreasonably high, measuring 21 dB for alternate-channel spacing and unmeasurably high at the full alternate-channel 400-kHz spacing (the rating is 65 dB).

The audio frequency response showed a slight high-frequency emphasis, with an output boost of 2 to 2.5 dB in the 5,000- to 15,000-Hz range. This is not the sort of response variation that is likely to be audible in FM reception. It is possible that the tuner uses the European-standard 50-microsecond FM de-emphasis characteristic, which would produce approximately this result, but in any event it is a minor matter. The AM frequency response was down 6 dB at 28 and 3,000 Hz (rated as 45 to 2,500 Hz).

Comments

The Dual CT-5040 is an unusual tuner, in many ways unlike other tuners from Japan and the United States. It has a different look and feel and requires some study of the manual (which is brief but complete) if its special qualities are to be fully exploited.

Once we became familiar with its features and idiosyncrasies, this was a very enjoyable component to use. Everything worked smoothly and flawlessly, and it sounded as good as its controls felt. I don't know how many people would have a need for forty presets, but you don't have to use all of them to enjoy the performance of this tuner.

The tuning action of the CT-5040 was distinctive. When a station was selected, its sound came on a couple of seconds after the tuning process had stopped and the frequency and other information had appeared in the display window. If a preset channel was chosen, however, an additional few seconds elapsed before its channel number was replaced by the station frequency.

These quibbles aside, the CT-5040 is a first-rate tuner and a genuine bargain at its price. You can expect to spend several times as much for a tuner that is significantly better. Dual's Audiophile Concept series is off to a good start, and we look forward to seeing some of the other new components.

Circle 141 on reader service card



PRECISE MONITOR 5 SPEAKER SYSTEM

Julian Hirsch, Hirsch-Houck Laboratories

PRECISE Acoustic Laboratories, a subsidiary of Onkyo U.S.A. Corporation, was created to develop a line of affordable high-performance speakers for the American market. The design consultant for this project was recording engineer Keith Johnson. In addition to his award-winning work for Reference Recordings, a small audiophile label, Johnson is credited with inventions in the fields of high-speed cassette duplication and videodisc optical memories. He has also developed a technique for analyzing speaker performance called Differential Mode Stress Analysis, and that technique was applied to the design of the Precision speakers.

The Precision Monitor series con-

sists of five models, ranging from small bookshelf speakers to large floor-standing units. The Monitor 5 is the next to the smallest speaker in the line. It is a two-way system using an 8-inch woofer in a rear-ported enclosure and a 1-inch soft-dome tweeter. The hollow center pole of the tweeter's magnetic structure is filled with a damping material that is designed to provide a smooth, seamless crossover to the bass/midrange driver. The crossover network of the Monitor 5 has nine elements, an unusually complex design for a modestly priced two-way system.

The woofer cone is made of treated wood pulp, with polymer doping to improve transient response, and there is a polyurethane

TEST REPORTS

elastomer surround. To maximize power-handling ability, the voice coil is wound on a bobbin made of a proprietary compressed, heat-resistant polyamide resin.

The cabinet is veneered on four sides in oak-grain vinyl, with rounded front edges. The portion of the speaker's baffle surrounding the tweeter is covered with a sound-absorbing felt-like material to reduce surface reflections. The entire front baffle is grooved around its periphery, where it joins the cabinet sides, to reduce vibrations transferred to the enclosure. The black cloth grille is retained by plastic snap fittings. Spring-loaded insulated terminals on the rear of the cabinet accept stripped wire ends or banana plugs.

The Precise Monitor 5 has a rated frequency response of 32 to 35,000 Hz and is rated to handle an input power of 40 watts (DIN) or 80 watts (EIA). The nominal system impedance is 6 ohms, and the sensitivity is rated as 90 dB sound-pressure level (SPL) at 1 meter with a 1-watt input. Each speaker measures 21 inches high, 10¼ inches wide, and 12⅞ inches deep and weighs 23 pounds. Price: \$399 a pair. Precise Acoustic Laboratories, Dept. SR, Suite B, Ramsey, NJ 07446.

Lab Tests

We placed the speakers on 26-inch stands about 2 feet from the wall behind them. The averaged room response from the two speakers had the usual midrange irregularities, because of floor reflections, from 200 to 400 Hz. At higher frequencies the response sloped downward gently, except for a "hole" of about 7 dB at 2,200 Hz.

The close-miked woofer response, combined with the port response, reached a maximum at 80 Hz, then dropped 5 dB to the level of the port radiation, which was quite flat from 20 to 50 Hz. Above 80 Hz the output fell smoothly to a plateau, about 4 dB below maximum, between 300 and 1,200 Hz. Following another steep drop of 6 dB, there was another plateau between 1,500 and 2,500 Hz. Above 2,500 Hz the output became irregular.

Overlaying the woofer/port response curve with the room curve

produced a composite frequency response that sloped down steadily from 80 to 20,000 Hz. The hole at 2,200 Hz was obviously a crossover artifact (it also showed up in our quasi-anechoic FFT response measurements). The overall output variation was ± 7 dB from 20 to 20,000 Hz. The on-axis FFT response curve was very similar but with a smaller variation, about ± 4 dB up to 20,000 Hz. It was clear in all our measurements that the maximum bass output was at 80 Hz and that there was a crossover dip of at least several decibels around 2,000 Hz.

The horizontal dispersion was good, with the response curve measured 45 degrees off-axis diverging from the on-axis response only around 10,000 Hz. The phase linearity of the Monitor 5 was very good, resulting in a group delay of less than ± 0.2 millisecond over the tweeter range and ± 0.4 millisecond from 360 to 22,500 Hz.

The system's sensitivity was 93 dB SPL at 1 meter with a pink-noise input of 2.83 volts. The impedance fell to 4.2 ohms at 35 and 150 Hz, which is more typical of a 4-ohm speaker than a 6-ohm speaker. There was also a dip to 3.8 ohms at 11,500 Hz, but that is unlikely to cause any problems with amplifier loading. The maximum impedance was 38 ohms at 70 Hz, and a smaller peak of 13 or 14 ohms at 2,400 Hz evidently corresponded with the crossover frequency.

The woofer distortion rose from a minimum of less than 0.2 percent at 100 Hz to 3 percent at 45 Hz and 5 percent at 32 Hz. Below 60 Hz, the effective crossover between cone and port radiation, we also plotted the distortion in the port output. This measurement was made with a constant input of 2 volts, equivalent to a pink-noise output of 90 dB SPL at 1 meter. When we drove the system with a 1-cycle tone burst at 100 Hz, the woofer cone rattled at about 380 watts into its 5.5-ohm impedance. At 1,000 Hz, our amplifier clipped at 750 watts before the speaker showed any audible or visible signs of distortion.

Comments

The sound quality of the Precise Monitor 5 was free of upper-bass

coloration on male voices. Although the deep bass was not as obvious as the measured low-bass response might suggest, organ music produced a solid, healthy low-bass output.

Surprisingly, despite the speakers' downward-sloping output-versus-frequency curve, they also sounded brighter than most of the other

The sound quality of the Precise Monitor 5 was free of upper-bass coloration on male voices, and organ music produced a solid, healthy low-bass output.

speakers with which we compared them. This brightness may have been a result of the high-frequency irregularities from the crossover region to the high treble. The audible effects in the upper-middle and high frequencies seemed consistent with the dip/peak/dip response we measured between 1,500 and 15,000 Hz, which resembled the curve from a crude comb filter.

As often happens with loudspeakers, after a few minutes of listening to the Monitor 5's their sound became perfectly acceptable and "normal." Only when we switched rapidly between them and speakers having very different sound qualities did their characteristic sound sometimes produce a jarring effect.

Keep in mind, however, that no two speakers sound alike, and rarely do measurements of any sort really correlate well with sound quality. Furthermore, people's opinions differ strongly about which sound is "best," and one man's meat may be another man's poison.

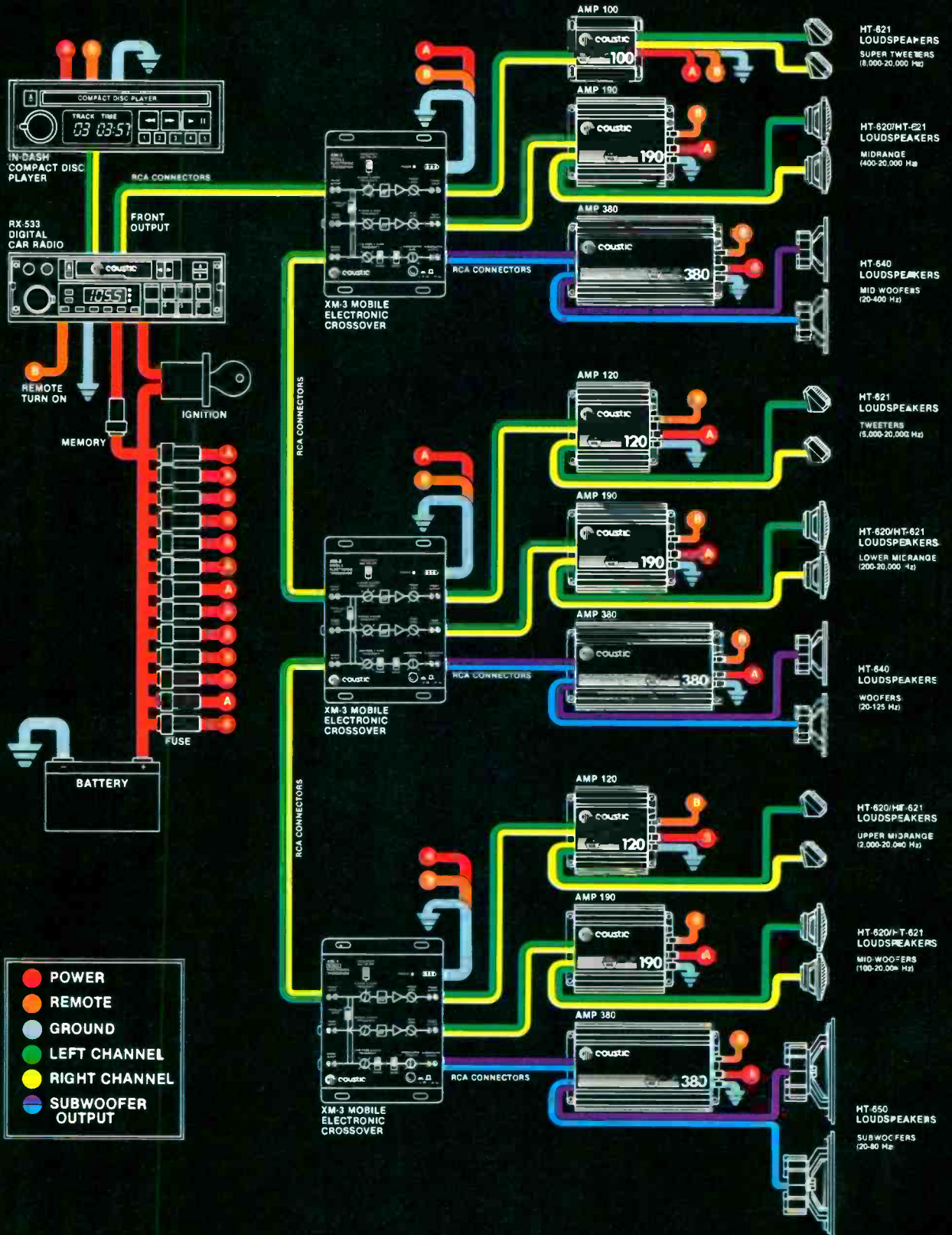
As I write this report, listening to the Precise Monitor 5's playing a variety of music from CD's, they sound very good indeed. It need not take too long to accustom yourself to the sound of any reasonably good speaker. If you like the sound of the Precise Monitor 5, its modest price and handsome appearance should make it a good choice. But it has to be your own choice!

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TEST REPORTS



THORENS TD280 MkII RECORD PLAYER

Julian Hirsch, Hirsch-Houck Laboratories

THE Thorens TD280 MkII is an inexpensive integrated record player with a two-speed belt-driven turntable and a low-mass tonearm. Its 12-inch, dynamically balanced, cast zinc-alloy platter weighs 3 pounds, including the heavy rubber mat. It rests on a smaller inner platter, which is coupled to the motor pulley by a soft rubber belt. The speed of the low-voltage, twenty-four-pole synchronous motor is changed electronically for either 33 $\frac{1}{3}$ - or 45-rpm operation.

The record player is powered from a small remote transformer that plugs directly into a wall socket and connects to the TD280 MkII through a 6-foot cable. It supplies 16 volts AC to the motor-drive circuits.

This power-supply system allows the TD280 MkII to be used without modification in any part of the world, since only the external transformer need be changed to accommodate different line voltages and frequencies (or electrical-socket configurations).

The straight tubular tonearm has a nonremovable headshell, which can be rotated through 360 degrees for ease in mounting and adjusting a cartridge. The counterweight is threaded onto the rear of the arm tube and rotated to balance the arm when the cartridge has been properly mounted and aligned. A separate calibrated ring on the front of the weight is set to 0 after balancing the arm, and the entire weight is then rotated to place the desired

tracking-force marking opposite an index line on the arm tube. The calibrations cover 0 to 5 grams in 0.5-gram steps. A small antiskating adjustment knob is located on the arm base near the pivots. Its scale is calibrated from 0 to 3 grams in 0.25-gram steps.

A large, pointed bar knob selects the turntable speed, with an off setting in the middle. A button next to it turns on the motor initially, though it need not be used thereafter. Another bar knob operates the electronic arm lift, which will not lower the pickup unless the turntable is running (the lift can be held in its lowered position but will not latch there without a powered platter). The arm must be slid out of its retaining post manually, but it can then be placed over the desired part of the record and lowered slowly and smoothly by the lift mechanism. At the end of the record, the arm lifts automatically, and the motor shuts off. The arm must be returned manually to its rest position in the retaining post.

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The turntable and arm are mounted rigidly to the wooden base. The entire record player is supported on four damped, spring-mounted feet, which isolate it from external vibration. A clear-plastic dust cover, hinged to remain open at any angle up to 90 degrees, is furnished with the player. The wooden base and motorboard, like the arm and record mat, are finished in black. The overall dimensions of the TD280 MkII are 17¼ inches wide, 14 inches deep, and 5¼ inches high (with the cover closed). It weighs 16½ pounds. Price: \$275. Thorens is distributed by Epicure Products, Inc., Dept. SR, 25 Hale St., Newburyport, MA 01950.

Lab Tests

We installed a Shure V-15 Type V-MR cartridge in the Thorens tonearm for our tests. The setup was no more difficult than any cartridge installation; in fact, the nonremovable headshell simplified the process a bit, since the arm served as a support jig for the rotatable shell during mounting and alignment. The arm is supplied with fine color-coded wires fitted with clips for connecting the cartridge pins to the corresponding pins at the end of the arm tube (we strongly recommend connecting the wires to the arm *first*, since space can be tight after a cartridge is in place).

In general, the setup adjustments of the TD280 MkII were straightforward, but because the entire unit—base, controls, and tonearm—is finished in black, and the markings on the tracking-force scale are also black, it is well-nigh impossible to set the tracking force without a strong light source. We also wonder why, when the tracking-force scale is calibrated every 0.5 gram, the much less significant antiskating scale has 0.25-gram calibration intervals. The reverse would seem more logical.

The measured arm mass was 12.5 grams, exactly as rated. The tracking error was less than the rated 0.5 degree per inch of radius over most of the record surface (typically near zero), and the tracking-force calibrations were accurate within better than 0.1 gram.

The highly compliant Shure car-

tridge resonated at about 7 to 8 Hz in the Thorens arm. Though this is close to the minimum desirable resonant frequency, we had no problems playing warped records (tracking was aided by the cartridge's Dynamic Stabilizer brush). The turntable speed was fast by 0.3 percent at 33⅓ rpm and by 0.4 percent at 45 rpm. The wow-and-flutter reading was 0.06 percent NAB-weighted rms and ±0.08 percent DIN-weighted peak. Rumble, which is rated as -48 dB unweighted and -70 dB with DIN weighting, measured -67 dB DIN-weighted. A spectrum analysis of the rumble showed that most of it was in the range between 10 and 20 Hz.

The isolation of the player from its mounting surface was good, with the transmission peaks through the compliant feet occurring at 18, 30, and 90 Hz. The arm-wiring capacitance, rated at 150 pF, measured 200 pF.

Comments

The performance of the Thorens TD280 MkII was good in all important respects, and within the limits of measurement error it met all pertinent manufacturer's specifications. Furthermore, one is not likely to find better performance in most players at or below its modest price (or, for that matter, at the same price in the pre-CD days of several years ago).

A component's appearance is, of course, a personal consideration. With almost all electronic components now being made in a black finish, the all-black TD280 MkII certainly would not be out of place in any contemporary music system. Although I happen to be getting a little tired of all-black audio (and video) components, I cannot quibble about Thorens's choice of color—but I do question the use of invisible tracking-force markings on the counterweight dial, which makes adjustment trickier than it should be. Aside from that relatively trivial matter, the TD280 MkII certainly offers good value in an affordable record player (cheaper than most CD players) from one of the most respected manufacturers in audio.

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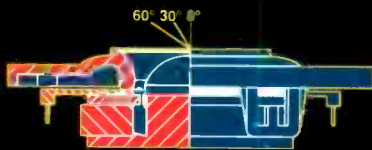
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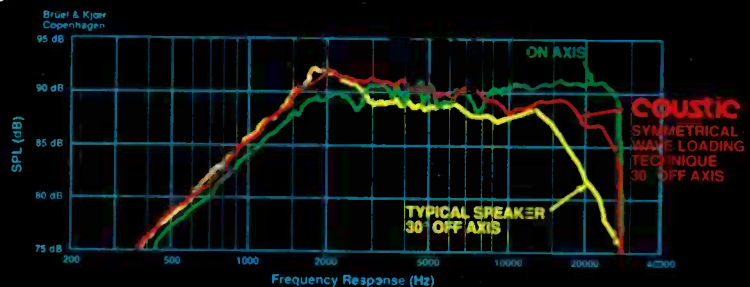
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"... I must say that I have never heard a speaker system in my own home which could surpass, or even equal, the Bose 901 for overall "realism" of sound."

—Julian Hirsch, *Stereo Review* 1968

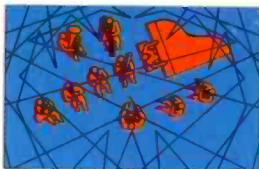
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—Bert Whyte, *Audio* 1969

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—*Complete Buyer's Guide to Stereo Hi-Fi Equipment* 1975

But this was just the beginning. Bose research continued to focus on the 901 system, incorporating the latest technology as it was developed. For example, in 1976 two new innovations were brought to the system to dramatically improve its efficiency and power handling. These new technologies—the Acoustic Matrix™ enclosure and the Helical Voice Coil driver—alone represent a significant investment in research and development. As a result of this commitment, the rave reviews continued.



Live music is a combination of direct and reflected sound energy.



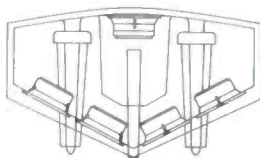
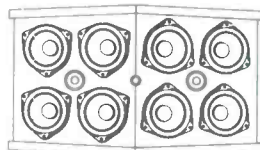
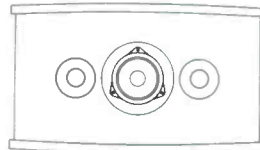
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—Daniel Kumin, *Digital Audio* 1988

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Technology with
style from
the European
audio community

EUROPEAN audio manufacturers continue to prove that technology alone isn't everything. For an audio component to be wholly successful, technological advances must be combined with good industrial design. In other words, a stereo component should sound good, look good, and be easy to use.

Many serious contributions to audio have come out of Europe, often leading the way in a particular product category. Who can deny the importance in audio history of such products as the B&W 801 loudspeaker, the Linn Sondek LP12 turntable, and Tandberg's cassette decks? Or technologies such as the compact disc system, co-invented by Philips, the high-fidelity tuning circuitry of a Blaupunkt car radio, and the transducers in an AKG headphone? Or the design innovations of Bang & Olufsen, Canton, and Meridian?

All of these products, and many others, offer a combination of technology and design that make the home listening experience more pleasurable. The high-style, high-tech, hi-fi components shown here are just a sampling of equipment in the European tradition that is available on this side of the Atlantic.

HUNG/NOBTON

B V MICHAEL SMOLEN



Among the finest European audio components are the Quad Model 306 50-watt power amplifier and matching Model 44 preamp, the elegantly simple Revolver belt-drive turntable with a high-gloss redwood finish, and Sennheiser's HD540 Reference headphones.



Linn's Axis turntable, made in Scotland, has a twenty-four-pole synchronous motor, Class A amps driving each motor phase, electronic switching, and a single-point bearing to support the two-piece die-cast platter. It's shown here fitted with the Linn Basik LVX tonearm and K9 cartridge.

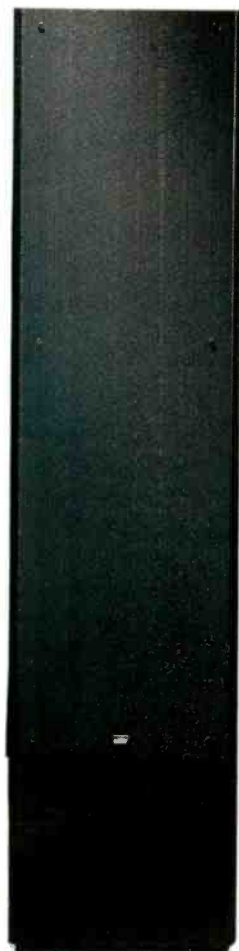
The lightweight, circumaural DT 770 headphones from Beyerdynamic in West Germany have a rated frequency response of 15 to 25,000 Hz \pm 3 dB and a sensitivity of 96 dB. Weight is 9 ounces.



A single Swiss-made Revox Duetto speaker is said to be able to produce a full stereo sound stage. The feat is accomplished by acoustically coupling two sets of three drivers that are mounted in opposite sides of the triangular cabinet.



To provide accurate deep-bass response from its German-designed Model M15 speaker, a/d/s/ constructs the voice coils for its dual woofers by wrapping oxygen-free copper around a Kapton former and uses high-energy barium-ferrite ring magnets. The three-way tower speaker stands 47 1/4 inches high.



The MB Quart 650S from West Germany is a 34-inch-high speaker with an 8-inch butyl-suspension woofer, a 2-inch supronyl-dome midrange, and a 1-inch titanium-dome tweeter. The five-layer wood cabinet is available in nine different finishes, including high-gloss white as shown.



The Beocenter 9000 from Bang & Olufsen in Denmark is a receiver, a compact disc player, and an autoreverse cassette deck all in one sleek package. The system is fully programmable and can be incorporated into a multiroom setup.



Meridian's Model 205 power amplifier and Model 201 preamplifier can be used in single-room or multiroom systems. They can handle two different sources and up to fourteen remote locations simultaneously, playing either source in each room.



Grundig's beautiful Transrotor Connoisseur turntable, made in West Germany, can be fitted with almost any tonearm (it's shown here with an SME arm). All of its metal parts are plated with either 24-carat gold or chrome, and the power-supply transformer is housed separately.



Blaupunkt's New York SCD 08, designed in West Germany, is a CD tuner that includes a new "Hi-Fi" feature said to improve FM frequency response and channel separation and to lower distortion. It also has Track Program Memory, which enables it to recognize up to eighteen CD's and play the tracks on them in any predetermined order.

The Model 505.2 is the latest addition to Wharfedale's Precision line of speakers from England. It features an 8-inch mineral-filled homopolymer woofer and a 3/4-inch anodized-aluminum tweeter. Dimensions are 17 x 10 x 9 inches.



Norway is the home country of Tandberg and its TCD 3014A cassette deck. An 8-bit, 32K microprocessor controls the three-head, four-motor deck, which also features built-in test signals and the Actilinear II headroom-extension system.

The semi-open design of the AKG K240 Monitor dynamic headphones from Austria has made them a recording-studio favorite for many years. The rated frequency response is 15 to 20,000 Hz, and sensitivity is 88 dB.



Canton's CA-15 speaker is a triamplified floor-standing system made in West Germany. It uses three 100-watt amplifiers and "electronic signal correction" for the 10-inch woofer, 4-inch midrange, and 1-inch tweeter. Height is 35 inches.



Mordaunt-Short's System 442 is an English-made speaker that eliminates cabinet coloration by integrating the drivers into a rigid steel "backbone" assembly on which the cabinet floats with energy-absorbing seals.



Celestion's Model 3 bookshelf speaker from England features the same 1-inch, two-piece titanium-dome tweeter found in the company's higher-priced DL series. Rated frequency response is 75 to 20,000 Hz \pm 3 dB.



B&W's Matrix 802 Series 2 from England incorporates most of the technical refinements, such as a Kevlar midrange and an acoustically inert cabinet, of the world-renowned Matrix 801 in a loudspeaker occupying less than half the floor space. Height is 39 inches.



The CDV488 combi-player from Philips in the Netherlands plays CD-3's, 5-inch CD's, CD-V audio/video discs, and 8- and 12-inch videodiscs. It features 16-bit, four-times-oversampling digital circuitry and the popular Favorite Track Selection programming system.



Ariston's 40-watt integrated amplifier, made in Scotland, has a Class A/B output stage and inputs for a turntable, a tuner, a CD player, a tape deck, and one auxiliary device. Remote control is included.



KEF makes the C75 in England. The floor-standing, three-way, sealed-box system has an 8-inch midrange and KEF's Uni-Q two-way driver, which combines the tweeter with an 8-inch woofer. Frequency response is rated as 57 to 20,000 Hz, and dimensions are 28 inches high and 10 inches square.



Chrome Maxima II cassettes from BASF in West Germany feature a completely new tape formulation and an improved shell and drive mechanism. They are available in 60- and 90-minute lengths.



THE MAKING OF A CD PLAYER

HOW THEY
DO IT IN
HOLLAND



BY WILLIAM WOLFE

IN the last months of 1890, Gerard Philips returned to the Netherlands after an exciting five-year trip abroad. Schooled as a mechanical engineer, Philips had felt his imagination flare when he'd glimpsed during his travels one of the newest technologies of the day: incandescent lamps. He decided to open a lamp factory in his native country, and in 1891, with financial backing from his father, he purchased a derelict factory in the town of Eindhoven. One year later, Philips had finished outfitting his factory and had concluded his initial tests. A staff of ten was hired, and Philips and Co. was in business.

Within a decade, Philips became the third largest manufacturer of electric lamps in Europe, and little more than a decade after that shares in the company were being traded on the Amsterdam Stock Exchange. It survived the effects of two world wars—including bombings and strafings of the Eindhoven facilities by both sides—and the crippling depression of the Thirties. Today, ninety-eight years after the light bulb went on over Gerard Philips's head, the company he founded ranks among the largest electronics and industrial concerns in the world.

After purchasing Magnavox in 1974, Philips acquired Philco and Sylvania in 1981, making it a giant in the global video market. Meanwhile, NatLab (Nature Laboratories), the main, Eindhoven-based Philips research group, was busy working on something that would turn the audio world upside down: the compact disc.

Back in 1981, Philips found itself with the principles of an incredibly sophisticated process of digital signal encoding and decoding—and little else. After it was decided to bring Sony in as a partner to develop the system, product managers from the Philips consumer electronics division were

assembled. The new system's components had to be manufactured or purchased. Someone had to work out the ergonomics, designing a user-friendly faceplate and a remote control. And all of the components had to be inserted onto a chassis. Compact disc technology is nearly ten years old now, but the entire process begins anew whenever a new CD player is conceived.

Eindhoven insiders call this process a "design track." But first there must be demand for a new player. It can come from several directions. The tech teams from NatLab might come up with new chips or circuitry. Designers from the Corporate Industrial Design studios might discover a simpler way to program a changer. Or the competition might introduce a breakthrough product that must be matched or improved upon.

Whatever the source of the demand, the response is a meeting, typically an intensive three-day session, where representatives from technology, design, production, and marketing formulate a proposal. Outside consultants are sometimes asked to join these sessions. Ideas are jotted down on art boards, roughly or in great detail; often the participants do not take time out to sleep. Then the head product manager chooses from among the ideas and takes a proposal to top management for consideration. When the proposal meets the requirements of budgeting, factory capacity, and other practicalities, the go-ahead for production is given.

Most Philips and Magnavox CD players and changers, CDV and videodisc players, and even prototype CD-I (interactive) components are manufactured at a factory complex in Hasselt, Belgium, as are many components that Philips makes for other manufacturers. Roughly three-quarters of the plastic and metal parts, electrical sub-



ILLUSTRATION BY MARTI SHOHET



components, circuit boards, and special IC's used are produced by Philips itself or by its contractors; the others are imported from Southeast Asia. Every single component from a new outside supplier is tested, according to one Hasselt manager, until "we're convinced it can be trusted."

THE actual production process of a CD player can be broken down into four steps. First, the laser and its associated parts are inserted into an "arm" assembly that is capable of tracking along a disc. Then this assembly is attached to a housing called the "CD mechanism," or CDM, which includes the sliding disc drawer; the Hasselt plant currently uses a fourth-generation CDM. The process of making CDM's has become so refined that the defect rate has dropped from 10 percent to 1 percent in the last three years; it's expected to plummet into the tenths of a percent in the next few years.

Meanwhile, components are being plugged into circuit boards at a fast clip. In the last step, the CDM's and circuit boards make their way to Hall A, a production-line work area where workers assemble the various parts on the player chassis. Front panels are attached, connections are soldered, a metal top plate is secured, and the finished player rolls down the assembly line to the packing stations.

Of all the critical work that's done in the Hasselt plant, the production of the laser-arm assembly is the most critical. As with most high-technology products, some of the work that goes into a CD player is performed by people, and some is automated. Insertion of components into the circuit boards, construction of the CDM, and packing the finished player are completely or mostly automated; the laser-arm assembly is largely produced by hand.

This process takes place in a "clean room," which is maintained at 21 to 22° C (70 to 71° F) with 49 to 50 percent relative humidity. Like clean-room workers in other high-technology factories, the workers in the Hasselt clean room are mostly female. A Hasselt manager says that women are simply capable of "more accurate, precision work" than men. (Male employees at the production level are involved most-

ly in the operation of the heavy machinery used in the plastics and metal departments.)

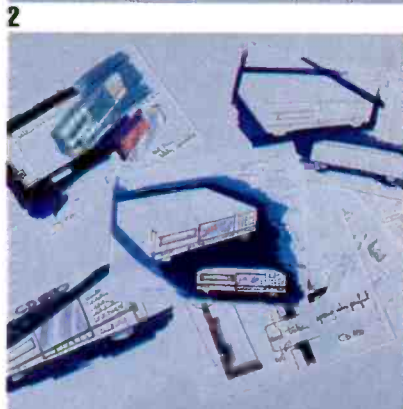
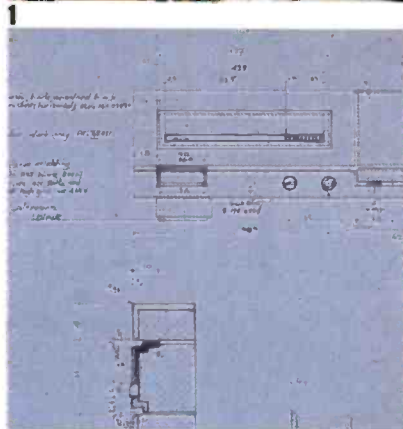
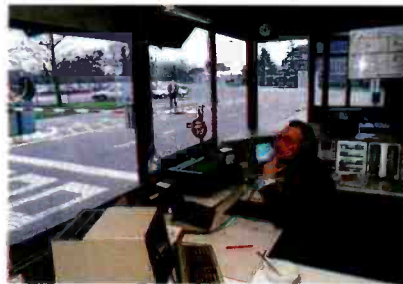
The laser-arm assembly itself consists of a low-power aluminum/gallium-arsenide laser; electronic servomotors to focus and stabilize the laser beam; a low-inertia pivoted arm to hold and move the laser; and a floating suspension system to minimize the effects of shock.

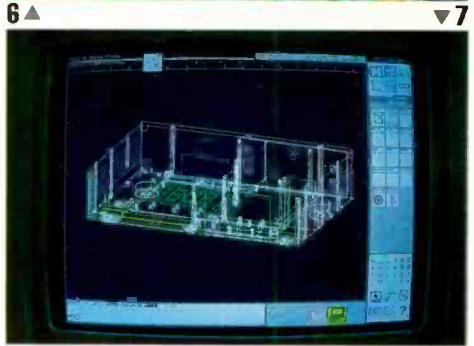
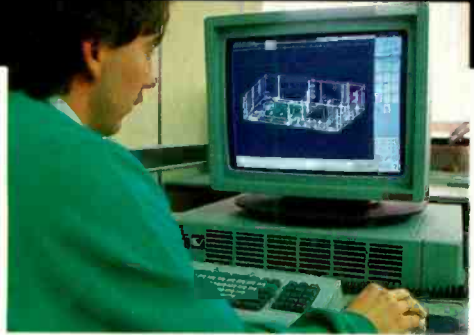
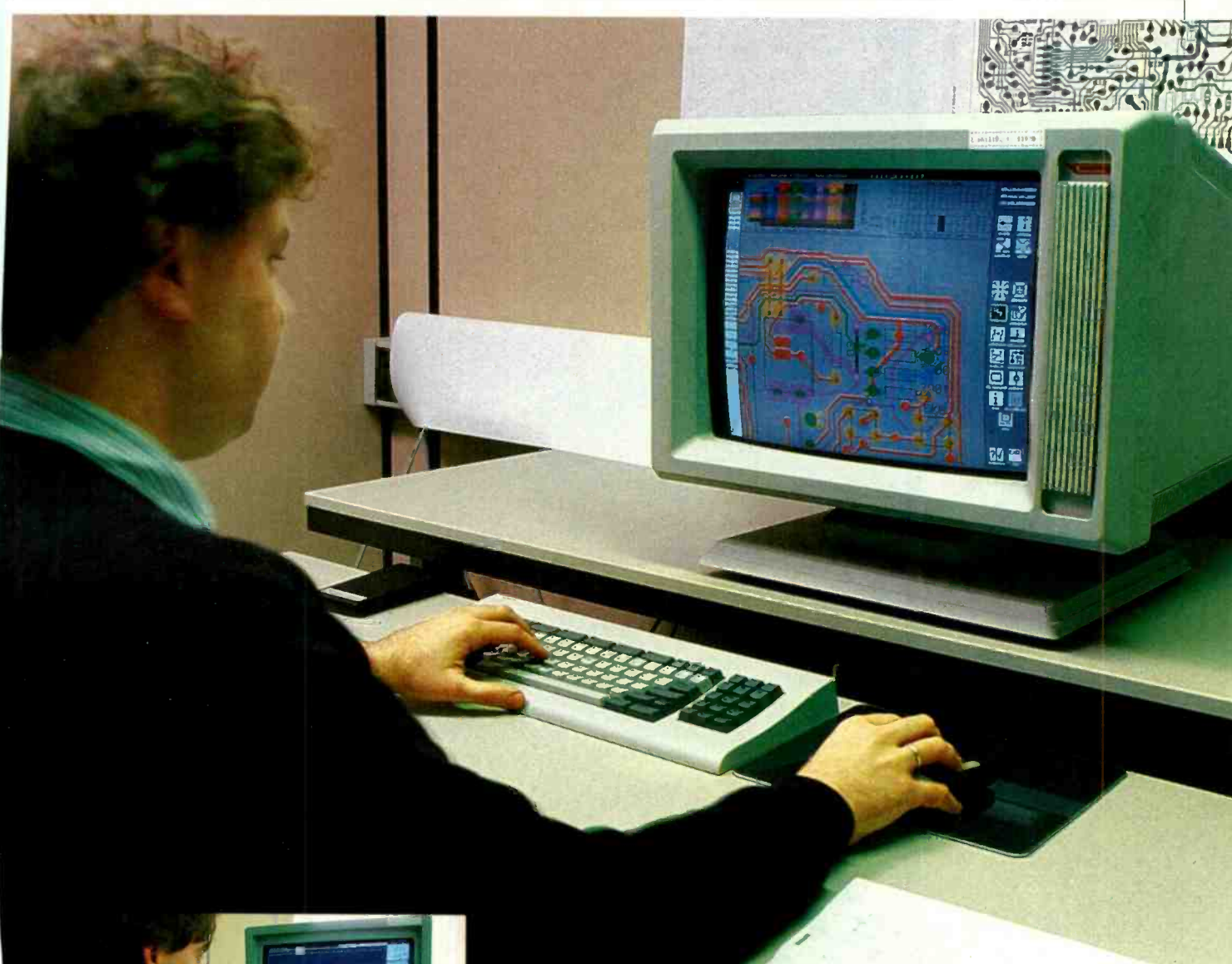
One other department deserves special mention. Roughly 300 miles west of Hasselt, in Southampton, England, the integrated-circuits division of Philips Components designs, manufactures, and tests the chips that are used in all Philips-made digital products. Combined with what I saw at Eindhoven and the work being done at research centers elsewhere, the Southampton facility demonstrates that Philips is at the cutting edge of integrated-circuit technology.

AND there's no underestimating the importance of that point. Basic research and "vertical integration," or the in-house production of vital components, have been a large part of the Philips plan since the second decade of this century, when the desire for knowledge of the unknown and the sober acceptance of a politically unstable world inspired Gerard Philips to make two visionary moves: He employed a renowned physicist to open an in-house laboratory, and he himself opened three new factories dedicated to supplying his primary lamp factory with essential materials.

The research continues today, of course. For instance, the new "Bit Stream" technology, expected to be incorporated in Philips-built players by 1990, may turn traditional concepts of the digital encoding/decoding process upside down, with only one bit at a time being converted into an analog signal. One thing's for sure: The "design tracks" for these players are already in full swing.

Several different models—including some for other manufacturers—were being constructed when I visited the Hasselt facility earlier this year. Most of what you'll see in the following pages, however, involves the Philips CD880, a \$749 player that features dual 16-bit digital-to-analog (D/A) converters and four-times oversampling.





5

1. The security station at the entrance to Philips's facility in Hasselt, Belgium, attests to the proprietary work that is done there.

2-3. Before the Hasselt plant's workers go about constructing a CD player, it has to be designed. Philips insiders call the process a "design track":

Representatives from the technical, design, marketing, and production groups meet—sometimes along with outside consultants—to hash out ideas. At this time, the Corporate Industrial Design group produces a variety of sketches, such as these for the Philips CD880 player.

4-7. Computers play a vital role in the design of a CD player. In the computer-aided design (CAD) lab in Hasselt, technicians use "visuals" and printouts of a circuit board to trace circuit paths and determine the positioning of electrical and mechanical components. The CAD technicians work on "externals," too. Computer-generated 3-D representations of a proposed CD player are used to visualize changes mandated by the design group, including such things as rounding the corners of the chassis for new "European-style" players.

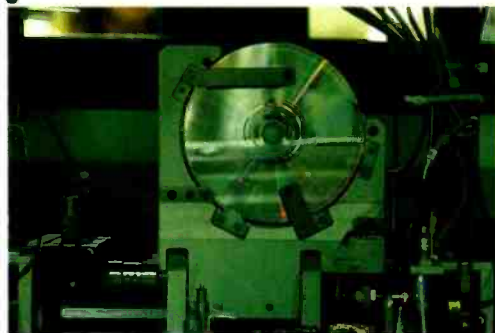
PHOTOS BY JIRI JIRU



8. Workers in Hasselt's "clean room" build by hand the most critical part of any laser-read-disc player: the laser-arm assembly.

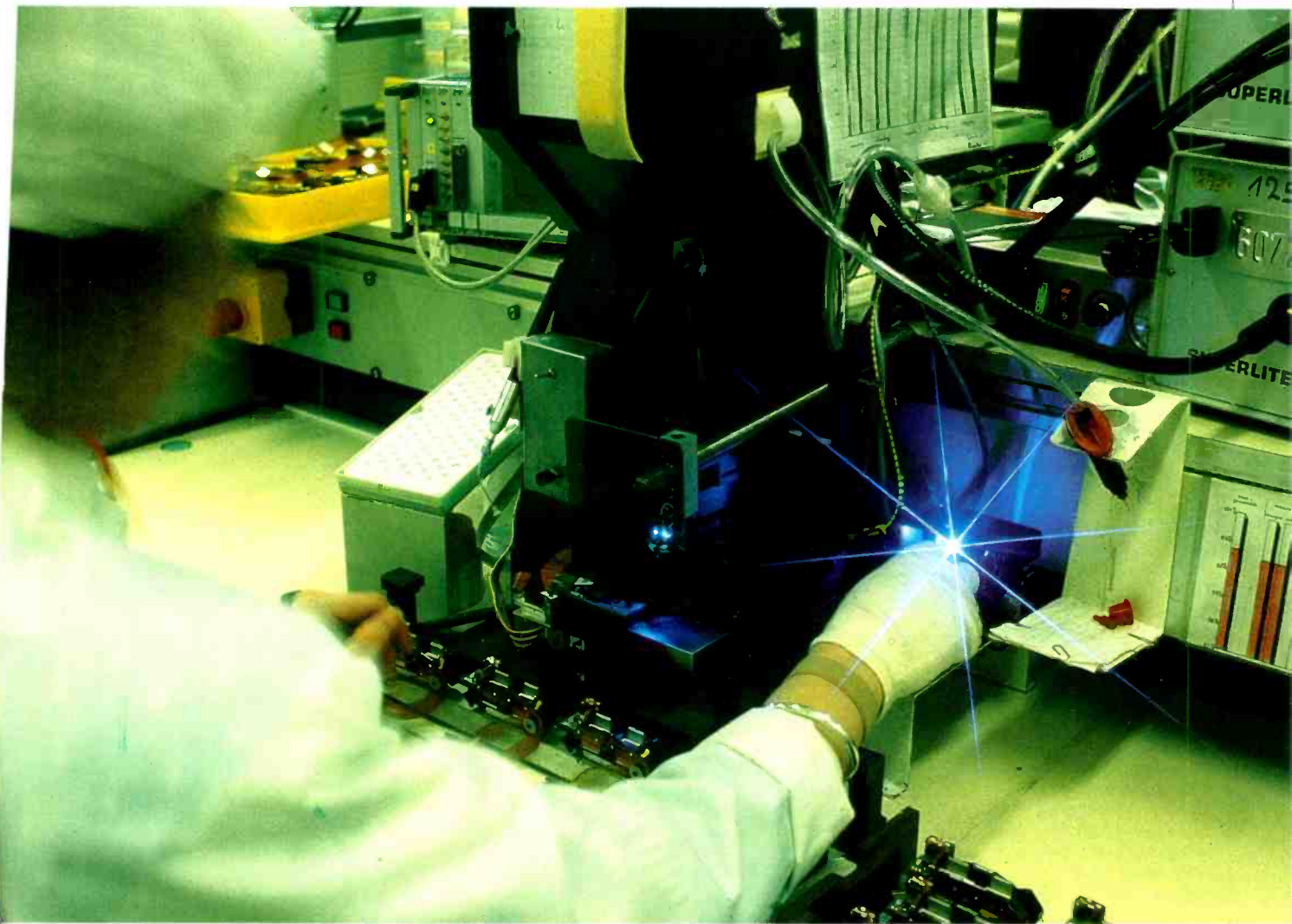
9. After the laser and its associated parts are attached to the swing arm, the optical pickup is aligned and the alignment is checked over the full course of disc tracking.

10-11. Testing a CD mechanism (CDM)—which includes the laser-arm assembly, the assembly housing, and the sliding disc drawer. The CDM's shown are for combi-players, which play videodiscs and CDV's as well as CD's.



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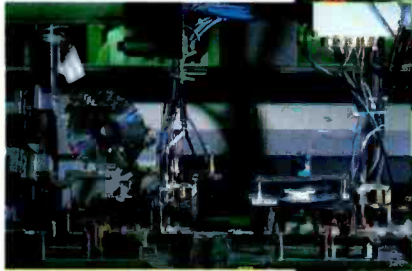
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12. Because of the fragile nature of lasers, one clean-room work station is set aside just to check and adjust the lens assembly of the optical pickup. In some cases, realignment is ineffective and the assembly is rejected.

13. The laser-arm assembly is secured to its housing and isolated with a leaf-spring suspension system to minimize the effects of shocks to the player chassis.



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14. Final, automated electrical check of the fully assembled CD mechanisms.

15. Defective laser-arm assemblies and CD mechanisms are removed from the production line.

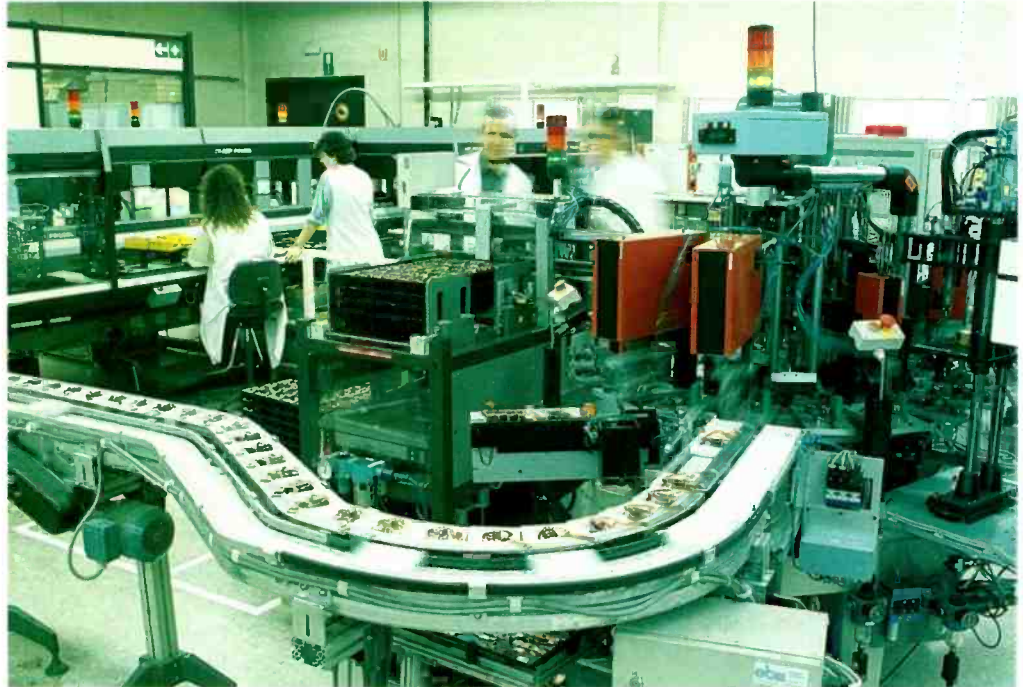
Technicians attempt to spot the source of the defects manually and determine whether any of the components can be salvaged.

16. A conveyor belt is used to deliver assembled swing arms to the CDM production line. As with the laser-arm assemblies and CD mechanisms, the swing arms are checked by technicians and repaired when possible.

17-18. Pre-cut circuit boards that have been filled with flat- and vertical-mounted electrical components by an insertion machine are sent to the solder bath for soldering. A technician checks the boards to insure that each component is secure and adds any that are too large or fragile for the insertion machines to handle.



15



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19. After the laser-arm assembly, its housing, and the CD mechanism are completed, they move to this area for final inspection and testing.

20-21. Everything comes together in Hall A. Finished CD mechanisms, circuit boards, power cables, and faceplates are assembled on chassis that have been

coated with electrostatic paint.

22. The Philips CD880. Over three-quarters of its parts are made by Philips itself or by us contract suppliers, including the circuit boards, all electrical components, special servo IC's, plastic components, and the player's metal case.

SYSTEMS

Designer audio: now you see it, now you don't.



by Rebecca Day





Designed by Wolfgang Puck, the kitchen in the DIFFA house (facing page) had Bose 102-S/E speakers in the ceiling. Jay Spectre's room (left) had a three-piece Bose AM-5 system. Mark Hampton tucked a Bose Control Center over the bar in a downstairs hallway (above). Paul Bott's terrace design (below) used Bose 102-SB outdoor speakers.

FOR any relationship to work, there have to be compromises on both sides. Concessions haven't come easy for the audio/video and interior-design industries, as neither has wanted to compromise on acoustics or aesthetics. Thanks to recent collaborative efforts between interior designers and such audio/video companies as Bose and Bang & Olufsen, however, the potential for a long and healthy union is stronger than ever.

Bose provided the sound equipment for a Metropolitan Home design showhouse that went on display in New York City last fall to benefit DIFFA, the Design Industries Foundation for AIDS. Each room represented the work of a prominent designer. Stan Shields, manager of installation and dealer training at Bose, worked with the designers to incorporate Bose Acoustimass Built-In Music systems, which are intended to be almost invisible.

Each system combined Bose electronics and a Sony-built CD player in one flush-mounted, in-wall control center. The indoor speakers included Bose's ceiling-mounted Model 102-S/E's, flush-mounted in-wall 102-FB's, and three-piece AM-5 systems. The tiny AM-5 cube satellites were mounted from ceilings, and their accompanying bass modules were built into cabinets or in specially constructed ducts in the walls. Bose 102-SB surface-mounted speakers played on the outside terrace.

Getting the designers to cooperate with the audio installation was an uphill struggle, Shields found. Although designer Mario Buatta was initially enthusiastic about the idea of music in his room, he didn't like having to accommodate the equipment, Shields said. "Everything came to a standstill when he was told about the Music Center. It was not clear we were going to put it in the wall." In fact, when it





The Great Room in the Bang & Olufsen/AT&T Discovery

House (top) held the primary audio/video system: B&O's

Beocenter 9000 (tuner, CD player, tape deck), Beolab 5000

wall-mounted panel speakers, Beocord VX5000 VCR, and

Beovision MX5000 color TV. E&O Penta speakers brought

music to the dining room (above) and living room (right).

came time to tack his trademark chintz to the walls of the room, Buatta covered over the Music Control Center too. In the end, however, the designer turned out to be the biggest fan of the system. "He brought in his own CD's, picked out mood music for the room, and kept bringing in people and pushing the button to have the CD player come down," Shields said.

Bang & Olufsen, a co-sponsor with AT&T, contributed its Beolink Master Control Link system to the Discovery House, a show house

constructed for a recent National Association of Home Builders convention in Atlanta.

Installed in nine rooms during construction, the system was designed to allow household members to distribute music to B&O speakers in any part of the house via remote controls and wall-mounted transceivers. Unlike the Bose ensembles, the Bang & Olufsen system was intended to be part of the visible decor of the rooms.

The primary audio/video room contained a Beocenter 9000 Audio System with tuner, CD player, and cassette deck, Beolab 5000 panel speakers, a Beocord VX5000 VCR, and an MX5000 26-inch monitor/receiver with a motorized stand to position the set for the best viewing angle.

Additional rooms contained B&O Master Control Link transceivers, and some had B&O source components for local listening. Up to six different sources could be accessed at any one time in the Discovery House. The Beolink system allows for up to sixteen links to the main system, with up to two additional audio sources and one video source connected at each link.

Designers' heads may be turning slowly, but it's clear that interior design and multiroom audio/video will be partners in the future. As Bose's Shields said of one of the designers who originally wanted no part of the music system: "As we did the press events for the house, he regretted his decision. He said the rooms with sound were getting more attention." □



The master bedroom (below) was connected to the main system through a B&O Master Control Link amplifier.

Additional source components for the corner-placed B&O

RL60.2 speakers were a Beocord 4500 cassette deck, a

Beogram CD4500 CD player, and Beovision MX5000 color

television. The "teen's" bedroom (above) had CX50

speakers, the same tape deck, and a Master Control Link.



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BY
ALANNA
NASH

K.T. OSLIN

"By the time I was
15 I knew I had
some intangible
thing that people
connect with."

LAST fall, when singer K.T. Oslin walked backstage to greet the press at the Country Music Association awards, reporters applauded the just-named Female Vocalist of the Year, who had also, in her first CMA nominations, picked up the Song of the Year award for writing 80's *Ladies*, outlining the anxiety and humor of three baby-boom women still struggling to grow up.

The forty-seven-year-old

LYNN GOLDSMITH



Oslin, who has been called "an inspiration to late bloomers everywhere," is almost as well known for her quick wit and head-back, roaring laugh as she is for her brand of original country music. So she was ready when the inevitable question of "chronological mileage" came ringing from a female voice in the crowd.

"K.T., do you think that your age is actually an advantage, because everyone's pulling for you?"

Oslin, a former Broadway chorus girl and veteran of hemorrhoid-remedy and denture-cream commercials, tugged on the sleeves of her full-length gloves. "Oh, yes," she cracked, placing one hand on her hip and exaggerating her Texas drawl. "They don't want me to die before I get something."

THE irony, of course, is that Oslin has been racking up awards right and left, including a Grammy last year for her performance of *80's Ladies*, and two more Grammys—for Best Female Country Vocal and Best Country Song—this past February. The more recent Grammys honor *Hold Me*, an emotional song about marital ennui and recommitment from Oslin's second album, "This Woman," which also received a STEREO REVIEW Record of the Year award.

While Oslin admits she values the writing awards more than she does the performance honors, the tributes signify far more to her than career milestones and status in the industry. "It proves," she told me in a recent interview, "after all those years that I hardheadedly said, 'I can do this,' and went without things in order to get good enough to do this, that I *did* do this."

Sitting in the conference room at RCA Records in Nashville and unselfconsciously wearing an Ace bandage around her head—the aftereffect of a six-week-old face-lift—Oslin was suddenly resolute. "By the time I was fourteen or fifteen years old, I knew I had some intangible thing that people connect with and like," she said. "I always thought that if I got the right shot, I could hit it really big. But before now, I just never had the vehicle to get there."

The vehicle, of course, was songwriting. But for a Southern girl who was too shy to sing in front of anyone until she was twenty, and who never wrote a line until she was in

her forties, success was bound to hobble a circuitous path.

Born in Crossett, Arkansas, with the given name Kay Toinette, Oslin grew up drinking Coca-Cola for breakfast and dealing with a set of circumstances straight out of the annals of the Grand Ole Opry. She was five when her father, a paper-mill worker, died of leukemia, leaving her and her older brother, Larry, to be reared by a working mother (a lab technician), a working grandmother, and a series of stepfathers.

Oslin, who has had several long-term relationships but has never married, said the experience cost her "a tremendous price in emotional development, as far as relating to men, because my father died when he was still a knight in shining armor, and they should all be young and perfect like that. But in some ways it helped me not to rely upon men too much. To me, it was normal that a woman worked and paid her own bills."

The first surrogate dad was in the transport business, and by the age of seven, young Kay—the use of initials would arrive simultaneously with her country-music career—had lived in Mobile, Alabama, Lufkin, Texas, and, for a short time, Managua, Nicaragua, an experience she remembers as "sheer torture. My eyesight was going bad, and I couldn't see the bulletin board. My teacher was Spanish, and I couldn't understand her. The comic books were in another language, I couldn't drink milk, and I was a miserable little kid. I got shyer and shyer and more withdrawn, and I had a stomachache every day."

FROM Central America, the family moved to Memphis, Tennessee, before settling in Houston during Oslin's high-school years. There, she hung out at Houston's only coffeehouse, the Purple Onion, drinking espresso ("It tasted like mud") with her girl friend, Marie, the two of them wearing black turtleneck sweaters and pleated skirts. It was 1960, and the Milby High School track team voted Kay Oslin "Miss Beatnik."

After two years of studying drama on scholarship at Lon Morris College in Jacksonville, Texas, Oslin returned to Houston, declared herself a folkie, and joined a short-lived trio with Guy Clark. A trip to California followed, where she and singer Frank Davis made a never-

released album, an effort she now calls "terrible." Her role model was Joan Baez.

Once back in Houston, Oslin, broke and discouraged, thought about meeting a nice accountant, getting married, and being an actress on the side. But then, in 1966, a touring company of *Hello Dolly!* rolled into town and posted auditions for two chorus members. At the prompting of her sister-in-law, Oslin found herself onstage warbling *Summertime* with her hands shoved down in her pockets.

"That was a Friday, and on Monday I left for six months," she recalled. "I didn't know *what* I was doing. I was just filled with . . . well, *balls*." After a year on the road, Oslin joined the show's New York company and wrote sunny letters home to her mother about her Equity card and her Manhattan apartment with a bathtub in the kitchen. In private, she cried over her "hell-hole" living conditions and subsequent miscastings, such as playing a Puerto Rican in *West Side Story*.

"New York was just an incredible adjustment," she said. "I got off the bus in my A-line shirt, with my matching luggage, my cat, and my perfect hairdo, and winos started spilling booze on my shoes. I thought, 'Girl, what have you *done*?'"

But Oslin would remain in New York for another twenty years (she recently bought a house in Nashville), toughing it out in the highly competitive world of jingles and television commercials to pay the bills. Although she estimates she did about forty TV spots in five years—the most famous posing her as a Fixodent user ("A woman in my position can't worry about hold!") barreling down the tracks on a roller coaster and screaming at the top of her lungs—she insists she wasn't the right physical type to pull in the big money: "I wasn't pretty enough to be the Campbell's Soup mommy or funny-looking enough to be the Federal Express weirdo."

When she was at her poorest, Oslin received a phone call from an old boy friend—his parents were moving and needed to get rid of their piano. Would Oslin, who had taken lessons as a child, have any use for it? Soon she was filling her weekends teaching herself Ray Charles songs and boogie licks and noodling out compositions of her own. Her first, *I Ain't Never Gonna*

"I do not think it's pop. And I do not think it's rock. I will go to my grave saying that I write flat-out country music."

Love Nobody but Cornell Crawford, was inspired by rest-room graffiti at a cafe in Due West, South Carolina.

To her surprise, Oslin found that, even after two decades in Manhattan, it was country music that came out of her mouth—but country that had evolved naturally with rock-and-roll. Still, she said of her sound, which others find tempered by blues and Broadway show tunes, "I do not think it's pop. And I do not think it's rock. I will go to my grave saying that I write flat-out country music."

Six years ago, however, when Oslin won a recording contract with Elektra, hot-shot music executives considered her material "too radical." Her first single, *Clean Your Own Tables*, died a fiery death, and her second, *Younger Men*, flopped on radio. When she tried to become a generic songwriter, honking out songs for whoever was hot and recording that week, she was told that her songs were too offbeat—nobody wanted to sing about being on a diet, and the word "boomerang" was just not right for country music.

THEN came the day a total stranger telephoned from Elektra to say, "We've dropped you." Although Gail Davies, Dottie West, Judy Rodman, and Sissy Spacek would record four of her songs in the months ahead, Oslin was so depressed she sat in her bathrobe for six months and gained forty pounds.

It was now 1983, and Oslin was forty-one and back to "babbling about my husband's hemorrhoids" on TV. At her twenty-fifth high-school reunion in 1985, the former Beatnik Queen wept on her best friend's shoulder, imagining herself in twenty years as "one of those crazy old bag ladies who thinks she's in show business. I thought, 'Oh, my God, I'm gonna die, and the only thing I'll be remembered for is a hemorrhoid commercial.'" But the following year she mustered the



courage to borrow \$7,000 from her stockbroker aunt to put on a showcase in Nashville, inviting every music executive in town and spending her last \$1,500 on a three-song demo with producer Harold Shedd. Eventually, RCA's Joe Galante invited her for lunch, and they began negotiating the following day: Galante sensed that *80's Ladies* would strike a nerve with millions of women caught between the quest for independence and the lure of romance.

He was right. On the strength of that single, Oslin's album, also titled "80's Ladies," entered the *Billboard* chart at No. 15—the highest ever for a debut album by a female country artist. The follow-up, "This Woman," showed a still-deepening gift for original songwriting—four-minute dramas full of melodic and lyrical passion, strung together in ways that challenged conventional form. Soon, most of Nashville was smitten: Singer-songwriter Tom T. Hall, never known for following the rules very much himself, affectionately dubbed Oslin "everybody's screwed-up sister."

There has been some jealousy, of course. And Oslin, who is critical of Nashville's good-ol'-boy network, the standard chauvinistic treatment of female singers, and the level of songwriting that sometimes passes for art, is perceived by some as

being too outspoken for her own good. Especially since she is honest enough to admit that she doesn't want to stay in the business once the quality of her writing slips: "I want to manage my money well, I want to have fun, and I'd like to write and sing and then get out in a very short period of time, while I'm still held in high regard."

In the meantime, Oslin, who tools around town in a jeep, looking every inch the sensible 80's Lady, is getting letters from people who say that her songs address a woman's psyche in a way country music previously ignored. And then there are the other letters—the ones that say Oslin herself has been inspiring.

"They write things like, 'Well, gollee, if you can do it at forty-seven, when everybody else is supposed to be twenty-six and thin and beautiful, well maybe I *can* open up that flower shop. Why not? I always wanted my own business, but I thought that because I'm forty-one, it was sort of over. It's obviously not, and I can do this.'"

She chuckled. "That I get a lot of. And that is very touching. It's like, 'Oh, my God. From *me* you got that?' And they go, 'Yeah.'" Embarrassed by emotion, K.T. Oslin adjusted the Ace bandage and settled back into her chair. "That," she finally added, "that's just . . . cool." □

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BEST RECORDINGS OF THE MONTH

Stereo Review's critics choose the outstanding current releases

PETER CASE'S "BLUE GUITAR": UNCHAINED

THE full title of Peter Case's new solo album, his second, is "The Man with the Blue Postmodern Fragmented Neo-Traditionalist Guitar." Case obviously has his tongue in his cheek with that extra verbiage, but he is a postmodern, having survived L.A.'s early-Eighties punk/pop scene (he belonged to the Nerves and the Plimsouls), and he has been coming on like a neo-traditionalist, acoustic guitar slung over his shoulder, ever since.

In any event, he sounds like a

man unchained in "Blue Guitar," thumbing rides just for the thrill of it and jotting down stories he hears along the way. He's got some good ones, too, waxing fondly about the local color at a San Francisco flop-house (*Entella Hotel*) and relating the hard-luck tale of a down-and-outer who suspects he's been lobotomized (*Poor Old Tom*). In the traditional *Charlie James*, David McKelvey's harmonica pans across channels like a lonesome train whistle passing in the night while Case growls mournfully. Yet the flip side of lonesomeness is freedom, and when he sings, "You got a hole in your soul and the wind blows through" in *Travellin' Light*, the line sounds more like a call to hit the road than a curse.

Case is accompanied by guitarist David Hidalgo of Los Lobos, along with some of L.A.'s finest session players. He's not evolved into such a folk-blues purist that he won't rock out on occasion, and *Put Down the Gun* and *This Town's a Riot*

both benefit from amplified input. The former, which rocks in the wide-open way of Petty and Mellencamp, deserves to become an anti-NRA anthem. *This Town's a Riot* is all sinuous, Creedence-style bayou thunder, as full of danger and forbidden delight as the raucous city streets it describes.

Case closes the album with *Hidden Love*, a bittersweet paean to unrequited desire that finds him singing, "Someone sees the dreams we hide." Then, like a figure disappearing into the fog, he's off—and only he knows where he's headed next.

Parke Puterbaugh

PETER CASE: *The Man with the Blue Postmodern Fragmented Neo-Traditionalist Guitar*. Peter Case (vocals, guitar, harmonica); David Hidalgo (guitar); other musicians. *Charlie James; Put Down the Gun; Entella Hotel; Travellin' Light; Poor Old Tom; Old Part of Town; Rise and Shine; Two Angels; This Town's a Riot; Hidden Love*. GEFEN GHS 24238, © M5G 24238, © 24238-2 (40 min).

Peter Case: loneliness and freedom on the road



DENNIS KEFLEY/GEFFEN RECORDS

A NEW "ELEKTRA" FROM OZAWA

IT is difficult to imagine a more fully realized performance of *Elektra*, Richard Strauss's mightiest operatic score, than the one offered by Philips in its new recording made live at Boston's Symphony Hall last November. The conductor is the Boston Symphony's music director, Seiji Ozawa, whose readings have sometimes struck me as being polite, correct, perhaps a bit too "civilized." Not so in this recording. His interpretation of *Elektra* is massive, savage, and impassioned, yet it is sensitively molded and always at the best services of his artists.

In the title role, Hildegard Behrens is simply overwhelming. Her voice pours out as if there were no end to her command of tonal amplitude and breath. The noble line of her first monologue is matched by the tenderness of her recognition of Orest, and between these sections

BEST RECORDINGS OF THE MONTH



Hildegard Behrens: a searing performance as Elektra

the many facets of her complex character are delineated precisely and with focused theatrical effect, impeccable musicianship, and unswerving commitment to Strauss's intentions. She recalls the vocal thrust of Birgit Nilsson's interpretation as well as the pitiable vulnerability of Rose Pauly's heartbreaking one. With Behrens we exult at Elektra's seeming victory over Klytämnestra, and we come close to tears as she describes to Orest her abased life. And her searing performance is well matched in the four other leading roles. Indeed, all of the casting has been done with extraordinary care and with uncommonly fine results.

Christa Ludwig's Klytämnestra is the most convincing on records. Ludwig *sings* the role, yet she colors her voice and inflects the lines so that Klytämnestra appears before us as we listen, stripped of jewels and royal regalia, a tortured, frightened, despicable, and utterly miserable

woman. Her laughter as she leaves Elektra is not victorious so much as threatening, sinister, foreboding.

Contrasted to Elektra's singleness of purpose are the feminine fragility and womanly desires of Chrysothemis, who brings a degree of normalcy to this twisted world of hate and terror. Nadine Secunde employs her silvery soprano to best advantage in creating a sympathetically credible younger sister. She is, admittedly, assisted by Strauss himself, who has written some of his most melting music for Chrysothemis. As sung by Secunde, the girl's description of young mothers at the common well is among the most moving passages in the opera.

As Orest, Jorma Hynninen sings with full-bodied resonance, easily projecting the hero's treacherous vocal line over the expansive sonorities of the orchestra. One feels his shock at recognizing Elektra and his heightened determination on vengeance as partial recompense for her

wretchedness. We have heard about Orest throughout the opera and have come to have our own clear image of him; Strauss and librettist Hugo von Hofmannsthal introduce him only toward the work's conclusion (a daring move, if one required by the action). Hynninen meets that dramaturgical and musical challenge triumphantly. Finally, Ragnar Ulfung, in his brief appearance as Aegisth, vividly depicts the repellent charm of Klytämnestra's lover: suspicious, imperious, debauched, debilitated—contemptible.

This most grizzly of operas is also among the most melodic in the Strauss canon. When the emotional context calls for it, the music soars in lyric flights that can only be described as gorgeous. *Elektra* is tragic in the Aristotelian sense of tragedy: an evocation and purgation of pity and terror. No other opera achieves this to the same extent as *Elektra*. And no other recording of it surpasses the present one.

Robert Ackart

R. STRAUSS: *Elektra*. Hildegard Behrens (soprano), Elektra; Christa Ludwig (mezzo-soprano), Klytämnestra; Nadine Secunde (soprano), Chrysothemis; Jorma Hynninen (baritone), Orest; others. Tanglewood Festival Chorus; Boston Symphony Orchestra, Seiji Ozawa cond. PHILIPS 422 574-2 two CD's (142 min).

PERE UBU'S SUNNY "CLOUDLAND"

PERE UBU is one of those self-consciously arty bands I've always filed under, "Lord knows I've tried." Yes, I know they've been widely influential. True, other musicians I respect, like Richard Thompson, think they're swell, and, unlike a lot of other rock avant-gardists, they've never (well, hardly ever) thrown the baby out with the bath water—no matter how quirky they got, you could tell they respected the rock verities they were nonetheless subverting. Still, I would listen to Ubu records, respect them in principle,

BEST RECORDINGS OF THE MONTH



Pere Ubu: exhilarating

and then, inevitably, put them away.

Until now, that is. I hope that long-time Ubu partisans won't resent my bandwagon-hopping, but the splendid new "Cloudland" album is a thoroughly accessible piece of work. It's obviously designed to get the band on the radio with integrity—and quirkiness—intact, and on those terms, it's an almost total success.

Of course, the album's sunny listenability notwithstanding, nobody is ever going to mistake the music in "Cloudland" for, say, Bon Jovi. David Thomas's singing still drips a peculiarly Midwestern kind of irony, Allan Ravenstine's synthesizers still burble and roil like the musical equivalent of Walt Whitman's "barbaric yawp," and the band's songwriting remains unsettling—a goulash of mutated soul riffs, skewed country licks, mysterious examinations of relationships in trouble, and borrowed bits from sources as seemingly unrelated as the Beach Boys, Elvis Presley, and (gasp!) the Seventies junk band Blue Swede (those haunting "ooga chuckas" in *Ice Cream Truck*). This is pop/rock, but it's a funhouse-mirror kind of pop/rock—the kind that results from knowing far too much about far too many things and having the chops to express a lot of it.

The most obvious analog for "Cloudland" would be recent XTC—both bands make smart mu-

sic for a mass audience. But, in a peculiar way, Pere Ubu is also profoundly American sounding. What it really reminds me of is (I'm not kidding) Charles Ives. Of course, Ives never had the backbeat provided here by Chris Cutler and Scott Krauss, he never wrote a radio-ready anthem like *Breath* (a song that rings brilliant changes on, of all things, the psychedelic-era Tommy James), and he certainly never concocted an intoxicating tribute to the Stones' "Satanic Majesties" period like the sure-to-be-a-hit *Waiting for Mary*. But the overall effect of "Cloudland" is as exhilarating and collage-like as the finale of Ives's Second Symphony.

Granted, that's a lot of baggage to load on what is, after all, just a rock-and-roll record, especially in an age when it's hard to talk about any popular entertainment medium in terms of Art without breaking out in gales of helpless laughter. But when everything here is working, in songs as cool and spooky as *Nevada!* or as kinetically effective as *Love Love Love*, that's the kind of response "Cloudland" inspires. I'm an Ubu fan after all these years, and I suspect that when you hear it you'll be one too.

Steve Simels

PERE UBU: *Cloudland*. Pere Ubu (vocals and instrumentals); Stephen Hague (keyboards). *Breath; Race the Sun; Cry; Why Go It Alone; Waiting for Mary; Ice Cream Truck; Bus Called Happiness; Love Love Love; Lost Nation Road; Fire* (CD only); *Nevada!; The Wire* (CD only); *Flat; The Waltz; Pushin'; Monday Night*. FONTANA/POLYGRAM 838 237-1, © 838 237-4, © 838 237-2 (47 min).

A VIVID "FIREBIRD" FROM RATTLE

EVEN in the face of strong competition, the new recording of Stravinsky's *Firebird* by Simon Rattle and the City of Birmingham Symphony Orchestra offers something special in terms of gestural and dramatic vividness, enhanced by some of the most stunning recorded sound to come my way in some time. The

Arts Centre in Warwick, England, was a peculiarly apt locale for the recording of this music; everything emerges from the loudspeakers with extraordinary presence and a most satisfying blend in the full orchestral passages. Every line and coloristic detail of Stravinsky's cinematically opulent music is heard with spectacular clarity and with a superb sense of both lateral and depth perspective. Rattle brings a keen theatrical sense to the score, which is the complete, large-orchestra version of 1910, and he fills out the CD with some delightful tidbits.

The Four Studies for Orchestra from 1952 derive from the 1914 Three Pieces for String Quartet and



Simon Rattle: theatrical

a 1928 piano piece adapted from an earlier "study" for pianola. They are fascinating character sketches, and Rattle makes the most of them. The *Scherzo à la russe* from 1943-1944 is a charming bit of parody that Stravinsky arranged first for conventional symphonic forces and a short while later for the Paul Whiteman Band. Rattle includes both versions in this program, the jazz-band one just ahead of the Four Studies and the orchestral version immediately following. As in the *Firebird*, the performances are brilliant, the sound stunningly vivid. David Hall

STRAVINSKY: *The Firebird* (1910 version); *Scherzo à la russe* (jazz-band and symphonic versions); *Four Studies for Orchestra* (1952 version). City of Birmingham Symphony Orchestra; Simon Rattle cond. EMI/ANGEL © CDC 49178 (65 min).



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PETER CASE: *The Man with the Blue Postmodern Fragmented Neo-Traditionalist Guitar* (see Best of the Month, page 71)

THE CULT: *Sonic Temple*. The Cult (vocals and instrumentals); vocal and instrumental accompaniment. *Sun King; Fire Woman; American Horse; Edie (Ciao Baby); Sweet Soul Sister*; and five others. SIRE 25871-1, © 25871-4, © 25871-2 (52 min).

Performance: *Dread Zeppelin*
Recording: *Louder than bombs*

Pssst—hey kid, wanna buy a used Zeppelin? Step right up and check out "Sonic Temple," a motley montage of retooled riffs from a biker-rock slag heap so grungy and raw it practically drips motor oil on the carpet when it's playing. The Cult, three unrepentant post-punk longhairs from Britain, probably think R.E.M. and U2 are for sissies and that Bad Company, Queen, and the indomitable Led Zeppelin are a rocker's proper role models. They've got that waddling, bottom-heavy arena whomp down to a science. Over brontosaural riffs, singer Ian Astbury warbles in the mock-operatic manner of a ludehead whose bruised brain is pleading for sedation.

It's enough to make a deaf person grimace, yet there's something perversely addictive about this music, with its up-front aggression and its slow-motion orgasms of drums and guitars building to a raunchy climax. The password is "derivative." The Cult borrows inspiration, if not actual licks, from Led Zeppelin (*Automatic Blues* purloins the *Whole Lotta Love* riff, *Soul Asylum* slogs in the direction of *Kashmir*), Queen (*American Horse* cadges from *We Will Rock You*), and other AOR heroes from the hard-rock Seventies. Ultimately, "Sonic Temple" is easy to dismiss in principle but hard to resist with the volume up. *P.P.*

THE CURE: *Disintegration*. The Cure (vocals and instrumentals). *Plainsong; Pictures of You; Closedown; Love Song;*

EXPLANATION OF SYMBOLS:

- Ⓛ = DIGITALLY RECORDED LP
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K.D. LANG

FOR some, k.d. lang's first LP, "Angel with a Lariat," produced by Dave Edmunds and recorded in England, was too hard-edged, too inaccessible, and occasionally too Marx Brothers-zany. For others, her second album, the lushly orchestrated "Shadowland," produced by Owen Bradley and recorded in Nashville, was too retro-Patsy Cline, a record that struck a self-conscious pose in spite of its obvious musical excellence. What was needed, some argued, was an album that struck a balance between the cow-punk and the romantic sides of lang's personality, or the masculine and feminine aspects of her music.

And so was born "Absolute Torch and Twang," an album that should more than satisfy both factions of lang's fervent following—and also put her in better stead with programmers and the more conservative fans who found her earlier efforts too radical. Produced in Canada by Greg Penny with Ben Mink, a member of lang's back-up band, the reclines, and lang herself, the album presents both lang and Mink as rapidly maturing songwriters, far more focused in their lyrics and melodies than in "Angel with a Lariat." There's a natural, if also innovative, integration here of roots-country and slam-dance styles, along with the quirky intelligence and unpredictable rhythms lang has always embraced.

The opening cut, *Luck in My Eyes*, sets an almost stream-of-consciousness lyric over a fierce jungle backbeat, and there's a hypnotic, driving pulse to *Didn't I*. If those particular songs are really neither torch nor twang, *Trail of Broken Hearts* proves to be a stirring example of the former, and *Big Boned Gal*, where Ben Mink's fiddle lights up the track like fireworks, successfully weds humor and hoedown.

Not all of lang's imagery works, however: *Pullin' Back the Reins* strains the cowboy motif, and *Wallflower Waltz*, which may or may not be about a homosexual pick-up, gets bogged down in pseudo-existentialism—a jarring juxtaposition with the melody's clean country whine. The more esoteric numbers are tempered with covers of little-revived honky-tonk classics (Willie Nelson and Faron Young's *Three Days*, Wynn Stewart's *Big Big Love*) and with Jeannie Smith and Leroy Preston's *Full Moon Full of Love*, best described as neo-western-swing.

The reclines, who leave enough rough edges on their instrumentals to complement the immediacy of lang's aggressive vocals, prove to be more discriminating pickers than they were a few



short years ago. Or perhaps it's just that producer Penny mixed the drums and bass up where they can be heard and wasn't afraid of employing such exotic instruments as the mandola and the humblest of percussion mallets, the spoons. He's usually left lang alone, however, allowing her to leap too often to her trademark vocal hiccup. Otherwise she remains commanding, evocative, and, at times, even remarkable.

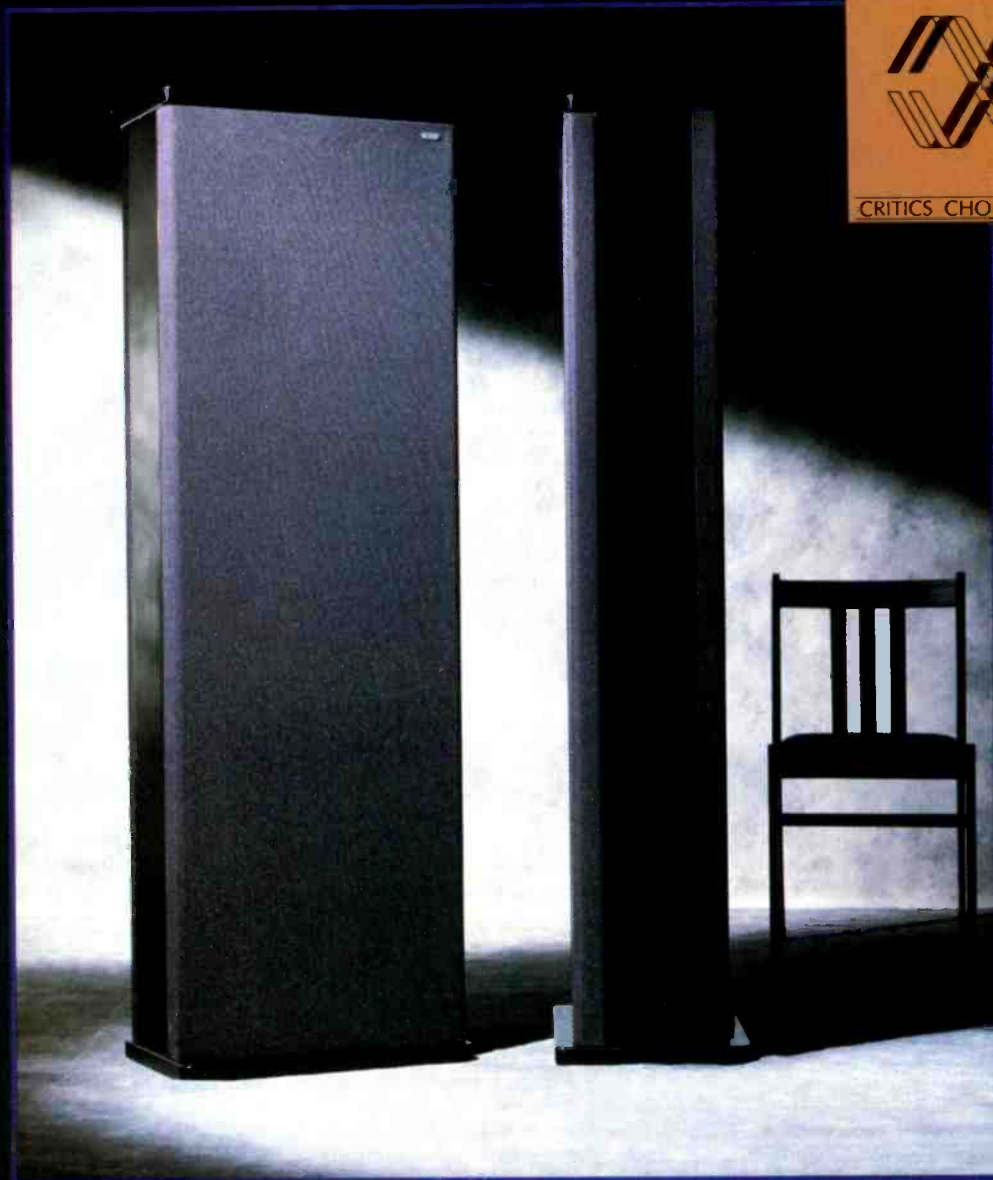
As with lang's previous albums, the emphasis here is not on what's being said but on the act of being—existence and vision as art. (An exception is *Nowhere to Stand*, an emotional plea for child-abuse laws and recognition of the rights of children.) In a time when only a handful of artists challenge country music to rise from its stagnant, if comfortable, mire of conservatism, k.d. lang is in there with a cattle prod.

Alanna Nash

K.D. LANG AND THE RECLINES: *Absolute Torch and Twang*. k.d. lang (vocals); the reclines (instrumentals). *Luck in My Eyes; Three Days; Trail of Broken Hearts; Big Boned Gal; Didn't I; Wallflower Waltz; Full Moon Full of Love; Pullin' Back the Reins; Big Big Love; It's Me; Walkin' In and Out of Your Arms; Nowhere to Stand*. SIRE 25877-1, © 25877-4, © 25877-2 (72 min).

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Lullaby; and five others. ELEKTRA 60855-1, © 60855-4, © 60855-2 (60 min).

Performance: *Doom and gloom*
Recording: *Fair*

"Disintegration" is truly one of the most despondent albums ever made. The Cure hasn't been exactly the Norman Vincent Peale of the New Wave, but the band hits new lows in this hour-long descent into the abyss. To turn the adage around, leader Robert Smith would rather curse the darkness than light a candle. He sounds like a man whose spirit is slowly slipping into the ether. "It's easier for me to get closer to heaven than ever feel whole again," he broods in the morbid title track. The off-kilter *Lullaby*, a nightmare about being covered with spiders that intimates delirium tremens or drug-induced psychosis, is not exactly the stuff of pop music, either.

This is an album meant for solitary listening in the wee hours, after everyone else has gone to sleep. It actually sounds more ghostly and surreal at low volume. Although the lyrics convey a yearning to make an emotional connection—"If only I could fill my heart with love," Smith mourns in *Closedown*—that runs against the more powerful tide of gloom and resignation, they're mostly a blurry stream of bleak images set to long, synth-heavy musical tracks that are by turns ethereal and dirgelike. *The Same Deep Water As You* is frail and oddly pretty, hypnotically drawn out to ten minutes. *Untitled* is also engrossing, a siren's song that beckons you to come wallow in the sweet melancholy of despair. P.P.

DION: *Yo Frankie*. Dion DiMucci (vocals, guitar); vocal and instrumental accompaniment. *King of the New York Streets*; *And the Night Stood Still*; *Yo Frankie (She's All Right with Me)*; *I've Got to Get to You*; *Written on the Subway Wall/Little Star*; and five others. ARISTA AL-8549, © AC-8549, © ARCD-8549 (41 min).

Performance: *Cautious*
Recording: *Good*

Dion hasn't made a rock album in eleven years, and it shows in "Yo Frankie." He sounds tentative most of the time, though he brings a snap to *King of the New York Streets* and a soft melancholy to Tom Waits's *Serenade*, the songs that open and close the album. What comes between is uneven. Dion wrote or co-wrote seven of the ten songs, which range from street-corner reminiscences to expressions of a sort of grown-up puppy love. Producer Dave Edmunds, who also performs, has created a fluid, dynamic instrumental flow that pumps right along even when it seems that the singer is being pushed a little too much. Dion's return to secular music is good news, but "Yo Frankie" shows that he has yet to regain his stride. R.G.



The Cure: not exactly Norman Vincent Peale

MICHAEL FEINSTEIN: *Over There*. Michael Feinstein (vocals); Armen Gzelimian (piano). *Keep the Home Fires Burning*; *I Want to Hear a Yankee Doodle Tune*; *Good Morning Mr. Zip-Zip-Zip*; *Goodbye Broadway, Hello France!*; *Sister Suzie's Sewing Shirts for Soldiers*; *Yours Is My Heart Alone*; *Vienna, My City of Dreams*; and eighteen others. EMI/ANGEL ● DS-49768, © 4DS-49768, © CDC-49768 (72 min).

Performance: *Uneven at best*
Recording: *Excellent*

Every good performer is entitled to a mistake now and then. "Over There" is Michael Feinstein's. Credit him with a willingness to take chances with fresh and unexpected repertoire; it's just that he fails to pull it off this time. Only a few of the American and European songs of the World War I era that he's chosen are right for his crooning vocal style. In particular, his voice lacks the tonal colors and range needed for the group of German and Viennese songs by Schoenberg, Weill, Lehar, and others that make up nearly half the album. At the risk of taking a cheap shot, I'd say that Feinstein is as out of his element here as Kiri Te Kanawa has been in her forays onto Feinstein's regular show-music turf. R.H.

GREAT WHITE: *Twice Shy*. Great White (vocals and instrumentals). *Move It*; *Heart the Hunter*; *Hiway Nights*; *The Angel Song*; *Mista Bone*; and four others (five others on CD). CAPITOL C1-90640, © C4-90640, © C2-90640 (48 min).

Performance: *Thin*
Recording: *Okay*

Great White sounds like a band that's been on the road too long. Most of

"Twice Shy" is lethargic hard rock. Even when the band takes some chances (*Move It*) or shows some good taste (a cover of Ian Hunter's *Once Bitten Twice Shy*), things don't seem to rev up. The low point is *Heart the Hunter*, which is nothing more than a bad Led Zeppelin imitation. R.G.

HOWARD JONES: *Cross That Line*. Howard Jones (vocals, keyboards, drums); vocal and instrumental accompaniment. *The Prisoner*; *Everlasting Love*; *Powerhouse*; *Last Supper*; *Cross That Line*; *Out of Thin Air*; and four others. ELEKTRA 60794-1, © 60794-4, © 60794-2 (48 min).

Performance: *Slow going*
Recording: *Very good*

Howard Jones—ace synthesist, New Age pop avatar, one-man show, and all-around "feel good" kind of guy—sounds down in the dumps these days. The draggy tempos and enervated music here suggest a crisis of the spirit for the normally chipper Jones. He sings of being trapped in a suffocating relationship (*Last Supper*, *The Prisoner*) in one half of the album and professes deep gloom about the world's ecological woes in the other. When he tries to raise the adrenaline level in a song such as *Powerhouse*, upping the tempo and inserting a whipcrack synth-bass line, it seems more automatic than heartfelt.

Jones still has the ability to touch a number of bases in the same song—New Age keyboard noodling, sharply accented dance tempos, romantic balladry in the Phil Collins mode—and he's an expert craftsman. His gorgeous solo-piano instrumental, *Out of Thin Air*, is shaded with real emotion, and the two songs that follow it, *Guardian of the Breath* and *Fresh Air Waltz*, com-

plete an environmental trilogy that evokes the feeling of standing beneath a cool, dripping redwood canopy. Unfortunately, Jones's admonition in *Fresh Air Waltz*—"Fresh air, that's what you need"—could apply to much of this claustrophobic album. *P.P.*

THE JUDDS: *River of Time.* The Judds (vocals); Mark Knopfler, Carl Perkins (guitar); other musicians. *One Man Woman; Young Love; Not My Baby; Sleepless Nights;* and five others (six others on CD). CURB/RCA 9595-1-R, © 9595-4-R, © 9595-2-R (33 min).

Performance: *Lovely*
Recording: *Nice*

The Judds, who show up everywhere these days from automobile commercials to endorsements for discount de-

Love, for example, in which Knopfler himself contributes a characteristically stark and romantic guitar solo, and a Mike Reid-Mac David-Brent Maher composition, *Not My Baby*, written in the jazzy, pre-World War II style that Leon Redbone revitalized in the 1970's.

"River of Time" is remarkable for another reason, though—the blossoming of mother Naomi, who co-wrote three of the selections, including *Guardian Angel*, which recalls the best of Dolly Parton's early work, and *River of Time*, dedicated in part to the memory of her brother, Brian. If none of her songs are exactly singles material, none are mere fillers, either, and they hint at a depth usually obscured by her physical beauty, stage sass, and moxie. The Judds are still full of surprises. *A.N.*

She's the Ethel Merman of contemporary dance music, with a hard-edged style that's more suited for belting a tune to the rafters than coaxing an emotional nuance. In slower songs, she's out of her element, and so is Full Force. The uptempo numbers pop the best, as Full Force smoothly blends synth funk, scratching, raps, and a variety of call-and-response vocal pyrotechnics. As long as there's a beat to follow, "Straight to the Sky" rocks the house. *R.G.*

GISELA MAY: *Brecht-Weill Songs.* Gisela May (vocals); other singers; orchestra, Henry Krtischil cond. *Bilbao-Song; Surabaya-Jonny; Zu Poisdam unter den Eichen; Havanna-Song; Alabama-Song; Mackie Messer;* and eleven others. CAPRICCIO © 10 180 (55 min).

Performance: *Sharp and tart*
Recording: *Lean and clean*

Aside from Kurt Weill's widow, Lotte Lenya, no one has been a more compelling or perceptive interpreter of the Brecht-Weill repertoire over the past three decades than Berlin-based Gisela May. Her American appearances have been few, and her half a dozen recordings have had only limited distribution here on imported labels. This latest one finds some of the bloom gone from her voice but not her ability to make you forget almost any other version of the individual songs she sings.

Like Lenya, May is essentially an actress who sings—but on pitch and with innate musicality. She brings fire and bite to Brecht's texts, but she also knows just when to soften a word or a tone for telling effect—as in the so often overdone *Surabaya-Jonny* from *Happy End* or *Pirate Jenny* from *The Threepenny Opera*. And her snarling *Mack the Knife (Mackie Messer)* can still induce shivers, reminding us that for all of Weill's bittersweet melodies, these songs were not meant to be pretty. The small-combo arrangements by May's long-time accompanist, Henry Krtischil, deftly capture the spirit and feeling of the songs' late-Twenties and early-Thirties origins. *R.H.*

SARAH McLACHLAN: *Touch.* Sarah McLachlan (vocals, guitar, piano); vocal and instrumental accompaniment. *Out of the Shadows; Vox; Strange World; Trust; Touch;* and four others. ARISTA AL-8594, © AC-8594, © ARCD-8594 (41 min).

Performance: *Too precious*
Recording: *Very good*

Sarah McLachlan is a twenty-one-year-old Canadian who, from the sound of things here, walks around Halifax, Nova Scotia, with a whopper of an Ophelia complex. You can almost feel her twisting the ends of her hair as she gets herself to a nunnery. The problem is that McLachlan, who has illustrated her album cover with ornate, pen-and-ink drawings in the style of an Aubrey



Lisa Lisa and Cult Jam: brassy vocals, dense rhythms

partment stores, have likewise franchised their music from time to time, occasionally reworking old classics, to disastrous effect, and—given Wynonna's tendency to out-jive Rickie Lee Jones in her vocal inflections—often stretching the limitations of good taste. Their last studio album, "Heart Land," was a case in point.

Their new "River of Time," however, surpasses any of the Judds' previous albums in its range of styles, musical inventiveness, and vocal integrity. If one of its selling points is that producer Brent Maher has reigned in Wynonna's free-for-all vocal gibberish, the trade-off seems to be a dearth of memorable songs, even though the contributors include Mark Knopfler, Carl Perkins, Don Schlitz, Paul Kennerley, and Felice and Boudleaux Bryant. Still, the stand-out tunes are enormously diverse—a cover of Mark Knopfler's *Water of*

LISA LISA AND CULT JAM: *Straight to the Sky.* Lisa Lisa and Cult Jam (vocals and instrumentals); vocal and instrumental accompaniment. *Just Git It Together; Little Jackie Wants to Be a Star; Give Me Some of Your Time; U Never Nu How Good U Had It; Kiss Your Tears Away; Dance Forever;* and five others. COLUMBIA OC 44378, © OCT 44378, © CK 44378 (55 min).

Performance: *Polished*
Recording: *Good*

With "Straight to the Sky," Lisa Lisa and Cult Jam are certain to enjoy vast commercial success again. The album was written, arranged, produced, and in part performed by Full Force. Lisa Lisa and Cult Jam have had the biggest hits in the Full Force empire of dance acts, probably because Lisa Lisa's brassy vocals cut cleanly across the dense rhythms of the instrumental tracks.

Beardsley on acid, is simply too sensitive for her own good. So sensitive, in fact, that even though she is gifted with a most astonishing vocal range, she doesn't know how to write real lyrics or melodies. And so she writes "moods," or ethereal tone poems, that evoke her three big emotions—anger, sadness, and happiness—and slaps provocative titles on them, such as *Trust*, *Touch*, *Vox*, and *Steaming*.

The password here is "feeling," and in McLachlan's "wish I'd been born in time for the Sixties" world, feeling is everything. Unfortunately for those of us who were around the first time those years spun by, listening to her album is like being sentenced to relive the most insipid parts of the decade. *A.N.*

METAL CHURCH: *Blessing in Disguise*. Metal Church (vocals and instrumentals). *Fake Healer; Of Unsound Mind; Anthem to the Estranged; Badlands; The Spell Can't Be Broken*; and four others. ELEKTRA 60817-1, © 60817-4, © 60817-2 (54 min).

Performance: *Bombastic*
Recording: *Dense*

In the beginning, there is the riff. For many bands, of course, the music evolves and develops beyond the basic

riff. Not for Metal Church, however, a band to whom a good riff is to be cherished and repeated many times. With only a couple of exceptions, the songs here lose their appeal long before the reps are ended. The lockstep thundering benefits only from the distraction of the required guitar solos. These guys like Black Sabbath too much. *R.G.*

BUCK OWENS: *Hot Dog!* Buck Owens (vocals); vocal and instrumental accompaniment. *Don't Let Her Know; A-11; Put a Quarter in the Jukebox; Under Your Spell Again; Sweethearts in Heaven*; and five others. CAPITOL C1-91132, © C4-91132, © C2-91132 (27 min).

Performance: *Buck redux*
Recording: *Very good*

During my previous life, before Country won me over, the hillbilly artist I despised the most was Alvis Edgar "Buck" Owens. The Big Buckeroo may have had a tiger by the tail, but his particular brand of hard-core Bakersfield honky-tonk was for me, in my teen years in the Sixties, too harsh and flinty, too full of weepy steel guitars, and too marked by goofy vocal swoops and sophomoric lyrics, mostly about the tribulations of love and divorce. The fact that Owens later moved on to *Hee*

Haw, where he emerged as a wide-grinning rube strumming a red, white, and blue guitar, didn't raise his stock with me, either. But now, of course, I know that a man who wrote *Together Again* and inspired Dwight Yoakam to pick up the guitar can't be all bad, even if he did once advertise in the newspapers for a new wife.

By the Seventies, Owens, through his publishing house, booking agency, and record sales, was a very rich man, and like a lot of artists who no longer need the money, his songwriting soon fell into a dramatic decline. And by the end of the decade he had called a halt to recording. Except for *Hee Haw*, which he eventually gave up in 1986, he retired from the music business and squirreled up in Bakersfield, which was once affectionately known as "Buckersfield."

Owens's name began to surface again in the mid-Eighties, when Dwight Yoakam dedicated his second album to him and paid obvious tribute to him in song selection, instrumental approach, and stage dress. It was Yoakam, too, who invited Owens out on tour and coaxed him into the studio to record a duet in a song, *The Streets of Bakersfield*, off an old Owens album.

Owens likened the experience to "a



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Chicago Tribune, December 2, 1988

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shot of cortisone for someone with arthritis," and realizing how much he'd missed the music, he soon returned to the studio to lay down the tracks for "Hot Dog!" He reprises several of the old songs—*Under Your Spell Again* (another duet with Yoakam), *Second Fiddle*, and *Memphis*—and, with the exception of *Put a Quarter in the Jukebox*, offers no song written after 1964.

Much of this album gallops perilously close to rock-and-roll, as Owens's music did in his heyday. It's still the kind of stuff I would have hated twenty-five years ago, but the trick is that while Owens hasn't changed that much in twenty-five years, I have, and I like it. "Hot Dog!" shows that the Buck is back, and that the decade-long respite did nothing to diminish his infectious vocal zest or his stature as the kingpin of West Coast honky-tonk. *A.N.*

MICA PARIS: *So Good*. Mica Paris (vocals); vocal and instrumental accompaniment. *Like Dreamers Do; My One Temptation; Nothing Hits Your Heart Like Soul Music; Sway (Dance the Blues Away); Don't Give Me Up; Breathe Life into Me; Great Impersonation*; and three others. ISLAND 90970-1, © 90970-4, © 900970-2 (42 min).

Performance: *Bright new Britisher*
Recording: *Satisfactory*

It seems that every few months a talented new soul singer comes out of England to challenge stateside artists. Just recently there was Marc V., a sort of British Stevie Wonder, and now here comes nineteen-year-old Mica (pronounced "Misha") Paris, whose youthful sound is somewhat reminiscent of the early Whitney Houston. Admittedly, Paris doesn't have the same dazzling vocal quality as Houston, but her voice is fine enough to be immediately pleasing, especially since most of the songs she delivers here are a cut above the average.

The producers picked an excellent number as the title song, Al Jarreau's *So Good*, and its immediate familiarity, along with Paris's almost palpably innocent delivery, should go a long way toward establishing her identity. She also tackles *Where Is the Love*, which was done to perfection years ago by Roberta Flack and Donny Hathaway. While Paris and guest artist Will Downing aren't exactly on that level, their treatment is fresh yet respectful of the original. There are also several highly listenable new numbers. Paris shows off her range and funky authenticity in *Nothing Hits Your Heart Like Soul Music*, and *I'd Hate to Love You* is one of those tricky little ditties that somehow gets you singing right along with it. She even serves up a bit of Fifties-style balladry in *Sway (Dance the Blues Away)*, a new tune with a comfortable old feeling to it. With her kind of talent, Paris will be a welcome visitor on these shores anytime. *P.G.*



Mica Paris: funky authenticity

DOLLY PARTON: *White Limozeen*. Dolly Parton (vocals); vocal and instrumental accompaniment. *Time for Me to Fly; Yellow Roses; Why'd You Come in Here Lookin' Like That; Slow Healing Heart; What Is It My Love*; and five others. COLUMBIA FC 44384, © FCT 44384, © CK 44384 (35 min).

Performance: *Grasping*
Recording: *Very good*

When Dolly Parton switched her label affiliation to Columbia three years ago, the move was interpreted as a sign that she had tired of making B movies and was ready to commit herself again to a recording career. Much was made of this in the press, with Parton declaring she would alternate recording all-pop albums and all-country albums so as to satisfy both legions of her fans. Although 1987's "Rainbow," the first of the pop albums, was an all-out disaster, Parton's collaboration with Emmylou Harris and Linda Ronstadt in "Trio," released on another label that same year, was virtually Parton's album, pointing to a new maturity in both her song selection and performing style. It made her old fans hopeful that her first country album for Columbia would redeem the junk performances and reacquaint Parton with her roots. It doesn't.

From the title cut in "White Limozeen," to the tacky album jacket—with a jubilant Parton decked out in full Vegas style and looking every inch like the ghost of Liberace—the record is an embarrassingly empty collection that

trades on Parton's razzle-dazzle "Daisy Mae in Hollywood" image to get her back on top of the country charts. The musical format is a smorgasbord, ranging from country/bluegrass to contemporary ballads and from the old-fashioned recitations Parton delivered during her days with Porter Wagoner to an overwrought attempt at contemporary Christian music, in which Parton poses as an eyewitness to the Resurrection.

In the end, "White Limozeen" derives no benefit from producer Ricky Skaggs's back-up work—he is, in fact, noticeably low-key in both vocals and instrumentals, as if Parton's management had been afraid his presence would make the album seem *too* country—and only further sets Parton in the cartoon mold she has cast for herself. And to long-time Parton fans who have watched the deterioration of her expressive musical gifts, the album is also the mournful cry of a woman who has strayed so far from the path that she is apparently unable to find her way home again. *A.N.*

ROACHFORD. Roachford (vocals and instrumentals). *Give It Up; Family Man; Cuddly Toy (Feel for Me); Find Me Another Love; No Way; Shotgun (Crazy World We Live In)*; and four others. EPIC FE 45097, © FET 45097, © EK 45097 (43 min).

Performance: *Brilliant amalgam*
Recording: *Excellent*

In this age of so much sound and fury signifying nothing, it's refreshing to

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Stereo Review

THE UNBROKEN CIRCLE



Bob Carpenter, Jeff Hanna, Emmylou Harris, and Jimmy Ibbotson

IN 1972 the Nitty Gritty Dirt Band, then a fledgling California-based folk-rock group, came to Nashville to record an album of classic country songs with the legends of hillbilly and bluegrass music. The idea was simply to have a good time—rural hippies rubbing shoulders with the King of Country Music, Roy Acuff, and with Mother Maybelle Carter, the sad-eyed matriarch of traditional music's most revered clan. At the very least, according to Jeff Hanna, the band's guitarist and vocalist, he and his colleagues thought they would have a record they could share with their friends, "to prove that we did it."

But instead something extraordinary happened: They created one of country music's landmark albums, "Will the Circle Be Unbroken." A three-record set uniting as many generations of musicians, it sold more than one million copies. And in the dawning of the slick, "country-politan" age that would mire Nashville in crossover pop for much of the decade, the album also managed to nourish the budding country-rock and progressive-bluegrass movements.

Rock record buyers who had been oblivious to Doc Watson's lightning-fast flat-picking or the hillbilly jazz of Vassar Clements's fiddle suddenly saw that country music did not always mean Junior Samples and Jed Clampett. In the right pair of hands, country could be cool. Today, seventeen years after its release, "Will the Circle Be Unbroken" continues to sell 30,000 to 50,000 copies annually.

In the years since then, fans and industry personnel alike have lobbied for a second volume, something the Dirt Band, and particularly Jeff Hanna, resisted, knowing it was impossible to duplicate either the spirit of those first sessions or the time when they took place. But finally Hanna saw a need for

a second set of sessions, one that would shift the emphasis from the older, largely neglected artists to their younger interpreters of the tradition, many of whom were far better musicians than their idols. While some of the performers from the first sessions would also appear on the new effort, most of the performers would be of the new breed: Emmylou Harris, Ricky Skaggs, New Grass Revival, ex-Byrds Chris Hillman and Roger McGuinn, Michael Martin Murphey, John Prine, and Paulette Carlson of Highway 101.

To continue the spirit of community, Chet Atkins would be invited along, as would the Carter Family, John McEuen, Buck White, and both Johnny Cash and his rock-and-roll daughter, Rosanne. John Hiatt would also be called aboard, along with Levon Helm and Bruce Hornsby—three rockers whose music carries the clear stamp of country influence. And anchoring the instrumentals would be guitarist Randy Scruggs, who as a teenager played guitar with his father, Earl, on the first "Circle" album and would produce its sequel; Roy Huskey, Jr., whose father played upright bass on the original set; and Jerry Douglas and Mark O'Connor, the super-session pickers known for their virtuosity and emotional expressiveness.

As everyone knew going in, "Will the Circle Be Unbroken, Volume Two," which comprises twenty cuts on two LP's (one tape or CD), could have followed the pattern of many sequels and ended up an embarrassing dilution of its source. Instead, the performances are marked by heart, genius, innovation, generosity, and restraint. The Dirt Band, which plays on every cut except one, proves to be the humblest of hosts, and the guests—even the mawkish and egocentric John Denver—respond in kind. The digital recording offers a

marked improvement in sound quality over its predecessor, but it was done live to capture what Emmylou Harris would call "putting the living room back in the music."

That sense of humanity, warmth, and fun is second only to the integrity of the material and the singers' soul and energy. Of the dozen or so truly outstanding performances, several sear themselves into the memory: Emmylou Harris and Bob Carpenter's elegiac duet in *Riding Alone*, Harris's solo rendition of an oddly affecting song of the Civil War, *Mary Danced with Soldiers* (written by Harris's husband, Paul Kennerley), Bruce Hornsby's runaway, surprise bluegrass treatment of *The Valley Road*, New Grass Revival's scorching gospel-rock offering, *Don't You Hear Jerusalem Moan*, John Hiatt and Rosanne Cash's exploration of guilt-free sin in *One Step Over the Line*, and two offerings from the Dirt Band themselves, the hillbilly-jazz instrumental *Blues Berry Hill* and a tongue-in-cheek view of advanced society, *Turn of the Century*.

The moments of real emotion, however, come in the last two cuts, an all-hands, community-choir rendition of *Will the Circle Be Unbroken* and a moving and poignant instrumental arrangement of *Amazing Grace*. Offered without a hint of sentimentality or condescension, the great old hymn breaks free of cliché in Randy Scruggs's quiet, eloquent study on solo acoustic guitar. It is a moment that rings with beauty for the ages.

If the song leaves resonances, though, it also answers the question raised by its companion piece, the album's title song, which reaffirms with clarity what both the older and newer performers have always known. In music, the circle is complete, eternal, yet ever changing. The Dirt Band and friends would have it no other way. *Alanna Nash*

WILL THE CIRCLE BE UNBROKEN, VOLUME TWO. The Nitty Gritty Dirt Band (vocals and instrumentals); Randy Scruggs (guitar); Roy Huskey, Jr. (bass); Jerry Douglas (dobro); Mark O'Connor (fiddle); other musicians. *Life's Railway to Heaven; Grandpa Was a Carpenter; When I Get My Rewards; Don't You Hear Jerusalem Moan; Little Mountain Church House; And So It Goes; When It's Gone; Mary Danced with Soldiers; Riding Alone; I'm Sittin' on Top of the World; Lovin' on the Side; Lost River; Bayou Jubilee; Blues Berry Hill; Turn of the Century; One Step over the Line; You Ain't Going Nowhere; The Valley Road; Will the Circle Be Unbroken; Amazing Grace.* UNIVERSAL/MCA • UVL2-12500 two LP's, © UVLC2-12500 one cassette, © ULVD2-12500 one CD (72 min).

come across an artist like Andrew Roachford, the composer, arranger, lead singer, and main instrumentalist for the group that bears his name. His songs are little slices of life, with lyrics that show intelligence and imagination even about a subject as mundane as a lover's quarrel (*Find Me Another Love*). But what's really special is that the music is an arresting, original amalgam of blues, rock, and rhythm-and-blues—the original styles, not the hybrids of recent fusion. The power of the pure sources shines through dramatically in *Lying Again*, which throbs with the deep expressiveness of blues harmonica and piano. *Family Man*, the album's most riveting selection, takes a new approach to a familiar story, and Roachford brings to it an authenticity and insistence rarely encountered in pop music today.

Andrew Roachford and his band deserve major recognition. With music this good, they're bound to get it. *P.G.*

THE SWIMMING POOL Q's: *World War Two Point Five*. The Swimming Pool Q's (vocals and instrumentals); vocal and instrumental accompaniment. *1943 A.D.; I'd Rather Feel This Pain (Than Be Nowhere); You Don't Wanna Grow Up to Be Like That; In the Place of Milk and Honey; The Lord of Wiggling*; and four others (six others on CD). CAPITOL 91068-1, © 91068-4, © 91068-2 (49 min).

Performance: *Wry*
Recording: *Good*

If you believe we are halfway between the aftermath of World War II and the onset of its inevitable sequel, then we're smack-dab in the middle of "World War Two Point Five," which is the title and the thesis of the latest album by Atlanta's Swimming Pool Q's. The songs are disarmingly coherent vignettes of a society possessing immense wealth but no solid moral core, and the frustration of trying to cope with things that make no sense any way they're looked at.

The performances lack the personality the band has displayed on other records, as they are too often shoe-horned into a bland, chart-conscious sound. Tugging against this is the attempt to make vocalist Jeff Calder sound too much like a "character"—Captain Beefheart, the Big Bopper, and Jim Morrison rolled into one. Still, Calder is also a thoughtful and sometimes wickedly funny lyricist, and the Q's connect in such spiffy satires as *You Don't Wanna Grow Up to Be Like That*, which skewers the rich, hip, uptown crowd; *The Lord of Wiggling*, about a jive-talking street hustler who bungles a bank job; and *Sweet Reward*, a mini-epic about a motorcycle misfit on a collision course with destiny. *P.P.*

PERE UBU: *Cloudland* (see *Best of the Month*, page 72)

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ROSEMARY CLOONEY: *Show Tunes.* Rosemary Clooney (vocals); John Oddo (piano); Warren Vaché (cornet); Scott Hamilton (tenor saxophone); John Clayton (bass); Jeff Hamilton (drums). *I Wish I Were in Love Again; Manhattan; I Stayed Too Long at the Fair; Everything I've Got; How Are Things in Glocca Morra; Come Back to Me;* and six others. CONCORD © CCD-4364 (49 min).

Performance: *Terrific*
Recording: *Splendid*

Here's another winner from Rosemary Clooney, who's always at her best when working with a small group of topflight jazzmen, as she is here. She's also in fine voice for this first-rate set of show tunes ranging from Rodgers and Hart to the Bergmans and Johnny Mandel by way of Loesser, Kern, Coward, Weill, and a few others.

The songs are about evenly divided between swinging, uptempo tunes and unhurried ballads, and Clooney cannily uses her distinctive, short-breathed style of phrasing to put across each and every line of the lyrics. In some of the songs, she also gives us the second and third choruses that you rarely hear outside of the shows themselves. The set is so good and so well done that it's over before you want it to be—underscoring how stingy Concord's been with the number of selections and overall playing time compared with other CD's these days. R.H.

NAT "KING" COLE: *Birth of the Cole, 1938-1939.* Nat "King" Cole (vocals, piano); Oscar Moore (guitar); Wesley Prince (bass); other musicians. *Jumpy Jitters; Nothing Ever Happens to Me; Sentimental Blue; What 'Cha Done to My Heart; Let's Do Things; Love Me Sooner; There's No Anesthetic for Love; Dixie Jamboree; Ta-De-Ah; Riffin' at the Barbecue; Black Spider Stomp* (two versions); and eleven others (fifteen others on CD). SAVOY JAZZ SJL 1205, © SJK 1205, © ZDS 1205 (65 min).

Performance: *Buried treasure*
Recording: *Varies*

When I first became aware of Nat "King" Cole, I saw him as a jazz pianist whose sparkling, free-flowing style ignited the earliest Jazz at the Philharmonic concert recordings and some of my favorite trio records. Although Cole sang on many of his Decca and Capitol trio sides, he was generally regarded as a pianist primarily until Capitol added strings and songs like *A Portrait of Jenny, Nature Boy,* and *Mona Lisa* moved him into the realm of pop music. Then the singing pianist became a piano-playing singer, and that's how it remained.

Now Savoy Jazz has released an ex-

traordinary album of half-century-old Nat "King" Cole radio transcriptions that have held up remarkably well. These 1938 and 1939 recordings also show us how much of a singer Cole was as he stood on the threshold of his career. While the ballads put him on top, it was the rhythmic jive song that gave Cole his original musical identity; it was not a style originated by him, but he certainly put a personal stamp on a form shaped by the likes of Teddy Bunn, Slam Stewart, and Slim Gaillard. Cole's piano lights up these sides, but they are also in large measure made memorable by the work of guitarist Oscar Moore and bassist Wesley Prince, who sing as well. As a vocal trio they lean somewhat on the delivery popularized by Bunn, Stewart, and the others, but as instrumentalists they stand alone, demonstrating wonderful rapport in such numbers as *Black Spider Stomp* and *Never Mind Baby*, two of the set's six instrumental-only tracks. I could do without the little-known Maxine Johnson's pleasant but bland vocals in four of these tracks. I also wish that a couple of tracks had fewer clicks and pops, but these are petty annoyances when you consider the generally high technical and musical quality of this treasurable album.

Some details for collectors: Of the twenty-two selections, fourteen have not previously been issued in any form, and none have appeared on LP. The compact disc contains four additional 1939 tracks, some of which herald Cole's enormously successful ballad style of later years. These "bonus" tracks, originally believed to have been recorded in 1943, were released on two Excelsior 78's, which are so rare that some collectors have doubted their existence. C.A.

STAN FREEMAN: *Not a Care in the World.* Stan Freeman (vocals, piano).

Rosemary Clooney: a winner



Nick Ceroli (drums); Jim Hackman (bass). *Please Don't Monkey With Broadway; Too Old to Die Young; It Only Happens When I Dance with You; Ninety-Nine Miles from L.A.; Not a Care in the World;* and six others. AUDIOPHILE AP-202.

Performance: *Bracing*
Recording: *Very good*

After years of providing accompaniment for Marlene Dietrich's stage shows and special material for the TV shows of Carol Burnett and others, Stan Freeman has come into the star spot on his own again via his much-praised, Broadway-bound one-man show about Oscar Levant, *At Wit's End*. It's been quite a while since Freeman's last solo album, and his voice has grown considerably raspier in the interim. But he can still put across a song with great style, wit, and spirit—and without the humdrum plasticity of so many singers more concerned with resonance than with the meaning of the lyrics. And when it comes to such drolleries as Murray Grand's *Too Old to Die Young*, he seems to sing with a vocal wink, a touch that is uniquely his own among present-day singer-pianists.

The songs here are the sort long associated with Freeman's old club acts, mostly lesser-known but first-rate works of Jerome Kern, Irving Berlin, Johnny Mercer, Vernon Duke, and Rodgers and Hart (including a real rarity, *Talkin' with My Pal*, cut from *Pal Joey*). And after a zillion too many versions of *New York, New York*, how refreshing it is to hear Freeman resuscitate Cole Porter's still-cogent *Please Don't Monkey with Broadway*. R.H.

ERIC GALE: *Let's Stay Together.* Eric Gale (guitar); vocal and instrumental accompaniment. *You're All I Need; The Shadows; Let's Stay Together; Close Your Eyes; I Heard It Through the Grapevine;* and two others. ARTFUL BALANCE/JCI © ABD-7215 (42 min).

Performance: *Pedestrian*
Recording: *Good*

One of the most sought-after guitarists on the New York session scene, Eric Gale has been heard in countless pop hits. "Let's Stay Together," his latest album as a leader, shows why the demand for his accompaniment is so high: He is a most capable instrumentalist. But the arrangements in this set are as common as dirt, the rhythm section sounds like a steam locomotive, and the melodic monotony is sleep-inducing. The best way to approach this album is to think of it as a light filler, suitable for elevators, supermarket aisles, and waiting rooms. It's unworthy of Eric Gale's talent. C.A.

JAZZ

SHIRLEY HORN: *Close Enough for Love*. Shirley Horn (piano, vocals); Charles Ables (bass); Steve Williams (drums); Buck Hill (tenor saxophone). *Beautiful Friendship; I Got Lost in His Arms; Baby, Baby All the Time; Close Enough for Love; This Can't Be Love; I Wanna Be Loved*; and five others (seven others on CD). VERVE ● 837 933-1, © 837 933-4, © 837 933-2 (54 min).

Performance: *Splendid*
Recording: *Excellent remote*

Shirley Horn formed her first trio some thirty-five years ago, and she has had a measure of success on the club circuit since the early Sixties. Her recording career began in 1963 on Mercury, with Hank Jones at the piano, and she has made albums with accompaniments ranging from the Quincy Jones Orchestra to some of the day's leading jazz players. Though Horn has never reached the heights of success attained by Nina Simone or Roberta Flack, both of whom fall into roughly the same stylistic category, it is certainly not for lack of talent.

Horn plays the piano politely and effectively; her approach is more eventful than Flack's but not as dramatic as Simone's. As a singer, she is smooth and articulate with an engaging reserve, but she has no strong individual identity, and that has probably held her back. At least she is natural and does not force an "original" style the way singers like Betty Carter and Leon Thomas have done, to their disadvantage. Individual or not, Shirley Horn is a delight to listen to. C.A.

MORGANA KING: *Another Time, Another Space*. Morgana King (vocals); instrumental accompaniment. *Clear Out of This World; Solitude; Mountain Greenery; On Green Dolphin Street*; and four others. MUSE MR-5339.

Performance: *Smooth*
Recording: *Poor*

I guess I really began to pay attention to Morgana King in the mid-Sixties, when her rendering of *A Taste of Honey* seemed to ooze from every jukebox in New York City, and I've been a fan ever since. Her latest album, "Another Time, Another Space," captures her in exquisite form, moving effortlessly through eight familiar tunes. As usual, her approach is unique and dramatic, with serpentine slides from phrase to familiar phrase, but the record would have been far more effective if engineer Chuck Irwin had held back the reverb. King sometimes sounds as if she were singing inside an empty tank, and Ted Nash's saxophone solos have even more of an echo. In sum, delightful performances, dismally recorded. C.A.

MILTON NASCIMENTO: *Yauaretê*. Milton Nascimento (vocals, guitar); Herbie Hancock (piano); Wayne Shorter (soprano saxophone); Don Grusin (keyboards); other musicians. *Blue Planet; Dream Merchant; Jaguar; Enchanted City; Heart Is My Master*; and six others. COLUMBIA FC 44277, © FCT 44277, © CK 44277 (40 min).

Performance: *Wonderful*
Recording: *Excellent*

Nowhere is the special magic of Brazilian music more apparent than in the work of Milton Nascimento, a sculptor of sound whose singular gifts as both composer and singer have played a significant role in the rising international interest in Brazil's popular artists. Although many North American jazz lovers have been exposed to his songs in the superb recordings by Flora Purim, it was not until the release of "Native Dancer" in 1975 that he began to emerge here as an artist in his own right. That album, a collaboration between Nascimento and Wayne Shorter, with a little help from Herbie Hancock, was a brilliant aural tapestry woven from inspired improvisations, intoxicating Afro-Brazilian rhythms, and intricate melodies so enchanting that they cast a lasting spell. Nascimento's voice was a revelation, passionate and flawlessly pitched, soaring easily from a rich middle register to a commanding falsetto, instantly communicating thought and feeling.

Nascimento's subsequent recordings have not always been readily available, nor has he always benefited from the sort of production that does him full justice. With the release of "Yauaretê" ("Jaguar"), his first solo outing on Columbia, Nascimento should achieve the broader recognition he so richly deserves. It's a beautiful album, one that displays the full range of his considerable gifts. The program encompasses the jazzy jauntiness of the title song, the rhythmic buoyancy of *Blue Planet*, the shimmering delicacy of *Dream Merchant* and *Enchanted City*, and the bittersweetness of *Songs and Moments*, in which Nascimento juxtaposes a plaintive lament against a pulsating samba rhythm.

A bow of gratitude is due the Brazilian producer Mazzola, who did a masterly job on "Yauaretê," but no information is provided about the artists or instrumentation, and there's no lyric sheet. Music this wonderful merits full documentation. P.G.

JOHN ZORN, GEORGE LEWIS, AND BILL FRISSELL: *News for Lulu*. John Zorn (saxophone); George Lewis (trombone); Bill Frisell (guitar). *K.D.'s Motion; Funk in Deep Freeze; Melanie*;



Nat "King" Cole: early jive

Melody for C; Lotus Blossom; Eastern Incident; Peckin' Time; Blues Blues Blues; Blue Minor; and eleven others. HAT HUT/TOWER RECORDS IMPORT PRODUCT © 6005 (74 min).

Performance: *Vigorous*
Recording: *Sharp*

Now, here's a strange brew: a bassless, drummerless trio of saxophone, trombone, and guitar getting a lean, muscular workout on twenty pieces by four obscure jazzmen of the Fifties—Kenny Dorham, Hank Mobley, Sonny Clark, and Freddie Redd—who all recorded for Blue Note. "News for Lulu" pays tribute to their largely forgotten style of hard bop. Saxophonist John Zorn blows hot, pinning down a melody one minute and veering off into the stratosphere the next. George Lewis's trombone functions as the bass root when he's not playing parallel lines or whipping up a textural windstorm with Zorn. Bill Frisell's guitar is the least audible element here, but you can hear him coloring in the spaces with his egoless, Jim Hall-style fills. The three know these compositions well enough to depart from them without losing their way back; indeed, they ricochet from precisely punctuated ostinatos to athletic improvisations without ever losing the thread. This reverence for compositional craft, as well as for the liberating spirit of free blowing, makes "News for Lulu" worth shouting about. P.P.

Discs and tapes reviewed by Robert Ackart, Richard Freed, David Hall, Stoddard Lincoln, Eric Salzman, and David Patrick Stearns

BAX: *Phantasy for Viola and Orchestra* (see ELGAR)

BEETHOVEN: *Variations in C Major on a Waltz by Diabelli, Op. 120*. Peter Serkin (piano). PRO ARTE © CCD 447 (58 min).

Performance: *Richly satisfying*
Recording: *Excellent*

Last month I reviewed the superb recording of the *Diabelli* Variations by Sviatoslav Richter on Philips, which vies with the superb one by Claudio Arrau on the same label. Now comes another *Diabelli* that is hardly less distinguished. Peter Serkin made a fine recording of the work for RCA seven or eight years ago, and his new one on Pro Arte is even more impressive. As in the earlier recording, his approach is closer to Arrau's than to Richter's—even more expansive than Arrau's, in fact, in the big slow variations (Nos. 14 and 31)—but he is more straightforward overall and freer of what might be regarded as idiosyncrasy than either of his senior colleagues. The new recording is, in short, a sound, tasteful, eminently musical exposition of this unique work by a musician who is by no means lacking in insight but is reluctant to allow extraneous characterizations to intrude on music with so vast and multifaceted a personality of its own. If that suggests a certain notion of "purity" as the heart of Serkin's approach, be assured it has nothing to do with sterility; there is vitality to spare. The playing is stimulating and richly satisfying, and there is not a single gesture that threatens to become tiresome with repeated hearings.

The album's documentation is messy, with an abundance of errors and omissions in the labeling itself as well as in the annotation, but the sound quality does full justice to the fine performance, and it's what one *hears* that counts. Many listeners will enjoy this *Diabelli* in alternation with Richter's or Arrau's, and many may feel it is the one that will wear best of all. *R.F.*

EXPLANATION OF SYMBOLS:

- = DIGITALLY RECORDED LP
- Ⓢ = TAPE CASSETTE
- Ⓢ = COMPACT DISC (TIMINGS ARE TO NEAREST MINUTE)

BRAHMS: *Symphony No. 1, in C Minor, Op. 68*. **SCHUMANN: *Manfred Overture, Op. 15***. London Symphony Orchestra, Neeme Järvi cond. CHANDOS ● ABRD 1339, © ABTD 1339 © CHAN 8653 (61 min).

BRAHMS: *Symphony No. 2, in D Major, Op. 75*. **SCHUMANN: *Julius Caesar Overture, Op. 128***. London Symphony Orchestra, Neeme Järvi cond. CHANDOS ● ABRD 1335, © ABTD 1335, © CHAN 8649 (55 min).

BRAHMS: *Symphony No. 3, in F Major, Op. 90*. **SCHUMANN: *Overture, Scherzo, and Finale, Op. 52***. London Symphony Orchestra, Neeme Järvi cond. CHANDOS ● ABRD 1332, © ABTD 1332, © CHAN 8646 (56 min).

BRAHMS: *Symphony No. 4, in E Minor, Op. 98*. **SCHUMANN: *Genoève Overture, Op. 81***. London Symphony Orchestra, Neeme Järvi cond. CHANDOS ● ABRD 1290, © ABTD 1290, © CHAN 8595 (51 min).

Performances: *Brahms so-so.*
Schumann A-1
Recordings: *Very good*

A Brahms-symphony cycle from Neeme Järvi comes as something of a surprise, considering that he is not exactly soaked in the Middle-European musical tradition like most of the conductors who have undertaken the project. Järvi, however, gives the cycle a new twist by prefacing the symphonies with lesser-known works by Schumann, who was instrumental in getting the young

Peter Serkin: impressive Beethoven



Brahms off to a good start with the Austro-German musical establishment.

Whatever reservations I may have about Järvi's readings of Brahms, there can be no question about his Schumann performances, which are as passionate, virile, or tender in each case as the music demands. There is ample lyrical as well as dramatic thrust in the *Manfred* Overture, a telling monumentality in the late *Julius Caesar* Overture, a fine chivalric panache in the curtain-raiser for the unsuccessful opera *Genoève*, and a splendid feel for the impetuosity and charm of the Overture, Scherzo, and Finale—a real gem.

The Brahms symphonies have their lovely moments, but the requisite grand line and heroic tension are achieved only intermittently. The first movement of No. 1 needs to be more highly charged and urgent, and the epic finale seems slack at the start. The slow movement, played with great warmth, fares best.

There's some fussiness in the latter part of the first-movement development in No. 2, the coda is treated in decidedly more expansive fashion than usual, and the turbulent middle section of the somber slow movement needs more urgency. The charming third movement is rather on the legato side at the start, but the presto episode with its woodwind chitchat is a delight. The finale comes off well, if a bit on the hectic side.

In No. 3, Järvi's predominantly lyrical approach to the opening movement results in a loss of the tension in the phrasing that makes this music really go. There is warmth to spare in the ensuing andante, but the episode that anticipates the chorale theme of the finale goes slack. The reading of the wonderful intermezzo-style third movement is a disaster, with its exaggerated swelling of phrase in the haunting main theme. The finale comes off well except for a rather heavy-handed epilogue.

The first movement of No. 4 gets off to a slowish start, but it finishes at a hell-for-leather pace. The slow movement goes well, though it, too, is rather on the brisk side. The fiery treatment of the scherzo brings to mind the corresponding movement of the Tchaikovsky *Pathétique*. The mighty concluding passacaglia has some wonderful moments, but there's very little sense of the movement as an unbroken unity—granitic in strength even with its episodes of autumnal lyricism.

For anyone encountering the four Brahms symphonies for the first time, the foregoing commentary may seem like insufferable nit-picking, but in the light of the famous recordings of these works by the likes of Bruno Walter, Otto Klemperer, George Szell, Karl Böhm, and Herbert von Karajan, one

cannot avoid the feeling that Järvi's Brahms needs further seasoning. Although the London Symphony plays very well throughout, especially the strings and woodwinds, and the recorded sound is richly resonant, the major assets of these four CD's are the Schumann fillers. *D.H.*

DUPARC: *Six Mélodies* (see RAVEL)

ELGAR: *Cello Concerto In E Minor, Op. 85 (arr. Tertis); Three Characteristic Pieces, Op. 10.* **BAX:** *Phantasy for Viola and Orchestra.* Rivka Golani (viola); Royal Philharmonic Orchestra, Vernon Handley cond. CONIFER/ALLEGRO IMPORTS © CDCF 171 (66 min).

Performance: *Stunning*
Recording: *Vivid*

Violists, having a relatively meager concert repertoire, have been compelled to raid the domains of other instruments more than occasionally. Lionel Tertis, the most influential violist of his time, lived nearly a full century (1876-1975), had dozens of works written for him, and also did a good deal of arranging, including viola versions of Mozart's Clarinet Concerto and Elgar's Cello Concerto. The Elgar was done with the approval of the composer, who not only had Tertis's version published but also conducted it himself, with Tertis as soloist. There cannot have been many performances since then, and therefore there is no general agreement as to how effective the transcription is (even though Elgar assured his publisher that it "is fully effective"). Rivka Golani makes a very strong case for it here. If she doesn't sweep away all questions about the suitability of the adaptation, she nevertheless leaves one feeling that perhaps no one has played the work more stunningly on the cello than she does on the viola.

The Bax *Phantasy*, recorded here for the first time, earns its title in several respects. It is one of the composer's characteristically evocative pieces, a tone poem in all but name. Its middle section cites a lovely Irish folk song, and its more animated outer ones evoke that flavor without direct quotation. There can be no question about the aptness of the viola in this music, and it too is splendidly performed, as are the early orchestral pieces by Elgar, which provide a refreshing interlude between the concerted works without drawing interest away from them. All the performances are well served by Conifer's vivid, well-balanced recording. *R.F.*

FOSS: *Renaissance Concerto for Flute and Orchestra; Salomon Rossi Suite; Orpheus and Euridice.* Carol Wincenc (flute); Yehudi Menuhin, Edna Michell (violin); Brooklyn Philharmonic, Lukas



SCHIFF'S BACH

ANDRÁS SCHIFF is, without doubt, one of today's finest interpreters of Bach's keyboard music. His profound understanding of the music and judicious application of Baroque performance practices allow Bach's scores to transcend the instrument they were written for and be deeply satisfying played on the modern piano.

Perhaps the most beautiful aspect of Schiff's new recording of the six English Suites is his tone, something harpsichordists do not have to worry about. The allemandes, in particular, are played with a lyricism that melts the heart. All the voices sing as each inner line is carefully put in its proper perspective, producing an opulently textured tapestry. The quick dances sparkle with joy, their textures fairly brist-

ling. Only the courantes are somewhat problematic, as Schiff's concept of this gentle dance is rather more aggressive than is historically accurate.

The glories of the English Suites are the magnificent preludes, which combine elements of fugal and concerto writing and all but eclipse the dances that follow. Schiff brings out their structure, revealing at once the intellectual nature of the counterpoint and the brilliance of the concertante aspects. Both pianists and harpsichordists have much to learn from Schiff's performances, and record buyers have much to enjoy in this excellent recording.

Stoddard Lincoln

BACH: *English Suites (BWV 806-811).* András Schiff (piano). LONDON © 421 640-2 two CD's (128 min).

Foss cond. NEW WORLD © NW 375-2 (50 min).

Performance: *Definitive*
Recording: *Very good*

While Lukas Foss is very much a musician of his own time, some of his most appealing compositions have been derived from music of the past, sometimes in the form of direct quotation or variation (as in the *Baroque Variations* of 1967), sometimes in that of a more generalized descriptive impetus. Both approaches are attractively exemplified in this collection.

The *Renaissance Concerto*, composed

for Carol Wincenc in 1985, opens with an *Intrada* based generally on the tradition of "tower music" (according to *Grove*, "music to be played from a church tower, or a town-hall tower, by a band of town musicians . . . a practice common in Germany from the late sixteenth century to the early eighteenth"). It is followed by three concise movements based respectively on a Rameau harpsichord piece, a Monteverdi recitative, and an English madrigal. The unexpected spelling of the first name in the title of the *Salomon Rossi Suite*, which came ten years earlier, is not explained, but the six tiny move-



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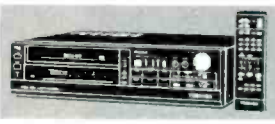
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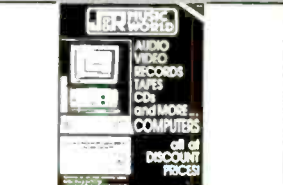
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ments—less than eight minutes from the lively opening for brass through the intimately scored dance pieces to the fugal finale, in which everyone gets a hearing—add up to the most immediately ingratiating portion of the record.

The conspicuously weightier *Orpheus and Euridice* apparently involves no borrowed material, but it harks back in its programmatic substance to a theme inseparably identified with Monteverdi. David Wright's helpful annotation describes the visual effects Foss originally specified as part of the piece; listeners may or may not find it helpful to envision them but will surely be struck by the music's evocation of the austere gestures of Greek drama. The performances, conducted by the composer and involving the soloists for whom the two concerted pieces were created, must be regarded as definitive. New World, for its part, has come through with the sort of sonic treatment—crisply detailed but never dry—that is ideally suited to the material. *R.F.*

GESUALDO: Madrigals for Five Voices. Les Arts Florissants, William Christie cond. HARMONIA MUNDI © HMC 901268 (55 min).

Performance: *Exquisite*
Recording: *Very good*

Having gained a considerable reputation for its interpretations of French Baroque music, Les Arts Florissants, under the direction of William Christie, now turns to the Italian Renaissance with the late madrigals of Don Carlo Gesualdo. The performances on this CD beautifully demonstrate the group's ability to put across this highly mannered and difficult music.

The most important requirement in performing madrigals is to project the text *musically*—that is, to convey the meaning of the words in terms of their musical expression. This sort of communication is clearly Christie's primary goal, and it is aided by his singers' precise diction and finely nuanced vocal lines. Having only one singer to a part certainly helps you to hear the individual lines, but at the same time there's a beautiful ensemble blend thanks to careful balancing and matching of the singers' tones. The pacing, too, effectively conveys the meaning of the often anguished poetry. Serious listeners will appreciate the inclusion of full texts with English translations. A splendid package altogether. *S.L.*

GRIEG: Peer Gynt, Op. 23 (excerpts). Barbara Hendricks (soprano); Oslo Philharmonic Chorus; Oslo Philharmonic Orchestra, Esa-Pekka Salonen cond. CBS © MT 44528, © MK 44528 (63 min).

Performance: *Sharply etched*
Recording: *Very good*

Of the single-disc collections of the incidental music Grieg composed for Ib-



Barbara Hendricks: an assertive Anitra

sen's great drama, this new CBS issue is the most generous, with eighteen numbers rather than the usual dozen or so. The performance, for the most part, conveys all the zest and sentiment you could ask for. The abduction episode gets a fiery reading, with the minor-key transformation of the opening theme from the prelude making more than the usual satanic impact. This is even more the case with "In the Hall of the Mountain King," in which the choral contribution is truly ferocious. The solemn, quasi-Wagnerian "Deep in the Coniferous Forest" appears for the first time in a single-disc compilation. The "Arab Dance" gains much by the addition of soprano and chorus, and Barbara Hendricks is a properly assertive Anitra. She is a bit *too* dominating for my taste in the orchestrally accompanied version of the poignant "Solvejg's Song," which here immediately follows the well-known "Anitra's Dance," but her more subdued performance of the unaccompanied version, also included, is very effective. The Oslo Philharmonic plays with splendid spirit throughout under Esa-Pekka Salonen's direction, and the sound is clean and full-bodied. *D.H.*

HANDEL: Chandos Anthems, Vol. 1, Nos. 1-3. Lynne Dawson (soprano); Ian Partridge (tenor); Michael George (bass); the Sixteen Choir and Orchestra, Harry Christophers cond. CHANDOS ❶

ABRD 1293, © ABTD 1293, © CHAN 8600 (61 min).

Performance: *Excellent*
Recording: *Radiant*

Handel's eleven *Chandos* anthems are psalm settings written for the Duke of Chandos in 1717, following one of the composer's periodic career crises, during which he left London temporarily to become the duke's composer-in-residence. These pieces seem to occupy a special place in Handel's output: He hadn't yet lost the burgeoning inventiveness or the light, sunny touch of his early works, but he was clearly formulating a less florid, more mature style that would come to fruition in the later oratorios.

Perhaps because he was writing for a more austere ensemble than he was used to in London (there were no altos in the duke's chorus, and the orchestra lacked violas), he packed more concentrated expression than usual into the various contrapuntal lines. Tone painting is sparing, but where he does employ it, he does so with extraordinary precision.

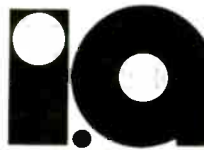
My only previous encounter with conductor Harry Christophers's Handel was his recording of *Messiah* on Hyperion, but as amiable and as historically authentic as that performance is, it barely hints at the sort of authoritative interpretations he gives us here. His ideas seem to spring mainly from the words (as did Handel's), and his choir and orchestra execute them with unusual grace and lyricism while never neglecting the music's rhythmic vitality. Given an extra sheen by the resonance of the recording locale, the vocal soloists are quite attractive, the standout being tenor Ian Partridge. His beguiling sound is less sweet, less cultivated than is the norm today, but it is perhaps closer to what Handel knew, and he employs it with taste and musicianship. As much as I've enjoyed other recordings of selected *Chandos* anthems, I think this series directed by Christophers—which in time will encompass the remaining eight—will supersede them all. *D.P.S.*

HAYDN: Symphony No. 26, in D Minor ("Lamentation"); Symphony No. 52, in C Minor; Symphony No. 53, in D Major ("L'Imperiale"). La Petite Bande, Sigiswald Kuijken cond. VIRGIN © 90742-4, © 90742-2 (62 min).

Performance: *Of the period*
Recording: *Fine*

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ers on modern instruments find all of this objectionable and refuse to take these performance practices seriously, many others, including me, find that this approach brings a new life and energy to the Classical repertoire, particularly Haydn's *Sturm und Drang* symphonies, of which two, Nos. 26 and 52, are recorded here.

The D Minor Symphony is called *Lamentation* because of the Holy Week chant Haydn employs in the first two movements. While his contemporaries would have immediately recognized the melody, most of us today are unfamiliar with it. It is more noticeable in the second movement, where the woodwinds intone it against a wonderful tapestry of sound. Only old instruments can make such subtle contrasts so dramatic, and La Petite Bande under Sigiswald Kuijken brings it all off splendidly. His reading of the C Minor Symphony is a rousing one, after which the sudden shift to the *galant* style of the *Imperiale* Symphony is striking. Many "nonbelievers" accuse authentic-style early music of sounding the same no matter what's played. Kuijken's performances of these three symphonies should dispel that myth. S.L.

PROKOFIEV: Romeo and Juliet, Op. 64 (excerpts). Leipzig Gewandhaus Orchestra, Kurt Masur cond. PHILIPS © 422 049-4, © 422 049-2 (45 min).

Performance: *Handsome*
 Recording: *Brilliant*

PROKOFIEV: Romeo and Juliet, Op. 64, Suites Nos. 1 and 2. Oslo Philharmonic Orchestra, Mariss Jansons cond. EMI/ANGEL © CDC 49289 (59 min).

Performance: *Superb*
 Recording: *Vibrant*

Kurt Masur tells us, in a note of his own with his recording of this ballet music, of having been "overwhelmed" by the Bolshoi production of *Romeo and Juliet*, with Ulanova as Juliet, years ago, and of having loved the music ever since; his affection for it is apparent. Like several other conductors, he has rejected Prokofiev's concert suites in favor of his own choice of excerpts, presented in a sequence that follows the story line. It strikes me as odd that he would eliminate five of the numbers Prokofiev himself chose for the suites and include the gavotte that was originally written for the *Classical* Symphony, which most listeners will already have as part of that work, but the playing is conspicuously handsome, and I have never heard the Gewandhaus Orchestra recorded quite so brilliantly.

Handsome as the Masur recording is, though, the one by Mariss Jansons is even more appealing. He not only gives us more of the music—all fourteen numbers in the two suites, compared with only ten in Masur's compilation—but he gives fuller, more evocative characterizations of the individual pieces,

without ever drifting toward overindulgence. And both the Oslo Philharmonic and EMI's engineering team more than hold their own against the Leipzig Orchestra and Philips. R.F.

RACHMANINOFF: Piano Concerto No. 3, in D Minor, Op. 30. Preludes: Op. 23, Nos. 1 and 7; Op. 32, Nos. 5 and 12. Vladimir Viardo (piano); Dallas Symphony Orchestra, Eduardo Mata cond. PRO ARTE © CDD 442 (56 min).

Performance: *Compelling*
 Recording: *Exceptional*

RACHMANINOFF: Piano Concerto No. 3, in D Minor, Op. 30; Rhapsody on a Theme of Paganini, Op. 43. Vladimir Feltsman (piano); Israel Philharmonic Orchestra, Zubin Mehta cond. CBS © MT 44761, © MK 44761 (65 min).

Performance: *Bland*
 Recording: *Dull*

Of these two new recordings of Rachmaninoff's Third Piano Concerto, the one by Vladimir Viardo, a Soviet pianist now living in the West who won the Van Cliburn Competition in 1973, is easily the more impressive—not merely impressive, but compelling in its sense of total identity with the music. Like more and more of his colleagues now, he plays the work without cuts. The remarkable fluency, uncontrived urgency, and apparent spontaneity of his performance are irresistibly engaging. Eduardo Mata and his orchestra are with Viardo every step of the way, showing an assurance and flair I have not heard in their earlier recordings. Every movement has a sustained impulse that suggests it was recorded in a single take, and the sound is absolutely demonstration class. The four solo preludes may not seem an especially generous filler, but they too are set forth with exceptional understanding and communicativeness.

Soviet émigré Vladimir Feltsman's performance of the concerto, while it has some lovely moments in the slow movement and the more reflective portions of the finale, is less impressive—as are the playing of the Israel Philharmonic under Zubin Mehta and the bland quality of the live recording (with applause at the end that surely could have been eliminated). The *Paganini* Rhapsody, a substantial companion work, was recorded in the studio, but the sound is no richer, and the performance never quite comes to life. R.F.

SCHUMANN: Manfred Overture; Julius Caesar Overture; Genoveva Overture; Overture, Scherzo, and Finale (see BRAHMS)

R. STRAUSS: Elektra (see Best of the Month, page 71)

STRAVINSKY: The Firebird (see Best of the Month, page 73)

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WAR AND PEACE



The young Galina Vishnevskaya in the first production of *War and Peace* at the Bolshoi

PROKOFIEV'S *War and Peace* is the last great Russian epic/historical opera in the tradition of *Boris Godounov* and *Prince Igor*. Epic is the right word. This is an opera in thirteen scenes with an overture and a massive choral "epigraph"—almost five hours in all. There are some seventy named roles plus large choruses and large orchestra.

Leo Tolstoy's novel is, of course, "great"—the Russian word is *bolshoi*—in more ways than one. Considered by many to be the masterpiece of the genre, it is also a huge, sprawling, and panoramic fresco of Russian life in the nineteenth century. Impossible to make an opera out of. Nevertheless, Prokofiev did, and it is, in some ways, his crowning masterpiece. But he didn't have an easy time.

Begun in 1941, the work was adapted from the novel by Prokofiev and his second wife, Myra Mendelssohn, and composed during the darkest days of World War II. After the war, Prokofiev kept tinkering with the opera, mostly adding scenes and numbers in an attempt to clarify, lighten, and enlighten—but also adding to its length and difficulty.

Prokofiev died in 1953. So did Stalin—on the same day! Six years later, *War and Peace* was finally staged at the Bolshoi Opera with a talented young soprano by the name of Galina Vishnevskaya in the leading female role. It has since been staged in many of the world's major opera houses, but not much in North America. And now here from Erato (from France, not Russia) is a complete recording starring Vishnevskaya and conducted in an impressive manner by her husband, Mstislav Rostropovich.

War and Peace is a thrilling piece to hear. It is, in many ways, the summation of Prokofiev's life work, containing within its length the entire spectrum of the composer's creative development—from the *Classical Symphony* to the great ballets to the Eisenstein movie scores to the symphonies and the vocal and choral works of his middle and late years. Some of this is literal quotation, but most of it is just stylistic sweep—obviously appropriate for a work of this scope and dimension.

The romantic picture of society life in the old Russia is almost completely successful; it is only the almost insuperable demands of the war scenes that cause the composer to falter a little—mainly because he seems determined to show only the heroic side of the defense of the motherland.

The recording is very well cast—amazingly so for a production outside of Russia. Still, one should not expect great singing as much as authentic performing in the language. Only one performance is totally impressive from a vocal as well as a musico-dramatic point of view: Nicola Ghiuselev as Marshal Koutouzov, the leader of the Russian forces. Unfortunately, Koutouzov is marginal to the main line of the opera and does not appear until more than halfway through.

When Vishnevskaya is singing lightly and lyrically, she is believable as the flighty and fascinating Natasha, whose story is the one thread that ties the whole work together. But even where her singing is less graceful and more forced, it is always deeply impressive and true to Prokofiev's melodic genius. Most of the rest of the performers are well cast for character and style, Nicolai Gedda's roguish Anatol among them.

The choral and orchestral performances are on an exceedingly large scale—not neat and clear but full of strength and passion.

The packaging leaves much to be desired. The libretto is given in French and English only, and the two versions often do not agree with one another (fortunately, the English seems to be closer to the original Russian than the French). As everyone knows, the problem in any Russian novel—or opera based on a Russian novel—is keeping track of the characters. This is made as difficult as possible here by the way the spelling and the usage of the names so often change between the program notes, the synopsis, the cast list, and the libretto itself. You can use the CD track numbers to orient yourself to some degree, but they are often not where the libretto says they should be.

Even so, I commend this *War and Peace* to you. We will not soon see its likes again—the work, the performance, or the recording. It is, as they say, the end of an era. Indeed, the end of an era is exactly what this remarkable work is all about.

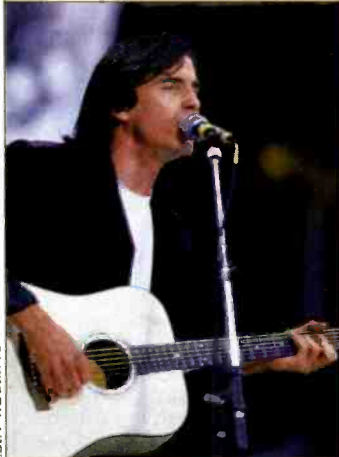
Eric Salzman

PROKOFIEV: *War and Peace*. Galina Vishnevskaya (soprano), Natasha; Lajos Miller (baritone), Prince André; Wieslaw Ochman (tenor), Pierre; Nicolai Gedda (tenor), Anatol; Nicola Ghiuselev (bass), Marshal Koutouzov; Katherine Ciesinski (mezzo-soprano), Sonia; Maria Paunova (mezzo-soprano), Princess Maria; Dimiter Petkov (bass-baritone), Count Rostov; Michel Senechal (tenor), Monseigneur de Boisset; others. French Radio Choruses; Orchestre National de France, Mstislav Rostropovich cond. ERATO © ECD 75480 four CD's (245 min).



by *Christie Barter*
& *Ron Givens*

Jackson Browne continues to have the courage of his convictions. An organizer of the No Nukes movement among rock musicians back in the Seventies, Browne toured around the country last fall in support of the Christic Institute, a Washington, D.C., organization investigating the alleged involvement of government officials in drug and gun smuggling. After his benefit tour ended, Browne put his energy into his new Elektra album, "World in Motion." Released this summer, it contains songs that deal with economic, social, and political injustice—as well as a few about the perils of romance. □



EBET ROBERTS

Browne: justice and romance

Pete Townshend had several reasons for wanting the Who to tour again. First of all, it's the twenty-fifth anniversary of the band. Also, he wanted to connect with his bandmates and his audience once more. Of course, the money was attractive too. But most of all, he had sentimental needs to satisfy. Watching the classic pop-gospel group the Soul Stirrers at this year's Rock and Roll Hall of Fame banquet inspired him to think about the history of rock and the importance of the Who to its development.

"I've been worried about growing old and losing touch with rock-and-roll," Townshend, now forty-four, said

recently. "I wasn't sure that the rock-and-roll I helped to define still exists."

The Who's summer tour will run through the end of August, with more than thirty concerts in all, as well as benefit performances of their rock opera *Tommy* in New York and Los Angeles. The three surviving original members of the band—Townshend, Roger Daltrey, and John Entwistle—are accompanied by a new drummer, keyboardist, and guitarist, as well as a horn section, a percussion section, and three back-up singers. No new Who album will be released to coincide with the concerts, although Townshend has a new solo effort on Atlantic called "The Iron Man." By the end of the year, however, MCA does hope to release a comprehensive boxed set surveying the band's entire recording history. □

HIGH-SCHOOLER Matt Haimovitz, seventeen, fulfilled his Senior Project requirement this spring—with a European concert tour. The administrators of New York City's Collegiate School, recognizing the young cellist's talent and aiming to help further his career, gave him the go-ahead to undertake a number of overseas engagements, provided he wrote about his experiences on the road when he got home.

Recognizing Haimovitz's talent even ahead of his teachers, Deutsche Grammophon signed him for his first



CHRISTIAN STEINER/DEUTSCHE GRAMMOPHON

Haimovitz: touring for credit

recordings, cello concertos by Lalo and Saint-Saëns and Bruch's *Kol Nidrei* with the Chicago Symphony under James Levine, and all three works have been released on a single compact disc. While in Europe Haimovitz also recorded works by Haydn, Boccherini, and C. P. E. Bach with Andrew Davis and the English Chamber Orchestra. And he still got back in time to graduate from Collegiate in June. □

MUSIC lovers around the world breathed a sigh of relief when the Smithson-

ian Institution purchased Folkways Records in 1987. In almost forty years of work, Folkways founder Moses Asch had amassed more than two thousand recordings of unmatched importance and variety, including recordings by such immortals as Woody Guthrie and Leadbelly along with a wealth of folk, blues, ethnic, and children's music. Now Rounder Records, a major distributor of such music itself, has acquired the rights to distribute Folkways, thus restoring a lot of the gems in Asch's collection to active catalog life. □

Daltrey, Townshend, and Entwistle: Who's on tour



EBET ROBERTS

WHEN Concord Jazz, the West Coast independent label, learned that cartoonist Gary Larson (*The Far Side*) was a Herb Ellis fan, they figured he'd surely be the man to design the cover for the guitarist's latest album, "Doggin' Around" with bassist Red Mitchell. Although Larson had never illustrated an album cover and had always declined to do one when asked, he said he was "honored" by Concord's request. His price: "Five million dollars . . . or a guitar lesson from Herb Ellis."

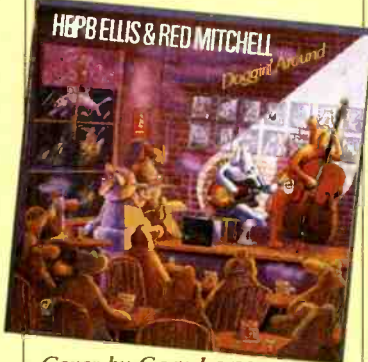
Concord and a flattered El-



lis-chose the latter. The company flew Larson (and his guitar) to Ellis's home in Arkansas, where the cartoonist was treated to a two-day session. Ellis was evidently impressed by Larson's playing. "I should have him do a spot on my next album," he said later. □

THIS year marks the twentieth anniversary of the **Allman Brothers Band**, which took the blues further into rock than any other group had done, thereby giving currency to "Southern rock" as a genre. The occasion is being observed by PolyGram with the release this summer of "Dreams," an album of four CD's, four cassettes, or six LP's offering some five hours of music by the Allmans. The retrospective begins with the first recordings made by **Duane and Gregg Allman** as members of the **Allman Joys** and **Hourglass**, followed by examples of their classic stu-

CONCORD JAZZ



Cover by Gary Larson

dio work and performances at Fillmore East in New York City, and ending with the strong solo efforts of recent years by Gregg Allman and guitarist Dickie Betts. The fifty-five tracks also include

Allman Brothers Band: twenty years of "Dreams"



POLYGRAM



De Waart and Minnesota Orchestra: reviving a tradition

more than two hours of rare or previously unreleased material. □

WHEN the **Minnesota Orchestra's** president, **Richard M. Cisek**, announced earlier this year that the orchestra had signed a three-year contract with British-based **Virgin Classics**, he expressed pleasure that the new agreement would be carrying on a recording tradition dating back to 1924, to "the very threshold of American orchestral recording." What was originally known as the **Minneapolis Symphony** acquired an international reputation with recordings conducted by **Eugene Ormandy**, who was its music director from 1931 to 1936, and **Dimitri Mitropoulos**, who held the post from 1937 to 1949. Later, **Antal Dorati** (1949-1960), **Stanislaw Skrowaczewski** (1960-1979), and **Neville Marriner** (1979-1986) also contributed distinguished recordings to the orchestra's catalog.

Edo de Waart, who succeeded **Marriner** as music director in 1986, is poised to make his own contributions under the **Virgin** contract, which calls for a minimum of



Nicks: coming through hard times

six compact discs. His first two, recorded this spring at **Minneapolis's Orchestra Hall** and due for release later this year, are devoted to works by **Mahler** (the **First Symphony** and some of the **Rückert** songs sung by soprano **Tatiana Troyanos**) and **Richard Strauss** (the **Serenade for Winds** and **An Alpine Symphony**). □

IT'S been more than three years since **Stevie Nicks** has spun out a new album, and she's had more than her share of hard times. When people listen to her latest, "The Other Side of the Mir-

ror," **Nicks** says, "they'll hear the pain, and they'll hear the experience, and they'll hear that I did get through it, and they'll hear that it hasn't been easy." She won't talk specifically about her troubles, preferring to let her fans interpret songs like **Cry Wolf** for themselves. **Nicks** recorded her **Modern/Atlantic** release over three months in late 1988 and early 1989, regularly beginning her sessions at 3 a.m. in studios filled with lit candles.

The stellar cast of guest artists joining **Nicks** in "The Other Side of the Mirror" includes **Bruce Hornsby**, **Mike Campbell** of **Tom Petty** and the **Heartbreakers**, **Jamie West-Oram** of the **Fixx**, **Kenny G**, and **Waddy Wachtel**. **Nicks** wrote or co-wrote ten of the twelve tunes, and **Rupert Hine** produced the record.

Lately, **Nicks** has been working with **Fleetwood Mac** on a new album. She is touring this summer; the **Mac** is not. □

GRACENOTES. **Daniel Lanois**, who has produced **U2**, **Peter Gabriel**, and the **Neville Brothers**, is working on his own first solo album for **Warner Bros.** . . . **Marianne Faithfull** has completed a new album, "Blazing Away," for **Island.** . . . **Columbia** has compiled recordings made by **Fred Astaire** for **Brunswick** and **Columbia** between 1935 and 1940 in "Starring **Fred Astaire.**" □

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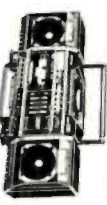
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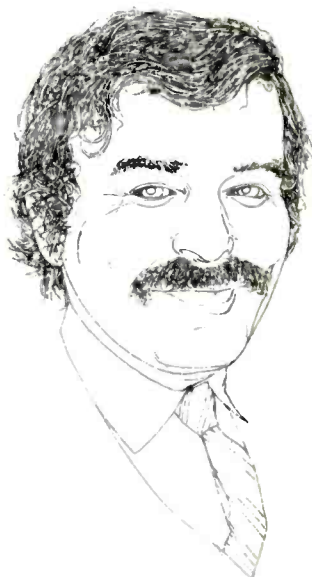


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WORK IN PROGRESS

LOUIS FIELDER, manager of the digital audio group at Dolby Labs, has very kindly sent me an advance copy of his latest paper, "Human Auditory Capabilities and their Consequences in Digital-Audio Converter Design." It appears to approach being a culmination of his serious look into the matter of why digital audio doesn't sound so great to many listeners. His news is not favorable with respect to much current digital technology, but it does hold out some hope.

Fielder considers himself, with good reason, a psychoacoustician, a scientist who cares less about how a piece of equipment performs than about how we like its performance. In short, he is both an acoustics physicist and a physiologist/psychologist. The verdicts he pronounces are not just about whether a system does justice to old Grateful Dead recordings, but about whether the equipment or human orneriness is at fault. A secure pronouncement requires exceptionally detailed investigation involving a number of disciplines, and this multidisciplinary approach is what Fielder brings to the process.

Fielder conducts his measurements in critical bandwidths, those somewhat bewildering but thoroughly meaningful segments into which the human ear cuts up the audio-frequency spectrum. Some of these bands, those in the bass range, are several octaves wide, but others, those in the midrange and above, are as narrow as one-third of an octave or less.

A simplified statement of the theory is that if noise or distortion crops up in one of these critical bands, it will not matter if a strong enough desired signal is also present in the same band. The garbage will be "masked" into inaudibility by the dominant signal, as if it weren't even there. And since digital techniques have opened up fascinating new possibilities for steering noise and other processing artifacts to places where they can be buried as far as the ear is concerned, full exploitation is in order. Unfortunately, the necessary spade-work research has not yet really begun.

The liabilities of digital audio have been as evident as its benefits, Fielder says. Whereas distortion in an analog system tends to rise as the signals to be reproduced become more ferocious (the "stress factor," it has aptly been called), the digital process is insensitive to level. Distortion is much the same with a 16-bit linear converter whether the signal is an aerial bombardment or a lullaby. The distortion is a very small percentage of the total output when the signal is loud, but it becomes a significantly large percentage of the output as things grow softer. At some quite abrupt point, clearly identified by Fielder's sort of analysis, the noise and distortion become *unmasked* and are heard quite clearly.

Many readers have probably experienced this phenomenon and may have been surprised at how suddenly and unmistakably the garbage materializes out of nowhere. Many others have probably noted, especially with early CD's made before dither was being systematically employed to condition low-level signals, that the music was rarely allowed to make a natural fade into nothingness. The canny engineers knew what an unpleasant aural ex-

perience that would be and fore-stalled it by a quick cut to digital zero.

A central point of Fielder's paper is that proper measurements should be maintaining a tight focus on this sort of thing, quantifying it with precision. Instead, conventional measurements ignore it completely. Is this a cover-up, a toadying attempt by reviewers to pacify manufacturers? Most likely not. A Fielderian analysis is laborious, requiring expertise that remains rare, and existing test equipment does very little of the most onerous part of the work for you. Also, as Fielder points out, if certain conditions are observed, some consumer-application digital devices on the market may come within a hair's breadth of audible perfection.

The first condition is that playback levels do not exceed a 105-dB peak sound-pressure level. This is an arbitrary figure in terms of listener preferences, but it probably fits reviewer practices pretty well. A second condition is that, so far as possible, the architecture of the D/A converter be arranged to prevent noise and distortion artifacts from correlating with the signal—that is, relating to them in any way harmonically. Third, pre-emphasis must be used in the recording and complementary de-emphasis in the playback (presumably the recording must also contain correctly applied dither).

If all these conditions are met, Fielder shows that the total system can exhibit intimations of perfection with much musical material. Unfortunately, matters are far less encouraging in the professional sector, where much louder levels are used routinely. In this case, the gain of the system seems to make it inevitable that plenty of distortion and noise artifacts will become unmasked during quieter moments of the performance.

Fielder's paper has much more to say than I have room to summarize here. If this untiring investigator keeps going at the present pace, and if the right people pay appropriate attention, then audio will begin to get better again. Or at least it will begin to *sound* better, which is what really counts. □

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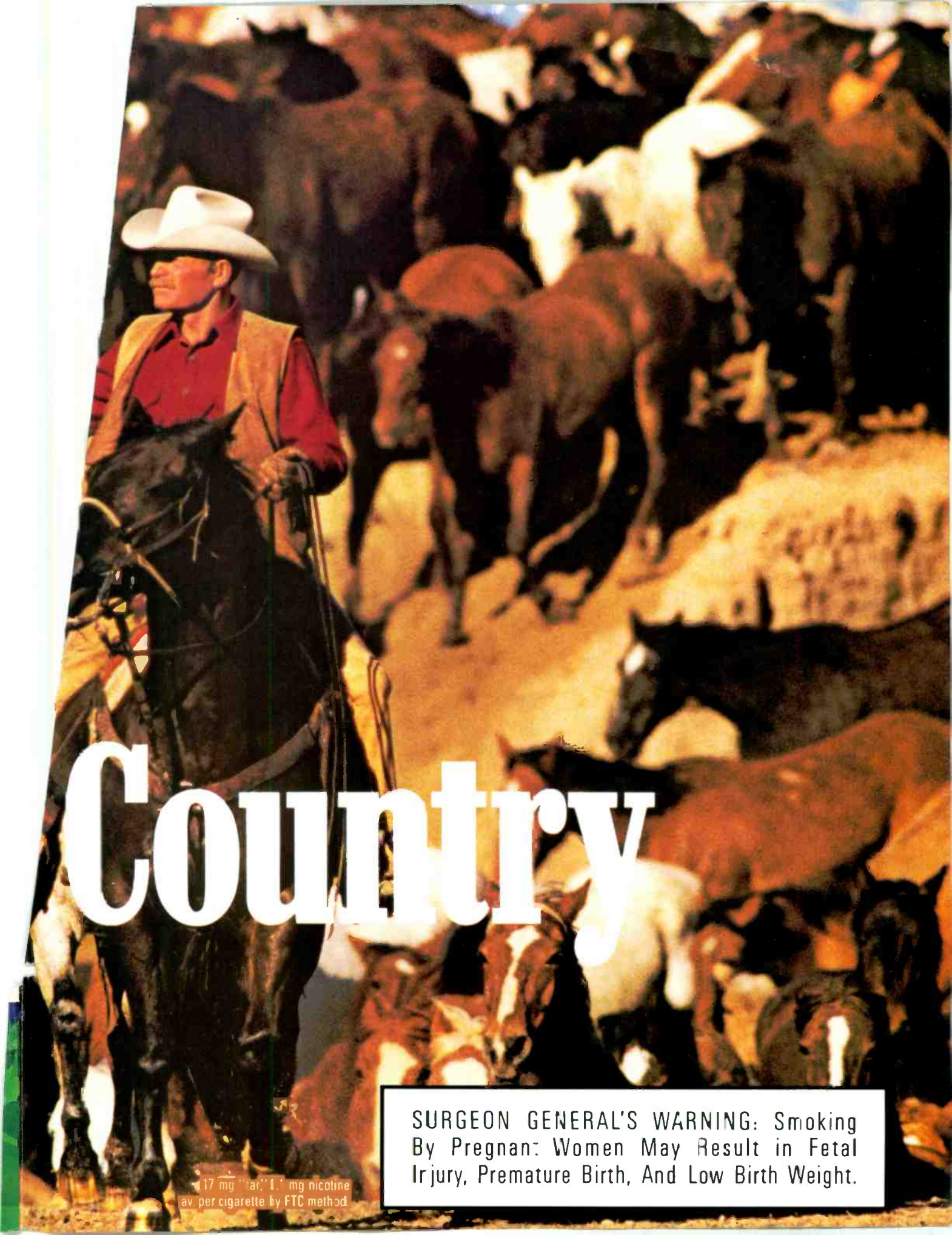
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SURGEON GENERAL'S WARNING: Smoking By Pregnant Women May Result in Fetal Injury, Premature Birth, And Low Birth Weight.

17 mg "tar," 1.1 mg nicotine
av. per cigarette by FTC method

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