

Stereo Review

FEBRUARY 1987 ● \$2.25

**SPECIAL!
EQUIPMENT
BUYING GUIDE!**

**CD PLAYERS, SPEAKERS,
AMPLIFIERS, RECEIVERS,
TURNTABLES, & MORE**

**12 BEST RECORDS
OF THE YEAR**

ANDRÉ PREVIN

**HIRSCH-HOUCK
LAB TESTS**



#2598*****S-DIGIT 40222
430492 BCH 8900091 741J JAN90
MR DAVID S BUCHANAN
8900 YELLOW WOOD PL
LOUISVILLE KY 40222
02#HR



06276

Matthew Polk's Magnificent Sounding New SDA 2A



SDA 2A
\$499.00

Digital Disc Ready

Matthew Polk stands proudly alongside the latest version of his Audio Video Grand Prix Award Winning SDA 2A

The Magnificent Sound of Matthew Polk's Extraordinary New SDA 2A Puts the Competition to Shame!

*"It has the ability to make your
previous favorite speaker sound almost second rate"*

Stereo Review Magazine

Matthew Polk's magnificent sounding new 3rd generation SDA 2A incorporates many new advances pioneered in his top-of-the-line Signature Edition SRSs. It achieves stunningly life-like musical reproduction which would be remarkable at any price but is simply extraordinary at \$499. each. Stereo Review said, "listen at your own risk." Once you hear them you'll never be satisfied with anything else!

Polk's Revolutionary True Stereo SDA Breakthrough

The magnificent sounding new SDA 2A incorporates Polk's revolutionary True Stereo SDA technology. This patented, critically acclaimed, Audio Video Grand Prix Award winning breakthrough is the most important fundamental advance in loudspeaker technology since stereo itself. In fact, the design principles embodied in the SDAs make them the world's first and only True Stereo speakers.

Why do Polk SDAs always sound better than conventional speakers? When conventional loudspeakers are used to reproduce stereo both speakers are heard by both ears causing a form of acoustic distortion called interaural crosstalk which cuts down stereo separation, obscures detail and interferes with the proper reproduction and perception of imaging, and spaciousness. Polk SDAs are designed to eliminate interaural crosstalk so that each speaker is only heard by the one correct ear (i.e. left channel/left ear, right channel/right ear), like headphones. The result is dramatically improved stereo separation, detail and three-dimensional imaging. In order to accomplish this each SDA incorporates a separate set of drivers which radiates a special dimensional (difference) signal which cancels the undesirable interaural crosstalk coming from the wrong speaker to the wrong ear. High Fidelity called the results "Mind Boggling".

The Most Extraordinary Value in High End Audio Today

The new SDA 2As, like all the current SDAs, incorporate the latest 3rd generation SDA technology developed for Matthew Polk's Signature Edition SRS and SRS-2 including **1:** full complement sub-bass drive for deeper, fuller, tighter and more dynamic bass response; **2:** phase coherent time-compensated driver alignment for better focus, lower-coloration smoother, clearer, more coherent midrange and improved front-to-back depth and; **3:** bandwidth-optimized dimensional signal for smoother high-end and even better soundstage and image. The new SDA 2A is the finest sounding and most technologically advanced speaker ever produced at its extraordinarily modest price. It sounds dramatically better than speakers from other manufacturers that cost 4 times as much and more and is, at \$499 ea., truly the speaker of your dreams at a price you can afford.

"Breathtaking...a new world of hi fi listening."

Stereo Buyers Guide

The spectacular sonic benefits of SDA technology are dramatic and easily heard by virtually anyone. Reviewers, critical listeners and novices alike are overwhelmed by the magnitude of the sonic improvement achieved by Polk's SDA technology. Stereo Review said, "These speakers *always* sounded different from conventional speakers — and, in our view, better — as a result of their SDA design."

All Polk's SDAs, including the new 2As produce a huge lifelike three dimensional sonic image which will amaze you. You will hear for the first time instruments, ambience and subtle musical nuances which are present on your recordings but masked by the interaural crosstalk distortion produced by conventional speakers. Stereo Review said, "Spectacular...literally a new dimension in the sound...the result is

always better than would be achieved by conventional speakers". High Fidelity said, "Mind Boggling...Astounding...Flabbergasting...we have yet to hear any stereo program that doesn't benefit". With SDAs every instrument, vocalist

"Mindboggling, Astounding, Flabbergasting"

High Fidelity Magazine

and sound becomes distinct, tangible and alive; allowing you to experience the spine tingling excitement, majesty and pleasure of live music in your own home.

Other Superb Sounding Polks From \$85. to \$1395. each

No matter what your budget is there is a superb sounding Polk speaker perfect for you. Polk's incredible sounding/affordably priced Monitor Series loudspeakers utilize the same basic components as the SDAs and begin as low as \$85. each. The breathtaking sonic benefits of Matthew Polk's revolutionary True Stereo SDA technology are available in 5 SDA models priced from \$395. to \$1395 ea.

"You owe it to yourself to audition them"

High Fidelity

The experts agree: Polk speakers sound better. Use the reader's service card or write to us for more information. Better yet, visit your nearest Polk dealer today. Your ears will thank you.

polk audio
The Speaker Specialists®

5601 Metro Drive, Baltimore, Md. 21215

CIRCLE NO. 37 ON READER SERVICE CARD

Matthew Polk's New Generation of Revolutionary TRUE STEREO SDAs



SDA SRS
\$1495.00 ea.

SDA SRS 2
\$995.00 ea.

SDA CRS +
\$395.00 ea.

SDA 1B
\$695.00 ea.

SDA 2A
\$499.00 ea.

Digital Disc Ready

Matthew Polk's revolutionary SDAs have been acclaimed around the world. Australian HiFi called them "A stunning achievement."

Prices are Manufacturer's Suggested Retail. Prices may vary.

"All Matthew Polk's Revolutionary SDAs Always Sound Better Than Conventional Speakers"

"Literally a New Dimension in the Sound"

Stereo Review Magazine

Stereo Review confirmed the unqualified sonic superiority of Matthew Polk's revolutionary SDA Technology when they wrote, "These speakers *always* sounded different from conventional speakers — and in our view better — as a result of their SDA design.

"They truly represent a breakthrough."

Rolling Stone Magazine

Polk's critically acclaimed, 5 time AudioVideo Grand Prix Award winning SDA technology is the most important fundamental advance in loudspeaker technology since stereo itself. Listeners are amazed when they hear the huge, lifelike, three-dimensional sonic image produced by Polk's SDA speakers. The nation's top audio experts agree that Polk SDA loudspeakers always sound better than conventional loudspeakers. Stereo Review said, "Spectacular... the result is always better than would be achieved by conventional speakers." High Fidelity said, "Astounding... We have yet to hear any stereo program that doesn't benefit." Now all 5 SDAs incorporate many of the 3rd generation advances in SDA technology pioneered in the Signature Edition SRS and SRS2 including full complement sub-bass drive, time-compensated phase-coherent driver alignment and bandwidth-optimized dimensional signal.

Why SDAs Always Sound Better

Without exaggeration, the design principals embodied in the SDAs make them the world's first true stereo speakers. The basic concept of speaker design was never modified to take into account the fundamental difference between a mono and stereo signal. The fundamental and basic concept of mono is that you have one signal (and speaker) meant to be heard by both ears at once. However, the fundamental and basic concept of stereo is that a much more lifelike three-dimensional sound is achieved by having 2 different signals, each played back through a separate speaker and each meant to be heard by only one ear apiece (L or R). So

quite simply, a mono loudspeaker is designed to be heard by two ears at once while true stereo loudspeakers should each be heard by only one ear apiece (like headphones). The revolutionary Polk SDAs are the first TRUE STEREO speakers engineered to accomplish this and fully realize the astonishingly lifelike three-dimensional imaging capabilities of the stereophonic sound medium.

"A stunning achievement"

Australian HiFi

Polk SDA Technology solves one of the greatest problems in stereo reproduction. When each ear hears both speakers and signals, as occurs when you use conventional (Mono) speakers to listen in stereo, full stereo separation is lost. The undesirable signal reaching each ear from the "wrong" speaker is a form of acoustic distortion called interaural crosstalk, which confuses your hearing.

*"Mindboggling,
Astounding,
Flabbergasting"*

High Fidelity Magazine

The Polk SDA systems eliminate interaural crosstalk distortion and maintain full, True Stereo separation, by incorporating two completely separate sets of drivers (stereo and dimensional) into each speaker cabinet. The stereo drivers radiate the normal stereo signal, while the dimensional drivers radiate a difference signal that acoustically and effectively cancels the interaural crosstalk distortion and thereby restores the stereo separation, imaging and detail lost when you listen to normal "mono" speakers. The dramatic sonic benefits are immediately audible and remarkable.

"Breathtaking... a new world of hi-fi listening"

Stereo Buyers' Guide

Words alone cannot fully describe how much more lifelike SDA TRUE STEREO reproduction is. Reviewers, critical listeners and novices alike are overwhelmed by the magnitude of the sonic improvement achieved by Polk's TRUE STEREO technology. You will hear a high sound stage which extends not only beyond the speakers, but beyond the walls of your listening room itself. The lifelike ambience revealed by the SDAs makes it sound as though you have been transported to the acoustic environment of the original sonic event. Every instrument, vocalist and sound becomes tangible, distinct, alive and firmly placed in its own natural spatial position. You will hear instruments, ambience and subtle musical nuances (normally masked by conventional speakers), revealed for your enjoyment by the SDAs. This benefit is accurately described by Julian Hirsch in Stereo Review, "... the sense of discovery experienced when playing an old favorite stereo record and hearing, quite literally, a new dimension in the sound is a most attractive bonus..." Records, CDs, tapes, video and FM all benefit equally as dramatically.

"You owe it to yourself to audition them."

High Fidelity Magazine

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

polkaudio
The Speaker Specialists®

5601 Metro Drive, Baltimore, Md. 21215

Matthew Polk's Incredible/Affordable Monitors

RTA 12C
\$479.95 ea.

Monitor 10B
\$329.95 ea.

Monitor 5jr
\$149.95 ea.

Monitor A
\$89.95 ea.

Monitor 5B
\$199.95 ea.

Monitor 7C
\$259.95 ea.

Digital Disc Ready

Matthew Polk's remarkable Monitors offer state-of-the-art technology and performance usually found only in systems which sell for many times their modest cost.

Prices are Manufacturer's Suggested Retail. Prices may vary.

"Matthew Polk's Remarkable Monitors Deliver Incredible Sound/Affordable Price"

"Vastly superior to the competition"

Musician Magazine

Polk Audio was founded in 1972 by three Johns Hopkins University graduates who were dedicated audiophiles with a common dream: superior sound for everyone.

"The affordable dream"

Off the Record

They believed that it was possible to design and manufacture loudspeakers of uncompromising quality which performed as well as the most expensive and exotic loudspeakers available, but in a price range affordable to virtually every music lover. The Monitors are the spectacularly successful result of their quest.

Polk Audio has worked hard over the ensuing years to maintain the Monitor Series' preeminent position as *the* standard for quality and value in the audio industry. The Monitors have been continually improved and refined as a result of Polk's never ending search for better sound quality. There have been literally thousands of improvements made to the Monitors and the result is that today, as in the past, the Polk Monitors are absolutely the best sounding loudspeakers for the money available on the market. Musician Magazine said, "If you're shopping for stereo, our advice is not to buy speakers until you've heard the Polks." You owe it to yourself.

"The best high performance speaker value on the market."

Off the Record

A new generation of Polk Monitors is now available which incorporate the same high definition silver coil dome tweeter and Optimized Flux Density drivers developed for the SDAs. Polk Monitor Series loudspeakers have always had a well deserved reputation for

offering state-of-the-art performance and technology usually found only in systems which sell for many times their modest cost. In fact, many knowledgeable listeners consider that outside of the SDAs, the Polk Monitors are the finest imaging conventional speakers in the world, regardless of price. They have been compared in performance with loudspeakers which sell for up to \$10,000 a pair and are absolutely the best sounding loudspeakers for the money available on the market.

"Absolutely first rate... superior sound at a modest price"

Stereo Review Magazine

All the Polk Monitors regardless of price offer consistently superb construction and sonic and performance. They achieve open, boxless, three-dimensional imaging surpassed only by the SDAs. The Monitors' silky smooth frequency response assures natural, non-fatiguing, easy to listen to sound; while their instantaneous transient response results in music that is crisply

"At the price they're simply a steal."

Audiogram Magazine

reproduced with lifelike clarity and detail. In addition dynamic bass performance, ultra wide dispersion, high efficiency and high power handling are all much appreciated hallmarks of Monitor Series performance.

The consistently superb performance of the Polk Monitors is in large part due to the fact that they all utilize very similar components and design features. However, more importantly, it is the elegant integration of concepts and components which results in the superior sonic performance and value which sets the Monitor Series apart. Audiogram magazine said, "How does Polk do it? We think it is mostly execution.

They hear very well and they care." Audiogram is absolutely right. At Polk we take the same care with each and every product we build, whether it is our most or least expensive. We lavish the same lengthy amount of critical listening and tuning on every single Polk speaker because we know that having a limited budget does not necessarily indicate that you have a limited ability to appreciate true musical quality.

Superb Sounding Polks From \$85. to \$1395. each

No matter what your budget is there is a superb sounding Polk speaker perfect for you. Polk's incredible sounding/affordably priced Monitor Series loudspeakers utilize the same basic components as the SDAs and begin as low as \$85. each. The breathtaking sonic benefits of Matthew Polk's revolutionary True Stereo SDA technology are available in 5 SDA models priced from \$395. to \$1395 ea.

You can afford the incredible sound of Polk

The experts agree: Polk speakers sound better! There is a Polk speaker which is perfect to fulfill your sonic dreams at a price you can afford. Visit your nearest Polk dealer today and audition the remarkable Monitors and the revolutionary SDAs. You'll always be glad you bought the best.

polk audio
The Speaker Specialists®

5601 Metro Drive Baltimore, Md. 21215

STEREO DEMANDS THE REAL SOUND OF AMERICA'S BEST-SELLING SPEAKERS

Realistic® brand speakers from Radio Shack are the choice of music lovers who know uncompromised sound when they hear it... and solid-value craftsmanship when they see it. From the mighty Mach Two® to our widely acclaimed Minimus® series, every Realistic

speaker system is engineered and manufactured to demanding standards. And 13 models, including two of our lowest priced extension speakers, feature a genuine walnut veneer finish, not vinyl. For the real sound of stereo, millions choose Realistic.

as
seen
on TV



REALISTIC

Exclusively at Radio Shack®

A DIVISION OF TANDY CORPORATION

Stereo Review

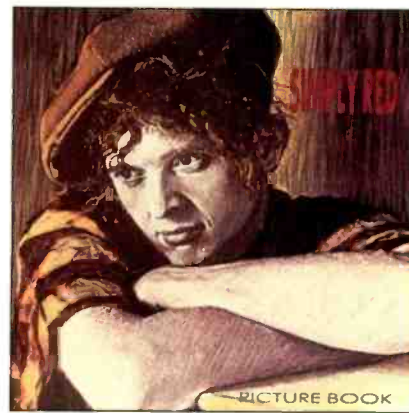
EDITORIAL.....	8	CLASSICAL MUSIC.....	175
LETTERS.....	10	POPULAR MUSIC.....	187
NEW PRODUCTS.....	15, 214	INDEX TO ADVERTISERS.....	215
AUDIO Q&A.....	18	THE HIGH END.....	216
TECHNICAL TALK.....	22		

EQUIPMENT

HIRSCH-HOUCK LABS EQUIPMENT TEST REPORTS	27
JVC XL-M700 Compact Disc Changer, page 27	
Mission 780 Argonaut Speaker System, page 30	
Technics SA-590 AM/FM Receiver, page 37	
SAE P102 Preamplifier, page 46	
Altec Lansing Model 401 Speaker System, page 53	
STEREO EQUIPMENT BUYING GUIDE	71
Features, specs, and prices of hundreds of hi-fi components	
by William Burton, Wendy Schaub, and John Weinberg	
Receivers, page 72	
Amplifiers, page 83	
Tuners, page 108	
Turntables, page 115	
Speakers, page 121	
Compact Disc Players, page 152	
THE SONY DISCMAN D-10	212
A User's Evaluation	
by Michael Smolen	

MUSIC

RECORD OF THE YEAR AWARDS FOR 1986	59
The best of the year just past, and some very honorable mentions	
ANDRÉ PREVIN	63
Recipient of the 1987 Mabel Mercer Award for outstanding contributions to the quality of American musical life	
by Herbert Kupferberg	
BEST RECORDINGS OF THE MONTH	169
Bruce Springsteen, piano music by Stravinsky, Wolpe, and Leiberson, Al Jarreau, Ravel's music for orchestra	
RECORD MAKERS	210
The latest from Iggy Pop and Joan Sutherland, women in rock, ragtime <i>redux</i> , Jim Morrison as a literary figure, and more	



PAGE 59



PAGE 121



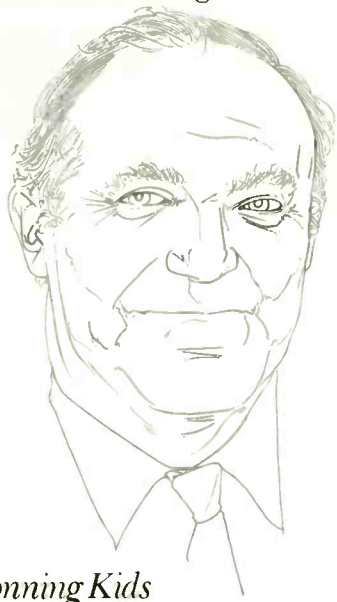
Cover: left, Sony STR-800 audio/video receiver and JVC XL-M700 CD changer (see page 27); dbx Soundfield 100 speakers; right, Aiwa AD-770 cassette deck and Technics SLQ-D33 turntable. Our special Stereo Equipment Buying Guide starts on page 71. (Painting by Jonathan Shorey, furniture by Furniture of the 20th Century.)

VOL. 52 No. 2 FEBRUARY 1987 (ISSN 0039-1220)

COVER: DESIGN BY SUE LLEWELLYN, PHOTO VITTORIO SARTOR

COPYRIGHT © 1987 BY CBS MAGAZINES, A DIVISION OF CBS INC. All rights reserved. Stereo Review, February 1987. Volume 52, Number 2. Published monthly by CBS Magazines at 3807 Wilshire Boulevard, Los Angeles, CA 90010. Editorial and Executive Offices at 1515 Broadway, New York, NY 10036; Telephone (212) 719-6000. Also publishers of Stereo Buyers' Guide, Car Stereo Buyers' Guide, Compact Disc Buyers' Guide, and Video Buyers' Guide. One-year subscription rate for the United States and its possessions, \$9.98; Canada, \$10.98; all other countries, \$14.98, cash orders only, payable in U.S. currency. Second-class postage paid at Los Angeles, CA 90052, and at additional mailing offices. Authorized as second-class mail by the Post Office Department, Ottawa, Canada, and for payment of postage in cash. POSTMASTER/SUBSCRIPTION SERVICE: Please send change-of-address forms and all subscription correspondence to Stereo Review, P.O. Box 2771, Boulder, CO 80302. Please allow at least eight weeks for the change of address to become effective. Include both your old and your new address, enclosing, if possible, an address label from a recent issue. If you have a subscription problem, write to the above address or call (800) 525-0643; in Colorado, call (303) 447-9330. PERMISSIONS: Material in this publication may not be reproduced in any form without permission. Requests for permission should be directed to William S. Bunchuck, Rights and Permissions, CBS Magazines, One Park Avenue, New York, NY 10016.

by William Livingstone



Conning Kids

PARENTS who hope to influence the musical tastes of their children must exercise subtlety, restraint, and great cunning. If you want your children to like the same kind of popular music you do, forget it. There is something biological that requires the young to hate the popular music their parents love.

But just as the children of literate parents generally turn out to be good readers, kids who grow up in homes where classical music is played stand a better than average chance of learning by osmosis to get pleasure from the classics. You may be able to ease them into it if you don't come on too strong.

There is a time just before puberty when people are particularly sensitive to the emotional highs of classical music, and many get started then on a hobby that enhances the rest of their lives. If you see an appetite for music awakening and want to feed it, you might try music that has been featured prominently in a successful movie. *Amadeus* brought Mozart painlessly into the lives of a lot of people.

If your kids responded to *The Nutcracker* at Christmas, you might try giving them a recording of the Tchaikovsky score. Leonard Slatkin (RCA) and André Previn (Angel) have good new versions of the com-

plete ballet, and Telarc has just brought out the soundtrack of *Nutcracker: The Motion Picture* on CD's. Well, you want them to learn to enjoy good sound, don't you?

If you're going to give your children records and tapes, they had better be things you can stand to listen to because you'll probably be hearing them a lot. Since I am often disappointed by the poor technical and musical quality of recordings prepared especially for children, I was particularly pleased by a couple of good things that crossed my desk at Christmas.

A sweet-voiced folk singer named Carla Sciaky has made a well-recorded cassette of traditional songs with some that were written by elementary school children. It has the unpromising title of "Risselty Rossetly Now Now Now," but once I got past that and played it, I was impressed by it on musical and sonic grounds. It includes a story as well as songs and a booklet with words and music. Price: \$8.95 in stores, or \$9.50 postpaid from Propinquity Records, P.O. Box 9036, Denver, CO 80209.

For younger kids Francine Lancaster, opera singer and mother, has recorded three cassettes: "Favorite Animal Songs," "Favorite Holiday Songs," and "Nursery Songs and Lullabies." These have particularly imaginative arrangements for such instrumental combinations as cello and harp or clarinet, cello, and bass. Lancaster has a pretty voice and a totally winning personality.

Lancaster's cassettes, like Ms. Sciaky's, are well recorded and use Dolby noise reduction. They cost more because more has been spent on printing and packaging. List price: \$12.95 including song book. For the store nearest you call (415) 549-7110.

Incidentally, that thing about popular music works in reverse too. Biology requires parents to hate the rock or pop their children love. If your kids are driving you crazy with their music, use a little cunning. Pretend to like it. Say something on the order of, "I really enjoy that Van Halen record. Why don't you play it again?" That ought to cut down on the heavy-metal around your place. In disgust your kids might even turn to opera. □

Stereo Review

WILLIAM LIVINGSTONE
Editor in Chief

LOUISE GOOCH BOUNDAS
Managing Editor

SUE LLEWELLYN
Art Director

MICHAEL SMOLEN
Senior Editor

WILLIAM BURTON, WILLIAM WOLFE
Technical Editors

CHRISTIE BARTER
Music Editor

DAVID STEIN
Assistant Managing Editor

MARGARET BRUEN
Assistant Art Director

BARBARA AIKEN, ROCCO MATTERA
ELIZABETH COSTELLO, WENDY SCHAUB,

JOHN WEINBERG
Editorial Assistants

HENRY PLEASANTS
London Editor

BRYAN HARRELL
Tokyo Correspondent

Contributing Editors: Robert Ackart, Chris Albertson, Richard Freed, Phyl Garland, Christopher Greenleaf, David Hall, Julian D. Hirsch, Ralph Hodges, Stoddard Lincoln, Ian Masters, Louis Meredith, Alanna Nash, Mark Peel, Charles Rodrigues, Eric Salzman, Steve Simels, Craig Stark, Joel Vance

Production Director: Gerald Palacios
Production Manager: Laura LaFontaine

ROMAN BEYER
Vice President and Publisher

ADVERTISING

Associate Publisher: Winston A. Johnson
(212) 719-6039

National Manager: Richard J. Halpern
(212) 719-6037

Eastern Manager: Charles L. P. Watson
(212) 719-6038

Account Manager: Mary Anne Holley
(212) 719-6008

Sales Representative: Anthony F. Catalano
(212) 719-6037

Classified Advertising: (212) 503-5999

Midwestern Managers: Arnold S. Hoffman
Dirk Barenbrugge
(312) 679-1100

Western Director: William J. Curtis

Marketing Manager: Jack Goldner

Advertising Manager: Meg Roberts
(818) 784-0700
Tokyo Office, Iwai Trading Co., Ltd.
603 Ginza Sky Heights Building, 18-13,
Ginza 7-Chome, Chuo-Ku, Tokyo, Japan 104
Account Manager: J. S. Yagi, (03) 545-3908

EDITORIAL CONTRIBUTIONS must be accompanied by return postage and will be handled with reasonable care, but the publisher assumes no responsibility for return or safety of art, photos, or manuscripts.

Member Audit Bureau of Circulations



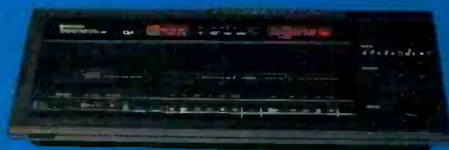
STEREO REVIEW IS PUBLISHED BY
CBS MAGAZINES, A DIVISION OF CBS INC.

President: Peter G. Diamandis
Vice President, Editorial Director: Carey Winfrey
Senior Vice President, Publishing: Robert F. Spillane
Senior Vice President, Circulation: Robert Alexander
Senior Vice President, Operations & Administration:
Robert J. Granata

Vice President, Finance: Arthur Sukel; Vice President,
Subscription Circulation: Bernard B. Lacy; Vice President,
Manufacturing & Distribution: Murray M. Romer;
President, CBS Magazine Marketing: Carl Kopf

MASTERPIECE:

A work of notable excellence.



Hitachi introduces electronics so technologically refined, they offer something remarkable. Reality. Sound so true, you'll never miss a note.

Like our new CD player with built-in dual cassette deck and AM/FM Digital Receiver. Compact disc performance and tape versatility, together at last. TV monitors with



broadcast stereo reception that rival the finest high fidelity systems. And Hi-Fi/HQ video recorders so incredibly advanced, they'll shock your senses.

If you're ready to appreciate the fine art of home entertainment, make a sound investment in quality. Make it a masterpiece.



HITACHI

A World Leader in Technology

CIRCLE NO. 3 ON READER SERVICE CARD

The Dolby Systems

E. Brad Meyer's "The Dolby Systems" in December was one of the best articles on the subject I have read in any publication. I fully agree that a separate article should be written covering Dolby Stereo for videotapes and videodiscs—and the sooner the better, as a lot of STEREO REVIEW's readers, having invested in high-tech stereo equipment, must have hi-fi video equipment also.

HOWARD HANOK
Cincinnati, OH

Listening in the Dark

Editor William Livingstone finds it hard to understand why people complain about video-related articles in his audio-related magazine. Permit me to enlighten. The reason that distortion, hiss, and snaps and pops are so objectionable is that they are a distraction. They take our concentration away from the music. Visual sensations of many kinds also serve as distractions. Music is best concentrated upon in the dark. To include video reviews in your publication is tantamount to reviewing tape

hiss. Important, yes, but important to know how to *avoid* it. Those who pursue music have better uses for their time and resources than reading about video.

GERRY SMERCHANSKI
Teulon, Manitoba

Audio's Near Misses

Ian Masters's December article on "Audio's Near Misses" was well considered and fun to read. My own favorite occupant of the dustbin of audio history is the ancestor of all play-as-you-go car systems, Chrysler's Hi-Way Hi-Fi of the late Fifties. Developed jointly with RCA, the player used 7-inch, 16 $\frac{2}{3}$ -rpm discs and shared the car radio's speaker. It mounted between the dash and the transmission hump, and it worked. The tonearm wasn't exactly a Thorens, but hitting double railway tracks at 40 mph in my 1957 Chrysler Imperial perturbed it not at all.

PAUL ZEIGLER II
Berea, OH

"Audio's Near Misses" was great fun. This is the kind of different and infor-

mative article that STEREO REVIEW seems to do better than anyone else, and your lack of pomposity is what keeps me among your happy readers.

I feel compelled to respond, however, to Ian Masters's contention that people who bought turntables with a 16 $\frac{2}{3}$ -rpm speed back in the Seventies had no idea what it could be used for. For years I had one, and from the very start it was quite obvious to me that 16 $\frac{2}{3}$ was for playing Alvin and the Chipmunks!

JACK MADANI
Brookline, MA

The Basic Repertoire

Bravo! for publishing "The Basic Repertoire on CD." The original "Basic Repertoire" articles and pamphlets, with their several updatings, have served as an invaluable guide for my purchases of records and tapes. Richard Freed has never given me a bad performance. Like many other readers, I am in the process of converting my collection of classical music to compact discs, and the new pamphlet provides a much-appreciated reference point.

All of your writers, by the way, are

Sony just extended the range of



interesting and informative, but I would like to give special thanks to Julian Hirsch and Charles Rodrigues—the former for being a voice of reason in the outrageous world of high-fidelity hardware and the latter for being the funniest man in print.

ROBERT H. DYE
Alpharetto, GA

New Age CD's

Michael Smolen's one-page review of "New Age Music on Compact Disc" in December was easily worth more than the price of my subscription to STEREO REVIEW. I have already had many hours of listening pleasure from some of his suggested recordings, and I look forward to trying out the rest. Would it be possible, even if not on a monthly basis, to add a "New Age" section to your classical, pop, and jazz reviews?

DAVID W. GERBING
Hewitt, TX

For the present we will continue to review New Age music not in a special section but along with other forms of popular music.

Analog to Digital

Gerald Seligman's article "Analog to Digital" in November was misleading. A CD version of an analog recording sounds superior to the original LP only because it has been *remastered* with the latest techniques. The same quality of sound can be imprinted on an LP—also using the latest techniques.

So the CD has a 90-dB dynamic range as against the LP's 55 dB? Maybe—but the difference in noise threshold is minuscule in the actual listening environment, and can the listener utilize the greater volume potential?

MACON STEPHENSON
Richmond, VA

I immensely enjoyed Gerald Seligman's November article, "Analog to Digital." He is so right about the hidden treasures waiting to be discovered when they are properly remastered. I couldn't get over Bruno Walter's recording of Beethoven's Fifth Symphony—I threw the LP out because of the pops and clicks.

M. ROBERT PETRIK
Buffalo, NY

ANDRÉ PREVIN POSTER

A limited-edition, full-color poster version of Al Hirschfeld's drawing of André Previn on page 65 is available, while the supply lasts, for just \$4 (check or money order payable to Stereo Review) to cover postage and handling. Commemorating our 1987 Mabel Mercer Award to Previn, the poster can be ordered from Awards Poster, Stereo Review, 1515 Broadway, New York, NY 10036.

Stereo Review
ANDRÉ PREVIN



your music.



Our new UX tapes deliver higher highs, lower lows and wider dynamic range.

If you're going to listen to music at all, you may as well get it all. No matter how high or low, how loud or soft. Captured so faithfully that trying one of these new tapes at least once is something you owe yourself. And your music.

Each of these four new UX tapes represents the kind of advancement of music reproduction you've come to expect from Sony. UX-ES, for instance, offers the best frequency response of any Type II tape we've ever formulated. Yet UX-PRO actually goes one better with a ceramic tape guide that yields the most incredibly quiet tape housing Sony has ever produced.

Sony UX tapes. Now when a musician really extends himself, so will your tape.

SONY
THE ONE AND ONLY.



© 1986 Sony Corporation of America. Sony and The One and Only are trademarks of Sony.

CIRCLE NO. 53 ON READER SERVICE CARD



The System...

by *N. Nakamichi*



The components you see were designed for the perfectionist. They are expensive. They are the finest we know how to make... which means they are the finest you can own. Each epitomizes its genre and offers maximum convenience and unequalled performance.

The PA-7 STASIS Power Amplifier has an uncanny ability to power exotic loudspeakers. The more exotic the speaker, the more it (and you) will appreciate the PA-7.

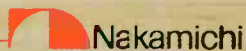
The ST-7 AM/FM-Stereo Tuner features an advanced Schotz NR system which enables it to receive stereo broadcasts where they could never be heard before.

The CR-7A Discrete Head Cassette Deck is the finest example of cassette recording technology ever produced—auto calibration, playback azimuth alignment, and a natural clarity that must be heard to be appreciated.

The OMS-7AII Compact Disc Player expands the horizons of digital sound with a smooth transparency and the incredible depth and detail that only Nakamichi digital technology could impart.

And now, the CA-7A Control Amplifier—arguably the most sophisticated preamplifier ever conceived—places control of the entire Series-7 System at your command... from wherever you happen to be.

If you are in a position to invest in the finest in recorded sound, you will find Series-7 Components at a nearby Nakamichi dealer.



Nakamichi U.S.A. Corporation 19701 South Vermont Ave.,
Torrance, CA 90502 (800) 421-2313
In California, (800) 223-1521

STASIS is a trademark of Threshold Corporation.
Schotz NR manufactured under license from
L.S. Research, Inc.

CIRCLE NO. 74 ON READER SERVICE CARD

JBL PRO SOUND COMES HOME.

Now JBL brings advanced state-of-the-studio and state-of-the-stage speaker technology all the way home.

JBL is the speaker of choice in renowned concert halls and nearly seventy percent of recording studios worldwide. JBL puts on a powerful live performance on tour with superstar rock artists, under the most demanding, sustained volume conditions.

Using technology developed to satisfy these professional applications, JBL lets the home audience experience pro performance, too. The new JBL home loudspeaker systems deliver smooth, flat, accurate response with maximum power handling capability. Time domain and titanium technologies throughout ensure full dynamic range and precise stereo imaging for exciting, true-to-live sound.

JBL. The loudspeakers professionals feel most at home with.

For more information and your nearest dealer call toll free 1-800-633-2252 Ext. 150 or write JBL, 240 Crossways Park West, Woodbury, New York 11797.



© Harman International Company



NEW PRODUCTS



Mission

The Mission PCM 7000 compact disc player features electronic, remote-control adjustment of volume in 1-dB steps from 0 to -63 dB with an accuracy of 0.01 dB. Maximum search time between tracks is given as 1 second. Design features include 16-bit double oversampling, four separate DC power supplies, standard-format digital output for recording with future DAT machines, and a Finite Impulse Response Transversal Filter, which is said to result in audio-band amplitude response accurate to 0.02 dB and phase response accurate to 0.5 degree. Stage filtering is said to improve rejection of spurious out-of-band signals. Signal-to-noise ratio from 20 to 20,000 Hz is rated as greater than 96 dB. Total harmonic distortion is given as 0.003 percent at 0 dB and 0.008 percent at -10 dB. Price: \$999. Mission, Dept. SR, 5985 Atlantic Dr., Mississauga, Ontario, Canada L4W 1S4.

Circle 120 on reader service card

Kyocera

Single tracks, entire discs, and programmed sequences can all be repeated with Kyocera's DA-710CX compact disc player. It can also play selections in a random order. Other convenience features include sixteen-track programmability and a twenty-four-function wireless remote control. Dual zirconia-ceramic guide shafts are said to provide tracking stability superior to comparable stainless-steel, molded-aluminum,



or plastic designs. The DA-710CX also features a three-beam laser, 16-bit linear digital-to-analog conversion, quadruple oversampling, gold-plated output jacks, DC amplification, and a digital-subcode

output for use with future digital components. Price: \$800. Kyocera, Dept. SR, 100 Randolph Rd., CN 6700, Somerset, NJ 08873-1234.

Circle 121 on reader service card



Yamaha

The T-85 AM/FM stereo tuner from Yamaha has PLL-controlled digital frequency synthesis and voltage-servo tun-

ing modes for optimal reception of both strong and weak signals. Degraded FM channels can be digitally "detuned" in 0.01-MHz steps to compensate for multipath and other problems. A four-posi-

tion manual/automatic IF bandwidth control selects a wide bandwidth for strong signals and a narrow one for channels plagued by interference.

The T-85 automatically adjusts each of its twenty random-access station presets for stereo or mono, dynamic blend, direct or normal RF, and optimal bandwidth. It also offers automatic scan of all available channels, manual fine tuning, and manual up/down scanning. Important functions can be operated by the interactive remote control supplied with Yamaha's AVC-50 audio/video control amplifier. Capture ratio is rated as 12 dB, stereo 50-dB quieting sensitivity as 20 μ V (37.2 dBf), and frequency response as 20 to 15,000 Hz +0.2, -0.5 dB. Price: \$449. Yamaha, Dept. SR, 6660 Orangethorpe Ave., Buena Park, CA 90620.

Circle 122 on reader service card

McIntosh®

Get all the newest and latest information on McIntosh stereo equipment from McIntosh Laboratory.

XL 1 Speakers



MR 500 Tuner
MC 502 Amplifier
C 504 Preamplifier



C 33 Stereo Preamplifier



MC 2255 Stereo Power Amplifier

Send For Your Stereo Information

McIntosh Laboratory Inc.
East Side Station P.O. Box 96
Binghamton, N.Y. 13904-0096

SR

Name _____

Address _____

City _____ State _____

Zip _____

Phone Area Code _____

NEW PRODUCTS



KEF

The 8-inch woofer in KEF's three-way Model 103/3 speaker system is

mounted above a coupled cavity that is said to extend low-frequency response and improve power handling. Other drivers include a 6-inch midrange with polypropylene cone and the same soft-dome tweeter used throughout KEF's Reference series. The system includes KEF's KUBE low-level equalizer, which has a continuously variable control for boosting or attenuating frequencies below 200 Hz and a pushbutton that sets a -6-dB point at either 35 or 50 Hz.

The Model 103/3 can be placed on a floor stand as shown or on a bookshelf. It is rated to handle between 50 and 200 watts per channel. Nominal impedance is 4 ohms. Frequency response is given as 50 to 20,000 Hz ± 2 dB (-6 dB at 35 Hz). The speaker measures about 10½ inches wide, 22½ inches high, and 12½ inches deep; weight is 37½ pounds. Price: \$1,390 a pair; stands, \$175 a pair. KEF, Dept. SR, 14120-K Sullyfield Circle, Chantilly, VA 22021.

Circle 123 on reader service card



Luxman

The LV-109 integrated amplifier from Luxman has two digital inputs and a built-in digital-to-analog converter for direct connection to a compact disc player equipped with a serial-transfer digital output. The other digital-direct connection can be used with a similarly equipped digital audio tape (DAT) deck or a receiver for the digital broadcasts eventually to be delivered via the Direct Broadcast Satellite (DBS) system. The amplifier automatically selects the correct sampling frequency for CD's (44 kHz), DAT (48 kHz), or DBS (32 kHz) and decodes the signal.

The LV-109 delivers 150 watts minimum continuous per channel from 20 to 20,000 Hz, both channels driven, into 8 ohms with less than 0.09 percent total harmonic and intermodulation distortion. Voltage Driven Amplification circuitry is said to produce accurate waveforms that result in a flat frequency response, fast transients, and a wide dynamic range. There are two line-level inputs and additional nondigital inputs for a compact disc player, a tuner, up to three audio and two video tape decks, and a videodisc player. Price: \$1,500. Luxman, Dept. SR, 19145 Gramercy Pl., Torrance, CA 90501.

Circle 124 on reader service card



Find out in Stereo Review.

Subscribing to *Stereo Review* makes sense. Whether you're shopping for your first stereo system, upgrading your present one, looking for maintenance tips or trying to sort through the hundreds of new recordings released every month, *Stereo Review* has answers you can rely on.

Our world-famous Equipment Test Reports help you select new audio equipment. Explanations of features, laboratory test results and comments from our expert technicians make it easy for you to select components for a great audio system.

If you already have a terrific sound system, *Stereo Review* can help you care for it and upgrade it. With hints on getting four-channel sound from your stereo discs... how to care for your tape deck's heads... how to handle records to preserve them... and much more.

Stereo Review also helps you select the music to play over your sound system. We cover every category of recording on disc or tape, to help you steer away from uninspired performances or mediocre recordings.

Stereo Review. When you subscribe you'll join the group of people who enjoy music on their own terms—and truly know what to buy.

**Use the coupon to subscribe
—and save 50%!**

Half Price Subscription Certificate

Stereo Review P.O. Box 55627
Boulder, CO 80322-5627

YES! Please enter my subscription to *Stereo Review* at 50% off (based on the full one-year subscription price of \$9.98).

- One year (12 issues) for \$4.99
- Two years for \$9.98
- Three years for \$14.97

CHECK ONE: Payment enclosed. Bill me later.

Mr./Mrs./Ms. _____ (please print full name) 8H10

Address _____ Apt. _____

City _____

State _____ Zip _____

Foreign postage: Add \$1 a year for Canada. Add \$5 a year (cash payment in U.S. currency only) for other countries outside U.S. and possessions. Please allow 30 to 60 days for delivery of first issue.

by Ian G. Masters



Subwoofer Impedance

Q I am considering adding a subwoofer to my system, but the manufacturer says the unit can be connected to any pair of 8-ohm speakers. My speakers have an impedance of 4 ohms. Is there any way of overcoming the mismatch?

GREG BARTLEY
Crestwood, IL

A You may not have to, depending on your amplifier. The arrangement you are contemplating—connecting 4- and 8-ohm speakers in parallel (the subwoofer is presumably 8 ohms)—will present the output stage of your amplifier with a load impedance of 2.6 ohms. While this is dangerously low for many amplifiers, there are quite a few on the market that are stable down to 2 ohms or less. If your amp can handle this impedance (check the owner's manual), you might be able to use it with the subwoofer. Bear in mind, however, that the nominal impedances quoted in spec sheets are averages and that either speaker might reach somewhat lower impedance at certain frequencies.

As an alternative, you could connect the speakers in series rather than parallel. This arrangement would present a nominal impedance of 12 ohms to the amplifier, which would present no problems on that score. The disadvantage of this setup, however, is that it requires more power from the amplifier. Considering that most subwoofers are relatively power-hungry by their

very nature, you may end up driving your amp into clipping.

A compromise would be to connect 4-ohm resistors in series with your main speakers, raising the total impedance to 8 ohms. You could then safely connect this arrangement in parallel with the subwoofer. There would still be some sacrifice in power, but not as much as with a pure series connection. Make sure that the resistors you use have a high enough wattage rating to handle the output of your amplifier.

Perhaps the best solution, short of choosing different speakers altogether, would be to power the subwoofer from a separate integrated amplifier, fed either from the main system's tape-monitor outputs or—ideally—from its "pre-out" jacks (if it has them). This method is obviously more expensive, but it gets around the impedance problem and can provide an independent level control for the subwoofer, allowing you to match them to the main speakers.

Cassette Head Alignment

Q I want to upgrade my cassette deck, but I've heard that head alignment may not be exactly the same from one deck to another. Will my tapes sound as good on a new deck as they do now, or do I have to buy one with adjustable azimuth?

ANTHONY BALLO
Boca Raton, FL

A I wouldn't lose too much sleep over this. While misaligned heads can certainly affect the sound quality of your tapes, and switching machines will reveal the problem, I have rarely encountered a new machine whose heads were out of whack. In any event, it's a very simple adjustment that the dealer's service department can fix before you leave the store. If your present machine's heads are out of alignment, however, that's a different matter.

Playing a tape with the same head that recorded it will almost always produce good results, even if that head is quite badly misadjusted (other things being equal, of course). Playing that same tape on another machine, whether correctly or just differently aligned, will cause phase problems at the very least, high-frequency losses in the most extreme cases.

Before you go shopping, you should make sure that your old machine is properly set up, and therefore that the recordings you have made on it are correct. You could obtain an azimuth-alignment tape to test it, but a simpler method is to use a tape—or, preferably, several—that was recorded on a properly set-up machine. You may have to take this last point on faith, which is why you should use several tapes.

When playing these tapes, switch your receiver or amplifier into the mono mode occasionally. If the treble drops in mono, or if you hear a sort of "whooshing" from selective frequency cancellation (recording engineers call it "flanging"), your deck probably has an alignment problem. But if all is well, you will probably have no problems with a new recorder.

To make sure, however, take one or two tapes recorded on your machine to the store when you go shopping and perform the same test on the deck you are considering buying (not the showroom model, but the exact unit you are planning to purchase). If it passes the test, buy it.

If your first test showed that it was your old deck that was out of alignment, you will have to decide whether to have the dealer deliberately misalign the new unit to match your old one so that you can listen to your old tapes or leave it as is so that your cassettes will be properly recorded from now on. Or you may decide to hang onto the old machine for your present tapes and buy the new one for future recordings.

Amplifier Switching

Q I am planning to buy a pair of amplifiers that will deliver 1,000 watts per channel. I already have a low-powered amplifier and a pair of relatively inefficient speakers. Is there a device that would let me switch in one set of amps for high-powered use and the other for low-powered use?

RICHARD T. LANDON
USNAF, Atsugi, Japan

A Maybe, but why would you want to? The super-amps will handle the low-level stuff every bit as well as your present unit, so why have both? In fact, you would be far better off to ditch the low-power amplifier, because there is a risk that it could damage your speakers. Too little amplifier power means that any heavy demand will drive the amp into clipping, which can be ruinous to your speakers. A high-power amplifier can always be turned down to the level you want, but if a sudden musical transient comes along—and they're inevitable—there will be ample reserve to handle it.

Having separate high- and low-powered amplification systems seems to me to be a waste of money as well as requiring unnecessarily complicated wiring and switching.

If you have a question about hi-fi, send it to Q&A, Stereo Review, 1515 Broadway, New York, NY 10036. Sorry, but only questions chosen for publication can be answered.



WOW!

8 TOP-HIT TAPES OR RECORDS FOR THE PRICE OF 1

...WITH NOTHING MORE TO BUY EVER!

*THE POLICE 7 3 9 2 4
Every Breath You Take (DL Hits) [AM]

LIONEL RICHIE 3 4 5 4 1
Dancing On The Ceiling [MCA]

ALABAMA 5 3 7 8 8
THE TOUCH [RCA]

KENNY ROGERS 5 1 1 7 4
They Don't Make Them... [RCA]

*Steve Winwood 5 3 2 7 1
Back In The High Life [GOLD]

*RATT 6 3 8 6 2
Dancing Undercover [ATLANTIC]

TWIN SETS Double the music
Count as one!

THE JUDDS: ROCKIN'
WITH THE RHYTHM 5 4 2 6 5
[RCA]

*WHITNEY HOUSTON 5 4 3 8 1
[DISNEY]

Come Dancing With
THE KINKS (Greatest Hits) 6 0 0 7 7
[ARISTA]

VAN HALEN 7 0 2 2 0
5150 [WARNER BROS.]

*Billy Idol 5 4 1 0 8
Whiplash Smile [GYPHILLES]

ELVIS: WORLDWIDE
GOLD AWARD HITS 1 & 2 1 3 6 9 0
[RCA]

*DAVID LEE ROTH 5 3 8 1 4
Ear 'Em And Smile [WARNER BROS.]

DAK RIDGE BOYS 5 4 3 1 2
SEASONS [MCA]

BEACH BOYS 6 4 1 4 3
Made In U.S.A. [CAPITOL]

HANK WILLIAMS, JR.
MONTANA CAFE 6 1 2 3 6
[WARNER BROS.]

EURYTHMICS 1 0 7 7 0
Revanche [RCA]

*IRON MAIDEN 6 3 2 5 7
Live After Death [CAPITOL]

*PETER GABRIEL 1 4 7 6 4
SO [GEPHEN]

JOHN LENNON 4 4 4 9 7
Live In New York City [CAPITOL]

28 SIXTIES 5 0 3 7 5
SOUL CLASSICS [ATLANTIC]

BILL COSBY 2 4 7 4 7
...You'll Understand [GEPHEN]

*LINDA RONSTADT 5 4 3 8 2
For Sentimental Reasons [ASYLUM]



Compact Disc Buyers:

We've got a special, money-saving offer for you, too! See below for details!

More Smash Hits — All Available on CD too!

- Heart 44276
- Dire Straits: Brothers In Arms 14734*
- Ronnie Milsap: Lost In The '50s 50310
- Anita Baker: Rapture 73404*
- Horowitz In London 62507
- Elvis: Valentine Gift For You 54385
- Led Zeppelin: Houses Of The Holy 34321
- Julian Lennon: Sacred Value 14603
- Bryan Adams: Reckless 51540
- Prince: Around The World 24370
- Bruce Hornsby: The Way It Is 63918*
- The Judds: Why Not Me 53640
- Lionel Richie: Can't Slow Down 10767
- AC/DC: Who Made Who 20774*
- Pachelbel Canon/Palliard 33677
- Phil Collins: No Jacket 20771
- Mike + The Mechanics 44277*
- Simple Minds: Once Upon A Time 42320*
- Eagles: Gt. Hits (71-75) 23481
- Pointer Sisters: Hot Together 53694*
- Robert Palmer: Riptide 33507*
- The Sound Of Music/Org. Soundtrack 00046
- Alabama: 40 Hour Week 44559
- Dionne Warwick: Friends 50246
- Jackson Browne: Lives In The Balance 44295
- U2: Unforgettable Fire 54515
- Grusin & Ritzenour: Harlequin 54203*
- Tomita: The Planets 34256*
- Madonna: Like A Virgin 61153
- Ronnie Milsap: Gt. Hits 2 64324
- ZZ Top: Eliminator 34129
- Barry Manilow: Paradise Cafe 61489
- Pat Benatar: 7 The Hard Way 44101
- Rubinstein: Chopin Waltzes 01987
- Hall & Oates: Live At Apollo 40625
- Oolby Parton: Gt. Hits 14090
- Jimmi Hendrix: Kiss The Sky 61349*
- Huey Lewis: Sports 44448

GENESIS 5 3 7 4 0
Invisible Touch [ATLANTIC]

GLENN MILLER ORCH. 4 3 2 9 3
In The Digital Mood [GYPHILLES]

*DARYL HALL, 3 Hearts 2 3 6 9 1
In The Happy Ending Machine [RCA]

*REBA McENTIRE 4 3 9 9 6
What Am I Gonna Do [MCA]

ZZ TOP 6 4 0 4 2
AFTERBURNER [WARNER BROS.]

*TINA TURNER 1 3 3 3 3
BREAK EVERY RULE [CAPITOL]

*RICO CASEK 4 4 6 3 4
This Side Of Paradise [GEPHEN]

THE CARS 5 3 7 0 2
GREATEST HITS [ELECTRA]

*BENJAMIN ORR 5 2 4 0 6
THE LACE [ELECTRA]

ALABAMA 2 0 2 4 7
GREATEST HITS [RCA]

*BOSTON 7 3 3 9 2
THIRD STAGE [MCA]

*CHICAGO 18 5 3 7 3 5
[WARNER BROS.]

RANDY TRAVIS 7 4 0 4 6
Storms Of Life [WARNER BROS.]

*JAMES LEVINE 0 4 8 1 0
Mozart Syms. No. 40 & 41 [RCA]

*THE MONKEES 5 3 1 8 3
Then & Now/Best Of! [ARISTA]

PRINCE 4 0 2 3 4
PARADE [WARNER BROS.]

GEORGE STRAIT 3 4 3 1 9
#7 [MCA]

BILLY OCEAN 5 3 6 7 9
Love Zone [RCA]

KENNY ROGERS 4 4 5 2 3
20 Greatest Hits [UNIVERSITY]

*HOWARD JONES 3 4 0 1 3
ONE TO ONE [ELECTRA]

*JANET JACKSON 3 4 5 2 6
CONTROL [RCA]

GALWAY & MANCINI 5 1 7 5 8
IN THE PINK [RCA]

.38 Special 5 4 3 1 1
Strength In Numbers [AMT]

Start with 6 tapes or records for only 1¢ plus shipping and handling with Club membership

Buy just 1 smash hit in one year's time.

Then get 1 bonus album of your choice.

Enjoy 8 albums for the price of one.

Nothing more to buy...EVER!

Start Now with 6 Hit Albums for 1¢! Yes, pick any 6 tapes or records for only a token penny. You agree to buy only 1 more hit at regular Club prices (usually \$8.98 to \$9.98) ...and take up to one full year to do it. Then you can choose another album free as a bonus. That's 8 smash hits for the price of one and there's *nothing more to buy...ever!*

Exciting "Members-Only" Benefits. Approximately every four weeks you'll receive MEDLEY, the Club's exclusive music magazine featuring the Main Selection in your favorite music category, plus hundreds of other hits. You will also receive six special sale issues crammed with hit tapes and records—some as low as \$4.98, \$3.98 and even \$2.98. In all, you'll have 19 convenient shop-at-home opportunities a year. As a member in good standing, send no money when you order, we'll bill you later. A shipping and handling charge is added to each shipment.

It's Easy to Get Your Favorite Hits! If you want the Main Selection do nothing. It will be sent to you automatically. If you want other selections, or none, just indicate your preference on the card always provided...and mail it back to us by the date specified. You'll always have at least 10 days to decide. But if you don't, you may return your Main Selection at our expense for full credit. You may cancel your membership whenever you wish upon completing your enrollment agreement. Or, remain a member and take advantage of future money-saving bargains.

FREE 10-Day No-Risk Offer! Listen to your 6 introductory hits for a full 10 days. If not satisfied, return them with no further obligation. You risk *nothing!* So don't delay. Pick your hits, write their numbers on the coupon, and mail *today!*

RCA 097 Trademarks used in this ad are property of various trademark owners TM(S)
© RCA Corporation
RCA Music Service, 6550 E. 30th St., Indianapolis, IN 46291-1194



ATTENTION COMPACT DISC BUYERS!

Now there's a Club just for you! Take any three Compact Discs here for only \$1. (Selections available on CD are marked ⊕)

1 TAPE PENNY HERE

MAIL TO: RCA Music Service, P.O. Box RCA 1, Indianapolis, IN 46291

I enclose 1¢. Please accept my trial membership in the RCA Music Service and send me the 6 hits I've indicated here under the terms outlined in this advertisement. I agree to buy just 1 more hit at regular Music Service prices in 1 year's time — after which I will receive a free bonus tape or record. (A shipping and handling charge is added to each shipment.)

2 SEND MY SELECTIONS ON (check one only): CASSETTES RECORDS 8-TRACK TAPES*

3 I am most interested in the following type of music—but I am always free to choose from every category (check one only)

- 1 EASY LISTENING Barry Manilow, John Denver, Kenny Rogers, Beach Boys
- 2 COUNTRY Alabama, Oak Ridge Boys, The Judds, Ronnie Milsap
- 3 HARD ROCK ZZ Top, Van Halen, Bryan Adams, Dire Straits
- 4 POP/SOFT ROCK Madonna, Lionel Richie, Phil Collins, Prince
- 5 CLASSICAL James Galway, Itzhak Perlman, Neville Martin

4 RUSH ME THESE 6 SELECTIONS (indicate by number)

5 Mr. Mrs. Miss

First Name _____ Initial _____ Last Name _____ (PLEASE PRINT)

Address _____ Apt. _____

City _____ State _____ Zip _____

Telephone (Area Code) _____

Selections marked () not available on 8-track

6 Have you bought anything else by mail in last 6 months year never

UKQ AH

YES, please enroll me, instead, as a member in the Compact Disc Club and send me three CDs for only \$1, plus shipping & handling. I may return them, if not satisfied, or keep them, and agree to buy just two more CDs at regular Club prices (usually \$14.98-\$15.98) in the next two years. Full details will follow, with the same 10-day, no-obligation privilege.

WRITE NUMBERS HERE

D1
D1
D1

CHECK ONE: 1 Classical 2 Pop/Soft Rock

WBS66 (B)

RCA MUSIC SERVICE reserves the right to request additional information or reject any application. Limited to new members; continental U.S.A. only; one membership per family. Local taxes, if any, will be added.

“It is so clearly superior to past amplifiers in the low- to mid-priced range—not to mention most amplifiers two to three times its price— that I can unhesitatingly recommend it for even the most demanding high end system.”

Anthony Cordesman

stereophile

vol. 8, no. 4



**ADCOM GFA-555
POWER AMPLIFIER**
HIGH POWER, HIGH CURRENT

“...it rivals any transistor power amplifier in its power class that I have heard—including high-powered receivers or amps with trick power supplies—at any price.”

The complete review:

A BEST-BUY BREAKTHROUGH OR THE START OF A NEW WAVE?

I am reluctant to call any given transistor power amp a “best buy” or breakthrough. From my talks with designers and other audiophiles, it is clear that the state of the art in power amplifiers is about to change. From where I stand, the Adcom GFA-555 is the first sample of this new wave. It is so clearly superior to past amplifiers in the low- to mid-priced range—not to mention most amplifiers two to three times its price—that I can unhesitatingly recommend it for even the most demanding high end system.

The GFA-555 does everything well, and most things exceptionally well. It provides superb, well-controlled bass with far better speaker load tolerance than most amps. Its midrange and treble are remarkably low in coloration. There is no hint of hardness, and none of the loss of inner detail common to transistor amplifiers.

“The Adcom’s soundstage is sufficiently superior that even those who claim all power amplifiers sound alike might hear the difference.”

With the exception of the Krells, I have never heard a more detailed, natural, and extended upper four octaves in a transistor amp. The Adcom may even be a legitimate rival to the Krell; it’s brighter and more dynamic, and somewhat more open. And, like the Krell, it gives the impression, on really good material, that the amplifier simply isn’t there, on really good material. Nor is the Adcom romantic or sweet, like New York Audio’s new Moscodes. Rather, it offers natural upper octave detail that the latter miss. Other amplifiers have similar upper octave performance, but I unhesitatingly recommend the Adcom over the very stiff competition from Tandberg and Threshold.

The Adcoms’ soundstage is sufficiently superior that even those who claim all power amplifiers sound alike might hear the difference. It comes very close to the better tube power amplifiers in providing detailed, stable, realistic imaging with natural depth. It is not an Audio Research D-250, but is extraordinarily holographic—I suspect almost embarrassingly so. This kind of soundstage has previously cost at least \$2000.

I am also highly impressed with this amplifier’s dynamics. Once again, it is not going to survive a one-on-one with the Audio Research D-250 or Conrad Johnson Premier Fives, but it rivals any transistor power amplifier in its power class that I have heard—including high-powered receivers or amps with trick power supplies—at any price. It provides these dynamics into virtually any load without bloat, restriction of sound, or change in timbre. For all the nonsense published by most manufacturers about driving complex loads, this amplifier actually delivers.

The Adcom does not lose sweetness and detail as its power goes up. I am normally leery of transistor amplifiers rated much above 100 watts; they too often blur detail and harmonic information, and this sonic price tag is far more costly than the added power is worth. This does not happen with the Adcom unless the distortion lights are blinking, and they only blink when the amp is delivering well over its rated 200 watts per channel (8 ohms) or 325 watts (4 ohms). By comparison, once-outstanding high power amplifiers like the Hafler DH-500 now sound annoyingly veiled.

With a minor dealer modification, you can even drive 1 ohm loads like the Scintilla. I can’t measure whether the Adcom delivers its rated 800 watts per channel into 2 ohms, or 20 amps peak, but I *can* tell you that it does a superb job of driving this superb speaker. Anything in its price range (or even close) generally changes timbre and degenerates when driving the Scintilla at 1 ohm.

“For all the nonsense published by most manufacturers about driving complex loads, this amplifier actually delivers.”

I’m going to have to say a few words about its technology before I give Adcom a swelled head. You’ll be happy to note that the manufacturer claims for the GFA-555 a simple gain path, a 700 watt toroidal transformer, a well-regulated high current power supply, new ultra-stable bias circuitry, direct coupling, no current limiting, and no output inductor. More substantively, its harmonic shape mixes suitable yinyang while avoiding the curse of pyramidology. This, of course, means that it weighs 34 pounds, has simple rack-mount black styling, pilot lights, warning lights (to indicate distortion levels above 1%), and measures exactly 7 $\frac{1}{16}$ ” by 12 $\frac{1}{4}$ ” by 19”.

More pragmatically, the technical specifications are significant in that they represent reasonable bandwidth (4-150,000 Hz), damping (150-200), gain (27 dB), and noise (-106 dB). Of these, only the noise specification is outstanding. No attempt is made to beat distortion records: .09% THD at rated power into 8 ohms, and .25% into 4. I have heard so many power amplifiers with infinitely (well, an order of magnitude) better specifications sound so much worse; this may be the amplifier whose sound could convince *Stereo Review*, *High Fidelity*, etc. that their present measurements are virtually worthless.

I suspect that the Adcom is going to force many designers in the \$1000-1500 range to either make radical improvements in their products over the next six months, or look at the possibility of retiring from competition. This is a “must” amplifier to audition before you spring for anything close in

“I suspect that the Adcom is going to force many designers in the \$1000-1500 range to either make radical improvements in their products... or look at the possibility of retiring from competition.”

price. If the Adcom is simply the first of a whole wave of good amplifiers, it will help revitalize the high end for the average audiophile, and force most manufacturers into more reasonable pricing. Now, Adcom, if you can only come up with a preamp as good!

AHC

ADCOM®

11 Elkins Road, East Brunswick, NJ 08816 U.S.A.
Distributed in Canada by: PRO ACOUSTICS INC.
Pointe Claire, Quebec 49R4X5

Manufacturer’s note: Approximate retail prices listed in order of mention in review:

Adcom GFA-555	\$ 680
Krell	2300-7500
N.Y. Audio Moscode	900-1600
Tandberg	1000-2000
Threshold	1490-3150
Audio Research, D-250 (MK II)	6000
Conrad Johnson Premier 5 (pair)	6000
“high powered receivers”	?
“amps with trick power supplies”	?
Hafler DH-500	850

by Julian Hirsch



System Compatibility

I HAVE received letters from several readers inquiring about possible incompatibility between various signal-processing or ambience-enhancement devices. Their curiosity is understandable—in fact, I share it myself. A common concern seems to be whether the Carver Sonic Hologram preamplifier can be used effectively with Polk Stereo Dimension Array speakers. Both techniques are designed to accomplish similar results—the extension of the apparent width of the stereo sound stage beyond the limits set by the speaker locations.

Both the Polk and Carver systems operate by cross-feeding the left and right-channel programs, with suitable time delays and frequency contouring, to the opposite channel so that (ideally) each ear receives only the signal from its corresponding speaker. The sound from the opposite speaker is partially cancelled at the listener's ears by electronic techniques in the Carver system and by purely acoustic methods in the Polk speakers. The result from the listener's standpoint is

much the same in either case. And, although there are some differences in the limitations of the two approaches, they are roughly equal in their effectiveness.

Obviously, if either system is working properly, it is already supplying the necessary signal modification. Any further changes can only degrade the effect. It is hard to imagine how either could improve the other. Hence, the two should not be used in combination. I have tried this and can testify that the total effect was not enhanced by such operation.

One reader asks if deep-bass enhancement from subwoofers or electronic devices such as Audio Control's Phase Coupled Activator will work well with either the Carver preamplifier or the Polk speakers. Although I have not tried either combination, I would not recommend them. The Sonic Hologram circuit often gives a subjective increase in bass output, and I suspect that further enhancement would result in an undesirably heavy sound. I do not know if the cross-connection between the Polk speakers (which is fundamental to their operation) would be incompatible with anything that the Audio Control device does, but my experience with Polk SDA speakers convinces me that the *last* thing they need is bass enhancement!

What about using the Carver Sonic Hologram with different external signal modifiers, such as graphic equalizers, dynamic-range enhancers, or devices like the Barcus-Berry BBE 2002R or the Yamaha DSP-1? If the add-on device is inserted in a tape-monitor loop (usually the preferred point of connection), its action would take place

before the Sonic Hologram circuit, whose performance should not be affected. Of course, the same thing applies to using such signal processors with the Polk speakers, which they will of necessity precede in the signal path. Keep in mind, though, that neither the Carver nor the Polk system has any effect on mono programs. Any device that introduces significant blending of the channels, at least in the middle frequency range, will do *something* to the performance of either system. The exact nature of the change is impossible to predict, but it will certainly not be an improvement.

The Yamaha DSP-1, or any similar device, probably can be used successfully with either of the stereo sound-stage expanders. Used in its full six-speaker configuration, the DSP-1 does not modify the main front stereo signals at all, so whatever you do to them with other components should be unaffected. Although I did not specifically try the DSP-1 with the Carver Sonic Hologram (since I did not wish to enhance or modify its performance in any way while reviewing it), I can see no reason for any incompatibility to exist. If you used the DSP-1 in its simpler configuration, where the delayed signals are combined with the main signals in the front speakers, there would almost certainly be some interaction, but it would be difficult to predict its good or bad qualities.

A related question concerns the preferred order of connection of several signal-processing devices and the effects of any possible interaction between them. Usually these devices are meant to be inserted in an amplifier's tape-monitor loop. The record-out jacks of the amplifier go to the inputs of the processing device, whose outputs return to the amplifier's tape-in jacks. Selecting the tape-monitor function inserts the external device into the signal path without affecting the other functions of the amplifier. Since the tape inputs and outputs come before the amplifier's own signal-modifying circuits (volume and tone controls, amplifying stages, etc.), these circuits will not affect the operation of the external device. Usually, such accessories provide their own tape inputs and outputs to

Tested This Month

JVC XL-M700 CD

Changer

Mission 780 Argonaut

Speaker System

Technics SA-590 AM / FM

Receiver

SAE P102 Preamplifier

Altec Lansing Model

401 Speaker System



If you're going to begin riding bikes again, don't settle for a beginner's bike.

Be honest.

You'd love to get back on a bike.

But not one of those tinny, tiny, whiny little motorcyclettes with all the power of your average 5-speed blender.

A real bike. Like the new Virago 535. Powerful enough to keep you from being bored out of your helmet after a few rides. With that low, throaty sound you don't hear much these days, unless it's from

former riders grumbling about the way things were.

It's got an air-cooled, 535cc, V-twin engine. Hydraulic front disc brake. And a long wheelbase

and low center of gravity, for a solid, smooth ride that'll take you back.

The only nostalgic sensation it won't bring to mind is the long-lost feeling of chain lube splattering on your ankles. Thanks to the fully-enclosed, virtually maintenance-free shaft drive.

And all this, for a few hundred dollars more than you'd pay for a toy cycle.

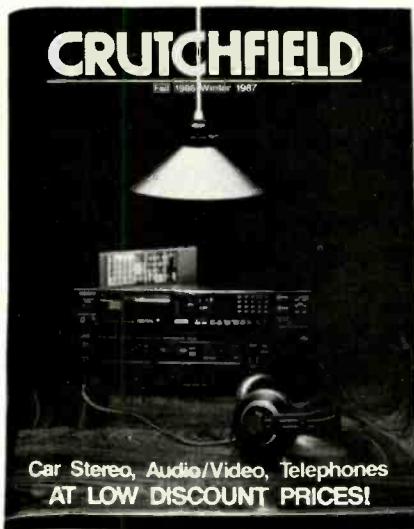
Just \$2,699*

Which means now you can stop reminiscing. And start riding.

YAMAHA
We make the difference.



*Suggested retail price. Transportation, options, taxes additional. 12-month limited warranty. Warranty terms are limited. See your Yamaha dealer for details. Dress properly for your ride with a helmet, eye protection, long sleeved shirt, long trousers, gloves and boots. Specifications subject to change without notice. Yamaha and the Motorcycle Safety Foundation encourage you to ride safely and respect the environment. For further information regarding the MSF rider course please call 1-800-447-4700. Do not drink and drive. It is illegal and dangerous. Rear view mirror(s) standard equipment. Models sold in California equipped with evaporative emission control device.



You'll find the most helpful shopping information in the 108 page Crutchfield catalog.

TECHNICAL TALK

FREE Stereo & Video Catalog

Refer to the Crutchfield catalog before buying your next car stereo, home stereo, or video product:

- 108 pages of helpful articles, consumer tips, charts, and installation guides.
- Color photos, complete descriptions and technical specifications on hundreds of the finest brand name products.

You get more value shopping Crutchfield:

- Toll-free product advice, ordering, and customer service.
- 24 hour shipping.
- Absolute satisfaction guaranteed.
- Full 30-day return privileges.
- Discount prices on Sony, Pioneer, JVC, Teac, Akai, Advent, Jensen, Clarion, Concord, Sherwood, Canon, Infinity, and many more!

Call or send this coupon now for your FREE Catalog
800-336-5566

In Virginia, call 800-552-3961

Name _____

Address _____ Apt. # _____

City _____ State _____ Zip _____

If you plan to move, please give us the date: month / date / year

Year _____ Make _____ Model _____

Your car: _____

2nd car: _____

CRUTCHFIELD

1 Crutchfield Park, Dept. SR, Charlottesville, VA 22906

replace those on the amplifier, and these can in turn be used to "chain" other external devices.

So the question remains: Do you connect the equalizer to the noise-reduction unit to the expander, or the noise-reduction unit to the equalizer to the expander, or the expander to the equalizer to the noise-reduction unit, or . . . ? To answer this, you must consider the function of each added device—what it does to a signal and what kind of input signal it expects to receive. It is difficult to give a definitive answer, since it depends on the specific products involved. Usually, a noise-reduction device should come first, followed by a graphic equalizer, followed by a dynamic-range expander, but there are exceptions. For example, if the expander operates independently in several frequency bands (like the dbx 3BX-DS), you might wish to place it ahead of an equalizer, whose effects would be exaggerated by the expansion process. Fortunately, it is easy to experiment with different arrangements, and there is virtually no risk of damaging anything. If you like what you hear, fine. If not, try another setup.

Whatever you do, I strongly recommend that when you're modifying your music system you keep in mind the old saying, "If it ain't broke, don't fix it." I am also reminded of the man who added a number of after-market devices to his automobile, each of which was claimed to reduce fuel consumption by an amount ranging from 10 to 20 percent, in the hope that the ultimate reduction in fuel usage would be the total of the individual claims, or 80 percent. Of course, he was sadly disappointed in the results—the car wouldn't even run! In a hi-fi parallel, combining two spatial expanders, each of which might actually give you a 180-degree "wrap-around" of the sound stage, will not necessarily produce true 360-degree "surround sound." You would be lucky if the resulting sound was even listenable.

Although there may be a number of small-scale audio miracle workers available to the hi-fi enthusiast, each of which can produce very worthwhile results, no possible combination of several such products is likely to create a true miracle. Use a little common sense in your quest for the sonic Holy Grail! □



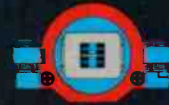
"... Well, there's not much to tell, really. Lionel was a hi-fi nut, and he placed a great deal of faith in whatever Julian Hirsch said, and one day Lionel came home from the office and I told him that Julian Hirsch telephoned and left a message for Lionel to jump off a pier. . . ."

THE MOST SYSTEM FOR YOUR MONEY!

JSE proudly introduces its complete line of car stereos, power amplifier, equalizer/preamps, equalizer/amplifiers and car speakers for 1987.

With many features, such as electronic tuning, APS(music search), auto reverse, separate bass and treble controls, automatic tuner priority, beautiful night illumination and compact size that enables you to install in most cars, you will get the most out of your money.

Specially our new DAPHA (Dual Azimuth Precision Head Alignment) System in auto reverse cassette mechanism will permit the perfect tape sound reproduction in both forward and reverse direction.



DAPHA[®]
SYSTEM



JET SOUND ELECTRONICS, INC.

2575 EL PRESIDIO ST. LONG BEACH CA 90810

TEL. (213) 637-1001, (800) 421-5632, FAX. (213) 635-3203 TWX. (DDD) 372-0344

CIRCLE NO. 28 ON READER SERVICE CARD

TURN YOUR ORDINARY TV INTO AN MTS STEREO-SONIC SUPERSYSTEM

Now that the networks—NBC, ABC, CBS and even Cable—are broadcasting dozens of programs in dynamic stereo sound you can charge your home TV viewing from dull to dynamic with one of Recoton's F.R.E.D.™ Family of MTS Decoders. Easy to install, each F.R.E.D. Decoder thrusts the sound and action beyond your TV screen, delivering theater-like sound that's purer and cleaner than the best Stereo TV on the market. Leading authority on audio Julian Hirsch commented in STEREO REVIEW Magazine, "F.R.E.D. ... is a dramatic improvement in the quality of TV sound... can justify its addition to a home entertainment system." VIDEO and VIDEO REVIEW

Magazines also agree the F.R.E.D. family of decoders transforms your ordinary TV into an up-to-date stereo center at a fraction of the cost of a new MTS Stereo TV. And F.R.E.D. also synthesizes dynamic stereo sound from non-stereo broadcasts. Available in amplified and non-amplified versions for use with a home audio system or self-powered speakers. Some models with SAP bi-lingual programming capability. So experience the F.R.E.D. family—the greatest breakthrough in MTS Stereo technology.

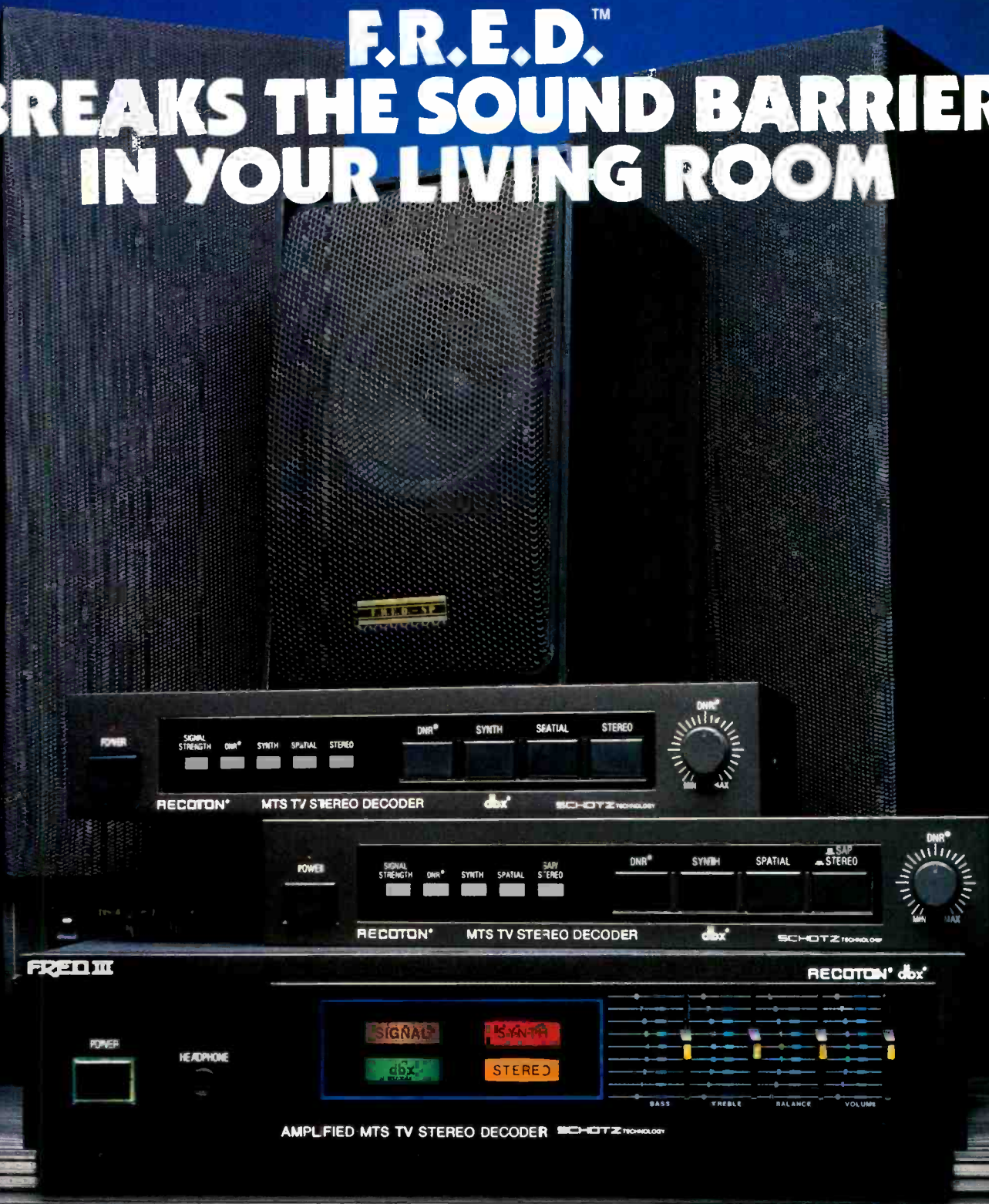
CIRCLE NO. 38 ON READER SERVICE CARD

RECOTON® THE PROVEN PERFORMERS

Audio/Video Accessory Specialists

46-23 CRANE STREET, LONG ISLAND CITY, NY 11101 1-800-RECOTON.

F.R.E.D.™ BREAKS THE SOUND BARRIER IN YOUR LIVING ROOM



AMPLIFIED MTS TV STEREO DECODER SCHOTZ TECHNOLOGY



HING/NORTON

JVC XL-M700 AUTOMATIC CD CHANGER

Julian Hirsch, Hirsch-Houck Laboratories

THE JVC XL-M700 CD player is an automatic changer whose removable magazine can hold up to six compact discs. The player also has a separate motor-driven disc drawer that accepts a single disc. Since the magazine and the drawer operate independently of each other, a total of up to seven discs can be loaded and played.

In addition to all the standard CD operating controls and functions (including repeat, track skip, and fast search with audible sound), the XL-M700 can play any track of any of the loaded discs in any desired order, using either direct access or programmed operation. The INTRO SCAN mode plays the first 15 sec-

onds of each track, beginning with the disc loaded into the single-play drawer and proceeding in sequence through the discs in the magazine. In the RANDOM mode, both the tracks and the discs are selected randomly by the player. The XL-M700 can be used with a timer-operated line-voltage switch for unattended playing. It also has a front-panel headphone jack with its own volume control. The line outputs (on the rear apron) are set for a fixed 2-volt level.

The fluorescent display of the JVC XL-M700 is designed for easy, unambiguous interpretation. The numerical display normally shows the elapsed time of the current track as well as its number. Pressing the

DISPLAY button changes the readout to the disc and track number, and also the step number if a programmed sequence is being played. The machine will accommodate up to thirty-two programmed steps, which can be distributed as desired among the seven discs and their numbered tracks. Another touch on the DISPLAY button shows the total number of tracks on the current disc and their total playing time. The original (default) display returns automatically after a few seconds.

A display with symbols representing the discs in the magazine and the slide drawer shows the presence or absence of discs in each possible location and which one (if any) is currently in the playing position. The disc symbols are marked on the panel as P, for the disc in the single-play drawer, and 1 through 6 for the discs in the changer magazine. Similarly identified buttons are used to select each disc for direct play or for operation in a programmed sequence. A twenty-key numerical

FEATURES

- Digital filtering
- Simultaneous loading of single disc and six-disc magazine
- Direct access to any track up to No. 99 of any disc
- Programmable for up to thirty-two selections in any order
- Programming by disc, track, or both
- Program repeat
- Continuous mode for playing up to seven discs in sequence from beginning to end
- Intro Scan for sampling first 15 seconds of each track on each disc in sequence
- Random mode for automatically randomized playback of all discs and tracks
- Switchable orange fluorescent display of elapsed time and track number, disc and track number, or total time and number of tracks on disc
- Track skip in both directions
- High-speed scan in both directions with audible sound
- Symbolic luminous display to show discs loaded and in playing position
- Capable of external timer-controlled operation
- Front-panel headphone jack with volume control
- Rear-apron connections to cassette deck for automatic dubbing

LABORATORY MEASUREMENTS

Maximum output level: 2.0 volts
Total harmonic distortion at 1,000 Hz: 0.0025% referred to 0 dB, 0.0018% referred to -10 dB, 0.0028% referred to -20 dB
Signal-to-noise ratio (A-weighted): 101.2 dB
Channel separation: 103 dB at 1,000 Hz, 85.5 dB at 20,000 Hz

Frequency response: +0.1, -0.7 dB from 20 to 20,000 Hz
Cueing time: 2.5 seconds
Maximum cueing time between discs: 9.5 seconds
Cueing accuracy: A
Impact resistance: top, B; side, A
Defect tracking: tracked all maximum-level defects on Philips TS5A test disc

pad selects the desired track number, with a +10 key to extend selection to the machine's maximum of ninety-nine tracks per disc. In addition to the symbolic display, a window in the front of the magazine shows which of its removable slides contains a disc and which one (if any) has been withdrawn into playing position.

The XL-M700 is supplied with a wireless remote control that duplicates almost all of its front-panel control functions. The rear apron contains two SYNCHRO jacks for connection to a suitable JVC cassette deck for synchronized dubbing. The operation of the two components is synchronized so that the cassette deck stops automatically when the CD changer reaches the end of its playing cycle.

The JVC XL-M700 measures 17¼ inches wide, 12¾ inches deep, and 4¾ inches high, and it weighs 16½ pounds. It is supplied with one six-disc magazine. Additional magazines can be purchased separately. Price: \$600; additional magazines, \$14 each. JVC, Dept. SR, 41 Slater Dr., Elmwood Park, NJ 07407.

Lab Tests

The output of the XL-M700, playing a 0-dB (maximum-level), 1,000-Hz band from a test record, was 2.0 volts per channel, with an imbalance of only 0.09 dB. Its frequency response sloped downward very slightly above 5,000 Hz, with a total variation of only +0.1, -0.3 dB from 20 to 18,000 Hz. It dropped more abruptly above that point, to -0.7 dB at 20,000 Hz. The square-wave response indicated the use of digital filtering, and the interchannel phase shift was a few degrees up to 5,000 Hz, increasing linearly to 23.6 degrees at 20,000 Hz.

The laser-servo tracking and cueing accuracy were excellent, with a perfect transition from Track 17 to Track 18 of the Philips TS4 test disc (which have no interval between them). The slow time was moderately fast, requiring 2.5 seconds to move from Track 1 to Track 15 of the same disc. The changing time depended somewhat on the specific disc positions, but the worst case—from the single-play drawer to disc No. 6—was about 9.5 seconds. The

player handled the calibrated defects on the Philips TS5A test disc without audible mistracking. Its resistance to impact was good for shock applied to its top surface and excellent for side blows. The headphone volume was very good, with a clipping output of 3.8 volts across 200-ohm phones, or 6.1 volts into a high-impedance load.

Comments

Judged solely on its merits as a CD player, the JVC XL-M700 earned high marks. Although it was not necessarily the "best" we have measured in any one characteristic, its overall performance ranks it as one of the better units we have tested in respect to noise, distortion, and channel separation. It lacks a couple of conveniences that may or may not be of importance to specific users: it will not cue to (or even identify) indexed portions of a recording, and it does not have programming to play user-defined "phrases" or segments of a disc. On the other hand, it does have an excellent random-play system that randomizes both disc and track selection. And the convenience of being able to load your favorite CD's for more than six hours of "hands off" listening is a major advantage of this machine.

Although the instruction manual appears to be quite comprehensive, with numerous illustrations, we found some of the programming instructions confusing or incomplete. But don't give up—it *does* work, and it is worth the effort! The remote-control unit also works well, but the buttons must be pressed to their limits in order to operate and require a somewhat higher force than most remote units we have used. The mechanical sounds emanating from the changer during its cycling are audible, but we did not find them disturbing. They are reminiscent of a moderately noisy cassette deck, but in this case they are accompanied by a fine display of colored lines and symbols to remind you of what is going on inside the machine. The JVC XL-M700 is a first-rate machine and an excellent value, whether your primary interest is pure sound or operating convenience.

Circle 140 on reader service card



The first VCR that makes a bad tape good.

In this imperfect world, some videocassette recordings look worse than others. That's why NEC invented the new DX-2000U. It's the world's first VCR with Digital Noise Reduction—a computerized system that actually improves the picture.

On the left is a dramatization of a noisy videocassette. (Noise can arise from repeated playing, off-air recording,

copying, etc.) You can see snow, grain, and glitches. On the right is the effect of the same tape, as it would be played on NEC's DX-2000U. The snow has melted. The fuzz has fled. And the glitches are gone. Digital Noise Reduction not only improves the picture on bad tapes, it helps even well-recorded tapes look their best.

So if you want to see the cleanest

picture from any VHS cassette, see your NEC dealer. He's got good news for bad tapes: the DX-2000U with Digital Noise Reduction.

NEC

We bring high technology home.

FOR MORE INFORMATION CALL: (312) 860-9500.
NEC Home Electronics (U.S.A.), Inc., 1255 Michael Drive, Wood Dale, IL 60191
CIRCLE NO. 19 ON READER SERVICE CARD



MISSION MODEL 780 ARGONAUT SPEAKER

Julian Hirsch, Hirsch-Houck Laboratories

MISSION loudspeakers, from the compact Model 70 bookshelf speaker to the floor-standing, columnar Model 780, also known as the Argonaut, are all two-way systems. The Mission philosophy holds that two-way speaker systems provide superior sound quality compared with more elaborate

three- or four-way systems, which frequently suffer from problems of driver matching and complex crossover designs.

The top-of-the-line Model 780, which is relatively large for a two-way speaker, has two 8½-inch woofers operating in a sealed enclosure with a volume of 55 liters. The crossover, at 1,700 Hz, is to a single

1-inch dome tweeter. The vertically aligned drivers are located near the top of the speaker box, with the tweeter fitting between the two woofers.

The woofer cones appear to be made of Bextrene, a plastic whose properties have led to its use in a number of high-quality loudspeakers, with a concave dust cap of the same material. The soft-plastic tweeter dome radiates to the room through a horn with an elliptical cross section (Mission calls it a "Super Elliptic Impedance Transformed Tweeter"). The speaker has no level adjustments.

The Model 780 measures roughly 37½ inches high, 10 inches wide, and 13¾ inches deep, and it weighs 55 pounds. The wooden cabinet is finished in a pale gray that reveals the attractive grain of the veneer. Unsnapping the black cloth grille reveals an attractive black molded-plastic speaker panel that carries the Argonaut name in large letters. The five-way binding-post terminals for amplifier connections are recessed into the rear of the cabinet.

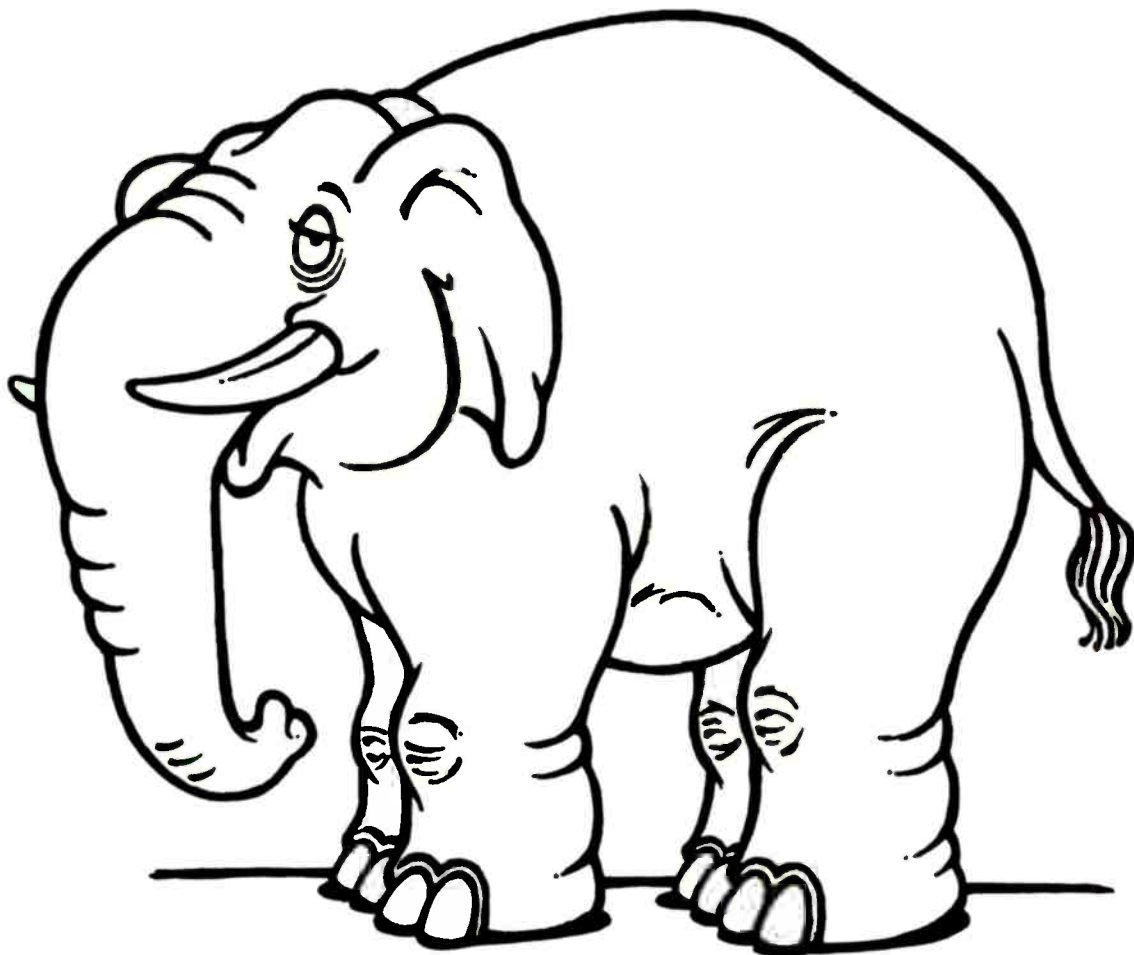
The manufacturer's specifications for the Model 780 include a frequency response of 30 to 20,000 Hz \pm 3 dB, a sensitivity of 95 dB, and a nominal impedance of 4 ohms. The recommended amplifier range is from 50 to 200 watts per channel. Price: \$1,499 per pair. Mission, Dept. SR, 5985 Atlantic Dr., Unit 6, Mississauga, Ontario L4W 1S4.

Lab Tests

The averaged room response of the left and right speakers showed only minor irregularities, the principal ones being a dip of about 3 dB around the crossover frequency of 1,700 Hz and a peak of 4 dB at 13,000 Hz. The responses of the two speakers, measured on the axis of the left one and 30 degrees off the axis of the right, were very much alike over the full audio range. The close-miked woofer response varied about \pm 4 dB from 45 to 1,700 Hz. The average response, unlike that of many woofers, was relatively uniform over that full range, but there were several small peaks and dips. The output below 60 Hz dropped at a rate of 12 dB per octave.

The woofer-response curve overlapped the room curve closely for a

He's good. But can he remember 785 of your favorite songs?



This Magnavox compact disc player can. In fact, the top-rated CDB650 is the *only* CD you can program to play 785 selections. As you build your library, just program in your favorite selections from each disc in any order you want. The CDB650 will never forget them. Because it's the only CD with

Favorite Track Selection. With FTS, the memory remains forever, even during power outages, even if it's unplugged. And it comes with full-function remote control.

With 4 times over-sampling and digital filtering, all you hear is the absolutely flawless reproduction of sound. What else would you expect from the people who invented CD technology?

The CDB550. Unforgettable.



Flawless sound. The ultimate memory.

Nobody puts it together like MAGNAVOX.

© 1986 N.A.P. Consumer Electronics Corp. A North American Philips Company

couple of octaves, and the resulting composite frequency response varied only ± 4 dB from 50 to 18,000 Hz. Quasi-anechoic FFT response measurements confirmed the variations visible in the room curves and showed a smoothly rising output from 5,000 to 13,000 Hz—the total increase over that range was less than 4 dB—and a steep drop above 13,000 Hz (at about 18 dB per octave).

The overall group delay was unusually constant, varying less than 0.4 millisecond from 400 to 22,000 Hz (between 8,000 and 20,000 Hz, the change was only 0.03 millisecond). The speaker's sensitivity was 91 dB sound-pressure level (SPL) at 1 meter with an input of 2.83 volts of pink noise. Over much of the audio range the average impedance was not far from the rated 4 ohms, with the minimum of 3.2 ohms occurring at 200 Hz and the maximum of 17 ohms at 1,900 Hz. At the bass resonance frequency of 56 Hz, the impedance was 12 ohms.

Low-frequency distortion was measured with a constant input of 2.5 volts (equivalent to a 90-dB SPL). The results set a record, in our experience, for low loudspeaker bass distortion. From 0.32 percent at 100 Hz, the distortion increased almost imperceptibly to 1 percent at 50 Hz, 2.2 percent at 30 Hz, and a mere 2.5 percent at 25 Hz, the lowest frequency at which we could

make the measurement. The speaker's output fell off at a constant rate with decreasing frequency, and at 20 Hz, although the output waveform was still an excellent sine wave, the microphone output was too low for measurement with our distortion analyzer.

Our peak-power tests of the system showed that the woofer output began to distort at an input of 365 watts (into a 4-ohm impedance) at 100 Hz, although audible rasping did not occur until we reached 620 watts. At 1,000 Hz, where system impedance was 8.5 ohms, the amplifier clipped at 1,280 watts before the speaker distorted, and at 10,000 Hz the amplifier also clipped first, at 1,780 watts into 5.5 ohms.

Comments

Although many hi-fi speakers are intended to be located a couple of feet from any wall, Mission speakers are designed to be placed close to the wall behind them. The instructions, which are quite specific and informative, do encourage the user to experiment with different locations, however, to vary the balance between the bass and higher frequencies. We placed the Model 780's as close to the wall as possible (within a few inches) and found the results to be wholly satisfactory. The speakers are supplied with sharp pointed feet for those who wish to establish the closest possible

contact between speaker and floor. We chose not to use these on the carpeted, poured-concrete floor of our listening room.

When we first heard the Mission 780, we were struck by its smooth and effortless sound. It was relatively free from mid-bass heaviness, yet it had a slightly warm quality that we found highly pleasing. The highs sounded a little brighter than some other speakers with which we compared it, but there was no hint of shrillness or stridency. All of these characteristics were consistent with what we later measured in our tests of the system. The peak at 13,000 Hz, which showed up in both the room-response and the FFT measurements, apparently gave the sound its trace of brightness, but at that high frequency it did not impart any obvious treble emphasis.

Mission describes the impedance characteristics of the Model 780 as "extremely difficult" for amplifiers to drive. Although its impedance does drop to less than 4 ohms at a couple of frequencies, this alone should not cause problems with any good amplifier.

We were especially intrigued with the results of our woofer-distortion measurements. No other speaker that we can recall has displayed such a nearly constant—and low—distortion all the way down to the lowest audio frequencies. Of course, the output at 20 or 30 Hz is too low to be really useful, although in large rooms it might be augmented considerably by room resonances. The practical result of this low bass distortion is that frequencies below the useful range of the speaker will not emerge acoustically as harmonics, as happens with some speakers whose frequency response *seems* to extend into the low bass but whose output consists principally of distortion products at the lowest audible frequencies. What you hear from the Mission system in the low bass is essentially what went into it, though at a reduced level.

We have appreciated the good qualities of the smaller Mission speakers we have tested in the past. The Model 780 is unarguably Mission's best, as well as its largest, and richly deserves its place at the top of the line.

Circle 141 on reader service card



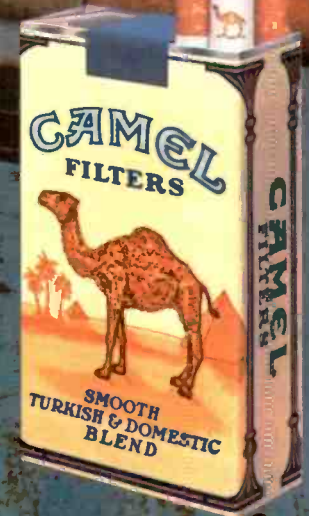
"Mrs. Thalman, we feel that since you are the only one on the board of directors who is capable of hearing sounds higher than 5,500 Hz, you should be the chairman of the board."

16 mg. "tar", 1.0 mg. nicotine av. per cigarette by FTC method.

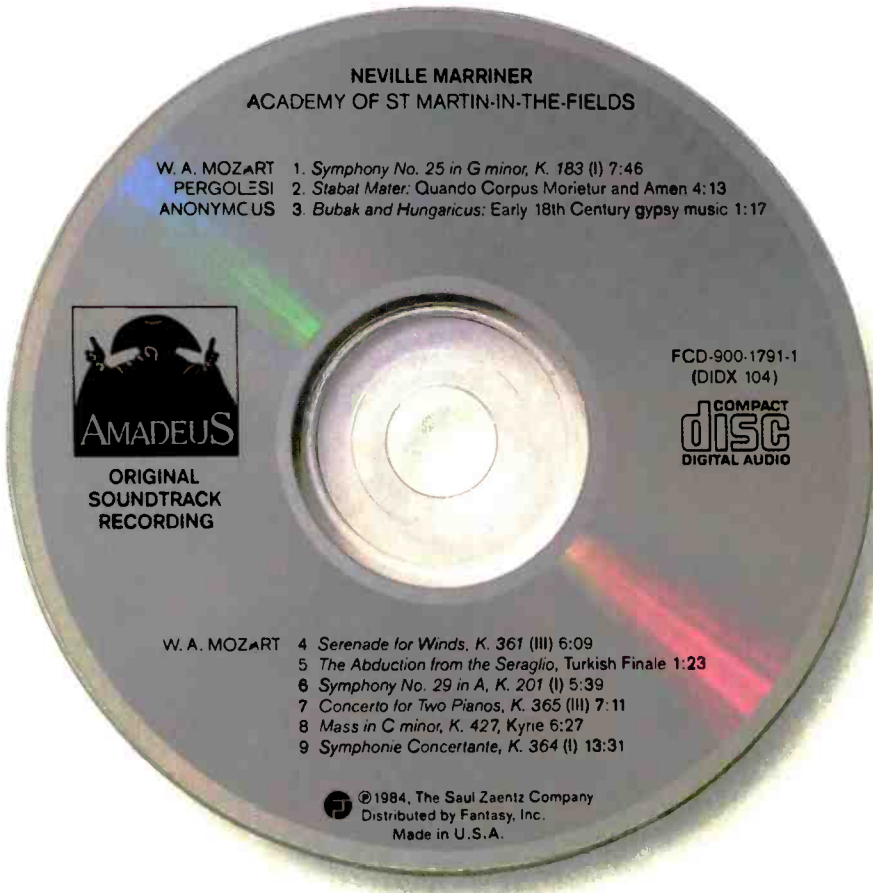
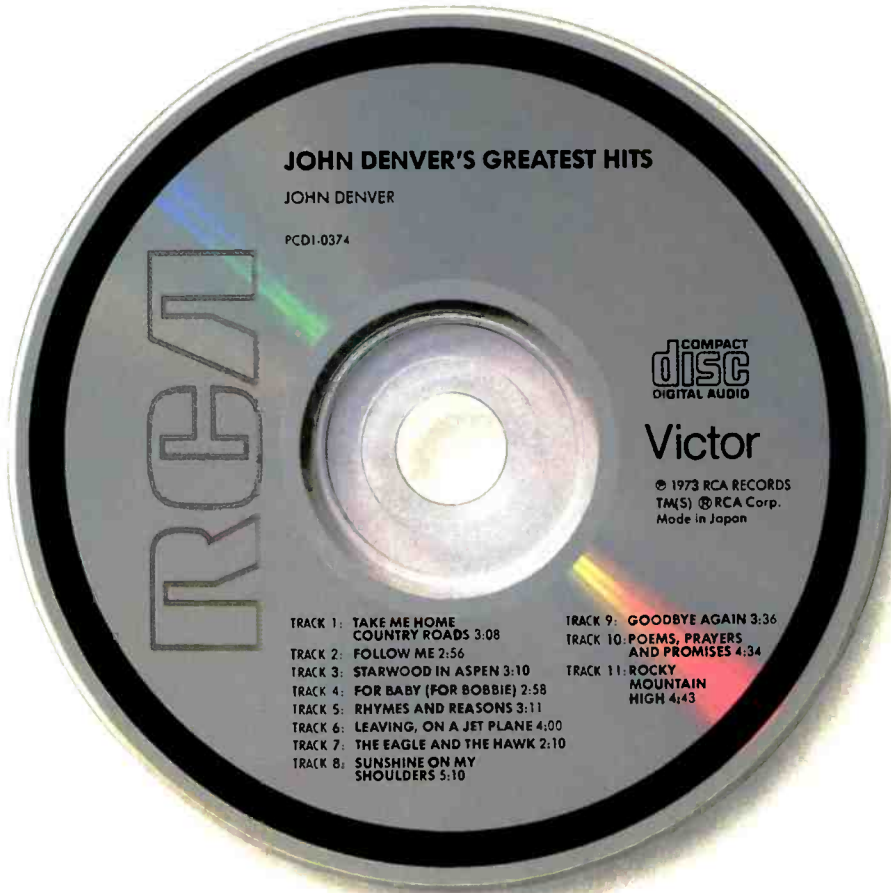
SURGEON GENERAL'S WARNING: Smoking By Pregnant Women May Result in Fetal Injury, Premature Birth, And Low Birth Weight.

CAMEL FILTERS

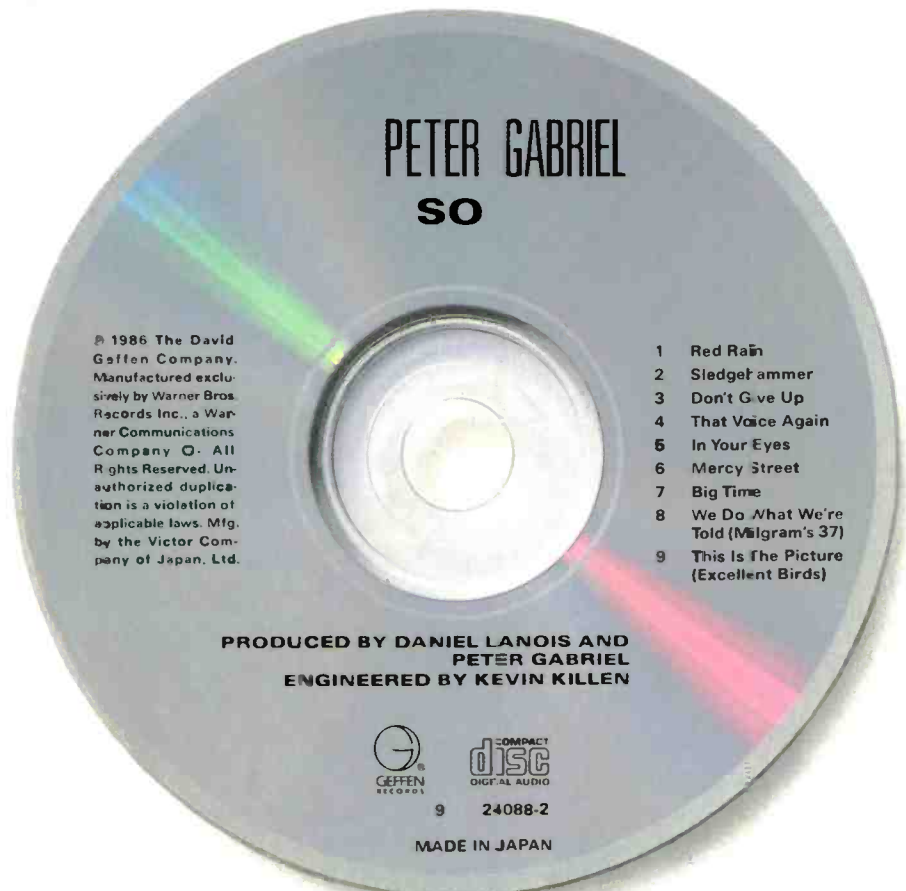
Share a new adventure.



Denver to Berlin,



non-stop. \$499*



The Mitsubishi DP-409R compact disc changer gives you up to five hours of clean, accurate, uninterrupted music.

It comes with a 5-disc magazine that looks and loads much like a VHS videocassette. It lets you play discs in sequence or at random. Skip and repeat tracks. Or program up to 30 different selections.

All from the comfort of your couch, thanks to a 16-function wireless remote.

Of course, there's no wow, no flutter, no rumble. And since it employs our 3-beam optical pickup, virtually no error in tracking.

The Mitsubishi DP-409R. Further proof that when it comes to improving audio, we never stop.



MITSUBISHI

For the name of an authorized Mitsubishi Electric dealer near you, call (800) 654-8056. In California, call (800) 843-1252. Mitsubishi Electric Sales America, Inc., 5757 Plaza Drive, Cypress, CA 90630-0007



*Suggested retail price

CIRCLE NO. 66 ON READER SERVICE CARD

BostonAcoustics



The new Boston T1000.

A higher level of sonic architecture.

Announcing the Boston Acoustics T1000 tower speaker system. It elevates stereo music reproduction to a new, rarified level of realism. Yet its slender tower architecture requires very little floor space.

We engineered the T1000 in a distinctive new way. Our new midrange driver is large, letting it reproduce far more of the important mid-frequency information than a smaller driver can. In addition, we placed it – and our CFT-5 dome tweeter – in the highest portion of the tower. As a result, all the directionally important mid and high frequencies emanate together at ear level. Just as with live music.

This unique architecture also frees the dual woofers to concentrate on bass reproduction alone. In fact, the Boston T1000 tower system lets you enjoy the entire tonal range of music, including the very lowest octave. With a wide dynamic range that does full justice to digital sources. And with stereo imaging that's pinpoint precise.

For a descriptive T1000 brochure, just send us your name and address. Boston Acoustics, Inc., Department ST, 247 Lynnfield Street, Peabody, MA 01960. (617) 532-2111.



TECHNICS SA-590 AM/FM RECEIVER

Julian Hirsch, Hirsch-Houck Laboratories

THE Technics SA-590 is designed to serve as the control center for a complete audio/video entertainment system. It is a very powerful and compact receiver, rated to deliver 100 watts per channel into 8-ohm loads from 20 to 20,000 Hz with no more than 0.007 percent total harmonic distortion. In addition to the usual audio sources, the receiver accepts video signals and stereo or mono audio signals from a VCR or TV set, with switching performed from its front panel. It is equipped with F-type coaxial connectors for a TV-antenna input and output to a VCR or monitor. Additional jacks are provided on the front panel for the temporary connection of a second VCR for dubbing or viewing.

The SA-590 has no control knobs. Its front panel contains more than

forty soft-touch pushbuttons, the VCR jacks, a stereo headphone jack, and large, informative displays featuring highly legible white-on-blue LCD panels. There are separate tuner- and audio-status sections. The tuner section shows the tuned frequency, the band (AM or FM), the presence of a stereo subcarrier in the signal, and the number of a selected preset channel. Each of the eight preset buttons can be assigned to two different stations on either band.

Instead of conventional tone controls the SA-590 contains a seven-band graphic equalizer, the settings for which are shown by the audio part of the display. The amplitude scale has a range of ± 10 dB, with calibration marks at 2.5-dB intervals. The equalizer response can be varied by touching dots on a panel

matrix made up of lines corresponding to the frequencies and amplitudes of the equalizer filter bands. The LCD bars showing the settings move as each dot is touched, so that drawing the shape of a desired response curve on the panel with your finger produces that response from the equalizer.

Other illuminated displays show the settings of the volume and balance controls. Volume, balance, and tuning are adjusted by pressing the corresponding up and down buttons. A SPECTRUM/EQ button toggles between the equalizer-response display and a real-time spectrum-analyzer display of the current program (in the latter mode, the amplitude scale is from 0 to 20 dB in 2.5-dB increments). Two factory-set equalization curves are selectable by pressing buttons marked A and B. Three other curves can be set as desired by the user, stored in the receiver's memory as EQ PRESET 1, 2, and 3, and recalled at the touch of a button. The number of a selected EQ preset appears in the audio display panel.

Other pushbutton controls in-

FEATURES

- Fan-cooled 100-watt-per-channel power-amplifier section
- Digital-synthesis AM/FM tuner
- Sixteen preset station memories
- Memory scan automatically stores frequencies of receivable stations
- Seven-band graphic equalizer with finger-touch control, center frequencies at 63, 160, 400, 1,000, 2,500, 6,300, and 12,500 Hz
- Five preset EQ memories: two fixed, three user-defined
- LCD display shows selected EQ response curve or real-time spectrum analysis of program
- Switchable loudness compensation
- Connections and switching for two pairs of speakers
- Selectable inputs for CD/auxiliary, phono, tuner, tape deck, two VCR's (second set of VCR inputs on front panel)
- Switchable fixed EQ curve to improve quality of VCR audio
- "Stereoplex" circuit to enhance stereo programs, simulate stereo with mono programs
- Simulcast switch to connect FM tuner section to cable FM system
- Separate pre-out/main-in amplifier jacks with removable jumpers
- Wireless remote control for power, input selection, tuning, and volume; can control compatible Technics cassette decks, turntables, and CD players and Panasonic TV's and VCR's
- Detachable pivoted AM loop antenna
- Two switched AC outlets

LABORATORY MEASUREMENTS

- Tuner Section** (all figures for FM only except frequency response)
- Usable sensitivity** (mono): 20 dBf (5.5 μ V)
- 50-dB quieting sensitivity:** mono, 23.5 dBf (8.2 μ V); stereo, 42 dBf (69 μ V)
- Signal-to-noise ratio at 65 dBf:** mono, 79.5 dB; stereo, 71.2 dB
- Harmonic distortion** (THD + noise) at 65 dBf: mono, 1.04%; stereo, 0.64%
- Capture ratio** at 65 dBf: 1.6 dB
- AM rejection** at 65 dBf: 61 dB
- Selectivity:** alternate-channel, 62 dB; adjacent-channel, 4 dB
- Stereo threshold:** 28 dBf (13.8 μ V)
- 19-kHz pilot-carrier leakage:** -70 dB
- Hum:** -72 dB
- Stereo channel separation** at 100, 1,000, and 10,000 Hz: 22.5, 35.5, and 33 dB
- Frequency response:** FM, 30 to 15,000 Hz +1.7, -1.4 dB; AM -6 dB at 150 and 2,300 Hz
- Audio Amplifier**
- 1,000-Hz output power at clipping:** 120 watts into 8 ohms, 162 watts into 4 ohms, 190 watts into 2 ohms
- Clipping headroom** relative to rated output: 0.8 dB (8 ohms)
- Dynamic power output:** 156 watts into 8 ohms, 253 watts into 4 ohms, 333 watts into 2 ohms
- Dynamic headroom:** 1.93 dB (8 ohms)
- Harmonic distortion** (THD + noise) at 1,000 Hz into 8 ohms: 1 watt, 0.023%; 10 watts, 0.0145%; 100 watts, 0.039%
- Maximum distortion** from 20 to 20,000 Hz into 8 ohms: 0.21% at 100 watts (20,000 Hz)
- Slew factor:** greater than 25
- Sensitivity** (1-watt output into 8 ohms): CD/auxiliary, 19.5 mV; phono, 0.35 mV
- Phono-input overload:** 163 to 185 mV
- A-weighted noise** (referred to a 1-watt output): CD/auxiliary, -76.5 dB; phono, -73.2 dB
- Phono-input impedance:** 45,000 ohms in parallel with 100 pF
- RIAA equalization error:** 2.5 dB overall from 30 to 20,000 Hz
- Equalizer range:** \pm 10 dB at each center frequency

SOUND EQUALIZER modifies the sound of a VCR playback for clearer listening quality.

The SA-590 is supplied with a wireless remote control that can coordinate and control an entire system of compatible Technics or Panasonic audio/video components. It provides tuning selection for TV, VCR, and radio signals and can control a turntable, CD player, and cassette deck. Used with the SA-590 alone, the remote control switches line power, controls volume (including audio muting), and selects any of the sixteen preset radio channels.

The Technics SA-590, which is finished in black, measures 17 inches wide, 11 $\frac{1}{8}$ inches deep, and 3 $\frac{3}{4}$ inches high, and it weighs just over 17 pounds. Price: \$550. Technics, Dept. SR, One Panasonic Way, Secaucus, NJ 07094.

Lab Tests

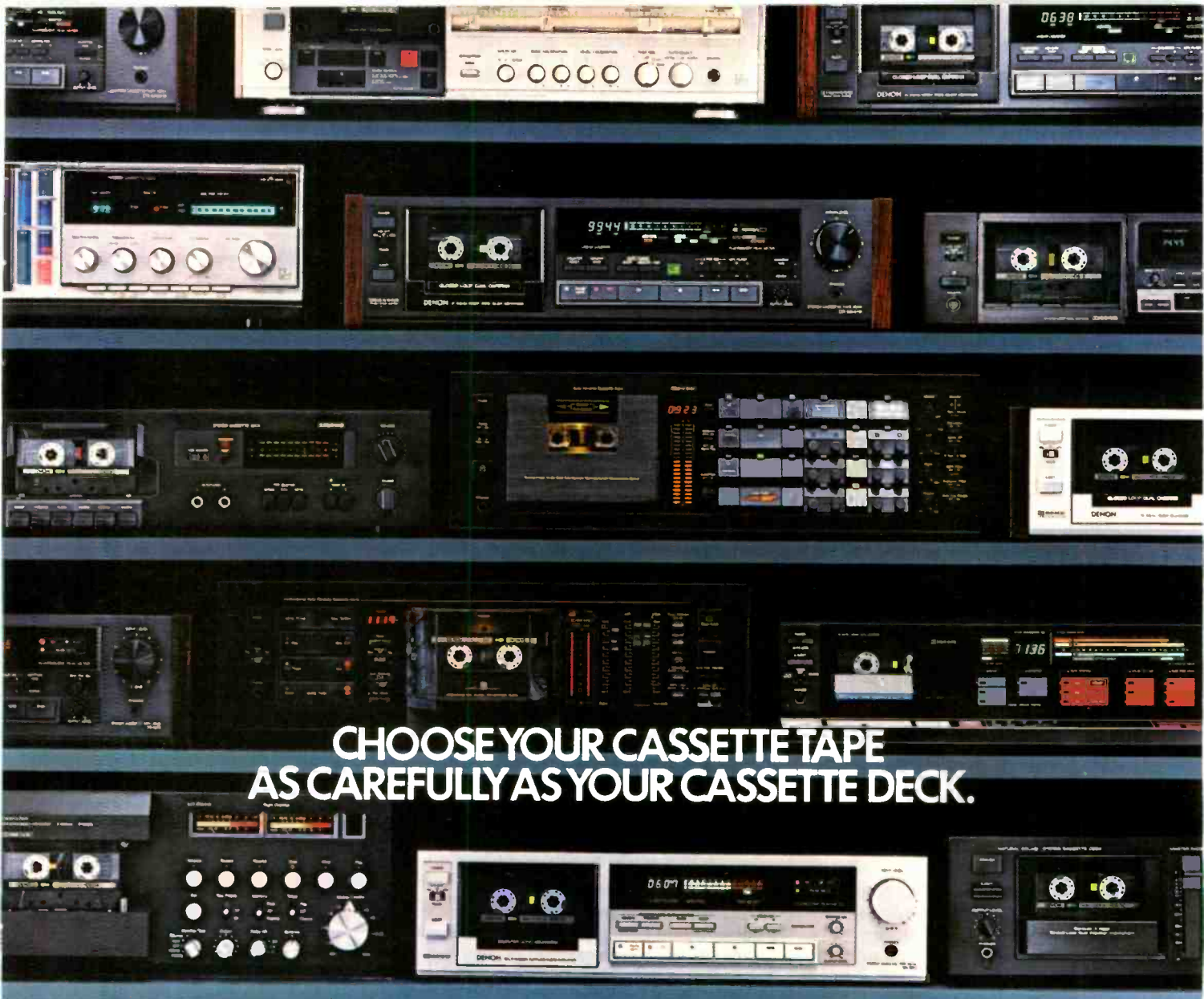
The Technics SA-590 is unusually small and light for a receiver of its power rating. Its compactness was made possible, in part, by a cooling fan that draws cool air in through the bottom, passes it over the output-stage heat sinks, and exhausts warm air out the rear apron. The fan operates only when necessary and will rarely, if ever, come on during normal home use.

During our one-hour preconditioning at one-third rated power, the fan came on in a few moments and before long had speeded up considerably. Apparently the speed of the fan, which is not even mentioned in the otherwise comprehensive instruction manual, is controlled directly by a combination of the heat-sink temperature and the amplifier's output voltage—the speed responded almost instantly to level changes once the amplifier had heated up. Part way through the preconditioning process, the protection circuits shut down the entire receiver. When this happens, the power must be shut off and then on again to restore normal operation.

The amplifier distortion although quite low, exceeded the rated 0.007 percent. Our measurements included noise (THD + N), but the manufacturer's ratings are based on harmonic distortion alone. Spectrum-analyzer measurements, how-

clude selectors for two sets of speakers, radio band, loudness compensation, and input source. There are stereo/mono mode buttons for the tuner and for the audio amplifiers. The STEREOPLEX button introduces a varying phase shift between the two channels of a stereo source or

simulates stereo with a mono source. The SIMULCAST button switches the FM tuner's antenna input between the regular FM antenna and a cable-FM system, either for improved sound quality on ordinary FM listening or for receiving video-FM simulcasts. The VCR



**CHOOSE YOUR CASSETTE TAPE
AS CAREFULLY AS YOUR CASSETTE DECK.**



If you own a deck like one of these, you were obviously concerned with low wow and flutter, extended frequency response, smooth tape transport and wide dynamic range. When it comes to choosing cassette tape, why behave any differently?

Denon's new High Density HD8 formulation is the finest high-bias tape you can buy. Its "High Technoroom" dispersion and binding plus its metal hybrid formulation guarantee digital level performance on the widest range of cassette decks (including yours). You can keep an eye on things through Denon's new giant window.

And enjoy your music knowing HD8 is guaranteed for a lifetime.

So how good is your cassette deck? With Denon HD8 it's better than you think.

DENON

Digital-ready tape from the first name in digital recording.

CIRCLE NO. 27 ON READER SERVICE CARD

ever, confirmed that the amplifier section's "distortion" consisted principally of second- and third-harmonic components.

The 1,000-Hz distortion was well under 0.05 percent up to the clipping point and typically less than 0.02 percent when the receiver was driving loads from 2 to 8 ohms. At the rated 100 watts output, the 8-ohm distortion was 0.04 percent from 20 to 1,000 Hz, rising smoothly to 0.2 percent at 20,000 Hz. At reduced power outputs, the second- and third-harmonic components were still present, but the distortion levels were lower. The reactive-load factor was 0.85 dB at 63 Hz, and the amplifier section was stable with reactive simulated-loud-speaker loads (although it tended to ring at about 25,000 Hz when driven by a 10,000-Hz square wave).

The preset EQ A and EQ B curves were similar except for the magnitude of their effects. They boosted the lows (peaked at 45 or 65 Hz) by 3 or 6 dB, respectively, and the highs (at 10,000 to 15,000 Hz) by 2.5 or 1 dB. Neither response modification seemed particularly beneficial in listening tests. The loudness compensation boosted only the low frequencies (below 1,000 Hz) by a maximum of 8 to 9 dB. It tended to make the sound excessively heavy at most listening levels. The VCR SOUND EQ had -3-dB points at 100 and 9,000 Hz.

The protection circuits were very effective, shutting the receiver down when the internal temperature or load current became excessive. The output stage for both channels appeared to be a single large, hybrid circuit encapsulated in plastic and mounted on a large heat sink in the path of the fan's air flow. Although its clipping behavior was perfectly normal under most conditions, the effect of a slight clipping of a 20,000-Hz sine wave was most unusual. Instead of the usual flattening, a sharp spike emerged from each peak of the sine wave. In the case of the phono-preamplifier section, the spike could be larger than the signal itself! In actual use, these effects were never heard (driving an amplifier into clipping is not our idea of a reasonable listening condition), and we cannot imagine a phono cartridge with an output of more than 160 mV at 20,000 Hz.

The FM tuner section of the SA-590 had more distortion than most, close to 1 percent at most full-limiting signal levels. The measured usable sensitivity was also not as good as expected, in part because of a tuning error in the receiver's synthesizer, but the signal-to-noise ratio at usable signal levels was good. Most other tuner performance parameters were good. The AM frequency response was broadly peaked in the 500- to 1,000-Hz range, falling to -6 dB at 150 and 2,300 Hz.

Comments

The Technics SA-590 worked perfectly in every respect. Although some of its measurements were not as good as we would have expected, this had no effect on listening quality. We were impressed by how much operating versatility, to say nothing of sheer power, has been packed into this very compact receiver.

Not too long ago, it was unheard of for a Japanese receiver to be able to drive low-impedance speakers at reasonably loud levels without distortion from its protective circuits. Although the SA-590 is only rated for 8-ohm loads, it had no difficulty driving 2-ohm loads at any practical power levels (and its output into 2 ohms was considerable). Its protection system was highly effective, especially under these extreme conditions. The only "damage" inflicted by our brutal treatment was a blown 5-ampere line fuse; the receiver's circuits were unharmed.

One of the receiver's most impressive features was its extraordinarily effective and quiet cooling fan. When the fan was running at its "normal" speed, it was quite inaudible only a foot or two away. At high speed it could be heard (when there was no output to speakers), but even then it was one of the quietest fans we have encountered in a home hi-fi component.

The SA-590 is easy to use, sounds just fine, and is much easier to operate than a listing of its many features and controls (or the appearance of its front panel) would suggest. The unusual graphic equalizer, in particular, is intriguing, easy to use, and genuinely effective. The wireless remote unit controls the most important aspects of the receiver's operation.

Our tests also underscored one of the basic facts of hi-fi component evaluation: measurements and specs tell only part of the story, and such factors as tuner sensitivity or amplifier distortion ratings usually have little relationship to the ultimate sound quality. When connected in a music system, this receiver proved to be a winner. And when you consider all it can do, its price begins to look very attractive.

Circle 142 on reader service card



"... Hey, you! I don't mind you people talkin' about Nicaragua or South Africa or the religious right, but don't come in here rilin' people up with your talk about God-zilla Cable bein' worthless!"

VANTAGE

PERFORMANCE COUNTS.
THE THRILL OF REAL CIGARETTE TASTE IN A LOW TAR.



**SAME GREAT TASTE
IN AN EXCITING NEW PACK.**

9 mg. "tar", 0.7 mg. nicotine av. per cigarette by FTC method.

SURGEON GENERAL'S WARNING: Smoking Causes Lung Cancer, Heart Disease, Emphysema, And May Complicate Pregnancy.

In the design of electroacoustics systems the control and damping of vibration and resonances is of fundamental importance. Such problems cause significant distortions and detract from accurate information retrieval.

The Isoplat was developed by Mission to isolate high-fidelity and other precision equipment from extraneous mechanical interference. The success of Mission's Isoplat is well known and the results are clearly audible if used, for example, with a CD player.



THE ISOPLAT

The Isoplat is manufactured from sandwiched fibre board utilizing critically designed feet made from Sorbothane. Sorbothane is a unique polyurethane elastomer simulating the intriguing energy-absorbing properties of human flesh. The polymer is a quasi-liquid molecular spring and exhibits both the dimensional stability of solids and many hydraulic characteristics of fluids. Its hysteresis pattern is also unique, such that distortion and recovery can be independently controlled. Sorbothane has remarkable memory – permanent deformation under normal loads is virtually zero. The ability of this new polymer to absorb up to 95% of impact energy, combined with low compression set, flexibility, recovery rate, absorption of energy with low peak forces, and excellent kinetic energy absorption properties make this patented material totally unique. To dramatise the properties of Sorbothane, it can be demonstrated that an egg sandwiched in a Sorbothane mould and hammered with a mighty blow will not break, or that a submarine lined with sorbothane would not be detected by sonar, in that it would become acoustically invisible. Mission have the world exclusive rights to Sorbothane in electroacoustic applications.

Pulse Code Modulation is the 21st century technology for the storage and reproduction of music. Optical laser systems are an equally sophisticated partner for such a technology. The combination has produced Compact Disc. CD's staggering dynamic range, channel separation, low distortion, exact speed stability, zero disc wear, random access, programmability etc., put this medium in the forefront of audio technology. As with all new technologies the early implementations proved problematic, and the fact that the industry was dominated by the mass-market manufacturers, with minimal commitment to music, delayed acceptance of the medium by the discerning music lover. However, Mission's first CD player provided the stimulus for many to take the medium seriously and made the DAD7000 an instant international success.

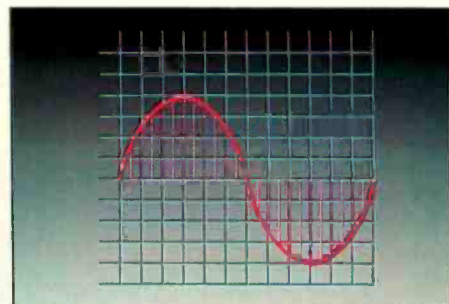
On the eve of the introduction of the DAD7000 an intensive and radical programme of research had started on advanced new generation Mission players code-named PCM4000 and PCM7000 – the company's definitive statement in Compact Disc technology. The unique combination of the following design features, seldom if ever found in competing equipment, underlines the sheer technical sophistication of Mission's new CD players. However, no amount of technical explanation can fully convey the breathtaking realism with which the MISSION PCM reproduce the emotional dynamics of music.

DIGITAL TO ANALOGUE CONVERSION

The digital to analogue converter (DAC) is the most significant component in the compact disc replay system. Certain design flaws in this unit can cause serious degradation of the sound quality, while others may merely degrade the quality marginally. The linearity of the DAC is naturally one of the important parameters of the unit and often quoted in

manufacturers' specifications. However, there are certain types of non-linearities with serious audible effects, regardless of their magnitude. These usually manifest themselves in the form of compression and serious loss of linearity in low level signals.

Other problems can arise from poor power supply rejection of the DAC; this can be very serious and can cause loss of clarity and poor high frequency behaviour of the audio output. A further common flaw is susceptibility to dynamic distortion caused by poor high frequency behaviour of the DAC normally due to dynamic



Typical output of digital to analogue converter to a sinusoidal signal.

mismatch of the conversion elements. The output sample-and-hold of the DAC also plays an important part in reconstruction of the audio signal. Typically, a poor design can cause a complex form of distortion consisting of anharmonics which can be audibly objectionable.

The DAD7000 had already successfully addressed the above problems, at only 14 bit resolution. The major area in which scope remained for improvement in the DAC was the loss of information inherent in the 14 bit chip, which could only be restored through the use of an equally optimised 16 bit chip, operating at the same high speed of 176.4 KHz. The MISSION PCM, through its pioneering use of the long awaited true 16 bit, 4X



oversampling twin DAC/single chip technology, surpasses by a wide margin even the highly acclaimed DAD7000. This chip marks a new epoch in compact disc technology, giving a true 16 bit resolution at 176.4 KHz sampling rate. Its superb linear performance ensures the highest possible fidelity, while the single chip 'Very Large Scale Integration' makes for perfect inter-channel thermal stability.

Features:

- 4x Oversampling, full 16 bit.
- Twin DACs, VLSI technology.
- Four separate DC power supplies.
- Full function interactive FTD.
- Random order 20 track/index programming.
- Single laser pickup system.
- Super fast track/index access time.
- Program review-add/correct facility.
- Three speed search - 10 dB attenuation.
- Cueing to within 1 second.
- Electronically generated display of: Track/Index numbers; Elapsed/Remaining/Total time; Play, Pause, FFW and REW; Repeat, Store; Track/Disc errors etc.
- Motorised loading, anti-jamming protection.
- Output headphone jack.
- Standard format digital output.
- Two outputs - fixed and variable. (7000).
- 11 function IR remote control. (7000).
- Remote Electronic Volume control. (7000).
- Four regulated DC power supplies (7000)
- Special non-magnetic output connectors (7000)
- Pre-selected ultra high resolution DACs (7000).

CIRCLE NO. 50 ON READER SERVICE CARD



to read extraordinary independent test-reports from critics all over the world on this genius of a product. We have learned of astonished music critics replacing their costly 'super-amps' with the little Cyrus One. One can therefore only conclude that in its short history, since its introduction, the Cyrus One has become both a Reference and a living legend.

The Cyrus One is based on a revolutionary circuit design philosophy, details of which are beyond the scope of this brochure and in any case well guarded secrets.

The design is then implemented with careful attention to circuit topology in order to minimise the number of components in the signal path and reduce their harmful effects. This 'straight-line' design is then manufactured to the very highest standards using components and materials beyond the reach of most competition. The power transistors, for example, are military grade, ultra-fast and very linear devices especially manufactured for Cyrus Electronics. The driver transistors are equally products of a British military semiconductor manufacturer. World class German produced passive components have been selected including extravagant polypropylene capacitors, polystyrene capacitors, and metal film resistors. The casing for the amplifier is precision injection moulded from a 'non-magnetic', 'non-electroconductive' metal substitute produced by Space Division of American General Electric.

All spurious and harmful stages, such as tone-controls and filters, headphone and loudspeaker switching, protection circuits and balance controls have been eliminated to make the amplifier a 'straight-line', no compromise, state-of-the-art design. The quality control standards are amongst the highest in the industry where every amplifier is tested along nearly 100 parameters on the most sophisticated Hewlett-Packard CAD-CAM systems available. The result is an extraordinary achievement called the Cyrus One integrated amplifier, elegant in appearance, without gimmicks, and capable of producing a breathtaking and spectacular sound stage when used with quality ancillary equipment.

CYRUS 1

A British critic wrote "...the stunned look on the face of people who first heard the Cyrus One amplifier..."; a leading Dutch reviewer went on to say: Cyrus One is probably the best amplifier at any price; a most respected American reviewer added: the more subtle qualities of Cyrus One can only be matched by the finest of American tube amplifiers; and the French critics simply awarded Cyrus with 'Decibel D'Honneur'. Since then we have continued

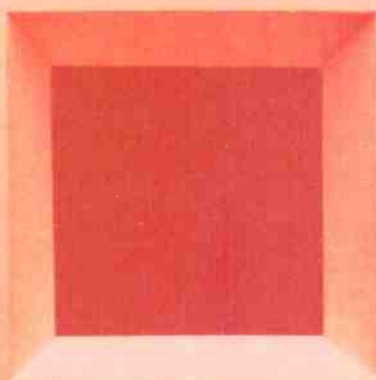


For your nearest Mission Electronics dealer, see page 188.

CYRUS TWO

MISSION
ELECTRONICS

The Cyrus Two is an even more sophisticated amplifier with a similar philosophy to that of the Cyrus One. The major differences between the two amplifiers are in the area of greater power output and even more importantly, superior current delivery capabilities. Furthermore, Cyrus Two incorporates one truly exceptional moving coil stage with emphasis on noise and hysteresis factors. Indeed, the MC stage is designed to work with esoteric cartridges often costing many times the price of Cyrus Two. Another unique feature of Cyrus Two is its ability to accept the PSX optional outboard power supply (not available for use with Cyrus One) and, when configured with the PSX, Cyrus Two is capable of competing directly with the finest and most esoteric American 'super-amps'. Independent test reports have frequently suggested that the only problem with Cyrus Two is its modest price tag, which may prejudice the most discerning of audiophiles who tend to look only at very expensive equipment. We suggest that you audition the Cyrus Two, possibly combined with the PSX, against the world's most esoteric equipment before you make your final decision.



CYRUS PSX

Given that the circuit philosophy is capable of reproducing magic and that really is what music is all about, and given that as we have already stated, Cyrus Two uses state-of-the-art components and manufacturing techniques throughout, there is only one other area of potential improvement – and that is in enhanced power supply capabilities.

Whereas the Cyrus Two has a superb internal power supply of its own, capable of unbelievable current delivery of 60 amps peak-to-peak, nevertheless the addition of the PSX can only improve things further. The PSX is manufactured in a similar case to the Cyrus Two, and plugs into the back of the Cyrus Two via an umbilical cord terminated with an XLR connector. The PSX transformer has been the subject of two years research and development and is the ultimate in toroidal transformer technology. The power supply reservoir capacitance is substantial and again the finest available components have been used. We are confident that the discerning music lover will not be able to better the performance of the Cyrus Two, using optional PSX outboard power supply, at any price.

CIRCLE NO. 50 ON READER SERVICE CARD





ROBERT LORENZ

SAE P102 PREAMPLIFIER

Julian Hirsch, Hirsch-Houck Laboratories

THE SAE Model P102 is described as a "Computer Direct-Line Pre Amplifier." Its knobless front panel has nineteen flat, soft-touch control keys that perform their functions by sending DC signals to internal digital control circuits.

The control functions are, for the most part, conventional. The four input-selector keys (phono MM, phono MC, tuner, and auxiliary/CD/video) operate, like all the others, with a light but positive pressure and a definite click. An LED display above them shows the first two letters of the name of the selected source. Similar keys control the recording and playback functions for two audio tape decks, including copying from either deck to the other and inserting an external signal-processing device in the EXT PROS circuit.

Each of the bass and treble tone controls uses a single center-pivoted key that boosts the response when pressed on one side and decreases it when pressed on the other. The tone controls have boost and cut ranges of 12 dB, in steps of 2 dB. Below them is a TONE MEMORY control,

with two positions, that stores selected settings of the tone controls for instant recall. Memory No. 1 is factory set with bass and treble boosts of 6 and 2 dB, respectively, in order to provide a fixed loudness-compensation response. It can be reprogrammed as desired, however, with the aid of the PROGRAM key. A four-digit numerical display above the tone controls shows their settings, changing from the flat reading of 00:00 to, for example, 06:02 when memory No. 1 is selected.

Further to the right on the panel are several other operating-mode controls, including a LOW FILTER key and a STEREO key that reverses the channels with alternate touches on one end and toggles between normal stereo and mono operation at the other end. Above these keys are two rows of LED's that indicate the relative signal levels in the left and right channels in 3-dB steps from +3 to -21 dB. The DISPLAY key below the LED's switches the readout between the preamplifier line output and the tape outputs (where the readings are not affected by the unit's volume setting).

Operating like the tone controls,


the volume and balance keys adjust the gain in 2-dB steps over a 68-dB range, with a numerical display showing the settings of the two channels. The balance control lowers the gain in one channel or the other depending on which end is pressed. Below it is a MUTE key that drops the audio level by 20 dB; a second touch returns it to the original setting.

The STANDBY key acts as a power switch. A red light next to it glows when the preamplifier is switched off and goes out when the key is pressed for a couple of seconds (the other display lights then confirm that the unit is in operation). The next time the STANDBY key is pressed, the preamplifier shuts down. Each time it comes on, the previous control settings are restored.

The rear apron of the SAE P102 contains the normal complement of signal input and output phono jacks, including separate inputs for MM and MC phono cartridges, as well as two pairs of output jacks for driving separate power amplifiers. It has three unswitched AC convenience outlets. Finished in black with white markings, the P102 measures 19 inches wide, 14 inches deep, and 3½ inches high. It comes with standard rack-mounting brackets and weighs about 14¼ pounds. Price: \$399. SAE, Dept. SR, P.O.

FUEL INJECTION FOR YOUR MUSIC

SHIFT INTO DIGITAL DRIVE WITH RECOTON'S CD ADAPTER



Accelerate into the digital dimension with Recoton's Compact Disc Adapter. Designed by award-winning audio engineer Larry Schotz, this versatile accessory delivers the full impact of digital sound—with no signal loss.

Just plug into the output jack of your portable CD player. Then insert the adapter into your car's cassette unit. No wiring. No permanent installation. Just pure pleasure—to go. Pick one up today and we guarantee you'll never be driven to boredom.

RECOTON®
THE PROVEN PERFORMERS

46-23 CRANE STREET, LONG ISLAND CITY, NY 11101
1-800-RECOTON.

CIRCLE NO. 38 ON READER SERVICE CARD

FEATURES

- Computer-operated with soft-touch control keys
- Volume and balance adjustments in 2-dB steps
- Digital display of volume, balance, and tone-control settings and of selected source
- Two memories for tone-control settings
- Moving-coil and moving-magnet phono inputs
- Two high-level inputs
- LED level display, switchable to show tape or line outputs
- Switching for two tape decks, with dubbing in either direction
- Internal memory restores previous control settings at turn-on

LABORATORY MEASUREMENTS

Frequency response (through high-level input, EIA-standard load): 20 to 20,000 Hz \pm 0.5 dB

Output at clipping: 8 volts at maximum volume setting; 3.75 volts at EIA reference unity-gain setting

Harmonic distortion (THD + noise at 1,000 Hz): 0.05% at 3.75 volts; 0.0063% at 1 volt

Sensitivity (for a 0.5-volt output): high-level input, 76 mV; MM phono, 1.25 mV; MC phono, 0.068 mV

A-weighted noise (referred to a 0.5-volt output): high-level, -91 dB; MM phono, 82.6 dB; MC phono, 77.9 dB

Input-overload level: MM phono, 123 to 132 mV, depending on frequency

Phono-input impedance (MM): 50,000 ohms and 200 pF

RIAA phono-equalization error: +0.02, -1.3 dB from 20 to 20,000 Hz

Box 60271 Terminal Annex, Los Angeles, CA 90060.

Lab Tests

All of our measurements were made with the output of the P102 terminated in the EIA standard load of 10,000 ohms in parallel with a 1,000-picofarad capacitance. The preamplifier gains and reference levels were set in accordance with the EIA RS-490 amplifier test standard. The high-level frequency response varied \pm 0.5 dB from 20 to 20,000 Hz. The bass tone control had a sliding turnover frequency, shifting between approximately 100 and 500 Hz as the amount of boost or cut was increased. The treble control's curves were hinged at about 2,000 Hz. The preset loudness compensation of the No. 1 TONE MEMORY was somewhat less than claimed, with a maximum boost of 4 dB below 100 Hz and no perceptible high-frequency boost.

Although the P102 has a rated maximum output level of 7.5 volts, this is only attainable with the gain set to its maximum (we measured an 8-volt output at the clipping point). At the standard unity-gain test level, the output at clipping was 3.75 volts, more than adequate for any normal application. At maxi-

mum gain, a 76-millivolt input was required at a high-level input to produce the reference 0.5-volt output. The A-weighted noise level was extremely low, -91 dB referred to 0.5 volt. The phono sensitivity was 1.25 mV for the MM input and 0.068 mV for the MC input, with respective noise levels of -82.6 and -77.9 dB. Channel separation was 77 dB at 1,000 Hz, 53 dB at 20,000 Hz.

The 1,000-Hz harmonic distortion varied between 0.0063 and 0.0195 percent for outputs between 0.1 and 3 volts, increasing to 0.05 percent at 3.75 volts (just before clipping occurred). At maximum gain, the distortion was between 0.011 and 0.018 percent from 20 to 20,000 Hz at outputs of 1 or 0.5 volt. At the rated 7.5-volt output, it was still 0.115 to 0.22 percent.

The MM phono input overloaded at inputs between 123 and 132 mV for frequencies between 20 and 20,000 Hz. The RIAA phono equalization was accurate within +0.2, -1.3 dB from 20 to 20,000 Hz. The phono input impedance (MM) was 50,000 ohms in parallel with about 200 picofarads.

Comments

Our measurements of the SAE P102 closely confirmed the manu-

facturer's specifications. Clearly, this is a top-quality preamplifier. Its noise levels were among the lowest we have ever measured from this type of component, and its operating flexibility is more than adequate for almost any possible home music system.

The unusual nature of the P102's operating controls (and, presumably, their internal circuitry, about which we had no information) invites comment on more than just its excellent electrical performance. It was an extremely easy preamplifier to use. We had it set up and operating for several weeks before even looking at the instruction manual (which happens to be quite comprehensive).

Great care has been taken to avoid any of the operating annoyances that frequently accompany high-gain amplification and switching of very low-level signals. In other words, there is no way to create thumps or clicks with this preamplifier, no matter how the controls are operated. Everything happens gradually—changes of program source and muting take place over a period of 2 or 3 seconds, with the first program fading out and the second one fading up smoothly. Even the 2-dB steps of volume adjustment take place so smoothly that they seem continuous, with no accompanying telltale clicks. You will get no surprises if, for example, you inadvertently increase the volume while the audio output is muted (to -20 dB); the volume setting cannot be raised, although it can be decreased, while in MUTE. There are also no transient electrical thumps when the preamplifier is turned on, as we verified by turning on the power amplifier first (definitely not a recommended practice with many preamplifiers!).

The SAE P102 is an intriguing, superbly performing preamplifier. Unconventional as it is, its design is thoroughly utilitarian, and its human engineering could hardly be surpassed. In fact, we could find absolutely nothing to criticize in our experience with this unit. All of that, at a bargain price, makes the SAE P102 one of the best preamplifier values we have seen in a very long time.

Circle 143 on reader service card

**Your ears won't believe
your eyes.**

It's a new way to listen from Bose.[®]

Be prepared for an experience that will literally challenge your senses.

Auditioning in February at selected Bose dealers.

BOSE[®]
Better sound through research.



Cabaret, All That Jazz, Pippin, Sweet Charity, Lenny, Star 80, Dancin', Liza with a Z (for television).
Film director, choreographer, actor, dancer, writer.

Bob Fosse Fine Tuned.

Driven, workaholic, enigmatic. He's complex, fascinating, and uniquely talented. Bob Fosse.

"Dancing is such style that I thought it would be the one thing I could bring to movies. Even *Lenny*, which is not dance, is kind of choreographed."

"Somebody once said the toughest thing in writing a screenplay is the fifth word. Act #1, Scene #1, is easy. The next word is a killer."

"I never had big inspirations. It's always putting one foot in front of the other. You hear about people getting these brilliant ideas. I just say, I have to go to work."

"They jumped on *Sweet Charity* when I tried a lot of quick cuts, which now by MTV standards, would be very tame."

"I really get scared — I'm not talking humble or anything — I get sick every morning when I'm doing a picture. If I don't get sick, I think uh-oh, I'm getting overconfident."

"My dreams are the worst. They're all B-movies."

Filmmakers like Bob Fosse challenge the manufacturer to develop componentry able to capture their art in all its subtlety and nuance. Mitsubishi answers that challenge with products like the Designer Series 35" television set shown here.

For a detailed look at Mitsubishi audio/video equipment for the home, see your Mitsubishi dealer or write for our brochure: Mitsubishi Television: The Thinking Inside.



 **MITSUBISHI**[®]

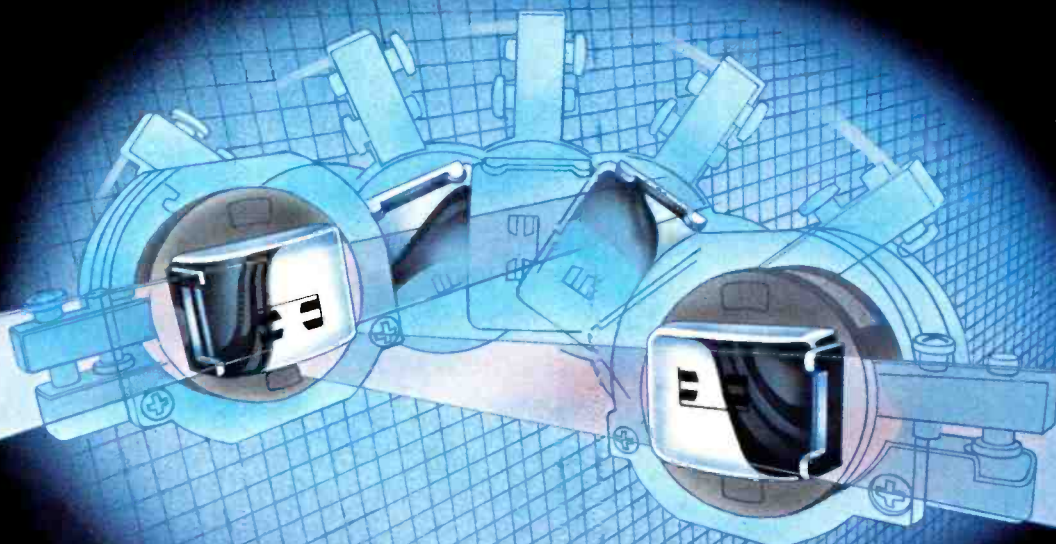
Mitsubishi Electric Sales America, Inc. 5757 Plaza Drive, Cypress, CA 90630-0007.
MTV is a trademark of MTV Networks, a division of Viacom International Inc.

Television featured: Mitsubishi CK-355R

CIRCLE NO. 66 ON READER SERVICE CARD

GET THE HIGH END. ON THE FLIP SIDE.

INTRODUCING THE FUJITSU TEN DUAL AZIMUTH.



Dual
AZIMUTH

Auto-Reverse never sounded better. Only a re-calibrated tape head permits perfect sound

reproduction in Forward and Reverse. Fujitsu Ten's unique Dual Azimuth System automatically adjusts the tape head, *realigning* it with the tape. The result: an enhanced Dolby and the full range of frequency response in *both* directions.

FROM \$250.....TO \$2000



The Dual Azimuth Adjusting System introduced in Fujitsu Ten's incredible \$2000 Compo is now available in the new "M" Series. Features of the M3 auto-reverse cassette receiver include electronic tuning, pre-set scan, Ultra Tuner (for superior FM reception), Dolby NR, automatic tape program search, high power (56 Watts total output), 4 channels amplified, soft green fully illuminated controls and, of course, the *expensive* Dual Azimuth System. Like all Fujitsu Ten car audio products, the "M" Series offers you high-end performance at a reasonable price: \$250-\$350.



FUJITSU TEN
CAR AUDIO

51 MILLION UNITS...34 YEARS EXPERIENCE

Write: Fujitsu Ten, 19281 Pacific Gateway Drive, Dept. 321, Torrance, California 90502.

© 1986 Fujitsu Ten Corp. of America. In Canada: Noreasco Canada Inc., Toronto, Ontario. Manufactured by Fujitsu Ten Ltd.

CIRCLE NO. 21 ON READER SERVICE CARD



ALTEC LANSING MODEL 401 SPEAKER SYSTEM

Julian Hirsch, Hirsch-Houck Laboratories

THE Altec Lansing name, associated for decades with high-quality professional and home speaker systems, has been absent from the consumer audio field for the last few years. Following the recent revival of Altec Lansing Consumer Products under new ownership and management, the Altec name recently reappeared on a line of totally new loudspeakers. Currently, the Altec Lansing home speaker line consists of five models, ranging from a small bookshelf unit to a large column speaker. The Model 401 that we tested is the next to largest of the group.

The Altec Lansing 401 is a three-way floor-standing speaker whose handsome oiled-walnut cabinet measures 32 inches high, 17 inches wide, and 12 inches deep. Each speaker weighs about 60 pounds. The black grille cloth and its heavy

wooden frame are retained by plastic snaps. The fully enclosed cabinet houses a 12-inch acoustic-suspension woofer with a woven carbon-fiber cone (similar cones are used throughout the line). The woven fiber is impregnated with an epoxy, resulting in a very light and rigid structure.

The midrange and high-frequency drivers are newly designed dome radiators, 2 inches and 1 inch in diameter, respectively. The domes are formed of a thermosetting polyimide plastic that has a very low mass and melts at a temperature of 600° F. A 4-micrometer layer of titanium is vacuum-deposited on the diaphragm, increasing its rigidity and minimizing internal mechanical losses.

The Model 401's crossover frequencies are 550 and 3,500 Hz. Other specifications include a frequency range of 25 to 22,000 Hz, a sensitiv-

ity of 93 dB, and a nominal impedance of 8 ohms. The speaker is rated to handle a nominal continuous input of 125 watts and a maximum of 250 watts. Price: \$960 per pair. Altec Lansing, Dept. SR, Milford, PA 18337.

Lab Tests

The averaged room response had a moderate amplitude variation of about ± 4 dB from 200 to 20,000 Hz. The close-miked woofer response was flat within 2.5 dB overall from 60 to 400 Hz, falling at 12 dB per octave at lower frequencies and more rapidly at higher frequencies because of the cutoff action of the crossover network. Splicing the woofer curve to the room curve gave a composite frequency response that was flat within ± 4 dB from 37 to 20,000 Hz. The response was flat within ± 1.5 dB from 65 to 400 Hz, fell about 7 dB from 400 to 900 Hz, rose to nearly the original level at 2,000 Hz, and descended about 5 dB to a flat region between 3,000 and 12,000 Hz. There was a distinct peak of about 6 dB at 15,000 Hz.

Our on-axis FFT response measurements showed roughly the same shape as the room curve, with slightly smaller variations, up to 10,000 Hz and beyond. There was a sharp dip at about 12,000 Hz and a peak at 14,000 Hz that corresponded to the one in our room

The Altec Lansing 401 has a somewhat warm character, very good deep bass, and an extended and smooth high end. The sound is well integrated, with an open, unstrained character and no sense of the individual contributions of the system's three drivers.

measurement. These effects, clearly due to a tweeter resonance, also showed up in our close-miked tweeter measurements. The 14-kHz peak was never audible, however. The high-frequency response did not fall off appreciably until the fre-

quency extended beyond 25,000 Hz.

The speaker's phase linearity was good, as evidenced by its group-delay variation of less than 0.2 millisecond from 1,500 to 23,000 Hz. The horizontal dispersion was very good up to 6,000 Hz; the response curves measured on-axis and 45 degrees off-axis diverged moderately above that frequency (and rapidly above about 12,000 Hz).

The impedance of the Altec Lansing 401 was 6 ohms at 200 Hz and reached its minimum of 4 ohms at 2,000 Hz. The maximum value was 35 ohms at 45 Hz, and it averaged between 6 and 10 ohms over most of the audio range, confirming the validity of the nominal 8-ohm rating. The system's sensitivity was 91 dB sound-pressure level (SPL) measured at 1 meter with an input of 2.83 volts of pink noise.

With a constant drive level of 2.52 volts (equivalent to an SPL of 90 dB), the woofer distortion was very low, measuring about 0.6 per-

cent from 100 Hz down to 50 Hz and rising only to about 3 percent at 25 Hz. In our peak-power-handling tests, the woofer cone "bottomed" audibly at 100 Hz with an input of 790 watts into a 7-ohm system impedance. At 1,000 Hz, the midrange driver's output began to distort with a peak input of 300 watts into a 13-ohm impedance, and at 10,000 Hz the amplifier clipped before the speaker's output distorted (at 920 watts into 7.2 ohms).

Comments

The Altec Lansing 401 is an excellent example of a conventional speaker system with excellent performance and sound quality at a moderate price. Its driver configuration—acoustic-suspension woofer, dome midrange driver, and dome tweeter—is the same as many other good speaker designs, although all of its drivers feature proprietary design techniques that set them apart from competitive products.

The speaker sounds very much the way its frequency-response curve looks. It has a somewhat warm character, very good deep bass, and an extended and smooth (but not prominent) high end. The sound is well integrated, with an open, unstrained character and no sense of the individual contributions of the three drivers.

The bass distortion of the Altec Lansing 401 was among the lowest we have measured from any speaker, and this may be one of the explanations for its effortless deep bass. A related factor is its combination of a high sensitivity with an ability to absorb large power inputs. The result is a speaker that can develop high sound-pressure levels in any home environment without risk of damage or the need to use an unreasonably powerful amplifier. It should be practical (if your ears can stand the punishment) for a pair of Model 401's to generate an SPL of about 120 dB in a typical room when driven by any of several available amplifiers whose dynamic headroom allows a short-term output of 500 to 1,000 watts.

Although the styling of the Model 401's cabinet (as distinguished from its very solid construction) probably has little to do with the sound of the speaker, it deserves special mention for the way in which the appearance of a simple rectangular box was improved by a slight sculpturing of its top and bottom surfaces. Since both the top and bottom are finished, however, it might be desirable to add some protective isolation between the speaker and the floor (unless it is placed on a rug or carpet).

The Altec Lansing 401 is yet another entry in the ranks of speakers selling for approximately \$1,000 per pair. As we have mentioned on occasion, it is in that price range where you will find the best sound-per-dollar values, and the Model 401 is a most worthy contender in that ever-expanding field. In our experience, almost any speaker in that general price class will give good sound and a good value for the money, but since all speakers sound different and individual preferences vary, you will have to listen for yourself to make the final decision.

Circle 144 on reader service card



"... Hello, Dr. Ruth, this is Norma from Boston. My husband tapes all your shows on the VCR, and lately he wants to wear my nightgown while he's demagnetizing the tape heads. . . . Is that normal, Dr. Ruth?"



The component that launches your stereo system into the future.

In the past, stereo systems were just for music. Then along came high fidelity VCRs with theater-quality audio. And blockbuster movies with Dolby® Surround Sound. And a whole string of hit TV shows in stereo.

To get in on all the action, you need to get your stereo system ready for video. That's why NEC (the company behind so many of today's video innovations) invented the A-1300 Audio/Video Amplifier.

CIRCLE NO. 19 ON READER SERVICE CARD

With an impressive 130 Watts per channel,* the A-1300 is potent enough to rattle some window panes. There's a built-in decoder for Dolby Surround Sound — the same process used in movie theaters. What's more, the A-1300 comes equipped with NEC's most sophisticated wireless remote control. It governs not only the A-1300, but also an NEC cassette deck, AM/FM tuner, CD players and an impressive array of NEC TVs and VCRs. So

you can add exactly the audio/video components you want. And you can keep track of them all with the remote's remarkable LCD display.

If you want to transform your stereo system into a true audio/video system, visit your NEC dealer, where the future is waiting.

NEC

We bring high technology home.

FOR MORE INFORMATION CALL: (312) 860-9500

NEC Home Electronics (U.S.A.) Inc., 1255 Michael Drive, Wood Dale, IL 60191

Dolby is a registered trademark of Dolby Laboratories.

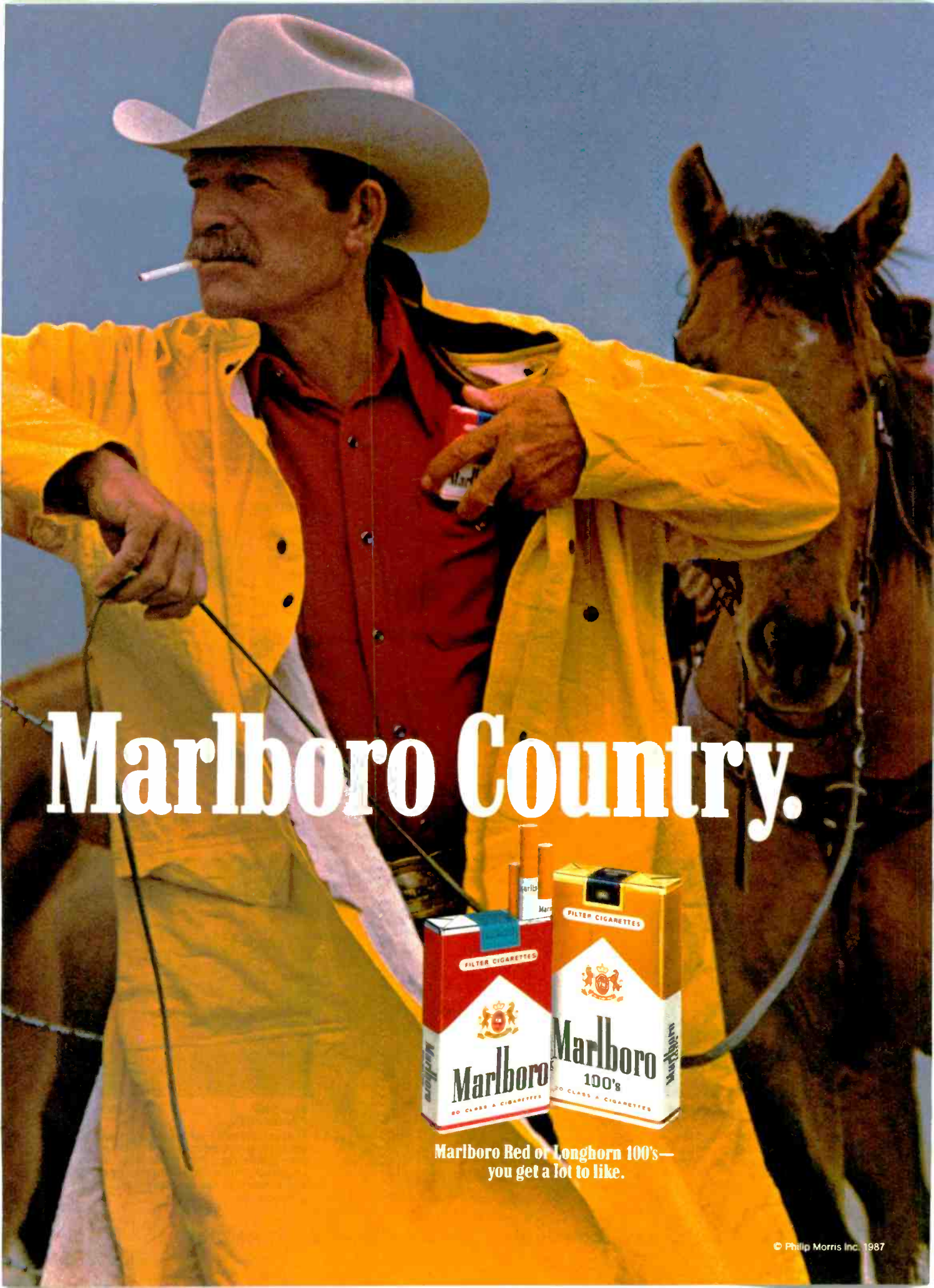
*130 Watts per channel, continuous RMS, BTL stereo mode, both channels driven into 8 Ohms from 20 Hz to 20 kHz at no more than 0.02% THD



Come to

SURGEON GENERAL'S WARNING: Smoking Causes Lung Cancer, Heart Disease, Emphysema, And May Complicate Pregnancy.

16 mg "tar," 1.0 mg nicotine
av. per cigarette, FTC Report Feb '85

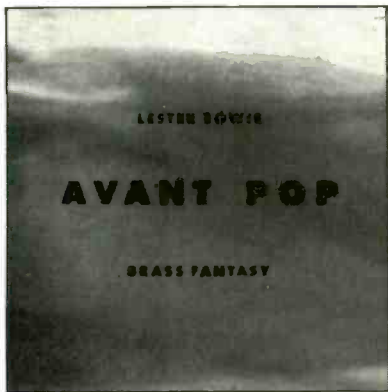


Marlboro Country.



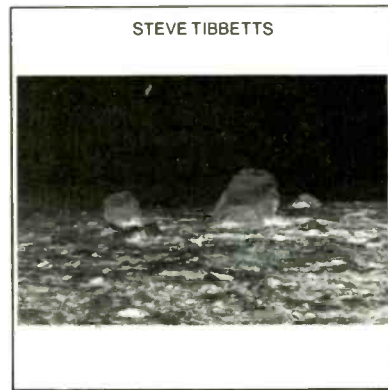
Marlboro Red or Longhorn 100's—
you get a lot to like.

New Music on ECM



Lester Bowie's Brass Fantasy 829 563
AVANT POP

Avant Pop is a fresh, upbeat recording featuring Lester Bowie's characteristic wit along with Brass Fantasy's diverse material.



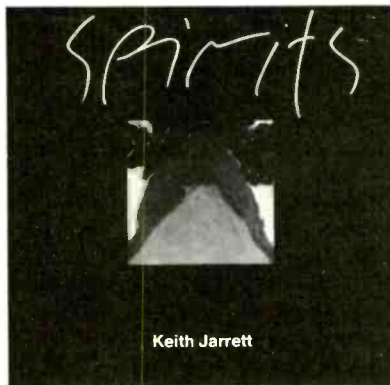
Steve Tibbetts 831 109
EXPLODED VIEW

Rock, folk, ethnic musics and sounds from everyday life come together in Guitarist/Composer Steve Tibbetts' music. *Exploded View* is his most raucous & assertive album to date.



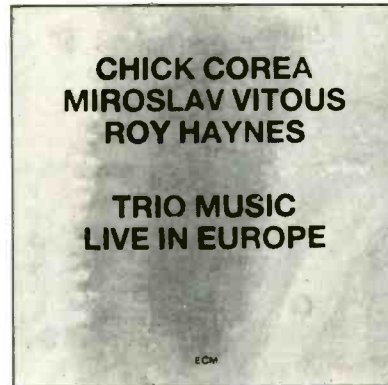
Jon Hassell 829 466
POWER SPOT

Acclaimed for his highly influential musical conception, Jon Hassell's ECM debut, *Power Spot*, pulsates in a primal yet contemporary manner.



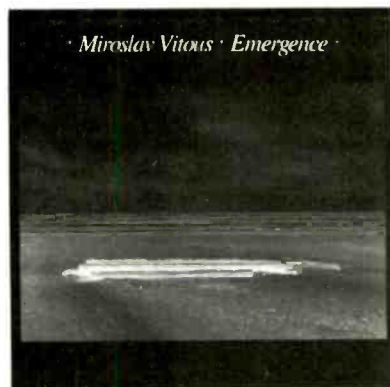
Keith Jarrett 829 467
SPIRITS

On *SPIRITS*, Keith Jarrett explores pure and unadorned song forms with some uncommonly vibrant performances on a number of instruments that he is not widely associated with—Pakistani Flute, Tablas, Recorders, Soprano Saxophone and percussion, among others. His piano work plays a supportive role on these largely overdubbed performances recorded in his home studio.



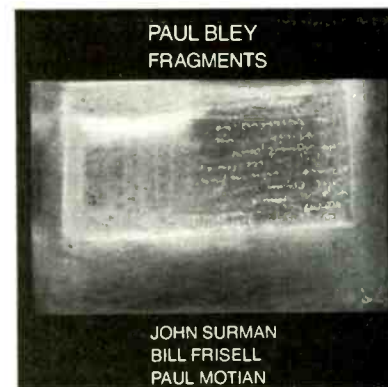
Chick Corea 827 769
TRIO MUSIC LIVE IN EUROPE

"These musicians are not only virtuosos, but they represent some of the most challenging individual achievements on their respective instruments...together the music is inspired."—*Fanfare*



Miroslav Vitous 827 855
EMERGENCE

Bass virtuoso Miroslav Vitous' digitally recorded solo tour-de-force, *Emergence*, displays his improvisational prowess as well as his talents as a composer.



Paul Bley 829 280
FRAGMENTS

Fragments finds Paul Bley in a unique and stimulating musical context—with Bill Frisell, John Surman and Paul Motian—yet the music retains the approach to improvisation and space that has long been associated with his work.

Available on Compact Disc,
LP and Cassette

ECM Distributed by PolyGram Classics 810 Seventh Avenue, New York, NY 10019

CIRCLE NO. 3 ON READER SERVICE CARD

© 1987 ECM PolyGram Classics

STEREO REVIEW'S
RECORD OF THE YEAR

AWARDS

F O R I 9 8 6



EVERY February the editors and critics of STEREO REVIEW choose the twelve best recordings of the preceding year. Our choices for the best of 1986 are on the following pages. This is the twentieth time we have given our awards, and it is gratifying to find that there are still so many exciting recordings to choose from. Over two decades our criteria have not changed. We pick the winners for their musical interest, the quality of their performances, and their outstanding recorded sound. This year most are available not only on LP and cassette, but also on compact disc.

Special awards go this year to the three recital albums recorded by pianist Vladimir Horowitz, revealing this extraordinarily durable artist at the peak of his powers, and to a major collection of jazz originally recorded for the Keynote label in the Forties. In addition, twenty-six albums were selected for honorable mention, and there are six award-winning music videos.

Conductor-pianist-composer André Previn is the 1987 recipient of the Mabel Mercer Award for outstanding contributions to the quality of American musical life. Previn is the subject of an article by Herbert Kupferberg, a regular contributor to the magazine.

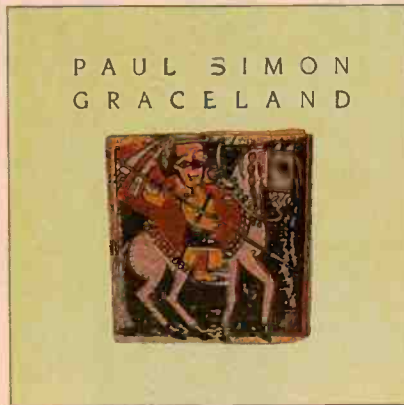
This lifetime achievement award was first presented to the British-born cabaret singer Mabel Mercer, in 1975. Subsequent recipients were Jascha Heifetz, Arthur Fiedler, Richard Rodgers, Beverly Sills, Earl Hines, Aaron Copland, Benny Goodman, and Eugene Ormandy. In 1984, shortly before Miss Mercer died, the award was renamed for her when it was presented to Frank Sinatra. Isaac Stern received the award in 1985, and Ray Charles received it in 1986.

Christie Barter, Music Editor

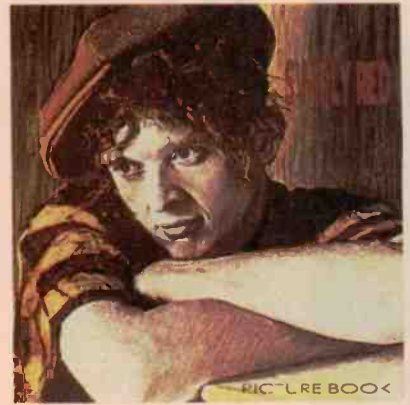
RECORDS OF THE YEAR



MOZART: *Arias* (Kathleen Battle; Royal Philharmonic Orchestra, André Previn conducting). ANGEL. "Expressive, lustrous performances of unusual distinction."



PAUL SIMON: *Graceland*. WARNER BROS. "Endlessly inventive, unabashedly intelligent, superbly vital music."



SIMPLY RED: *Picture Book*. ELEKTRA. "Visceral r-&-b, a nonstop virtuoso display."



MOZART: *Clarinet Concerto; Clarinet Quintet* (David Shifrin; Mostly Mozart Orchestra; Chamber Music Northwest). DELOS. "Bel canto style imbued with glowing mellowness."



STEVE EARLE: *Guitar Town*. MCA. "One of the more impressive debuts of the year."



SSUSANNAH MCCORKLE: *How Do You Keep the Music Playing?* PAUSA. "The finest interpreter of sophisticated songs we have today."



RICHARD STRAUSS: *Der Rosenkavalier, Suite; Die Frau ohne Schatten, Symphonic Fantasy* (Detroit Symphony Orchestra, Antal Dorati conducting). LONDON. "Stunning showpieces tossed off with flair."



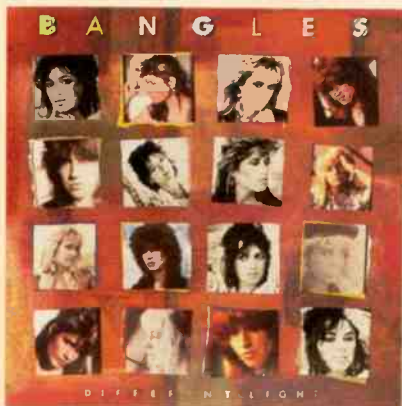
MAHLER: *Symphony No. 5*. (Philharmonia Orchestra, Giuseppe Sinopoli conducting). DEUTSCHE GRAMMOPHON. "An astonishing tour de force."



BEETHOVEN: *Piano Concerto No. 3*. **M**OZART: *Fantasia in C Minor* (Anthony Newman; Philomusica Antiqua, Stephen Simon conducting). NEWPORT CLASSIC. "A fleet-fingered performance, brilliant in the extreme."

SPECIAL AWARDS

ON COMPACT DISCS



THE BANGLES:
Different Light.
COLUMBIA. "A wonderful album, ranging from gorgeous to merely memorable."



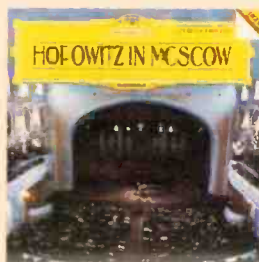
BRUCE SPRINGSTEEN & THE E STREET BAND:
Live/1975-85.
COLUMBIA. "Exhilarating, moving, funny, raunchy, majestic."



ROSSINI: *Il viaggio a Reims* (Cecilia Gasdia, Katia Ricciarelli, Samuel Ramey, Ruggero Raimondi, others; Claudio Abbado conducting).
DEUTSCHE GRAMMOPHON.
"Overflowing with invention."



VLADIMIR HOROWITZ:
The Last Romantic.
DEUTSCHE GRAMMOPHON.
"Tasteful brilliance, manifold subtleties, incredible tone production."



VLADIMIR HOROWITZ:
In Moscow. DEUTSCHE GRAMMOPHON. "From the heart to the heart."



VLADIMIR HOROWITZ:
The Studio Recordings—New York 1985.
DEUTSCHE GRAMMOPHON.
"Alive with spontaneity. Magical."

FROM THE ARCHIVES



THE COMPLETE KEYNOTE COLLECTION.
POLYGRAM. A boxed set of twenty-one LP's containing over three hundred jazz performances produced by Harry Lim for Keynote Records in the Forties.

HONORABLE MENTIONS

ANITA BAKER: *Rapture*. ELEKTRA.

BEETHOVEN: *Piano Concertos Nos. 3 and 4* (Murray Perahia; Concertgebouw Orchestra, Bernard Haitink cond.). CBS.

BEETHOVEN: *Piano Concerto No. 5, "Emperor"* (Claudio Arrau; Dresden State Orchestra, Colin Davis cond.). PHILIPS.

BERWALD: *Symphonies Nos. 1-4* (Gothenburg Symphony, Neeme Järvi cond.). DEUTSCHE GRAMMOPHON.

TERENCE BLANCHARD AND DONALD HARRISON: *Nascence*. COLUMBIA.

DVOŘÁK: *Symphony No. 8; Scherzo capriccioso* (Cleveland Orchestra, Christoph von Dohnányi cond.). LONDON.

BOB DYLAN: *Biograph*. COLUMBIA.

ELGAR: *Symphony No. 1* (Royal Philharmonic, André Previn cond.). PHILIPS.

ARETHA FRANKLIN: *Aretha*. ARISTA.

PETER GABRIEL: *So*. GEFFEN.

MARTI JONES: *Match Game*. A&M.

THE JUDDS: *Rockin' with the Rhythm*. RCA.

TONIO K.: *Romeo Unchained*. A&M.

LISZT: *Piano Sonata in B Minor; Three Sonetti del Petrarca; Après une lecture du Dante* (John Browning). DELOS.

MAHLER: *Symphony No. 2, "Resurrection"* (Helen Donath; Doris Soffel; Frankfurt Radio Orchestra, Elisha Inbal cond.). DENON.

BRANFORD MARSALIS: *Royal Garden Blues*. COLUMBIA.

MENDELSSOHN: *Symphony No. 4, "Italian"; Overtures* (Bern Symphony, Peter Maag cond.). MCA CLASSICS.

MONTEVERDI: *Lamento d'Olimpia*.
D'INDIA: *Lamento d'Olimpia* (Emma Kirkby; Anthony Rooley). NONESUCH.

TOM PETTY & THE HEARTBREAKERS: *Pack Up the Plantation*. MCA.

POULENC: *Piano Concerto; Concerto for Two Pianos and Orchestra; Aubade* (François-René Duchable; Jean-Philippe Collard; Rotterdam Philharmonic, James Conlon cond.). ERATO/RCA.

PURCELL: *Dido and Aeneas* (Jessye Norman; Thomas Allen; English Chamber Orchestra, Raymond Leppard cond.). PHILIPS.

TALKING HEADS: *True Stories*. SIRE/WARNER BROS.

TOMASI: *Trumpet Concerto*.
JOLIVET: *Trumpet Concerto No. 2; Concertino* (Wynton Marsalis; Philharmonia Orchestra, Esa-Pekka Salonen cond.). CBS.

MEL TORMÉ—ROB MCCONNELL AND THE BOSS BRASS: CONCORD JAZZ.

VAUGHAN WILLIAMS: *Sinfonia antartica* (Sheila Armstrong; London Philharmonic Choir and Orchestra, Bernard Haitink cond.). ANGEL.

DWIGHT YOAKAM: *Guitars, Cadillacs, Etc., Etc.* REPRISE.

VIDEO AWARDS



BERLIOZ: *Les Troyens* (Tatiana Troyanos, Jessye Norman, Plácido Domingo; Metropolitan Opera Ballet, Chorus, and Orchestra, James Levine conducting). PIONEER ARTISTS. The recent Met production of one of the monuments of the repertoire.

NEVILLE MARRINER CONDUCTS THE ACADEMY OF ST. MARTIN-IN-THE-FIELDS: *At Longleat*. KULTUR. "A well-chosen program, exquisitely performed."

PAUL MCCARTNEY: *Rupert and the Frog Song*. PIONEER ARTISTS. "A complete charmer."

MONTEREY POP (The Mamas and the Papas, Janis Joplin, Otis Redding, The Who, others). SONY. "A milestone in the history of American popular music."

CARL PERKINS: *Blue Suede Shoes*. MCA. "One of the most exciting celebrity jams ever staged."

PETE TOWNSHEND: *White City—The Music Movie*. VESTRON. "Intelligent, often moving, obviously Townshend's own."



ANDRÉ PREVIN

Recipient of the 1987 Mabel Mercer Award

BACK in 1961, André Previn was asked by Schuyler Chapin, then an executive with Columbia Records, what he would like to do if he had his choice of careers. Previn, then thirty-two years old, unhesitatingly replied, "There's only one thing: I want to conduct. I've wanted to do it all my life."

Considering the enormous variety of musical activities that have made up André Previn's life from childhood on, the choice was less obvious than it may seem now. Previn has been a jazz pianist, a classical pianist, an orchestrator, an arranger, a creator of movie soundtracks, a Broadway-show writer, a classical composer, a chamber-music player, and a television musical host and commentator—each with more than a measure of success.

Yet, even though he fondly maintains his enormous range of interests, Previn has centered his life so effectively

by Herbert Kupferberg



ANDRÉ PREVIN

on the podium for the last twenty-five years that he now regularly conducts two major orchestras, the Los Angeles Philharmonic (of which he is music director) and the Royal Philharmonic of London, and is regarded by audiences, critics, and performers alike as a conductor of charisma and quality. His talents, both interpretive and creative, have just brought him the distinction of being named the recipient of STEREO REVIEW's 1987 Mabel Mercer Award for outstanding contributions to the quality of American musical life.

Previn's geographical background is almost as diverse as his musical range. Born in Germany, he reached America by way of France and has recently been based in England. But his true country is music itself. "The real point, the way I feel," he told an interviewer a few years ago when he was music director of the Pittsburgh Symphony, "is that I'm just *crazy* about music, and if a day goes by in which I don't have some involvement with it—be it practicing, studying a score, composing—it's a day lost forever."

Previn's appointment in Los Angeles, as successor to Carlo Maria Giulini, brings him back to the city in which he grew up both physically and musically. But pleased as he is to be "home" again, and although he has been a U.S. citizen since 1943, Previn maintains his ties both to the Royal Philharmonic, with which he has been affiliated since 1985, and to England itself, where he lives part of the year on an estate in Surrey.

THE question of nationality is hardly foremost in Previn's mind. He has become known as a specialist in Holst, Elgar, Britten, and other British composers; he has a flair for American music consistent with his earlier jazz activities; he's expert in Russian music from Rachmaninoff to Shostakovich; he's attracted to the French repertoire; and in Los Angeles he announced, early on, a desire to program more Haydn and Mozart.

"I don't know what I am any more," he said when his Los Angeles appointment was announced in 1985. "In Vienna, because I have no problems with German, they think of me very much as a German conductor. In England they are convinced that I'm British. And in America, they always say there aren't very many American music directors. So I'm up for grabs."

Considering his profusion of talents, it's no surprise that Previn was an authentic *Wunderkind* who won both acclaim and reward almost before he was into long pants. He was born in Berlin on April 6, 1929, with the name Andreas Ludwig Prewin—the "w" became a "v" later. His father, Jacob Prewin, was a successful lawyer and an excellent amateur pianist who held chamber-music concerts at his home. André was enthralled with what he heard, and when it was discovered that he had perfect pitch he was enrolled—at age six—in the Berlin Conservatory. At age nine he was expelled because he was Jewish. "The reason I knew we were Jewish," he recalled in later years, "was a terribly simple and graphic one—they threw rocks at me."



Previn & Son: practice time at home in the south of England.

The Previns were fortunate enough to get out of Nazi Germany in 1938, going first to Paris. Young André was enrolled at the Paris Conservatory and became a pupil of the organist Marcel Dupré. Even then music was almost an obsession with him. "Sometimes people ask me if I resented not having a normal childhood," he recalls. "I didn't know it wasn't normal. I thought everyone practiced eight hours a day!"

After a year in Paris, the Previns came to the United States and settled in Los Angeles, where a cousin, also a musician, was on the staff of Universal Studios. Unable to practice law in California, the senior Previn supported the family by giving piano lessons. For André, how-

ever, he obtained the finest teachers he could find, including Joseph Achron and Mario Castelnuovo-Tedesco for composition. By the time he entered his teens André was arranging music for class shows at Beverly Hills High School and writing orchestrations and arrangements for local radio programs. He was also listening avidly to such jazzmen as Art Tatum.

AT sixteen he landed a job at MGM transcribing an improvised jazz number that pianist José Iturbi would play in a film called *Holiday in Mexico*. Previn kept working in the MGM music department and in 1949 had his first chance to compose an original score, for nothing less than a Lassie movie called *The Sun Comes Up*. He is not above admitting today that the score, like the star, was a dog.

It may be difficult to picture the future world-class symphony conductor spending a decade and more preparing musical adaptations for such films as *Kiss Me Kate*, *Kismet*, and *Bells Are Ringing*, or even composing original scores for *It's Always Fair Weather* and *Bad Day at Black Rock*, but that's what he happily did, earning a comfortable living, along with a couple of Academy Awards, in the process. He also performed in jazz clubs with his own combo, including Red Mitchell on bass and Frankie Capp on drums. He made records with Shelly Manne, one of them being a jazz version of *My Fair Lady* that hit the charts.

In Previn's career this exposure to America's pop-music commercial milieu took the place of the coaching or rehearsal work he might have done in provincial opera houses and symphony halls had he remained in Europe. It was valuable training: he learned how to compose, as well as conduct, within a specified time frame, how to orchestrate in practical rather than theoretical terms, how to work amicably with other musicians.

But even while he was writing his Hollywood musical success story, the idea of turning to the symphonic podium was building in his mind. In 1950 Previn was drafted into the U.S. Army for a two-year period. He was stationed in San Francisco, where he attained the rank of sergeant writing arrangements for the Sixth Army Band. He spent a good deal of time hanging around the local jazz spots but also decided to study with Pierre Monteux, then the



H. SCHAFER

"I'm just crazy about music, and if a day goes by in which I don't have some involvement with it—be it practicing, studying a score, composing—it's a day lost forever."



ANGEL RECORDS

conductor of the San Francisco Symphony. Monteux recognized Previn's talent in classical music, urged him to strive for rhythmic and textual clarity, and also got him to modify his then rather gymnastic baton technique. "Before you impress the ladies in the balcony, make sure the horns come in right," Monteux told him dryly.

Around 1960, Previn began cutting back on his jazz activities in favor of symphonic work. He terminated his MGM contract and began looking for classical conducting assignments. He found them, too, but they were virtually all with minor-league orchestras, sometimes barely above the community level. The few major offers he received were invariably to conduct "pops" concerts. It was the American equivalent of the European provincial circuit that young conductors traditionally travel. Previn really supported himself during these apprentice years by continuing to take one big movie job annually.

His breakthrough to the symphonic big time came in 1964 when he made several guest appearances with the Houston Symphony, then led by John Barbiroli. In 1967 he was named to succeed Barbiroli as the Houston music director, and the following year he took the orchestra to Carnegie Hall. His performances

there of two modern symphonies, William Schuman's Third and Benjamin Britten's *Sinfonia da requiem*, convinced the New York critics that he now was an authentic (even admirable) conductor, rather than a former jazzman trying to cross over.

IN Houston, Previn plunged eagerly into the administrative as well as the musical side of conducting a major orchestra. He led children's concerts, opened rehearsals to students, and updated the repertoire, scheduling many modern works. But although he gets on famously with orchestral musicians, and is well liked by audiences, his relations with boards of directors are sometimes prickly, and in May 1969 the Houston Symphony Society declined to renew his contract, saying it had "become obvious" that Previn would "not be able to devote to the Houston Symphony Orchestra the attention the society regards as necessary for satisfactory achievement." What was meant, presumably, was that Previn was devoting too much time to guest conducting elsewhere, and especially to his activities with the London Symphony, a self-governing organization whose musicians had selected him as principal conductor in March 1968.

There's no doubt that Previn has

found life in England particularly congenial both musically and personally. He purchased his thirty-two-acre estate in Surrey in 1967 and began to center his performing and recording activities in London. His return to a major role in American musical life came in 1976, when he was named music director of the Pittsburgh Symphony. He averaged a total of fourteen weeks a year with the Pittsburgh and conducted frequently elsewhere, especially in Britain. He had been away from the U.S. long enough that some music lovers had almost forgotten him, or still thought of him pretty much in jazz terms. But in Pittsburgh, with one of the best symphony orchestras in the country playing for him, he quickly established himself in the front rank of American conductors.

In Britain, Previn had made excellent use of television to propagate classical music, and he soon was doing the same here, with a Public Broadcasting series entitled "Previn and the Pittsburgh" as well as appearances on Live from Lincoln Center with the New York Philharmonic. He also led the Pittsburgh Symphony on several highly successful foreign tours. But once again there was a falling out with the management, and Previn took his leave in 1984, entering into discussions that led to his present appointment in his old home town.

In Los Angeles, Previn has a commitment for sixteen weeks of the regular season plus two weeks at the Hollywood Bowl. He plans to tour with the orchestra, make recordings, and perhaps accept a TV series. He'll also be involved in chamber music and—who knows?—may even take a jazz turn or two. In the matter of repertoire, he finds that the Los Angeles Philharmonic in recent years has been overexposed in Mahler and Bruckner, has been neglectful of the French music he loves, has played almost no Haydn and Mozart, and has shortchanged many of the major works of the twentieth century.

All of these imbalances he hopes to correct. Almost as if to demonstrate his seriousness, he has bought a house in Los Angeles—something he never did in Pittsburgh—and announced an intention to have two homes henceforth, with no thought of giving up either.

Although he is a public figure musically, Previn does his best to live privately. In his case it hasn't been easy because he has been mar-

ANDRÉ PREVIN

ried four times (and divorced three times). His previous wives were jazz singer Betty Bennett, jazz poet-songwriter Dory Langdon, and movie actress Mia Farrow (whom he married after a prolonged and much-written-about affair). His present marriage to Heather Hales, an Englishwoman, dates from 1982.

In person rather short, bespectacled, and with Beatles-cut graying hair, Previn presents an amiable rather than a commanding figure on the podium. But he knows how to get what he wants from an orchestra, and he does it with wit, graciousness, and a minimum of fuss. He himself has never become casual about music of any kind, and he says that the thought of conducting great music still intimidates him. Of Beethoven's Fifth he has said, "No matter how many times I do it, I'm scared witless. It doesn't matter how many times you conduct a great work. Every single time, you find something new in it."

Previn's creative side has been almost as varied as his performing. In addition to his movie scores he has written music for such stage shows as Tom Stoppard's *Every Good Boy Deserves Favour*. His other compositions include a symphony for strings, a violin sonata, a quartet for flute and strings, *Elegy* for oboe and strings, *Overture to a Comedy*, piano pieces, and songs.

He has recorded a number of his own works, including his concertos for cello, violin, and guitar.

Previn enjoys recording and has compiled a wide-ranging discography. His first symphonic session, in 1963, was with the St. Louis Symphony and featured two twentieth-century scores, Aaron Copland's *The Red Pony* and Britten's *Sinfonia da requiem*. When Britten heard the recording, which incidentally is still available on Odyssey, he asked Schuyler Chapin, who had produced it: "Who is this fellow André Previn? That's the best performance I've ever heard."

OVER the years Previn has recorded for CBS, RCA, Telarc, London, and Philips, but the bulk of his recordings have been released in the U.S. on the Angel label. Although orchestras he has recorded with include the Chicago Symphony, the Philadelphia Orchestra, the Vienna Philharmonic, and, of course, the Pittsburgh Symphony, most of his studio work has been in England, where recording costs are lower than in the U.S. British composers play a large part in his listings, as do Russian composers of the twentieth century, but his recording range extends from Albinoni to Messiaen and includes Strauss's *Alpine Symphony*, Berlioz's *Symphonie fantastique*, and several Mozart concertos in which

he is both pianist and conductor. Future recordings by the Los Angeles Philharmonic are reportedly under consideration by Angel, Philips, and Telarc.

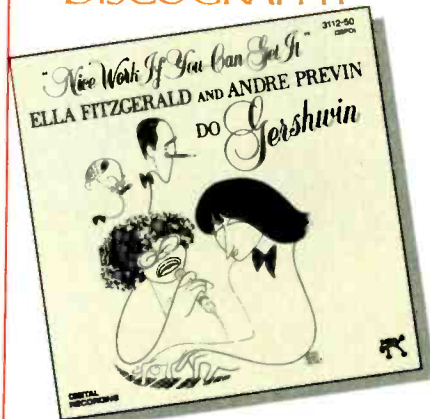
For collectors with long memories, there are still some Previn jazz reissues floating around. Previn himself tells of coming upon one while browsing in a New York record shop. It was in a bin of loose records labeled "Nostalgia."

"I found that dreadful," he says. "I looked around and quickly sneaked it into another bin, marked 'Historical Reissues.'"

So André Previn's past is still very much with him. If he has become one of the world's pre-eminent symphonic conductors, with a flair and style of his own, it may be because he has over the years sampled, studied, practiced, and performed his way through all kinds of music—with distinction. He likes to tell the story of a Hollywood film composer who heard him conduct Beethoven's Ninth at Festival Hall in London, listened to the tremendous ovation that followed, and grudgingly said, "Very fine. But what amazes me is how that man blew his career!" □

Herbert Kupferberg, a senior editor of Parade, is author of the recently published Book of Classical Music Lists (Facts on File), Amadeus: A Mozart Mosaic (McGraw-Hill), and Basically Bach (McGraw-Hill).

DISCOGRAPHY



Following are some outstanding examples of Previn's accomplishments as a recording artist:

Previn as Conductor

BEETHOVEN: *Piano Concertos Nos. 1 and 2*. Emanuel Ax (piano); Royal Philharmonic. RCA © RCD1-7199.

DEBUSSY: *Images; Prélude à l'après-midi d'un faune*. London Symphony. ANGEL © CDC-47001.

ELGAR, WALTON: *Cello Concertos*. Yo-Yo Ma (cello); London Symphony. CBS © MK 39541.

HOLST: *The Planets*. Royal Philharmonic. TELARC © CD-80133.

ORFF: *Carmina Burana*. London Symphony Chorus and Orchestra. ANGEL © CDC-47411.

PROKOFIEV: *Piano Concerto No. 3*. Vladimir Ashkenazy (piano); London Symphony. LONDON © 411 969-2.

RACHMANINOFF: *Symphony No. 2*. Royal Philharmonic. TELARC © CD-80113.

RAVEL: *L'Enfant et les sortilèges*. Ambrosian Opera Chorus and soloists; London Symphony. ANGEL © CDC-47169.

SIBELIUS: *Violin Concerto*. Itzhak Perlman (violin); Pittsburgh Symphony. ANGEL © CDC-47167.

TCHAIKOVSKY: *Piano Concerto No. 1*. Jon Kimura Parker (piano); Royal Philharmonic. TELARC © CD-10107.

WALTON: *Belshazzar's Feast; Suite from Henry V*. Royal Philharmonic. RPO/MCA CLASSICS © MCAD-6187.

Previn as Conductor & Pianist

GERSHWIN: *Rhapsody in Blue; Piano Concerto; An American in Paris*. Pittsburgh Symphony. PHILIPS © 412 611-2.

MOZART: *Piano Concertos Nos. 17 and 24*. With Vienna Philharmonic. PHILIPS © 412 524-2.

Previn as Pianist

BERNSTEIN: *West Side Story*. With Red Mitchell (bass); Shelly Manne (drums). CONTEMPORARY/FANTASY 7572.

BEAHMS: *Piano Quintet*. With Musikverein Quartet. PHILIPS © 412 608-2.

GERSHWIN: *Ella Fitzgerald and André Previn Do Gershwin*. PABLO © 3112-50.

JOPLIN: *The Easy Winners*. With Itzhak Perlman. ANGEL © CDC-47170.

MOZART, BEETHOVEN: *Quintets for Piano and Winds*. With Vienna Wind Soloists. TELARC © CD-80114.

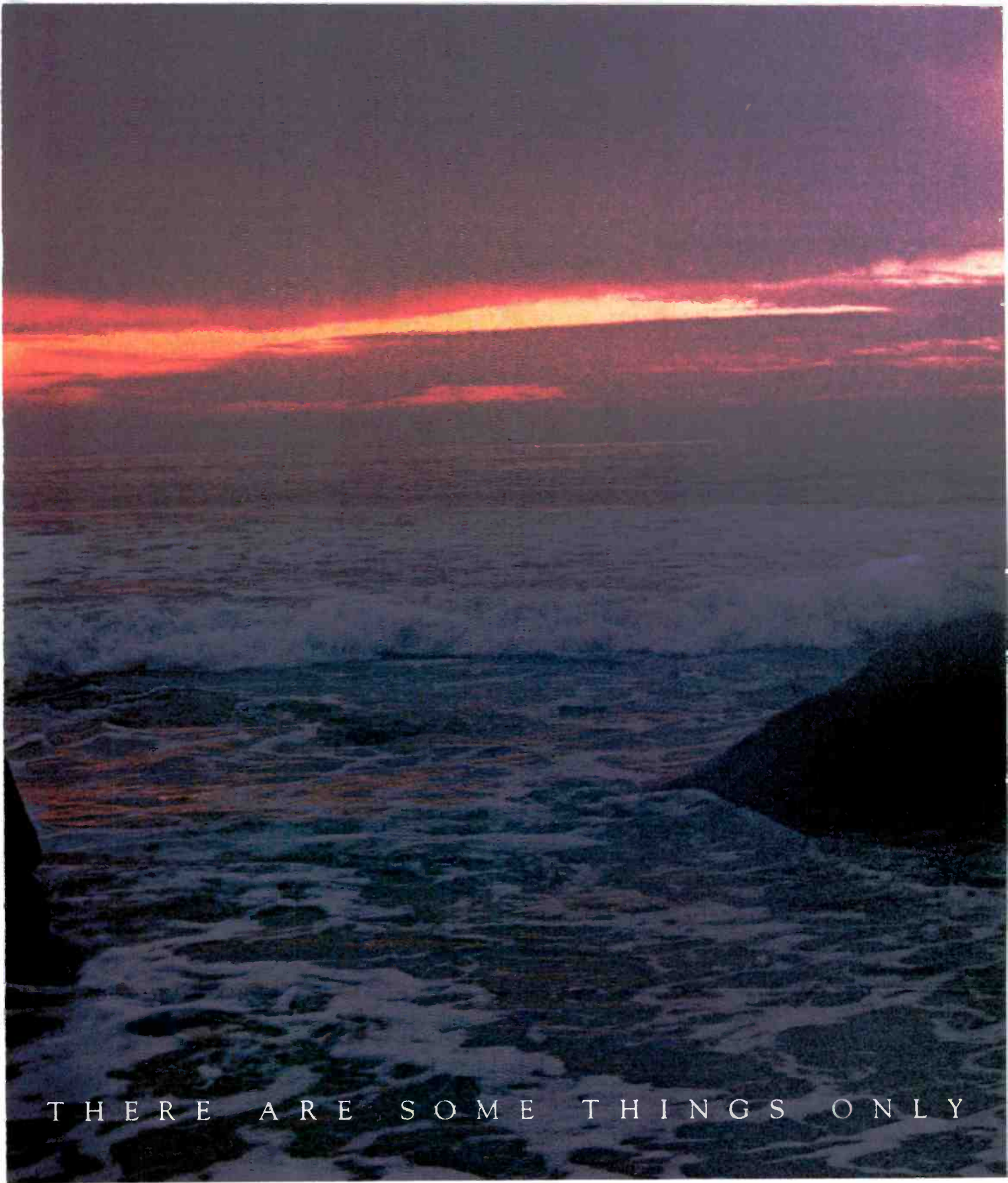
Previn as Composer & Conductor

PREVIN: *Guitar Concerto*. John Williams (guitar); London Symphony. CBS M 31963.

Previn as Composer & Pianist

PREVIN: *A Different Kind of Blues*. With Itzhak Perlman (violin); Jim Hall (guitar); Red Mitchell (bass); Shelly Manne (drums). ANGEL © DS-37780.

PREVIN: *Like Previn*. With Red Mitchell (bass); Frankie Capp (drums). ORIGINAL JAZZ CLASSICS/FANTASY 170.



T H E R E A R E S O M E T H I N G S O N L Y

A siren's song whispers untold promises. A centaur's horn cries hauntingly. For listeners with discerning ears, those rare and magical sounds can be a reality. A reality evoked by a speaker possessing a higher fidelity. Altec Lansing®

How did Altec Lansing bring this world to life? By creating the ideal materials to more perfectly recreate the timbre,

texture and power of every musical composition. Carbon Fiber Woofers for soft passages that come across as dramatically as loud passages. A Polyimide Mid Range and Tweeter for rich, uncolored sound. And to coordinate these components for remarkably true-to-life sound, we delivered the "art of balance." Even our hand-crafted cabinets have been specially



C E R T A I N P E O P L E C A N H E A R

designed for optimum musicality. The result? Speakers so pure, so uncompromising, they capture the very soul of sound.

If you have an uncompromising ear, measure it against our new line of loudspeakers. And hear what others only imagine.

Altec Lansing is sold only by leading high fidelity retailers. For information and the name of your nearest Altec Lansing

dealer, call 1-800-ALTEC 88. (In PA, 717-296-HIFI). In Canada call 416-496-0587 or write 265 Hood Road, Markham, Ontario, Canada L3R 4N3.

© 1986 Altec Lansing Consumer Products, Milford, PA 18337.

CIRCLE NO. 17 ON READER SERVICE CARD





How to install a 100-Watt* MOS FET Receiver, a Dolby HX Pro Cassette Deck, and an anti-resonant Compact Disc Player in every room.

Imagine controlling and enjoying a music system throughout your house. In the bedroom as you get dressed. In the family room as you relax. In the living room as you entertain. Better yet, imagine all of this music reproduced with consummate fidelity.

That's the idea behind the Kyocera Full-System Remote Control network. With additional speakers and Kyocera's tiny infrared remote sensors, you can enjoy your music — and control your system — in any room!

Just as important, the Kyocera network is the first remote system with audiophile credentials. You have your choice of critically acclaimed MOS FET Receivers,

sophisticated three-motor Cassette Decks, plus a new generation of CD Players with the Fine Ceramics anti-resonant construction Kyocera originated.

So you don't have to settle for an audiophile system that plays in only one room. Kyocera has the one audiophile system that plays in all of them.



Built right from the ground up.

Kyocera International, Inc., 100 Randolph Road, CN 7600, Somerset, NJ 08873-1284 (201) 560-0060
Kyocera Canada, Inc. 7470 Bath Road, Mississauga, Ont., L4T 1L2, Canada (416) 671-4300
800-633-2252, ext. 221

*100 Watts/ch., continuous RMS, both ch. driven, 8 Ohms, 20 Hz-20 kHz, 0.02% THD.

CIRCLE NO. 72 ON READER SERVICE CARD

1987

EQUIPMENT BUYING GUIDE

PEOPLE buy stereo components to listen to them, and listening is an important part of shopping. When you are faced with hundreds of different units, however, you need some way to focus on the models with the features and performance you want at a price you can afford. This buying guide can help you do that. While browsing through the listings, you may even find one unique and outstanding component that is immediately appealing and utterly irresistible.

As large as this collection of data may be, it cannot be complete. New components are introduced every month, and each one may have more specifications than it has buttons. This is a selective guide, concentrating on the primary audio components for the home that are widely distributed. If one particular product does not appear, that should not be interpreted as a reflection on its quality or reputation. Upcoming issues will contain listings for tape decks, blank tape, and hi-fi VCR's.

This information was supplied to STEREO REVIEW by the manufacturers of the equipment. While every effort was made to insure that the *suggested* retail prices were correct as of press time, the fluctuating value of the dollar and other economic factors do cause frequent price adjustments. In any case, *actual* retail prices are set by the dealers.

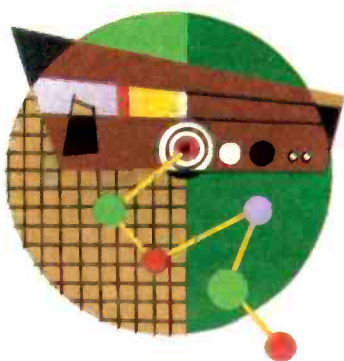
A directory of the manufacturers is on page 167.



.....
RECEIVERS
PAGE 72



.....
AMPLIFIERS
PAGE 83



.....
TUNERS
PAGE 108



.....
TURNTABLES
PAGE 115



.....
SPEAKERS
PAGE 121



.....
CD PLAYERS
PAGE 152

RECEIVERS



ACOUSTIC RESEARCH

AR X-10 AM/FM-Stereo Receiver

AM/FM receiver with infrared remote to control inputs and volume. Features audio and video dubbing; close-tolerance metal-film resistors and film capacitors for RIAA; concealed bass, midrange, treble, balance, tone-defeat, loudness, filter, tape, FM/AM, memory, and speaker-switching controls; 8 AM/8 FM station presets; gold-plated phono inputs. Inputs for MM phono; MC phono; tape; AUX; CD player; video sound source; VCR 1; VCR 2. Amp section: 100 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.03% THD. 130 W into 4 ohms; dynamic headroom 2 dB; 200-ms dynamic power 150 W; 40-ampere current capability. FM section: 50-dB quieting sens stereo 25 μ V (33.2 dBf); max S/N with 65 dBf (1,000 μ V) A-wtd stereo 80 dB; THD stereo 0.3%; capture ratio 1.5 dB; AM rejection 60 dB; alt-ch sel 70 dB. 17" W x 4.33" H x 14.5" D \$800

AR X-06 AM/FM-Stereo Receiver

AM/FM receiver with infrared remote to control inputs, tuning, and volume. Features audio and video dubbing; close-tolerance metal-film resistors and film capacitors for RIAA; concealed bass, midrange, treble, balance, loudness, mono, tape, VCR, tuning, and speaker-switching controls; 8 AM/8 FM station presets; gold-plated phono inputs. Inputs for MM phono; MC phono; tape; AUX; CD player; video sound source; VCR 1; VCR 2. Amp section: 60 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.03% THD. 80 W into 4 ohms; dynamic headroom 2 dB; 200-ms dynamic power 90 W; 40-ampere current capability. FM section: 50-dB quieting sens stereo 35 μ V (36.1 dBf); max S/N with 65 dBf (1,000 μ V) A-wtd stereo 80 dB; THD stereo 0.3%; capture ratio 1.5 dB; AM rejection 60 dB; alt-ch sel 70 dB. 17" W x 3.25" H x 15.5" D \$600

AR X-04 AM/FM-Stereo Receiver

AM/FM receiver with concealed ergonomic controls; 8 AM/8 FM station presets; mute button; headphone jack. Inputs for MM phono; tape; AUX; CD player; video sound source. Amp section: 40 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.03% THD. 50 W into 4 ohms; dynamic headroom 1.4 dB; 200-ms dynamic power 60 W. FM section: 50-dB quieting sens stereo 40 μ V (37.2 dBf); max S/N with 65 dBf (1,000 μ V) A-wtd stereo 80 dB; THD stereo 0.3%; capture ratio 1.5 dB; AM rejection 57 dB; alt-ch sel 60 dB. 17" W x 3.25" H x 13" D \$380

ADS

R4 Receiver

Digital-synthesized receiver with 30 memory presets. Amp section: 70 average W/ch into 8/4 ohms; THD 0.05%; IHF 1M 0.05%; rated power bandwidth 20-20,000 Hz; MM phono S/N 80

(A-wtd); dynamic headroom 2 dB. Tuner section: IHF sens 11 dBf mono, 26 dBf stereo; signal strength for 50-dB quieting 14 dBf mono, 35 dBf stereo; capture ratio 2.5 dB; THD at 1,000 Hz, 100% modulation 0.1% mono, 0.15% stereo; alt-ch sel >65 dB; max S/N 75 dB mono, 70 dB stereo. Remote control optional \$800

AKAI

AA-V405 Audio/Video Receiver

A/V receiver with wireless remote control and surround-sound decoding. Features 7-band EQ; 16-station random AM/FM presets; video and RF inputs/outputs; comprehensive LCD. Inputs for MM phono; tape; AUX; CD player; video sound source; VCR 1; VCR 2; VDP; RF. Amp section: 100 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.05% THD. FM section: 50-dB quieting sens stereo 37.2 dBf; max S/N with 65 dBf (1,000 μ V) A-wtd stereo 65 dB; THD stereo 0.3%; capture ratio 1.5 dB; AM rejection 60 dB; alt-ch sel 60 dB. 17" W x 4" H x 13.5" D; 16.2 lbs \$550

AA-V305 Audio/Video Receiver

A/V receiver with wireless remote control and surround-sound decoding. Features 5-band EQ; 16-station random AM/FM presets; video and RF inputs/outputs; comprehensive LCD. Inputs for MM phono; tape; AUX; CD player; video sound source; VCR 1; VCR 2; VDP; RF. Amp section: 80 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.05% THD. FM section: 50-dB quieting sens stereo 37.2 dBf; max S/N with 65 dBf (1,000 μ V) A-wtd stereo 65 dB; THD stereo 0.3%; capture ratio 1.5 dB; AM rejection 60 dB; alt-ch sel 60 dB. 17" W x 4" H x 13.5" D \$460

AA-V205 Audio/Video Receiver

A/V receiver with wireless remote control and surround-sound decoding. Features 5-band EQ; 16-station random AM/FM presets; video and RF inputs/outputs; comprehensive LCD. Inputs for MM phono; tape; AUX; CD player; video sound source; VCR 1; VCR 2; VDP; RF. Amp section: 60 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.05% THD. FM section: 50-dB quieting sens stereo 37.2 dBf; THD stereo 0.3%; capture ratio 1.5 dB; AM rejection 60 dB; alt-ch sel 60 dB. 17.3" W x 4" H x 13.5" D; 16.2 lbs \$370

AA-V105 Audio/Video Receiver

A/V receiver with surround-sound decoding, 5-band graphic EQ, 16-station random AM/FM presets, video inputs and outputs. Inputs for MM phono; tape; AUX; CD player; video sound source; VCR 1; VCR 2; VDP. Amp section: 35 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.3% THD. FM section: 50-dB quieting sens stereo 40.2 dBf; THD stereo 0.4%; capture ratio 1.5 dB; AM rejection 50 dB; alt-ch sel 60 dB. 17.3" W x 4" H x 9.8" D; 11.7 lbs \$230

BANG & OLUFSEN

Beomaster 5500 Receiver

Infrared remote-control receiver. Memory stores any combination of up to 20 FM and AM stations. Features stereo decoder; stable filter for stereo pilot signal. FR 20-15,000 Hz \pm 1 dB; S/N 70 dB; 19.2 lbs. 16.5" W x 3" H x 12.75" D \$1,659

Beomaster 3000 Receiver

Remote-control LED receiver that functions as center of Beosystem 3000, with microcomputer to control other components via master control link. Features touch-sensitive controls; electronic volume control; volume memory; mute; 5 presets for FM; random tuning; Tape 1/Tape 2 selector switch. Continuous power 25 W/ch into 8 ohms; IHF THD 20-20,000 Hz; IHF IMD 0.1%; FR phono 10-20,000 Hz \pm 1.5 dB, tape 20-20,000 Hz \pm 1.5 dB; input sens/imp, phono 0.35 mV/150 kilohms, tape 40 mV/150 kilohms; overload level, phono 50 mV, tape 3 V; S/N phono 80 dB A-wtd; sep 40 dB; output tape 500 mV/1 kohm, headphones max 12 V/220 ohms; bass control at 40 Hz \pm 10 dB; treble control at 12,500 Hz \pm 10 dB; FM tuner section range 87.5-108 MHz; FM antenna imp 7.5 and 240 ohms; usable sens mono 15 dBf (1.5 μ V) 75 ohms; usable sens stereo 21 dBf (3 μ V) 75 ohms; S/N mono 74 dB, stereo 70 dB; FM FR 20-20,000 Hz \pm 1.7 dB; distortion (65 dB) mono 0.3%, (65 dBf) stereo 0.35%; IMD mono 0.05%, stereo 0.25%; capture ratio 1.7 dB; adjacent-ch sel 5 dB; alternate-ch sel 60 dB; spurious response 84 dB; image response ratio 64 dB; 1F response ratio 11 dB; AM suppression 55 dB; sep 40 dB; 24.36" W x 2.75" x 9.88" \$649



Bang & Olufsen Beomaster 3000

CARVER

Receiver 2000

Stereo receiver incorporating magnetic field amp, sonic holography and special FM NR. Features AM stereo; MC cartridge preamp; remote control. Inputs for MM phono, MC phono, tape, AUX, extra AUX, CD player, video sound source. Amp section: 200 continuous average W/ch from 20-20,000 Hz with no more than 0.15% THD into 8 ohms; dynamic headroom 0.2 dB; IHF IMD 0.05%; FR 20-20,000 Hz \pm 0 dB. FM section: alternate-ch sel 58 dB; adjacent-ch sel 40 dB; 50-dB quieting sens mono 3.1 μ V, stereo 5 μ V; max S/N, A-wtd, stereo 82 dB; THD mono 0.15%, stereo 0.2%; sep 40 dB at 1,000 Hz; capture ratio 1.0 dB. AM section: sens 250 μ V \$1,595

BEYOND CONVENTIONAL AUDIO



THE ONKYO INTEGRA TX-108 THE FIRST RECEIVER WITH SEPARATES PERFORMANCE

In the past, buying a receiver over costly separate components meant sacrificing sound quality for the sake of convenience and economy. The ONKYO Integra TX-108 sets a new standard for receiver performance by providing sound quality normally associated with separates with maximum audio and video system control flexibility, all operated by 25 key wireless remote control.

The heart of the TX-108 is ONKYO's patented Real Phase power supply system. Real Phase insures phase accuracy in the audio signal by placing a second power transformer between the main power transformer and the filter/storage capacitors, duplicating the theoretical perfect charging current, pure DC. The TX-108 provides an RMS power of 100 watts per channel into 8 ohms and an IHF dynamic power of 295 watts into 2 ohms, along with precisely focused imaging and deep, tight bass.

Full audio/video flexibility is provided by 5 audio and 2 video inputs facilitating easy dubbing between video and audio sources. A unique Sound Control system incorporates a dual band Dynamic Bass Expander for superior deep bass impact and definition, a Dynamic Transient Expander to restore impact and dynamics to compressed music sources, and a Simulated Stereo function for monophonic video soundtracks.

Now, there's a new standard for receiver convenience and separates performance. The ONKYO Integra TX-108.

Artistry In Sound

ONKYO

200 Williams Drive, Ramsey, NJ, 07446

RECEIVERS

The Receiver

AM/FM-stereo receiver designed for noise-free stereo FM and adequate power for CD's. Features PLL fully digital-synthesized AM/FM stereo tuner section; magnetic field power amp; asymmetrical charge-coupled FM detector; phono input; video/digital audio input; AUX input; 2 tape inputs; 6 station presets; mono switch; bass, midrange, and treble controls; balance control; switches for tone defeat, speaker selection, tape monitoring, tape dubbing, FM muting, AM noise filter, loudness contour. 150 W/ch into 8 ohms from 20-20,000; THD at rated power 0.05%; IMD 0.1% SMPTE; FR 20-20,000 \pm 0.5 dB; noise >100 dB. FM section (stereo, 75 ohms, with charge-coupled detector engaged): usable sens 16.3 dBf (1.78 μ V); 50-dB quieting sens 23.5 dBf (4.0 μ V); S/N 82 dB at 85 dBf. 17.36" W x 15.75" H x 5.25" D \$875



Carver Receiver

Receiver 900

Stereo receiver incorporating magnetic field amp and special FM NR. Inputs for MM phono, tape, AUX, extra AUX, CD player, video sound source. Amp section: 90 continuous average W/ch from 20-20,000 Hz with no more than 0.05% THD into 8 ohms; dynamic headroom 0.2 dB; IHF IMD 0.05%; FR 20-20,000 Hz \pm 0 dB. FM section: alternate-ch sel 58 dB; adjacent-ch sel 40 dB; 50-dB quieting sens mono 3.1 μ V, stereo 5 μ V; max S/N, A-wtd, stereo 82 dB; THD mono 0.15%, stereo 0.2%; sep 40 dB at 1,000 Hz; capture ratio 1.0 dB. AM section: sens 25 μ V \$635

DENON

DRA-95VR Receiver

Features remote control; 85 W/ch; nonnegative feedback; pure current supply; simulcast; simulated stereo; audio external processing loop; remote video input switching; 16-station random preset tuning; variable loudness; MC input; 2 A/V in and 1 A/V out plus monitor out. Side panels standard \$650

DRA-75VR Receiver

Features remote control; 65 W/ch; non-switching Class A amp; simulcast; audio external processing loop; 16-station random preset tuning; variable loudness; MC input; 2 A/V in and 1 A/V out plus monitor out; electronic input switching \$500

DRA-55V Receiver

Features 55 W/ch; nonswitching Class A amp; 16-station random preset tuning; variable loudness; 2 A/V inputs and 1 monitor output; electronic input switching; last-channel memory; auto seek \$400
ACA-43. Side panels for DRA-55V \$30

DRA-35V Receiver

Features 40 W/ch; 16-station preset tuning; auto seek; variable loudness control; last-channel memory; nonswitching Class A amp; A/V in/out; electronic input switching \$300
ACA-42. Side panels for DRA-35V \$30

FISHER

TA-150 Tuner/Amp Combination

Includes CA-276B integrated amp and FM-276AB AM/FM tuner. Features 2-band parametric equalizer with defeat switch; quartz-PLL digital-synthesizer tuner; 16 station presets with electronic memory; Auto-Scan tuning; Preset Scan. 150 W/ch min rms power at 8 ohms from 20-20,000 Hz with no more than 0.009% THD. Comes only as set \$600

TA-105 Tuner/Amp Combination

Includes CA-274B integrated amp and FM-271AB AM/FM tuner. Features 5-band graphic equalizer; quartz-PLL digital-synthesizer tuner; 16 station presets with electronic memory. 100 W/ch min rms power at 8 ohms from 20-20,000 Hz with no more than 0.05% THD. Comes only as set \$500

TA-102 Tuner/Amp Combination

Includes CA-270B integrated amp and FM-270B AM/FM tuner. Features quartz-PLL digital-synthesizer tuner; 16 station presets with electronic memory; twin 7-LED power-level meters with meter-range selector. 100 W/ch min rms power at 8 ohms from 20-20,000 Hz with no more than 0.05% THD. Comes only as set \$400

HARMAN KARDON

HK795i AM/FM Receiver

AM/FM-stereo receiver with digital-synthesized quartz-locked tuning and high-current power amplifier section with reactive load capability. Features DC-driven digital display; dual RIAA EQ circuitry; 2 ohm IHF dynamic power. Inputs for MM phono, phono 2, tape, tape out selector. Amp section: 70 continuous average W/ch from 20-20,000 Hz with no more than 0.02% THD into 8 ohms. FM section: 50-dB quieting sens stereo 1.65 μ V (14.6 dBf); max S/N with 65 dBf (1,000 microvolts), A-wtd stereo 75 dB; THD stereo 0.06%; capture ratio 1 dB; AM rejection 60 dB; alternate-channel selectivity 70 dB \$750

HK495i AM/FM Receiver

AM/FM-stereo receiver with digital-synthesized quartz-locked tuner. Features reactive load and high instantaneous current capability, low negative feedback; ultrawide bandwidth. Inputs for MM phono, tape, CD player. Amp section: 45 continuous average W/ch from 20-20,000 Hz with no more than 0.09% THD into 8 ohms; FR 5-150,000 Hz \pm 3 dB. FM section: alternate-ch sel 65 dB; 50-dB quieting sens mono 1.65 μ V (15.6 dBf), max S/N, A-wtd stereo 75 dB; THD mono 0.08%, stereo 0.12%; sep 50 dB at 1,000 Hz; capture ratio 1.2 dB. AM section: sens 15 μ V. 17.36" W x 4" H x 14.5" D; 15.4 lbs. \$550

HK395i AM/FM Receiver

AM/FM-stereo receiver with digital-synthesized quartz-locked tuner. Features reactive load and high instantaneous current capability, low negative feedback. Inputs for MM phono, 2 tape monitors, CD player. Amp section: 30 continuous average W/ch from 20-20,000 Hz with no more than 0.09% THD into 8 ohms; FR 5-150,000 Hz. FM section: alternate-ch sel 65 dB; 50-dB quieting sens mono 1.65 μ V (15.6 dBf), max S/N, A-wtd, stereo 75 dB; THD mono 0.08%, stereo 0.12%; sep 50 dB at 1,000 Hz; capture ratio 1.2 dB. AM section: sens 15 μ V. 17.36" W x 4" H x 14.5" D; 13.9 lbs \$395

HK385i AM/FM Receiver

AM/FM-stereo receiver with reactive load and high instantaneous current capability. Features

ultrawide bandwidth; low negative feedback; discrete circuitry. Inputs for MM phono, tape, CD player. Amp section: 30 continuous average W/ch from 20-20,000 Hz with no more than 0.09% THD into 8 ohms; FR 5-150,000 Hz \pm 3 dB. FM section: alternate-ch sel 60 dB; 50-dB quieting sens mono 1.9 μ V (16.8 dBf), max S/N, A-wtd, stereo 74 dB; THD mono 0.08%, stereo 0.12%; sep 45 dB at 1,000 Hz; capture ratio 1.5 dB. AM section: sens 15 μ V. 17.36" W x 4" H x 14.5" D; 13.9 lbs \$295



Harman Kardon HK795i

HITACHI

HTA50AV AM/FM Receiver

AM/FM-stereo receiver with surround sound processor, video source switchability; 20 AM/FM random presets. Hand-held infrared remote control with LCD can control compatible TV's and VCR's, HTA50AV, and remote controllable CD players. Inputs for MM phono, tape, CD player, video sound source, TV sound, VDP sound. Amp section: 50 continuous average W/ch from 40-20,000 Hz with no more than 0.1% THD into 8 ohms. FM section: 50-dB quieting sens stereo 25 μ V (39.5 dBf); THD 0.5%; capture ratio 1 dB; AM rejection 50 dB; alt-ch sel 50 dB. AM section: FR 100-20,000 Hz \pm 3 dB. 14.5" W x 4.5" H x 13.25" D; 13.5 lbs \$550

HTA70F AM/FM Receiver

Digital-synthesized receiver with large FL display. Features 7-band graphic equalizer; 7-band spectrum analyzer. Inputs for MM phono, tape, CD player. Amp section: 70 continuous average W/ch from 20-20,000 Hz with no more than 0.03% THD into 8 ohms; IHF IMD 0.03%; FR 10-40,000 Hz \pm 2 dB. FM section: alternate-ch sel 53 dB; 50-dB quieting sens mono 20.2 dBf, stereo 38.2 dBf; max S/N, A-wtd, mono 74 dB, stereo 70 dB; THD mono 0.15%, stereo 0.25%; sep 40 dB at 1,000 Hz. AM section: sens 18 μ V. 17.12" W x 4.36" H x 13.62" D; 8 lbs \$540

HTA55HF AM/FM Receiver

AM/FM-stereo receiver with 5-band graphic equalizer; digital-synthesized tuning. Inputs for MM phono, tape, CD player. Amp section: 55 continuous average W/ch from 20-20,000 Hz with no more than 0.05% THD into 8 ohms; IHF IMD 0.05%; FR 10-40,000 Hz \pm 2 dB. FM section: alternate-ch sel 53 dB; 50-dB quieting sens mono 20.2 dBf, stereo 38.2 dBf; max S/N, A-wtd, mono 74 dB, stereo 70 dB; THD mono 0.15%, stereo 0.25%; sep 40 dB at 1,000 Hz. AM section: sens 18 μ V. 17.12" W x 4.38" H x 13.62" D; 7 lbs \$400

HTA-35F AM/FM Receiver

Digital receiver with 8 AM/8 FM station presets and feather-touch controls. Inputs for MM phono, tape, AUX/CD. Amp section: 35 continuous average W/ch from 20-20,000 Hz with no more than 0.05% THD into 8 ohms; IHF IMD 0.05%; FR 10-40,000 Hz \pm 2 dB. FM section: alternate-ch sel 53 dB; adjacent-ch sel 53 dB; 50-dB quieting sens mono 20.2 dBf, stereo 38.2 dBf; max S/N, A-wtd, mono 74 dB, stereo 70 dB; THD mono 0.3%, stereo 0.5%. 17.12" W x 4.36" H x 11.36" D; 12 lbs \$250

RECEIVERS

HTA-25F AM/FM Receiver

Digital receiver with 6 AM/6 FM station presets and feather-touch controls. Inputs for MM phono, tape, AUX/CD. Amp section: 25 continuous average W/ch from 20-20,000 Hz with no more than 0.5% THD into 8 ohms; IHF IMD 0.15%; FR 10-40,000 Hz ± 2 dB. FM section: alternate-ch sel 53 dB; adjacent-ch sel 53 dB; 50-dB quieting sens, mono 20.2 dBf, stereo 38.2 dBf; max S/N, A-wtd, mono 74 dB, stereo 70 dB; THD, mono 0.3%, stereo 0.4%. 17.12" W x 4.36" H x 11.36" D; 11 lbs \$200

JVC

RX-9VBK AM/FM Receiver

Receiver with unified wireless remote control to operate receiver plus selected JVC Compu-Link Components. Features CATV input; electronic graphic EQ with 10 preset memories; 16 AM/16 FM presets; auto memory; preset scan; auto QSC; dB-referenced signal-strength indicator; variable stop level; video dubbing sound selector and acoustic expander; dynamic Super A power amp; high-gain phono EQ; Gm driver. Inputs for MM phono; MC phono; tape 1; AUX; CD player; video 1; video 2; VCR. Amp section: 120 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.007% THD. FM section: 50-dB quieting sens, stereo 1.5 μ V (14.8 dBf); max S/N with 65 dBf (1,000 μ V), A-wtd, stereo 78 dB; THD, stereo 0.008%; capture ratio 1.5 dB; AM rejection 60 dB; alt-ch sel 70 dB. 17.19" W x 5" H x 15" D; 23 lbs \$720

RX-7VBK AM/FM Video-Ready Receiver

Receiver with unified wireless remote control to operate receiver plus selected JVC Compu-Link Components. Features CATV input; electronic graphic EQ with 10 preset memories; 16 AM/16 FM presets; auto memory; preset scan; auto QSC; dB-referenced signal-strength indicator; variable stop level; video dubbing sound selector and acoustic expander; dynamic Super A power amp; Gm driver. Inputs for MM phono; tape 1; AUX; CD player; video 1; video 2; VCR. Amp section: 70 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.007% THD. FM section: 50-dB quieting sens, stereo 1.5 μ V (14.8 dBf); max S/N with 65 dBf (1,000 μ V), A-wtd, stereo 78 dB; THD, stereo 0.08%; capture ratio 1.5 dB; AM rejection 60 dB; alt-ch sel 70 dB. 17.19" W x 4.62" H x 15" D; 20.5 lbs \$550

RX-5VBK AM/FM Receiver

Receiver with unified wireless remote control to operate receiver plus selected JVC Compu-Link Components. Features ready-to-connect operational CATV control unit; electronic 7-band S.E.A. graphic EQ with 10 preset memories; 16 AM/16 FM presets; auto memory; preset scan; video dubbing sound selector and acoustic expander; dynamic Super A power amp; Gm driver. Inputs for MM phono; tape; AUX; CD player; video 1; video 2; VCR. Amp section: 60 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.007% THD. FM section: 50-dB quieting sens, stereo 1.8 μ V (16.3 dBf); max S/N with 65 dBf (1,000 μ V), A-wtd, stereo 73 dB; THD, stereo 0.3%; capture ratio 1.5 dB; AM rejection 60 dB; alt-ch sel 60 dB. 17.19" W x 4.62" H x 15" D; 19.9 lbs \$450

RX370VB Video-Ready Receiver

Remote-controlled digital-synthesizer AM/FM-stereo receiver. Features direct-call system; sound selector; acoustic expander; presets for 10 AM and 10 FM stations. Inputs for MM phono, tape, AUX (video), AUX (audio), CD player, VCR, TV. Amp section: 50 continuous average

W/ch from 40-20,000 Hz with <0.15% THD into 8 ohms; FR 20-20,000 Hz ± 1 dB. FM section: alt-ch sel 60 dB; 50-dB quieting sens mono 1.5 μ V/75 ohms (14.8 dBf), stereo 23.5 μ V/75 ohms (38.3 dBf); max S/N, A-wtd, mono 82 dB, stereo 73 dB; THD mono 0.08%, stereo 0.15%; sep 45 dB at 1,000 Hz; capture ratio 1.5 dB. AM section: sens 250 μ V/m (loop antenna). 17.19" W x 4.62" H x 13.36" D; 14.4 lbs \$350

RX-3VBK AM/FM Video-Ready Receiver

Receiver with unified wireless remote control to operate receiver plus selected JVC Compu-Link Components. Features ready-to-connect operational CATV control unit; 5-band S.E.A. graphic EQ; 16 AM/16 FM presets; auto memory; preset scan; electronic operation for input select, volume, muting, balance, acoustic expansion; LCD; LED indicator. Inputs for MM phono; tape 1; tape 2/video sound source; CD/AUX. Amp section: 45 continuous average W/ch from 40-20,000 Hz into 8 ohms with no more than 0.08% THD. FM section: 50-dB quieting sens, stereo 1.8 μ V (16.3 dBf); max S/N with 65 dBf (1,000 μ V), A-wtd, stereo 73 dB; THD, stereo 0.2%; capture ratio 1.5 dB; AM rejection 60 dB; alt-ch sel 60 dB. 17.19" W x 3.62" H x 11.36" D; 10.4 lbs \$300

RX-1VBK Remote-Controlled Receiver

Receiver with unified wireless remote control to operate receiver plus selected JVC Compu-Link Components. Features ready-to-connect operational CATV control unit; 5-band S.E.A. graphic EQ; presets for 32 stations; auto memory; preset scan, electronic operation for input select, volume, muting, balance, acoustic expansion; LED indicator. Inputs for MM phono; tape 1; tape 2/video sound source; CD/AUX. Amp section: 35 continuous average W/ch from 40-20,000 Hz into 8 ohms with no more than 0.08% THD. FM section: 50-dB quieting sens, stereo 1.8 μ V (16.3 dBf); max S/N with 65 dBf (1,000 μ V), A-wtd, stereo 73 dB; THD, stereo 0.3%; capture ratio 1.5 dB; AM rejection 60 dB; alt-ch sel 60 dB. 17.19" W x 3.62" H x 11.36" D; 10 lbs \$245

RX-11BK AM/FM Receiver

Receiver with digital-synthesizer tuner and 8 AM/8 FM presets. Features auto loudness; indicators for inputs, signal, stereo, and memory; slider bass/treble, volume, and balance controls; connections for 2 pairs of speakers. Inputs for MM phono; tape; CD/video sound source. Amp section: 25 continuous average W/ch from 40-20,000 Hz into 8 ohms with no more than 0.5% THD. FM section: 50-dB quieting sens, stereo 1.8 μ V (16.3 dBf); max S/N with 65 dBf (1,000 μ V), A-wtd, stereo 73 dB; THD, stereo 0.3%; capture ratio 1.5 dB; AM rejection 60 dB; alt-ch sel 60 dB. 17.19" W x 3.62" H x 10.5" D; 8.4 lbs \$180

KENWOOD

KR-V95 Remote Control A/V Receiver

Computerized AM/FM-stereo receiver with wireless remote control. Features 10-key direct-access tuning; 20 random presets with preset scan; 7-band graphic equalizer with 5 memory presets; 2 video inputs with synthetic stereo sound; spectrum analyzer; 2 tape monitors. Inputs for tape, CD player, video sound source. Amp section: 100 continuous average W/ch from 20-20,000 Hz with no more than 0.007% THD into 8 ohms. FM section: 50-dB quieting sens mono 2.8 μ V (14.2 dBf), stereo 38 μ V (36.8 dBf); THD mono 0.07%, stereo 0.1%. AM section: sens 400 μ V. 16.56" W x 5.16" H x 12.62" D; 19.8 lbs \$510

KR-V75 Remote Control A/V Receiver

Computerized AM/FM-stereo receiver with full-function wireless remote control. Features peak power level indicator; 10-key direct-access tuning; 20 random presets with preset scan; 7-band electronic graphic equalizer with 5 memory presets; 2 video inputs w/synthetic stereo sound. Inputs for tape, CD player, video sound source. Amp section: 70 continuous average W/ch from 20-20,000 Hz with no more than 0.008% THD into 8 ohms. FM section: 50-dB quieting sens mono 2.8 μ V (14.2 dBf), stereo 38 μ V (36.8 dBf); THD mono 0.07%, stereo 0.1%. 16.56" W x 5.16" H x 12.62" D; 18.5 lbs \$420



Kenwood KR-V55R

KR-V55R Remote Control A/V Receiver

Computerized AM/FM-stereo receiver with full-function wireless remote control. Features 10-key direct-access tuning; alphanumeric display of station call letters or personal ID code; switchable 12 or 24 random presets with preset scan; 5-band graphic equalizer; 3 video inputs with multi-function dubbing; adaptor inputs for external signal processor; synthetic stereo for monaural sound enhancement; 2 tape inputs with monitoring capability. Amp section: 55 continuous average W/ch from 20-20,000 Hz with no more than 0.03% THD into 8 ohms \$330

KR-V45 Computerized Audio/Video Receiver

AM/FM-stereo receiver with inputs for three video sources. Features 3 video inputs with multi-function dubbing; alphanumeric display of station call letters or personal ID code; switchable 12 or 24 random presets with preset scan; 5-band graphic equalizer; adaptor inputs for external signal processor; synthetic stereo for monaural sound enhancement; two tape inputs with monitoring capability. Amp section: 55 continuous average W/ch from 20-20,000 Hz with no more than 0.03% THD into 8 ohms \$280

KYOCERA

R-861 Tuner/Amplifier

Features 100 W/ch (continuous rms, both channels driven into 8 ohms, from 20-20,000 Hz, with no more than 0.02% THD); 3-band parametric EQ for tonal adjustment; switchable MM/MC phono preamp; preamp out/main amp in jacks; subsonic filter; quartz-frequency synthesis tuning with high-speed 2,500 Hz comparator for low noise; switchable IF bandwidth; defeatable bass/treble controls; Dolby FM de-emphasis switch; 7 AM and 7 FM preset stations; high-blend feature. FM S/N 76 dB stereo, 82 dB mono; slew rate 50 V/ μ sec; rise time 1.0 μ sec; S/N (IHF-A) phono MC 74 dB, phono MM 85 dB, high-level inputs 100 dB \$975

R-661 Tuner/Amplifier

Features 70 W/ch (continuous rms, both channels driven into 8 ohms, from 20-20,000 Hz, with no more than 0.02% THD); defeatable bass and treble controls for exacting tonal adjustment; switchable MM/MC phono preamp; preamp out/main amp in jacks; subsonic filter; quartz-frequency synthesis tuning with high-speed 2,500 Hz comparator for low noise;

RECEIVERS

switchable IF bandwidth; 7 AM and 7 FM presets; high-blend feature. FM S/N 74 dB stereo, 80 dB mono; slew rate 50 V/μsec; rise time 1.0 μsec; S/N (IHF-A) phono MC 64 dB, phono MM 82 dB, high-level inputs 100 dB. . . . \$750

R-461 Tuner/Amplifier

Inputs for MM phono, 2 tape, 2 AUX, CD player. Amp section: 50 continuous average W/ch from 20-20,000 Hz with no more than 0.02% THD into 8 ohms; dynamic headroom 2.1 dB; IHF IMD 0.02%; FR 30-15,000 Hz ± 1 dB. FM section: alt-ch sel 55 dB; 50-dB quieting sens mono 17 dBf (50 dB), stereo 37.2 dBf (50 dB); max S/N, A-wtd, mono 77 dB, stereo 72 dB; THD mono 0.08%, stereo 0.12%; sep 48 dB at 1,000 Hz; capture ratio 1.2 dB. AM section: loop sens 300 μV/m. 18.12" W x 4.31" H x 12.12" D; 18.5 lbs. . . . \$550

LUXMAN

R-406 AM/FM Receiver

Digital-synthesized AM/FM-stereo receiver. Amp section: 60 continuous average W/ch from 20-20,000 Hz with no more than 0.05% THD into 8 ohms; FR 10-50,000 Hz -1 dB. FM section: THD stereo 0.05%; sep 49 dB at 1,000 Hz. 17.19" W x 4.84" H x 12" D; 18.7 lbs. . . . \$660

R-106 Remote-Control Receiver

AM/FM receiver with computer-analyzed tuning; 16 station presets; tape dubbing; full-function remote control; Duo-Beta circuitry. Inputs for MM phono; tape; AUX; CD player; video sound source; TV tuner; VCR; VDP. Amp section: 60 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.05% THD; 200-ms dynamic power 120 W at 14 ohms. FM section: 50-dB quieting sens stereo 1.8 μV (10.3 dBf); max S/N with 65 dBf (1,000 μV) A-wtd stereo 72 dB; THD stereo 0.15%; capture ratio 1.4 dB; AM rejection 55 dB; alt-ch sel 60 dB. AM section: FR 120-2,000 Hz ± 3 dB. 17.25" W x 4.31" H x 12" D; 18.7 lbs. . . . \$660

R-105 AM/FM Receiver

Receiver with computer-analyzed tuning; 16 station presets; tape dubbing; Duo-Beta circuitry. Inputs for MM phono; tape; AUX; CD player; video sound source. Amp section: 55 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.05% THD; 200-ms dynamic power 100 W at 14 ohms. FM section: 50-dB quieting sens stereo 1.9 μV (10.8 dBf); max S/N with 65 dBf (1,000 μV) A-wtd stereo 72 dB; THD stereo 0.15%; capture ratio 1.4 dB; AM rejection 56 dB; alt-ch sel 60 dB. AM section: FR 120-2,000 Hz ± 3 dB. 17.25" W x 4.31" H x 12" D; 17.7 lbs. . . . \$500

R-104 AM/FM Receiver

Receiver with computer-analyzed tuning; 16 station presets; tape dubbing; Duo-Beta circuitry. Inputs for MM phono; tape; AUX; CD player. Amp section: 33 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.08% THD; 200-ms dynamic power 66 W at 14 ohms. FM section: 50-dB quieting sens stereo 1.9 μV (10.8 dBf); max S/N with 65 dBf (1,000 μV) A-wtd stereo 72 dB; THD stereo 0.15%; capture ratio 1.4 dB; AM rejection 55 dB; alt-ch sel 60 dB. AM section: FR 120-2,000 Hz ± 3 dB. 17.25" W x 4.31" H x 12" D; 13.4 lbs. . . . \$380

MARANTZ

TA 165 Remote-Control Receiver

Receiver with 16-preset digital tuning; 5-band graphic equalizer; electronic volume; power meter. Inputs for MM phono, tape, CD player. Amp section: 165 continuous average W/ch 20-20,000 Hz with no more than 0.05% THD into

8 ohms; FR 10-35,000 Hz ± 1 dB. FM section: alternate-ch sel 50 dB; 50-dB quieting sens, mono 15 dBf, stereo 37 dBf; max S/N, A-wtd, mono 76 dB, stereo 68 dB; THD mono 0.15%, stereo 0.3%; sep 42 dB at 1,000 Hz; capture ratio 1 dB. 16.5" W x 7.25" H x 13" D; 34 lbs. . . . \$650

TA 130 Remote-Control Receiver

Receiver with 16-preset digital tuning; 5-band graphic equalizer; electronic volume; power meters. Inputs for MM phono, tape, CD player. Amp section: 130 continuous average W/ch 20-20,000 Hz with no more than 0.05% THD into 8 ohms; 50-dB quieting sens, mono 16 dBf, stereo 38 dBf. 16.5" W x 7.25" H x 13" D; 30 lbs. . . . \$570

SR 940 FM Stereo and AM Stereo Receiver

AM/FM receiver with digital tuning capable of receiving Motorola AM stereo broadcasts with built-in decoder. Features wireless remote control, clock/timer. Inputs for MM phono, tape, AUX, extra AUX. Amp section: 100 continuous average W/ch 20-20,000 Hz with no more than 0.01% THD into 8 ohms; IHF IMD 0.01%. FM section: alternate-ch sel 65 dB; 50-dB quieting sens, mono 13.1 dBf, stereo 35 dBf; max S/N, A-wtd, mono 72 dB, stereo 65 dB; THD, mono 0.1%, stereo 0.2%; capture ratio 0.9 dB. AM section: sens 20 μV. 16.5" W x 4.62" H x 16.75" D; 8.7 lbs. . . . \$570



Marantz SR 940

TA 80 Remote-Control Receiver

Receiver with 24-preset digital tuning; 7-band graphic equalizer; electronic volume. Inputs for MM phono, tape, CD player. Amp section: 80 continuous average W/ch 20-20,000 Hz with no more than 0.3% THD into 8 ohms. FM section: alternate-ch sel 50 dB; 50-dB quieting sens, mono 16.8 dBf, stereo 39.2 dBf; max S/N, A-wtd, mono 75 dB, stereo 68 dB; THD mono 0.2%, stereo 0.3%; sep 40 dB at 1,000 Hz; capture ratio 1.2 dB. 16.5" W x 7.25" H x 10.25" D; 21 lbs. . . . \$430

TA 60 Remote-Control Receiver

Receiver with 24-preset digital tuning, 7-band graphic EQ. Inputs for MM phono; tape; CD player; video sound source. Amp section: 60 continuous average W/ch from 20-20,000 Hz with less than 0.1% THD into 8 ohms. FM section: 50-dB quieting sens, stereo 39.2 dBf; max S/N with 65 dBf (1,000 μV), A-wtd stereo 68 dB; THD, stereo 0.3%; capture ratio 1.2 dB; alt-ch sel 50 dB. 16.5" W x 7.25" H x 10.25" D; 17.2 lbs. . . . \$350

SR 250 25-Watt Receiver

Receiver with 16-preset digital tuning. Inputs for MM phono, tape, CD player, video sound source. Amp section: 25 continuous average W/ch 20-20,000 Hz with no more than 0.25% THD into 8 ohms; FR 20-20,000 Hz ± 1 dB. FM section: alternate-ch sel 45 dB; 50-dB quieting sens, mono 16.8 dBf, stereo 39.2 dBf; max S/N, A-wtd, mono 70 dB, stereo 62 dB; THD mono 0.35%, stereo 0.6%; sep 40 dB at 1,000 Hz; capture ratio 1.5 dB. 16.5" W x 3.94" H x 11.36" D; 13.2 lbs. . . . \$200

McINTOSH

MAC4200 Receiver

75-W/ch (8 ohms) AM/FM receiver with inputs for 2 tape decks, TV/AUX 1, CD/AUX 2, and 2 turntables. Front-panel tape jacks allow for a third tape deck. Tuner section features voltage-synthesized signal-lock-loop FM tuning with McIntosh's automatic frequency lock circuit; 6 AM/FM presets; manual and scan tuning; rotating high-sensitivity ferrite-loop AM antenna. Power Guard circuit in amp section prevents hard clipping, assures max amp output without distortion, and protects speakers from excessive heating. Sentry Monitor circuit protects output circuits and transistors from failure if power output exceeds design maximum or if there is a short circuit. Control features include 5 separate frequency/amplitude shaping controls; continuously variable loudness control independent of volume control; precision-tracking volume control with channel-to-channel accuracy within 1 dB. Rear-panel power outlet with AC switching allows power of entire stereo to be controlled by either the turntable or receiver. . . . \$2,890

MITSUBISHI

AM/FM-stereo receiver with AM stereo circuitry. Features 5-band graphic equalizer; 4 video inputs; 3 video outputs; video sharpness control and video amp to eliminate signal attenuation from multiple video connections; built-in NR. Inputs for MM phono, tape, AUX, CD player, VCR 1, VCR 2, TV, VDP. Amp section: 70 continuous average W/ch from 20-20,000 Hz with no more than 0.015% THD into 8 ohms; FR 20-20,000 Hz ± 0.2 dB. FM section: 50-dB quieting sens mono 3.6 μV (16.4 dBf), stereo 41 μV (37.3 dBf); max S/N, A-wtd, mono 82 dB, stereo 75 dB; THD mono 0.2%, stereo 0.3%; sep 40 dB at 1,000 Hz; capture ratio 1.5 dB. AM section: FR 50-7,000 Hz ± 3 dB; sens 300 μV. 16.62" W x 5.56" H x 17.06" D; 21 lbs, 12 oz. . . . \$400

DA-R46. Same as DA-R56 except 50 W/ch and no AM stereo circuitry. . . . \$300

NAD

7175 PE AM/FM Receiver

Features power-envelope circuitry; inputs for MM phono, MC phono, tape; AUX, CD player, video sound source. 75 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.03% THD. 16.5" W x 4.25" H x 15" D; 20 lbs, 4 oz. . . . \$748

D250 PE AM/FM Receiver

Features power-envelope circuitry; inputs for MM phono, MC phono, AUX, CD player, video sound source. 50 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.03% THD. 16.5" W x 4.25" H x 15" D; 20 lbs, 6 oz. . . . \$598

7130 Digital AM/FM Receiver

AM/FM receiver with inputs for MM phono; MC phono; AUX, tape. Amp section: 30 continuous average W/ch from 20-20,000 Hz with no more than 0.03% THD into 8 ohms; dynamic headroom +3 dB; IHF IMD 0.03%. FM section: alt-ch sel 70 dB; 50-B quieting sens mono 2.8 μV (14.2 dBf), stereo 28 μV (34.2 dBf); max S/N, A-wtd, mono 82 dB, stereo 75 dB; THD mono 0.09%, stereo 0.09%; sep 50 dB at 1,000 Hz; capture ratio 1.5 dB. AM section: sens 300 μV. 42 cm W x 10.8 H x 38 D; 17.5 lbs. . . . \$378

7125 AM/FM-Stereo Receiver

Digitally tuned receiver with Dyn Sep circuit. Features presets for 5 stations; center-tune indicator; loudness compensation and bass EQ switches; mono button. Amp section: continuous average power output 25 W at 8 ohms min



Hear What You've Been Missing

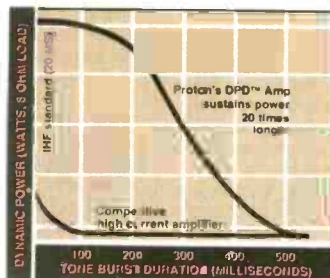
Introducing DPD™ from Proton

If you're running that terrific new CD player off an amplifier or receiver that's three to five years old, you're missing out on a great deal of clean, uncompromising sound. Most amps of that vintage just can't create the extra headroom that's necessary for accurate digital reproduction. Every time the music hits a peak, your amp will be gasping for breath. And you'll definitely hear about it. Unless you have a Proton 40 Series amplifier or receiver with our exclusive, patented DPD circuitry.

Reserve power in an instant

DPD stands for Dynamic Power on Demand™. Designed for the increased demands of today's digital audio discs and hi-fi video sound, it utilizes a sophisticated, dual power supply which acts as a power reserve. During musical peaks, it delivers up to four times the amplifier's rated power for an amazing six dB of headroom. And DPD handles these boosts much more smoothly.

Plus, DPD sustains that dynamic power up to 400 milliseconds. More



than enough time for you to hear all the crisp, clean transient response you've been missing. From the pluck of a cello. To the crash of a cymbal. As faithfully as if they were being performed live.

Best of all, DPD gives you all of this extra power without your having to pay the extra price for a much larger amplifier.

So if you want totally uncompromising digital sound, you can't afford to compromise with your system. That's why you need Proton with DPD. With anything else, you'll be missing out.

For the Proton Audio/Video Dealer nearest you, call (800) 772-0172 In California, (800) 428-1006

PROTON

Clearly the best.

737 West Artesia Blvd., Compton, Calif. 90220



Proton's acclaimed 40 Series Audio Components top to bottom: D940 Stereo Receiver with DPD™, 440 Stereo Tuner, D540 Stereo Amplifier with DPD™, 740 Stereo Cassette Deck and the 830R Compact Disc Player.

RECEIVERS

rms power per channel 20-20,000 Hz both chs driven with no more than rated distortion 20-20,000 Hz, THD <0.05%; THD <0.05% 20-20,000 Hz from 250 mW to rated output; TIM <0.02% with 15,000 Hz sine wave +3.18 Hz square wave at rated output. Tuner section: IHF usable sens 1.9 μ V (10.8 dBf); 50-dB quieting mono 3.0 μ V (14.8 dBf); 50-dB quieting stereo 30 μ V (34.8 dBf); S/N 65 dB A-wtd, mono/stereo 80/75 dB; FR 30-15,000 Hz; 3.25" H x 16.5" W x 11.25" D \$298

NAKAMICHI

SR-4A AM/FM Receiver

AM/FM-stereo receiver with Stasis power amp, multi-regulated power supply, extensive video switching. Inputs for MM phono, MC phono, tape, CD player, video sound source; VCR/laser disc. Amp section: 60 continuous average W/ch from 20-20,000 Hz with no more than 0.1% THD into 8 ohms; dynamic headroom 1.3 dB; 200-ms dynamic power 80 W. FM section: 50-dB quieting sens stereo 4.1 μ V (37.5 dBf); max S/N with 65 dBf (1,000 microvolts), A-wtd stereo 74 dB; THD stereo 0.07%; capture ratio 2 dB; AM rejection 60 dB; alt-ch sel 55 dB. 22 lbs; 16.94" W x 3.94" H x 19.56" D \$799

SR-3A AM/FM Receiver

AM/FM-stereo receiver with Stasis power amp, multi-regulated power supply, defeatable subsonic filter. Inputs for MM phono, MC phono, tape, CD player, video sound source; 2 video sources. Amp section: 45 continuous average W/ch from 20-20,000 Hz with no more than 0.1% THD into 8 ohms; dynamic headroom 1.5 dB; 200-ms dynamic power 64 watts. FM section: 50-dB quieting sens stereo 41.1 μ V (37.5 dBf); max S/N with 65 dBf (1,000 microvolts), A-wtd stereo 74 dB; THD stereo 0.07%; capture ratio 2 dB; AM rejection 60 dB; alt-ch sel 55 dB. 18 lbs; 16.94" W x 3.94" H x 14.56" D \$599

SR-2A AM/FM Receiver

AM/FM-stereo receiver with Stasis power amp, multi-regulated power supply. Inputs for MM phono, tape, CD player. Amp section: 30 continuous average W/ch from 20-20,000 Hz with no more than 0.1% THD into 8 ohms; dynamic headroom 1.75 dB; 200-ms dynamic power 45 watts. FM section: 50-dB quieting sens stereo 41.1 μ V (37.5 dBf); max S/N with 65 dBf (1,000 microvolts), A-wtd stereo 74 dB; THD stereo 0.07%; capture ratio 2 dB; AM rejection 60 dB; alt-ch sel 55 dB. 16 lbs; 16.94" W x 3.94" H x 14.56" D \$449

ONKYO

Integra TX-108 AM/FM Receiver

Computer-controlled tuner/amplifier with full-function wireless remote control for major operating functions including Onkyo-compatible turntables, tape decks, and CD players. Automatic precision reception system controls stereo/mono, local/distant, high-blend on/off, and NR on/off functions. Features real-phase power supply; dynamic bass expander; dynamic transient expander; simulated stereo; preset memory scan; motorized volume control; FM/video simulcast capability. Inputs for MM phono; MC phono; tape; tape 2; CD player; video sound source; VCR; VDP. Amp section: 100 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.02% THD; 200-ms dynamic power 295 W into 2 ohms. FM section: 50-dB quieting sens, stereo 40 μ V (37.2 dBf); max S/N with 65 dBf (1,000 μ V) A-wtd, stereo 70 dB; THD, stereo 0.18%; capture ratio 1.3 dB; AM rejection 55 dB; alt-ch sel 70 dB. 18.88" W x 5.88" H x 18.12" D; 33 lbs \$800

Integra TX-88 AM/FM Receiver

Computer-controlled tuner/amplifier with full-function wireless remote control for major operating functions including Onkyo-compatible turntables, tape decks, and CD players. Automatic precision reception system controls stereo/mono, local/distant, high-blend on/off, and NR on/off functions. Features real-phase power supply; dynamic bass expander; simulated stereo; preset memory scan; motorized volume control; FM/video simulcast capability. Inputs for MM phono; tape; tape 2; CD player; video sound source; VCR; VDP. Amp section: 80 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.025% THD; 200-ms dynamic power 190 W into 2 ohms. FM section: 50-dB quieting sens, stereo 40 μ V (37.2 dBf); max S/N with 65 dBf (1,000 μ V) A-wtd, stereo 67 dB; THD, stereo 0.2%; capture ratio 1.5 dB; AM rejection 50 dB; alt-ch sel 70 dB. 17.75" W x 5.88" H x 18.12" D; 26 lbs \$650
CW-X88. Optional wood-grain side panels for TX-88 \$65/pr



Onkyo TX-RV47

TX-RV47 AM/FM Receiver

Audio/video control receiver with full-function wireless remote control for major operating functions including Onkyo-compatible turntables, tape decks, and CD players. Features matrix surround-sound system for theater surround sound from movie soundtracks with 4-speaker systems; dynamic bass expander; stereo-image expander; stereo synthesizer; preset memory scan; FM/video simulcast capability. Inputs for MM phono; tape; tape 2; CD player; video sound source; VCR 1; VCR 2; VDP. Amp section: 55 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.08% THD; 200-ms dynamic power 90 W into 4 ohms. FM section: 50-dB quieting sens, stereo 40 μ V (37.2 dBf); max S/N with 65 dBf (1,000 μ V) A-wtd, stereo 66 dB; THD, stereo 0.3%; capture ratio 1.5 dB; AM rejection 50 dB; alt-ch sel 55 dB. 17.12" W x 4.75" H x 15.36" D; 21 lbs \$500

TX-38 AM/FM Receiver

AM/FM receiver with computer-controlled automatic precision reception system to control 4 modes (stereo/mono, local/distant, high-blend on/off, NR on/off). Features dynamic bass expander; stereo-image expander; direct tone controls; electronic input selectors; video capability. Inputs for MM phono; tape; tape 2; CD player; video sound source; VCR; VDP. Amp section: 55 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.04% THD; 200-ms dynamic power 139 W into 3 ohms. FM section: 50-dB quieting sens, stereo 40 μ V (37.2 dBf); max S/N with 65 dBf (1,000 μ V) A-wtd, stereo 67 dB; THD, stereo 0.25%; capture ratio 1.5 dB; AM rejection 50 dB; alt-ch sel 55 dB. 17.12" W x 4.36" H x 13.5" D; 19 lbs \$375

TX-28 AM/FM Receiver

AM/FM receiver with computer-controlled automatic precision reception system to control 3 modes (stereo/mono, local/distant, high-blend on/off). Features dynamic bass expander; direct

tone controls; electronic input selectors; video capability; 16-station random AM/FM memory. Inputs for MM phono; tape; tape 2; AUX; CD player; video sound source; VCR; VDP. Amp section: 45 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.08% THD; 200-ms dynamic power 90 W into 3 ohms. FM section: 50-dB quieting sens, stereo 40 μ V (37.2 dBf); max S/N with 65 dBf (1,000 μ V) A-wtd, stereo 66 dB; THD, stereo 0.3%; capture ratio 1.5 dB; AM rejection 50 dB; alt-ch sel 55 dB. 17.12" W x 4.36" H x 13.5" D; 17 lbs \$290

TX-18 AM/FM Receiver

AM/FM receiver with computer-controlled automatic precision reception system to control 2 modes (stereo/mono, local/distant). Features electronic feather-touch selectors; direct tone controls; passive tone-equalization system; 16-station random tuner memory. Inputs for MM phono; tape; CD player; video sound source. Amp section: 30 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.3% THD; 200-ms dynamic power 55 W into 4 ohms. FM section: 50-dB quieting sens, stereo 45 μ V (38.2 dBf); max S/N with 65 dBf (1,000 μ V) A-wtd, stereo 65 dB; THD, stereo 0.3%; capture ratio 1.5 dB; AM rejection 50 dB; alt-ch sel 55 dB. 17.12" W x 3.88" H x 12.5" D; 13 lbs \$215

PARASOUND

DR65 AM/FM Receiver

Features quartz-synthesizer tuning, full-function wireless remote control; electronic input switching and volume control; 6 AM/FM memory presets; T-10 discrete output transistors; discrete phono preamp; separate phono output selector; subsonic filter; preamp output jacks; auto/manual tuning; variable loudness control; 5 LED tuning meters. Inputs for MM phono, tape, tape 2, CD, video sound source. Amp section: 65 continuous W/ch from 20-20,000 Hz with less than 0.04% THD into 8 ohms; dynamic headroom 2 dB; IHF IMD 0.015%; FR 20-40,000 Hz \pm 1 dB. FM section: alt-ch sel 68 dB; adjacent-ch sel 8.5 dB; 50-dB quieting sens mono 15.3 dBf, stereo 39.2 dBf; max S/N, A-wtd mono 80 dB, stereo 77 dB; THD mono 0.1%, stereo 0.2%; sep 44 dB at 1,000 Hz; capture ratio 1.6 dB. AM section: FR 30-3,500 Hz; sens 175 μ V. 17.25" W x 3.33" H x 11.5" D; 23 lbs \$480

DR40 AM/FM Receiver

AM/FM receiver with quartz-synthesizer tuning. Features variable loudness contour; infrasonic filter; discrete output transistors; 5 presets; detented controls; relay protection with 2-color LED's; 5-LED signal-strength meter; separate preamp output jacks. Inputs for MM phono, tape, CD, video sound source. Amp section: 40 continuous average W/ch 20-20,000 Hz with no more than 0.04% THD into 8 ohms; dynamic headroom 2 dB; IHF IMD 0.03%; FR 20-40,000 Hz \pm 1 dB. FM section: alt-ch sel 68 dB; adjacent-ch sel 8.5 dB; 50-dB quieting sens, mono 15.3 dBf, stereo 38.1 dBf; max S/N, A-wtd, mono 80 dB, stereo 77 dB; THD, mono 0.1%, stereo 0.2%; sep 44 dB at 1,000 Hz; capture ratio 1.6 dB. AM section: FR 30-3,500 Hz; sens 175 μ V; 17.25" W x 3.25" H x 11" D; 19 lbs \$320

DR25 AM/FM Receiver

AM/FM receiver with digital frequency read-out. Inputs for MM phono, tape, CD, video sound source. Amp section: 25 continuous average W/ch 20-20,000 Hz with no more than 0.04% THD into 8 ohms; dynamic headroom 2

RECEIVERS

dB; IHF IMD 0.03%; FR 20-40,000 Hz \pm 1 dB. FM section: alt-ch sel 66 dB; adjacent-ch sel 8 dB; 50-dB quieting sens, mono 15.8 dBf, stereo 39.2 dBf; max S/N, A-wtd, mono 80 dB, stereo 77 dB; THD, mono 0.15%, stereo 0.25%; sep 42 dB at 1,000 Hz; capture ratio 1.6 dB. AM section: FR 30-3,500 Hz; sens 175 μ V; 17.5" W x 3.25" H x 11" D; 16 lbs \$220

PIONEER

SX-V900 AM/FM Receiver

AM/FM-stereo receiver with audio/video inputs. Features quartz-synthesized tuning; DDD; 10 AM/FM presets; computer control with memory; DNR (dynamic noise reduction). Inputs for 2 VCR's; videodisc player. Amp section: 12 continuous average W/ch from 20-20,000 Hz with less than 0.005% THD into 8 ohms; IHF IMD 0.005%; FR 20-20,000 Hz \pm 0.3 dB. FM section: alternate-ch sel 85 dB; 50-dB quieting sens mono 1.8 μ V (16.2 dBf), stereo 21 μ V (37.7 dBf); max S/N, A-wtd, mono 88 dB, stereo 82 dB; THD mono 0.02%, stereo 0.04%; sep 60 dB at 1,000 Hz. AM section: sens 10 μ V \$825



Pioneer SX-V500

VSX-5000 (BK) Audio/Video Receiver

Features nonswitching-amp type-II and low-imp drive capability; remote control; 3 video inputs with stereo audio; 2-way video dubbing and simultaneous recording; video enhancer with split screen; built-in 4-mode surround-sound processor with Dolby; quartz-PLL digital-synthesized tuner with 20 random presets; audio tape dubbing; separate audio/video switching. 100 continuous average W/ch into 8 ohms stereo mode, 70 W/ch surround mode \$570

SX-V500 AM/FM Receiver

Audio/video quartz-synthesizer nonswitching receiver. Features A/V recording selection system; video ready; DNR (dynamic noise reduction). Inputs for 2 video VCR's, videodisc player. Amp section: 80 continuous average W/ch from 20-20,000 Hz with no more than 0.005% THD into 8 ohms; IHF IMD 0.005%; FR 20-20,000 Hz \pm 0.3 dB. FM section: alternate-ch sel 65 dB; 50-dB quieting sens mono 1.6 μ V (15.7 dBf), stereo 19.5 μ V (37 dBf); max S/N, A-wtd, mono 80 dB, stereo 75 dB; THD mono 0.1%, stereo 0.15%; sep 50 dB at 1,000 Hz. AM section: sens 10 μ V. 4.75" W x 16.56" H x 11.81" D \$500

VSX-4000 (BK) Audio/Video Receiver

Features 3 video inputs with stereo audio; 2-way video dubbing and simultaneous recording; video enhancer with split screen; speaker-matrix surround-sound processor; video noise filter; remote control; nonswitching-amp type-II low-imp drive capability; quartz-PLL digital-synthesized tuner with 20 random station presets; simulated stereo; 3-position acoustic memory; separate audio/video switching. 60 continuous average W/ch into 8 ohms \$430

SX-V400 AM/FM Receiver

Audio/video quartz-phase-locked-loop synthesizer nonswitching receiver with noise filter. Amp section: 60 continuous average W/ch from 20-20,000 Hz with no more than 0.005% THD

into 8 ohms; IHF IMD 0.005%; FR 20-20,000 Hz \pm 0.3 dB. FM section: alternate-ch sel 65 dB; 50-dB quieting sens mono 1.6 μ V (15.7 dBf), stereo 19.5 μ V (37 dBf); max S/N, A-wtd, mono 80 dB, stereo 75 dB; THD mono 0.1%, stereo 0.15%; sep 50 dB at 1,000 Hz. AM section: sens 10 μ V. 16.56" W x 4.75" H x 11.88 D \$360

SX-V300 (BK) AM/FM Receiver

Audio/video quartz-PLL synthesizer receiver with 2 video inputs; 8 AM/FM presets; simulated stereo; noise filter. Amp section: 45 continuous average W/ch from 20-20,000 Hz with no more than 0.08% THD into 8 ohms; IHF IMD 0.08%; FR 20-20,000 Hz \pm 0.5 dB. FM section: alternate-ch sel 65 dB; 50-dB quieting sens mono 1.6 μ V (15.7 dBf), stereo 19.5 μ V (37 dBf); max S/N, A-wtd, mono 80 dB, stereo 75 dB; THD mono 0.4%, stereo 0.4%; sep 40 dB at 1,000 Hz. AM section: sens 10 μ V. 16.56" W x 3.88" H x 8.88" D; 11 lbs, 7 oz \$260

SX-V200 (BK) AM/FM Receiver

AM/FM-stereo receiver with 2 video inputs; quartz-PLL synthesizer tuning; 8 AM/FM presets; simulated stereo. Amp section: 30 continuous average W/ch from 20-20,000 Hz with no more than 0.3% THD into 8 ohms; IHF IMD 0.3%; FR 20-20,000 Hz \pm 0.5 dB. FM section: alternate-ch sel 65 dB; 50-dB quieting sens mono 1.6 μ V (15.7 dBf), stereo 19.5 μ V (37 dBf); max S/N, A-wtd, mono 80 dB, stereo 75 dB; THD mono 0.4%, stereo 0.4%; sep 40 dB at 1,000 Hz. AM section: sens 10 μ V. 16.56" W x 3.88" H x 8.88" D; 11 lbs, 7 oz \$190

PROTON

D940 Receiver

AM/FM receiver with Dynamic Power on Demand (DPD) circuitry and Schotz NR. Features high dynamic power capabilities (rating 8/4/2 ohms to 160/280/380 W/ch); 4-gang FM front end; 2-gang AM front end; selectable phono section for MM and MC phono; speaker EQ; separate low-noise MC amp; active volume control; built-in infrasonic filter. Inputs for MM, MC phono; phono 2; tape; AUX; extra AUX; CD; video sound source. Amp section: 40 continuous average W/ch from 20-20,000 Hz with less than 0.02% THD into 8 ohms; dynamic headroom 6 dB; IHF IMD 0.008%; FR 20-20,000 Hz \pm 0.2 dB. FM section: Alternate-ch sel 55 dB; adjacent-ch sel 90 dB; 50-dB quieting sens, mono 15.3 dBf, stereo, 33.2 dBf; max S/N A-wtd, mono 75 dB, stereo 70 dB; total harmonic distortion mono 0.05%, stereo 0.2%; separation 45 dB at 1,000 Hz; capture ratio 1.5 dB. AM section: sensitivity 300 mV. 16.5" W x 4" H x 10.12" D; 20 lbs \$450



Proton D940

D930 Receiver

Digitally synthesized stereo receiver. Features Schotz PLL detector. Inputs for MM phono, tape, AUX, video sound source. 30 continuous average W/ch from 20-20,000 Hz with <0.02% THD into 8 ohms; dynamic headroom 3 dB; IHF IMD 0.015%; FR 17-35,000 Hz \pm 1 dB. FM section: 50-dB quieting sens, stereo, 2.8 μ V; max S/N, A-wtd, stereo 70 dB; THD stereo 0.2%; sep 50 dB at 1,000 Hz; capture ratio 1.5 dB. AM section: sens 300 μ V/m. 20 lbs; 16.5" W x 3.75" H x 9.75" D \$399

RCA

MSR 150 Dimensia Receiver

AM/FM-stereo receiver. Features remote control which can control up to 13 audio/video devices. Inputs for tape, AUX, CD player, audio/video sound source. Amp section: 50 continuous average W/ch from 20-20,000 Hz with no more than 0.05% THD into 8 ohms; IHF IMD 0.08%; FR 20-20,000 Hz \pm 0.8 dB. FM section: alternate-ch sel 45 dB; 50-dB quieting sens mono 21 dBf, stereo 38 dBf; max S/N, A-wtd, mono 75 dB, stereo 69 dB; THD mono 0.13%, stereo 0.15%; sep 40 dB at 1,000 Hz; capture ratio 1 dB. AM section: sens 25 μ V. 17.12" W x 4.33" H x 13.66" D; 16.5 lbs \$399

MSR-140 Digital Command Receiver

AM/FM-stereo receiver. Features remote control which can control up to 12 audio/video devices. Inputs for audio/video sound source. Amp section: 50 continuous average W/ch from 20-20,000 Hz with no more than 0.05% THD into 8 ohms; IHF IMD 0.08%; FR 20-20,000 Hz \pm 0.8 dB. FM section: alt-ch sel 45 dB; 50-dB quieting sens mono (21 dBf), stereo (38 dBf); max S/N, A-wtd, mono 75 dB, stereo 69 dB; THD mono 0.13%, stereo 0.15%; sep 40 dB at 1,000 Hz; capture ratio 1 dB. AM section: sens 25 μ V. 17.12" W x 4.33" H x 13.66" D \$399

REALISTIC

STA-2600 AM/FM Receiver

Inputs for MM phono; tape; tape 2; AUX; CD player. Amp section: 100 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.05% THD, 102 W into 4 ohms. FM section: 50-dB quieting sens stereo 40 μ V (32 dBf); max S/N with 65 dBf (1,000 μ V) A-wtd stereo 65 dB; THD stereo 0.2%; capture ratio 1.5 dB; AM rejection 50 dB; alt-ch sel 70 dB \$500

STA-2280 AM/FM Receiver

AM/FM-stereo receiver with 6 AM and 6 FM station presets. Inputs for MM phono; tape; tape 2; AUX; CD player. Amp section: 60 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.02% THD, 98 W into 4 ohms. FM section: 50-dB quieting sens stereo 40 μ V (32 dBf); max S/N with 65 dBf (1,000 μ V) A-wtd stereo 70 dB; THD stereo 0.3%; capture ratio 1 dB; AM rejection 50 dB; alt-ch sel 70 dB. 18.7" W x 4.7" H x 12.2" D; 21.2 lbs \$400

STA-780 45-Watt Receiver

AM/FM-stereo receiver with presets for 6 AM and 6 FM stations. Digital frequency display; station search; LED function indicators; sliding tone controls. 45 W/ch min rms into 8 ohms from 20-20,000 Hz with no >0.08% THD; FR 15-25,000 Hz \pm 1 dB \$350

STA-870 65-Watt AM/FM Receiver

AM/FM receiver with IMX stereo expander designed to enlarge sound images. Inputs for tape and phono. Features 11-part LED power output meter; 5-part signal-strength meter; noise-cancelling circuit; loudness; headphone jack. Metal case. 65 W/ch min rms into 8 ohms from 20-20,000 Hz, with <0.08% THD \$320

STA-116 AM/FM Receiver

AM/FM-stereo receiver with 6 AM/6 FM station presets and 300-/75-ohm FM and AM antenna. Inputs for MM phono; tape; AUX; CD player. Amp section: 30 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.08% THD. FM section: 50-dB quieting sens stereo 39.8 μ V (32 dBf); max S/N with 65 dBf (1,000 μ V) A-wtd stereo 60 dB; THD stereo 0.2%; capture ratio 1.5 dB; AM rejection 50 dB; alt-ch sel 50 dB \$260

RECEIVERS

REVOX

B285 AM/FM Receiver

AM/FM-stereo receiver with two microprocessors for control of input sensitivities, output levels, operating functions. Features alphanumeric multi-mode LC display; 29 AM or FM presets; level and reception mode (mono/stereo, blend) separately programmable for each preset station; programmable volume limit; -20 dB button; subsonic filter; loudness contour; programmable output levels for A and B speaker pairs; comprehensive speaker protection circuits; serial data bus for external control devices; wireless infrared remote control (transmitter optional). Inputs for tape, CD player, tape 2. Amp section: 70 continuous average W/ch 20-20,000 Hz with no more than 0.03% THD into 8 ohms; dynamic headroom 2.5 dB; FR 20-20,000 Hz ± 0.3 dB. FM section: alternate-ch sel 96 dB; adjacent-ch sel 16 dB; 50-dB quieting sens, mono 1.6 μ V (15.2 dBf), stereo 19 μ V (36.8 dBf); max S/N, A-wid, mono 84 dB, stereo 80 dB; THD mono 0.15%, stereo 0.3%; sep 43 dB at 1,000 Hz; capture ratio 2 dB. AM section: FR 120-3,000 Hz ± 6 dB; sens 36 μ V. 17.75" W x 6" H x 13.06" D; 33 lbs. \$1,990

B286 Tuner Preamp. Similar to B285 but without power amp stage \$1,690



Revox B285

ROTEL

RX870 AM/FM Receiver

AM/FM-stereo receiver with high-voltage, high-current design with better headroom for digital sources. Features straight-line design; digital-synthesis tuner. Bridgeable to 180 W mono. Inputs for MM phono, MC phono, tape, CD player. Amp section: 60 continuous average W/ch from 20-20,000 Hz with no more than 0.03% THD into 8 ohms; 180 watts into 4 ohms. FM section: 50-dB quieting sens mono 3 μ V (14.6 dBf); THD stereo 0.07%; capture ratio 1 dB; alt-ch sel 65 dB \$649

RX850 AM/FM Receiver

AM/FM-stereo receiver with quartz-synthesizer tuning and 8 AM/8 FM station presets. Inputs for phono, tape, CD player, video sound source. Amp section: 30 continuous average W/ch 20-20,000 Hz into 8 ohms with no more than 0.05% THD; IHF IMD 0.05%; FR (phono) 20-15,000 Hz ± 0.3 dB; FR (tape, CD, video) 10-45,000 Hz ± 0.5 , -3 dB. FM section: alternate-ch sel 60 dB; 50-dB quieting sens, mono 4 μ V (17.2 dBf), stereo 60 μ V (40.7 dBf); S/N, mono 82 dB, stereo 77 dB; THD, mono 0.15%, stereo 0.4%; sep 43 dB at 1,000 Hz; capture ratio 1.5 dB. AM section: sens 250 μ V/m. 17" W x 3.88" H x 15" D; 15.1 lbs \$339

RX830 AM/FM Receiver

AM/FM-stereo receiver with LED dial pointer. Inputs for phono, tape, CD player, video sound source. Amp section: 20 continuous average W/ch from 20-20,000 Hz THD into 8 ohms with no more than 0.08%; IHF IMD 0.08%; FR (phono) 20-15,000 Hz ± 0.3 dB, FR (tape, CD, video) 10-38,000 Hz +1, -3 dB. FM section: alternate-ch sel 65 dB; 50-dB quieting sens, mono 4 μ V (17.2 dBf), stereo 60 μ V (40.7 dBf); S/N,

mono 70 dB, stereo 65 dB; THD, mono 0.3%, stereo 0.5%; sep 38 dB at 1,000 Hz; capture ratio 2.0 dB. AM section: sens 300 μ V/m. 17" W x 3.88" H x 13" D; 12.7 lbs \$229

SAE

R-102 Stereo Receiver

AM/FM stereo receiver utilizes an on-board computer to eliminate dependency between front-panel layout and audio circuits. 50 W/ch at 0.025% THD. Controls grouped by function. Features alphanumeric and digital readouts for input functions, tone, volume, balance settings, station frequency, and tuner memories; 3 digital tone memories; tuner memory scan; phono power amp; high-current main amp \$499

SANSUI

S-X1130 AM/FM Stereo Receiver

AM/FM receiver with video sound and picture-processing circuits. Features X-balanced amp technology; 16 station presets with preset scan; selectable FM IF wide/narrow bandwidth. Inputs for MM phono, MC phono, tape, tape 2, AUX, video sound source. Amp section: 130 continuous average W/ch 20-20,000 Hz with no more than 0.005% THD into 8 ohms; FR 5-200,000 Hz +0, -3 dB. FM section: 50-dB quieting sens, mono 1.8 μ V (10.3 dBf); 21.5" W x 10" H x 19.5" D; black finish; 40 lbs. \$1,150

X1100. Similar to S-X1130 with fewer video-processing circuits \$800

S-XV1000 Audio/Video Receiver

Audio/video receiver with video signal processing controls; connections for 3 VCR's; remote control; 16 random station presets; subharmonic synthesizer for bass enhancement; fader control; color balance. Inputs for phono, phono 2, tape, AUX, CD, video sound source. Amp section: 80 continuous average W/ch 20-20,000 Hz with less than 0.01% THD into 8 ohms; FR 10-100,000 Hz +3/-3 dB. FM section: max S/N A-wid, mono 76 dB. 16.94" W x 5.25" H x 16.56" D; 20.3 lbs \$700

S-X700 AM/FM-Stereo Receiver

Features quartz-PLL tuner; 16 station presets; connections for 2 pairs of speakers; variable loudness control; high-blend switch. Inputs for MM phono; tape; CD player; video sound source. Amp section: 43 continuous average W/ch from 20-20,000 Hz into 8 ohms with no less than 0.08% THD. FM section: 50-dB quieting sens, stereo 50 dBf; max S/N with 65 dBf (1,000 μ V) A-wid, stereo 70 dB; capture ratio 1 dB. 16.94" W x 4.5" H x 14.25" D; 18 lbs \$310

S-X500. Similar to S-X700 except no high-blend switch. 30 W/ch into 8 ohms with less than 0.2% THD \$250

SCOTT

STA 1500 Component Receiver

Separate integrated amplifier and tuner sold together. Features 7-band graphic EQ; LED power meters; digital station readout. Inputs for MM phono; tape; CD player; video sound source. Amp section: 150 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.005% THD. FM section: 50-dB quieting sens stereo 10 μ V (25 dBf); max S/N with 65 dBf (1,000 μ V) A-wid stereo 65 dB; THD stereo 0.5% \$550

STA 1000 Component Receiver

Separate integrated amplifier and tuner sold together. Features 7-band graphic EQ; LED power meters; digital station readout. Inputs for MM phono; tape; CD player; video sound source. Amp section: 100 continuous average W/ch

from 20-20,000 Hz into 8 ohms with less than 0.5% THD. FM section: 50-dB quieting sens stereo 10 μ V (25 dBf); max S/N with 65 dBf (1,000 μ V) A-wid stereo 65 dB; THD stereo 0.5% \$450

SHARP

SA-X50 Audio/Video Receiver

AM/FM-stereo receiver with multiple audio/video inputs and outputs. Features PLL-synthesized tuner; auto scan tuning; 12 presets; 5-band graphic equalizer; video-enhancer circuit; surround sound. Inputs for tape, CD, video sound source, video 1, video 2. Amp section: 50 continuous average W/ch from 40-20,000 Hz into 8 ohms with less than 0.5% THD. 17" W x 3.88" H x 10.5" D \$250

SHERWOOD

S-277ORCP AM/FM Receiver

Digital-synthesized AM/FM-stereo receiver with digitally controlled 7-band EQ and LED spectrum analyzer. Features 4 EQ memories; 16 station presets; video dubbing; infrared remote control; surround sound; front-panel 2-ch-audio VCR input; MOSFET input stage. Inputs for tape, CD player; video sound source; VCR; VCR 2; VDP (audio only). Amp section: 74 continuous average W/ch from 20-20,000 Hz with less than 0.3% THD into 8 ohms. FM section: 50-dB quieting sens stereo 35 μ V (36.1 dBf); THD stereo 0.15%; capture ratio 1.5 dB; AM rejection 55 dB; alt-ch sel 70 \$500

S-2750CP AM/FM Receiver

AM/FM-stereo receiver with 5-band graphic. Features 16 station presets; surround sound; MOSFET input stage; synthetic stereo mode for mono source material; auto-scan tuning; quartz-PLL digital-synthesized tuning. Inputs for tape, AUX; CD player; video sound source. Amp section: 55 continuous average W/ch from 20-20,000 Hz with less than 0.2% THD into 8 ohms. FM section: 50-dB quieting sens stereo 50 μ V (39.2 dBf); THD stereo 0.5%; capture ratio 2 dB; AM rejection 50 dB; alt-ch sel 65. 17.36" W x 4.62" H x 9.25" D; 15 lbs \$300

S-2730CP AM/FM Receiver

AM-FM-stereo receiver with quartz-PLL digital-synthesized tuning. Features 16 station presets; auto scan; surround sound; MOSFET input stage. Inputs for tape; AUX; CD player; video sound source. Amp section: 35 continuous average W/ch from 20-20,000 Hz with less than 0.2% THD into 8 ohms. FM section: 50-dB quieting sens stereo 50 μ V (39.2 dBf); THD stereo 0.5%; capture ratio 2 dB; AM rejection 50 dB; alt-ch sel 65. 17.36" W x 4.62" H x 9.25" D; 13.5 lbs \$250



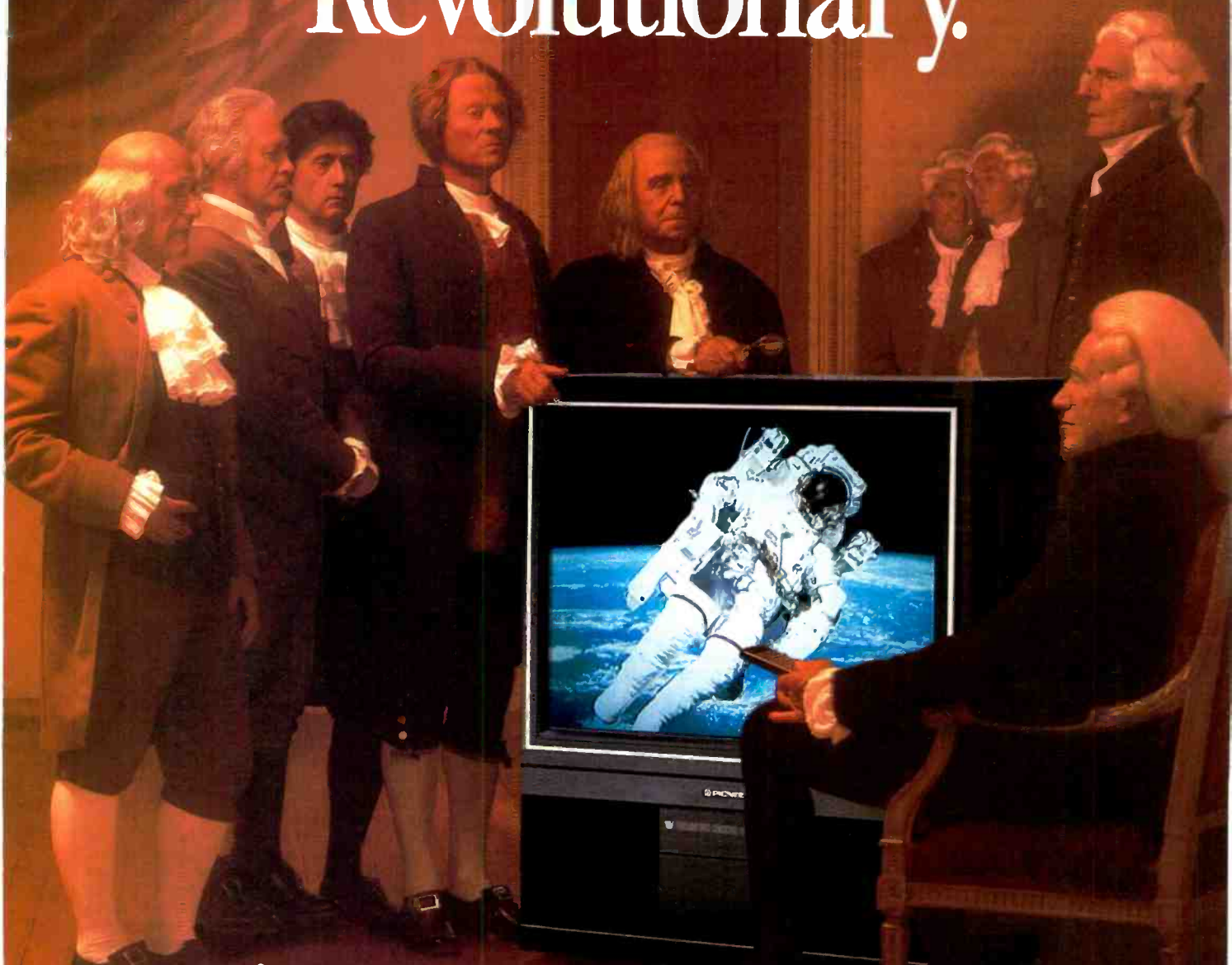
Sony STR-AV880

SONY

STR-AV880 Receiver

Audio/video receiver with remote control, built-in spectrum tuning and surround sound decoder. Inputs for MM phono; MC phono; tape; AUX; extra AUX; CD player; video sound source; video 1, 2; TV. 110 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.006% THD. 17" W x 5.12" H x 13.75" D; 21 lbs \$650

Not Evolutionary, Revolutionary.



Pioneer's Revolutionary 40" Projection Monitor

For the first time in history, projection television is no longer a compromise. Because Pioneer has discovered the secret to combining the bigness of projection TV with the brilliance and precision of direct-view monitors.

It's called the Pioneer 40" Projection Monitor. And thanks to a revolutionary lens system, perfect corner to corner focus, and the only double-sided

lenticular screen, it produces a better quality image than any projection system you've ever laid eyes on.

But that's enough for comparisons. Because once you see this revolutionary creation in full glory, you'll immediately discover that this giant picture is, without a doubt, beyond compare. For more information, call 1-800-421-1404.

 **PIONEER**

CATCH THE SPIRIT OF A TRUE PIONEER.

©1986 Pioneer Electronics (USA) Inc., Long Beach, CA

CIRCLE NO. 55 ON READER SERVICE CARD

RECEIVERS

STR-AV780 Receiver

Audio/video receiver with built-in spectrum tuning display, surround sound decoder, and CATV simulcast capability. Inputs for MM phono; tape; AUX; extra AUX; CD player; video sound source; video 1, 2; TV. 80 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.006% THD. 17" W x 5.12" H x 13.75" D; 18 lbs \$550

STR-AV580 Receiver

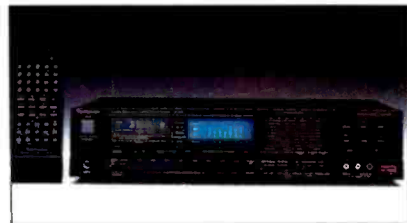
Audio/video receiver with built-in surround sound decoder and CATV simulcast capability. Inputs for MM phono; tape; AUX; extra AUX; CD player; video sound source; video 1, 2. 60 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.008% THD. 17" W x 5.12" H x 11.25" D; 17 lbs \$430

STR-AV480 Receiver

Audio/video receiver with quartz-synthesis tuning, ASP controls, built-in surround sound decoder. Inputs for MM phono; tape; AUX; extra AUX; CD player; video sound source; video 1, 2. 50 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.03% THD. 17" W x 5.12" H x 11.25" D; 16 lbs \$330

STR-AV380 Receiver

Audio/video receiver with quartz-synthesis tuning and ASP controls. Inputs for MM phono; tape; AUX; extra AUX; CD player; video sound source; video 1. 30 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.08% THD. 17" W x 5.12" H x 11" D; 13 lbs \$240



Technics SA-590

TECHNICS

SA-590 Audio/Video Receiver

AM/FM receiver with remote control that also controls other selected Technics components. Built-in 7-band graphic EQ with 10-dB cut/boost features computer-controlled direct-touch operation that instantly responds to EQ curve drawn out by touch of finger. Inputs for MM phono; tape; CD player; video sound source; 2 video sources. Amp section 100 continuous average W/ch from 20-20,000 Hz with less than 0.007% THD; dynamic headroom 1.2 dB. FM section: 50-dB quieting sens stereo 56 μ V (40.2 dBf); max S/N with 65 dBf (1,000 μ V) A-wid stereo 71 dB; THD stereo 0.2%; capture ratio 1 dB; AM rejection 50 dB; alt-ch sel 65 dB. 16.94" W x 3.89" H x 11.16" D; 17.4 lbs \$550

SA-390 AM/FM-Stereo Receiver

Features built-in 5-band graphic EQ; power meters; 28-key wireless remote control. Inputs for MM phono; tape; CD player; video sound source; 2 video sources. Amp section 50 continuous average W/ch from 20-20,000 Hz with less than 0.007% THD; dynamic headroom 1.2 dB. FM section: 50-dB quieting sens stereo 56 μ V (40.2 dBf); max S/N with 65 dBf (1,000 μ V) A-wid stereo 71 dB; THD stereo 0.2%; capture ratio 1 dB; AM rejection 50 dB; alt-ch sel 65 dB. 16.94" W x 3.89" H x 11.16" D; 13.4 lbs \$345
SA-3039. As above with 55 W/ch and silver panel \$345

SA-370 Remote-Controlled Receiver

AM/FM-stereo receiver with remote control of on/off, AM/FM preset tuning, input selection, volume up/down, VCR 1 monitor, and muting. Remote compatible with other Technics components. Inputs for MM phono; tape; CD player; video sound source; 2 video sources. Amp section 40 continuous average W/ch from 20-20,000 Hz with less than 0.09% THD; dynamic headroom 1.2 dB. FM section: 50-dB quieting sens stereo 56 μ V (40.2 dBf); max S/N with 65 dBf (1,000 μ V) A-wid stereo 71 dB; THD stereo 0.3%; capture ratio 1 dB; AM rejection 50 dB; alt-ch sel 65 dB. 16.94" W x 3.89" H x 9.56" D; 11.7 lbs \$300

SA-290 AM/FM-Stereo Receiver

AM/FM receiver with quartz-synthesizer digital tuning, soft-touch controls, slim design. Black finish. Inputs for MM phono; tape; CD player. Amp section 50 continuous average W/ch from 20-20,000 Hz with less than 0.3% THD; dynamic headroom 1.2 dB. FM section: 50-dB quieting sens stereo 56 μ V (40.2 dBf); max S/N with 65 dBf (1,000 μ V) A-wid stereo 71 dB; THD stereo 0.3%; capture ratio 1 dB; AM rejection 50 dB; alt-ch sel 65 dB. 16.94" W x 3.89" H x 9.56" D; 11.7 lbs \$225
SA-2029. As above in silver \$225

SA-190 AM/FM-Stereo Receiver

AM/FM receiver with quartz-synthesizer tuning, soft-switch input selectors; 16-station AM/FM random-access preset memory. Black finish. Inputs for MM phono; tape; CD player. Amp section 35 continuous average W/ch from 20-20,000 Hz with less than 0.5% THD; dynamic headroom 1.2 dB. FM section: 50-dB quieting sens stereo 56 μ V (40.2 dBf); max S/N with 65 dBf (1,000 μ V) A-wid stereo 71 dB; THD stereo 0.3%; capture ratio 1 dB; AM rejection 50 dB; alt-ch sel 65 dB. 16.94" W x 3.89" H x 9.56" D; 9.7 lbs \$185

SA-130 AM/FM-Stereo Receiver

AM/FM receiver with digital-ready power output, built-in loudness compensation, low-distortion tone controls. Inputs for MM phono; tape; CD player. Amp section 35 continuous average W/ch from 40-20,000 Hz with less than 0.5% THD; dynamic headroom 1 dB. FM section: 50-dB quieting sens stereo 45 μ V (38.3 dBf); max S/N with 65 dBf (1,000 μ V) A-wid stereo 70 dB; THD stereo 0.3%; capture ratio 1 dB; AM rejection 50 dB; alt-ch sel 60 dB. 16.94" W x 3.89" H x 9.89" D; 10.8 lbs \$150

ULTRX

R100 AM/FM-Stereo Receiver

100-W receiver with digital-synthesizer tuner, electronically controlled preamp, accommodates audio and video sound sources. Features dbx encoder and decoder; matrix stereo enhancer circuit (to convert TV and VCR signals to stereo-like sound); discrete output stage; low-noise, wide-dynamic-range circuit to accept MC and MM cartridges; switchable subsonic filter; DNR; stepped electronic attenuators and equalizers; fluorescent power display; auto scan; wireless remote control; 20-station storage; functional status display in graphic or digital format. 100 W/ch into 8 ohms 20-20,000 Hz, <0.009% THD; 16.8" W x 5.5" H x 13.2" D \$400

R70 Receiver

AM/FM stereo receiver with phase-lock-loop digital tuner and a TV/VCR matrix stereo synthesizer circuit. Features remote control; 20 station presets; slide-type bass and treble control; 40-segment fluorescent power display; fluorescent volume and balance display; electronic

speaker protection; multiple speaker selection; CD input; auto scan; subsonic filter; loudness switch; 2-way tape dubbing; MC preamp. 70 W/ch into 8 ohms with <0.03% THD; 16.8" W x 5.5" H x 13.2" D \$330



Ultrix R100

VECTOR RESEARCH

VRX-9100 Receiver

Features high-current 8-output transistor section, synthesized tuner convertible with optional VA-1450 bridging amp. Inputs for MM phono; MC phono; tape; CD; video sound source. 90 continuous average W/ch 20-20,000 Hz with dynamic headroom of 2.5 dB; IHF IMD 0.08%; 2.5 lbs. 17" W x 4.5" H x 14" D \$450

VRX-7100 Receiver

High-current 8-output transistor section, synthesized tuner. Inputs for MM phono; MC phono; tape; AUX; CD; video sound source. 60 continuous average W/ch 20-20,000 Hz with <0.08% THD into 4 ohms; dynamic headroom 2.5 dB; 23 lbs. 17" W x 4.5" H x 14" D \$350

VRX-3500 Receiver

Features discrete output amp section; synthesized tuner. Inputs for MM phono; tape; AUX; CD; video sound source. 40 continuous average W/ch from 20-20,000 Hz with less than 0.08% THD into 4 ohms; dynamic headroom 2.5 dB; IHF IMD 0.08%; 20 lbs. 17" W x 3" H x 12" D \$250

YAMAHA

R-9B AM/FM-Stereo Receiver

AM/FM receiver with 5-digit fine tuning and video switching capability. Features continuously variable loudness control (-40 dB); zero distortion rule; auto Class A power; low-imp drive capability; computer servo-lock tuning system; 16-station random preset tuning; rec out selector; A, B, C speaker selection; DNC; simulated stereo; accessory output loop; 15-function infrared remote control. Inputs for MC phono, MM phono; tape, AUX, CD player. video sound source. Amp section: 125 continuous average W/ch 20-20,000 Hz with no more than 0.015% THD into 8 ohms; dynamic headroom 1.58 dB; IHF IMD 0.01%; FR 20-20,000 Hz +0. -3 dB. FM section: alternate-ch sel 85 dB; 50-dB quieting sens, mono 1.5 μ V (14.8 dBf), stereo 20 μ V (37.3 dBf); max S/N, A-wid, mono 85 dB, stereo 81 dB; THD, mono 0.05%, stereo 0.07%; sep 50 dB at 1,000 Hz; capture ratio 1.2 dB. 17.5" W x 6" H x 16.62" D; 26 lbs, 6 oz \$849

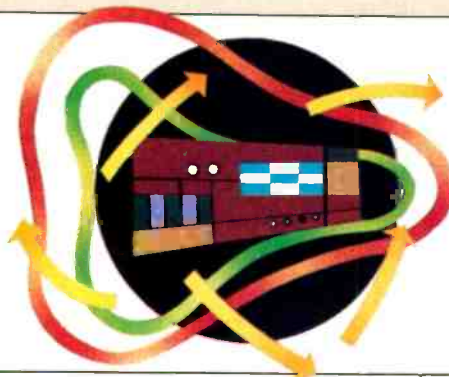
R-8B. Similar to the R-9 except 85 W/ch; no auto Class A; A + B speaker selection \$649

R-7B. Similar to R-8 except 65 W/ch; no digital fine tuning, video switching, DNC, or simulated stereo. 13-function remote control \$499

R-5B. Similar to R-7 except 50 W/ch; bass extension circuitry; no rec out selector or remote control \$329

R-3B. Similar to R-5 except 35 W/ch; 8 AM/8 FM preset selection tuning, no computer servo lock tuning \$249

AMPLIFIERS



POWER AMPLIFIERS

ACCUPHASE BY MADRIGAL P-600 Stereo Power Amplifier

Power amp drives 7-parallel push-pull output stage with MOSFET pre-driver incorporating push-pull circuitry in all stages. Can fully drive a 2-ohm low-imp speaker system with guaranteed output of 700 W/ch. Features digital peak power display; bridge connection switch; 1-dB-per-step input level control. Rated output 300 W/ch into 8 ohms with both chs driven, distortion <0.01%, 20-20,000 Hz; bridge connection 1,000 W into 8 ohms, distortion <0.01% 20-20,000 Hz; IMD <0.01%; damping factor 300 IHF 50 Hz; S/N >125 dB IHF-A; rated input 2 V; 18.94" W x 9.19" H x 18.75" D \$4,560

M-100 Monophonic Power Amplifier

Mono power amp with MOSFET driver stage and digital peak-power display. Features heavy-duty octo-parallel push-pull output stage; cascode bootstrap, push-pull differential amp input section; DC servo-controlled direct-coupled input stage; series regulator-type regulated power supply; 1-dB stepping precision attenuator; low filter with selectable 10, 17, 30, or 50 Hz cutoff; phase-inverting switch; provision for ventilation fan. Guaranteed specs: continuous average power output from 20-20,000 Hz with no more than 0.01% THD 800 W into 4 ohms, 500 W into 8 ohms, 250 W into 16 ohms, all min rms; THD 0.01% max at 4-16 ohms from 20-20,000 Hz at any power output from 0.25 W to rated power output; IMD <0.003%; FR 20-20,000 ± 0 dB for rated output at max level control; voltage amplification 27.8 dB; input sens/imp 2.6 V/50,000 ohms; damping factor 300; S/N 130 dB A-wid, below rated output; 480 mm W x 232 H x 476 D; 41.5 kg (91.4 lbs) net \$4,000

P-500 Power Amplifier

Sophisticated high-power basic amp with power meters. Features bridge connection that allows 1,000 W mono into 4 ohms, 500 W/ch into 2 ohms. 250 continuous average W/ch from 20-20,000 Hz with no more than 0.02% THD into 8 ohms; FR 20-20,000 Hz +0, -0.2 dB; S/N 100 dB; IMD 0.003%; 19" W x 8.6" H x 17.5" D; 73.7 lbs \$4,000

P-300L Power Amplifier

170-W power amp with power meters. Features bridge connection providing 500 W/ch into 8 ohms, 300 W/ch into 2 ohms. 170 continuous average W/ch from 20-20,000 Hz with no more than 0.01% THD into 8 ohms; FR 20-20,000 Hz +0, -0.2 dB; S/N 100 dB; IMD 0.003%; 17.5" W x 6.4" H x 14.7" D; 50.6 lbs \$2,750

P-266 Stereo Power Amplifier

Stereo power amp with MOSFET's as power

amplification devices in triple push-pull arrangement and following 4 types of operations: 130 W/ch stereo into an 8 ohms, 30 W/ch (8 ohms) Class-A stereo, 400 W (8 ohms) monophonic and 110 W Class-A monophonic. Rated output normal 130 W/ch (into 8 ohms with both chs driven, distortion <0.01% 20-20,000 Hz); bridge connection, normal, 400 W, Class-A: 110 W (into 8 ohms, distortion <0.003%; damping factor 120 IHF 50 Hz; rated input 1.3 V. Features Normal/Class-A selector switch; bridge connection switch; peak hold switch; 1 dB step input level control; 17.5" W x 6.31" H x 14.69" D; cascode push-pull predrive; MOSFET final stage \$2,000

ACOUSTIC RESEARCH

AR P-10 Power Amplifier

Power amp with massive transient (IHF dynamic) power capability of 1,200 W/ch in 2 ohms, 800 W into 4 ohms, and 400 into 8 ohms. 150 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.3 THD, 200 W into 4 ohms; 200-ms dynamic power 300 W; dynamic headroom 4.3 dB; S/N 95 dB; slew rate 30 V/μs; IMD 0.03%. 17" W x 4.33" H x 14.5" D \$780

ACOUSTAT

Trans-Nova Twin-200 Power Amplifier

Full FET amp designed to obtain >1,000 damping factor in audio band with no first-order distortion in output stage. Features Complement Feedback circuit to eliminate negative-feedback problems. Output power 200 W/ch into 8 ohms at 0.02% THD; full-power FR 15-500,000 Hz +0/-3 dB; slew rate 175 V/μsec; 42 lb \$1,195
120. Smaller version of TNT 200. 120 W/ch into 8 ohms at 0.02% THD; slew rate 160 V/μs; 28 lbs \$745



Adcom GFA-555

ADCOM

GFA-555 Power Amplifier

High-current amp able to drive 1-ohm loads with no current limiting and low feedback. Bridgeable for mono operation. 200 W/ch into 8 ohms; 350 W/ch into 4 ohms with <0.09% THD and <0.05% IMD; constant damping factor >100 from 20-20,000 Hz \$680
GFA-555W. As above with white front panel \$750
GFA-555S. With silver front panel \$750

GFA-545 Power Amplifier

High-current amp able to drive low-imp, including 1-ohm loads. Features low-negative-feedback design; constant damping factor; toroidal transformer; no current limiting except for fuses; instantaneous distortion alert with distortion products higher than 1% at speaker outputs; direct-coupled design. 100 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.09% THD, 150 W/ch into 4 ohms; IMD 0.008%. 17" W x 5.5" H x 12.5" D; 25 lbs \$450

GFA-545W. As above with white front panel \$525

GFA-545S. With silver front panel \$525

GFA-535 Power Amplifier

High-current amp able to drive low-imp loads. Features low-negative-feedback design; constant damping factor; hookup for 2 sets of speakers; instantaneous distortion alert with distortion products higher than 1% at speaker outputs; direct-coupled design; separate power transformers for each ch. 60 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.09% THD, 100 W/ch into 4 ohms; IMD 0.008%. 17" W x 3.25" H x 12.5" D \$300

GFA-535W. As above with white front panel \$375

GFA-535S. With silver front panel \$375

AUDIO RESEARCH

D79C Power Amplifier

High-Definition vacuum-tube stereo power amp with patented cross-coupled circuit. 75 continuous average W/ch from 20-20,000 Hz with no more than 1% THD into 8 ohms; FR 20-20,000 Hz ± 1 dB; S/N 90 dB; slew rate 10 V/μsec; IMD 0.5%; 19" W x 10.5" H x 17.5" D; 120 lbs shipping weight \$6,000

D250 Power Amplifier

High-Definition vacuum-tube power amp with controlled turn-on, warm-up for maximum power-tube life. Features patented cross-coupled circuit. 240 continuous average W/ch from 20-20,000 Hz with no more than 1% THD into 8 ohms; FR 20-20,000 Hz ± 1 dB; S/N 90 dB; slew rate 25 V/μsec; IMD 0.1%; 19" W x 10.5" H x 21" D; 155 lbs shipping weight \$5,995

D115 Power Amplifier

High-Definition vacuum-tube power amp with controlled turn-on, warm-up for maximum power-tube life. Features patented cross-coupled circuit; front-panel fusing for line and screen. 100 continuous average W/ch from 20-20,000 Hz with no more than 1% THD into 8 ohms FR 20-20,000 Hz ± 1 dB; S/N 90 dB; slew rate 15 V/μsec; IMD 0.1%; input imp sens 1.1 V for rated output; input imp 75 kilohms nominal; noise >90 dB below rated power, broadband-unweighted. 19" W x 7" H x 16.5" D; 80 lbs shipping weight \$2,995

AMPLIFIERS

M100 Power Amplifier

Basic tube monaural power amp with automatic servo DC balance, front-panel bias adjustment and indication. 100 continuous average W/ch from 20-20,000 Hz with no more than 1% THD into 8 ohms; FR 2-60,000 Hz +0/-3 dB; S/N 90 dB; dynamic headroom less than 1 dB; slew rate 15 V/ μ sec; IMD 0.2% at 70"; input sens: 0.7V rms for 100 W. 19" W x 7" H x 18.3" D; 53 lbs \$2,495

D70 Power Amplifier

High-Definition vacuum-tube power amp with continuous turn-on, warm-up for maximum power-tube life. Features patented cross-coupled circuit; front-panel fusing for line and screen. 60 continuous average W/ch from 20-20,000 Hz with no more than 1% THD into 8 ohms; FR 20-20,000 Hz \pm 1 dB; S/N 90 dB; slew rate 12 V/ μ sec; IMD 0.1%; input sens 0.95 V for rated output; input imp 75 kilohms nominal; noise 90 dB below rated power, broadband, unweighted; 19" W x 7" H x 14.5" D; 63 lbs shipping weight \$1,995

D120 Power Amplifier

High-Definition solid-state stereo power amp with Analog Module technology, unique linear output circuit. Stable under any load condition. Features internal bridging switch for mono operation; power supply fuse on front panel; fuse-failure LED indicator. Output power 120 W/ch into 8 ohms, 10-20,000 Hz at <0.25% THD; FR 1.2-75,000 Hz \pm 1 dB; power bandwidth 0.6-100,000 Hz -3 dB; input sens/imp 1.5 V rms/60k ohms; harmonic distortion <0.004% at 1,000 Hz, 1 W; IMD <0.035% at rated power; slew rate 40 V/ μ sec; rise time 2 μ sec; damping factor 300, 10-20,000 Hz; power consumption 1,000 W max; 19" W x 10.5" D x 5.25" H; 50 lbs shipping weight \$1,995

BRYSTON

6B Power Amplifier

Mono power amp with high voltage and current. Capable of delivery of 120+ amperes instantaneously into 1 ohm; 100 W into 4 ohms with average current of 22 amperes; 1,000 W into 1 ohm with 3.5 amperes average; ground lift switch. 500 continuous W/ch from 20-20,000 Hz with no more than .005% THD into 8 ohms; S/N 105 dB; slew rate less than 60 volts/microsecond; intermodulation distortion 0.005%; 19" W x 5.75" H x 12" D \$1,700

4B Power Amplifier

Fully complementary Class AB power amp with bridging switch, 1,500-sq-in. Features heatsink area; regulated power supplies to all voltage gain stages; ch sep back to line cord; red LED clipping indicator. Output power 200 W/ch, 800 W bridged into 8 ohms, 20-20,000 Hz at 0.01% THD; IMD 0.01%, 10 mW-200 W; S/N 100 dB; slew rate 60 V/ μ sec; power bandwidth 1-100,000 Hz; damping factor 500 at 20 Hz, 8 ohms; input sens/imp 1.25 V/50 kilohms; 19" W x 13.5" D x 5.25" H \$1,500
3B. Similar to 4B except 100 W/ch, 400 W bridged; input sens/imp 1 V/50 kilohms; has 500-sq-in. heat-sink area; 9" D \$975
2B. Similar to 3B except 50 W/ch, 200 W bridged; input sens/imp 0.75 V/50 kilohms; has 250-sq-in. heat-sink area. \$550

B&W

MPA810 Mono Power Amplifier

MOSFET mono power amp designed to deliver large amount of power. Bridge-mode configuration cancels harmonic distortions, loads the supply symmetrically, eliminates heavy speaker

return currents in ground circuit. Passive heat sinks progressively assisted by DC fan as temp rises. Features 30-segment output-voltage display and clipping indicator. 650 continuous average watts from 20-20,000 Hz into 8 ohms with no more than 0.006% THD, 1,110 W into 4 ohms; 200-ms dynamic power 850 W; dynamic headroom 1.3 dB; S/N 107 dB; slew rate 60 V/ μ s; IMD 0.006%; peak current \pm 60 amperes; bandwidth 0-100,000 Hz -2 dB. 11" W x 9.25" H x 17.5" D; 44 lbs \$3,500

CARVER

M-1.5t Power Amplifier

Magnetic Field stereo power amp with LED dual peak-responding power displays, infrasonic and ultrasonic filters. Output power 400 W/ch into 8 ohms with no more than 0.5% THD; dynamic headroom/ch 600 W at 4 and 8 ohms; S/N >100 dB A-wtd; IMD 0.5%; bandwidth DC-250,000 Hz +0/-3 dB at 1 W; input imp 150 kilohms; 19" W x 10.5" D x 3.5 H; 16 lbs \$899

M-500t Power Amplifier

Stereo power amp with super-efficient Magnetic Field circuitry in slim-line cabinet. Features peak-responding power meters; cool operation; anodized brushed aluminum in dark pewter finish. Output power 250 W/ch into 8 ohms, 20-20,000 Hz at 0.15%/0.15% THD/IMD; FR 1-250,000 Hz \pm 0.25 dB; S/N 100 dB A-wtd; slew rate 40 V/ μ sec \$629

M1.0t Power Amplifier

Magnetic Field amplifier with long-term, high headroom and dual peak-responding power LED's. Features comprehensive all-function electronic protection; new sonic transfer modification. 200 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.5% THD; dynamic headroom 3 dB; S/N 120 dB; slew rate 200 V/ μ s; IMD 0.001%. 19" W x 3.5" H x 10.5" D; 12 lbs \$559

M400t Power Amplifier

Stereo power amp with Magnetic Field Circuitry that eliminates oversize heat sinks. Features dual vertical LED peak-level display; dark pewter finish. Output power 200 W/ch into 8 ohms, 20-20,000 Hz at 0.5%/0.5% THD/IMD; FR 1-250,000 Hz \pm 0.25 dB; S/N 100 dB A-wtd; slew rate 40 V/ μ sec; 6.75" W x 6.75" H x 6.75 D \$499

M200t Power Amplifier

Magnetic Field power amp produces 120 W/ch (min continuous power into 8 ohms, 20-20,000 Hz with <0.05% THD). Dark pewter finish; LED's indicate power and use of speaker-protection circuitry. S/N >100 dB (IHF A-wtd); IMD 0.15% max SMPTE; transient IMD <0.001%; frequency bandwidth from 1-80,000 Hz at 1 W; 17.3" W x 9" D x 2.55" H; 10.25 lbs \$399

COUNTERPOINT

SA-4 Power Amplifier

Power amp with 130 continuous average W/ch from 20-20,000 Hz with no more than 0.2% THD into 8 ohms; FR 0.08-100,000 Hz; S/N 92 dB; dynamic headroom 2 dB; IMD 0.65%; 19" W x 6.7" H x 19" D; 60 lbs \$5,225

SA 20/20 Power Amplifier

Mono hybrid power amp with tube front end and MOSFET output stage. Features no overall loop feedback; warm-up and shut-off auto speaker muting. Includes vacuum-tube rectification. 600 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.5% THD. 988 W into 4 ohms, 1,500 W into 1 ohm;

20-ms peak amperage into 0.1 ohm 50 amperes; S/N 84 dB; slew rate 0.6 V/ μ s; IMD 0.02%. 19" W x 6.7" H x 19" D; 55 lbs ea \$3,990/pr

SA 20 Power Amplifier

Hybrid power amp with tube front end and MOSFET output stage. Features no overall loop feedback; warm-up and shut-off auto speaker muting; internal switching to operate as a bridged mono amp for triple power. Includes vacuum-tube rectification. 220 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.5% THD, 420 W into 4 ohms, 1,000 W into 1 ohm; 20-ms peak amperage into 0.1 ohm 50 amperes; S/N 84 dB; slew rate 0.6 V/ μ s; IMD 0.02%. 19" W x 6.7" H x 19" D; 55 lbs \$1,995

SA-12 Power Amplifier

Hybrid power amp with tube front end and MOSFET output stage. Features no overall loop feedback; warm-up and shut-off automatic speaker muting. 85 continuous average W/ch from 20-20,000 Hz with no more than 1% THD into 8 ohms; FR 5-100,000 Hz \pm 0.2 dB; S/N 92 dB; dynamic headroom 2 dB; channel-to-ch sep >85 dB from 100-10,000 Hz; 19" W x 4.5" H x 12.5" D \$995

DENON

POA-3000Z Power Amplifier

Features dual super non-NFB circuitry; 4 large capacity high-speed power transistors; floating load circuitry; self diagnostic display; DAD direct input terminals. 250 continuous average W/ch from 20-20,000 Hz with no more than 0.008% THD into 8 ohms; FR 1-300,000 Hz +0, -3 dB; S/N 123 dB A-wtd; dynamic power 315 W + 315 W (8 ohms), 585 W + 585 W (4 ohms), 900 W + 900 W (2 ohms); slew rate \pm 500 V/ μ sec; IMD 0.0015% \$2,400

POA-2200 Power Amplifier

Features unity-current interface; twin pure-current power supply; dual super non-NFB; direct CD input; 200 W/ch \$675

HAFLER

DH-500 Power Amplifier

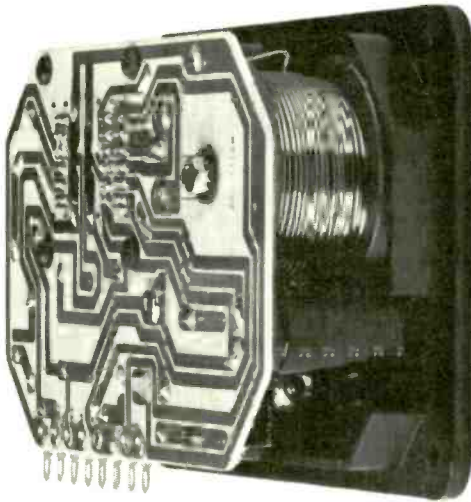
Stereo power amp designed to deliver >255 W/ch with <0.025% distortion into 8 ohms; >400 W into 4 ohms (can be bridged, using optional bridging kit, to deliver >800 W into 8 ohms). Employs MOSFET's on compact enclosed multispeed fan-cooled heat sink. Fuses and relay protect speakers against turn-on thumps or DC shifts; self-protective capability of the MOSFET's eliminates need for amp protection. Factory assembled \$850
 Kit \$675

DH 220 Power Amplifier

Direct-coupled bridgeable MOSFET power amp stable into any load. 115 continuous average W/ch from 20-20,000 Hz with no more than 0.02% THD into 8 ohms; typical THD at 115 W into 8 ohms 0.0015% at 1,000 Hz; FR 6-60,000 Hz -0.5 dB; S/N 100 dB; dynamic headroom 2 dB; slew rate 50 V/ μ sec; IMD <0.005%; damping factor 300 to 1,000 Hz into 8 ohms; 16" W x 5.12" H x 10.5" D; 26 lbs. Assembled ... \$500
 Kit \$400

DH 120 Power Amplifier

Stereo power amp stable with L and R level controls, stereo/mono switch, AUX speaker outputs which feed a matrix signal for ambience effects. 62 continuous average W/ch from 20-20,000 Hz with no more than 0.006% THD into 8 ohms; FR 10-35,000 Hz \pm 1 dB; S/N 105 dB; damping factor 219 to 1,000 Hz; sep 102 dB at



▲ A different breed of crossover. All components are computer-grade and mounted on 'military spec' glass-epoxy board. Hand-built to rigid tolerances. Computer designed for smooth phase and frequency response. Results in precise imaging with remarkable breadth and depth.

▼ Series 2 soft-dome tweeter. Design fine-tuned by 16,000 data point computer analysis. Low mass moving system and narrow magnetic gap for high efficiency and accurate transients. ADS High Gravity cooling fluid ensures exceptional power handling and dynamic range.



▼ Two new towers of power: L990 3-way and L690 2-way. Extra volume of tower enclosure provides deeper, more powerful bass. High frequency drivers set in line with the listener for lifelike, precise imaging. Similarly priced book shelf speakers cannot compare.



NO GUTS, NO GLORY.

The guts: Inside every ADS speaker you'll find drivers conceived, engineered, and built by ADS.

Conceived to be accurate, uncolored, and thoroughly reliable.

Engineered using proprietary computer analysis, to yield extraordinary performance.

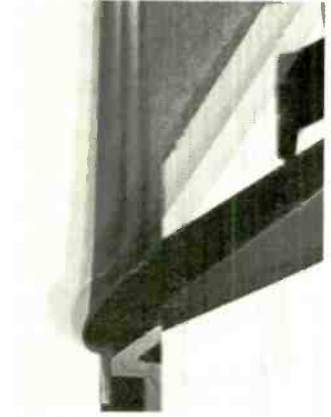
Built with precision and care unequalled in Europe, the Far East, anywhere in the audio industry.

Not every speaker maker builds its own drivers. None builds them as carefully as we do. That's why ADS speakers are picked as reference monitors by the premier CD label. That's why the new level of accuracy CD provides can be heard best on ADS speakers.

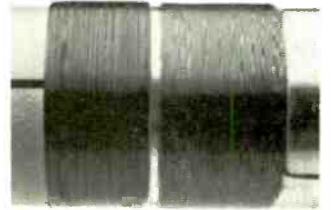
The glory?

Waiting for you at your ADS dealer. Because while we can tell you how beautifully we build them, only he can show you how much better they sound.

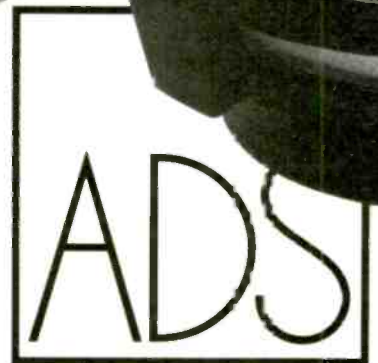
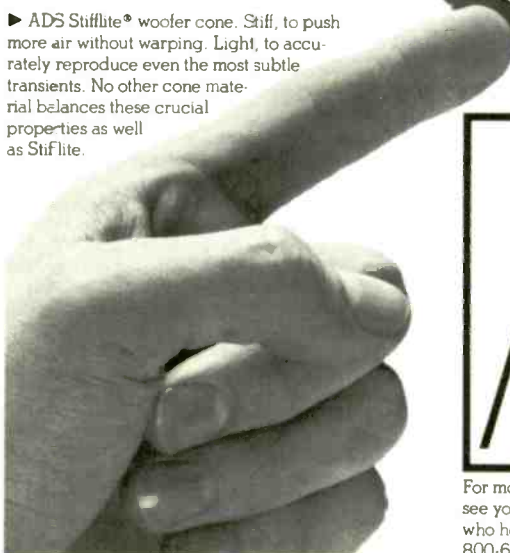
► ADS Stiflite® woofer cone. Stiff, to push more air without warping. Light, to accurately reproduce even the most subtle transients. No other cone material balances these crucial properties as well as Stiflite.



▲ The laws of woofer design present two options: cleaner, deeper bass or just plain louder bass. ADS Linear Drive woofer plays deep and tight because cone travel is long and controlled. Takes full advantage of the wealth of bass on CDs. You'll not only hear the difference, you'll feel it too.



▲ Typical voice coil on left. ADS' version on right. Smooth, tight windings and longer coil mean accurate transients, low distortion. Coil always remains under strict amplifier control.



For more fascinating details on ADS speakers, see your local ADS dealer. If you don't know who he is, call us at 800-345-8122. In PA 800-662-2444.

AMPLIFIERS

1,000 Hz; 15.5" W x 3.25" H x 8.5" D; approx 15 lbs. Tentative price, assembled \$320
Tentative price, kit \$260

HARMAN KARDON

HK870 Power Amplifier

Stereo DC power amp with discrete components in audio circuitry. Features toroidal power supplies; 4 dual-polarity power supplies. Power output 100 W/ch continuous into 8 ohms, 20-20,000 Hz at 0.06% THD; high instantaneous current capability 60 amps; power bandwidth <10-80,000 Hz; FR 0.1-180,000 Hz (1 W) +0/-3 dB; slew rate 160 V/μsec; negative feedback 12 dB; input sens./imp main input 1.0 V/22,000 ohms; S/N (A-wtd, main input) 98 dB; damping factor 120 \$650

HITACHI

HMA 8500 MK II Power Amplifier

Power amp with MOSFET's. Features 100 continuous average W/ch from 20-20,000 Hz with no more than 0.005% THD into 8 ohms; IMD 0.005%; 17.12" W x 6.5" H x 12.56" D; 35 lbs \$650

HMA120AV Power Amplifier

Power amp designed for HPT-120 AV. Features dual 10-point LED. 120 continuous av. W/ch from 20-20,000 Hz into 8 ohms with no more than 0.08% THD; 200-ms power 120 W. 14.5" W x 5" H x 13" D; 17.7 lbs \$250

JVC

ML10 Power Amplifier

Power-cascode Super-A power amplifier. 160 continuous average W/ch from 20-20,000 Hz with no more than 0.002% THD into 8 ohms; FR DC-300,000 Hz +0, -3 dB; S/N 120 dB; IMD 0.002%; damping factor 200 (1,000 Hz, 8 ohms). 18.12" W x 8" H x 16.44" D; 61.6 lbs \$2,100



Kenwood KM-105

KENWOOD

Basic M2A Power Amplifier

Power amp with super DLD; two speaker pair selection; separate level controls for right and left channels; fluorescent peak-hold power meters; LED power indicator. 220 continuous average W/ch from 20-20,000 Hz with no more than 0.004% THD into 8 ohms. 38 lbs \$600

Basic M1A Power Amplifier

Power amp with super DLD; Sigma Drive type B; two speaker pair switching; LED power indicator; headphone jack. 105 continuous average W/ch from 20-20,000 Hz with no more than 0.005% THD into 8 ohms; 23 lbs \$330

KM-205(B) Power Amplifier

150 W/ch power amp with dual-range LED power meters. Features connections and switching for two pairs of speakers; full circuit protection. 150 continuous average W/ch from 20-20,000 Hz with no more than 0.03% THD into 8 ohms \$355

KM-105(B) Power Amplifier

125 W/ch power amp with dual-range LED power meters. Features connections and switching for two pairs of speakers; full circuit protection. 125 continuous average W/ch from 20-

20,000 Hz with no more than 0.03% THD into 8 ohms \$355

KYOCERA

B-910 Power Amplifier

Class AB power amp with triple push-pull high-frequency power stages, ceramic base/chassis. Features DC configuration; large cutless core power transformer; large honeycomb heatsinks; direct and subsonic inputs. 150 continuous average W/ch 20-20,000 Hz with no >0.02% THD into 8 ohms. FR DC-200,000 Hz -3 dB at 1 W; S/N 120 dB; damping factor 150 (50 Hz); 200 W/ch into 4 ohms with 0.03% THD; power bandwidth 10-50,000 Hz; input sens 1.5 V (30 kilohm); 17" W x 8.25" H x 15.75" D; 59.5 lbs \$2,000

LINN BY AUDIOPHILE SYSTEMS

LK 2 Stereo Power Amplifier

70 continuous average W/ch from 20-20,000 Hz; companion to LK1 preamp. 12.75" W x 3" H x 10.5" D; 19 lbs \$695

LUXMAN

M-05 Power Amplifier

Duo-Beta/S Class A power amp. 105 continuous average W/ch from 20-20,000 Hz with no more than 0.025% THD into 8 ohms; FR 10-100,000 Hz -0.5 dB; S/N 120 dB; 18.12" W x 8.25" H x 17.25" D; 88.4 lbs \$3,300

M-02 Power Amplifier

Duo-Beta/S power amp. 140 continuous average W/ch from 20-20,000 Hz with no more than 0.025% THD into 8 ohms; FR 10-100,000 Hz -1 dB; S/N 120 dB; 17.19" W x 5.56" H x 13.19" D; 31.9 lbs \$800

MARK LEVINSON BY MADRIGAL

No. 20 Mono Reference Amplifier

Class A highly biased mono amp with fully regulated power to all audio stages. Features internal spike and surge suppression as well as radio-frequency filtering of the raw AC from the outlet to reduce noise; separated + and - supply rails each with their own toroidal power transformer, full-wave bridge rectification, and high-quality filter capacitors to prevent cross modulation between the rails; electronic regulation to refine power used by signal-carrying circuits; 3 high-current devices to drive the output stage; electronic protection against abuse; a circuit to control all gain stages at the clipping point; balanced inputs with Camac connectors; Neutrik-XLR connector; internal switching to adjust for operation at worldwide voltages (90-240 V AC). 100 continuous W/ch from 20-20,000 Hz into 8 ohms with no more than 0.2% THD, 200 W into 4 ohms; IMD 0.2%. 17.5" W x 8.25" H x 22" D; 90 lbs. \$9,600/pr

ML-3 Power Amplifier

Dual-monophonic power amp in a single chassis utilizing only discrete circuitry. Employs 2 fully independent power supplies, each consisting of a 1.2 KVA toroidal power transformer, a 30-ampere bridge rectifier and 2 36,000-μF filter capacitors, providing 240 joules of stored energy for each ch. 4 1,700-μF capacitors provide additional filtering for all voltage gain stages. Class-A AB2 operation in output stage. Features a sophisticated protection system; gold-plated self-locking speaker connectors; Camac input connectors and selectable damping factor. 200 W/ch at 8 ohms, 20-20,000 Hz <0.2% THD and 400 W/ch at 4 ohms with <0.4% THD. Twenty 200-W, 15-ampere power transistors per ch enable ML-3, when pulsed, to develop 52 volts peak, at peak currents up to 52 amperes

(2,704 W peak) per ch. Hand-brushed black anodized front plate. 10.88" H x 19" W x 24.5" D; 116 lbs \$6,400

ML-9 Power Amplifier

Stereo power amp rated at 100 W/ch at 8 ohms, 20-20,000 Hz, <0.2% THD and 200 W/ch at 4 ohms <0.4% THD. All circuitry is discrete. Class-A operation is maintained throughout all voltage gain and driver stages, with Class AB2 operation in output stage. Power supply is comprised of a 1.2 KVA toroidal power transformer, a 30-ampere bridge rectifier and 2 36,000-μF filter capacitors, and is capable of storing 230 joules of energy. Two 520-μF capacitors provide decoupling and additional filtering for all voltage gain stages. Features gold-plated binding posts for output connections; Camac input connectors and selectable damping factor. Eight 200-W, 15-ampere power transistors together with massive power supply enable ML-9, when pulsed, to develop 58 V peak, at peak currents up to 29 amperes (1,682 W peak) per ch. Hand-brushed black anodized front plate; 8.75" H x 19" W x 13.36" D; 56 lbs \$3,250



Linn LK 2

ML-11 Power Amplifier

Stereo power amp rated at 50 W/ch at 8 ohms, 20-20,000 Hz, <0.5% THD and 100 W/ch at 4 ohms <0.6% THD. 140 W at 8 ohms when bridged. All circuitry is discrete. Class-A operation is maintained throughout all voltage gain and driver stages, with Class AB2 operation in output stage. Power supply consists of a 320 VA toroidal power transformer, two 12-ampere bridge rectifiers, and four 10,000-μF filter capacitors, providing separate rectification and 20 joules of energy storage for each ch. Six 200-W, 15-ampere power transistors per ch enable ML-11, when pulsed, to develop 25 volts peak, at peak currents up to 12.5 amperes (312.5 W peak) per ch. Optional externally programmable voltage-limiting circuit makes it possible to reduce voltage output of ML-11, offering protection for speakers that have reduced power-handling capability. Gold-plated binding posts for output connections and Camac input connectors; hand-brushed black anodized front plate. 8.62" H x 19" W x 12" D; 25 lbs \$2,000

McINTOSH

MC2500 Stereo Power Amplifier

Power amplifier with Power Guard circuit. Includes McIntosh Sentry Monitoring circuit to protect output transistors from damage. Features left- and right-channel gain control; speaker on/off switch; peak-reading, peak-locking power meters; meter range selector; headphone jack. Power output: 500 W/ch both channels driven from 20-20,000 Hz with less than 0.02% THD; IM <0.02% if instantaneous peak power output is less than 1,000 W/ch both channels driven; FR 20-20,000 Hz +0 -0.25 dB, 10-100,000 Hz +0.25 -1 dB; damping factor >30; input imp 50,000 ohms; input sens switchable.

AMPLIFIERS

0.75 or 2.5 V (level control provided for higher input voltages). Power Guard: THD not to exceed 2% with up to 20 dB overdrive at 1 kHz. Power requirements: 120 V 50/60 Hz 0.7 to 22 amps, 15 amps UL/CSA. Standard 19" rack mounting; 129 lbs\$3,495

MC7270 Stereo Power Amplifier

270-W/ch power amplifier with Power Guard circuit. Features McIntosh autotransformer; left- and right-channel gain control; peak-reading, peak-locking power meters; meter selector. Power output: 270 W/ch both channels driven from 20-20,000 Hz with less than 0.02% THD; IM <0.02% if instantaneous peak power output is less than 600 W/ch both channels driven; FR 20-20,000 Hz +0 -0.25 dB, 10-100,000 Hz +0 -2 dB; damping factor >30; input imp 20,000 ohms; input sens switchable, 0.75 or 2.5 V (level control provided for higher input voltages). Power Guard: THD not to exceed 2% with up to 20 dB overdrive at 1 kHz. Power requirements: 120 V 50/60 Hz, 13 amps. 16.2" W x 7.13" H x 14.5" D; 82 lbs\$2,295

MC2002 Stereo Power Amplifier

200-W/ch power amplifier with Power Guard circuit. Features McIntosh Sentry Monitor circuit; DC failure protection; power-line surge protection; peak-responding power meters. Power output: 200 W/ch into 8 ohms both channels driven from 20-20,000 Hz with less than 0.01% THD; IM <0.02% at any power level below rated power both channels driven; FR 20-20,000 Hz +0 -0.25 dB, 10-100,000 Hz +0 -3.0 dB; damping factor >100; input imp 20,000 ohms; input sens switchable, 1.4 or 2.5 V; IHF dynamic headroom 1.7 dB at 8 ohms. Power requirements: 120 V 50/60 Hz, 0.6-15 amps. 16.19" W x 7.13" H x 14.5" D; 50 lbs\$1,850

MC752 Stereo Power Amplifier

75-W/ch power amplifier with Power Guard circuit. Features McIntosh Sentry Monitor circuit; DC failure protection; power-line surge protection. Power output: 75 W/ch into 8 ohms both channels driven from 20-20,000 Hz with less than 0.01% THD; IM <0.005% at any power level below rated power both channels driven; FR 20-20,000 Hz \pm 0.25 dB; damping factor >40; input imp 22,000 ohms; input sens 1.4 V; IHF dynamic headroom 1.4 dB at 8 ohms. Power requirements: 120 V 50/60 Hz. 21 lbs. \$895



NAD 2200

NAD

2200 (The Power Tracker) Power Amplifier

Stereo/mono power amp. Features high-voltage, high-current design; bridgeable; new Soft Clipping circuit; audible clipping indicator on front panel. 100 continuous average W/ch from 20-20,000 Hz with no more than 0.03% THD into 8 ohms; FR 3-80,000 Hz +0, -3 dB; S/N >91 dynamic headroom +6 dB; slew rate >35 V/ μ sec; IMD <0.03%; 16.5" W x 4.8" H x 14.5" D; 27.6 lbs\$548

2155 Power Amplifier

Stereo/mono power amplifier with Soft Clipping circuitry. Features speaker-matching input switch, bridging capability for mono operation. 40 amp current capability; 55 continuous aver-

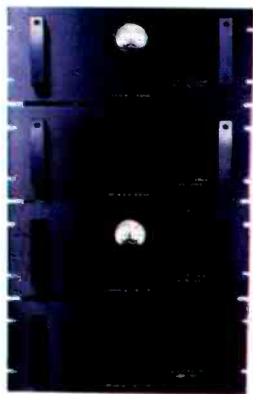
age W/ch 20-20,000 Hz with >0.02% THD; dynamic headroom 3 dB\$348

NAKAMICHI

PA-7 Power Amplifier

Power amp utilizes Stasis topology. Features 700-W toroidal power transformer; 33,000 microFarad x 4 filter capacitors; dual rectifiers; 16 transistors per ch. 200 continuous average W/ch from 20-20,000 Hz with no >0.1% THD into 8 ohms; FR 7-150,000 Hz +0, -3 dB; S/N >120 dB; dynamic headroom 1.7 dB; IMD <0.1%; output current capability 14 amps continuous (50 amps peak); dynamic output power 300 W/ch into 8 ohms; power bandwidth 5-50,000 Hz (8 ohms, 100 W, 0.1% THD); 17.12" W x 7.88" H x 16.56" D; 59 lbs, 8 oz.\$1,750

PA-5. Similar to above but 100 W/ch.\$1,095



Julius Futterman OTL-1

NEW YORK AUDIO LABS

Julius Futterman OTL-1 Power Amplifier

Tube power amp with 4-chassis design. Each channel features 5-kilowatt regulation B+. Power into 8 ohms 65 W; FR (large signal max power) 2-40,000 Hz -3 dB; noise -85 dB unwt'd, -92 dB A-wtd\$12,000

ONKYO

Grand Integra M-510 Power Amplifier

Dual-mono power amp with real-phase power supply. Features ultra-high-current capability with any speaker system regardless of imp or efficiency; 3 separate power supplies (left, right, AUX for lights, meters etc.); speaker-imp range down to 1 ohm; calibrated power meters accurate to 1 dB; A + B speaker systems; adjustable meter sens. 300 continuous average W/ch from 20-20,000 Hz with no more than 0.005% THD into 8 ohms; 500 W into 4 ohms; 200-ms dynamic power 400 W into 8 ohms; S/N 120 dB; IMD 0.003%; dynamic power 750 W into 4 ohms, 1,300 W into 2 ohms, 2,100 W into 1 ohm. 165 lbs; 20" W x 10.5" H x 21" D \$4,200

Grand Integra M-508 Power Amplifier

Dual-mono power amp with real-phase power supply. Features 4 x 2 high-current storage capacitor block; calibrated high-speed power meters; A + B speaker systems; low-imp drive capability; variable and direct inputs. 200 continuous average W/ch from 20-20,000 Hz with no more than 0.003% THD into 8 ohms; 200-ms dynamic power 265 W into 8 ohms; S/N 122 dB; IMD 0.002%; dynamic power 460 W into 4 ohms, 685 W into 2 ohms. 55 lbs; 18.25" W x 7.25" H x 16.75" D\$1,100

Integra M-504 Power Amplifier

Dual-mono power amp with real-phase power supply. Features peak-reading power meters; A + B speaker systems; low-imp drive capability;

high-current output stage; heavy-duty 5-way banana-plug speaker connectors. 150 continuous average W/ch from 20-20,000 Hz with no more than 0.003% THD into 8 ohms, 240 W into 4 ohms; S/N 120 dB; IMD 0.002%; dynamic power 190 W into 8 ohms, 360 W into 4 ohms, 480 W into 2 ohms. 49 lbs; 17.12" W x 7.25" H x 16.75" D\$750

PARASOUND

D/AS-1000 Power Amplifier

Digital/analog servo amp with both voltage and current feedback, computer-switched dual-voltage power supply, 30-MHz output devices. Features switchable BTL operation (1,000 W mono into 2 ohms); LED indicators for peak-over continuous power rating and operation of second power-supply stage. True rack-mount extensions available. 130 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.1 THD, 185 W into 4 ohms, 300 W into 2 ohms; 200-ms dynamic power 660 W into 2 ohms; dynamic headroom 6 dB; S/N 105 dB; slew rate 90 V/ μ s; IMD 0.05%. 17.25" W x 6" H x 12" D; 40 lbs\$585

PA260 Power Amplifier

Compact stereo power amp with switchable BTL operation for 150 W in mono at less than 0.06% THD. Features switching for 2 pairs of speakers; headphone jack; relay protection with LED indicators; oversized toroidal transformer; input gain control. 60 continuous average W/ch from 20-20,000 Hz with no more than 0.02% THD into 8 ohms; FR 10-85,000 Hz \pm 1 dB; S/N 100 dB; dynamic headroom 2 dB; slew rate 95 V/ μ sec; 8-sec delay for relay operation; 17.25" W x 2.75" H x 8.5" D; 15 lbs\$240

PERREAUX

Series 3 Power Amplifiers

Both Perreux Series 3 amplifiers feature Class A-A/B design and a transient power supply configuration design to yield a rise time of less than 1 μ s.

PMF-3150. Rated power 300 continuous W/ch from 20-20,000 Hz into 8 ohms with no more than 0.03% THD from 0.25 W to rated power, 500 W/ch into 4 ohms; distortion 0.03% THD and IM; dynamic headroom 2 dB or greater with music; amplifier saturation 900 W or greater per ch into 8 ohms; bandwidth 0.5 dB from 10-3,000,000 Hz at 1 W; phase response +1° at 20 Hz, -1° at 20,000 Hz; ch sep unused input shorted 20-20,000 Hz greater than 70 dB; damping factor over 400 from 10-1,000 Hz; input sens 1.5 V rms for rated output at 1,000 Hz; input imp 50,000 ohms. 19" W x 7.5" H x 15" D. 50 lbs\$2,395

PMF-1850. Rated power 180 continuous W/ch from 20-20,000 Hz into 8 ohms with no more than 0.15% THD from 0.25 W to rated power, 330 W/ch into 4 ohms; distortion 0.015% THD and IM; dynamic headroom 2 dB or greater with music; amplifier saturation 600 W or greater per ch into 8 ohms; bandwidth 0.5 dB from 10-3,000,000 Hz at 1 W; phase response +2° at 20 Hz, -2° at 20,000 Hz; ch sep unused input shorted 20-20,000 Hz greater than 70 dB; damping factor over 500 from 10-1,000 Hz; input sens 1.5 V rms for rated output at 1,000 Hz; input imp 50,000 ohms. 19" W x 5.75" H x 15" D. 37.5 lbs\$1,895

Series 1 Power Amplifier

PMF 1050 Power Amplifier

Power amp maintains Class A operation up to 10 W/ch into 8 ohms and switches over to Class A/B operation up to saturation level of 250 W/ch. Can drive any known speaker load. Features "straight-wire-with-gain" circuitry; indi-

AMPLIFIERS

vidually tested transistors; handcrafted design. Allows for switching between headphones and 2 sets of speakers. 100 continuous average W/ch into 8 ohms from 20-20,000 Hz at no more than 0.03% THD, 160 W into 4 ohms; 0.03% THD and IM; dynamic headroom 2 dB or greater with music; amplifier saturation 250 W/ch or greater into 8 ohms; max current output 7.5 amperes continuous per ch, fuse limited; bandwidth 0.1 dB from 10-3,000,000 Hz at 1 W; ch sep greater than 60 dB, 20-20,000 Hz; damping factor over 500 from 10-1,000 Hz; input sens 1.5 V rms for rated output at 1,000 Hz; input imp 47,000 ohms. \$1,050



Perreux PMF1850

PIONEER

M-90(BK) Power Amplifier

Features CD direct input with volume control; low-imp driving capability; independent L/R mono construction; copper-plated chassis; nonswitching type-II circuit; 2 pair speaker outputs; power level indicators. 200 continuous average W/ch from 5-50,000 Hz into 8 ohms with no more than 0.003% THD \$900

PROTON

D1200 Power Amplifier

100-W/ch stereo power amp with dynamic power on demand. FR 20-20,000 Hz ± 0.2 dB; dynamic power at 8, 4, 2 ohms 540, 1,000, 1,500 W (IHF 20 ms standard); dynamic headroom at 8, 4, and 2 ohms 7.3 dB; THD and IM 0.02%; clipping power at 8, 4, 2 ohms 110, 175, 220 W; bridge power at 8, 4 ohms 1,800, 2,700 W; damping factor less than 250 W; bandwidth (THD 0.1%) 10-40,000 Hz; input resistance 15 kilohms; input capacitance 220 p-f; input sens 1 V; ch crosstalk at 1,000 Hz 85 dB; S/N A-wtd 120 dB. 16.5" W x 4.3" H x 14.2" D \$599

QUAD

Model 606 Power Amplifier

Power amp with feed-forward error correction (current dumping) combines clarity of Class A operation with efficiency of Class B. Designed to play dynamic program into speakers. Is not rated for continuous power. Protection circuitry uses a sensor on AC-input side of power supply to integrate current over time. No fuses or relays located in signal path. Detailed static and dynamic power curves available from manufacturer. THD (continuous sine wave in 8-ohm resistive load at any level up to 130 W) $<0.01\%$ at 20 Hz, $<0.01\%$ at 1,000 Hz, $<0.03\%$ at 20,000 Hz; FR 20-20,000 Hz -0.25 dB. 12.75" W x 5.5" H x 9.5" D; 27 lbs \$995

Quad 405-2 Power Amplifier

Voltage-power current-controlled amp with feed-forward current error-correction dumping output circuitry. Load-sensitive time-dependent current limiter protection circuit; DC offset voltage confined to negligible values even under gross overload; fixed high-pass filter; clamp circuit interrupts output to speaker in case of component failure. Available in anthracite grey. Output power 100 W continuous sine wave into 8 ohms, 100-1,000 Hz at 0.01% THD, FR -1 dB at 20 Hz, -0.5 dB at 20,000 Hz; slew rate 0.1 V/ μ sec; hum and noise -96 dB A-wtd; 4.5" H x 13.4" W x 7.7" D; 20 lbs \$695

Model 306 Power Amplifier

Power amp with feed-forward error correction (current dumping) combines clarity of Class A operation with efficiency of Class B. Designed to play dynamic program into speakers. Is not rated for continuous power. Protection circuitry uses a sensor on AC-input side of power supply to integrate current over time. No fuses or relays located in signal path. Detailed static and dynamic power curves available upon request from manufacturer. THD (continuous sine wave in 8-ohm resistive load any level up to 50 W) $<0.01\%$ at 20 Hz, $<0.01\%$ at 1,000 Hz, $<0.03\%$ at 20,000 Hz; FR 20-20,000 Hz -0.25 dB. 12.75" W x 2.75" H x 8.25" D; 11 lbs \$595

REVOX

B242 Power Amplifier

High-output power amp capable of driving loads from 2 to 8 ohms at rated levels. Features dual independent power supplies; DC voltage control; electronic short-circuit protection; temperature sensor to activate fan cooling; auto on/off switching responds to signal from preamp; 4/8-ohm speaker output switch; LED bar-graph output meter; heavy-duty output connectors. 200 continuous average W/ch from 20-20,000 Hz with no more than 0.03% THD, 300 W into 4 ohms; dynamic headroom 2.5 dB into 8 ohms; S/N 117 dB; rise time -2 μ s; damping factor 200 (1 kHz 8 ohms); sep 80 dB at 1,000 Hz/ 18" W x 6" H x 14" D; 37.5 lbs \$2,325

ROTEL

RB880 Stereo Power Amplifier

Power amp with 100 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.03% THD; FR 15-120,000 Hz $+0/-1$ dB; S/N 116 dB; IMD 0.03%; 16.94" W x 3.56" H x 12.36" D; 20.6 lbs \$1,099

RB870 Stereo Power Amplifier

Power amp with 2 power transformers and separate power supplies. 60 continuous average W/ch from 20-20,000 into 8 ohms with no more than 0.03% THD; FR 15-120,000 Hz $+0/-1$ dB; S/N 116 dB; IMD 0.05%; 16.94" W x 3.56" H x 12.36" D; 20.6 lbs \$479

SAE

X10A Power Amplifier

Hypersonic Class A power amp. Features gold-plated connectors; toroidal transformer; wide/narrow band inputs; LED true power meters; anodized gray finish. 100 continuous average W/ch from 20-20,000 Hz with no more than 0.025% THD into 8 ohms; FR 20-20,000 Hz ± 0 dB; S/N 110 dB; dynamic headroom 1.2 dB; slew rate 20 amps/ μ sec; IMD 0.02%; 19" W x 3.5" H x 12.5" D; 28 lbs \$900

A201 Power Amplifier

Stereo power amp with 100 W/ch continuous output power into 8 ohms from 20-20,000 Hz at 0.025% THD and IMD. Fully complementary circuits; natural damping; bridgeable to 375 W mono; high-pass filter inputs; LED power meters; turbo-flow heat sinking. FR 20-20,000 Hz; S/N 100 dB; dynamic headroom 1.2 dB; slew rate 20 amps m/sec; 19" W x 12.5" D x 3.5" H; 28 lbs \$650

A502 Power Amplifier

Power amp with automatic bridging circuit. 200 continuous average W/ch from 20-20,000 Hz with no more than 0.025% THD into 8 ohms; 600 W mono operation. Features dual-speaker system switching; peak and average LED power display. Rack mountable. FR 20-20,000 Hz ± 0 dB; S/N 110 dB; dynamic headroom 1.2 dB; IMD 0.025%; 36 lbs \$649

A202 Power Amplifier

Power amp with 100 W/ch and balanced, discrete outputs. Features dual-speaker switching; peak and average level LED power display. Rack mountable. 100 continuous average W/ch from 20-20,000 Hz with no more than 0.025% THD into 8 ohms; FR 20-20,000 Hz ± 0 dB; S/N 110 dB; dynamic headroom 1.2 dB; IMD 0.025%; 19" W x 3.5" H x 14" D; 27 lbs \$449

SANSUI

B-2301 Power Amplifier

DC power amp with X-balanced technology. Features fluorescent peak power display with switchable peak/hold functions; balanced ch-connector inputs. 300 continuous average W/ch from 20-20,000 Hz with no more than 0.003% THD into 8 ohms; FR 0-300,000 Hz $+0, -3$ dB; slew rate 300 V/ μ sec; 18.66" W x 4.94" H x 19.69" D; 81 lbs \$2,600

B-2102 Power Amplifier

DC power amp with X-balanced technology. Features fluorescent peak power display with switchable peak/hold functions. Handles 2 pairs of speakers with front-panel bass and treble attenuators. 200 continuous average W/ch from 20-20,000 Hz with no more than 0.003% THD into 8 ohms, 600 W/ch dynamic power into 2 ohms; FR 0-300,000 Hz $+0, -3$ dB; S/N 115 dB; slew rate 350 V/ μ sec; 16.94" W x 6.94" H x 16.25" D \$1,000

SOUNDCRAFTSMEN

DDR1200 Power Amplifier

1,200-W power amp with 100-LED frequency spectrum analyzer display. Features Class H Vari-Portional circuitry; autobuffer circuitry for continuous 2-ohm operation; 40-LED power output meter from 0.02 up to 2,000 W; Truclip clipping indicators for each ch; mono bridging switch on rear panel. TIM $<0.02\%$; 250 W/ch into 8 ohms; 375 W/ch into 4 ohms continuous rms, 20-20,000 Hz, THD $<0.09\%$; 750 W at 8 ohms; 7" W x 19" H x 12" D; 58 lb \$1,199

PM1600 Power Amplifier

MOSFET stereo power amp. Features Phase Control Regulation power supply; 600 W/ch continuous rms into 4 ohms; 750 W/ch continuous rms into 2 ohms; over 1,000 W/ch short term continuous power into 2 ohms; 375 continuous average W/ch from 20-20,000 Hz with no more than 0.05% THD into 8 ohms; FR 20-20,000 Hz ± 0.1 dB; S/N -105 dB; slew rate 50 V/ μ sec; IMD 0.05%; rack mount; 19" W x 5.25" H x 17" D; 60 lbs \$1,199

A5002 Power Amplifier

Power amp with Class H Vari-Portional circuitry and autobuffer for continuous operation into 2 ohms. Features auto crowbar-protection circuit for output protection without current limiting; 20 LED/ch 0-1,000 W ± 3 dB (4 ohms) meters; front-panel switching for 2 pairs of speakers; true clipping indicators; input level controls. Output power 250 W/ch into 8 ohms, 375 W into 4 ohms continuous rms, 20-20,000 Hz at $<0.09\%$ THD; S/N >105 dB; slew rate >50 V/ μ sec; TIM $<0.02\%$; dynamic headroom >2 dB \$899

A5001. Same as A5002 except no LED meters and no input level controls \$749

Pro-Power Four Power Amplifier

Ultra-high-current MOSFET power amp with 20-segment LED meter, true clipping indicators, 2-pr speaker switching, level controls. 205 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.05% THD, 300 W into 4 ohms. 450 W into 2 ohms; S/N 105 dB;

AMPLIFIERS

slew rate 40 V/ μ s; IMD 0.05%. 19" W x 5.25" H x 11" D; 28 lbs \$699
Pro-Power Three. As above without level controls and LED meters \$599

A2502 Power Amplifier

MOSFET stereo power amp with 20-LED 0-500 W (4 ohms) power meters. Features switching for 2 pairs of speakers; input level controls; true clipping indicators; brushed aluminum with charcoal finish rack-mount front panel. Output power 125 W/ch into 8 ohms, 190 W/ch into 4 ohms, continuous rms, 20-20,000 Hz at <0.05% THD; S/N > 105 dB; damping factor 200 \$649

PCR800 Power Amplifier

Phase Control Regulation MOSFET stereo power amp. 205 W/ch continuous rms; 20-20,000 Hz into 2 ohms. 4 ohms, 8 ohms; THD 0.05%; TIM unmeasurable; S/N > 105 dB; 18 lbs; 5" W x 8.25 H x 12" D \$449

TANDBERG

TPA 3016A Power Amplifier

Dual mono MOSFET power amp with no negative feedback circuits, all discrete circuit designs, ability to deliver 100 amps of peak current and 7,000 W of peak power into 1 ohm loads. 220 continuous average W/ch from 20-20,000 Hz with no more than 0.05% THD into 8 ohms; 440 watts into 4 ohms; 200-ms dynamic power 7,000 watts; S/N 117 dB; IMD 0.05%. 62 lbs; 17.12" W x 8.66" H x 13.75" D \$3,295

TPA 3026A Power Amplifier

150-W MOSFET power amp with all discrete, non-negative feedback circuits. 150 continuous average W/ch from 20-20,000 Hz with no more than 0.2% THD into 8 ohms; 300 watts into 4 ohms; S/N 98 dB; slew rate 500 V/ μ sec; IMD 0.02%. 17.12" W x 4.78" H x 13.75" D \$1,595



Tandberg TPA 3006A

TPA 3006A Power Amplifier

Stereo power amp with toroidal power transformer; high-current MOSFET output design. Features selected all-metal film resistors; polypropylene capacitors; zero negative feedback. Continuous average power output 150 W/ch from 20-20,000 Hz with no more than 0.02% THD into 8 ohms; S/N 96 dB A-wtd at 1 W; slew rate 500 V/ μ sec; IMD 0.02%; 17.12" W x 3.25" H x 13.75" D; 25 lbs. Rosewood side panels optional \$1,195

TPA 3009A Mono Power Amplifier

High-current MOSFET output mono power amp. Uses no negative feedback; no current and voltage limiting. Features discrete circuitry with 1 percent tolerances; metal film resistors; polypropylene capacitors; high-current toroidal power supply. Stable down to 0.5 ohm. 200 continuous average W/ch from 20-20,000 Hz with no more than 0.02% THD into 8 ohms, 350 W into 4 ohms, 450 W into 2 ohms. FR 1-150,000 Hz +0, -3 dB; S/N 98 dB; slew rate 250 V/ μ sec; IMD 0.05%; 7.12" W x 3.25" H x 13.75" D; 25 lbs. Rosewood side panels and rack mounts available \$1,195

TECHNICS

SE-A3MK2 Stereo DC Power Amplifier

Power amp with computer-drive Class A circuitry. Features linear-feedback circuitry; Class A synchro bias; concentrated power block; extra-large transformers and capacitors for stable power supply; 4-stage Darlington output circuitry; auto-load imp detector; computer-protection circuitry; large, fast peak power meters; extra 2-Hz low-cut input terminals; main/remote/main and remote/off pushbutton speaker selectors on front panel; thick aluminum cabinet. Output power 300 W/ch into 8 ohms; THD 0.002%; IMD 0.002%; FR DC-200,000 Hz -3 dB; input sens/imp 55 mV/4-16 ohms main or remote, 8-16 ohms main and remote; S/N 100 dB; damping factor 200 8 ohms, 100 4 ohms; 16.94" W x 8.19" H x 19.97" D; 86 lb \$2,200



Technics SE-A5 MK2

SE-A100 Class AA Power Amplifier

Power amp with 1 voltage and 1 current amp per channel. Voltage amps isolated from load by Class AA bridge circuit which drives current amp to avoid influence of complex, fluctuating speaker impedances on voltage/current phase relationship. Prevents counter electro-motive force. Features massive power supply; 3 transformers (L-ch current amp, R-ch current amp, L/R voltage amps) using LC-OFC windings; 91,200-microfarad filtering; magnetic isolation; vibration damping; front-panel speaker switching. 170 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.0007% THD, 240 W into 4 ohms with 0.002% THD; dynamic headroom 0.7 dB; S/N 97 dB IHFA; IMD 120% (SHF 66); power bandwidth 5-100,000 Hz +3, -3 dB at 0.01% THD. 17" W x 8.25" H x 18.75" D; 70 lbs \$1,500

SE-A5MK2 Power Amplifier

DC power amp with computer drive to neutralize transient crossover distortion and linear feedback. Features parallel 3-stage Darlington output; power-linear circuit to compensate for speaker imp variation; power-output meters. 150 continuous average W/ch from 20-20,000 Hz with >0.002% THD into 8 ohms; FR DC-150,000 Hz +0/-3 dB; S/N 102 dB IHF A, 121 dB IHF '60; dynamic headroom 1.5 dB (852) -3.6 dB, 4 ohms; IMD 0.002% 8 ohms; TIM immeasurable; LF damping factor 100; power bandwidth both chs driven 5-100,000 Hz -3 dB, THD 001%; 16.94" W x 7" H x 16.36" D; 40.6 lbs \$800

THRESHOLD

Model SA/1 Class A Stasis Power Amplifier

Single-ch, noninverting complimentary-symmetry power amp with N-ch JFET's in front-end signal path and proprietary Stasis output stage. This is a binary topology in which a pure Class A voltage amp connected directly to the loud-speaker load determines signal integrity while operating in conjunction with a high-amperage current mirror also operated in pure Class A and connected directly to the load. No global feedback is used. Front-end gain stages biased

for Class-A operation at all signal levels and are subject to primary and secondary levels of cascode shielding. Output stage employs 40 ultra-wide-bandwidth power transistors each rated at 200 V, 20 amperes. No fusing is imposed between output and load. Input and output connectors have gold-plated contact surfaces. Circuit boards are military-grade glass-epoxy and all internal connections are hand soldered. Operation is allowed into any load as permitted by power-supply fuses and thermal-protection circuitry. Large illuminated front-panel peak power meter covers -30 to +3 dB. Power supply 1,000 W toroidal transformer, 120,000 μ F capacitance. Rated power 160 W rms into 8 ohms of resistive or reactive imp 20-20,000 Hz at no more than 0.05% THD; bandwidth at -3 dB points, 7 Hz and 100,000 Hz; slew rate 50 V/ μ sec; input imp 75,000 ohms; output imp 0.03 ohms; output current capability 40 amperes continuous, 150 amperes peak; 19" W x 9.5" H x 17.5" D; 79 lbs \$3,600

Model SA/2 Class A Stasis Power Amp. Similar to SA/1 except no output power meter. 100 continuous average W/ch from 20-20,000 Hz with no more than 0.05% THD into 8 ohms; FR 7-100,000 Hz at -3 dB points; S/N -100 dB unwd, referenced to rated output; slew rate 50 V/ μ sec; IMD 0.1%; 30 continuous, 100 peak amperes output capability. Output stage employs 28 ultra-wide-bandwidth, 200 V, 20 ampere, 250 W rated devices. Power supply uses 700 W continuous rating toroidal transformer, 60,000 mf capacitance. 19" W x 9.5" H x 13.12" D; 56 lbs \$2,300

Model SA/3 Class A Stasis Power Amp. Similar to SA/2 except dual ch. lower power configuration. 50 continuous average W/ch from 20-20,000 Hz with no more than 0.05% THD into 8 ohms; frequency bandwidth 7 Hz and 100,000 Hz at -3 dB points; S/N -100 dB unwd referenced to rated output; slew rate 50 V/ μ s; IMD 0.1%; 16 continuous, 80 peak amperes capability/ch. Output stage employs 14 ultra-wide-bandwidth, 200-V, 20-ampere, 250-W rated devices per ch. Power supply uses 700-W continuous rating toroidal transformer, and 60,000 microfarads capacitance. 19" W x 9.5" H x 13" D; 56 lbs \$2,500

Model S/500 Stasis Power Amplifier

Dual-ch, noninverting complementary-symmetry power amp employing the same signal-path topology as SA-series amps except current bootstrap section of Stasis output stage is operated in Class AB. No global feedback employed. Front-end gain stages and voltage amp section of Stasis output stage are biased for Class A operation at all signal levels. Front-end signal transistors are subject to primary and secondary levels of cascode shielding. Modular construction. 150 continuous average W/ch from 20-20,000 Hz with no more than 0.1% THD into 8 ohms; frequency bandwidth at -3 dB points 7 Hz and 100,000 Hz; S/N -100 dB unwd referenced to rated output; slew rate 50 V/ μ s; IMD 0.1%; 12 continuous, 100 peak amperes capability/ch. Output stage employs 20 ultra-wide-bandwidth, 200-V, 20-ampere, 250-W rated devices per ch. Power supply uses 1,000-W continuous rating toroidal transformer, and 120,000 microfarads of capacitance. Output imp 0.1 ohm 20-20,000 Hz. 19" W x 9.5" H x 17.5" D; 78.5 lbs \$3,300

Model S/300 Stasis Power Amp. As model S/500 except rated power 150 W/ch into 8 ohms, both chs driven 20-20,000 Hz at 0.1% THD; output transistor complement fourteen 200-V, 20-ampere devices/ch; power supply 700-W toroidal transformer, 60,000 μ F capacitance; output current capability 10 amperes/ch continuous, 80 amperes/ch peak; 19" W x 9.5" H x 13" D; 56 lbs \$2,400

AMPLIFIERS

Model S/200 Series II Stasis Power Amp. As model S/300 above except rated power 100 W/ch rms into 8 ohms, both chs driven 20-20,000 Hz at 0.1% THD; output transistor complement eight 200-V, 20-ampere devices/ch; power supply 400-W toroidal transformer, 30,000 μ F capacitance; max output current 8 amperes/ch continuous, 40 amperes/ch peak; 19" W x 9.5" H x 17.5" D 44 lbs \$1,590

VECTOR RESEARCH

VA-1450 Power Amplifier

Features high-current, 8-output transistors, dual transformers; used in bridging mode with VA-1400 or VRX-9100 to convert to 200 W/ch. 100 continuous average W/ch 20-20,000 Hz <0.08% THD into 4 ohms; dynamic headroom 2.5 dB; IHF IMD 0.08%; FR 10-40,000 Hz \pm 1 dB; 21 lbs. 17" W x 3" H x 12" D \$330

YAMAHA

B-2X Stereo Power Amplifier

Dual power amp with Class A operation. Features full twin-monaural DC amp configuration; Zero Distortion Rule (ZDR) amplification; massive power supply; overload protection circuitry; 2-way heavy-duty speaker connection terminals. 170 W min rms output power per ch from 20-20,000 Hz into 8 ohms with less than 0.002% THD, 200 W into 6 ohms, 240 W into 4 ohms with 0.003% THD; dynamic power per ch at 1,000 Hz 262 W into 8 ohms, 447 W into 6 ohms, 625 W into 4 ohms; S/N 124 dB. 17.12" W x 6.5" H x 17" D; 57.2 lbs \$1,500

M-85B Auto Class A Power Amplifier

Features Zero Distortion Rule (ZDR) amplification; huge power reserves; 3 pairs of speakers driven together, independently, or simultaneously; wide-range LED power meters with speaker-load selector and on/off switch; switchable peak hold/meter range display; 2-way heavy-duty speaker connection terminals; overload protection circuitry. 260 W min rms output power per ch from 20-20,000 Hz into 8 ohms with less than 0.003% THD; dynamic power per ch at 1,000 Hz 430 W into 8 ohms, 510 W into 6 ohms, 660 W into 4 ohms, 850 W into 2 ohms; S/N 128 dB. 17.12" W x 6.5" H x 16.75" D; 50 lbs \$990

M-65B Auto Class A Power Amplifier

Features Zero Distortion Rule (ZDR) amplification; huge power reserves; 3 pairs of speakers driven together, independently, or simultaneously; wide-range LED power meters with speaker-load selector and on/off switch; 2-way heavy-duty speaker connection terminals; overload protection circuitry. 160 W min rms output power per ch from 20-20,000 Hz into 8 ohms with less than 0.003% THD; dynamic power per ch at 1,000 Hz 255 W into 8 ohms, 315 W into 6 ohms, 380 W into 4 ohms, 450 W into 2 ohms; S/N 127 dB. 17.12" W x 6.5" H x 16.75" D; 33 lbs \$699

M-45B Auto Class A Power Amplifier

Features Zero Distortion Rule (ZDR) amplification; huge power reserves; 3 pairs of speakers driven together, independently, or simultaneously; wide-range LED power meters with on/off switch; heavy-duty speaker connection terminals; overload protection circuitry. 125 W min rms output power per ch from 20-20,000 Hz into 8 ohms with less than 0.003% THD; dynamic power per ch at 1,000 Hz 170 W into 8 ohms, 210 W into 6 ohms, 385 W into 4 ohms, 390 W into 2 ohms; S/N 123 dB. \$429

M135B Power Amplifier

Features switchable 2-/4-ch operation; indepen-

dent ch level controls; high dynamic power/low-imp drive capability. 40 W min rms power output into 2 channels from 20-20,000 Hz into 8 ohms with less than 0.003% THD, 20 W into 4 channels \$249

PREAMPLIFIERS

ACCUPHASE BY MADRIGAL

C-280 Stereo Preamplifier

Preamp with all-stage Class A push-pull arrangement and all DC servo-controlled direct-coupled unit amplifiers and signal paths. Compatible with MC cartridges with built-in head amp; separate power transformers for each channel (+26 dB/+32 dB selectable); MC input-imp selector switch; right and left separate input level control (balance control); 2-stage selectable loudness compensator. THD <0.005% 20-20,000 Hz; phono input 2 mV, phono (head amp on): 0.1 mV/0.5mV selectable; line/tuner input 126 mV; rated output 2 V; line/tuner S/N 110 dB; phono signal-to-noise ratio 85 dB; phono S/N (head amp on) 72 dB. 18.44" W x 6.75" H x 15.62" D \$5,200

C-720 Preamplifier

Class A preamp with cascode push-pull circuits on all stages. Features separately regulated power supply for each gain stage in each ch; fully balanced input and output for CD player; 10 inputs; selectable loudness compensation. Inputs for MM phono; tape; tape 2; CD player; CD player/balanced; tuner; 4 line-level sources. FR 1-500,000 Hz \pm 3 dB; S/N 92 dB; total harmonic distortion 0.005%. 18.5" W x 5.75" H x 14.75" D; 34.4 lbs \$4,300

C-200L Stereo Preamplifier

Extremely flexible stereo preamp and control center. Features 11 inputs; separate tone controls for each channel with selectable turnover frequencies; some inputs and outputs accessible from front panel. Inputs for MM phono, MC phono, tape, tape 2, tape 3; AUX, phono 2, phono 3, CD player, tuner; line 2; line 3. FR 1-500,000 Hz +0, -3 dB; max output 8.0 V; THD 0.005%; IMD 0.005% IHF; MM phono sens 0.5 mV for 0.5-V output at 1,000 Hz; MM phono input overload level 300 mV, sens for line-level inputs 31.5 mV; 17.5" W x 6.4" H x 14.6" D; 30 lbs \$2,750

C-222 Stereo Preamplifier

Preamp with all-stage push-pull arrangement with cascode amplification and all signal paths directly coupled by DC Servo Control circuit. Features built-in head amp (+26 dB/+32 dB selectable gain); selectable MC input imp; selectable MM load capacitance; 2-level selectable loudness compensator. At 2 V output: THD <0.005% 20-20,000 Hz; rated input, phono: 2 mV phono (head amp on); 0.1 mV/0.05 mV selectable AUX/tuner; signal-to-noise ratio 85 dB AUX/tuner 110 dB (head amp on) 72 dB. 17.5" W x 5" H x 14.81" D \$1,850

ACOUSTAT

Trans-Nova Preamplifier

Full FET preamplifier with single phono gain stage for all types of low- or high-output phono cartridges and RIAA network that is neither passive nor active. Features 4 high-level inputs; 2 tape monitors with dubbing in both directions; output switching; passive high filter and loudness compensation; headphone output; convenience outlets. FR 3-750,000 Hz \pm 3 dB; 10 lbs \$695

ACOUSTIC RESEARCH

AR C06 8-Input Preamplifier

Features infrared remote control of inputs and volume via tuner cable link; switchable MM-input capacitance; gold-plated phono inputs; separate headphone amp. Inputs for MM phono; MC phono; tape; tape 2; AUX; CD player; tuner; video. FR 13-50,000 Hz \pm 3 dB; S/N 90 dB; THD 0.005%; MM phono sens 0.8 V for 0.5-V output at 1,000 Hz; MM phono input overload level 0.8 mV at 1,000 Hz; sens for line-level inputs 50 mV. 17" W x 3.25" H x 13" D \$360

ADCOM

GFP-555 Preamplifier

Features two-sided copper-plated circuit board for low noise and hum; switchable phono-input capacitance; switchable gain on phono input; tape dubbing; separate headphone amp; 2 sets of outputs (AC coupled, DC coupled); signal-processor loop; 5 pairs of high-level inputs. Can record from one input while listening to another input. Inputs for MM phono; MC phono; tape; tape 2; CD player; tuner; video. FR DC-400,000 Hz \pm 0.5 dB; THD 0.005%; MM phono sens 0.4 mV for 0.5-V output at 1,000 Hz; sens for line-level inputs 40 mV. 17" W x 3.25" H x 12.75" D \$500

GFP-555W. As above with white front panel \$580

GFP-555S. With silver front panel \$580

GTP-500 Preamplifier/Tuner

Preamplifier with built-in tuner can be used with Adcom or other power amps. Wireless remote control included. Remote sensors available for remote control from different rooms. Preamp section features inputs for MM phono; tape; tape 2; CD player; tuner. Tuner section features quartz-referenced digitally synthesized tuning; auto up and down scan; 8 AM/FM presets; 5-LED signal-strength display; high-blend circuit; 2 sets of outputs (AC coupled, DC coupled). S/N phono A-wtd 85 dB; IMD preamp 0.0015%; sens tuner 36.5 dB stereo; THD tuner 0.09% stereo at 1,000 Hz; S/N tuner 75 dB stereo; sep tuner 52 dB at 1,000 Hz. 17" W x 3.25" H x 12.75" D \$500

GTP-500W. As above with white front panel \$575

GTP-500S. With silver front panel \$575

AUDIO RESEARCH

SP-11 Preamplifier

High-Definition stereo preamplifier of hybrid design employing both vacuum tubes and field effect transistors. Inputs provided for MM phono/MC phono; tape; tape 2; AUX; CD player; tuner; video. Features automatic muting for warm-up, brown-out, powerline interruption; manual muting; bypass switch for audiophile-quality program material; absolute phase switch; level control; toroidal power transformer. FR 0.1->200,000 Hz \pm 3 dB; S/N 110 dB; THD <0.005%; MM phono sens 0.088 mV for 0.5 V output at 1,000 Hz; MM phono input overload level 350 mV at 1,000 Hz; sens for line-level inputs 18 mV. 46 lbs; 19" W x 5.25" H x 10.25" D \$4,900

SP-10 Preamplifier

High-Definition vacuum-tube stereo preamplifier with additional gain for use directly with MC cartridges. Inputs for MM and MC phono, tape, AUX, phono 2, tuner, AUX 2. Features auto muting for repeat settings, etc.; power switch for 1,600 W capacity power receptacles; selectable front panel imp matching for optimizing MC and MM cartridge performance; gain selection for matching cartridges; bypass switch defeats most functions for optimum perfor-

AMPLIFIERS

mance. FR (high level, ± 0.25 dB) 5-30,000 Hz; magnetic phono, ± 0.25 dB of RIAA, 30-40,000 Hz; max output 60 V; THD 0.01% and IMD 0.002% at 2 V rms out; MM sens 0.125 mV of 0.5 V output at 1,000 Hz; MM overload level 300 mV; line-level input sens 25 mV; input imp 50k ohms (all high level); magnetic phono, 10, 30, 100, 10k, 47 kilohms (selectable). Two units 19" W x 5.25" H x 10.25" D; 49 lbs shipping weight \$3,700

SP-8 Preamplifier

High-Definition vacuum-tube stereo preamplifier with 1.5-minute warm-up timer. Inputs for MM phono, tape, AUX, tuner, AUX 2. Features auto muting; continuous protection against line-voltage dropouts; high-accuracy, close-tracking segmented gain control; front-panel receptacle switch for 2 relay-controlled outlets with 1,600-W capacity; isolated ground construction that floats all inputs and outputs; rejection filters for minimizing or eliminating CB, TVI, RF interference. FR 5-30,000 Hz ± 0.25 dB high-level, to 40 kHz phono; max output 60 V; THD and IMD $< 0.01\%$ / 0.002% at 2 V rms; MM sens 0.5 mV for 0.5 V output at 1,000 Hz; line-level sens 25 mV; gain phono/high-level to main output 26/60 dB; input/output imp 50k/1 kilohms; phono overload 900 mV; output level 2 V rms; noise 250 μ V rms max high-level, 5 μ V phono; power consumption 60 W; 19" W x 10.25" D x 5.25" H; 22 lbs \$1,895

MCP33 Vacuum-Tube Preamplifier

Preamp for low-output MC cartridges. Features front-panel gain and imp selectors. FR 20-50,000 Hz ± 1 dB; max output 10 V; THD 0.005% at 100 mV; IMD 0.01% at 100 mV; 19" W x 5.25" H x 12.38" D; 14 lbs \$1,395

SP-7 Solid-State Preamplifier

Stereo preamplifier with Analog Module technology. Inputs for MM phono; tape; AUX; tuner; AUX 2. Features manual and auto muting; close-tolerance segmented gain control; front-panel receptacle switch that operates 3 relay-controlled outlets with 1,600-W capacity; low-surge turn-on circuitry; isolated ground construction that floats all inputs and outputs; rejection filters for minimizing RFI, TVI, CB interference. FR 1-50,000 Hz ± 0.25 dB high-level, 10-40,000 Hz phono; THD and IMD $< 0.002\%$ at 2 V rms; MM sens 0.5 mV for 0.5 V output at 1,000 Hz; gain phono/high-level to main outputs 60/26 dB; input/output imp 50k/250 ohms; phono overload 500 mV at 1 kHz; output level 2 V rms; noise high-level/phono 250/2 μ V; 19" W x 8.5" D x 3.5" H; 20 lbs shipping weight \$995

SP-12 Vacuum-Tube Preamplifier

Stereo preamp with front-panel auto and manual muting for warm-up protection, repeat settings, etc. Inputs for MM phono, tape, AUX, tuner. Features front-panel power switch for activating back-chassis plug-in power receptacles; high accuracy, close-tracking, segmented gain control; auto mute. FR (high level) 5-30,000 Hz ± 0.5 dB; MM phono, ± 0.25 dB of RIAA 30-20,000 Hz; max output 50 V; THD 0.02%, IMD 0.07% at 2 V rms output; MM sens 1 mV for 0.5 V output at 1,000 Hz; MM input overload level 600 mV; input imp, 50 kilohms phono, 100 kilohms high level; 19" W x 5.25" H x 8.9" D; 19 lbs \$995

BRYSTON

12B Preamplifier

Control preamplifier capable of playing 1 source while tapping or remoting another source. Fea-

tures stereo/mono/mute switch; 14-volt headroom. Inputs for moving-magnet phono; moving-coil phono; tape; tape 2; CD player; tuner; video. S/N -84 dB; THD .005%; 19" W x 1.75" H x 11" D \$1,500
11B. Without moving-coil input but phono 2 instead \$1,100

.5B Preamplifier

Basic preamp with inputs for MM phono, tape, CD player, tuner. FR 20-20,000 Hz ± 0.1 dB; max output 14 V; THD 0.005%; IMD 0.005% IHF; 19" W x 1.75" H x 9" D; 9 lbs \$600

B&W

CU810 Preamplifier

Features highly linear MC stage; unbalanced and balanced outputs. Overload margin uses 4 ultra-low noise multiple transistors in parallel with DC servo feedback loop. Inputs for MM phono; MC phono; tape; tape 2; AUX; CD player; tuner. S/N 108 dB; THD 0.005%; MM phono sens 5.14 mV for 0.5-V output at 1,000 Hz. 18.5" W x 3.75" H x 7.25" D; 8.8 lbs \$2,150

Active Control Unit

Designed to complement B&W Active 1 system. Features high overload capacity; low distortion; low output imp. Inputs for MM phono; MC phono; tape; CD player; tuner. S/N 85 dB; THD 0.01%; MM phono sens 1.5 mV for 0.5-V output at 1,000 Hz; MM phono input overload level 4.5 mV at 1,000 Hz. 12" W x 4.5" H x 2" D; 5 lbs \$699

CANTON

EC-P1 Preamplifier

Hand-wired preamp with gold-plated connections. Inputs for magnetic and dynamic pickup systems (with level RQ), CD player or PCM tape deck, tuner, 2 tape decks, AUX, MM and MC phono. Provides hook-up for EQ loop. 2 RCA outputs and 1 Cannon jack. FR 7-2 MHz; THD 0.004%; MM phono sens 2 mV for 0.5 V output at 1,000 Hz; sens for line-level inputs 200 mV. 17.13" W x 2.76" H x 9.45" D; 13.44 lbs \$2,000

CARVER

4000-t Sonic Holography Preamplifier

Preamp includes Sonic Hologram Generator designed to recreate 3-dimensional sound field present during original recording and to locate musical instruments precisely in space. Features MC preamp; 3-channel time-delay system with 40 W combined amplifier, user-selectable 35/50-m/sec initial delay with variable echo density; third-generation Auto Correlator noise-reduction system, Peak Unlimiter; separate left and right bass and treble controls with turnover frequency switches, tone defeat; cartridge matching; 2-way tape dubbing, mopingoring, external signal processor input; infrasonic filter; video surround-sound circuit. FR ± 0.25 dB 20-20,000 Hz phono RIAA, 5-200,000 Hz -1 dB high level; input sens 0.85 mV phono, 50 mV high level; phono overload 150 mV at 1 kHz; phono gain 35 dB; NR 20 dB (20-200 Hz), 10 dB (2,000-20,000 Hz); Sonic Hologram image resolution 5° horizontally, 20° vertically; Peak Unlimiter total dynamic-range recovery 6 dB; time delay 50 msec max; distortion 0.2%; bandwidth 20-10,000 Hz, feedforward to 19 kHz. 19" W x 8" D x 6.25" H \$1,095

C-1 Sonic Holography Preamplifier

Features Sonic Hologram Generator dimensional audio imager; separate left and right bass and treble tone controls, tone defeat; MC phono input; 18 dB/octave infrasonic filter; tape/source

monitor with 2-way tape-dubbing; provision for external processor. FR ± 0.25 dB extended curve phono RIAA, 5-200,000 Hz high level; THD 0.05%; phono overload 150 mV at 1 kHz, 1,500 mV at 20 kHz; image resolution 5° horizontal, 20° vertical \$599

C-2 MM/MC Preamplifier

Preamp features switchable phono input for MM or MC cartridges; infrasonic filter (18 dB/octave below 20 Hz); bass and treble controls; tone control bypass; 2 tape inputs; provision for 2-way dubbing; AUX input; external processor loop; mode switch; rear-panel jack for high-level gain (choice of 15 or 25 dB); FR -3 dB at 3 Hz and 80 kHz (infrasonic filter out); noise 77 dB MC, 83 dB MM; THD 0.05%; output imp 600 ohms \$399

COUNTERPOINT

SA-11 Line-Level Control Amplifier

Full-featured line-level control center includes industrial-grade stepper motors to control 2 massive custom-built 41-position attenuators. Features full vacuum-tube power supply and audio circuitry; wireless hand-held remote control; Isolinear design for max isolation and extreme linearity. Inputs for tape; tape 2; AUX; CD player; tuner; video. 19" W x 6.7" H x 19" D; 70 lbs \$3,995

SA-9 Phono Equalizer/Preamplifier

Full-vacuum-tube phono-cartridge preamplification and equalization system with completely independent MC and MM circuits. Isolinear design for max isolation and extreme linearity. Input for MM and MC phono. FR 1-350,000 Hz ± 3 dB. 19" W x 4.5" H x 12.5" D; \$1,995
SA-9/11 Combo. Features, functions, and inputs of SA-9 and 11 combined \$5,990

SA-5.1 Preamplifier

Preamp with inputs for MM phono, MC phono, tape, tape 2, AUX, CD player, tuner. FR 0.5-88,000 Hz ± 0.1 dB; max output 70 V; THD 0.08%; IMD 0.08% IHF; MM phono sens 0.5 mV for 0.5-V output at 1,000 Hz; MM phono input overload level 700 mV; 19" W x 2.03" H x 17.03" D; 24 lbs \$1,795

SA-3.1 Preamplifier

Preamp with inputs for MM phono, MC phono, tape, tape 2, AUX, CD player, tuner. FR 2.5-30,000 Hz ± 0.1 dB; max output 70 V; THD 0.18%; IMD 0.18% IHF; MM phono sens 2.5 mV for 0.5-V output at 1,000 Hz; MM phono input overload level 800 mV; 19" W x 2.03" H x 17.33" D; 18 lbs \$995

SA-2 Preamplifier

Preamp with inputs for MC phono. FR 0.5-350,000 Hz; max output 38 V; 19" W x 2.03" H x 17.03" D; 18 lbs \$995

SA-7.1 Preamplifier

Preamp with inputs for MM phono, MC phono, tape, CD player, tuner. FR 2-30,000 Hz ± 0.1 dB; max output 30 V; THD 0.25%; IMD 0.3% IHF; MM phono sens 0.8 mV for 0.5-V output at 1,000 Hz; MM phono input overload 500 mV; 19" W x 2.23" H x 7.1" D; 13 lbs \$595

SA-6 Preamplifier

Preamp with inputs for MC phono. FR 1-30,000 Hz; max output 30 V; THD 0.06%; IMD 0.07% IHF; 19" W x 2.03" H x 7.75" D; 10 lbs \$450

DENON

PRA-2002Z Preamplifier

Inputs for 2 MC phonos, 1 MM phono, tape,

SONIC HOLOGRAPHY:

LIGHT YEARS CLOSER TO REALITY.

SONIC HOLOGRAPHY TRANSFORMS EXCITING NEW PROGRAM SOURCES AS WELL AS FAMILIAR OLD ONES INTO TRULY LIFELIKE EXPERIENCES.

When Bob Carver set out to redefine the stereo listening experience through Sonic Holography, he was really rebelling against the limitations of the stereo phonograph record. At the time his remarkable invention first started astounding audio critics and music lovers, vinyl discs were the musical standard.

If Sonic Holography can breathe life into even your oldest records, imagine what it will do for CD's, VHS Hi-Fi and other exciting new stereo sources.

Now there are at least five major audio/video breakthroughs which further expand Sonic Holography's potential to bring more excitement and realism into your life.

These innovations include the Compact Audio Disc, noise-free stereo FM, AM Stereo, Stereo television broadcasts and stereo HI-Fi video formats.

Each provides the Sonic Hologram Generator in selected Carver preamplifiers and receivers with a chance to redefine the width, breadth and depth of the traditional stereo sound field — while using your existing speakers.

WHAT SONIC HOLOGRAPHY DOES.

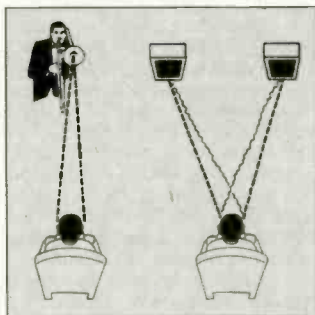
Watch a 13" black and white TV. Now see a movie in 70 millimeter.

Listen to your favorite musicians on a transistor radio. Now sit three rows back from the stage at a live concert.

These are not exaggerations of how much more dimensional and realistic Sonic Holography is than conventional stereo. The most experienced and knowledgeable experts in the audio industry have concurred. Julian Hirsch wrote in *Stereo Review*. "The effect strains credibility—had I not experienced it, I probably would not believe it." *High Fidelity* magazine noted that "...It seems to open a curtain and reveal a deployment of musical forces extending behind, between and beyond the speakers." According to Larry Klein of *Stereo Review*, "It brings the listener substantially closer to that elusive sonic illusion of being in the presence of a live performance."

HOW SONIC HOLOGRAPHY WORKS.

When a musician plays a note, the sound occurrence arrives separately at your left and right ears. Your brain analyzes the difference in these sound arrivals and tells you exactly where the sound is.



L. Real-life sonic event results in two sound arrivals: one at your left ear, one at your right ear.

R. Stereo playback of that sonic event results in four sound arrivals. Two per speaker per ear = four.

Conventional stereo tries to duplicate this process by using two speakers to send a different version of the same sound occurrence to each ear. In theory, this should "trick" your brain's psychoacoustic center into placing the musician on a limited sound stage between your speakers. If — and only if — each speaker can be only heard by one ear.



Conventional stereo: The sound is heard, more or less, on a flat curtain of sound between the two speakers. Volume differences only. The timing cues are gone.



Sonic Holography: With SONIC HOLOGRAPHY, the sound is reproduced much like that of a concert performance, complete with timing, phase and amplitude cues. Three dimensional!

The problem is, these different versions of the same sound also cross in the middle of your listening room, so left and right ears get both left and right sound arrivals a split second apart. Stereo imaging and separation are reduced because both speakers are heard by both ears, confusing your spacial perception.

The Sonic Hologram Generator in the Carver 4000t, C-9, C-1 and Carver Receiver 2000

solve this muddling of sound arrivals by actually creating another "sound." This special impulse cancels the objectionable second sound arrival, leaving only the original sound from each loudspeaker.

The result is a vast sound field extending not only wider than your speakers, but higher than your speakers as well. Sounds will occasionally even seem to come from behind you! It is as if a dense fog has lifted and you suddenly find yourself in the midst of the musical experience. Or, as the Senior Editor of a major electronics magazine put it, "When the lights were turned out, we could almost have sworn we were in the presence of a live orchestra."

CARVER CD AND TUNER INNOVATIONS EXTEND THE POSSIBILITIES.

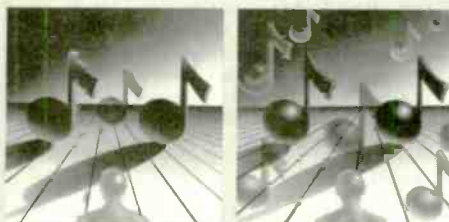
Any stereo source can be transformed from monochromatic flatness into vibrant three-dimensional reality with Sonic Holography.

Compact discs afford vastly increased dynamics, frequency response and freedom from background noise. Yet their potential is trapped in the 2-dimensionality of conventional stereo. Sonic Holography can surround you with the drama and impact of digital. (And the Carver Compact Disc Player with Digital Time Lens sound correction circuitry can enhance your listening experience even further).

Thanks to the Carver Asymmetrical Charge-Coupled FM Stereo Deflector, FM stereo broadcasts can be received with vastly increased fidelity. Hiss and interference-free, any signal, from chamber music to live rock concerts,

can take on an astonishing presence and dimension through Sonic Holography.

The new Carver TX-11a AM/FM tuner delivers AM stereo broadcasts with the same dynamics and fidelity as FM. A perfect source for the Sonic Hologram Generator. Think of it: AM can actually become a three-dimensional phenomenon through Carver Technology!



SONIC HOLOGRAPHY PUTS YOU INSIDE THE VIDEO EXPERIENCE.

More and more people are discovering what theaters discovered some time ago: Audio makes a huge contribution to the realism of video. Still, it has taken the incredible, near-digital quality of VHS and Beta Hi-Fi to make the marriage of audio and video truly rewarding. Now even rental movies fairly explode with wide frequency range, dynamic impact and conventional stereo imaging.

Add the steady emergence of stereo TV broadcasts by all three major networks of prime time programming and special broadcasts, and you have fertile ground for the added realism that only Sonic Holography can deliver.

Unlike so-called "surround sound" a Sonic Hologram Generator puts you into the middle of any stereo soundtrack, (stereo, Hi-Fi stereo, broadcast stereo or even simulcasts). It psychoacoustically expands the visual experience with life-like sound that envelops you in the action.

Once you've heard Sonic Holography with a good video tape or LaserDisc, you'll never go back to mere stereo again.

ENHANCE YOUR SPACIAL AWARENESS WITH FOUR CARVER COMPONENTS.

The patented Carver Sonic Hologram generator circuit is available on two preamplifiers, our largest receiver and as an add-on component. Each can transcend the limits of your listening (and viewing) room. Each can add the breathtaking, spine-fingling excitement that comes from being transported directly into the midst of the musical experience.

Before you purchase any component, consider just how much more Carver can enrich your audio and video enjoyment. And then visit your nearest Carver dealer soon.



The Carver Sonic Holography quartet. Pictured from left to right is the 4000t Preamplifier, the C-9 sonic Hologram Generator, the Receiver 2000 with remote control and the C-1 Preamplifier.

CARVER

POWERFUL

MUSICAL

ACCURATE

Carver Corporation
P.O. Box 1237 Lynnwood, WA 98046

Distributed in Canada by Evolution Technology

AMPLIFIERS

tape 2, AUX, tuner, CD. Equalizer amplifier: input sens/imp phono-1 MC 0.1 mV/40 ohms, phono-2 MC 0.12 mV/100 ohms, phono-3 MM 2.5 mV/47 kilohms; max input level phono-1 MC 20 mV (1,000 Hz), phono-2 MC 24 mV (1,000 Hz), phono-3 MM 500 mV (1,000 Hz); THD phono-1 <0.001% 1,000 Hz 20 V output, phono 2&3 <0.0015% 20-20,000 Hz 3 V; S/N A-wtd phono-1 MC 80 dB at 0.25 mV input, phono-2 MC 75 dB at 0.25 mV input, phono-3 MM 90 dB at 2.5 mV input; sep 20 Hz-1,000 Hz 80 dB, 20,000 Hz 70 Hz. Flat amplifier: input sens/imp 150 mV/47 kilohms; THD <0.0015% (20-20,000 Hz, 4 V output); FR 1-300,000 Hz +0, -3 dB; S/N A-wtd 105 dB; sep 20 Hz 100 dB, 1,000 Hz 75 dB, 20,000 Hz 65 dB. \$1,600

PRA 1100 Preamplifier

Features unity-gain interference-output amp; variable loudness; 5 audio, 3 video inputs; MC/MM inputs \$425

HAFLER

DH-110 Discrete Preamplifier

Preamplifier operates all discrete devices (no integrated circuits in signal path) in full complementary symmetry format. Controls: volume, balance, bass, treble, input selector, phono selector, monitor selector, mono/stereo, filter, external processor loop, tone control engage. Features rack-mounting capability; single active circuit board; step-action volume control; switchable high-pass filter; integral muting circuit; 2 pairs of audio outputs; low-imp power supply; full power bandwidth to 200,000 Hz; 2 phono, tuner, AUX, 2 tape deck, EPL inputs; 2 tape (buffered), 2 line, EPL outputs; headphone jack. THD <0.0006% at 1,000 Hz, 3 V rms; FR 20-20,000 Hz +0-0.25 dB; S/N weighted 87 dB; rated output 3 V rms, 4-210,000 Hz; THD <0.001% 20-20,000 Hz; 17" W x 3" H x 8.5" D; 10 lbs. Assembled, \$440; kit, \$360

DH-100 Preamplifier

"No frills" preamp with Super Accurate RIAA EQ utilizing 1%-tolerance components; low-imp power supply; delay circuit; sufficient line output. Inputs for MM phono, tape, AUX, tuner. Features volume, balance, treble, bass, tape monitor, power controls; 2 switched outlets. FR 20-20,000 Hz \pm 0.25 dB; max output 8 V; THD <0.005%; IMD below residual noise of current test instruments; MM phono sens 12 mV for 0.5-V output at 1,000 Hz; MM phono input overload level 180 mV, 13.5" W x 3" H x 10" D; 7 lbs. Assembled, \$225; kit, \$175

HARMAN KARDON

HK825 Preamplifier

Stereo preamp with dual-RIAA EQ circuitry; low-noise ET's in low-level and high-level input stages; MC head amp; capacitance trim; switchable bass and treble turnover frequencies; tone defeat; 2-deck tape monitor; 2-way tape dubbing; loudness; subsonic and high-cut filters; AUX, DAD, tuner, and phono input selectors. Input sens/imp: phono MM 22 mV/47k ohms/135 pF, phono MC 150 μ V/100 ohms, AUX, tape 135 mV/25 ohms; phono overload 200 mV MM/12 mV MC, FR (AUX, 1.0 V) 0.1-180,000 Hz +0, -3 dB; RIAA accuracy +0.2 dB; S/N phono MM-83 dB, phono MC -80 dB, AUX, tape 92 dB; slew rate 120 V/ μ sec; THD (AUX 1 V) 0.05%; turnover frequencies 100 Hz/400 Hz, 2 kHz/6 kHz. 17.31" W x 4" H x 14.5" D. \$550

HITACHI

HPT120AV Preamplifier

Pre-tuner amplifier designed for HMA-120AV.

Features infrared remote control with LCD that also operates compatible Hitachi VCR's, TV's and CD players; video source switchability. Inputs provided for MM phono, tape, CD player. FR 20-20,000 Hz \pm 3 dB; S/N 90 dB; THD 0.05%; MM phono sens 1.5 mV for 0.5-V output at 1,000 Hz; sens for line-level inputs 100 mV. 14.5" W x 4.5" H x 11" D; 8.2 \$400

HCA 8500 MkII Preamplifier

Preamp with inputs for MM phono, MC phono, tape, tape 2, AUX, CD player, tuner. FR 20-20,000 Hz \pm 2 dB; max output 1 V; THD 0.005%; IMD 0.005%; MM phono sens 2.5 mV for 0.5-V output at 1,000 Hz; 17.12" W x 3.25" H x 11.5" D; 10 lbs; 4.5 kg \$370

JVC

PL10 Precision Control Preamplifier

Features Gm processor; ultra-high-sensitivity head amp. Inputs for MM phono, MC phono, tape, tape 2, AUX, phono 2, tuner. THD 0.002%; MM phono sens 2.5 mV for 0.15 V output (rec out) at 1,000 Hz; MM phono input overload level 300 mV; sens for line-level inputs 150 mV. 18.12" W x 5.69" H x 16.56" D; 26.4 lbs \$1,650

KENWOOD

Basic C2 Stereo Control Amplifier

Preamp with 2-step MM and 3-step MC inputs. Features independent CD and tape 2 inputs with bi-directional dubbing; bass/treble turnover switch (bass turnover 200/400 Hz, treble 3,000/6,000 Hz, both 12 dB/octave); infrasonic filter; headphone jack with level control; switch for stereo/mono. FR 1-300,000 Hz \pm 0.3 dB aux, 20-20,000 Hz MM/MC; THD 0.002% aux, 0.002% MM/MC; input sens MM 2.5 mV, MC 0.2 mV, AUX 150 mV; S/N AUX 110 dB, MM 87 dB; 17.94" W x 2.69" H x 11.81" D. \$295



Kenwood KC-105

Basic C1 Control Amplifier

Basic control amp with MM or MC phonocartidge selection; continuously variable loudness control; 2 tape monitors; dubbing tape A to B; infrasonic filter; CD player input. 12 lbs \$225

KC-105 Control Amplifier

Preamp with 7-band graphic equalizer. Features 2 video inputs; 2 tape inputs; independent CD input; phono rec circuit; subsonic filter; remote control capable with RC-105. 8 lbs \$180

KYOCERA

C-910 Preamplifier

Control preamp with input and output level controls. Features complete DC configuration; cutless-core power transformer; single-stage push-pull amplification. Inputs for MM phono, MC phono, tape, tape 2, AUX, phono 2, CD player, tuner/AUX 2. FR DC-200,000 Hz \pm 3 dB; max outputs 2 V at rated inputs; THD 0.003%; MM phono sens 2.2 mV for 0.5 V output at 1,000 Hz; MM phono input overload level 300 mV; sens for line-level inputs 125 mV; 17" W x 5.75" H x 13" D; 22 lbs \$1,200

LINN BY AUDIOPHILE SYSTEMS

LK1 Remote-Controlled Preamp

Stereo controlled microprocessor preamp. Features remote control; independently adjustable input level matching; keyboard lockout; all

switching and level adjustments electronic on board. Inputs for MM phono; MC phono; tape; tape 2; AUX; tuner. 10.5" W x 3" H x 10.5" D; 9 lbs \$795

LUXMAN

C-05 Preamplifier

Duo-Beta/S Class A preamp. Inputs for MM phono, MC phono, tape, tape 2, AUX, phono 2, CD player, tuner. FR 2-100,000 Hz \pm 0.5 dB; max output 18 V; THD 0.005%; 18.12" W x 5.25" H x 17.44" D; 24.3 lbs \$2,200

C-02 Preamplifier

Duo-Beta/S preamp. Inputs for MM phono, MC phono, tape, tape 2, AUX, CD player, tuner. FR 10-100,000 Hz \pm 1 dB; max output 18 V/100 ohms; THD 0.005%, 0.007% MC; 17.81" W x 3.19" H x 12.16" D; 15.4 lbs \$600

MARK LEVINSON BY MADRIGAL

ML-6B Preamplifiers

Monophonic modular preamps housed in individual chassis with separate power supplies offering only essential control functions and connection capabilities. Utilizes L-series open-frame plug-in modules. All audio circuitry completely discrete and operates in Class-A mode. In each chassis is one L1 line amplifier and one phono amp module to accommodate any cartridge. L1 provides up to 26 dB of gain with typical distortion of 0.003% THD and 0.002% IMD and typical S/N of 100 dB (unwtd below a 2 V reference). L2 phono module offers selectable gain of 38 or 44 dB. L3 and L3A modules offer 67 and 55 dB of gain respectively. All 3 phono modules have <0.008% THD and 0.005% IMD. PLS-154 power supply maintains load regulation of 0.05% and has a wideband noise output of 18 μ V. ML-6A features Camac connectors for all input and output connections; gold-plated cartridge-loading sockets on main circuit board and internal switches to select 10, 20, or 26 dB of line gain. Hand-brushed black anodized finish. ML-6A: 2.25" H x 19" W x 8" D. PLS-154: 4.36" H x 4" W x 10.62" D. 12 lbs. With L2 \$6,700/pr With L3 or L3A \$7,320/pr

ML-7A Preamplifier

Versatile stereo preamp offering connection capability for 5 line-level sources, monitor facilities for 2 tape decks, and several plug-in phono systems to accommodate virtually any cartridge. Utilizes L-series open-frame plug-in modules. All audio circuitry is completely discrete and operates in Class-A mode. Fitted with two L1 line amps and two (L2, L3 or L3A) phono modules. PLS-154 power supply maintains load regulation of 0.05% and has a wideband noise output of 18 μ V. An external 5-pin self-locking connector parallels. Features Camac phono inputs for cartridge loading; switch selects either 10 or 20 dB of line gain. L1 provides up to 26 dB of gain, with typical distortion specs of 0.003% THD and 0.002% IMD, and typical S/N of 100 dB unwtd below a 2 V reference. The L2 phono module offers selectable gain of 38 or 44 dB. L3 and L3A modules offer 67 and 55 dB of gain respectively; <0.008% THD and 0.005% IMD for all three phono modules. Hand-brushed black anodized finish. ML-7: 2.25" H x 19" W x 10.12" D; PLS-154: 4.36" H x 4" W x 10.62" D; 14 lbs. With L2 \$5,125 With L3 or L3A \$5,750

ML-10A Preamplifier

Stereo preamp incorporating a simplified version of the L-series circuitry in a single circuit board configuration. All audio circuitry is completely discrete and operates in Class A. Con-

AMPLIFIERS

nection capability for 2 line-level sources, monitor facilities for 1 tape machine, and universal phono section that will accept virtually any cartridge. Features Camac input and output connectors. Line section provides up to 22 dB of gain with typical distortion of 0.004% THD and 0.004% IMD and typical S/N of 95 dB unwt'd below a 2 V reference. Phono section offers selectable gain of 42, 53 or 63 dB. Six internal switches and gold-plated loading sockets allow infinite cartridge-loading capability. Typical distortion specs for phono circuit are 0.014% THD and 0.005% IMD; typical S/N 72 dB. Features internal power supply with a high-speed push-pull regulator; biased for Class-A operation; capable of maintaining load regulation of 0.05% and has a wideband noise output of 23 V; switch selects either 7 or 17 dB of line gain. Hand-brushed black anodized finish. 2.25" H x 19" W x 10.12" D; 8 lbs \$3,150

ML-12A Preamplifier

Stereo preamp for use with ML-11 power amp, or with any quality power amp if used with PLS-124 power supply (see below). Inputs for MM phono, MC phono, tape, AUX, tuner. Universal phono section accepts any cartridge, with selectable gain of 42, 53, or 63 dB and gold-plated sockets for precise cartridge loading. Line-level section has selectable gain of 4, 9, 13, or 17 dB to match amps, speakers, and sources. Gold-plated Camac connectors for inputs and outputs and separate level controls for each section. Hand-engraved black anodized front panel. Phono S/N 75 dB unwt'd at 63 dB gain; THD 0.006% and IMD 0.004% SMPTE at 6 V output; S/N -92 dB below 1 V ref; 19" W x 9.75" D x 2.25 H \$1,525

McINTOSH

C-30 Stereo Preamplifier

Preamp with inputs for CD, tuner, phono, videodisc, TV, VCR, and AUX. Features two tape monitors with switchable dubbing; two external processor loops; current sensing power outlet to activate preamp when a connected component is turned on; 1 unswitched and 6 switched outlets; 5-band equalizer; output signal mode selector; variable loudness compensation control; 2 headphone jacks with independent level control. FR 20-20,000 Hz +0 -0.5 dB; max output 10 V; THD 0.007% max from 20-20,000 Hz at 2.5 V rated output; S/N phono 90 dB ref to 10 mV input; S/N high level 100 dB ref to rated output; sens phono 2 mV, high level 200 mV, for 2.5 V rated output. Max input signal phono 100 mV, high level 10 V. Power requirements 120 V, 50/60 Hz, 25 watts. 16" W x 5.44" H x 13" D; 18 lbs \$1,649

MERIDIAN BY MADRIGAL

201 Control Unit

Control amp with multi-room remote capability and ability to play 2 different sources simultaneously in any combination of 14 remote locations. Inputs for MM phono; MC phono; tape; tape 2; AUX; CD player; tuner \$900

NAD

1155 Preamplifier

Stereo preamp with high-resolution phono preamp. Features bass EQ circuit; overload-proof line-level circuits; buffered tape outputs; second high-current output stage. Inputs for MM phono, MC phono, tape, tape 2, CD player, tuner. FR 20-20,000 Hz ± 0.3 dB; max output 6 V into 1,000 Hz load; THD <0.02%; IMD <0.02% IHF; MM phono sens 1.2 mV for 0.5-V output at 1,000 Hz; MM phono input overload level 200 mV at 1,000 Hz; sens for line-level inputs 80 mV for 0.5 V out \$398

1130 Preamplifier

Stereo preamp with discrete transistor phono preamp and bass EQ circuit. Inputs for MM phono, MC phono, tape, AUX, CD player, video. FR 20-20,000 Hz ± 0.5 dB; max output 8 V; THD 0.04%; IMD 0.04% IHF; MM phono sens 0.45 mV for 1 W output at 1,000 Hz; MM phono input overload level 170 mV at 1,000 Hz; sens for line-level inputs 26 mV for 1 W out \$198

NAKAMICHI

CA-7A Preamplifier

Provides full-system remote control of other Nakamichi System Seven components. Features total isolation of digital and analog sections; high-quality acoustical fine-tune controls; motor-driven volume control; adjustable capacitance and gain for MM cartridges. Inputs for MM phono; MC phono; tape; tape 2; AUX; AUX 2; CD player; tuner. FR 1.5-100,000 Hz ± 3 dB; S/N 90 dB; THD 0.002%; MM phono sens 2.5 mV for 0.5-V output at 1,000 Hz; MM phono input overload level 250 mV at 1,000 Hz; sens for line-level inputs 200 mV. 17.12" W x 3.25" H x 12.19" D; 15 lbs \$2,195

CA-5 Control Amplifier

Control amp with min controls. Features 2 power outputs (2 amps); 2 tape inputs; hand-selected components. Inputs for MM phono, MC phono, tape, tape 2, AUX, CD player, tuner. FR 1.5-100,000 Hz +0, -3 dB; max output 16 V; THD <0.002%; MM phono sens 0.6 mV for 0.5-V output at 1,000 Hz; MM phono input overload level 170 mV, sens for line-level inputs 50 mV; 17.12" W x 2.5" H x 11.36" D; 8 lbs, 3 oz \$750

ONKYO

Grand Intego P-308 Preamplifier

Dual-mono preamp with electrically separate left and right circuitry and 2 sets of preamp outputs: output #1 is from precision-paired master volume control using Alps potentiometers, output #2 includes fine balance adjustment via stepped left and right precision resistor attenuators. Features passive tone control system; dual record-output selectors; individual stereo/mono switching for output 1 and 2; contra bass equalization. Wood side panels included. Inputs for MM phono; MC phono; tape; tape 2; tape 3; AUX, AUX 2; tuner; CD player and DAT with input common-mode noise filters. FR 0.8-170,000 Hz ± 3 dB; phono S/N 92 dB; THD 0.0005%; MM phono sens 2.5 mV for 0.5-V output at 1,000 Hz; MM phono input overload level 300 mV at 1,000 Hz; sens for line-level inputs 150 mV. 18.25" W x 4" H x 15.88" D; 19 lbs \$600

Integra P-304 Preamplifier

Dual-mono preamp with electrically separate left and right circuitry. Features direct tone controls with passive equalization; dual record output selectors; adjustable phono gain and load imp. Inputs for MM phono; MC phono; tape; tape 2; tape 3; AUX, AUX 2; tuner; CD player. FR 0.8-170,000 Hz ± 3 dB; phono S/N 85 dB; THD 0.005%; MM phono sens 2.5 mV for 0.5-V output at 1,000 Hz; MM phono input overload level 210 mV at 1,000 Hz; sens for line-level inputs 150 mV. 17.75" W x 4" H x 15.88" D; 16 lbs \$450

PARASOUND

PR200 Preamplifier

Full-featured preamp with discrete phono circuitry, variable loudness contour, bass EQ circuit, signal relay to mute turn-on transients, High Voltage Rails for high CD overload capa-

bility. Inputs for MM phono, tape, tape 2, CD player/video, tuner. FR 10-100,000 Hz ± 1 dB; max output 12.5 V; THD 0.01%; IMD 0.01% IHF; MM phono sens 2 mV for 0.5-V output at 1,000 Hz; sens for line-level inputs 150 mV; 17.25" W x 2.75" H x 8.5" D; 8 lbs \$220

PERREAUX

Series 3 Preamplifiers

Both Perreux Series 3 preamplifiers use no IC's and contain discrete components mounted on 24K gold-plated circuit boards. Similar features include gold-plated input and output connectors; passive RIAA phono EQ stages; CD input circuit with high overload headroom; machined solid-aluminum control knobs; glass-bead blasted control panels.

SM-3. Features 3-stage phono EQ section and MOSFET output stage. FR 20-50,000 Hz ± 0.25 dB; rated output 1.5 V rms into 10 kilohms or higher; max output 27 V rms into 10 kilohms or higher; main output source imp 470 ohms; min recommended load 10 kilohms; distortion phono 0.005% 20-20,000 Hz at rated sens rising to 0.01% at 0.6 V input and 70 mV input at 1,000 Hz, all others less than 0.0009% 20-20,000 Hz at rated sens rising to 0.008% at 26 V output at 1,000 Hz at rated output into 10 kilohms; ch sep 70 dB, 20-20,000 Hz for all inputs. 19" W x 13" D x 2.14" H \$1,795

SA-3. Features 2-stage phono EQ section and bi-polar transistor output stage. FR 20-50,000 Hz ± 0.25 dB; rated output 1.5 V rms into 10 kilohms or higher; max output 25 V rms into 10 kilohms or higher; main output source imp 1,000 ohms; min recommended load 10 kilohms; distortion phono 0.005% 20-20,000 Hz at rated sens rising to 0.01% at 0.3 V input and 30 mV input, all others less than 0.009% 20-20,000 Hz at rated sens rising to 0.08% at 15 V output at 1,000 Hz at rated output into 10 kilohms; channel separation 68 dB, 20-20,000 Hz for all inputs. 19" W x 12.5" D x 2.14" H \$1,195

Series 1 Preamplifier

SX-1 Preamplifier

Class A preamp features passive RIAA phono section with high gain for low-output cartridges; monolith FET's in output section; FET tone controls; high CD overload; handcrafted design with poly capacitors, metal-film resistors, and matched transistors. Input and recording controls use mechanical linkage to switch directly at input and output connectors. FR 20-50,000 Hz ± 0.25 dB; rated output 1.5 V rms into 10 kilohms or higher; max output 9 V rms into 10 kilohms or higher; distortion phono 0.005% 20-20,000 Hz at rated sens rising to 0.01% at 0.1 V input and 10 mV input, all others less than 0.009% 20-20,000 Hz at rated sens rising to 0.08% at 6 V output at 1,000 Hz at rated output into 10 kilohms or higher; noise MC -50 dB re 250 μ V input (20-20,000 Hz unwt'd) -66 dB A-wtd, MM -75 dB re 2.5 mV input (20-20,000 Hz unwt'd) -86 dB A-wtd, all others -100 dB (20-20,000 Hz unwt'd) -108 dB A-wtd; ch sep 50 dB 20-20,000 Hz all inputs. Tone control section: bass ± 18 dB at 30 Hz, treble +20 dB, -18 dB at 12,000 Hz, low filter -18 dB at 5 Hz, high filter -12 dB at 20,000 Hz. 17" W x 13.5" D x 2.25" H; 12 lbs \$795

PIONEER

C-90(BK) Audio/Video Control Amplifier

Features wireless remote control; motorized rotary volume control; 5 audio inputs; 5 video inputs; 3 different power supplies; copper-plated chassis; 2 video outputs; recording selector/tape-dubbing switch; subsonic filter; video enhancer \$800

Superior Technology...

SAE



COMPUTER DIRECT-LINE[®] PREAMPLIFIER



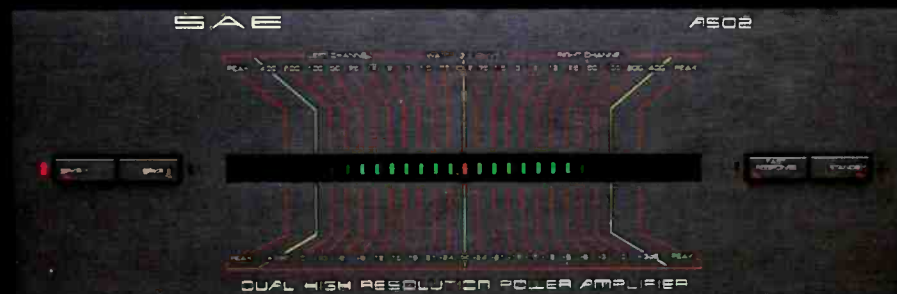
COMPUTER DIRECT-LINE[®] COMPACT DISC PLAYER



COMPUTER DIRECT-LINE[®] CASSETTE DECK



COMPUTER DIRECT-LINE[®] DIGITAL TUNER



DUAL HIGH RESOLUTION POWER AMPLIFIER

P102 Preamplifier — Direct-Line Audio • Sequential Audio Muting • Digital Tone Memories • Tape Copy

D102 Compact Disc Player — Infrared Remote • 16-Bit "Quadrasampling" D/A Processor • Audible Search • 20 Track Programming

C102 Cassette Deck — Full Logic Drawer-Load Transport • Auto Bias • Real Time Counter • Music Search System

T102 Digital Tuner — Quartz Lock • 16 AM/FM Memory • Ultra-Precision Sensitivity

A502 Power Amplifier — High Power • Auto Bridging • LED Power Level Display

SAE

SCIENTIFIC AUDIO ELECTRONICS, INC.

Please write us

for more information:

P.O. Box 60271, Terminal Annex, Los Angeles, CA 90060

In Canada: Tri-Tel Associates, Ltd., 105 Sparks Ave., Willowdale, Ontario M2H 2S5

CIRCLE NO. 15 ON READER SERVICE CARD

AMPLIFIERS

PROTON

1100 Preamplifier

Stereo preamp with separate MC phono input and built-in headphone amp. High-level pre-out 18 V; THD 0.003% (20-20,000 Hz, 2 V output); 1M 0.003% (2 V output); FR 20-20,000 \pm 2 dB; high-level input resistance 30 kilohms; line-level input sens 150 μ V, 2.5 μ V MM phono, 0.2 μ V high-level MC, 0.1 μ V low-level MC; residual noise 0.02 μ V; ch crosstalk at 1,000 Hz 90 dB; function crosstalk at 1,000 Hz 84 dB; S/N A-wtd 105 dB line level, 94 dB MM phono, 79 dB MC phono; bass control at 100 Hz \pm 10 dB; treble control at 10,000 Hz \pm 10 dB; bass EQ at 75 Hz +3 dB; infrasonic filter at 20 Hz -3 dB; slope -12 dB/oct; phono input resistance 47 kilohms MM, 100 ohms MC; phono input capacitance selectable between 100, 200, 320 p-f; phono overload MM 290 μ V (1,000 Hz, 0.1% THD); MM, phono THD 0.006% at 4.5 V output, 0.01% MC phono; RIAA response \pm 0.2 dB MM phono, \pm 0.3 dB MC phono. 16.5" W x 2.5" H x 13" D \$249

QUAD

Quad 44 Control Unit

Preamp/control system with lift/step bass control to boost low-frequency output of small speakers, attenuate bass output when operating as filter to give 5-dB drop at 2 frequencies; \pm 2-dB tilt control that shifts tonal balance; variable filter slope control at 5,000, 7,000, 10,000 Hz; all tone controls have defeat positions; balance/mono switch; radio, AUX, disc, tape 1, tape 2 input selectors with optional microphone or MC phono inputs available. Input sens/imp 1 mV at 35 mV in/47 kilohms phono, 100 mV at 5 V in/39 kilohms tape, 1 M ohm radio and AUX; FR \pm 0.5 dB 30-20,000 Hz phono RIAA, 30-20,000 Hz +0, -1 dB; high-level distortion 0.02%; residual noise -104 dB A-wtd; 321 mm W x 207 D x 103 H \$895

Quad 34 Control Unit

Preamp control unit with tilt control; bass control; inputs for disc, tape, tuner, AUX; 3 push-button filters; bass lift and step. Distortion worst case any input 0.5%. Residual noise A-wtd volume control at minimum -105 dB; FR \pm 0.3 dB any input except phono, FR phono RIAA \pm 0.5 dB \$595

ROTEL

RC870 Stereo Preamplifier

Preamp with inputs for MM phono, MC phono, tape, tape 2, CD player, tuner. FR 40-100,000 Hz \pm 0.2 dB; THD (CD, tuner) 0.004%; IMD (CD, tuner) 0.004% IHF; MM phono input overload level 150 mV, 19" W x 2.56" H x 12.44" D; 11.4 lbs \$399



SAE P102

SAE

X1P X-Series Preamplifier

Computer direct-line fully discrete preamp. Features separate power supply, loading for MM and MC phono inputs, rack mountable. Inputs for MM phono, MC phono, tape, AUX. FR 20-20,000 Hz \pm 0.1 dB; max output 17 V; THD 0.01%; IMD 0.01%; MM phono sens 0.07 mV for 0.5 V output at 1,000 Hz; 19" W x 1.75" H x 12.5" D; 14 lbs \$1,200

P101 Preamplifier

Computer direct-line preamp. Features dual-digital volume and balance controls, loading for MM phono input, front-panel phase controls, two main inputs; main one is in phase and main two is out of phase (which makes amp bridging possible), rack mountable. Inputs for MM phono, MC phono, tape, AUX, video. FR 20-20,000 Hz; max output 11 V; THD 0.008%; IMD 0.008%; 19" W x 3.5" H x 12.5" D; 20 lbs \$650

P102 Preamplifier

Computer direct-line preamp with 3 digital tone memories, electronic volume and balance controls. Features sequential audio muting to provide cross-fade between input sources; alphanumeric displays of all functions. Inputs for MM phono, MC phono, tape, tape 2, AUX, phono 2, CD player, tuner, external processor. FR 20-20,000 Hz \pm 0.5 dB; max output 7.5 V; THD 0.025%; IMD 0.025% IHF; MM phono sens 160 mV for 0.5-V output at 1,000 Hz; MM phono input overload level 240 mV; 19" W x 3.5" H x 14" D; 17 lbs \$399

SANSUI

C-2301 Preamplifier

Preamp with balanced and unbalanced 75-ohm imp outputs. Inputs for MM phono, MC phono, tape, tape 2, phono. CD player, tuner. FR 5-300,000 Hz \pm 0.2 dB; MM phono sens 2 mV for 0.5-V output at 1,000 Hz; sens for line-level inputs 150 mV/47,000 ohms \$2,400

C-2102 Stereo Control Center

Features built-in 2-band parametric EQ; 2 preamp outputs; headphone output; LED indicators for EQ, subsonic, loudness, and muting. Inputs for MM phono; MC phono; tape; tape 2; phono 2; CD player; tuner video; PCM line 1 & 2. FR 0-300,000 Hz \pm 3 dB; S/N 88 dB; MM phono sens 2.5 mV for 0.5-V output at 1,000 Hz; sens for line-level inputs 150 mV. 16.94" W x 4.81" H x 12.88" D; 13.2 lbs \$650



Soundcraftsmen DX4200

SOUNDCRAFTSMEN

DX4200 Preamplifier/Equalizer

Combination preamp/equalizer with digital audio and video inputs. Features in/out balancing to 0.1 dB; phono preamp has variable cartridge loading (50-800 pF, 100/47,000 ohm) adjustable \pm 20 dB gain MC variable reluctance or MM cartridge inputs; 3-way tape dubbing; 2 external signal-processor loops; conventional line outputs plus separate autobridge line outputs for auto mono bridging of most amps; EQ S/N 114 dB; passive-coil filters with 15 dB boost or cut for each octave; differential/comparator circuitry for true 0.1 dB unity-gain EQ balancing; 19" rack-mount front panel; includes frequency spectrum analyzer test record and instant reset Computone charts; 5.25" W x 19" H x 11" D \$699

DX4100 Preamplifier/Equalizer

Combination preamp/equalizer with built-in conventional line outputs plus separate bridging line outputs for auto mono bridging of most amps. Features external signal-processor loop; 2 phono inputs; 2 tape inputs with 3-way dubbing; phono S/N 97 dB, THD 0.01%; 12 dB EQ boost and cut for each octave; differential/comparator circuitry for 0.1 dB unity gain;

19" rack mount front panel; includes frequency spectrum analyzer test record and instant reset Computone charts \$549
DX4000. Same as DX4100 without graphic equalizer but with 2 external signal-processor loops; 3.5" W x 19" H x 11" D \$399

DX3000 Preamplifier

Features bass and treble controls; 2 tape monitors with dubbing; stereo video inputs; loudness compensation; signal-processor input/output. Inputs for MM phono; tape; tape 2; CD player; tuner; video. CD inputs especially matched to high dynamic range of players. FR 5-60,000 Hz +0, -1 dB; S/N 95 dB; THD 0.01%; MM phono sens 1.4 mV for 0.5-V output at 1,000 Hz; MM phono input overload level 200 mV at 1,000 Hz; sens for line-level inputs 140 mV. 19" W x 2.36" H x 10" D \$299

TALISMAN BY SUMIKO

Alchemist Preamplifier

Preamp with no internal wiring. Features electro-magnetic mapping technique; unitized construction (all circuits are on single board); polypropylene and polystyrene film capacitors; 1% metal-film resistors. Inputs for MM phono, tape, AUX, tuner. FR 6-150,000 Hz \pm 3 dB; max output 10 V; THD 0.01%; IMD 0.01% IHF; MM phono sens 0.85 mV for 0.5-V output at 1,000 Hz; MM phono input overload level 300 mV, sens for line-level inputs 400 mV; 19" W x 3.5" H x 12" D \$1,275



Tandberg TCA 3008A

TANDBERG

TCA-3018A Preamplifier

Direct-path preamplifier with zero feedback, all discrete circuitry, and separate record and playback capabilities. Inputs include MM phono, MC phono, tape, tape 2, AUX, CD player, tuner. FR 1.6-250,000 Hz -3 dB; S/N 95 dB; THD 0.004%; MM phono sens 1 mV for 0.5 V output at 1,000 Hz; MM phono input overload level 60 mV at 1,000 Hz; sens for line-level inputs 70 mV. 12.5 lbs; 17.12" W x 3.5" H x 13.75" D \$1,695

TCA-3008A Control Preamplifier

High-current control amp with MC input designed as complete preamp stage employing 11 discrete semiconductor devices in each channel. Features MM phono input with capacitance, resistance adjustments; bass, treble controls with tone defeat; digital disc input capable of handling $>$ 20 V. Audio circuitry includes selected all-metal film resistors, polypropylene capacitors, minimum negative feedback; 2 Butterworth infrasonic filters; mono, loudness switches; 2-deck tape monitors with 2-way dub; headphone amp with separate volume control. Rosewood side panels optional \$995

TECHNICS

SU-A200 Preamplifier

Pramp with Class AA circuitry to separate voltage amplification from current amplification for ideal voltage/current phase relationship. Voltage amp operates in Class A driving Class AA bridge circuit which provides ideal load characteristics for max linearity and isolation from imp fluctuations. Class AA EQ circuit isolates

CHALLENGING DESIGN.

HOW BOB CARVER CREATED A NEW MAGNETIC FIELD AMPLIFIER WITH THE SOUND CHARACTERISTICS OF A \$3000 MODEL, SATISFIED SOME OF THE WORLD'S MOST HIGHLY TRAINED AUDIO EARS... AND HOW YOU CAN OWN HIS DESIGN FOR UNDER \$500.

Bob Carver's newest Magnetic Field Amplifier is sending shock waves through the staid audiophile world. Because it won a challenge that no other amplifier designer could even consider.

The M-1.0t was judged, in extensive listening tests by one of America's most respected audiophile publications, to be the sonic equivalent of a pair of legendary, esoteric mono amplifiers which retail for over five times as much.

A DESIGN FOR THE CHALLENGE OF MODERN MUSIC REPRODUCTION.

Before you learn the fascinating details of Bob Carver's unprecedented feat, let's consider the final product of that challenge. An amplifier design which stands on its own merits in any case, with astonishingly high voltage/high current output and exclusive operation features. An amplifier for the demands of compact digital discs, VHS Hi-fi and other wide dynamic range playback media.

THE M-1.0t:

- ◆ Has a continuous FTC sine-wave output conservatively rated at 200 watts RMS per channel into 8 ohms from 20Hz to 20kHz with no more than 0.15% THD.
- ◆ Produces 350-500 watts per channel of RMS power and 800-1100 watts peak power for transients. (8 ohms and 4 ohms respectively).
- ◆ Delivers 1000 watts continuous sine wave output at 8 ohms in bridging mode without switching or modification.
- ◆ Employs Bass Phase Inversion circuitry that can essentially double current output at low frequencies.

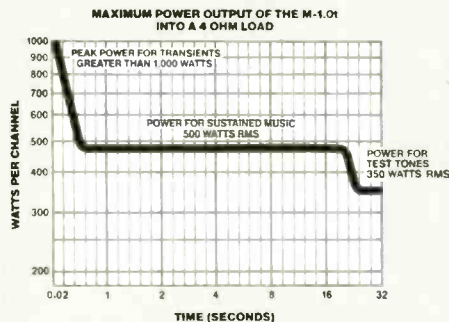
- ◆ Has a -110dB signal-to-noise ratio and no need for noisy external fan, making it exceptionally quiet.
- ◆ Includes elaborate safeguards including DC Offset and Short Circuit Power Interrupt protection.
- ◆ Is capable of handling unintended 1-ohm speaker loads without shutting down.
- ◆ Uses a power display capable of 1 millisecond peak response time and instant warning of clipping.



Accurate to as little as 1dB, the M-1.0t's 2-color power meters respond within a millisecond of a transient impulse, identify momentary clipping and serve notice of protection circuit activation.

POWER FOR THE CHALLENGES OF MUSICAL WAVEFORMS.

The rating differences between the M-1.0t's FTC and Carver's continuous



The Carver M-1.0t delivers massive power at all important output levels.

RMS power reserves represent Bob's insistence that electronic designs should address real world problems. He reasoned that the M-1.0t must excel at

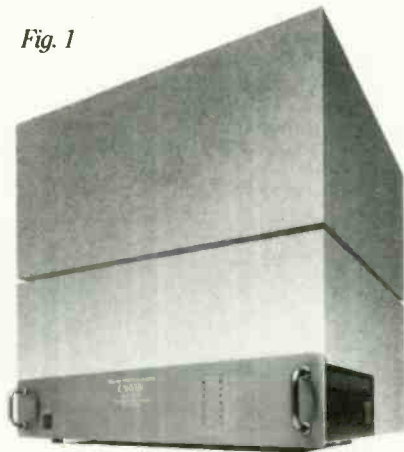
reproducing those types of power waveforms that are most essential to music's stunning impact and realism.

First there are the instantaneous peak transients — the sudden individual attacks of each musical note which demand a tremendous amount of amplifier power. While these waveforms last less than 1/100 of a second, they form the keen edge of musical reality.

Next come combinant musical crests of demand from multiple instruments and their harmonics. These longer-term power demands usually come and go in less than a second, yet can tax all but the most powerful amplifier.

Thus, even at 8 ohms and at extremely high output current levels, the Carver M-1.0t not only delivers over 800 watts of peak power for momentary musical transients, but can provide over 350 watts RMS of long-term power for demands lasting up to 20 seconds. More power, more current and more voltage than any other comparably-priced amplifier.

Fig. 1



Two distinctly different approaches to sonic excellence.

THE MAGNETIC FIELD AMPLIFIER VS. CONVENTION.

Audiophiles, critics and ultimately other manufacturers have accepted

the wisdom of Bob Carver's innovative approach to delivering power in musical terms. Yet only Carver has so elegantly translated theory into practice.

Figure 1 shows the new Carver M-1.Ot Magnetic Field amplifier. It weighs 20 pounds and runs cool to the touch. Behind it is the outline of the pair of legendary mono amplifiers you'll read more about below. Even individually, they can hardly be lifted and demand stringent ventilation requirements. And yet, according to some of the most discriminating audiophiles in the world, Bob's new design is their sonic equal.

The ultimate secret lies in the patented Magnetic Field Coil (figure 2) employed in the Carver M-1.Ot. Instead of increasing cost, size and heat output with huge storage circuits, Magnetic Field Amplification delivers its awesome output from this small but powerful component. The result

Fig. 2



A single Magnetic Field Coil supplants traditional heavy power supplies.

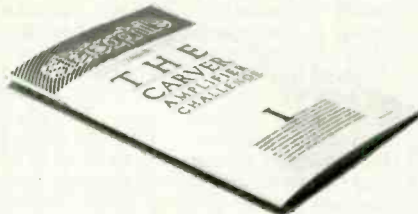
is a design capable of simultaneous high current and high voltage. A compact cool-running design that fills your room with sound, not bulk.

CARVER'S GREAT AMPLIFIER CHALLENGE.

On the merits of its enviable specifications and features alone, the M-1.Ot could easily have become another industry benchmark of power, accuracy and economy.

But Bob is never satisfied. He felt that his fifth Magnetic Field Amplifier design should be even more remarkable.

So last year, he made a bold offer to the editors of *Stereophile Magazine*, one of America's most respected audiophile publications. He claimed that he could make special modifications to his new amplifier design which would enable it to sound EXACTLY like any high-priced, esoteric, perfectionist amplifier (or amplifiers) the editors could choose.



Moreover, his design work would not happen in his Lynnwood, Washington laboratory, but in a motel room near *Stereophile's* offices in New Mexico. And would match the M-1.Ot's final sound to any contender in 48 hours!

As the magazine put it, "If it were possible, wouldn't it already have been done? Bob's claim was something we just couldn't pass up unchallenged."

Out of respect, ethics (and even a little bit of awe), neither *Stereophile Magazine* nor Carver will divulge the name of the legendary "world class" mono vacuum tube amplifiers that were selected as the M-1.Ot's contender.

Suffice to say that what transpired in the next 48 hours is high fidelity history. It makes great reading in *Stereophile*, Vol. 8, No. 6, or in the reprint we'll send you on request.

MUSIC IS THE FINAL PROOF.

The *Stereophile* evaluation team was admittedly skeptical ("We wanted Bob to fail. We wanted to hear a difference").

They drove both amplifiers with some of the finest components in the world. Through reference speakers that are nothing short of awesome.

But it was their ears and carefully selected music ranging from chamber to symphonic to high-impact pop that led them to write, "... each time we'd put the other amplifier in and listen to the same musical passage again, and hear exactly the same thing. On the second day of listening to his final design, we threw in the towel and conceded Bob the bout. According to the rules... Bob had won."

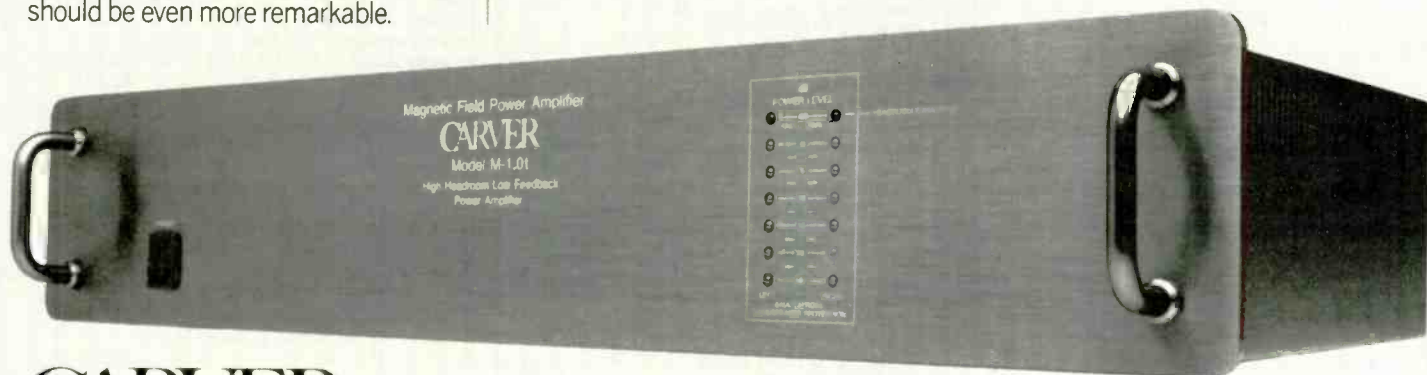
The inquiring audiophile can't help but wonder if M-1.Ot production models will sound as good. Ask the man who designed it. "I promise they will sound exactly the same. And just as good. In fact, I stake my reputation and that of our company on it."

SHARE THE CHALLENGE AND THE VICTORY.

The real winner is you. Because you can own world class, superlative electronics at reasonable prices by visiting your nearest Carver dealer. Compare the new M-1.Ot against any and all competition. Including the very expensive amplifiers that have been deemed the M-1.Ot's sonic equivalent. But even if you can't make that comparison, you won't be surprised when the M-1.Ot lives up to every other claim made in this ad.

What you will be surprised at is just how affordable this much power, musicality and accuracy can be.

SPECIFICATIONS: Power, 200 watts/channel into 8 ohms 20Hz to 20KHz, both channels driven with no more than 0.15% THD. Long term, sustained RMS power, 500 watts into 4 ohms, 350 watts into 8 ohms. Bridged Mono RMS power, 1000 watts into 8 ohms. Noise, -110dB IHF A-Weighted. Frequency Response, +0-3dB 10Hz-100KHz. Slew Factor, greater than 200. Weight, 20 lbs. Finish, light brushed anthracite, anodized.



CARVER

Corporation, PO Box 1237, Lynnwood, WA 98046

POWERFUL

MUSICAL

ACCURATE

CIRCLE NO. 49 ON READER SERVICE CARD

Distributed in Canada by Evolution Technology

AMPLIFIERS

voltage amp from load-imp fluctuations. Active Servo power supply provides improved regulation and contributes to low-noise performance. Switches video signals from A/V inputs as well as audio signals from 8 inputs with video output for monitor. Inputs for MM phono; MC phono; tape; tape 2/VCR; AUX; phono 2; CD player; tuner; video (AV 1). FR 0.5-180,000 Hz +0, -3 dB; S/N 102 dB (110 IHF66); THD 0.001%; MM phono sens 0.63 mV for 0.5-V output at 1,000 Hz; MM phono input overload level 150 mV at 1,000 Hz; sens for line-level inputs 36 mV. 17" W x 5" H x 14.25" D; 20 lbs ... \$1,100

SU-A4MK2 Stereo DC Control Amplifier

Preamp with built-in amorphous step-up transformer for extended linear response. Features full matching phono equalizer for all types of cartridges; all Class A with ICL ultra-low-noise FET input; low output imp allows remote power amp placement; shelving tone controls for EQ; presettable CD/AUX/video input selector; 4-ganged master volume control; infrasonic and high filter switches; loudness switch; separate rec selector with 2-way dubbing; 2 tape monitors. THD <0.006% MM, 0.01% MC, 0.006% line; FR 20-100,000 Hz ± 0.2 dB phono, DC-100,000 Hz +0 dB line; S/N A-wtd 77 dB MM, 76 dB MC, 100 dB line; input imp 47 kilohms 1, 2, MM, 30/470 MC, 47 kilohms line; output imp 600 ohms tape 1, rec out, 2 ohms pre out; max output voltage 8 V; input sens 0.26/0.64 mV 1 MM, 20/65 μ V MC, 0.64 mV 2 MM, 38 mV line ... \$1,100

SU-A6 Mk 2 Preamplifier

DC control preamp with shelving tone controls, selectable turnover frequencies, 8 audio/video inputs, infrasonic filter, audio muting. Inputs for MM phono, MC phono, tape 3, tape 2, AUX 2, phono 2, CD player, tuner, computer, VCR, digital-audio recorder, TV. FR 20-20,000 Hz +0/-0.1 dB; max output 8 V; THD 0.002%; MM phono sens 0.63 mV for 0.5-V output at 1,000 Hz; MM phono input overload level 150 mV, sens for line-level inputs 36 mV; 16.94" W x 3.88" H x 14.19" D ... \$600



Technics SU-A6 MK2

THRESHOLD

Model FET ten/hl Control Preamplifier

Dual-ch, high-level noninverting field-effect transistor preamp dedicated specifically to line-level signal applications. Accepts 5 high-level sources and 2 tape decks with full flexibility in record/monitor signal routing. External power supply in separate chassis. Input J-FET's operated in parallel, doubling transconductance and lowering noise and distortion. Secondary gain stages use cascoded MOSFET's to suppress voltage fluctuations, allowing low distortion even when driving loads less than 500 ohms. Circuit boards are military-grade glass-epoxy with gold-over-nickel-over-copper-plated paths. Gold-plated connectors with Teflon insulation. Precision metal-film and wirewound resistors are used throughout. Bandwidth response 1.5 Hz and 125,000 Hz at -3 dB points; distortion

0.01% at 3 V rms from 20-20,000 Hz into 1,000-ohm load; crosstalk no greater than -75 dB at 20,000 Hz with 1,000-ohm source; noise no greater than -110 dBA referenced to 1 V input; input imp 25,000 ohms, nominal; output imp 100 ohms. Controls for program source selector; record signal routing; monitor signal selection; mode; balance; audio level. 2.75" H x 19" W x 6.5" D ... \$1,900

Model FET nine Preamplifier

Dual-ch noninverting field-effect transistor preamp. Accepts inputs from high- and low-level MC, MM or other velocity-output characteristic phono cartridge, 3 high-level sources, and 2 tape decks with full flexibility in record/monitor signal routing. Cartridge section uses single gain-variable preamplification stage for MC and MM cartridges. Cartridge loading selected by internal DIP switch assemblies. Signal-path topologies and power-regulation circuits derived from FET ten research. External power supply in separate chassis. Circuit boards are military-grade glass-epoxy with gold-over-nickel-over-copper-plated paths. Gold-plated connectors with Teflon insulation. Precision metal-film and wirewound resistors are used throughout. FR bandwidth 1.5 Hz and 125,000 Hz at -3 dB points; distortion 0.01% at 3 V rms from 20-20,000 Hz into 10,000-ohm load; high-level input imp 25,000 ohms, nominal; output imp 100 ohms. Controls for program source selector; record signal routing; monitor signal selection; ch balance; audio level. 2.75" H x 19" W x 6.5" D ... \$1,500

Model FET ten/pc Phono/Preamp

Dual-ch noninverting field-effect transistor preamp dedicated specifically for phono-cartridge gain applications. Accepts inputs from high- and low-level MC, MM or other velocity-output characteristic phono cartridge and provides RIAA equalized output suitable for preamp high-level inputs. Single gain-variable high-performance stage provides signal increase required by different cartridge types. Combination of active low-frequency and active and passive high-frequency equalization make up RIAA equalization. Up to 16 different cartridge-loading characteristics may be user selected with internal DIP switch assemblies. External power supply in separate chassis. Circuit boards are military-grade glass-epoxy with gold-over-nickel-over-copper-plated paths. Gold-plated connectors with Teflon insulation. Precision metal-film and wirewound resistors are used throughout. Distortion no greater than -867 dBA referenced to 1-mV input; crosstalk no greater than -70 dB at 20,000 Hz with 1,000-ohm source; output imp 420 ohms. 2.75" H x 19" W x 6.5" D ... \$1,100

YAMAHA

C-2X Stereo Preamplifier

Low-noise Zero Distortion Rule (ZDR) MC head amp with dual-transformer independent power supply. Features DC-servo/Current Noise suppression/ZDR/Extended Rolloff Equalizer (ERE) EQ amp; rec-out selector with tape copy function; switchable MC/MM phono amp gain; switchable subsonic filter; audio muting switch; stereo/mono selector; gold-plated input/output terminal. Inputs for MM phono; MC phono; AUX; tape; tuner; CD player. THD 0.001%, 0.002% MC phono; S/N 94 dB MC phono, 100 dB MM phono. 17.12" W x 2.88" H x 13.88" D; 17.6 lbs ... \$1,200

C-85B Stereo Preamplifier

Super-low-noise Zero Distortion Rule (ZDR) head amp with continuously variable loudness

control. Features DC-servo/Current Noise suppression/ZDR/Extended Rolloff Equalizer (ERE) EQ amp; 2-band parametric EQ; rec-out selector with tape copy function; switchable MC/MM phono amp gain; 4-gang volume control; tone bypass; switchable subsonic filter; audio muting switch; gold-plated input terminals/phone jack; inverting preamp outputs. Inputs for MM phono; MC phono; AUX; tape; tuner; CD player. THD 0.001%; S/N 91 dB MC phono, 95 dB MM phono. 17.12" W x 3.75" H x 14.94" D; 15 lbs ... \$799

C-65B Stereo Preamplifier

Super-low-noise Zero Distortion Rule (ZDR) head amp with continuously variable loudness control. Features DC-servo/Current Noise suppression/ZDR/Extended Rolloff Equalizer (ERE) EQ amp; continuously variable tone control turnover frequencies; rec-out selector with tape copy function; switchable MC/MM phono amp gain; 4-gang volume control; tone bypass; switchable subsonic filter; audio muting switch; gold-plated input terminals/phone jack. Inputs for MM phono; MC phono; AUX; tape; tuner; CD player. THD 0.001%; S/N 91 dB MC phono, 95 dB MM phono. 17.12" W x 3.75" H x 14.94" D; 15 lbs ... \$549

C-45B Stereo Preamplifier

Super-low-noise head amp with multiple audio-source inputs and continuously variable loudness control. Features DC-servo/Current Noise suppression/ZDR/Extended Rolloff Equalizer (ERE) EQ amp; bass, treble, and midrange controls; switchable MC/MM phono input; 4-gang volume control; dual tape monitor inputs; switchable subsonic filter; gold-plated input terminals/phone jack. Inputs for MM phono; MC phono; AUX; tape; tuner; CD player. THD 0.002%; S/N 91 dB MC phono, 95 dB MM phono. 17.12" W x 3.25" H x 11.81" D ... \$369

INTEGRATED AMPLIFIERS

ACCUPHASE BY MADRIGAL

E-303X Integrated Amplifier

High-power integrated amp with power meters. Features 3-position loudness compensation; 250 W/ch into 2 ohms. Inputs for MM phono; MC phono; tuner; tape; tape 2; AUX; phono 2; CD player; line 2. FR 20-20,000 Hz +0, -0.2 dB; THD 0.01%; S/N 102 dB; IMD 0.005%; MM phono sens 0.22 mV for 0.5 V output at 1,000 Hz; sens for line-level inputs 13.9 mV; 150 continuous average W/ch from 20-20,000 Hz with no more than 0.01% THD into 8 ohms; 45.2 lbs; 17.5" W x 6.4" H x 14.6" D ... \$2,325

E-302 Integrated Amplifier

High-power integrated amp with 3-position loudness compensation and power meters. Inputs for MM phono; MC phono; tape; tape 2; phono 2; CD player; 3 line inputs. FR 20-20,000 Hz +0, -0.2 dB; THD 0.01%; S/N 120 dB; IMD 0.01%; MM phono sens 0.22 mV for 0.5 V output at 1,000 Hz; sens for line-level inputs 7.1 mV; 120 continuous average W/ch from 20-20,000 Hz with no more than 0.01% THD into 8 ohms; 180 W/ch into 4 ohms; 35.6 lbs; 17.5" W x 5.75" H x 14.6" D ... \$2,000

E-205 Integrated Amplifier

Features parallel push-pull output stage driven by MOSFET driver stage; large power supply; directly coupled circuitry with DC servo; high-

AMPLIFIERS

gain equalizer; MC-input imp selector; 9 inputs; turnover selector switch to expand tone-control function; tape monitor and dubbing switches; subsonic filter; inputs for 2 pairs of speakers; speaker selection switch; mono-mode switch. Inputs for MM phono; MC phono; tape; tape 2; CD player; tuner; 3 line-level inputs. 80 continuous average W/ch from 20-20,000 Hz with no more than 0.01% THS, 100 W into 4 ohms; FR 2.5-150,000 Hz ± 3 dB; THD 0.02%; S/N 80 dB. Available in champagne-gold or black-anodized finish. 17.5" W x 5.75" H x 14.56" D; 30.8 lbs \$1,250

ACOUSTIC RESEARCH

AR A-06 Integrated Amplifier

Features infrared remote control of input functions and volume via cable link to AR T-04 tuner. Pre and power amps can be split. Inputs for MM phono; MC phono; tape; tape 2; AUX; CD player; tuner; video. 60 continuous average W/ch from 20-20,000 Hz with no more than 0.03% THD into 8 ohms; 90 watts into 4 ohms; 200-ms dynamic power 90 watts; dynamic headroom 2 dB; slew rate 40 V/ms; FR 13-50,000 Hz ± 3 dB; THD 0.03%; S/N 90 dB; IMD 0.03%; 40-ampere current capability. 17" W x 3.25" H x 13" D \$430

AR A-04 Integrated Amplifier

Features infrared remote control of basic functions via cable link to AR T-04 tuner; gold-plated phono inputs. Inputs for MM phono; MC phono; tape; AUX; CD player; tuner; video. 40 continuous average W/ch from 20-20,000 Hz with no more than 0.03% THD into 8 ohms; 60 watts into 4 ohms; 200-ms dynamic power 60 watts; dynamic headroom 2 dB; slew rate 40 V/ms; FR 13-50,000 Hz ± 3 dB; THD 0.03%; S/N 90 dB; IMD 0.03%; 25-ampere current capability. 17" W x 3.25" H x 13" D \$340

ADS

Atelier A2 Amplifier

Stereo integrated amp with separate input selectors for recording and listening. Features 2 tape monitor loops; 2 separate phono preamps, one for MM cartridges and one for MC's; preamp output and main amp input jacks; fast-response linear LED displays; clipping indicators; power output into 4-ohm load 100 W/ch, THD <0.08%, into 8-ohm load 80 W/ch, THD <0.05%, 2-ohm load 70 W/ch, THD <0.2%; FR tuner, video, tape 5-90,000 Hz +0, -1.5 dB, phono conforms to RIAA EQ ± 0.5 dB 50-20,000 Hz; S/N tuner, video, tape >80 dBA, phono MM >80 dBA, phono MC >60 dBA; IMD <0.05% with 4-ohm loads; 17.52" W x 2.76" H x 14.84" D; 20 lbs \$550



Akai AM-A70

AKAI

AM-A90 Audio/Video Integrated Amplifier

A/V integrated amp with open-loop circuitry requiring no negative feedback, discrete construction, phono amp section for better FR, dual-pole DC-servo power stage and high-capacity toroidal transformer for increased dynamic range. Features MOSFET output drivers; gold-plated phono jacks; line-straight selector; subsonic filter; loudness contour; VTR input; stereo/mono selector; 20-dB muting; zero-drive

circuit to compensate for varying speaker imp. Inputs for MM phono; MC phono; tape; tape 2; CD player; tuner; VTR; VDP. 130 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.5% THD; FR 10-80,000 Hz ± 0.5 dB; THD 0.5%; S/N 95 dB. 17.3" W x 4.3" H x 16.1" D; 27.6 lbs \$645

AM-A70 Audio/Video Integrated Amplifier

A/V integrated amp with open-loop circuitry requiring no negative feedback, discrete construction, phono amp section for better FR, dual-pole DC-servo power stage and high-capacity toroidal transformer for increased dynamic range. Features gold-plated phono jacks; line-straight selector; subsonic filter; loudness contour; VTR input stereo/mono selector; 20-dB muting; zero-drive circuit to compensate for varying speaker imp. Inputs for MM phono; MC phono; tape; tape 2; CD player; tuner; VTR; VDP. 100 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.5% THD; FR 10-80,000 Hz ± 0.5 dB; THD 0.5%; S/N 95 dB. 17.3" W x 4.3" H x 16.1" D; 25.4 lbs \$475

AM-A402 Integrated Amplifier

Features DC-servo circuitry for increased dynamic range; electronic circuit protection for system and speakers; built-in 5-band EQ; processing loop; output level meter; loudness contour. Inputs for MM phono; tape; tape 2; AUX; CD player; tuner. 100 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.09% THD; FR 5-50,000 Hz ± 3 dB; THD 0.5%; S/N 95 dB; EQ center frequencies at 63, 250, 1,000, 4,000, 16,000 Hz with 10-dB boost/cut. 17.3" W x 3.9" H x 9.8" D; 16.1 lbs \$300

AM-A302 Integrated Amplifier

Features DC-servo circuitry for increased dynamic range; electronic circuit protection for system and speakers; built-in 5-band EQ; processing loop; output level meter; loudness contour. Inputs for MM phono; tape; tape 2; AUX; CD player; tuner. 80 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.09% THD; FR 5-50,000 Hz ± 3 dB; THD 0.5%; S/N 95 dB; EQ center frequencies at 63, 250, 1,000, 4,000, 16,000 Hz with 10-dB boost/cut. 17.3" W x 3.9" H x 9.8" D \$230

AM-A202 Integrated Amplifier

Features DC amp construction; built-in 5-band EQ; processing loop; loudness contour. Inputs for MM phono; tape; CD player; tuner. 50 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.3% THD; FR 10-50,000 Hz ± 3 dB; THD 0.5%; S/N 92 dB; EQ center frequencies at 63, 250, 1,000, 4,000, 16,000 Hz with 10-dB boost/cut. 17.3" W x 3.9" H x 9.8" D; 12.8 lbs \$180

DENON

PMA-900V Integrated Amplifier

Features 120 W/ch; pure-current power; high-speed dual non-NFB amp; A/V switching; front-panel video input; MM/MC input; processor loop; muting switch. \$700

PMA-700V Integrated Amplifier

Features 100 W/ch; pure-current power; high-speed dual super non-NFB amp; A/V switching; front-panel video input; MM/MC input; processor loop \$530

AVC-500II A/V Integrated Amplifier

Audio/video control center with 25-W/ch amp, surround processor, Dolby surround sound, 3 sets of audio/video inputs/outputs with full

switching capability, master volume, simulated stereo, full video dubbing with enhancer circuit, auto copy, external audio source input; 5-band graphic EQ; headphone jack \$375

PMA-500V Integrated Amplifier

Features 80 W/ch; pure-current power; high-speed non-NFB amp; 7 audio, 2 video inputs; MM & MC inputs \$370
ACA-36. Side panels for PMA-500V \$30

PMA-300V Integrated Amplifier

Features 55 W/ch; 2 audio, 2 video inputs; MM & MC inputs \$250

HITACHI

HA6 Integrated Amp

Integrated amplifier with MOSFET's. Inputs provided for MM phono; MC phono; tape; tape 2; AUX; CD player; tuner. 100 continuous ave W/ch from 20-20,000 Hz with no more than 0.005% THD; 200-ms dynamic power 120 W; dynamic headroom 0.8 dB; FR 20-20,000 Hz ± 3 dB; THD 0.005%; S/N 105 dB; intermodulation distortion 0.008%. 25 lbs \$430

HARMAN KARDON

PM665 Integrated Amplifier

Stereo integrated amp with reactive load and high instantaneous current capability. Features low negative feedback; turnover tone controls; bass contour (phase corrected loudness contour); 2-speaker switching. Inputs for MM phono; MC phono; tuner; tape; tape 2; AUX; phono 2; CD player; main amp; tuner. FR 0.2-150,000 Hz ± 3 dB; S/N 100 dB-AUX/CD inputs; MM phono sens 1.1 mV for 0.5 V output at 1,000 Hz; sens for line-level inputs 67.5 mV; 100 continuous average W/ch from 20-20,000 Hz with no more than 0.08% THD into 8 ohms; slew rate 180 V/ μ sec; rise time 1.8 μ V. 33 lbs; 17.36" W x 5.25" H x 15.75" D \$775
PM655 Integrated Amplifier. Similar to PM665 except 60 W/ch; no inputs for AUX or phono 2. Weight: 22 lbs, 5 oz \$550



Harman Kardon PM645

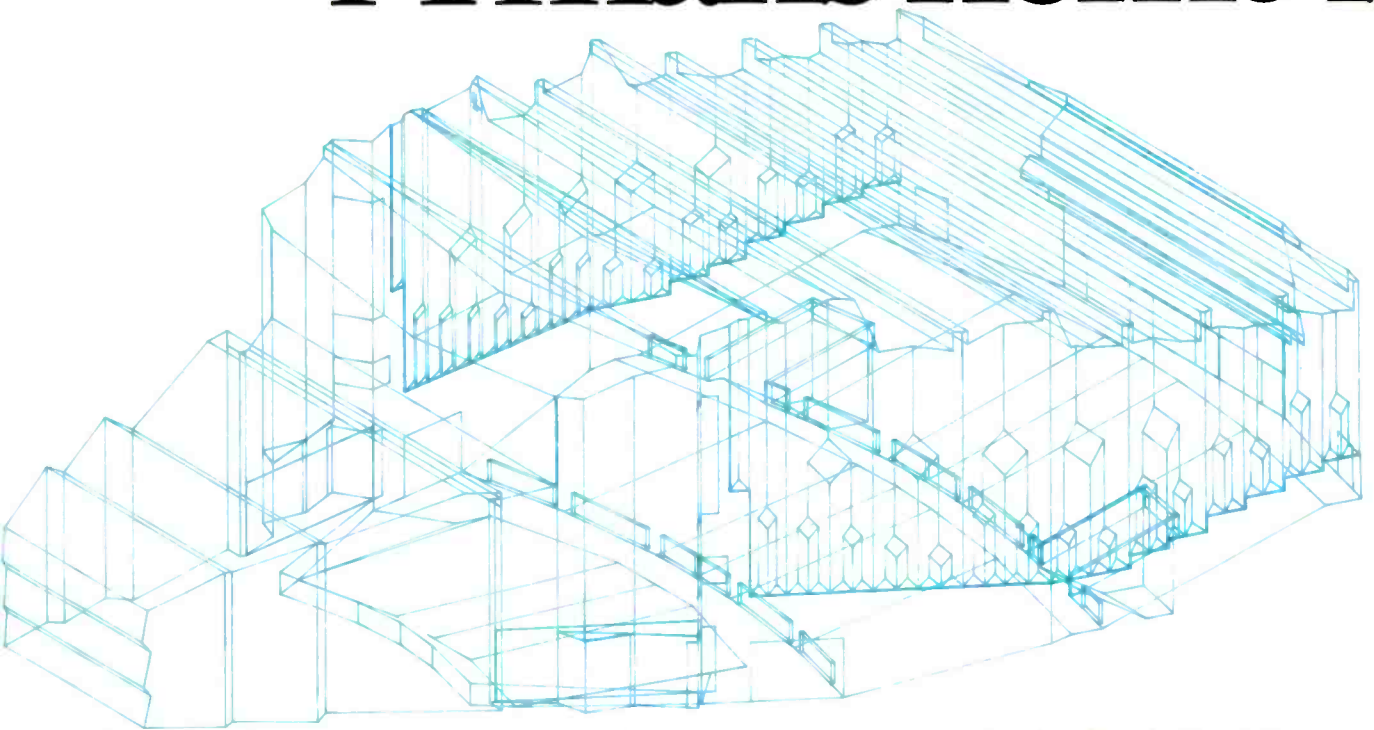
PM645 Integrated Amplifier

Stereo integrated amp with reactive load and high instantaneous current capability. Features low negative feedback; turnover tone controls; bass contour; 2-speaker switching; 2 tape monitors. Inputs for MM phono; tuner; tape; tape 2; CD player. FR 0.3-150,000 Hz ± 3 dB; S/N 100 dB; MM phono sens 1.1 mV for 0.5 V output at 1,000 Hz; sens for line-level inputs 67.5 mV; 40 continuous average W/ch from 20-20,000 Hz with no more than 0.09% THD into 8 ohms; slew rate 90 V/ μ sec; rise time 2.0 μ V. 14 lbs, 5 oz; 17.36" W x 4" H x 14" D \$310

PM635 Integrated Amplifier

Integrated amplifier with instantaneous current capability of 15 amps and low negative feedback of 25 dB. Features all discrete circuitry. Inputs provided for MM phono; tape; CD player; tuner. 30 continuous ave W/ch from 20-20,000 Hz with no more than 0.09% THD into 8 ohms; 200-ms dynamic power 75 W; slew rate 120 V/ms; FR 0.5-120,000 Hz ± 3 dB; THD 0.9%;

A man's home is



The revolutionary Yamaha DSP-1 brings world-famous acoustical environments into your listening room at the push of a button. Its 30-key wireless remote control unit (below) features a two-line, 16-character backlit LCD that displays all program functions.

100
1887 1987
Imagine what
the next hundred years
will bring.

With the introduction of Yamaha's unique DSP-1 Digital Sound Field Processor, listening to recorded music at home is no longer the next best thing to being there.

Now it is being there. Quite literally.

The most significant advancement in acoustic realism since stereo, the new DSP-1 enables you to attend performances in the actual listening environments in which they were intended to be heard in the first place. Without even leaving your living room.

In twelve of the world's most famous sites, to be specific. Including three concert halls, a chamber, cathedral, church, outdoor stadium, jazz club, rock concert arena, warehouse loft, pavilion and disco.

Additionally, the DSP-1 offers a four-directional presence mode as well as three surround-sound systems: a large theater, a medium sized

theater and even digital delay Dolby® surround.

Previous analog "surround" processors simply produced the illusion of a sound field by altering the existing stereo signal.

The DSP-1, however, digitally reproduces the actual sound fields of the world's finest listening environments, without affecting the purity of the original source material.

Utilizing the Yamaha-developed four-microphone Single Point Quad sound field analysis technique, Yamaha engineers spent five years analyzing the acoustic architecture of the world's most noted performance facilities. Including echo patterns, reflective personalities and such data as timing, volume level and apparent source directionality.

This information was then programmed into the DSP-1's computer memory (ROM).

The frequency response and dynamic range characteristics from your stereo source material



It's his cathedral, church, disco, stadium

no longer his castle.

trigger the continuous release of this information, to precisely reproduce the acoustic personalities of selected performance environments.

The reproduction of this acoustic architecture in your home is made possible by the development of a proprietary Yamaha VLSI (very large scale integrated circuit), the YM-3804.

It calculates early sound reflections in real time based on the echo patterns stored in the DSP-1 memory—enabling accurate re-creations of these listening environments at the push of a button.

Each reflection is calculated using the very same sampling rate and quantization as compact discs (44.1 kHz, 16 bit linear), which produces an output with dynamic range of 94 dB and 0.006% THD—making audiophile quality digital sound field synthesis possible in your home for the very first time anywhere.

Every DSP-1 acoustic response pattern has several key response parameters you can actually alter to customize the size, shape and character of the home listening environment.

These include room size, liveness, initial delay time, high pass filter cutoff, low pass filter cutoff and reverberation time.

After modifying a program, you can then give it a name, and store it in one of the DSP-1's 16 RAM user memories.

In addition, it offers you 16 sound effector programs built in, including time-delay, stereo flange, tremolo, chorus, pitch change and auto panning. So the DSP-1 can also be utilized as a musical instrument effects device.

All its sound field modes and parameters

are controlled right from the palm of your hand, since the DSP-1 is operated by a 30-key wireless remote control. This allows you to select the performance environment and adjust parameters—even program them in the DSP-1's RAM memory, without sacrificing the perspective of your position. (Or getting you out of your favorite chair.)

Its large backlit LCD confirms all the mode selections and parameter readings as you make them. The remote control also lets you adjust the effect level and front/rear balance, and even give titles to those new modes you program.

The full benefits of Yamaha sound field synthesis are best experienced with four speakers, which are powered by the new Yamaha 4-channel M-35B power amplifier, in addition to the front stereo speaker pair, which are driven by your existing amplifier.

If desired, however, the front left and front right output may be combined with the existing main-channel speakers.

For our thorough White Paper on Yamaha digital sound field synthesis, please write us at the address shown below.

But mere words can never hope to convey the magnitude of this accomplishment. Visit an authorized Yamaha dealer today for a complete demonstration. And discover why stereo alone is now as outdated as living in a castle.

Yamaha Electronics Corporation, USA, P.O. Box 6660, Buena Park, CA 90622

CIRCLE NO. 14 ON READER SERVICE CARD



concert hall, jazz club, and theater.

*Dolby is a trademark of Dolby Labs, Inc.

AMPLIFIERS

S/N 85 dB; 12 lbs; 17.44" W x 4" H x 13.88" D \$235

JVC

AX-90VBK Remote-Controlled Integrated Amp
Integrated amp with unified wireless remote control to operate amp plus selected JVC Compu-Link Components. Features dynamic Super-A power amp; Gm selector and driver; electronic 7-band S.E.A. graphic EQ with 10 preset memories; 2-way volume adjustment; 3 video inputs with sound selector and acoustic expander; high-gain phono EQ; 2-amp construction; low-imp direct-power supply; LCD serves as EQ setting indicator and real-time spectrum analyzer. Inputs for MM phono; MC phono; tape 1; tape 2; AUX; CD player; tuner; video 1; video 2; VCR. 120 continuous average W/ch from 20-20,000 Hz with no more than 0.007% THD into 8 ohms; FR 5-100,000 Hz \pm 3 dB; THD 0.003%; S/N 100 dB; IMD 0.007%. 17.19" W x 5" H x 15.75" D; 22 lbs \$600

A-X900B Integrated Amplifier

Dynamic Super-A stereo integrated amp designed specifically for digital programs with Gm driver for amp-speaker interface that shuts out counterelectromotive force and makes speaker imp variations insignificant. Inputs for MM phono; MM phono; tape; tape 2; AUX; phono 2; CD player; tape 3; tuner. FR 3-100,000 Hz \pm 0 dB/-3 dB (8 ohms); THD 0.003%; S/N 86/73 dB MM, 69/75 dB MC, 109/91 dB tuner/AUX/DAD/tape; IMD 0.001%; MM phono sens 2.5 mV for 0.5 V output at 1,000 Hz; 120 W/ch continuous average 20-20,000 Hz with 0.003% THD into 8 ohms; dynamic range 100 dB; 27.6 lbs \$550

AX-70VBK Integrated Amplifier

Integrated amp with equalized recording and dubbing from tape 1 to tape 2. Features dynamic Super-A power amp; Gm selector and driver; computer-controlled 7-band S.E.A. graphic EQ with 10 preset memories; high-gain phono EQ; 2-amp construction; low-imp direct-power supply; LCD serves as EQ setting indicator and real-time spectrum analyzer. Inputs for MM phono; MC phono; tape 1; tape 2; AUX; CD player; tuner. 70 continuous average W/ch from 20-20,000 Hz with no more than 0.007% THD into 8 ohms; FR 5-100,000 Hz \pm 3 dB; THD 0.002%; S/N 100 dB; IMD 0.007%. 17.19" W x 4.62" H x 13.81" D; 17.2 lbs \$400

KENWOOD

KA-1100SD (B) Basic Series Integrated Amp

Black integrated amplifier with variable loudness control, tone controls with selectable turn-over frequencies, gold-plated phono, compact disc, front-panel AUX jacks, Super Dynamic Linear Drive technology, Sigma Drive Type B for high damping factor, MM or MC inputs, 3 tape monitors and 2-way tape dubbing, high-speed circuit design, touch-control muting. 150 W/ch minimum rms into 8 ohms from 20-20,000 Hz with less than 0.04% THD; 36 lbs \$705

KA-880SD (B) Basic Series Integrated Amp

Black integrated amplifier with Super Dynamic Linear Drive technology, Sigma Type B for high damping factor, high-speed circuit design, MM or MC phono cartridge selector, 3 tape monitors, adaptor in-out capability. 100 W/ch minimum rms into 8 ohms from 20-20,000 Hz with less than 0.004% THD; 23 lbs \$335

KA-95(B) Integrated Amplifier

With selectable 2-range LED power monitor; in-

dependent CD, video, AUX inputs; 2 tape channels; phono rec selector for alternative listening while dubbing; subsonic filter; drives 2 pairs of speakers. 125 continuous average W/ch from 20-20,000 Hz with less than 0.05% THD into 8 ohms; FR 10-100,000 Hz \pm 0 dB, -3 dB; S/N 79 dB; 16.22" W x 4.28" H x 11.33" D; 18.7 lbs \$320

KA-75(B). Similar to KA-95 except has 80 continuous average W/ch from 20-20,000 Hz with less than 0.09% THD into 8 ohms; 15.4 lbs \$235

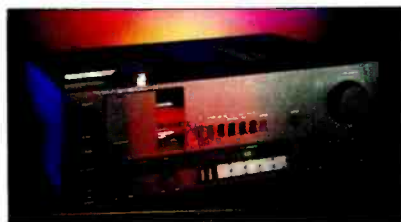
KYOCERA

A 910 200-W Integrated Amplifier

Integrated amp with ceramic base/chassis and cutless-core power transformer. Features DC configuration with DC servo control; fine-ceramic linear modularized phono stages. Inputs for MM phono, MC phono, tape, tape 2, AUX, phono 2, CD player, tuner, video. FR 10-100,000 Hz \pm 1.5 dB; max output 0.25 V at rated sens; S/N 96 dB; MM phono sens 2.2 mV for 0.5 V output at 1,000 Hz; sens for line-level inputs 250 mV; 150 continuous average W/ch from 20-20,000 Hz with no >0.02% THD into 8 ohms; dynamic headroom 1.2 dB; slew rate 90 V/ μ s; 200 W/ch into 4 ohms with 0.05% THD; damping factor 150 (1 kHz); S/N 78 dB. 17" W x 5.75" H x 16.5" D \$1,500

A-710 100-W Integrated Amplifier

Integrated amp with ceramic base/chassis and triple push-pull power stages. Features single-stage high-gain circuit for improved open-loop FR, MOSFET drivers. Inputs for MM phono, MC phono, tape, tape 2, AUX, phono 2, CD player, tuner, video. FR 10-100,000 Hz \pm 1.5 dB at 1 W into 8 ohms; max output 0.2 V at rated sens; S/N 105 dB; MM phono sens 2.2 mV for 0.5 V output at 1,000 Hz; sens for line-level inputs 200 mV; 100 continuous average W/ch from 20-20,000 Hz with no >0.03% THD into 8 ohms; dynamic headroom 0.7 dB; slew rate 120 V/ μ s; 140 W/ch into 4 ohms with 0.04% THD; damping factor 100 (1 kHz); MC sens 0.12 mV at 10, 20, 100 ohms. 17" W x 5.75" H \$800



Luxman LV-105

LUXMAN

LV-105 Integrated Amplifier

Features BRID- (hybrid) design circuitry; STAR circuitry; Duo-Beta; voltage-driven amplification; tape and video dubbing; front-panel inputs (A/V AUX & video); rec-out selector; video amp and switching capability. Inputs for MM phono; MC phono; tape; tape 2; A/V AUX; CD player; tuner; video. 80 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.3% THD; 200-ms dynamic power 200 W at 4 ohms; FR 1-200,000 Hz \pm 3 dB high-level inputs, 20-20,000 Hz \pm 0.2 dB phono RIAA, 10-6 MHz video; THD 0.3%; S/N 105 dB; IMD 0.01%. 17.25" W x 5.89" H x 13.62" D; 23.3 lbs \$800

LV-103 Integrated Amplifier

Features BRID- (hybrid) design circuitry; STAR circuitry; Duo-Beta; voltage-driven amplification; tape dubbing; front-panel inputs (A/V

AUX); rec-out selector. Inputs for MM phono; MC phono; tape; tape 2; A/V AUX; CD player; tuner. 50 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.3% THD; 200-ms dynamic power 160 W at 4 ohms; FR 1-150,000 Hz \pm 3 dB high-level inputs, 20-20,000 Hz \pm 0.3 dB phono RIAA; THD 0.3%; S/N >105 dB; IMD 0.01%. 17.25" W x 5.89" H x 13.62" D; 22.5 lbs \$650

LV-102 Integrated Amplifier

Features STAR circuitry; Duo-Beta; voltage-driven amplification; CD straight-sound enhancer; tape and video dubbing; independent rec-out selector; dynamic sound enhancer; subsonic filter. Inputs for MM phono; MC phono; tape; tape 2; AUX; CD player; tuner; video. 65 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.03% THD; 200-ms dynamic power 140 W at 14 ohms; FR 1-120,000 Hz \pm 3 dB high-level inputs, 20-20,000 Hz \pm 0.3 dB phono RIAA, 10-6 MHz A/V/video; THD <0.03%; S/N >105 dB. 17.25" W x 5.44" H x 13.88" D; 19.8 lbs \$550

LV-101 Integrated Amplifier

Features STAR circuitry; Duo-Beta; voltage-driven amplification; CD straight; tape dubbing; independent rec-out selector; subsonic filter. Inputs for MM phono; MC phono; tape; tape 2; AUX; CD player; tuner; video. 45 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.03% THD; 200-ms dynamic power 110 W at 14 ohms; FR 1-120,000 Hz \pm 3 dB high-level inputs, 20-20,000 Hz \pm 0.3 dB phono RIAA; THD <0.03%; S/N >105 dB; IMD 0.005%. 17.25" W x 5.44" H x 13.88" D; 18.8 lbs \$420

LV-100 Integrated Amplifier

Features STAR circuitry; Duo-Beta; voltage-driven amplification; CD straight; tape dubbing; subsonic filter; stereo headphone jack. Inputs for MM phono; tape; tape 2; AUX; CD player; tuner. 35 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.05% THD; 200-ms dynamic power 80 W at 14 ohms; FR 10-80,000 Hz \pm 3 dB high-level inputs, 20-20,000 Hz phono RIAA; THD <0.05%; S/N >96 dB; IMD 0.015%. 17.25" W x 5.31" H x 10.94" D; 13.2 lbs \$300

LV-900 Integrated Amplifier

Features STAR circuitry; Duo-Beta; CD straight; tape dubbing; stereo headphone jack. Inputs for MM phono; tape; tape 2; AUX; CD player; tuner. 28 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.05% THD; 200-ms dynamic power 60 W at 4 ohms; FR 10-80,000 Hz \pm 3 dB high-level inputs, 20-20,000 Hz \pm 0.5 dB phono RIAA; THD <0.05%; S/N >96 dB; IMD 0.015%. 17.25" W x 5.31" H x 10.94" D; 12.1 lbs \$220

MARANTZ

PM561 Integrated Amplifier

Audio/video integrated amp with 5-band graphic equalizer; Bus System remote control; sound-injection mixing; spatial stereo effect; electronic volume control with presets. Inputs for MM phono; tuner; tape; tape 2; CD player. FR 10-50,000 Hz \pm 1 dB; S/N 98 dB; MM phono sens 2.5 mV for 0.5 V output at 1,000 Hz; sens for line-level inputs 150 mV; 110 continuous average W/ch from 20-20,000 Hz with no more than 0.04% THD into 8 ohms; 23 lbs; 16.5" W x 4.62" H x 13" D \$500

MISSION

Cyrus II Integrated Amplifier

Integrated amp with optional external power

AMPLIFIERS

supply to effectively double power output. Inputs for MM phono; MC phono; tape; AUX; CD player. 50 continuous average W/ch from 20-20,000 Hz with no >0.004% THD into 8 ohms; 60 amperes peak to peak swings; FR 20-20,000 Hz ± 0.2 dB; THD 0.004%; S/N 83 dB; IMD 0.005%; MM phono sens 0.31 mV for 1-W output; sens for line-level inputs 50 mV for 1-W output; dynamic headroom 1.4 dB; slew rate 150 V/ μ sec (input filter bypassed); 11 lbs; 8.5" W x 3" H x 13.5" D \$599

Cyrus PSX. When connected to the Cyrus II integrated amplifier, the power supply is dedicated to the preamp alone. The PSX is then the power supply for the amplifier. Output voltage -40 +40 V dc; transformer regulation 3% at 500 VA; 8.5" W x 3" H x 13.5" D; 5 kg. ... \$399

Cyrus I Integrated Amplifier

Integrated amp with inputs for MM phono; MC phono; tape; AUX; CD player. 25 continuous average W/ch from 20-20,000 Hz with no >0.004% THD into 8 ohms; 42 amperes peak to peak swings; FR 20-20,000 Hz ± 0.2 dB; THD 0.004%; S/N 83 dB; IMD 0.005%; MM phono sens 0.4 mV for 1-W output; sens for line-level inputs 60 mV for 1-W output; dynamic headroom 1.4 dB; slew rate 150 V/ μ sec (input filter bypassed); 9 lbs \$399

NAD

3300 Integrated Amplifier

Inputs for MM phono, MC phono, tape, tape 2, AUX CD player, tuner, video. 75 continuous average W/ch from 20-20,000 Hz into 8 ohms with 0.03% THD \$498

3155 Integrated Amplifier

55 W/ch integrated amp with high current and high dynamic headroom. Features Bass EQ, Soft Clipping, speaker-imp matching; capacitance loading; low-level switch. Inputs for MM phono; MC phono; tape; tape 2; CD player. FR 19-20,000 Hz ± 0.2 dB; THD 0.03%; S/N 78 dB; IMD 0.03%; MM phono sens 0.2 mV for 0.5-V output at 1,000 Hz; sens for line-level inputs 175 mV; 55 continuous average W/ch 20-20,000 Hz with dynamic headroom of 3 dB; slew rate 20 V/ μ sec; 40-amp current capability; 20 lbs 8 oz; 16.5" W x 4.25" H x 15" D \$448

3130 Integrated Amplifier

30 W/ch integrated amp with high current and high dynamic headroom. Features Soft Clipping, speaker impedance matching switch; 5-way binding posts. Inputs for MM phono; MC phono; tuner; tape; AUX; CD player; video. THD 0.03%; IMD <0.03%; dynamic headroom +3 dB; slew rate 15 V/ μ sec \$228

NEC

A-1300 Integrated Amp

Features remote control of amp plus selected NEC TV's, projection TV's, VCR's, and CD players; surround-sound circuits; Dolby and MATRIX synthetic stereo. Bridgable to 130-W/ch 2-ch operation. Inputs for MM phono; tape; AUX; CD player; tuner; video; TV. 50 continuous average W/ch from 20-20,000 Hz into 4 ohms with no more than 0.05% THD; dynamic headroom 5 dB; slew rate 30 V/ μ s; FR 10-70,000 Hz ± 3 dB; THD 0.05%; S/N 75 dB. 17" W x 4.33" H x 17" D; 30.4 lbs \$699

A-10 MKII Integrated Amplifier

Features low-imp drive-stability parallel push-pull output stage; DC High Gm FET input stages for phono and main amp and DC servo voltage amp and power amp sections; low-imp Reserve II power supply with independent multi-tapped transformers per ch; independent

discrete shunt parallel regulation for preamp and main amp driver stage; vibration-free construction technology; power amp level controls for CD direct input; pre/main connections; low-noise MC/MM phono EQ with built-in subsonic filter; recording output selector; tape copy functions. Inputs for MM phono; MC phono; tuner; tape; tape 2; AUX; extra AUX; CD player. FR 5-300,000 Hz; S/N 90 dB MM phono. 73 dB MC phono, 110 dB line level; MM sens 2.5 mV at 1,000 Hz; line level sens 150 mV; 60 continuous W/ch at 8 ohms, 120 continuous W/ch at 4 ohms 20-20,000 Hz with no more than 0.006% THD; dynamic power 70 W/ch at 8 ohms, 140 W/ch at 4 ohms, 280 W/ch at 2 ohms (4 times rated power); peak current 76.8 amps; damping factor 140 at 1,000 Hz; slew rate 120 V/sec. 53 lbs; 16.94" W x 5.88" H x 16.94" D \$599

A-7 Integrated Amplifier

Features low-imp drive-stability parallel push-pull output stage; DC High Gm FET input stages for phono and main amp and DC-servo voltage amp and power amp sections; low-imp Reserve II power supply with multi-tapped transformer and 33,600 UFD capacitor storage; independent discrete shunt parallel regulation for preamp and main amp driver stage; low-noise MC/MM phono EQ with built-in subsonic filter; recording output selector; tape copy functions. Inputs for MM phono; MC phono; tuner; tape; tape 2; AUX; extra AUX; CD player. FR 5-300,000 Hz; S/N 90 dB MM phono, 73 dB MC phono, 110 dB line level; MM sens 2.5 mV at 1,000 Hz; line level sens 150 mV; 50 continuous W/ch at 8 ohms, 100 W/ch at 4 ohms 20-20,000 Hz with no more than 0.006% THD; dynamic power 60 W/ch at 8 ohms, 120 W/ch at 4 ohms, 240 W/ch at 2 ohms (4 times rated power); peak current 69.5 amps; damping factor 120 at 1,000 Hz; slew rate 110 v/sec. 26.4 lbs; 16.94" W x 5.88" H x 14.94" D \$349

ONKYO

Integra A-8087 100-Watt Integrated Amplifier

Integrated amp with real-phase power supply and large high-current primary transformer with an additional AUX in-phase transformer to stabilize power-supply fluctuations in the presence of reactive speaker loads. Features dual record output selectors; adjustable gain and phono-cartridge imp; direct tone controls with passive EQ; low-imp drive capability; heavy-duty 5-way banana-plug speaker binding posts. Inputs for MM phono; MC phono; tape; tape 2; AUX; AUX 2; CD player; tuner. 100 continuous W/ch from 20-20,000 Hz with no more than 0.012% THD; 200-ms dynamic power 320 W into 2 ohms; FR 2-50,000 Hz ± 1 dB; THD 0.015%; phono S/N 80 dB; IMD 0.005%. Black finish only. Wood side panels included. 18.36" W x 5.75" H x 15.5" D; 31 lbs \$550

Integra A-8067 80-Watt Integrated Amplifier

Features real-phase power supply, dual record selectors; direct tone controls; delta power supply; MC head amp. Inputs for MM phono; MC phono; tape; tape 2; AUX; CD player. FR 2-50,000 Hz ± 1 dB; THD 0.015%; S/N, phono 80 dB; IMD 0.005%; MM phono sens 2.5 mV for 0.5 V output at 1,000 Hz; sens for line-level inputs 150 mV; 80 continuous average W/ch from 20-20,000 Hz with no more than 0.015% THD into 8 ohms; dynamic power 135 W/ch into 8 ohms, 205 W/ch into 4 ohms, 295 W/ch 2 ohms; 17.12" W x 5.62" H x 15.36" D \$450

Integra A-8057 65-Watt Integrated Amplifier

Features real-phase power supply; dual record selectors; direct tone controls; delta power; MC

head amp. Inputs for MM phono; MC phono; tape; tape 2; AUX; CD player. FR 2-50,000 Hz ± 1 dB; THD 0.015%; S/N, phono 80 dB; IMD 0.005%; MM phono sens 2.5 mV for 0.5 V output at 1,000 Hz; sens for line-level inputs 150 mV; 65 continuous average W/ch from 20-20,000 Hz with no more than 0.015% THD into 8 ohms; dynamic power 100 W into 8 ohms, 150 W into 4 ohms, 190 W into 2 ohms; 26 lbs; 17.12" W x 5.62" H x 15.36" D; black \$330

Integra A-8037 50-Watt Integrated Amplifier

Features delta power supply; direct tone controls with passive EQ; loudness control; subsonic filter. Inputs for MM phono; MC phono; tuner; tape; tape 2; AUX; CD player. FR 15-30,000 Hz ± 1 dB; THD 0.06%; S/N, phono 75 dB; IMD 0.06%; MM phono sens 2.5 mV for 0.5 V output at 1,000 Hz; sens for line-level inputs 150 mV; 50 continuous average W/ch from 20-20,000 Hz with no more than 0.06% THD into 8 ohms; dynamic power 70 W/ch into 8 ohms, 100 W/ch into 4 ohms, 100 W/ch into 3 ohms; 15 lbs; 17.12" W x 4.44" H x 19.94" D; black only \$230

PARASOUND

CA250 Integrated Amplifier

Features electronic volume control; detented variable loudness control; separate record output selector; 10-transistor discrete phono preamp; relay protection; discrete output transistor; 3-color LED power metering; 2-way tape dubbing; separate output selector; A/B speaker switching. Inputs for MM phono; tuner; tape; tape 2; CD player/video. FR 20-40,000 Hz ± 1 dB; THD <0.03%; S/N 88 dB; IMD 0.015%; MM phono sens 2 mV for 0.5 V output at 1,000 Hz; sens for line-level inputs 500 mV; 50 continuous average W/ch from 20-20,000 Hz with no more than 0.03% THD into 8 ohms; dynamic headroom 2 dB; slew rate 55 V/ μ sec; 16 lbs; 17.25" W x 3.5" H x 11" D \$300

CA215 Integrated Amplifier

Features discrete output transistors; detented volume and tone controls; A/B speaker switching; headphone jack. Inputs for MM phono; tuner; tape; CD player/video. FR 30-20,000 Hz ± 1 dB; THD 0.5%; S/N 80 dB (phono 90 dB); IMD 0.03%; MM phono sens 2 mV for 0.5 V output at 1,000 Hz; sens for line-level inputs 20-20,000 Hz with no more than 0.5% THD into 8 ohms; dynamic headroom 1 dB; slew rate 22 V/ μ sec; 17.25" W x 3.5" H x 10" D \$140



Pioneer A-V1200(BK)

PIONEER

SA-900D Integrated Amplifier

Integrated amp with 120 continuous average W/ch from 20-20,000 Hz with no more than 0.003% THD into 8 ohms; twin mono construction; low-imp drive capability; nonswitching type II amp. FR 10-100,000 Hz +0, -3 dB; S/N 110 dB; IMD 0.003%; phono overload (MM) 1,000 Hz, 250 mV at 0.003% dist; phono EQ 20-20,000 Hz ± 0.2 dB; subsonic EQ 15 Hz

AMPLIFIERS

6 dB/oct; 18" W x 6.12" H x 16.81" D; 39 lbs, 11 oz \$700

A88X(BK) Integrated Amplifier

Nonswitching type II integrated amp with 3 transformer multi-power supply; MC phono input; 2 tape monitors. FR 20-20,000 Hz ± 0.2 dB; THD 0.003%; IMD 0.003%; MM phono sens 2.5 mV for 0.5 V output at 1,000 Hz; sens for line-level inputs 150 mV; 120 continuous average W/ch from 20-20,000 Hz with no more than 0.003% THD into 8 ohms; 39 lbs, 11 oz; 18" W x 6.12" H x 16.81" D \$700

A-V1200(BK) Integrated Amplifier

Features 5 audio inputs; 5 video inputs; simulated stereo; video enhancer; line-straight switch (bypass, tone, and loudness); dynamic expander; RF converter terminal; tape dubbing; switching between 2 pairs of speakers; VCR tape dubbing \$540

A77X Integrated Amplifier

Nonswitching type II integrated amp. Features 3 transformer multi-power supply; subsonic filter; MC phono input; 2 tape monitors. FR 20-20,000 Hz ± 0.2 dB; THD 0.003%; IMD 0.003%; MM phono sens 2.5 mV for 0.5 V output at 1,000 Hz; sens for line-level inputs 150 mV; 100 continuous average W/ch from 20-20,000 Hz with no more than 0.003% THD into 8 ohms; 33 lbs, 12 oz; 18" W x 6.12" H x 16.81" D \$500

SA-V70(BK) A/V Processing Amplifier

Audio/video Master Control Amplifier with simulated stereo, expanded stereo, theater surround, stadium surround. Stereo mode: continuous average power output 50 W/ch, min at 8 ohms from 20-20,000 Hz with no more than 0.09% THD. Surround mode: (front channels) continuous average power output 25 W/ch, min at 8 ohms from 20-20,000 Hz with no more than 0.09% THD; (rear channels) continuous power output 25 W/ch, min at 8 ohms from 100-4,000 Hz with no more than 1% THD. Hum and noise (IHF short circuited A network) phono (MM) 73 dB, other 91 dB; 16.56" W x 5.12" H x 15.31" D; 22 lbs \$485

SA-V1160 Integrated Amplifier

Nonswitching circuit type II integrated amp with dynamic expander; 2 video inputs. FR 20-20,000 Hz ± 0.3 dB; THD 0.05%; IMD 0.05%; MM phono sens 2.5 mV for 0.5 V output at 1,000 Hz; sens for line-level inputs 150 mV; 100 continuous average W/ch from 20-20,000 Hz with no more than 0.05% THD into 8 ohms; 17 lbs, 10 oz; 16.56" W x 3.88" H x 12.94" D \$330

VSA-30 Surround-Sound Amplifier

Remote-controlled amp designed for surround-sound A/V systems. 6 A/V inputs; L-R surround decoder. Front: 30 W/ch. Rear: 10 W/ch. 16.56" W x 3.88" H x 11.25" D; 13 lbs, 11 oz \$299

PROTON

D540 Integrated Amplifier

High-current, high-dynamic power amplifier with Dynamic Power On Demand (DPD). Features phono section with MC and MM phono selections; active volume control; anti-clipping circuit. 40 continuous W/ch from 20-20,000 Hz; FR 20-20,000 Hz ± 0.2 dB; S/N 85 dB (unweighted), 105 dB (A-wtd); dynamic headroom 6 dB; dynamic power rating: IHF 20 ms at 8 ohms is 160 W, 4 ohms 280 W, 2 ohms 380 W; 100 ms duration 8 ohms is 150 W, 4 ohms 220 W, 2 ohms 230 W; 200 ms 8 ohms is 150 W, 4 ohms 190 W, 2 ohms 200 W. 16.5" W x 3.5" H

x 12.5" D; 19.14 lbs \$299

D530 Integrated Amplifier

30-W/ch integrated amp with Dynamic Power on Demand for 280 W/ch musical peaks into 2 ohms and 120 W/ch peaks into 8 ohms. Features low-noise MC preamp. Dynamic headroom 6 dB; bass EQ switch gives 10-dB boost at 42 Hz; FR 20-20,000 Hz ± 3 dB with 0.02% THD; IHF power interrupt 120, 190, and 280 W into 8, 4, and 2 ohms; S/N A-wtd 100 dB line-level, 90 dB MM phono, 75 dB MC phono. Inputs for MM and MC phono, tuner, cassette deck, AUX, and video sound source. Optional remote control for power on/off, volume, bass, treble, and source-selection controls available. 16.5" W x 2.94" H x 11.94" D \$229

RCA

MSA-200 Dimensia Integrated Amplifier

100-W integrated amp with on-screen volume graphics and mute within Dimensia system. Inputs for MM phono; tape; AUX; CD player. Features automatic input selection; subsonic filter; 4 AC outlets; A/B speaker switch; bridging preamp/power amp; loudness compensation; a bus system which allows for 13 audio/video devices to be hooked up and operated with one remote control. FR 20-20,000 Hz; THD <0.05%; S/N >75 dB phono, 78 dB others; IMD 0.08%; MM phono sens 0.276 mV for 1 W at speaker term across 8 ohms; sens for line-level inputs 16 mV; 100 continuous average W/ch from 20-20,000 Hz with no more than 0.05% THD into 8 ohms; 17.12" W x 4.36" H x 14.5" D; 13 oz \$399

MSA-100 Dimensia Integrated Amplifier

50-W integrated amp with on-screen volume graphics and mute within Dimensia system. Inputs for MM phono; tape; AUX; CD player. Features automatic input selection; subsonic filter; 3 AC outlets; fluorescent power meter; A/B speaker switch; loudness compensation; a bus system which allows for 13 audio/video devices to be hooked up and operated with one remote control. FR 20-20,000 Hz; THD <0.05%; S/N >75 dB phono, 78 others; IMD <0.09%; MM phono sens 0.35 mV at 47 ohms for 1 W across 8 ohms at speaker term; sens for line-level inputs 21 mV; 50 continuous average W/ch from 20-20,000 Hz with no more than 0.05% THD into 8 ohms; 17.12" W x 3.25" H x 11.12" D; 12.6 lbs \$299

REVOX

B251 Integrated Amplifier

Microprocessor-controlled integrated amp with switched power supply; liquid cooling by heat pipe; input sensitivities programmable into nonvolatile memory. Features infrared remote control; rise time of 2 μ sec with 4-ohm load; cable capacitance selector (150/300/450 pF). Inputs for MM phono; MC phono; tuner; tape; tape 2; AUX; phono 2; CD player; external equalizer. 120 continuous average W/ch 20-20,000 Hz with no >0.01% THD into 8 ohms; FR 20-20,000 Hz +0, -0.2 dB; THD 0.01% at nominal output and at 50 mW; S/N 96 dB at nominal output, 80 dB at 50 mW; MM phono sens 1.6-23 mV for 0.5-V output at 1,000 Hz; sens for line-level inputs 160 mV to 2.3 V; dynamic headroom 3 dB; slew rate 100 V/ μ sec; 18.75 lbs; 17.75" W x 6" H x 13.1" D \$1,500
B252. Similar to B251 except without power amp stage \$1,200

ROTEL

RA870 Integrated Amplifier

Integrated amp with separate large power supply for each channel and rugged output stage for

greater peak-power capability. Easily drives low-imp and reactive speaker loads. Preamp section uses separate head and buffer amps for MC cartridges. Bridgeable to 180 W mono. Inputs for MM phono; MC phono; tuner; tape; tape 2; CD player. 60 continuous average W/ch from 20-20,000 Hz with no more than 0.03% THD into 8 ohms, 180 W into 4 ohms; FR 20-20,000 Hz ± 0.2 dB (phono), 20-30,000 Hz +0, -1 dB (tuner, tape, CD); THD 0.03%; S/N 80 dB (phono); IMD 0.05%; peak current 30 amperes. 21.56 lbs; 17" W x 3.56" H x 12.44" D \$599

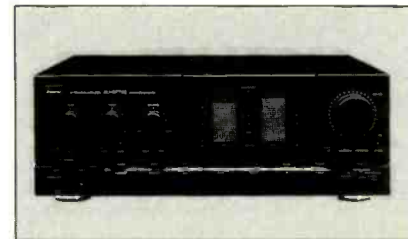
RA840BX Integrated Amplifier

Features high-current, high-voltage design for better headroom; Supra 2.5 mm cable between PCB and speaker sockets; MC circuit for sophisticated cartridges. Inputs for MM phono; MC phono; tape; tape 2; CD player; tuner. 40 continuous average W/ch from 20-20,000 Hz with no more than 0.03% THD into 8 ohms, 171 W into 4 ohms; FR 20-20,000 Hz ± 0.2 dB (phono); THD 0.03%; S/N 78 dB (phono); IMD 0.03%; peak current 29 amperes. 17 lbs; 17" W x 2.5" H x 12.5" D \$399
RA820BX. Similar to RA840BX except no MC phono and tape 2 inputs. 25 continuous W/ch from 20-20,000 Hz with no more than 0.05% THD into 8 ohms, 92 W into 4 ohms; FR 20-20,000 Hz ± 0.3 dB (phono); THD 0.05%; S/N 75 dB (phono); IMD 0.08%; peak current 20 amperes. 12 lbs; 17" W x 2.5" H x 10.75" D \$289
RA820BX. Similar to RA820BX. Includes separate bass and treble controls \$209

SAE

A14 Integrated Amplifier

140 W/ch integrated amp with on-board parametric equalizer. Features MC and MM phono inputs, 2 tape inputs with 2-way tape dubbing, external processor input, 2 AUX inputs, 2 band parametric equalizer with MM phono, MC phono, tape, AUX, tuner. FR 10-60,000 Hz; THD 0.05%; sens for line-level inputs 7.2 mV; 140 continuous av W/ch from 20-20,000 Hz with no >0.05% THD into 8 ohms; 32 lbs; 18.25" W x 5.25" H x 13.8" D \$799



Sanyo AU-G77XII

SANSUI

AU-G90X Integrated Amplifier

Stereo integrated amp with X-balanced technology. Features built-in step-up imp-matching transformer for MC cartridges; tone controls with switch-selectable turnover frequencies; 8- or 4-ohm output imp. Inputs for MM phono; MC phono; tuner; tape; tape 2; AUX; phono 2; CD player; tuner. 130 continuous average W/ch from 10-20,000 Hz with no more than 0.003% THD into 8 ohms, 360 W/ch dynamic power into 2 ohms; S/N 110 dB; MM phono sens 2.5 mV for 0.5 V output at 1,000 Hz; slew rate 400 V/ μ sec; 18.5" W x 10" H x 19.62" D; black finish \$1,000
AU-G99X. Similar to AU-G90X except no phono 2 input; THD 0.004%; 160 W/ch into 8 ohms; S/N ratio 115 dB \$1,000
AU-G77XII. Similar to AU-G90X except 110 W/ch into 8 ohms, 260 W/ch dynamic power

AMPLIFIERS

into 2 ohms; slew rate 300 V/ μ sec \$650
AU-G55X. Similar to AU-G77X except slew rate 160 V/ μ sec \$500

SHARP

SM-V1(BK) Integrated Amplifier

Features 5-band graphic equalizer; video-enhancer circuit; simulated stereo from a mono source; surround sound; mike mixer with fader control. Inputs for tape, CD player, tuner, video 1, video 2, TV. 28 continuous average W/ch from 40-20,000 Hz with no more than 0.8% THD into 6 ohms. 17" W x 3.44" H x 8.56" D \$220



Sony TA-F222ES

SONY

TA-P444ESII Integrated Amplifier

Features audio-transfer-current circuitry; superlegato linear nonswitching stage; linear gain volume control. Inputs for MM phono; MC phono; tape; tape 2; AUX; phono 2; CD player; tuner; video. 100 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.004% THD. 110 W into 4 ohms. 17" W x 4.25" H x 15" D; 32.5 lbs \$450

TA-F222ES Integrated Amplifier

Features legato linear output stage; linear gain volume control. Inputs for MM phono; MC phono; tape; tape 2; AUX; phono 2; CD player; tuner; video. 80 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.006% THD. 100 W into 4 ohms. 17" W x 4.25" H x 15" D; 28.75 lbs \$350

TANDBERG

TIA 3012A Integrated Amplifier

Features high-current MOSFET output, passive calibrated tone controls utilizing metal-film resistors (1% tolerance), no electrolytic or ceramic capacitors from phono input to speaker output. Thermic servo loop to detect DC offset on the output. Minimized Miller Effect; minimal negative feedback and no current or voltage limiting on output stages. 100 W/ch rms into 8 ohms <0.02% THD. Rosewood side panels optional. May be combined with Tandberg tuner and a pair of rosewood side panels to create a receiver \$1,195



Tandberg TIA 3012A

TECHNICS

SU-V10X Integrated Amplifier

Integrated amp with separate record and input selectors; A/V terminals. Inputs for MM phono; MC phono; tuner; tape; tape 2; AUX; phono 2; CD player; DA tape; VTR; TV; tuner. FR 5-150,000 Hz \pm 3 dB; THD 0.003%; S/N 78 dB; IMD 0.007%; MM phono sens 150 mV for 0.5 V output at 1,000 Hz; 120 continuous average W/ch from 20-20,000 Hz with no more than

0.003% THD into 8 ohms; 29.8 lbs; 16.94" W x 5.8" H x 15.41" D \$650

SU-V7X Integrated Amplifier

Integrated amp with separate record and input selectors; A/V terminals. Inputs for MM phono; MC phono; tuner; tape; tape 2; AUX; phono 2; CD player DA tape; VTR; TV; tuner. FR 5-130,000 Hz \pm 3 dB; max output 150 MV; THD 0.003%; S/N 77 dB; IMD 0.007%; MM phono sens 150 mV for 0.5 V output at 1,000 Hz; 100 continuous average W/ch from 20-20,000 Hz with no more than 0.003% THD into 8 ohms; 24.3 lbs; 16.94" W x 5.16" H x 15.16" D \$475

SU-V60 Integrated Amplifier

Class AA VC-4-constructed integrated amp with voltage-control amp and current-drive amp for each ch. Class AA bridge connected to separate current-drive amp isolates voltage-control amp from load to reduce distortion. Current-drive amp supplies current to speakers to avoid adverse influence of speaker-imp fluctuations and phase differences caused by complex speaker imp. Inputs for MM phono; tape; tape 2; tuner; CD player; AV/AUX. 90 continuous average W/ch from 20-20,000 Hz with no more than 0.002% THD. FR 5-120,000 Hz \pm 3 dB; THD 0.0009% at 1,000 Hz into 8 ohms; S/N 80 dB IHF 78, 100 dB IHF 66. 16.94" W x 4.56" H x 13.36" D; 18.8 lbs \$345



Technics SU-V60

SU-V40 Integrated Amplifier

Class AA VC-4-constructed integrated amp with voltage-control amp and current-drive amp for each ch. Class AA bridge connected to separate current-drive amp isolates voltage-control amp from load to reduce distortion. Current-drive amp supplies current to speakers to avoid adverse influence of speaker-imp fluctuations and phase differences caused by complex speaker imp. Inputs for MM phono; tape; tape 2; CD player; tuner; AV/AUX. 50 continuous average W/ch from 20-20,000 Hz with no more than 0.003% THD; FR 5-120,000 Hz \pm 3 dB; THD 0.0009% at 1,000 Hz into 8 ohms; S/N 80 dB IHF 78, 100 dB IHF 66; IMD 0.007%. 16.94" W x 3.91" H x 11.44" D; 13.9 lbs \$230

VECTOR RESEARCH

VA-1400 100-Watt Integrated Amplifier

100 W/ch high-current integrated amp with 8 output transistors. 200 W/ch with optional VA-1450 bridging amp. Inputs for MM phono; MC phono; tape; CD; video sound source; 100 continuous average W/ch 20-20,000 Hz with <0.08% THD into 4 ohms; dynamic headroom 2.5 dB; IHF IMD 0.08%. FR 10-40,000 Hz \pm 1 dB; 20 lbs. 17" W x 3" H x 12" D \$330

VA-1100 60-Watt Integrated Amplifier

High-current integrated amp with 8 output transistors. Inputs for MM phono; MC phono; tape; CD; video sound source. 60 continuous average W/ch 20-20,000 Hz with dynamic headroom of 2.5 dB. FR 10-40,000 Hz \pm 1 dB; 16 lbs. 17" W x 3" H x 12" D \$250

YAMAHA

A-1020B Auto Class A Integrated Amplifier

Features Zero Distortion Rule (ZDR) amplifica-

tion; low-imp drive capability; continuously variable loudness control; bass/treble tone controls with selectable turnover frequencies; tone bypass switch; extended-rolloff phono EQ; accessory output loop; phono 1/2 selector with switchable imp/capacitance of MM/MC cartridges; rec-out selector; A/B/C speaker selectors. 125 W min rms power output into 8 ohms with less than 0.005% THD; dynamic power 171 W into 8 ohms; 269 W into 4 ohms, 375 into 2 ohms; S/N 94 dB MM phono; FR 20-20,000 Hz +0, -0.5 dB/ 17.12" W x 5.75" H x 16.62" D; 25.3 lbs \$599

A-720B Auto Class A Integrated Amplifier

Features Zero Distortion Rule (ZDR) amplification; low-imp drive capability; continuously variable loudness control; tone bypass switch; extended-rolloff phono EQ; accessory output loop; MC/MM cartridge load selector; rec-out selector; A/B/C speaker selectors; switchable subsonic filter. 105 W min rms power output into 8 ohms with less than 0.005% THD; dynamic power 145 W into 8 ohms; 240 W into 4 ohms, 320 into 2 ohms; S/N 92 dB MM phono; FR 20-20,000 Hz +0, -0.5 dB/ 17.12" W x 5.75" H x 15.75" D; 22.4 lbs \$469

AVC-50 Audio/Video Integrated Amplifier

Features 4 video/6 audio inputs; completely independent rec out selection; Yamaha high-resolution video enhancer; Yamaha Clean Picture Sharpness Control circuit; 2 front-panel VCR inputs; 5-mode surround processing (Dolby, Yamaha Natural surround, Hall, simulate stereo, simulated surround); continuously variable delay-time control; bass-extension control; high filter. Remote control of entire system with Yamaha RS-AVC50 remote control. 45 W min rms output power per ch into 8 ohms with less than 0.02% THD, 50 W into 6 ohms; dynamic power per ch at 1,000 Hz 73 W into 8 ohms, 76 W into 6 ohms, 85 W into 4 ohms; S/N 88 dB MM phono, 103 dB line level; FR 20-20,000 Hz \pm 0.5 dB. 17.12" W x 4.36" H x 12" D; 14.7 lbs \$449



Yamaha AVC-50

A-520B Integrated Amplifier

Features Zero Distortion Rule (ZDR) amplification; low-imp drive capability; continuously variable loudness control; tone bypass switch; accessory output loop; MC/MM cartridge load selector; rec-out selector. 75 W min rms power output into 8 ohms with less than 0.01% THD; dynamic power 97 W into 8 ohms; 169 W into 4 ohms, 160 into 2 ohms; S/N 92 dB MM phono; FR 20-20,000 Hz +0, -0.5 dB/ 17.12" W x 5.36" H x 15.75" D; 16.5 lbs \$329

A-420B Integrated Amplifier

Features low-imp drive capability; continuously variable loudness control; MC/MM cartridge load selector. 50 W min rms power output into 8 ohms with less than 0.015% THD; dynamic power 85 W into 8 ohms; 115 W into 4 ohms, 120 into 2 ohms; S/N 90 dB MM phono; FR 20-20,000 Hz +0, -0.5 dB/ 17.12" W x 4.36" H x 12.88" D; 13 lbs \$229

TUNERS



ACCPHASE BY MADRIGAL

T-106 FM Tuner

Quartz-locked synthesizer AM/FM stereo tuner. Features 14-station random memory and pulse tuning system; double-tuned front end; FM stereo demodulator; AM synchronous detector; signal-strength meter; peak-modulation meter; MPX filter; selectivity switch; muting switch. FM section: FM usable sens mono 11 dBf; 50-dB quieting sens mono 17 dBf, stereo 17 dBf; THD stereo 0.04%, mono 0.04% at 1,000 Hz; S/N 83 dB stereo, 79 dB mono (at 80 dBf A-wid); FR 10-60,000 Hz +0, 0.5 dB; capture ratio 1.5 dB; ch sep 50 dB at 1,000 Hz; AM suppression 80 dB at 65 dBf. AM section: sens 20 μ V/m at 20 dB S/N. 17.5" W x 5.06" H x 14.56" D \$1,400

T-107 Synthesizer FM Tuner

Features electronic tuning system; 12-station random memory; auto sweep for FM reception; double-tuned front end to reject interference and intermodulation; differential-gain linear FM detector; IF filters with flat group-delay characteristics; resonator-controlled stereo demodulator; double-function meter to indicate multipath and signal strength; multiplex noise filter; muting switch. FM section: FM usable sens stereo 11 dBf; 50-dB quieting sens 17 dBf; THD 0.04% at 20-10,000 Hz; S/N stereo 85 dB; FR 10-16,000 Hz \pm 3 1 dB; capture 1.5 dB; sep 50 dB at 1,000 Hz; AM suppression 80 dB; adj-ch rejection 30 dB. Available in champagne-gold or anodized-black finishes. 17.5" W x 4.36" H x 13" D; 12.8 lbs \$925

ACOUSTIC RESEARCH

AR T-40 AM/FM Tuner

Features infrared remote control of tuning functions; system remote operation; 8 AM/8 FM station presets; frequency-synthesized tuning; digital frequency display; smooth flywheel-assisted tuning; manual or auto station search. FM section: FM usable sens stereo 2 μ V (11.2 dBf); 50-dB quieting sens stereo 25 μ V (33.2 dBf); THD stereo 0.03%; S/N 80 dB stereo A-wid; FR 30-15,000 Hz \pm 0.5 dB; capture ratio 1.5 dB; sep 50 dB at 1,000 Hz; AM suppression 60 dB; adjacent-ch rejection 70 dB. AM section: FR 60-3,000 Hz \pm 3 dB. 17" W x 3.25" H x 13" D \$370

ADCOM

GTP-500 Tuner/Preamplifier

Preamplifier with built-in tuner can be used with Adcom or other power amps. Wireless remote control included. Remote sensors available for remote control from different rooms. Tuner section features quartz-referenced digitally synthesized tuning; auto up and down scan; 8 AM/FM presets; 5-LED signal-strength display; high-blend circuit; 2 sets of outputs (AC coupled, DC coupled). Preamp section features in-

puts for MM phono; tape; tape 2; CD player; tuner. S/N phono A-wid 85 dB; IMD preamp 0.0015%; sens tuner 36.5 dBf stereo; THD tuner 0.09% stereo at 1,000 Hz; S/N tuner 75 dB stereo; sep tuner 52 dB at 1,000 Hz. 17" W x 3.25" H x 12.75" D \$500
GTP-500W. As above with white front panel \$575
GTP-500S. With silver front panel \$575

GFT-555 AM/FM-Stereo Tuner

Features quartz-referenced digitally synthesized tuning; auto up/down scan; instant-recall preset tuning; fluorescent digital-frequency display; 8 AM/FM presets; 5-LED signal-strength display; switchable high-blend circuit; mono/mute switch; tuning accuracy of 0.00025%. THD stereo 0.07% at 1,000 Hz; 50-dB quieting sens stereo 35.5 dBf; S/N 78 dB stereo; FR 30-15,000 Hz \pm 3 dB; capture ratio 1.5 dB; sep 53 dB at 1,000 Hz; AM suppression 70 dB. 17" W x 3.25" H x 12.5" D \$300
GFT-555W. As above with white front panel \$375
GFT-555S. With silver front panel \$375

ADS

Atelier T2 Tuner

AM/FM digital-synthesizer tuner with 16 station presets and auto FM search tuning. Features flywheel manual tuning; fine-tuning control; switchable muting; high-blend control; LED frequency display; center tuning plus signal-strength displays; AC outlets. FM usable sens mono 1.0 μ V (11.0 dBf) stereo 5.5 μ V (26.1 dBf); stereo 50-dB quieting sens 15 μ V (34.8 dBf); THD mono <0.15%, stereo <0.20%; S/N mono >70 dB, stereo >65 dB; FR 10-14,500 Hz, +0, -1 dB; ch sep >38 dB at 100,000 Hz; capture ratio <1.8 dB; AM quieting sens <5 μ V for 6 dB S/N; image rejection >55 dB; S/N with 1,000 Hz, 5 mV signal >44 dB; 17.52" W x 2.76" H x 14.84" D; 13.2 lbs \$400

AKAI

AT-S7 AM/FM-Stereo Tuner

Tuner with Akai's Quality-Tuned circuitry to eliminate station drift, increase S/N, and minimize distortion. Features dual-gate MOSFET front end to increase sens; pulse-count detection to decrease mono and stereo distortion; 20 random AM or FM presets; mono/stereo and wide/narrow bandwidths; microcomputer memory backup. FL digital frequency display; stereo/mono mode selector. FM section: 50-dB quieting sens 16.2 dBf mono, 37.2 dBf stereo; S/N 80 dB mono, 75 dB stereo; THD 0.03% mono, 0.05% stereo; capture ratio 1 dB; FR 30-15,000 Hz \pm 0.5 dB; usable sens (300 ohms) 11.2 dBf; sep at 1,000 Hz 53 dB. AM section: usable sens (loop antenna) 300 μ V/m; sel 25 dB; image rejection 40 dB; IF rejection 55 dB; S/N 40 dB; THD 1%. 17.3" W x 2.1" H x 10.8" D; 7.2 lbs \$280

AT-A301 AM/FM-Stereo Tuner

Quartz-synthesis tuner with 16 random AM/FM presets; preset scan to search for certain stations; lithium cell for memory protection in case of power failure. FM section: S/N 75 dB mono, 65 dB stereo; THD 0.1% mono, 0.3% stereo; capture ratio 1.5 dB; FR 30-15,000 Hz \pm 1 dB; usable sens (300 ohms) 11.2 dBf; sep at 1,000 Hz 45 dB. AM section: usable sens (loop antenna) 400 μ V/m; sel 50 dB; image rejection 40 dB; IF rejection 30 dB; S/N 40 dB; THD 1%. 17.3" W x 2.2" H x 10.8" D; 5.96 lbs \$220



Akai AT-A301

CARVER

TX-11a FM/AM Stereo Tuner

Digital quartz-synthesized tuner with Asymmetrical Charge Coupled FM Detector circuit that virtually eliminates distortion from multipath distant-station interference while retaining full separation. Incorporates Bob Carver's latest circuit refinements. Features digital tuning; 13 programmable station presets; auto/manual station scanning; wide/narrow bandwidth selector for increased performance in cities. Supplied with antenna. FM section: FM usable sens 1 μ V mono; 50-dB quieting sens 3.1 μ V; THD 0.07%; S/N 85 dB; FR 20-15,000 Hz \pm 3 dB; alt-ch sel 110 dB; adj-ch rejection 110 dB; capture ratio 1.0 dB; AM suppression 65 dB; image, i-f, spurious-response ratio 110 dB; output level/imp 700 mV/600 ohms. AM section: FR 20-15,000 Hz \pm 3 dB; sep 35 dB; S/N 77 dB. Power consumption 15 W. 17.5" W x 12.5" D x 3.5" H; 11.25 lbs \$699

TX-2 AM/FM Tuner

AM/FM stereo tuner with Asymmetrical Charge Coupled FM Detector. FM section: FM usable sens mono 1.8 μ V, stereo 4.5 μ V; 50-dB quieting sens stereo 5 μ V; THD stereo 0.4%, at 1,000 Hz; S/N 70 dB stereo; FR 20-15,000 Hz \pm 1.5 dB; capture ratio 1.5; sep 43 dB at 1,000 Hz; AM suppression 60 dB; alt-ch rejection 58 dB; adj-ch rejection 28 dB. AM section: FR 20-2,000 Hz \pm 1 dB; sens 250 μ V with built-in antenna, 20 μ V with external antenna; 17.5" W x 2.5" H x 9.5" D \$399

DENON

TU-600 AM/FM Tuner

Features dynamic PLL detection with auto

TUNERS

bandwidth selection; 20 AM/FM presets with stored bandwidth instruction for each station; low-imp outputs; auto or manual scan. Side panels standard \$350

TU-400 AM/FM Tuner
16-preset digital AM/FM tuner with auto up/down or manual scan \$250
ACA-32. Side panels for TU-400 \$30



Denon TU-600

HAFLER

DH-330 Tuner

Tuner provides exact station selection with a quartz-controlled, digitally synthesized tuning system. Features multipath distortion and noise-sensing circuit; 5-station memory; autosearch; digital readout; nonvolatile memory; 3 dual-gate MOSFET's; triple-tuned RF stage volume control and separate output on front panel for taping or headphones; kit is comprised of 4 fully assembled, tested, and aligned circuit boards which plug together. Usable sens 11.3 dBf; 50-dB quieting sens mono 17.2 dBf, stereo 37.2 dBf; dist. at 1,000 Hz, 100% modulation mono 0.15%, stereo 0.18%; capture ratio 1.5 dB; alternate ch sel 70 dB; sep 45 dB at 1,000 Hz; 35 dB at 10,000 Hz; S/N, mono, 72 dB, stereo, 68 dB. Kit \$385
Assembled \$460

HARMAN KARDON

TU915 AM/FM Stereo Tuner

Digitally synthesized quartz-locked tuner with seek/manual tuning. Features 8 AM/8 FM station presets; flywheel-stabilized tuning knob; sample-and-hold MPX decoding; high blend control; variable output level; variable muting level; usable sens 0.95 μ V; 50-dB quieting sens mono 1.8 μ V, stereo 20 μ V; THD stereo 0.08%, mono 0.05%; S/N 74 dB stereo, 82 dB mono; capture ratio 1.0 dB; alternate-ch sel 70 dB; 17.36" W x 2.69" H x 14.62" D \$450

TU912 Digital Tuner

Digitally synthesized quartz-locked tuner with meticulous circuit design and layout to minimize cross-coupling and harmonic distortion. Features 8 AM/8 FM presets; LED signal-strength meter; bidirectional seek tuning and manual up/down tuning. FM usable sens stereo 1 mV (11.2 dBf); THD stereo 0.08% at 1,000 Hz; S/N, stereo 74 dB; capture ratio 1 dB; sep 50 dB at 1,000 Hz; AM suppression 60 dB. . . \$295

TU905 AM/FM Tuner

Analog AM/FM stereo tuner. Features high-inertia flywheel, all-metal chassis; high-capacity regulated power supply. FM section: FM usable sens mono 0.95 μ V (10.8 dBf), 50-dB quieting sens mono 1.9 μ V; THD stereo .15%, mono .09%; S/N 71 dB stereo, 77 dB mono; capture ratio 1.3 dB; sep 65 dB at 1,000 Hz; alternate-ch rejection 50 dB. AM section: sens 9 μ V w/external antenna \$215

HITACHI

FT-5500 Tuner

AM/FM stereo tuner with Field Condition Compute System reception. Features IF wide/high selectivity switching and RF normal/high selectivity mode in front end; brightener MPX circuit; 10-station random-access presets; high-gain AM loop antenna circuit; FET RF amp; 4-element ladder ceramic filters; FM rec level check switch; memory backup power supply; FM auto sweep tuning; 9 kHz/10 kHz channel spacing selector; FM section: usable sens IHF, RF normal mode mono 10.8 dBf (19.2 dBf), stereo 38.2 dBf; S/N at 65 dbf, mono 85 dB, stereo 78 dB; THD IF wide mode 1,000 Hz mono 0.04%, stereo 0.06%; FR 20-15,000 Hz \pm 0.5 dB; capture ratio wide 1.0 dB; AM suppression ratio 65 dB; stereo sep 60 dB; AM section sens IHF, loop antenna 12 μ V, 250 μ V/m; sel 1,000 Hz \pm 10 kHz 50 dB; S/N 54 dB; image rejection ratio 1,000 Hz 50 dB; 17.12" W x 2.36" H x 12.06" D; 8 lb 13 oz \$350

JVC

T-X900B AM/FM Tuner

Computer-controlled digital-synthesizer tuner. Features auto memory and program memory for unattended recording; dB reference signal-strength indicator. IHF sens mono 88 dBf; IHF sens stereo 82 dBf; FM usable sens stereo 10.8 μ V; 50-dB quieting sens mono 1.8 μ V (16.3 dBf); 50-dB quieting sens stereo 22 μ V (38.1 dBf); THD stereo 0.06%; mono 0.04% at 1,000 Hz; S/N stereo 82 dB, mono 88 dB; FR 30-15,000 Hz +0.3, -1.0 dB; capture ratio 1.0 dB; sep 60 dB at 1,000 Hz; AM suppression 65 dB; alternate-ch rejection 30 dB wide; 80 dB narrow; sens 300 μ V with external antenna; 8.4 lbs; 17.12" W x 3" H x 11.75" D \$350

T-X300B AM/FM Tuner

Multi-programmable digital-synthesizer tuner; can be programmed to turn receiver on and off up to 16 times. Features 8 AM/8 FM presets with one-touch recall. IHF sens mono 82 dBf; IHF sens stereo 78 dBf; FM usable sens stereo 10.8 dBf; 50-dB quieting sens mono 1.8 μ V (16.3 dBf); 50-dB quieting sens stereo 22 μ V (38.1 dBf); THD stereo 0.08%, mono 0.08% at 1,000 Hz; S/N stereo 82 dB, mono 78 dB; FR 30-15,000 Hz +0.3, -3.0 dB; capture ratio 1.0 dB; sep 50 dB at 1,000 Hz; AM suppression 60 dB; alternate-ch rejection 30 dB wide, 80 dB narrow; sens 300 μ V with external antenna; 7.1 lbs; 17.12" W x 3" H x 11.56" D \$270



Harman Kardon TU915

FX-50BX AM/FM Tuner

Tuner with remote-control capability from selected JVC Compu-Link Components. Features CATV input for automatic antenna switching and direct call of cable-preset FM channels; 16 AM/16 FM presets; auto memory; preset scan;

auto QSC; dB-referenced signal-strength indicator; variable stop level. FM section: FM usable sens, stereo 0.9 μ V (10.3 dBf); 50-dB quieting sens, stereo 15 μ V (14.8 dBf); THD, stereo 0.08% at 1,000 Hz; S/N, stereo 78 dB; FR 30-15,000 Hz +5, -0.8 dB; capture ratio 15 dB; sep 60 dB at 1,000 Hz; AM suppression 60 dB. 17.19" W x 3.06" W x 11.19" D; 7.5 lbs. . \$270

KENWOOD

Basic KT-880(B) Tuner

Quartz-synthesized AM/FM tuner with PLL tuning. Features Direct Linear Loop Detector system for low distortion and good S/N ratio; 12 random presets; fluorescent frequency display; 2-station programming for absent recording. FM usable sens 0.95 μ V (10.8 dBf) mono; 50-dB quieting sens 1.8 μ V (16.2 dBf) mono, 24.0 μ V (38.8 dBf) stereo; THD at 1,000 Hz 0.02% stereo, 0.018% mono; S/N at 65 dbf 76 dB stereo, 88 dB mono; AM suppression 70 dB; spurious rejection ratio 100 dB. 18" W x 2.14" H x 12.5" D; 7.3 lbs \$235



Kenwood KT-45(B)

KT-75(B) Direct-Access Tuner

Quartz-synthesized AM/FM tuner. Features 10-key direct-access tuning; digital frequency display; 10 presets; 2-speed tuning, digital clock; AFC; station seek. FM usable sens 0.95 μ V (10.8 dBf) mono; 50-dB quieting sens 3.0 μ V (14.5 dBf) mono; THD at 1,000 Hz 0.03% stereo, 0.01% mono; S/N at 65 dBf 70 dB stereo, 77 dB mono; AM suppression 65 dB. 16.5" W x 2.84" H x 10.87" D; 6.4 lbs \$190

KT-45(B) Digital Tuner

AM/FM quartz-synthesized digital push-button tuner with 14 presets; LED signal-strength indicator. FM usable sens 0.95 μ V (10.8 dBf) mono; 50-dB quieting sens 3.0 μ V (14.5 dBf) mono; THD at 1,000 Hz 0.03% stereo, 0.02% mono; S/N at 65 dbf 70 dB stereo, 76 dB mono; AM suppression 55 dB. 16.53" W x 2.53" H x 10.87" D; 6.4 lbs \$130

KYOCERA

T-910 Digital Tuner

Digital PLL quartz-synthesized AM/FM stereo tuner. Features Dynamic Noise Reduction; 16 station presets; nonferrous ceramic base/chassis; 2 FM antennas; computer-programmed narrow/wideband IF selection. FM section: FM usable sens 1.7 μ V (9.8 dBf); 50-dB quieting sens mono 3.0 μ V (14.8 dBf); THD 0.07%, mono 0.06% at 1,000 Hz; S/N stereo 81 dB, mono 84 dB; capture ratio 1.0 dB; sep 58 dB at 1,000 Hz; AM suppression 55 dB; alt-ch rejection 85 dB narrow, 40 dB normal. AM section: sens 280 μ V with built-in antenna, 10 μ V with external antenna; 26.5 lbs \$590

LUXMAN

T-02 Digital Tuner

PLL frequency-synthesized AM/FM-stereo tuner. FM section: FM usable sens stereo 1.8 μ V; THD stereo 0.06%, mono 0.05% at 1,000 Hz; S/N 77 dB stereo, 81 dB mono; FR 20-15,000 Hz -0.5 dB; sep 55 dB at 1,000 Hz; 17.81" W x 3.44" H x 13.56" D; 10.6 lbs \$500

THE SILENT TREATMENT.

WHY BOB CARVER'S MINIATURE RADIO STATION LEFT THE AUDIO PRESS SPEECHLESS AND HOW IT LED TO THE MOST COMPLETE STEREO TUNER EVER OFFERED.

The new Carver TX-11a Stereo AM-FM Tuner is a technical tour-de-force which further distances Bob Carver's unique products from traditional electronic components — and which can vastly enhance your musical enjoyment.

TWO TECHNOLOGICAL INNOVATIONS.

The performance of the legendary TX-11 Asymmetrical Charge Coupled FM Stereo Detector Tuner is increased by the addition of Ultra High Frequency Wide Band AM Stereo circuitry. With the new TX-11a, AM stereo sounds as good as FM.

Yes, contrary to popular belief, most AM stereo stations have frequency response (20Hz-15kHz), separation (35dB) and signal-to-noise ratios (70dB) audibly indistinguishable from FM stations of equal strength. It's just that **only** Carver offers the technology to appreciate this hidden performance.

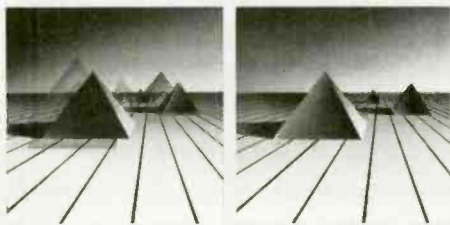
As for FM stereo, the TX-11a virtually eliminates multipath and distant station noise while providing fully-separated stereo reception with space, depth and ambience!

Bob Carver's Asymmetrical Charge Coupled FM Stereo Detector removes (without affecting stereo imaging, frequency response or dynamic range) the hiss, clicks, pops, "picket fencing" and the myriad other unpredictable noises which all too often disturb FM listening.

(Still interested in the story of the miniature radio station and how it impressed hard-to-impress audio critics? Read on. We'll get to it

after we explain why the quartz-synthesized TX-11a Stereo AM-FM Tuner will impress you in your own listening environment).

A CLEANER, WIDER FM WINDOW ON THE WORLD.



Because of the TX-11a's Charge-Coupling and Leading Edge Detection technology, ownership may very well change your listening habits. Right now, you probably confine your FM listening to those stations which are strong and relatively interference-free, avoiding weak stations and those filled with distortion. Your options are therefore limited. The TX-11a can significantly expand your choices by recovering stations previously buried in hiss or prone to sudden tantrums of noise.

Ovation Magazine observed that the circuit, "... may well mean the difference between marginal reception of the station signals you've been yearning to hear and truly noise-free reception of those same signals, permitting you to enjoy the music and forget about noise and distortion."

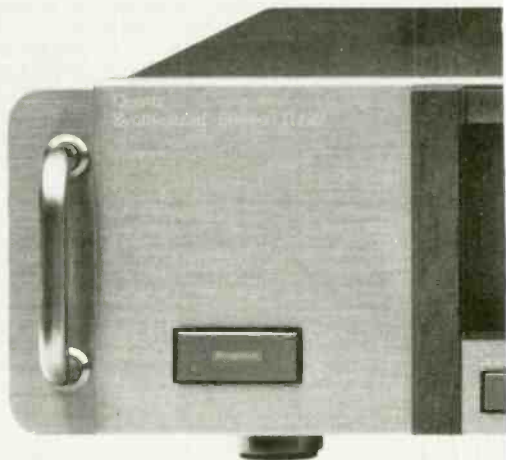
In **Audio Magazine**, Len Feldman said "The significance of its design can only be fully appreciated by setting up the unit, tuning to the weakest, most unacceptable stereo signals you can find, then pushing those two magic buttons."

"Separation was still there; only the background noise had been diminished, and with it, much of the sibilance and hissy edginess so characteristic of multi-path interference."

WHY THE ASYMMETRICAL CHARGE-COUPLED FM STEREO DETECTOR GIVES NOISE THE SILENT TREATMENT.

Thirty years ago, the FCC turned clear mono FM into a substandard stereo medium (with fifteen times poorer signal-to-noise ratio) by approving a broadcast system that is extraordinarily prone to multipath and distant-station-noise.

This system separates stereo into two different bands. Unfortunately, the bands aren't pure Left and Right. Instead, one band is comprised of those parts of a stereo signal that are common to both channels, (L+R, or mono). The other signal, far more fragile and prone to interference, is the difference between the left and right signal (L-R). It bounces off buildings, hills and other objects, and wreaks havoc when



CARVER

POWERFUL

Carver Corporation
P.O. Box 1237 Lynnwood, WA 98046

recombined with the strong mono signal.

Bob Carver's Charge-Coupling circuit takes advantage of the fact that almost all noise and distortion is exactly 180 degrees out of phase with the signal it's part of. The TX-11a Stereo AM-FM Tuner cancels these "dirty mirror" images before they can reach your ears. That eliminates up to 85% of the potential noise found in distant or noisy stations.

But Bob wasn't satisfied and knew you wouldn't be either. So another circuit, the Leading Edge Detector, goes a step further by taking advantage of a little-appreciated FM phenomenon: Just 5% of the L-R signal actually contributes to the stereo experience. The rest simply gets in the way of skyscrapers and mountains.

The Carver leading Edge Detector operates only on this critical 5% of the L-R signal, filtering out noise and restoring just that part of the signal needed by our ears and brain to construct stereo imaging.

Blended back into the mono (L+R) signal matrix, a net reduction of 93% - or better than 20dB of noise reduction - is achieved. All ambient and localizing information is recovered. Only hiss and distortion are left behind. Or, as *High Fidelity Magazine* put it, "...clean, noise-free sound out of weak or multi-path-ridden signals that would have you lunging for the mono switch on any other tuner."



THE LITTLEST AM RADIO STATION.

Before we describe the remarkable attributes of the TX-11a, we owe you the story that proves just how far performance can be extended when a component comes from Carver.

At a recent press conference, Bob Carver unveiled a small antenna connected to a very low powered AM stereo broadcast transmitter (C-QUAM format). Dubbed "Station CRVR," it sat next to a Carver Compact Disc Player and the same TX-11a that's on your dealer's shelves right now.

Bob Carver routed the Compact Disc's signal to the antenna for reception by the TX-11a, and also directly to a preamplifier.

In front of America's top stereo writers, Bob switched back and forth between the transmitted signal (as received by the TX-11a) and the direct CD signal. All listeners had difficulty distinguishing between the outputs of the CD player and the TX-11a Stereo AM-FM Tuner!

Most could tell no difference at all!

HOW AM STEREO GETS THE SILENT TREATMENT WITH THE TX-11a.

- * Unique de-emphasis curve
- * Whistle Stop cancelling circuit
- * Pilot Signal cancelling circuit
- * Ultra-low noise balanced station detector
- * Very wide band, minimum phase intermediate frequency amplifiers.

Think of it. Compact Disc frequency response and freedom from noise with AM stereo and the TX-11a. Only Carver could pull it off. But then only Carver could do the same for FM, too.

HUMAN-ENGINEERED FEATURES AND CONVENIENCE.

Many tuners with far less exclusive circuitry than the TX-11a have far more complicated exteriors. Bob Carver wanted to make tuning stations easy, not impress you with flashing lights or complex programming.

So thirteen presets, wide/narrow band selectors, automatic/manual scanning and the buttons which activate the remarkable Charge-Coupled circuits (Multipath and Noise Reduction) are all tastefully inset into the burnished anthracite metal face. Full instrumentation including digital station frequency readout, 6-step 10dB-interval signal strength LED's and other monitor functions is recessed behind a panel, visible but not garish.

The result is performance without theatricality. Access without complication.

A tuner *High Fidelity Magazine* called, "By far the best tuner we have tested..."

CLEAR THE AIR BY VISITING YOUR NEAREST CARVER DEALER.

Ask to hear the most expensive tuner they sell. (It won't be the Carver TX-11a). Now tune a multi-path-ravaged, hiss-filled FM station. Tune the same station on the TX-11a Stereo AM-FM Tuner and press the Multipath and Noise Reduction buttons. You'll see why no other FM tuner can approach it. And why no other AM stereo tuner this good exists anywhere!



MUSICAL

ACCURATE

CIRCLE NO. 49 ON READER SERVICE CARD
Distributed in Canada by Evolution Technology

TUNERS

T-102 AM/FM-Stereo Tuner

AM/FM tuner with digital-synthesized tuning and pulse-count detector. Features compu-store; 5-station programmable timer; 20-station presets; memory scan/auto seek; muting-level control; IF narrow switch. FM section: FM usable sens stereo 0.9 μ V (10.3 dBf); 50-dB quieting sens stereo 27 μ V (39.9 dBf); THD stereo 0.06% at 1,000 Hz; S/N stereo 75 dB at 65 dBf; FR 25-15,000 Hz \pm 0.5 dB; capture ratio 1 dB; sep 50 dB at 1,000 Hz; AM suppression 70 dB; adjacent-ch rejection 20 dB narrow; alt-ch rejection 80 dB narrow. AM section: FR 120-2,200 Hz \pm 3 dB. 5.5 lbs; 17.25" W x 2.25" H x 8.62" D \$330

T-100 AM/FM-Stereo Tuner

AM/FM tuner with digital-synthesized tuning and system remote-control capability. Features 16-station random presets; auto seek; cable ready. FM section: FM usable sens stereo 0.95 μ V (10.8 dBf); 50-dB quieting sens stereo 34.5 μ V (42 dBf); THD stereo 0.15% at 1,000 Hz; S/N stereo 70 dB at 65 dBf; FR 20-15,000 Hz \pm 0.5 dB; capture ratio 1.5 dB; sep 50 dB at 1,000 Hz; AM suppression 60 dB; ch rejection 65 dB. AM section: FR 120-2,200 Hz \pm 3 dB. 5 lbs; 17.25" W x 2.25" H x 8.62" D \$250

MARANTZ

ST 561 AM/FM-Stereo Tuner

FM section: IHF sens mono 10.8 dBf, 50-dB quieting sens mono 15 dBf, stereo 37 dBf; THD stereo 0.3%, mono 0.15% at 1 Hz; S/N 70 dB stereo, 76 dB mono; FR 30-15,000 Hz \pm 0.5 dB; capture ratio 1 dB; sep 60 dB at 1,000 Hz; AM suppression 60 dB. 16.5" W x 3.12" H x 7.88" D; 5 lbs \$300

McINTOSH

MR 7082 AM/FM Tuner

AM/FM tuner with signal-locked-loop tuning system. Features electronic memory for 7 FM and 7 AM stations; digital frequency readout; DMOS-FET RF amplifier; double-balanced mixer; PLL MPX decoder; audio output suppression circuits for 19 kHz and 38 kHz carrier; LED tuning meter; electronically regulated power supply; internal audio processor; memory search; remote control interface. FM section: sens mono 13 dBf (1.3 μ V) for 30-dB quieting; signal strength 50-dB quieting 18/36 dBf mono/stereo; capture ratio 1.5 dB; IM 0.08% from 20-15,000 Hz with 100% modulation or less; alt-ch sel 55 dB; sep 50 dB at 1 kHz; AM suppression 60 dB; image rejection 90 dB. AM section: sens 35 μ V; S/N 55 dB IHF, 65 dB at 100% modulation; THD 0.2% at 30% modulation; sel 40 dB IHF; IF response 90 dB. Power requirements 120 V 50/60 Hz 10 watts. 16" W x 5.44" H x 13" D \$1,499

MISSION

Cyrus Digital Tuner

Quartz-locked digital-synthesized AM/FM tuner to match the Cyrus amplifier. Features 19 FM presets; 9 AM presets; automatic scanning with automatic FM mute. FM section: FM usable sens mono 0.85 μ V (26 dBf), stereo 19 μ V (46 dBf); THD stereo 0.42%, mono 0.17% at 1,000 Hz; S/N 73 dB stereo, 76 dB mono; FR 20-15,000 Hz \pm 1 dB; capture ratio 73 dB; sep 45 dB at 1,000 Hz; AM suppression 47 dB; pilot tone rejection 42 dB; image frequency rejection 57 dB; cross modulation suppression 36 dB; output 1 V. AM section: FR 20-15,000 Hz \pm 1 dB; sens 140 μ V with built-in antenna; 8.5" W x 3" H x 13.5" D; 1.9 kg \$399

NAD

4300 FMX Tuner

FM section: FM usable sens stereo 9 dBf; 50-dB quieting sens stereo 22 dBf; THD stereo 0.07% at 1,000 Hz; S/N stereo 80 dB; FR 30-15,000 Hz \pm 0.5 dB; sep 50 dB at 1,000 Hz; capture ratio less than 1.5 dB; adjacent-ch rejection 80 dB \$548

4155 AM/FM Tuner

Digitally synthesized AM/FM stereo tuner featuring dynamic sep circuit. Contains 5 AM/FM presets; search scan; mute; output level control. FM section: mono 1.7 μ V (9.8 dBf); sens stereo 2.5 μ V (13.2 dBf); 50-dB quieting sens mono 2.5 μ V (93.2 dBf); 50-dB quieting sens stereo 22 μ V (32 dBf); THD stereo 0.09%, mono 0.09% at 1,000 Hz; S/N stereo 75 dB, mono 82 dB. FR 30-15,000 Hz \pm 0.5 dB; capture ratio $<$ 1.5 dB; sep 50 dB at 1,000 Hz; AM suppression $>$ 65 dB; alternate-ch rejection 70 dB; adjacent-ch rejection 8 dB. AM section: sens 30 μ V with built-in antenna; 8 lb 10 oz; 16.5" W x 3" H x 11" D \$428

4130 AM/FM-Stereo Tuner

Digitally synthesized AM/FM-stereo tuner with NAD's new dynamic-blend circuit. Features FM usable sens 1.8 μ V mono; 50-dB quieting sens mono 14.2 dBf, stereo 34.2 dBf; S/N mono/stereo 82/75 dB; FR 30-15,000 Hz \pm 0.5 dB; THD mono/stereo 0.9%/0.9% at 1,000 Hz; capture ratio $<$ 1.5 dB; alt-ch rejection 70 dB; sep 50 dB \$228

NAKAMICHI

ST-7 AM/FM Tuner

Tuner with Schotz noise reduction. Features signal/multipath meter; 16 station presets; output level controls (R + L independent). FM section: IHF sens mono 1.7 μ V (10 dBf), stereo 3.9 μ V (17 dBf); FM usable sens mono 1.7 μ V (10 dBf), stereo 3.9 μ V (17 dBf); 50-dB quieting sens mono 2.7 μ V (14 dBf), stereo 14 μ V (28 dBf); THD stereo 0.08%, mono 0.06% at 1,000 Hz; S/N 76 dB stereo, 80 dB mono; FR 20-15,000 Hz \pm 1 dB; capture ratio 1.9 dB; sep 55 dB at 1,000 Hz; AM suppression better than 60 dB; alt-ch rejection $>$ 60 dB. 17.12" W x 2.5" H x 11.36" D; 10 lbs \$725

NEC

T-6E Digital Tuner

FM section: FM usable sens stereo 17.4 dBf; 50-dB quieting sens stereo 36.8 dBf; THD stereo 0.08% at 1,000 Hz; S/N 78 dB stereo; capture ratio 1 dB; sep 55 dB at 1,000 Hz; AM suppression 60 dB; adjacent-ch rejection 80 dB. 16.9" W x 2" H x 12.2" D; 8.6 lbs \$229

T-601E Digital Tuner

Fully remote controllable when used in conjunction with NEC's A-1300E integrated amp. FM section: FM usable sens stereo 18.8 dBf; 50-dB quieting sens stereo 38.3 dBf; THD stereo 0.3% at 1,000 Hz; S/N 70 dB stereo; capture ratio 1.4 dB; sep 40 dB at 1,000 Hz; AM suppression 55 dB; adjacent-ch rejection 60 dB. 17" W x 2.4" H x 17" D; 7 lbs \$129

ONKYO

Integra T-9090 FM Tuner

Ultra-high-sensitivity FM tuner with computer-controlled APR (adjusts stereo/mono, local distant, high-blend on/off, wide, narrow, and super-narrow with FM-feedback system). Features multi-function digital display; digital readout of signal strength in dBf; memory scan; auto memorization; timer tuning; 20-station programmable presets. FM section: FM usable sens stereo

1.2 μ V (12.8 dBf); 50-dB quieting sens stereo 20 μ V (37.2 dBf); THD stereo 0.02%; S/N 85 dB stereo; FR 30-15,000 Hz \pm 1 dB; capture ratio 1 dB; sep 55 dB at 1,000 Hz; alt-ch rejection 80 dB. 17.75" W x 4" H x 15.36" D; 15 lbs \$650
CW-30R. Optional wood-grain side panels for T-9090 \$90/pr

Integra T-4087 AM/FM Tuner

Tuner with automatic precision reception system to control 4 modes (stereo-muting on/mono-muting off, auto high-blend on/off, local/distant, IF bandwidth wide/narrow). Features 4 separate power supplies for RF amp, IF amp, demodulator, and multiplex decoder; 20-station random AM/FM memory; battery-free memory backup; MOSFET RF amp front end; PLL demodulator. Black finish only. Wood side panels included. FM section: FM usable sens stereo 2 μ V (17.2 dBf); 50-dB quieting sens stereo 17 μ V (36 dBf); THD stereo 0.07%; S/N 77 dB stereo; FR 30-15,000 Hz \pm 1 dB; capture ratio 1 dB; sep 45 dB at 1,000 Hz. 18.25" W x 3" H x 14.62" D; 12 lbs \$380

Integra T-4057 MOSFET Tuner

Microprocessor-controlled quartz-synthesized AM/FM tuner. Features 3-mode APR; 20-station random memory; high-blend override; MOSFET RF amp; multi-phase lock loop. FM section: FM usable sens mono 1.9 μ V (10.8 dBf), stereo 4.0 μ V (17.2 dBf); 50-dB quieting sens mono 3.5 μ V (16.1 dBf), stereo 35 μ V (36.1 dBf); THD stereo 0.2%, mono 0.1%; S/N 68 dB stereo, 75 dB mono; FR 30-15,000 Hz \pm 1.5 dB; capture ratio 1.3 dB; sep 40 dB at 1,000 Hz; AM section: sens 25 μ V with built-in antenna; 17.12" W x 3" H x 14.62" D; 9 lbs; black only \$260

T-4038 AM/FM Tuner

Quartz-synthesized AM/FM tuner with 16-station random memory and digital frequency display. Features battery-free memory backup to preserve memory contents up to 4 weeks after power off; combination stereo/mono mute on/off switch; LED preset station indicator. FM section: FM usable sens stereo 4 μ V (17.2 dBf); 50-dB quieting sens stereo 35 μ V (36.1 dBf); THD stereo 0.2%; S/N 66 dB stereo; FR 30-15,000 Hz \pm 1 dB; capture ratio 1.5 dB; sep 40 dB at 1,000 Hz. 17.12" W x 2.88" H x 10.36" D; 7 lbs \$160

PARASOUND

ST220 AM/FM Tuner

Quartz-synthesized AM/FM tuner with PLL tuning. Features 6 AM, 6 FM presets; auto or manual tuning; 4-LED signal-strength indicator. FM section: IHF sens mono 10.8 dBf; 50-dB quieting sens mono 16.1 dBf, stereo 37.7 dBf; THD stereo 0.15%, mono 0.1% at 1,000 Hz; S/N 76 dB stereo, 82 dB mono; FR 30-15,000 Hz \pm 0.5 dB; capture ratio 1.4 dB; sep 48 dB at 1,000 Hz; AM suppression 65 dB; alt-ch rejection 66 dB; adjacent-ch rejection 8 dB. AM section: FR 30-3,500 Hz \pm 0.5 dB; sens 175 μ V with built-in antenna; 17.25" W x 2.75" H x 11" D; 10 lbs \$240

PERREAUX

TU3 FM Tuner

FM-only tuner features quartz-synthesized PLL tuning with six presets and a manual tuning knob with detent positions. Tuning range 87.9-107.9 MHz; antenna input 75 ohms unbalanced; usable sens 10.3 dBf (0.9 μ V); 50-dB quieting sens 35.8 dBf (17 μ V) stereo; S/N stereo 68 dB; distortion stereo 0.14% THD; FR 30-15,000 Hz \pm 0.5 dB; sep 50 dB at 1,000 Hz; image rejection 80 dB; AM suppression 50 dB; alt-ch sel 45 dB;

TUNERS

capture ratio 1.5 dB. 17" W x 1.75" H x 13.5" D; 13.5 lbs \$795



Perreaux TU3

TU1 Tuner

Features MOSFET-equipped front end with 4 varicap-tuned sections for high immunity to overload and low IM distortion; microprocessor-controlled PLL digital tuning with a pulse-regulated manual tuning system with detents for positive station selections; IF stage with linear phase filters and 3 limiters to provide wide bandwidth performance; PLL stereo decoder with a switchable de-emphasis facility; stereo/mono/muting circuit; 6 memory presets and last-station memory with a 2-stage power backup protection circuit. Usable sens 12.8 dBf (1.2 μ V); 50-dB quieting sens 36.8 dBf (19 μ V) stereo; S/N at 65 dBf 68 dBA stereo; distortion at 65 dBf 0.14% THD max stereo; FR (ref 1,000 Hz) 30-15,000 Hz \pm 0.5 dB; sep 50 dB at 1,000 Hz; AM suppression 50 dB; image rejection 90 dB; IF rejection 95 dB; alt-ch sel 45 dB; capture ratio 1.5 dB. 19" W x 1.75" H x 13" D; 12 lbs \$650

PIONEER

TX-V1160 Digital AM/FM/TV Tuner

Quartz-PLL synthesizer AM/FM/TV tuner. Features MTS decoder; 24 FM/AM random presets; 12 TV random presets; FM/AM/TV simulcast reception; optional wireless remote (CU-760). FM section: FM usable sens mono 1 μ V (11.2 dBf); 50-dB quieting sens mono 2 μ V (17.3 dBf), stereo 22.2 μ V (38.2 dBf); FR 30-15,000 Hz \pm 0.5, -0.7 dB; capture ratio 1.0 dB; AM section: sens 300 μ V with built-in antenna \$330



Pioneer: TX-V1160

F99X Digital AM/FM Tuner

Digital Direct Decoder AM/FM tuner. Features quartz-PLL synthesizer tuning; 16 random presets; station search; LED signal-strength meter. FM section: FM usable sens mono 0.95 μ V (10.8 dBf); 50-dB quieting sens mono 1.2 μ V (12.8 dBf), stereo 15 μ V (34.8 dBf); S/N 87 dB stereo, 94 dB mono; FR 20-15,000 Hz

+0.2, -0.8 dB; capture ratio 0.8 dB. AM section: sens 150 μ V with built-in antenna \$325

F77 Digital AM/FM Tuner

Digital Direct Decoder AM/FM tuner. Features linear front end; random 16 FM/AM presets; improved AM sound. FM section: 50-dB quieting sens stereo 17 μ V (35.9 dBf); FR 20-15,000 Hz \pm 0.4, -0.1 dB; capture ratio 1.0 dB. AM section: sens 150 μ V with built-in antenna \$240

TX-1060 Digital AM/FM Tuner

Quartz-PLL synthesizer AM/FM tuner. Features 16 AM/FM random presets; manual/auto tuning; quartz-PLL synthesizer front end. FM section: FM usable sens mono 1 μ V (11.2 dBf); stereo 17.8 μ V (36.2 dBf); FR 30-15,000 Hz \pm 0.5, -1.5 dB. AM section: sens 300 μ V with built-in antenna \$150

PROTON

440 Digital Tuner

Schotz-design AM/FM tuner with Schotz noise reduction. Features digital station readout; 12 station presets; memory backup holds station settings for 2 weeks when unplugged; adjustable rear-panel output level. FM section: FM usable sens mono 1.8 μ V (10.3 dBf); 50-dB quieting sens mono (15.3 dBf), stereo (33.2 dBf); THD stereo 0.2%, mono 0.05% at 1,000 Hz; S/N 70 dB stereo, 75 dB mono; FR 20-20,000 Hz \pm 0.2 dB; capture ratio 1.5 dB; sep 45 dB at 1,000 Hz; AM suppression 60 dB; alternate-ch rejection 55 dB; adjacent-ch rejection 90 dB. AM section: sens 300 μ V with built-in antenna; 16.5" W x 2.5" H x 9.75" D; 15 lbs \$250

430R AM/FM Tuner

AM/FM-stereo tuner with Schotz noise reduction and remote control option \$219

900 AM/FM Tuner

AM/FM-stereo tuner/preamp with Schotz noise reduction \$219

QUAD

FM4 FM Tuner

FM-stereo tuner designed to be used with Quad 44 preamp. Features no controls except 8 pushbuttons to store/recall station presets, tuning knob, power switch; bar-graph meter to indicate signal strength, center-channel tuning; dedicated microprocessor that recalls desired station from memory, tunes it, automatically sets muting, automatic frequency control levels. Stations stored in memory remain there for up to 5 years, even with power disconnected. Available in anthracite grey. Mono/stereo 50-dB quieting sens 2.7/25 μ V; mono/stereo S/N ratio 76/70 dB at 1 kHz, 1 mV A-wtd; mono/stereo distortion 0.05%/0.10% stereo; capture ratio 2.5 dB; sel 53 dB; image/i-f rejection 80/100 dB; FR 20-15,000 Hz \pm 0/-1 dB; crosstalk 40 dB at 1 kHz; pilot-tone suppression 60 dB; deemphasis switchable 50/75 μ sec; power consumption 6 V; 321 mm W x 207 D x 64 H; 3 kg \$595

RCA

Dimensia MAT-110 AM/FM Tuner

Features on-screen prompts of channel frequency and preset number with Dimensia system. FM section: IHF sens mono 11.2 dBf; 50-dB quieting sens mono 19.2 dBf, stereo 38.2 dBf; THD stereo 0.15%, mono 0.1% at 1,000 Hz; S/N stereo 73 dB, mono 78 dB at 80 dBf input; FR 30-15,000 Hz \pm 0.5 dB; capture ratio 1 dB; sep 45 dB at 1,000 Hz; AM suppression 50 dB; alt-ch rejection 45 dB. AM section: sens 18 mV with built-in antenna. 17.12" W x 2.36" H x 9" D \$249

REVOX

B261 Tuner

Microcomputer-controlled tuner with programming feature covering ID and frequency of 20 pretuned stations, including preferred mode of reception for each station. Features 20 station selector buttons; infrared remote control; two separate muting threshold buttons; high blend button; auto station scanning; LCD display indicates stations and frequency alphanumerically; sens 0.5 μ V on 75 ohms for 26-dB S/N with 40-Hz deviation; usable sens mono 2 μ V, stereo 20 μ V on 75 ohms for a S/N ratio of 46 dB with 40,000 Hz deviation; capture ratio 0.8 dB for a S/N ratio of 30 dB at 40,000 Hz deviation and an input of 1 mV on 75 ohms; sel 80 dB tuned-in signal 100 μ V on 75 ohms; interfering signal 100 mV on 75 ohms modulated to a deviation of 40,000 Hz. FR 30-15,000 Hz \pm 1 dB measured with 40,000 Hz deviation and 1 mV input on 75 ohms; harmonic distortion 0.07% at 1,000 Hz and 40,000 Hz deviation mono and stereo L-R mV input on 75 ohms; S/N 75 dB, 30 Hz 15,000 Hz linear referred to deviation of 75,000 Hz with an input of 1 mV on 75 ohms; stereo sep 100 Hz 10,000 Hz, 40 dB 1,000 Hz, 43 dB referred to deviation of 40,000 Hz and an input of 1 mV on 75 ohms; 17.75" W x 6" H x 13.06" D; 18.75 lbs \$1,500

ROTEL

RT850 AM/FM Tuner

Quartz-synthesizer tuner with microprocessor circuitry. Features 6 AM/6 FM presets, manual and autotune tuning. FM section: usable sens mono 2 μ V (11.2 dBf), 50-dB quieting sens mono 3 μ V (14.6 dBf), stereo 40 μ V (37.2 dBf); THD stereo 0.2%, mono 0.08% at 1,000 Hz; S/N 73 dB stereo, 75 dB mono; FR 30-15,000 Hz \pm 0, -2 dB; capture ratio 1.0 dB; sep 48 dB at 1,000 Hz; AM suppression 58 dB; AM section: sens 300 μ V/m; S/N 50 dB; 17" W x 2.56" H x 11.5" D; 8.5 lbs \$299

RT830 AM/FM Analog Tuner

AM/FM stereo tuner with LED indicators for signal strength; muting switch. FM section: usable sens mono 2 μ V (11.2 dBf), 50-dB quieting sens mono 3.5 μ V (16 dBf), stereo 50 μ V (39.4 dBf); THD stereo 0.6%, mono 0.3% at 1,000 Hz; S/N 65 dB stereo, 70 dB mono; FR 35-13,000 Hz \pm 1.5 dB; capture ratio 2 dB; sep 38 dB at 1,000 Hz; AM suppression 62 dB; AM section: sens 300 μ V/m; S/N 45 dB; 17" W x 2.56" H x 12.56" D; 6.8 lbs \$199



RCA Dimensia MAT-110

SAE

T101 AM/FM Stereo Tuner

AM/FM computer direct-line digital tuner. Features 16 station presets (8 AM/8 FM), auto and manual tuning, signal strength, multipath, and level indicators, IF narrow, high blend, and memory scan. FM section: IHF sens mono 1.8 μ V (10.3 dBf); IHF sens stereo 3.9 μ V (17 dBf); 50-dB quieting sens mono 2.75 μ V (14 dBf); 50-

TUNERS

dB quieting sens stereo 32 μ V (35.3 dBf); THD stereo 0.08%, mono 0.05% at 1,000 Hz; S/N stereo -70 dB, mono -75 dB. FR 30-18,000 Hz +1, -2 dB; capture ratio 1.2 dB; sep 55 dB at 1,000 Hz; AM suppression -60 dB; alternate-ch rejection -100 dB narrow; adjacent-ch rejection -15 dB narrow; 20 lbs; 19" W x 3.5" H x 12.5" D \$650

T102 AM/FM Stereo Tuner

AM/FM computer direct-line digital tuner with 16 station presets; auto and manual tuning; IF narrow; high blend. FM section: IHF sens mono 2 μ V; stereo 4.1 μ V; 50-dB quieting sens mono 2.9 μ V, stereo 34 μ V; THD stereo 0.08%, mono 0.05% at 1,000 Hz; S/N -70 dB stereo, -70 dB mono; FR 30-18,000 Hz +1, -2 dB; capture ratio 1.2 dB; sep 55 dB at 1,000 Hz; AM suppression -60 dB; alternate-ch rejection -100 dB narrow; adjacent-ch rejection -15 dB narrow. 19" W x 3.5" H x 12.5" D \$349

SANSUI

TU-D99X AM/FM Stereo Tuner

AM/FM tuner with superlinear digital decoder. Features 5-gang tuner capacity; 8 AM/8 FM presets with scan; IF bandwidth selector; local/distant switch; built-in tone generator for record level adjustments. THD stereo 0.015%, FR 20-15,000 Hz; 16.88" W x 2.25" H x 12.12" D; 9 lbs \$430

TU-D99AMX. Same as TU-D99X with automatic AM stereo reception \$450

TU-D55X AM/FM Stereo Tuner

AM/FM tuner with quartz-PLL synthesized tuning. Features auto and manual tuning; 8 AM/8 FM presets with scan; last-one memory; memory back-up. FM section FR 20-15,000 Hz. 16.88" W x 2.12" H x 10.25" D \$300

TU-D33X. Similar to TU-D55X with 6 AM/6 FM presets \$250

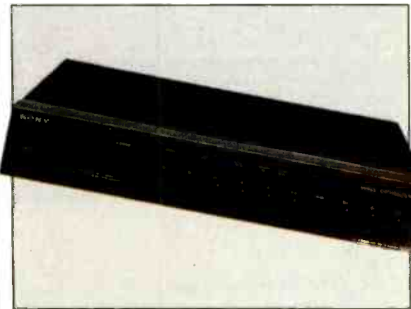
SONY

ST-S44ESII Tuner

Quartz-synthesis AM/FM tuner with low-noise direct comparator, wave-optimized IF section, 4-way tuning. FM section: FM usable sens 10.3 dBf; 50-dB quieting sens stereo 37.9 dBf; THD 0.08%; S/N 90 dB; FR 30-15,000 Hz \pm 0.5 dB; capture ratio 1 dB; sep 60 dB at 1,000 Hz; AM suppression 60 dB; adjacent-ch rejection 80 dB. 17" W x 4.25" H x 14" D; 10.75 lbs \$250

ST-S222ES Tuner

Quartz-synthesis AM/FM tuner with low-noise direct comparator and multi-process memory display. FM section: FM usable sens 10.3 dBf; 50-dB quieting sens stereo 37.9 dBf; THD



Sony ST-S222ES

0.09%; S/N 88 dB; FR 30-15,000 Hz \pm 0.5 dB; capture ratio 1 dB; sep 55 dB at 1,000 Hz; AM suppression 55 dB; adjacent-ch rejection 70 dB. 17" W x 4.25" H x 13" D; 11 lbs \$200

SOUNDCRAFTSMEN

T6200 AM/FM Stereo Digital Tuner

Digital quartz-PLL tuner with 16 station presets, 5-digit station readout, auto scan tuning, and active high-blend filter. 19" rack-mount front panel. IHF sens 1.6 μ V; S/N 75 dB; distortion 0.08%; 2.36" H x 19" W x 12" D \$299

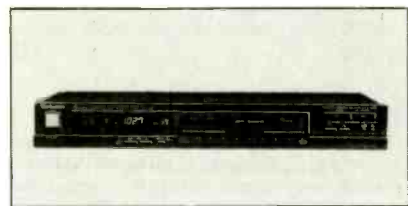
TANDBERG

TPT 3001A Programmable FM Tuner

Features computer-type logic servo tuning system; 8-ganged varactor tuning diodes in front end, dual-gate MOSFET's in R-F and mixer stages; 8-station memory presets with touch-button recall and LED program readout; wide/normal/narrow IF bandwidth selector; autorange signal-strength with 1,000X meter-range LED, center tuning/preset frequency meters. Audio circuitry includes selected all-metal film resistors, polypropylene capacitors, and min negative feedback; mono, ANC, servo, mute switches with LED's; 3-circuit muting; output level control; S/N 90 dB; narrow sel 125 dB. Rosewood side panels optional \$1,495

TPT 3011A Programmable FM Tuner

Computerized FM-stereo tuner with 8 programmable station presets, automatic servo tuning released by touch sensor in tuning knob. Audio circuitry includes selected all-metal film resistors, polypropylene capacitors, and min negative feedback. Features 5-ganged electronic tuning circuits; 12-bit microprocessor pretuning, memory system. FM sens for 50 dB quieting mono/stereo 14.8 dBf (1.5 μ V)/37.3 dBf (20 μ V); S/N at 65 dBf mono/stereo 78/75 dB; distortion at 50 dB quieting mono/stereo 0.3%/0.3%; capture ratio 0.9 dB; alternate-ch sel >100 dB; spurious-response >70 dB; AM-suppression ratio >70 dB; 43.5 cm W x 35 cm D x 8.3 cm H. Rosewood side panels optional \$895



Technics ST-G50

TECHNICS

ST-G7 Tuner

Quartz-synthesizer AM/FM-stereo DC tuner. Triple-quartz control (front-end IF and MPX) for 120 dB I-F strip, quartz-controlled double PLL DC-peak sample and hold MPX digital linear detector using 1-shot multivibrator and mirror-loaded current stabilizer for wide dynamic range, auto IF bandwidth, 16 presets, in/out computer interface. THD stereo 0.03%, mono 0.02%; S/N stereo 94 dB. FR 4-18,000 Hz +0.2, -0.5 dB, capture ratio 1.0 dB, AM suppression 70 dB, sens 20 μ V; 9 lbs, 16.94" W x 3.81" H x 14.91" D \$435

ST-G6T Stereo Tuner

AM/FM quartz-synthesizer tuner. FM section: IHF sens mono 1.2 μ V (12.8 dBf); THD stereo 0.03%, mono 0.02%; S/N 73 dB stereo, 80 dB mono; FR 4-18,000 Hz +0.5/-1.5 dB; sep 55 dB at 1,000 Hz. AM section: sens 20 μ V with built-in antenna; 16.94" W x 2.5" H x 9.5" D; 5.1 lbs \$290

ST-G50 AM/FM-Stereo Tuner

Features twin-quartz tuning; linear-switching MPX circuit for wide stereo sep and FR; DC

construction; 39 AM/FM presets. FM section: 50-dB quieting sens stereo 44 μ V (38.1 dBf); THD stereo 0.03% at 1,000 Hz; S/N 73 dB stereo; FR 4-18,000 Hz +0.5, -1.5 dB; capture ratio 1 dB; sep 60 dB at 1,000 Hz; AM suppression 55 dB. 16.94" W x 2.53" H x 9.5" D; 4.8 lbs \$220

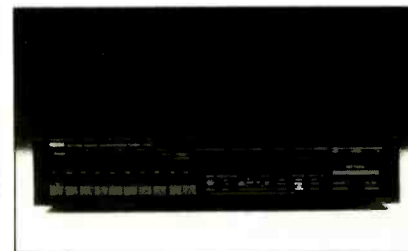
ST-G40 AM/FM-Stereo Tuner

Quartz tuner with 16-station random-access preset memory and large LCD readout. FM section: 50-dB quieting sens stereo 44 μ V (38.1 dBf); THD stereo 0.18% at 1,000 Hz; S/N 73 dB stereo; FR 4-18,000 Hz +0.5, -1.5 dB; capture ratio 1 dB; sep 50 dB at 1,000 Hz; AM suppression 55 dB. 16.94" W x 2.53" H x 9.5" D; 4.8 lbs \$165

VECTOR RESEARCH

VU-1500 Tuner

Quartz PLL-synthesized tuner. FM section: altch sel 60 dB; 50-dB quieting sens mono 3 μ V (10 dBf); 50-dB quieting sens stereo 40 μ V (37 dBf); max S/N A-wtd, mono 75 dB, stereo 73 dB; THD mono 0.08%; stereo 0.2%. 8.5 lbs; 17" W x 3" H x 12.5" D \$180



Yamaha T-85

YAMAHA

T-85B Digital Tuner

Features CSL tuning; low-distortion high-separation pure-stereo MPX demodulator; 20-station random-access presets; 6-way status station memory; 4-position IF mode selector (super-wide, wide, narrow, super-narrow); dynamic auto blend; signal-quality meter; switchable FM/RF mode; zero IM mixer front end. S/N stereo 87 dB; stereo sep 68 dB. 17.12" W x 3.62" H x 14" D; 11 lbs \$449

T-1020B Digital Tuner

Features CSL tuning; 20-station random-access presets; 4-way multi-status station memory; LED signal-quality meter; RF servo gain control; zero IM mixer front end. S/N stereo 84 dB; stereo sep 55 dB. 17.12" W x 2.88" H x 12.5" D; 7.8 lbs \$359

T-720B AM/FM Tuner

Features CSL tuning; 20-station random-access presets; 3-way multi-status station memory; switchable FM filter; LED signal-quality meter. S/N stereo 83 dB; stereo sep 50 dB. 17.12" W x 2.88" H x 12.5" D; 7.4 lbs \$299

T-520B AM/FM Tuner

Features IF-count PLL-synthesizer tuning; 8 AM/8 FM station presets; 2-way multi-status station memory; LED signal-quality meter. S/N stereo 76 dB; stereo sep 40 dB. 17.12" W x 2.88" H x 11" D; 6.9 lbs \$249

T-420B AM/FM Tuner

Features direct PLL-synthesizer tuning; 16-station random-access presets; auto search/manual tuning; multi-function LCD; signal-quality meter. S/N stereo 76 dB; stereo sep 40 dB. 17.12" W x 2.88" H x 9.31" D; 5.1 lbs \$189

TURNTABLES



ACOUSTIC RESEARCH

Connoisseur Series

ETL-1 Manual Turntable

Manual belt-drive turntable with electronic speed control and 3-point dual-spring suspension system factory tuned with removable lead weights. Features adjustable isolation feet; sapphire main bearing; 33.33 and 45 rpm; 8.5-lb platter. W&F 0.03% wrms; rumble -81 dB; 20.44" W x 7.5" H x 17.5" D (dustcover down); 29 lbs. Black lacquer \$850
Natural cherry \$700

ES-1 Manual Turntable

Manual belt-drive turntable with 24-pole synchronous motor. Features 33 and 45 rpm speeds. W&F 0.04% wrms; rumble -78 dB; effective tonearm mass without cartridge 14.5 g; effective tonearm length 229 mm; max tracking error 2.6°. 18.19" W x 7" H x 15.25" D (dustcover down); 18 lbs. Natural cherry, with tonearm \$475
Natural cherry, without tonearm \$350

AR Series

EB-101 Manual Turntable

Manual belt-drive pivoted-arm turntable with fully isolated 3-point suspension. Arm and platter on subchassis formed by pressed-steel T-bar spring-suspended and damped at 3 points. 33.33 and 45 rpm. Features 12-pole synchronous motor (500 rpm at 50 Hz, 600 rpm at 60 Hz); 3.9-lb platter; detachable carbon-fibre headshell with clamping screw on arm; base finished in oiled walnut veneer. W&F 0.05% DIN; rumble -72 dB DIN; effective tonearm mass without cartridge 12 g; cartridge weight range 3-9 g; effective tonearm length 229 mm; overhang 16 mm; vertical and horizontal friction <100 mg; 18.19" W x 7" H x 15.25" D (dustcover down); 13.5 lbs \$400

ADC

LT 60 Linear-Tracking Turntable

Fully automatic belt-drive P-mount turntable. Features 33.33 and 45 rpm; soft-touch electronic controls; illuminated electronic strobe with pitch control; anti-feedback suspension. 16.5" W x 5" H x 15.5" D (dustcover down); 15.5 lbs \$140

LT 34 Fully Automatic Turntable

Compact linear-tracking P-mount turntable. Features 33.33 and 45 rpm; belt-drive; 2 DC servo-controlled motors; anti-feedback suspension. 13.25" W x 3.5" H x 13.75" D (dustcover down); 9.5 lbs \$100

RC1 Changer

Stacks up to 4 records. Feature 33.33 and 45 rpm; belt drive; viscous-damped cueing; electronically controlled DC-servo motor. ADC magnetic cartridge included \$100

ADS

Atelier P4 Turntable

Fully automatic turntable with quartz-crystal-controlled direct drive. Features PLL; quartz lock; pivoted arm; platter motor; ultra-low-mass tonearm; 33.33 and 45 rpm; variable speed control with strobe; holds platter and tonearm on a subchassis that floats on 4 tuned mounts. W&F $\pm 0.025\%$ wrms; rumble -75 dB DIN B, 53 dB DIN A; S/N effective tonearm length 8.69"; max tracking error 2.2°; 17.5" W x 4.53" H x 14.25" D (dustcover down); 11 lbs \$500



ADS Atelier P4

AKAI

AP-A50 Automatic Turntable

Fully automatic linear-tracking turntable with direct drive. Features quartz-locked DC motor; microcomputer control for precise tracking; front-panel feather-touch controls; anti-resonant high-density BMC cabinet and anti-resonant feet to absorb vibration; P-mount compatible; 33.33 and 45 rpm; cueing lever; aluminum-alloy die-cast platter. W&F 0.045% wrms; rumble -70 dB; effective tonearm length 165 mm. 17.3" W x 4.2" H x 15.6" D (dustcover down); 12.8 lbs \$210

AP-A301 Belt-Drive Turntable

Fully automatic linear-tracking turntable with belt-drive FG-servo motor, anti-resonant high-density BMC cabinet and anti-resonant feet to absorb vibrations. Features front-panel controls; disc repeat; P-mount compatible; 33.33 and 45 rpm; cueing lever; aluminum-alloy die-cast platter. W&F 0.05% wrms; rumble -65 dB; effective tonearm length 150 mm. 17.3" W x 3.9" H x 14.7" D (dustcover down); 8.8 lbs \$150

AP-A201 Direct-Drive Turntable

Semiautomatic tangential-tracking turntable with FG-servo motor for low W&F. Features disc centering guide for quick record changing; front-panel controls; aluminum-alloy die-cast platter; cueing lever; 33.33 and 45 rpm; pivoted arm. P-mount compatible. W&F 0.045% wrms; rumble -70 dB; effective tonearm length 220 mm. 17.3" W x 3.9" H x 13.7" D (dustcover down); 7.7 lbs \$120

AP-X1 Belt-Drive Turntable

Semiautomatic tangential-tracking turntable with FG-servo motor for low W&F. Features anti-resonant high-density BMC cabinet and anti-resonant feet to control vibration; front-panel controls; aluminum-alloy die-cast platter;

cueing lever; 33.33 and 45 rpm; pivoted arm. P-mount compatible. W&F 0.05% wrms; rumble -70 dB; effective tonearm length 220 mm. 17.3" W x 4" H x 13.6" D (dustcover down); 7.5 lbs \$190

BANG & OLUFSEN

Beogram 8002 Linear-Tracking Turntable

Tangential-drive 33.33-, 45-rpm turntable with patented light/shutter tangential-tracking tonearm. Features low-mass tonearm, patented leaf-spring/pendulum suspension system. Wow and flutter $\pm 0.02\%$ DIN; rumble >75 dB DIN; speed deviation <0.003% \$599

Beogram 5500 Turntable

Automatic turntable with tangential-tracking tonearm. Heavy chassis that is suspended by leaf springs and pendulum \$439

Beogram 2000 Turntable

The turntable of the Beosystem 2000 with electronically controlled drive system. Features automatic anti-skating; ultra-ridged stainless steel tonearm and integrated cartridge; patented three-point suspension system; data link system to allow connection in Beosystem; W&F < $\pm 0.035\%$ wrms; rumble DIN weighted >75 dB; 16.5" W x 3" x 2.5" D; 3.2 lbs \$260

Beogram 3000. Designed to be incorporated into the Beosystem 3000 with full remote control via terminal 3000 \$380

Beogram TX-2. Designed to fit into any component system \$380

Beogram RX-2. Straight-arm turntable with pendulum-suspended chassis \$199



Bang & Olufsen Beogram 2000

DENON

All arm and auto functions of Denon turntables are noncontact, microprocessor controlled. Motor servo by magnetic speed detection.

DP-59L Direct-Drive Turntable

Features massive wood base with isolation; 5.5-lb platter with high-torque direct-drive AC motor. Lift only \$650

TURNTABLES

DP-61F Automatic Turntable

Features high torque; AC direct drive with dynamic servo tracer arm. High-gloss woodgrain base \$600

DP-47F Direct-Drive Turntable

Features dynamic servo tracer; flat-twin direct drive; full auto plus locate function; thick wood base \$400

DP-35B Automatic Turntable

Features dynamic servo tracer; flat-twin direct drive; high-density compound base. Black \$300

DP-23F Turntable

Full-size automatic turntable with dynamic servo tracer. Black \$150

DP-7F Turntable

P-mount automatic turntable with dynamic servo tracer. Black \$180



Denon DP-7F

DUAL BY ORTOFON

CS5000 Semiautomatic Turntable

Belt-drive turntable with Hall-effect motor and 4-point full-floating suspension system. Features quartz-monitored 3-speed electronic control; optimum-pivot tonearm design; acoustic mat; cueing lever; 33.33, 45, and 78 rpm. W&F 0.015% wrms; rumble -56 dB DIN unwt. Available with black or walnut wood base \$400

CS630Q Direct-Drive Turntable

Single-play fully automatic turntable with electronic pitch control. Features digital speed display; damping mat; shock-absorber chassis; ULM tonearm; front-panel controls \$250

CS505-2 Belt-Drive Turntable

Semiautomatic turntable with acoustic mat. Features floating-chassis design; vario-pitch; ULM tonearm. Available in black or walnut wood base \$240

CS620Q Fully Automatic Turntable

Quartz-controlled direct-drive single-play turntable with damping mat, shock-absorber chassis, ULM tonearm and front-panel controls \$200

CS530 Fully Automatic Turntable

Belt-drive single-play turntable. Features pitch control with strobe; high-damping mat; ULM tonearm; shock-absorber chassis \$180
With ULM 65E phono cartridge \$230

CA1258/45 Belt-Drive Turntable

Fully automatic turntable with rotating manual spindle for single play. Features pitch control; strobe; automatic changer; pivoted arm; cueing lever; 33.33 and 45 rpm. Premounted and aligned with TKS-45E low-mass cartridge. Effective tonearm mass 5.5 g. 17.5" W x 8" H x 17.5" D (dustcover down); 12 lbs \$220

CS515 Belt-Drive Turntable

Single-play semiautomatic turntable with pitch control, high-damping mat, ULM tonearm, and

shock-absorber chassis \$150
With ULM 65E phono cartridge \$200



Dual CS5000

CS514 Belt-Drive Turntable

Single-play semiautomatic turntable with Dual DMS 239 low-mass tonearm/cartridge system and electronic speed control \$130

HARMAN KARDON

T65C Semiautomatic Turntable

Semiautomatic belt-drive turntable with auto-lift tonearm and AC sine-wave driven motor. Features 33.33 and 45 rpm speeds; $\pm 3\%$ speed pitch control; 3-point floating suspension with counterweighted subchassis; 3.3 lb. platter; highly absorbent platter mat; disc stabilizer; removable ultra-low capacitance cables with gold-plated plugs. W&F 0.025% wrms; rumble -70 dB DIN-B; effective tonearm mass without cartridge 9.5 g \$575
T55C. Similar to T65C except with 2.2 lb. platter; W&F 0.035%; rumble -68 dB DIN-B; effective tonearm mass without cartridge 8 g \$400

HITACHI

HT-L303 Linear-Tracking Turntable

Two-speed belt-drive fully automatic turntable with program repeat. Features low-mass linear-tracking tonearm; microcomputer control; auto setting of record speed and size; auto control of tonearm movements both in/out and up/down; auto return and shutoff; auto cut; precise manual control; DC servo motor; plug-in connector cartridge; speed indicator; repeat indicator; smoked dustcover. S/N 70 dB DIN-B; W&F 0.045% wrms; tracking error $\pm 2^\circ$; 17.12" W x 3.25" H x 12.62" D; 8 lb 13 oz \$180

J. A. MICHELL BY RMI

Gyrodec Manual Turntable

Belt-drive turntable. 33.33 and 45 rpm; balanced 3-point suspension. W&F 0.04% wrms; rumble -78 dB; S/N -76 dB A-wtd. 53 cm W x 19 cm H x 42 cm D (dustcover down); 43 lbs \$1,190

Syncrodec Belt-Drive Turntable

Manual turntable with 3-point suspension. 33.33 and 45 rpm. W&F 0.05% wrms; rumble -74.5 dB; S/N -72 dB A-wtd. 18" W x 5.5" H x 13.5" D (dustcover down); 18 lbs \$650

Focus S Manual Turntable

Belt-drive turntable with 7-lb platter. 33.33 and 45 rpm. W&F 0.04% wrms; rumble -75 dB; S/N -72 dB A-wtd. 17" W x 5.5" H x 14" D (dustcover down); 20 lbs \$499

Focus One Belt-Drive Turntable

Manual turntable accommodates any tonearm. 33.33 and 45 rpm. W&F 0.05% wrms; rumble -74.5 dB; S/N -70 dB A-wtd. 17" W x 5.5" H x 14" D (dustcover down); 18 lbs \$390

JVC

QL-A75 Quartz-Locked Turntable

Features double-servo quartz control; dynamic-Q damping system for tonearm; tapered, low-mass straight tonearm; gimbal support; replaceable arm shaft; Chuck 'N' Lock head connector;

high-torque coreless DC-servo motor and heavy platter. Mirror-finished multi-layer solid cabinet. W&F 0.018% wrms; S/N 80 dB; 19.5" W x 8.25" H x 16.5" D (dustcover down); 30.8 lbs \$650

QL-Y66F Fully Automated Turntable

Electro-servo fully automatic quartz turntable with direct drive. Features 33.33 and 45 rpm; variable speed control; S-shaped tonearm. W&F 0.015% wrms; S/N 80 dB A-wtd; effective tonearm mass without cartridge 11.5 g; effective tonearm length 254 mm; max tracking error -1° ; 19.5" W x 7.36" H x 15.94" D (dustcover down); 27.1 lbs \$470

AL-L20RBK Direct-Drive Turntable

Quartz-locked turntable with double-servo quartz control and super-FG servo for speed accuracy. Remote controllable with selected JVC Compu-Link Components. Features computer control; fully automatic; auto disc size, speed selector, and repeat; linear tracking; P-mount compatible; 33.33 and 45 rpm; floating tonearm/platter suspension. W&F 0.025% wrms; rumble 78 dB; effective tonearm length 157 mm. 17.19" W x 3.88" H x 14.19" D (dustcover down); 11.3 lbs \$240



Harman Kardon T65C

AL-FQ5BK Quartz-Locked Turntable

Automatic direct-drive turntable with double-servo quartz control and super-FG servo for speed accuracy. Features coreless DC-FG-servo direct-drive motor with smooth cog-free rotation; low-mass straight tonearm with low-center-of-gravity support for reduced IMD and W&F; space-efficient dustcover; P-mount compatible; pivoted arm; strobe; cueing lever; 33.33 and 45 rpm; floating tonearm/platter suspension. W&F 0.025% wrms; rumble 78 dB; effective tonearm length 220 mm; max tracking error $-0^\circ 43'$; $+3^\circ 35'$. 17.19" W x 3.19" H x 14.19" D (dustcover down); 10.8 lbs \$160

AL-F3BK Automatic Turntable

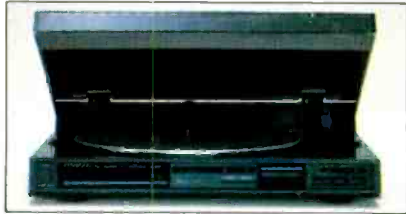
Direct-drive turntable with new cabinet support system and large insulators for better stability and higher resistance to vibration and acoustic feedback. Features coreless DC-FG-servo direct-drive motor with smooth cog-free rotation; low-mass straight tonearm with low-center-of-gravity support for reduced IMD and W&F; P-mount compatible; pivoted arm; strobe; cueing lever; 33.33 and 45 rpm; variable speed control. W&F 0.03% wrms; rumble 78 dB; effective tonearm length 220 mm; max tracking error $-0^\circ 43'$; $+3^\circ 35'$. 17.19" W x 4.25" H x 14.19" D (dustcover down); 10.1 lbs \$130

AL-A1BK Semiautomatic Turntable

Belt-drive turntable with new cabinet support system and large insulators for better stability and higher resistance to vibration and acoustic feedback. Features coreless DC-servo belt-drive motor with powerful torque and low noise; low-mass straight tonearm with low-center-of-gravi-

TURNTABLES

ty support for reduced IMD and W&F; P-mount compatible; pivoted arm; cueing lever; 33.33 and 45 rpm. W&F 0.045% wrms; rumble 65 dB; effective tonearm length 220 mm; max tracking error $-0^{\circ}43'$, $+3^{\circ}35'$. 17.19" W x 4.25" H x 14.19" D (dustcover down); 8.1 lbs... \$90



Kenwood KD-65F

KENWOOD

KD-75F(B) Linear-Tracking Turntable
Automatic direct-drive turntable with 7-track random program memory; auto disc-size selector; repeat and speed indicators; synchronized capability; cartridge included. 15 lbs... \$225

KD-65F(B) Linear-Tracking Turntable
Automatic direct-drive turntable with synchronized record capability; P-Mount compatible. 15 lbs... \$190

KD-55R(B) Quartz Turntable
Semiautomatic direct-drive turntable with brushless DC servo motor; low-resonance tonearm; P-Mount compatible. 15 lbs... \$117

KD-35R(B) Belt-Drive Turntable
Semiautomatic turntable with low-resonance tonearm; anti-skating mechanism; P-Mount compatible. 10 lbs... \$107

KYOCERA

PL-910 Manual Turntable
Armless belt-drive turntable with ceramic platter and base. Features 33.33 and 45 rpm; variable speed control with strobe; cutless-core power transformer; dual suspension; heavy-duty DC-servo brushless motor; 11-lb platter assembly. W&F 0.025% wrms; S/N 78 dB DIN-B; accepts 9"-10" tonearms. 18" W x 7.5" H x 15.25" D; 44 lbs... \$2,000

PL-701 Automatic Turntable
Fully automatic turntable with 4.6-lb platter and microcomputer electronic-sensing tonearm. Features belt drive; pivoted arm; 33.33 and 45 rpm; variable speed control; strobe. Supplied with stabilizer (0.7 lb); straight aluminum tonearm; dual suspension. W&F 0.03% wrms; S/N 70 dB DIN-B; effective tonearm length 8.88" (0.6" overhang); max tracking error $\pm 2^{\circ}$; 18.12" W x 6" H x 15.36" D; 19.6 lbs... \$450

PL-601 Semiautomatic Turntable
Features front panel controls; belt drive; dual suspension; pivoted arm; 33.33 and 45 rpm; variable speed control with strobe; wood base with adjustable feet; nonfriction electronic sensing; straight aluminum tonearm. W&F 0.035% wrms; S/N 68 dB DIN-B; effective tonearm length 8.5" (0.6" overhang); max tracking error $\pm 2^{\circ}$; 18.12" W x 6" H x 15.36" D; 17.4 lbs... \$350

LINN BY AUDIOPHILE SYSTEMS

LP12 Manual Single-Play Turntable
Belt-drive 33.33-rpm turntable with manual tonearm. Features 24-pole synchronous motor; 12" zinc-aluminum alloy die-cast platter with felt mat; single-point oil-bath bearing; hardened tool-steel spindle; adjustable 3-point spring-suspension subchassis; heavy-gauge stainless-steel

base plate; solid hardwood base; optional 45-rpm adapter available. W&F 0.04% wrms; rumble -60 dB unwt; speed accuracy $\pm 0.04\%$; 17.5" W x 14" D x 5.5" H... \$895

AX15 Manual Turntable

Class A amplifier driven belt-drive turntable with pivoted arm. Plays 33.33 and 45 rpm albums. Effective tonearm length 284 mm; 16 lbs... \$595

LUXMAN

P-406 Automatic Turntable
Belt-drive tangential-tracking turntable. Features PLL; P-Mount compatible; 33.33 and 45 rpm. W&F 0.04% wrms; rumble -70 dB; 16.36" W x 4.5" H x 14.06" D (dustcover down); 11.61 lbs... \$350

P-102 Belt-Drive Turntable

Automatic linear-tracking turntable with strobe, variable speed control, floating tonearm/platter suspension, cueing lever, repeat play, manual play. P-mount compatible. Remote capable. W&F 0.04% wrms; rumble 70 dB; effective tonearm length 133 mm; max tracking error 0.1° . 16.36" W x 4.5" H x 14.06" D (dustcover down); 11.61 lbs... \$350

P-100 Belt-Drive Turntable

Automatic linear-tracking turntable with pivoted arm, 33.33 rpm only, variable speed control, floating tonearm/platter suspension, cueing lever. W&F 0.06% wrms; rumble 72 dB; effective tonearm length 222 mm. 16.36" W x 4.81" H x 14.89" D (dustcover down); 11.7 lbs... \$250

MARANTZ

TT 451 Linear-Tracking Turntable
Automatic linear-tracking turntable. Features auto speed and size selector; P-Mount compatible; 33.33 and 45 rpm. W&F 0.05% wrms; rumble -70 dB; 16.36" W x 3.75" H x 13.56" D (dustcover down); 9.5 lbs... \$250

TT 251 Direct-Drive Turntable

Semiautomatic direct-drive turntable. Features P-Mount compatible; 33.33 and 45 rpm. W&F 0.07% wrms; rumble -68 dB; 16.36" W x 3.94" H x 13.25" D (dustcover down); 9.3 lbs... \$180

TT 151 Belt-Drive Turntable

Semiautomatic belt-drive turntable. Features P-Mount compatible; 33.33 and 45 rpm. W&F 0.09% wrms; rumble -65 dB. 16.5" W x 3.94" H x 14.36" D (dustcover down); 7.7 lbs... \$130



Kyocera PL-910

MICRO SEIKI

SZ-1T Manual Turntable
Massive zinc-alloy turntable system that is both air bearing and vacuum. Features belt drive; 33.33 and 45 rpm; variable speed control; strobe; outboard air-bearing motor with large-inertia flywheel spindle; 44-lb bronze platter. W&F 0.025% wrms; S/N 90 dB A-wtd. 35" W x 12" H x 18" D (dustcover down); 240 lbs... \$12,000

SZ-1TSS. Same as above with 48-lb steel platter, 2 tonearms, and isolation base. 260 lbs... \$15,000

SX-555FVW Manual Turntable

Belt-drive turntable with patented quadruplex isolation feet and vacuum hold down. Features rosewood cabinet; 17-lb air-bearing bronze and aluminum duplex platter; 33.33 and 45 rpm; variable speed control. W&F 0.025% wrms; S/N 78 dB A-wtd. 21.5" W x 7.5" H x 17.5" D (dustcover down); 47 lbs... \$1,995

RX-1500VG Thread-Drive Turntable

20-lb bronze platter turntable with light-force vacuum record hold-down and outboard motor. Features 33.33 and 45 rpm; variable speed control; nonresonant zinc alloy frame and outboard motor; 4-lb sealed oil-bath center spindle. W&F 0.025% wrms; S/N 85 dB A-wtd. 26" W x 6.5" H x 16" D; 100 lbs... \$1,995

RX-1500FVG. Air-bearing version of above. 120 lbs... \$2,995

BL-99V Manual Turntable

Belt-drive turntable with light-force vacuum hold down. Features walnut finished cabinet; 33.33 and 45 rpm; variable speed control; 7 lb aluminum platter; 4-lb tonearm base drilled to individuals' specifications. W&F 0.025% wrms; S/N 78 dB A-wtd. 21.5" W x 7.5" H x 17.5" D (dustcover down); 35 lbs... \$1,195

RX-1500 Basic Turntable

Belt-drive nonresonant zinc-alloy turntable with ability to mount 2 tonearms simultaneously. Features 33.33 and 45 rpm; variable speed control; aluminum platter. W&F 0.025% wrms; S/N 78 dB A-wtd. 19" W x 6" H x 13" D; 40 lbs... \$1,195

MITSUBISHI

LT-46 Linear-Tracking Turntable
Direct-drive logic-controlled fully automatic turntable. Features 33.33 and 45 rpm. W&F 0.035% wrms; S/N 72 dB A-wtd; 16.36" W x 4.5" H x 14.56" D (dustcover down); 12.25 lbs... \$140



NAD 5120

NAD

5120 Semiautomatic Belt-Drive Turntable
Semiautomatic belt-drive turntable designed to provide exceptionally vibration-free environment for the record, plus floppy tonearm that serves as a stable, nonresonant carrier for the phono cartridge, allowing for precise control of tonearm/cartridge resonance. 33.33 and 45 rpm. Features floating subchassis; AC synchronous motor; thin disc platter with thick rubber mat; floppy tonearm; replaceable tonearm assembly; dynamic vibration absorber. W&F 0.04% wrms; rumble -70 dB; effective tonearm length 8.19"; effective tonearm mass without cartridge 7.9 g; max tracking error $\pm 0.4^{\circ}$ /inch; 16.5" W x 4.12" H x 14" D; 11 lbs... \$198

TURNTABLES

5125 Semiautomatic Turntable

Belt-drive pivoted-arm turntable with sub-chassis suspension. Features 33.33 and 45 rpm; variable speed control with strobe; nonresonant base (mineral-filled resin polymer). W&F 0.07% DIN; rumble -70 dB DIN B; tonearm mass without cartridge 10.5 g; effective tonearm length 220 mm; max tracking error <0.7°/cm; 16.5" W x 4.5" H x 15" D (dustcover down); 8.8 lbs \$148

ONKYO

Integra CP-1057FB Automatic Turntable

Computer-controlled quartz-PLL direct-drive turntable. Features pivoted arm; quartz-locked; strobe; 33.33 and 45 rpm; triple-stage isolation; floating subchassis on 3-point suspension; gimbal-support tonearm bearings; computer-controlled tonearm functions; separate motor for tonearm; 2-speed search; straight low-mass tonearm; Polysorb vibration-absorbing compound for record mat and cabinet feet; gold-lacquered platter; gold-anodized tonearm; optoelectronic record-end detector; optional remote control. W&F 0.023% wrms; rumble -80 dB; effective tonearm length 226 mm; max tracking error +3°, -1°; 17.44" W x 6.25" H x 16.12" D; 20 lbs; black finish only \$330

CP-1046FB Automatic Turntable

Computer-controlled direct-drive pivoted-arm turntable. Features PLL; quartz-locked; 33.33 and 45 rpm speeds; 2-color quartz-lock indicator; triple-stage isolation system with floating subchassis; 3-point subchassis suspension; computer-controlled motor-assisted tonearm; optoelectronic record-end detector; straight low-mass tonearm; gimbal-precision tonearm bearings; 2-speed search; optional remote control. W&F 0.025% wrms; rumble -75 dB; effective tonearm length 224 mm; max tracking error +3°, -1.5°; 16.5" W x 5.06" H x 14.75" D (dustcover down); 13 lbs; black finish only \$220

PL-25B Automatic Linear-Tracking Turntable

Direct-drive linear-tracking turntable with coreless, brushless, slotless motor. Features search; repeat; front-panel mounted controls; 33.33 and 45 rpm; P-Mount compatible. W&F 0.27% wrms; rumble -72 dB; tracking error ±0.1°; 16.5" W x 5" H x 15.44" D (dustcover down); 12 lbs \$220

CP-1036A Semiautomatic Turntable

Semiautomatic direct-drive pivoted-arm turntable. Features PLL; quartz-locked; 33.33 and 45 rpm; triple-stage isolation with floating subchassis; front-panel controls; straight-line low-mass tonearm; gimbal-support precision tonearm bearings; smoked dustcover. W&F 0.025% wrms; rumble -70 dB; effective tonearm length 224 mm; max tracking error +3°, -1.5°; 16.5" W x 5.06" H x 14.75" D (dustcover down); 12 lbs; silver finish \$170
CP-1036AB. As above in black \$170

CP-1007AB Semiautomatic Turntable

Semiautomatic belt-drive pivoted-arm turntable. Features 33.33 and 45 rpm; triple-stage isolation; front-panel mounted controls; damped cueing. W&F 0.045% wrms; rumble -70 dB; effective tonearm length 210 mm; max tracking error +4.5°, -1°; 16.5" W x 5.06" H x 14.75" D (dustcover down); 9 lbs. Black finish only \$105

RC-5T Wired Remote Control

Wired remote controls tape and phono functions with 14-ft cord. Features record; rewind; play; fast forward; stop; pause; repeat; search; cue; play/reject. For use with remote-compatible Onkyo turntables and cassette decks \$50

PANASONIC

SL-N15 Linear-Tracking Turntable

Fully automatic turntable with built-in phono equalizer. Features DC servo; belt-drive; P-mount compatible; 33.33 and 45 rpm; gimbal suspension tonearm. W&F 0.045% wrms; rumble -70 dB; effective tonearm length 4.12"; max tracking error within ±0.1°; 12.5" W x 3.5" H x 12.5" D (dustcover down); 7.1 lbs \$170

SL-N5 Automatic Turntable

Automatic turntable with built-in phono equalizer. Features DC servo; belt-drive; P-mount compatible; 33.33 and 45 rpm; gimbal suspension; oil-damped cueing. W&F 0.045% wrms; rumble -70 dB; effective tonearm length 7.88"; max tracking error ±0.1°; 12.5" W x 3.12" H x 12.5" D; 5.1 lbs \$130

PARASOUND

LTd900 P-Mount Turntable

Automatic direct-drive linear-tracking turntable with microprocessor control and 3 separate motors. Compatible with P-Mount cartridges. Features noncogging drive motor, auto size/speed setting with manual override; repeat; soft-touch controls; 33.33 and 45 rpm speeds; variable speed control with strobe. W&F 0.02% wrms; rumble -70 dB; effective tonearm mass without cartridge 8 g; max tracking error 0.1°; 16.25" W x 3.75" H x 13.5" D (dustcover down); 12 lbs \$230

TTD-829 Direct-Drive Turntable

Semiautomatic turntable with front-mounted controls. Features P-mount compatible; 33.33 and 45 rpm; variable speed control; strobe; tuned suspension; noncogging motor; die-cast platter; decoupled counterweight. W&F 0.03% wrms; rumble -70 dB; effective tonearm mass without cartridge 14 g; effective tonearm length 222 mm. 16.5" W x 4.25" H x 14.25" D (dustcover down); 12 lbs \$170

TTb-720 Belt-Drive Turntable

Semiautomatic turntable with front-mounted controls. Features P-mount compatible; 33.33 and 45 rpm; variable speed control; strobe; pivoted straight arm; DC-servo motor; damped spring suspension isolated from bottom of base. W&F 0.05% wrms; rumble -65 dB; effective tonearm mass without cartridge 14 g; effective tonearm length 215 mm; max tracking error 1.6°. 16" W x 3.75" H x 12.75" D (dustcover down); 10 lbs \$130

PIONEER

PL-V70 Programmable Turntable

Automatic front-loading programmable turntable. Features servo belt-drive; linear-tracking; 33.33 and 45 rpm; random program playback. W&F less than 0.05% wrms; rumble 70 dB; S/N >70 dB A-weighted; 16.56" W x 4.12" H x 13.75" D (dustcover down); 16.5 lbs \$300

PL-3F Fully Automatic Turntable

Direct-drive turntable. Features PLL; 33.33 and 45 rpm. W&F 0.025% wrms; effective tonearm length 9.25"; S/N 80 dB A-weighted; 18.12" W x 6.75" H x 16.12" D (dustcover down); 19 lbs \$300

PL-L70 Automatic Direct-Drive Turntable

Programmable linear-tracking turntable. Features PLL; 33.33 and 45 rpm. W&F 0.025%; effective tonearm length 3.75". 16.56" W x 4.25" H x 14.36" D (dustcover down); 11 lbs \$240

PL-1.50/PL-L55 Linear-Tracking Turntable

Fully automatic direct-drive turntable. Features 33.33 and 45 rpm. W&F 0.025% wrms; effective

tonearm length 3.75"; S/N 80 dB A-weighted. 16.56" W x 4.25" H x 14.36" D (dustcover down); 10 lbs, 9 Oz \$175

PL-670(BK) Direct-Drive Turntable

Automatic turntable with Stable Hanging Rotor; T4P plug-in cartridge connector; Polymer Graphite straight tonearm; auto disc size selector; Dynamic Resonance Absorber \$140

PL-L30/PL-L33 Linear-Tracking Turntable

Fully automatic belt-drive turntable. Features 33.33 and 45 rpm. W&F 0.045% wrms; effective tonearm length 3.75"; S/N 72 dB A-weighted. 19.56" W x 4.25" H x 14.36" D (dustcover down); 9 lbs, 15 oz \$135

PL-X100 Linear-Tracking Turntable

Fully automatic belt-drive turntable. Features 33.33 and 45 rpm. W&F 0.045% wrms; effective tonearm length 3.75"; S/N 70 dB A-weighted. 12.62" W x 3.88" H x 13.36" D (dustcover down); 7 lbs, 15 oz \$125

RCA

MTT-135 Dimensia Programmable Turntable

Automatic front-loading turntable with direct drive. Features linear tracking; quartz lock; P-mount compatible; 33.33 and 45 rpm; remote control; on-screen prompts with Dimensia system. W&F 0.035% wrms; S/N 70 dB din B; effective tonearm length 95 mm; max tracking error 0.35°; 12.62" W x 4.5" H x 14.25" D (dustcover down); approx 11 lbs \$349

MTT-130 Dimensia Automatic Turntable

Linear-tracking direct-drive turntable. Features P-mount compatible; 33.33 and 45 rpm; automatic phono size and speed selector. Works with Dimensia 256-function remote control. W&F 0.035% wrms; S/N 72 dB DIN B; effective tonearm length 3.75"; 12.36" W x 3.25" H x 12.36" D (dustcover down); 10 lbs \$249

MTT-131 Digital Command Turntable

Automatic direct-drive turntable. Features linear tracking; P-mount compatible; 33.33 and 45 rpm; automatic phono size and speed selector. Works with Dimensia 256-function remote control. W&F 0.35% wrms; S/N 72 dB din B; effective tonearm length 3.75"; 12.36" W x 3.25" H x 12.36" D; 10 lbs; approx \$249

REALISTIC

LAB-1600 Linear-Tracking Turntable

Fully automatic turntable with self-powered front-loading drawer and touch-sensitive control panel. Rumble -65 dB; W&F <0.05% wrms; 33.33 and 45 rpm; 4" x 13.31" x 13.75". Includes 45-rpm adaptor and Realistic/Audio-Technica dual-magnet cartridge \$160

LAB-2200 Direct-Drive Turntable

Automatic linear-tracking turntable with P-mount cartridge, 2-speed repeat button, straight tonearm, strobe, variable speed control, 33.33 and 45 rpm. W&F 0.065% wrms; rumble 62 dB DIN; effective tonearm length 132 mm. 3.94" W x 13.46" H x 13.77" D (dustcover down); 9.92 lbs \$140

LAB-430 P-Mount Turntable

Direct-drive turntable with pivoting tonearm and anti-skating adjustment. Compatible with P-Mount cartridges. W&F 0.05%; rumble -70 dB; 15" x 13.36" x 5.12" \$130

LAB-89 Belt-Drive Turntable

Automatic changer. 33.33 and 45 rpm \$80
LAB-330. \$80

TURNTABLES

REVOLVER BY MUSIC HALL

Revolver Belt-Drive Turntable

Split-plinth turntable with plinth and platter constructed of medium-density fibreboard and self-damping material. Features AC synchronous motor with 2-speed stepped pulley; ethylene proylene drive belt; 3 molded nonadjustable feet. Includes Precision Instant Grip clamp, starmat, lubricating oil.

With Linn LVX tonearm and Basik cartridge (grey or red) \$500
 With Linn LVX tonearm and Basik cartridge (black ash veneer) \$550
 With Revolver AT93 tonearm and Audio-Technica cartridge. Red or grey \$400
 With Revolver AT93 tonearm and Audio-Technica cartridge. Black-ash veneer \$450

REVOX

Revox B791 Tangential-Tracking Turntable

Direct-drive automatic turntable with quartz-accurate variable-speed control. Features front-panel controls; 5-digit LED display of nominal speed (33.33 or 45 rpm), exact deviation percentage when vari-speed is activated; exclusive Linatrack linear-tracking system; 8-pole Hall Effect direct-drive motor with separate 200-pole tachogenerator; precision die-cast chassis; P-mount adapter. Vari-speed control range $\pm 9.9\%$ in 0.1% steps; suspension resonance 3 Hz; tonearm/cartridge resonance 11 Hz. W&F 0.05% DIN-wtd; tracking error $< 0.5^\circ$; 17.7" W x 5.6" H x 15.6" D; 20 lbs \$825

Revox B291. Same as B791 with built-in infrared remote receiver and automatic cueing for 7" and 12" discs \$950

ROTEL

850 Belt-Drive Turntable

Pivoted-arm turntable features 33.33 and 45 rpm; 4-pole hysteresis synchronous motor. W&F 0.03% wrms; max tracking error $+2.35$ to -1.3° ; S/N 70 dB (DIN-B); 17" W x 5.31" H x 12.75" D \$399

RP830. Similar to RP850 except S/N 65 dB (DIN-B). Includes cartridge \$289

SANSUI

XP-99 Automatic Turntable

Silent-synchrotor quartz-servo programmable direct-drive turntable. Features pivoted arm; 33.33 and 45 rpm; quartz lock. W&F 0.012% wrms. 16.94" W x 6.81" H x 16.47" D (dustcover down); 20.3 lbs \$500

P-L95R Auto-Reverse Turntable

Automatic direct-drive turntable with auto-reverse. Features linear tracking; quartz-lock; 33.33 and 45 rpm; front-loading powered drawer; auto side and speed selector; programmable repeat; sampling of each track; plays both sides without turnover. W&F 0.08% wrms; S/N 72 dB A-wtd; 17.12" W x 5.16" H x 14" D \$475

P-L75 Linear-Tracking Turntable

Features 8-selection random programming; FG-servo direct drive; speed-lock indicator; phono cartridge; Compu Edit for use with some Sansui amplifiers/receivers for one-touch operation. W&F 0.028% wrms; rumble -72 dB DIN-B. Black or silver \$330

PE-750 Linear-Tracking Turntable

Direct-drive automatic turntable with random programming of up to 8 tracks, Compu-Edit, and Introskip. Operable with Sansui system remote control. Features 33.33 and 45 rpm; cueing lever. 15" W x 3.81" H x 14" D \$270

PE-350. Similar to PE-750 except P-mount without programming capability \$200

P-L45 Linear-Tracking Turntable

Automatically adjusts for record size. Features FG-servo direct drive; speed-lock indicator; Compu Selector System; plug-in cartridge connector. W&F 0.028% wrms; rumble -72 dB DIN-B. Black or silver \$210

P-L35. Similar to P-L45 without auto size selector \$200

P-D15 Semiautomatic Turntable

Direct-drive FG-servo turntable with speed-lock indicator. Features Compu Selector System; straight tonearm, plug-in cartridge connector. W&F 0.038% wrms; rumble -72 dB DIN-B. Black or silver \$155

SHERWOOD

ST877 Direct-Drive Turntable

Semiautomatic turntable with pivoted arm and direct-drive DC-servo motor. Features 33.33 and 44 rpm; strobe; P-mount compatible; variable speed control; cueing lever. W&F 0.55% wrms; effective tonearm length 225 mm; max tracking error $+2.5^\circ$, -1° . 17.36" W x 4.88" H x 14.25" D (dustcover down); 12 lbs \$200

ST875 Semiautomatic Turntable

Belt-drive turntable with push-button cueing, auto reject, auto return, and DC-servo motor. Features pivoted arm; P-mount compatible; 33.33 and 45 rpm. W&F 0.08% wrms; effective tonearm length 225 mm; max tracking error $+2.6^\circ$, -1° . 17.36" W x 4.88" H x 14.25" D (dustcover down); 11 lbs \$150

SONY

PS-X555ES Turntable

Linear-tracking, fully automatic turntable with biotracer tonearm. Features direct-drive, PLL, quartz-lock; 33.33 and 45 rpm; height adjustable, gel-filled feet; universal headshell. W&F 0.025%; S/N -75 dB A-wtd; effective tonearm length 3"; max tracking error $\pm 0.05^\circ$; 17" W x 3.62" H x 15" D; 27 lbs \$420

PS-FL7II Automatic Turntable

Front-loading linear-tracking automatic turntable. Features direct drive, PLL, quartz-lock, P-Mount compatible; 33.33 and 45 rpm; r/c capability, stackable top. W&F 0.03%; S/N 75 dB A-wtd; effective tonearm length 3 inches; max tracking error $\pm 0.1^\circ$; 17" W x 3.88" H x 15.12" D; 16 lbs, 9 oz \$270



Sony PS-LX520

PS-LX520 Automatic Turntable

Fully automatic linear-tracking turntable. Features direct drive, PLL, quartz-lock, P-Mount compatible, 33.33 and 45 rpm; gel-filled feet; r/c capable. W&F 0.035%; S/N 75 dB A-wtd; effective tonearm length 3 inches; max tracking error $\pm 0.1^\circ$; 17" W x 3.62" H x 14.36" D; 11 lbs, 1 oz \$200

PS-LX430 Belt-Drive Turntable

Automatic P-mount turntable with pivoted arm, 33.33 and 45 rpm, cueing lever, anti-resonance base, disc size selector, r/c capability. W&F 0.046%; rumble 70 dB. 17" W x 4.5" H x 14" D (dustcover down); 9 lbs \$130

PS-LX230 Semiautomatic Turntable

Belt-drive turntable with pivoted arm, 33.33 and 45 rpm, cueing lever, anti-resonance base, disc size selector. W&F 0.045%; rumble 70 dB. 17" W x 4.5" H x 14" D (dustcover down); 7.75 lbs \$100

SOTA INDUSTRIES

Sapphire Turntable

Manual 2-speed belt-drive turntable with variable speed control and strobe. Heavyweight (22 lb) subassembly for maximum isolation; exclusive inverted bearing with sapphire disc; single piece (11 lb) platter, rim drive. W&F 0.02% wrms; rumble -84.5 dB; 20.5" W x 7.5" H x 16.25" D 44 lb; oak finish \$895
 African rosewood \$995

Star Sapphire. As above with vacuum hold-down system: low-level pressure, continuous through play, adjustable vacuum. Includes acrylic vacuum supermat. All-wood top and speed control panel; heavy-duty dustcover, oak finish \$1,600
 African rosewood \$1,750
 Black lacquer \$1,800

TECHNICS

SL-M3 Automatic Turntable

Direct-drive fully automatic 33.33- and 45-rpm turntable. Features quartz lock; PLL; P-mount compatible; variable speed control; strobe. W&F 0.008% wrms; rumble -82 dB; effective tonearm length 238 mm; max tracking error within $\pm 0.05^\circ$; 20.09" W x 8.06" H x 16.09" D (dustcover down); 33.1 lbs \$450

SL-1200MKII Disco Turntable

Quartz-controlled, direct-drive disco-type 33.33- and 45-rpm manual turntable with tonearm. Features $\pm 8\%$ quartz-locked pitch control; quick startup/breaking; pop-up stylus illuminator; gimbal-suspended tonearm with height adjustment; brushless DC motor; aluminum die-cast cabinet; antiresonant viscoelastic main base. W&F 0.025% \$400

SL-M2 Manual Turntable

Quartz-locked direct-drive turntable. P-Mount compatible, 33.33 and 45 rpm, variable speed control with optical sensor for end of record pickup. W&F 0.008% wrms; rumble -82 dB; effective tonearm length 230 mm; max tracking error $+2.32^\circ$ \$400

SL-MA1 Automatic Turntable

Direct-drive turntable. Features PLL; quartz lock; P-mount compatible; 33.33 and 45 rpm. W&F 0.012% wrms; rumble -80 dB; effective tonearm length 230 mm; max tracking error $+0^\circ 32'$ at inner groove of record and $+2^\circ 32'$ at outer groove of record; 17.22" W x 6.69" H x 16.06" D (dustcover down); 19.8 lbs \$350

SL-D500 Automatic Turntable

Automatic belt-drive multi-disc FG-servo turntable. Features changer, pivoted arm, P-Mount compatible, 33.33 and 45 rpm, variable speed control with strobe. W&F 0.045% wrms; rumble -70 dB; 16.94" W x 7.25" H x 14.09" D; 13 lbs \$205

SL-J33 Programmable Turntable

PLL direct-drive automatic turntable allows up to 8 tracks to be played in any order. Indicates

TURNTABLES

number of tracks on album side and which track is playing. Remote control capable through selected Technics receivers. Features linear tracking; quartz lock; P-mount capability; 33.33 and 45 rpm; front-panel feather-touch controls; cueing; auto stylus muting. W&F 0.012%; rumble -78 dB; effective tonearm length 105 mm; max tracking error $\pm 0.1^\circ$. 12.25" W x 4" H x 12.25" D (dustcover down); 9 lbs \$200

SL-L20 Automatic Turntable

Belt-drive linear-tracking turntable can be operated by remote control through selected Technics receivers. Features front-panel soft-touch controls; cueing; 2-speed search; auto disc-size/speed-detection system to prevent tonearm from lowering on empty mat; P-mount compatibility; 33.33 and 45 rpm. W&F 0.045% wrms; rumble -70 dB; effective tonearm length 105 mm; max tracking error $\pm 0.1^\circ$. 17" W x 3.74" H x 13.75" D (dustcover down) \$165

SL-J11D Linear-Tracking Turntable

Belt-drive automatic turntable with P-mount compatibility; 33.33 and 45 rpm; electronic feather-touch controls; cueing; auto-disc-detection system to prevent lowering of tonearm on empty mat; TNRC anti-vibration cabinet. W&F 0.045% wrms; rumble -70 dB; effective tonearm length 105 mm; max tracking error $\pm 0.1^\circ$. 12.25" W x 4" H x 12.25" D (dustcover down); 7.5 lbs \$160

SL-QD33 Automatic Turntable

Direct-drive P-mount turntable can be operated by remote control through selected Technics receivers. Features 2-motor design to avoid mechanical linkages between tonearm and platter-drive motor; end-of-disc detection; electronic feather-touch front-panel controls; ultra-low-speed brushless DC motor for platter drive; 33.33 and 45 rpm; pivoted arm; quartz lock; strobe. W&F 0.012% wrms; rumble -78 dB; effective tonearm mass 7.5 g; effective tonearm length 230 mm; max tracking error $+2^\circ$. 17" W x 4.5" H x 14.75" D (dustcover down); 10 lbs \$155

SL-QD22 P-Mount Turntable

Semiautomatic direct-drive turntable with 2-motor design to avoid mechanical linkages between tonearm and platter-drive motor; end-of-disc detection system; ultra-low-speed DC brushless motor; pivoted arm; PLL; quartz lock; strobe; 33.33 and 45 rpm; front-panel electronic feather-touch controls; cueing. W&F 0.012% wrms; rumble -78 dB; effective tonearm mass 7.5 g; effective tonearm length 230 mm; max tracking error $+2^\circ$. 17" W x 4.5" H x 14.75" D (dustcover down); 10 lbs \$140

SL-BD1 Manual Turntable

Belt-drive turntable. Features P-Mount compatibility; variable speed control; strobe; 33.33 and 45 rpm. W&F 0.045% wrms; rumble -70 dB; effective tonearm mass without cartridge 7.5 g; effective tonearm length 230 mm; max tracking error $+0^\circ 32'$ at inner groove of record and $+2^\circ 32'$ at outer groove of record; 16.94" W x 3.94" H x 14.75" D; 7.1 lbs \$105

SL-BD10 Manual Turntable

P-mount belt-drive turntable with aluminum die-cast full-gimbal pivot with highly rigid lightweight aluminum tonearm. Features front-panel cueing control; TNRC vibration-isolation base; pivoted arm; 33.33 and 45 rpm. W&F 0.45% wrms; rumble -70 dB DIN B; effective tonearm mass 7.5 g; effective tonearm length 230 mm; max tracking error $+2^\circ$. 17" W x 4.5" H x 14.75" D (dustcover down); 8 lbs \$90

SL-BD22K. Semiautomatic version of SL-BD10 \$105

Turntables Without Tonearms

SP-10MK3 Direct-Drive Turntable

Quartz-synthesizer direct-drive 33.33-, 45-, 78-rpm turntable without tonearm. Features high torque for full speed in 30° of rotation; electronic, mechanical braking for speed change in 0.3 second; ultra-high precision integral rotor-platter quartz direct-drive motor; quartz synthesizer pitch control (0.1% steps to $\pm 9.9\%$ all speeds); separate power supply, remote-control unit. RC unit features numeric LED speed, pitch displays; soft-touch switches (start/stop duplicated on turntable). W&F 0.015% wrms $\pm 0.001\%$; 14.22" W x 14.22" D x 4.44" H; 40 lb turntable; 16.16" D x 6.22" W x 3.16" H, 13.2 lb power supply/control unit \$1,850

SP-10MKZA Direct-Drive Turntable

Quartz-synthesizer direct-drive 33.33-, 45-, 78-rpm turntable without tonearm. Features high torque to bring up to full speed in 25° of rotation; electronic, mechanical braking for speed change in 0.3 second; separate power supply, remote-control unit. W&F 0.025% wrms $\pm 0.035\%$; rumble -70 dB DIN-B; speed drift within $\pm 0.002\%$; 14.49" W x 14.49" D x 4.02" H, 20.9 lb \$1,100

SP-15 Direct-Drive Turntable

Quartz-synthesized direct-drive 33.33-, 45-, 78-rpm turntable without tonearm. Features full speed in 0.4 second (40° of rotation); brake to full stop in 0.4 second (40° of rotation) at 33.33-rpm; $\pm 9.9\%$ quartz-locked pitch control. W&F 0.025% wrms; rumble 56 dB DIN-A, 78 dB DIN-B \$750

SP-25. Similar to SP-15 except no 78-rpm speed. $\pm 6\%$ pitch control \$425

THORENS

All Thorens turntables are belt-driven, single-play units with straight tubular tonearms for lower effective mass; gimbal suspension; antiskate control; 9" effective tonearm length; tracking error $< 0.18"/\text{cm}$ (0.46"/in.).

TD Phantasie Semiautomatic Turntable

Belt-drive 33.33- and 45-rpm turntable with solid plexiglass chassis. Features 16-pole synchronous motor; twin solid-core chassis and three-point leaf-spring suspension; low-mass Iso-Track tonearm with detachable tonearm tube and friction-free velocity sensing auto shut-off triggering system. W&F 0.35%, rumble -52 dB unwtid, -72 dB wtd; 17.36" W x 13.88" D x 6.75" H \$1,200

TD-320. Similar to Phantasie with wood chassis \$500

TD-321. Armless version of TD-320 \$395

TD-126III C Semiautomatic Turntable

Turntable with automatic tonearm lift, motor shutoff. Features 33.33-, 45-, 78-rpm speeds; electronic speed selection; $\pm 6\%$ pitch control; stroboscope; electronic velocity sensor that actuates arm lift; frictionless magnetic antiskating; dustcover. W&F $< 0.035\%$; rumble -72 dB wtd, -51 dB unwtid; 19.88" W x 15.5" D x 6.69" H \$800

TD-126III B. Same as TD-126C MKIII but without tonearm \$645

TD 318 Semiautomatic Single-Play Turntable

Belt-drive 33.33- and 45-rpm turntable with 16-pole synchronous motor. Features floating subchassis suspension system; 9" low-mass, low-friction tonearm; friction-free velocity sensing auto shut-off triggering. W&F 0.04%; rumble

-50 dB unwtid, -706 dB unwtid; gloss black; 6" H x 17" W x 14" D \$350

TD 316. Manual turntable similar to TD 318 without auto lift and shut off \$260

VECTOR RESEARCH

VT-300B Direct-Drive Turntable

Automatic linear-tracking PLL turntable with variable speed control, strobe, cueing lever, P-mount compatible. 33.33 and 45 rpm. W&F 0.07% wrms \$250

VT-280 Automatic Turntable

Automatic belt-drive, linear-tracking turntable. P-Mount compatible. 33.33 and 45 rpm. W&F 0.07% \$180

VT-240 Automatic Turntable

Automatic belt-drive turntable. Features pivoted arm, P-Mount compatible, 33.33 and 45 rpm, variable speed control, strobe, floating subchassis, gold-plated phono plugs. W&F 0.07% \$150

VT-160 Belt-Drive Turntable

Semiautomatic belt-drive turntable. Features pivoted arm, P-Mount compatible, 33.33 and 45 rpm, gold-plated phono plugs. W&F 0.07%; 10 lbs \$99

YAMAHA

PF-1000B Semiautomatic Turntable

Belt-drive pivoted-arm turntable with dynamic balance twin-pipe tonearm; walnut veneer cabinet. Features two-piece platter; 33.33- and 45-rpm speeds; variable speed control $\pm 6\%$. W&F 0.023% wrms; rumble 80 dB; effective tonearm length 8.75"; 18.62" W x 6.12" H x 14.75" D (dustcover down); 30 lbs \$650

PF-800B. Similar except with black vinyl finish, particle-board cabinet. \$495

P-530B Automatic Turntable

Direct-drive turntable with precise gimbal support, phase-locked DC motor, auto disc size selector. P-mount compatible. System remote controlled. Features pivoted arm; 33.33 and 45 rpm; cueing lever. W&F 0.015% wrms; rumble -78 dB; effective tonearm mass without cartridge 12 g; effective tonearm length 8.75". 17.88" W x 4.62" H x 16.12" D (dustcover down); 9.9 lbs \$239

P-520B Automatic Turntable

Direct-drive pivoted-arm turntable with optimum-mass tonearm and disc clamp. Features 33.33- and 45-rpm speeds; P-Mount compatible; variable speed control with strobe. W&F 0.015% wrms; rumble -78 dB; effective tonearm mass without cartridge 11 g; effective tonearm length 8.75"; 17.12" W x 4.36" H x 14.88" D (dustcover down); 13.25 lbs \$219

P-320B. Similar to P-520 except with belt drive \$169

P-220B. Similar to P-520 except semiautomatic with belt drive \$139

PF-50B Automatic Turntable

Direct-drive turntable with three-point floating suspension and knife-edge dynamic-balance tonearm. Features P-Mount compatible; 33.33 and 45 rpm; resonance-absorbing turntable mat; disc clamp/EP adaptor; overhang adjustment gauge. W&F 0.15% wrms; S/N 78 dB A-weighted; effective tonearm mass without cartridge 11 g; effective tonearm length 8.75". 17.12" W x 4.36" H x 14" D (dustcover down); 9 lbs, 14 oz. \$219

PF-30B. Similar to PF-50 except belt-drive \$169

PF-20B. Similar to PF-30 except semi-automatic. standard EP adapter \$139

SPEAKERS



AAL

D9500 Ported Speaker

Floor-standing ported speaker with computer-aided Theil-aligned design. Features sub-bass coupler system; 4-way crossover; 12" cone woofer; two 5" cone sealed-back ferrofluid midranges; 3" cone tweeter; 2.5" horn-loaded quartz supertweeter. FR 32-22,000 Hz \pm 3 dB; min power 5 W; max power 205 W; sens 99.5 dB SPL/W/m; imp 4/8 ohms. 15.94" W x 39.06" H x 14.56" D; 76 lbs; amari walnut woodgrain finish \$1,000/pr

D8500 3-Way Speaker

3-way ported speaker with computer-aided Thiele/Small aligned cabinet. Features 15" polypropylene woofer; 5" sealed-back ferrofluid damped midrange; 1" soft-textile-dome ferrofluid-damped tweeter. FR 37-22,000 Hz \pm 3 dB; min power 5 W rms, max power 205 W; sens 98.5 dB SPL/W/m; imp 4/8 ohms; walnut 18.5" W x 30.24" H x 14.5" D \$980/pr

D5500 Speaker

Floor-standing ported speaker with computer-aided Theil-aligned design. Features 4-way crossover; 12" cone woofer; 5" cone sealed-back ferrofluid midrange; 3" cone tweeter; 2.5" horn-loaded quartz supertweeter. FR 43-22,000 Hz \pm 3 dB; minimum power 5 W; max power 116 W; sens 96.5 dB SPL/W/m; imp 4/8 ohms. 15.5" W x 27" H x 10.25" D; 40 lbs; amari walnut woodgrain finish \$700/pr

D4500 Speaker

Ported speaker with computer-aided Theil aligned design. Features 3-layer voice coil; horn-loaded 2-piece grille design; 10" cone woofer; 5" cone sealed-back midrange; 2.5" horn-loaded quartz tweeter. FR 45-22,000 Hz \pm 3 dB; minimum power 5 W; max power 78 W; sens 95.5 dB SPL/W/m; imp 4/8 ohms. 15" W x 24" H x 10" D; 34 lbs; amari walnut finish \$500/pr

D3500 Speaker

Ported speaker with computer-aided Theil aligned design. Features nonmagnetic tweeter perfect for use near video monitors; horn-loaded 2-piece grille design; 8" cone woofer; 2.5" horn-loaded quartz tweeter. FR 60-20,000 Hz \pm 3 dB; minimum power 5 W; max power 42 W; sens 94.5 dB SPL/W/m; imp 4/8 ohms. 11.25" W x 18.5" H x 8" D \$340/pr

ACOUSTAT

Model Eight Speaker System

Similar to Model Two+Two below except utilizes 2 MK-121 drive units and requires 2 stereo amps. Can produce concert-hall levels in very large rooms. FR 24-20,000 Hz \pm 2 dB; min power 50 W x 4; nominal imp 6 ohms; 96" H x 36" W x 4" D; 210 lbs \$5,199/pr

Model Six. Similar to Model 8 except FR 26-20,000 Hz; 28" W x 3.5" D; 150 lbs \$4,149/pr

Model Two+Two Speaker System

Full-range-element electrostatic speaker with patented MK-121 drive system in floor-ceiling vertical-line-source design. FR 28-20,000 Hz \pm 2 dB; max output 115 dB SPL at 22 ft; min power 50 W; nominal imp 4 ohms; 96" H x 20" W x 3.5" D; 105 lbs \$2,399/pr

Model Three. Similar to Model Two+Two except FR 30-20,000 Hz; 70 W min power; sens 110 dB SPL at 18 ft; 72" H x 28" W x 3.5" D; 75 lbs \$1,995/pr

Model One+One. Similar to Model Two+Two but half the width. FR 30-20,000 Hz \pm 2 dB; min power 70 W; 93" H x 11" W x 3.5" D; 72 lbs \$1,549/pr

Model One Speaker System

Single-panel speaker; hybrid system with 18" satellite woofer cube; FR 30-18,000 Hz \pm 3 dB; min power 75 W; imp 4 ohms; 72" H x 11" W x 3.5" D; 65 lbs \$1,249/pr



AR Subwoofer and 19t satellites

ACOUSTIC RESEARCH

Connoisseur Series

MGC-1 Ambience-Subsystem Speaker

Floor-standing acoustic-suspension speaker with delayed ambience subsystem built into enclosure plus MGC-1E control and amplification electronics. Speakers are mirror-imaged pairs consisting of a 4-way passive system and 6-element 2-way active subsystem for delayed ambience radiation. Electronic unit controls system parameters and provides signal processing, delay, and power amplification for delayed ambience subsystem. Two 8" cone woofers, two 4" cone midranges, 1.5" dome tweeters, .75" dome supertweeter. FR (3-dB down point, half power) 39 and 32,000 Hz; power range 25-250 W; sens 88 dB SPL/W/m; imp 4 ohms; 26.25" W x 52" H x 16.12" D. Rosewood finish \$7,100/pr Walnut finish \$3,600/pr

MGC-2. Similar to MGC-1 with delayed ambience subsystem built into enclosure. 10" cone woofer, two 4" cone midranges, 1" titanium tweeter \$4,000/pr

50t 3-Way Speaker

Floor-standing speaker with 12" polypropylene woofer, 6.5" polypropylene midrange, and 1" titanium-dome tweeter. High-density, nonreso-

nant cabinet, walnut finish \$1,100/pr

40t 3-Way Speaker

Floor-standing speaker with 10" polypropylene woofer, 6.5" polypropylene midrange, and 1" titanium-dome tweeter. High-density, nonresonant cabinet with walnut-veneer finish \$825/pr

35t 3-Way Speaker

3-way speaker with 8" polypropylene woofer, 6" polypropylene midrange, and 1" titanium-dome tweeter. High-density, nonresonant cabinet with walnut-veneer finish \$650/pr

19t 2-Way Speaker

2-way speaker with 6" polypropylene woofer and 1" titanium-dome tweeter. Features high-density, nonresonant cabinet with walnut-veneer finish \$650/pr

The Subwoofer

Floor-loaded acoustic-suspension subwoofer with crossover. Two 10" cone drivers in oiled walnut-veneer cabinet. Power range 15-200 W; sens 87.5 dB SPL/W/m; imp 4 ohms. 30.88" W x 16.36" H x 18.5" D; 70 lbs \$600 ea

AR Series

AR 910 4-Way Speaker

Floor-standing speaker with twin side-firing 12" polypropylene woofers, two 6" polypropylene midranges in computer-designed array, and 1" titanium-dome tweeter. Features tetra-helical constant-intensity-radiator tweeter plate; acoustic-lens dispersion control; diffraction-control baffle; solid wood top and bottom. Resonance-dissipation grooves cut into cabinet walls. Available in oak or walnut \$1,800/pr

AR TSW 810 4-Way Speaker

Floor-standing speaker with twin side-firing 10" polypropylene woofers, two 6" polypropylene midranges in a computer-designed array, and 1" titanium-dome tweeter. Features tetra-helical constant-intensity-radiator tweeter plate; acoustic-lens dispersion control; diffraction-control baffle; solid wood top and bottom. Resonance-dissipation grooves cut into cabinet walls. Available in oak or walnut \$1,500/pr

AR TSW 610 3-Way Speaker

Floor-standing speaker with 12" polypropylene woofer, 6" polypropylene midrange, and 0.75" titanium-dome tweeter. Features tetra-helical constant-intensity-radiator tweeter plate; acoustic-lens dispersion control; diffraction-control baffle; solid wood top and bottom. Resonance-dissipation grooves cut into cabinet walls. Available in oak or walnut \$850/pr

AR TSW 510 3-Way Speaker

Floor-standing speaker with 10" polypropylene woofer, 6" polypropylene midrange, and 0.75" titanium-dome tweeter. Features tetra-helical constant-intensity-radiator tweeter plate; acous-

SPEAKERS

tic-lens dispersion control; diffraction-control baffle; solid wood top and bottom. Resonance-dissipation grooves cut into cabinet walls. Available in oak or walnut \$675/pr

AR TSW 410 3-Way Speaker

Floor-standing acoustic-suspension speaker with 10" polypropylene woofer, 6" polypropylene midrange, and 0.75" titanium-dome tweeter. Features tetra-helical constant-intensity-radiator tweeter plate; acoustic-lens dispersion control; diffraction-control baffle; solid wood top and bottom. Resonance-dissipation grooves cut into cabinet walls. Available in oak or walnut \$530/pr

AR TSW 310 3-Way Speaker

Bookshelf speaker with 8" polypropylene woofer, 6" polypropylene midrange, and 0.75" titanium-dome tweeter. Features tetra-helical constant-intensity-radiator tweeter plate; acoustic-lens dispersion control; diffraction-control baffle; solid wood top and bottom. Resonance-dissipation grooves cut into cabinet walls. Available in oak or walnut \$465/pr

AR Powered Partner Speaker

Acoustic-suspension bookshelf 2-way speaker with shielded drivers for use with TV and personal stereo systems. Features built-in equalized amp; on/off switch; volume and tone controls; AC/DC inputs; 4" woofer; 1" tweeter. Can be placed on top or near TV, hung on a pole, mounted on wall, or clamped to a shelf with optional clamps. FR 50-25,000 Hz ± 3 dB; imp 10 kilohms. Black aluminum finish. 10.5" W x 6" H x 7.62" D; 7 lbs ea \$360/pr

AR TSW 210 2-Way Speaker

Bookshelf speaker with 8" polypropylene woofer and 0.75" titanium-dome tweeter. Features tetra-helical constant-intensity-radiator tweeter plate; acoustic-lens dispersion control; diffraction-control baffle; solid wood top and bottom. Resonance-dissipation grooves cut into cabinet walls. Available in oak or walnut \$320/pr

AR1MS Miniature Speaker

Acoustic-suspension speaker with rigid deep-drawn aluminum cabinet. Threaded inserts on rear allow multiple mounting options. 4" cone woofer; 1" dome tweeter. FR 95-25,000 Hz ± 3 dB; power range 7-75 W; sens 95 dB SPL/W/m; imp 4 ohms; satin black finish; 4.75" W x 7.62" H x 4.8" D; 4.5 lbs \$270/pr

AR Rock Partner 2-Way Speaker

Acoustic-suspension floor-standing or bookshelf speaker with 8" long-throw woofer, 1.25" liquid-cooled cone tweeter. Triangular shaped with versatile mounting placements and options. FR 65-22,000 Hz ± 3 dB; max power 100 W rms; sens 88 dB SPL/W/m; imp 8 ohms. Black vinyl veneer. 9.5" W x 14.75" H x 8.75" D; 15 lbs ea \$265/pr

AR TSW 110 2-Way Speaker

Bookshelf speaker with 6" polypropylene woofer and 0.75" titanium-dome tweeter. Features tetra-helical constant-intensity-radiator tweeter plate; acoustic-lens dispersion control; diffraction-control baffle; solid wood top and bottom. Resonance-dissipation grooves cut into cabinet walls. Available in oak or walnut \$243/pr

ADS

400 Miniature Speaker

2-way acoustic-suspension speaker with 7" Stiffite high-compliance ultra-long-excursion cone woofer, 1" soft-dome tweeter; drivers are diffraction-corrected and flush-mounted. Fea-

tures high-grade oak or walnut finish with radius-edged oak/walnut inserts, black convex steel grille. FR 60-20,000 Hz ± 3 dB; crossover at 2 kHz; sens 90 dB SPL/W/m; power rating 50 W nominal, 75 W peak program; nominal imp 4 ohms; 11.75" H x 7.62" W x 7.75" D; walnut and oak finish. Available in pairs only \$420/pr

300W Miniature Speaker System

Acoustic-suspension 2-way speaker system with 5.25" high-compliance, long-excursion Stiffite woofer, 1" soft-dome tweeter; drivers diffraction-corrected and flush-mounted. Features walnut-veneer cabinet with radius-edged solid walnut corner inserts, acoustically transparent black metal grille in complementary finish. FR 65-20,000 Hz ± 3 dB; crossover 2.0 kHz with 12-dB/octave slope; sens 89 dB SPL/W/m; power rating 50 W nominal, 75-W peak program; imp 4 ohms; 8.62" H x 6.88" D x 6.88" W. Available in pairs only \$370/pr

300CC Miniature Speaker

2-way acoustic-suspension speaker with 5.25" high-compliance long-excursion Stiffite woofer, 1" soft-dome tweeter. Features aluminum enclosure (black textured urethane with convex-steel grille). FR 65-20,000 Hz ± 3 dB; crossover 2,000 Hz with 12 dB/octave slope; sens 89 dB SPL/W/m; rated input 50 W continuous, 75 W peak program; imp 4 ohms. Also available on special order in 6 custom colors with matching grilles and brackets (red, light grey, dark grey, beige, mocha, white) 8.36" H x 5.88" W x 5.75" D \$370



ADS L780 Series 2

200CC Miniature Speaker

2-way acoustic-suspension speaker with 4" high-compliance ultra-long-excursion woofer, 1" soft-dome tweeter. Features brushed-aluminum enclosure (black textured urethane with convex-steel grille). FR 85-20,000 Hz ± 3 dB; crossover 2,000 Hz with 12 dB/octave slope; sens 88 dB SPL/W/m; rated input 30 W continuous; min input 5 W; imp 4 ohms. Also available on special order in 6 custom colors with matching grilles and brackets (red, light grey, dark grey, beige, mocha, white) 6.88" H x 4.25" W x 4.75" D \$280

Series 2

L1590 Tower Speaker

Floor-standing acoustic-suspension speaker with glass-fiber damping and separate chamber for each woofer. Features optional PAL biampifier/crossover module installs in recess in rear of speaker; tweeter and midrange wet wound, single-layer high-temperature voice coil assembly; magnetic fluid cooling; woofers are high compliance with tapered damped Stiffite cones with butyl; rubber surrounds wet wound, two layer, high temperature linear-drive voice coil assemblies in extended pole-magnet structures; two 10" cast basket high compliance woofers; 2" woven soft-dome damped midrange; 0.75" woven soft-dome damped

tweeter. FR 28-27,000 Hz ± 3 dB; maximum power 500 W; sens 90 dB SPL/W/m; imp 8 ohms; 11.5" W x 47.3" H x 14.2" D; 100 lbs; black finish \$2,100/pr
Walnut finish \$2,200/pr
Rosewood finish \$2,600/pr

L1290 Tower Speaker

Acoustic-suspension 3-way monitor speaker with two 8.25" high-compliance Stiffite woofers in separate chambers, 2" soft-dome midrange, 0.75" magnetic-cooling-fluid soft-dome tweeter. Features single-switch biamp conversion; tweeter level switch; removable black metal grille. FR 40-27,000 Hz ± 3 dB; crossovers 500 and 5k Hz; sens 90 dB SPL/W/m; power rating 300 W max; nominal imp 8 ohms; 41.9" H x 10.5" W x 11.9" D; walnut-veneer finish \$1,400/pr
Black finish \$1,350/pr

L1090 Tower Speaker

3-way acoustic-suspension speaker system with 2 7.25" high-compliance Stiffite cone woofers in separate chambers, 2" soft-dome midrange, 0.75" magnetic-cooling-fluid soft-dome tweeter. Features high-grade walnut veneer or black finish and removable black metal grille. FR 44-27,000 Hz ± 3 dB; crossovers 550 and 5 kHz; sens 89 dB SPL/W/m; power rating 175 W max; nominal imp 8 ohms; 37.4" H x 9.5" W x 10.7" D. Walnut-veneer finish \$1,100/pr
Black finish \$1,050/pr

L880 Bookshelf Speaker

3-way acoustic-suspension speaker with 10" Stiffite long-excursion woofer, 2" soft-dome midrange, 0.75" magnetic-cooling-fluid soft-dome tweeter. Tweeter level switch; genuine walnut or black finish with black metal grille. FR 40-27,000 Hz ± 3 dB; crossovers 550 and 5K Hz; sens 89 dB SPL/W/m; imp 8 ohms; power 200 W max; 23.1" H x 13" W x 11.7" D. Walnut veneer finish \$850/pr
Black finish \$800/pr

L780 Bookshelf Speaker

Acoustic-suspension 3-way speaker with 8.25" high-compliance long-excursion Stiffite cone woofer, 1.5" soft-dome midrange, 0.75" magnetic-cooling-fluid soft-dome tweeter and midrange; diffraction-corrected and flush-mounted drivers. Features black perforated-steel grille. FR 42-27,000 Hz ± 3 dB; crossovers 650 and 5 kHz; sens 88 dB SPL/W/m; power rating 125 W max; imp 8 ohms; 20.88" H x 12.25" W x 10.5" D; walnut veneer \$680/pr
Black finish \$650/pr

L570 Bookshelf Speaker

Acoustic-suspension 2-way speaker with 8" Stiffite woofer and 1" soft-dome tweeter. Features self-resetting solid-state tweeter protector; high-grade walnut or black finish with removable black convex-steel grille; FR 46-20,000 Hz ± 3 dB; crossover at 1.8 kHz; sens 88 dB SPL/W/m; nominal imp 8 ohms; 20" H x 11.62" W x 10.12" D; walnut veneer finish \$460/pr
Black finish \$430/pr

L470 Bookshelf Speaker

2-way acoustic-suspension speaker with self resetting solid-state tweeter protectors. Features 7" Stiffite woofer and 1" soft dome tweeter. Walnut, vinyl or black finish. FR 50-20,000 Hz ± 3 dB; crossover at 2 kHz; sens 88 dB SPL/W/m; nominal imp 8 ohms; 16.2" H x 9.9" W x 9.6" D \$340/pr

ADVENT

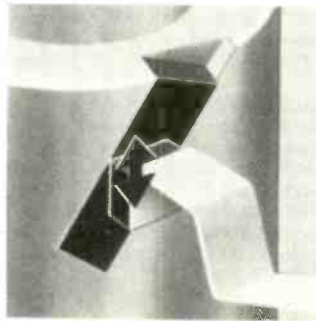
The Advent Maestro

Acoustic-suspension floor-standing speaker

Canton announces significant engineering advances in the science of music reproduction.



Enlarged detail from center of photo: the rigid aluminum ring with obliquely positioned permanent magnets. In front of it, the semiconductor sensor which is linked via a supporting plate with the diaphragm and moves to and from with it.



Motion Feedback:

All loudspeaker systems have an inherent problem. A driver's diaphragm is burdened by mass and reacts to sound impulses with a certain amount of inertia. A time delay exists between the instantaneous sonic impulse and the acceleration and deceleration of the diaphragm. This delay translates into coloration of the source material.

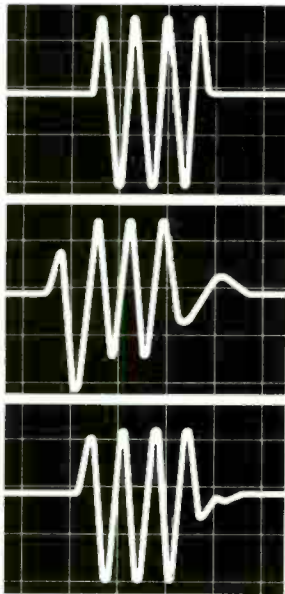
Canton's new CA series, in addition to their advanced power amplifiers, are equipped with a built-in electronic signal correction system which monitors each speaker diaphragm, checking whether its motion corresponds exactly with the impulses of the musical signal at all times. Instantly—within a fraction of a

A "sound burst" (upper curve) as seen on the oscilloscope: fast attack and equally rapid decay of sonic impulses. Here's

what an uncorrected speaker makes of the signal (center curve): there are distinct discrepancies on both incursion and excursion. And here's how the Canton system corrects diaphragm motion (lower curve): to the exact image of the original sound burst, in all but infinitesimal "afterflash."

millisecond—any discrepancies are registered, fed back and corrected via counteraction of the built-in power amplifiers.

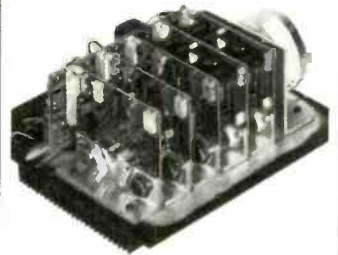
Canton employs a number of new patented processes for driver correction. In the woofer illustrated here, the "Hall Effect" is used. A semiconductor element serving as sensor cuts across the field of a fixed magnet. This creates an electrical voltage related to depth of insertion. Inversely, this "Hall Voltage" is an indicator for the position of the sensor, e.g. the diaphragm. By comparing this actual value with the target value of the musical signal, the control circuitry acquires the impulse needed for any amplifier counteraction. The diaphragm is accelerated or braked accordingly.



The top-of-the-line CA 30 active speaker is a 4-way system powered by 7 internal amplifiers (one for each driver). The woofers are powered by 4x120 Watt amplifiers, the midranges by 2x100 Watt amplifiers and the titanium tweeter by 1x100 Watt amplifier. A total of 780 Watts per CA 30 speaker.

In addition, problems normally associated with passive crossover networks are non-existent due to Canton's advanced MOS-FET electronic crossovers.

Each amplifier is meticulously fine tuned to achieve optimal performance with its associated, companion driver.



With these high standards, all components—not just the signal correction circuitry—incorporate the most sophisticated technical advances. The entire system reflects the design approach customary in industrial electronics like using thick film modules with SMD's (Surface Mounted Devices), bus interface connections, and plug-in card technology for high reliability and performance capability.



Connecting and control elements on rear panel of a CA series active speaker. Each frequency range can be independently boosted or attenuated to compensate for listening room idiosyncrasies.



Since active speakers incorporate their own built-in power amplifiers, all that's needed to drive them is a pre-amp like the new EC-P1 from Canton (pictured above).

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

Advanced Technology

from

CANTON

High Fidelity Made in W. Germany

Canton North America, Inc. 254 First Avenue North Minneapolis, MN 55401 Telephone (612) 333-1150

CIRCLE NO. 33 ON READER SERVICE CARD

SPEAKERS

with solid-pecan top and base with beveled edges; anti-diffraction baffle cover; grille has rounded side edges, beveled top and bottom. Features 10" black cone and surround woofer; 2" mica-filled black polypropylene-dome midrange in subenclosure; 1" ferrofluid-filled soft-dome tweeter. FR 40-23,000 Hz \pm 2.5 dB; min power 150 W rms; max power 750 W peak; sens 90 dB SPL/W/m; imp 6 ohms. 50 lbs. 33.25" H x 16" W x 9.75" D. \$700/pr

The Advent Legacy

Acoustic-suspension floor-standing liquid-cooled speaker with solid-pecan top and base with wrap-around grille. Features 10" high-excursion cone woofer with aluminum coil form; 1" ferrofluid-filled soft-dome tweeter. FR 42-23,000 Hz \pm 3 dB; minimum power 100 W rms; max power 500 W peak; sens 88 dB SPL/W/m; imp 8 ohms. Black texture vinyl finish over dense fiberboard. 46.5 lbs. 28.25" H x 16" W x 9.75" D. \$399/pr

Prodigy Speaker

Liquid-cooled floor-standing speaker with solid-pecan endcaps and wrap-around grille. Features 8" high-excursion surround woofer with aluminum voice coil form; 0.75" ferrofluid-filled soft-dome tweeter with complex crossover network. FR 48-22,000 Hz \pm 3 dB; min power 75 W rms; max peak power 300 W; sens 87 dB SPL/W/m; imp 8 ohms. 13" W x 22" H x 8.62" D; 22 lbs. \$299/pr

The Baby Advent

2-way speaker with 6.5" woofer and 1.75" ferrofluid cone tweeter. FR 60-25,000 Hz \pm 3 dB; imp 8 ohms; sens 87 dB SPL/W/m; max power >150 W peak; 11" W x 16.5" H x 6.75" D; 13 lbs. \$198/pr

ALLISON ACOUSTICS

Prices slightly higher in the West.

Model CD9 Speaker

Three-way stabilized-radiation-loading speaker with 10" woofer, 3.5" convex-diaphragm midrange, 1" convex-diaphragm tweeter, designed for placement on floor, against single wall. Features LC half-section crossover network; switches to select system acoustic power response (flat to concert-hall balance slope); walnut or oak-veneer cabinet with hand-rubbed lacquer finish; steel base. Crossovers 350 and 3,750 Hz; imp 4 ohms; efficiency 0.7% at floor/wall intersection; power range 30-200 W; resonance -3 dB at 35.5 Hz; 37.5" H x 12.5" W x 10.75" D. \$1,100/pr



Allison LC 110

Model CD8 Speaker

Three-way stabilized-radiation-loading speaker with 8" woofer, 3.5" convex-diaphragm midrange, 1" convex-diaphragm tweeter, designed for floor placement. Features LC half-section crossover network with switches to se-

lect system acoustic power response from flat to concert slope. Crossover frequencies 450 and 3,750 Hz; efficiency 0.7%; power range 30-200 W; resonance -3 dB at 39 Hz; 28.62" H x 10.5" W x 10.5" D. Walnut- or oak-veneer cabinet with hand-rubbed lacquer finish. \$790/pr

Model CD7 Speaker System

Two-way stabilized-radiation-loading speaker system with 8" woofer, 1" convex-diaphragm tweeter, designed for placement on floor against single wall. Features LC crossover network that uses premium chokes, computer-grade capacitor; walnut- or oak-veneer cabinet with hand-rubbed lacquer finish. Crossover 2,000 Hz; resonance -3 dB at 41 Hz; imp 4 ohms; power range 15-150 W; 26.5" H x 9.62" W x 9.62" D. \$500/pr

Model CD6 Speaker. Same as Model CD7 except designed for wall or shelf mounting and smaller; resonance -3 dB at 46.5 Hz; 11.25" H x 11.25" W x 11.25" D. \$390/pr

Series LC 100 Speakers

Two-way stabilized-radiation-loading speakers which perform optimally standing on floor away from walls. All have walnut-grain-vinyl cabinet, Allison convex-diaphragm 1" tweeter, LC crossover network with two chokes and premium quality capacitor. Crossover frequency 2,000 Hz; sens 90 dB SPL/2.83 V/m. Power range 15-150 W.

Model LC 120. 8" woofer; resonance 52 Hz. 21.75" H x 13.75" W x 7.5" D. \$320/pr

Model LC 110. 8" woofer; resonance 59 Hz. 18" H x 11.5" W x 7.5" D. \$260/pr



Altec Lansing 201

ALTEC LANSING

501 3-Way Speaker

High-tower speaker with two 10" carbon-fiber woofers, 2" polyimide vacuum-deposited titanium midrange, and 1" tweeter made of same material as midrange. Features hand-rubbed, oiled-finish walnut veneer enclosure. FR 28-22,000 Hz \pm 3 dB; THD from 100 to 22,000 Hz less than 1%; crossover frequencies 550 and 3,500 Hz; power range 150 W nominal to 300 W max; sens 93 dB SPL/W/m; imp 4 ohms. 12" W x 46" H x 13.5" D. \$1,500/pr

401 3-Way Acoustic-Suspension Speaker

Floor-standing speaker with 12" carbon-fiber woofer, 2" polyimide vacuum-deposited titanium midrange, and 1" tweeter made of same material as midrange. Features hand-rubbed, oiled-finish walnut veneer enclosure. FR 35-22,000 Hz \pm 3 dB; THD from 100 to 22,000 Hz less than 1%; crossover frequencies 550 and 3,500 Hz; power range 125 W nominal to 250 W max; sens 93 dB SPL/W/m; imp 8 ohms. 17" W x 32" H x 12" D. \$960/pr

301 3-Way Acoustic-Suspension Speaker

Floor-standing speaker with 10" carbon-fiber

woofer, 2" polyimide vacuum-deposited titanium midrange, and 1" tweeter made of same material as midrange. Features hand-rubbed, oiled-finish walnut veneer enclosure. FR 38-22,000 Hz \pm 3 dB; THD from 100 to 22,000 Hz less than 1%; crossover frequencies 550 and 3,500 Hz; power range 100 W nominal to 200 W max; sens 92 dB SPL/W/m; imp 8 ohms. 14.5" W x 27" H x 12" D. \$750/pr

201 2-Way Acoustic-Suspension Speaker

Floor-standing or bookshelf speaker with 8" carbon-fiber woofer and 1" polyimide vacuum-deposited titanium tweeter. Features hand-rubbed, oiled-finish walnut veneer enclosure. FR 45-22,000 Hz \pm 3 dB; THD from 100 to 22,000 Hz less than 1%; crossover frequency 2,500 Hz; power range 75 W nominal to 150 W max; sens 92 dB SPL/W/m; imp 6 ohms. 12" W x 22" H x 9.5" D. \$500/pr

101 2-Way Acoustic-Suspension Speaker

Bookshelf speaker with 6.5" carbon-fiber woofer and 1" polyimide vacuum-deposited titanium tweeter. Features hand-rubbed, oiled-finish walnut veneer enclosure. FR 50-22,000 Hz \pm 3 dB; THD from 100 to 22,000 Hz less than 1%; crossover frequency 2,500 Hz; power range 50 W to 100 W max; sens 91 dB SPL/W/m; imp 6 ohms. 9.5" W x 17" H x 8.5" D. \$340/pr

APOGEE ACOUSTICS

Apogee Full-Range Ribbon Speaker

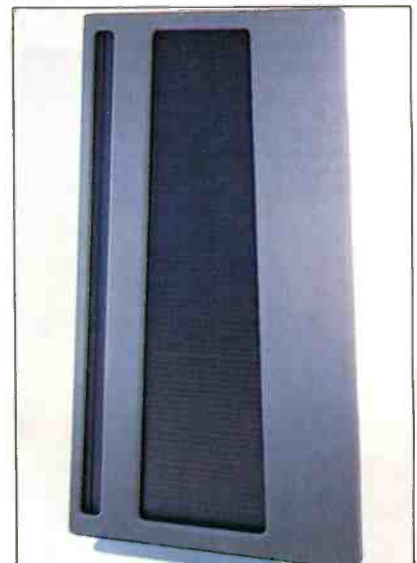
Full-range ribbon speaker with seamless crossover. Features steel framework; trapezoidal woofer panel; 0.5" tweeter ribbon; 2" midrange ribbon. SPL 115 dB; imp 4 ohms; 300 lbs ea. 80.5" H x 35" W x 4" D. \$8,000/pr

Scintilla 3-Way Speaker

Full-range ribbon speaker with internal seamless crossover. Features trapezoidal woofer ribbon; integrated, coalescent midrange/tweeter ribbon uses filed magnetic and electromagnetic constraints. SPL 110 dB; imp 4 or 1 ohms; 140 lbs ea. 57" H x 30" W x 3.5" D. \$3,780/pr

Duetta 2-Way Speaker

Mid-size 2-way full-range ribbon speaker. Utilizes ribbon transducers for both midrange/tweeter and woofer. Features trapezoidal woofer ribbon; combination midrange/tweeter ribbon; internal seamless crossovers. SPL 100 dB; imp 4



Apogee Full-Range Ribbon

A NEW PERSPECTIVE

Stereo is more than just a suggestion of left and right. Ideally, it is the sonic image of an environment, recreating the time and space of a live performance. It's left, right, center and all points in between. It's up, down, near and far.

It's what we call a soundstage. This third dimension (an audible depiction of a recording's spatial cues) is the designer's ultimate goal. At Infinity, it has obsessed us throughout our 18 years of designing and building loudspeakers. Above all, it is a goal which we have approached systematically, through unremitting attention to drivers, cabinets and crossovers.

Traditional driver materials and designs proved inadequate for the accurate rendering of a soundstage. So we developed new materials—like polypropylene compounds and poly-

imide/aluminum films—and used them in drivers with specially contoured cones, domes and planar diaphragms, whose unique structural properties achieve wider bandwidth, quicker transient response and lower distortion than conventional designs.

Since drivers alone don't recreate an image, we have curved the enclosure's front vertical edges so you hear sound radiated directly from the drivers, not

reflections generated by the cabinet. And our elegant, linear-phase crossovers insure seamless transitions from driver to driver.

But we had one more goal in our audible conquest of space: value. Realizing a proper soundstage in our \$45,000 Infinity Reference Standard is one thing, but achieving much of that performance in an affordable bookshelf speaker is another. So we invite you to explore our new RS Series—five models, priced from under \$150 per pair, that affordably allow you to achieve a new perspective...

 Infinity®



SPEAKERS

ohms; 115 lbs/ea. 58" H x 26" W x 3" D \$2,580/pr

Caliper 2-Way Speaker

Mid-size 2-way full-range ribbon speaker. Features trapezoidal woofer ribbon; narrow canted combination midrange/tweeter ribbon; seamless crossover circuitry. SPL 105 dB; imp 3 ohms; 70 lbs ea. Taupe or grey. 48" H x 24" W x 2" D \$1,650/pr



Bang & Olufsen RL140

BANG & OLUFSEN

Beolab Penta Speaker

Speaker with 9 active acoustic drivers and 150-watt amplifier built into each speaker. Features a digital display in each 3-way speaker. 4 bass-reflex woofers, 4 midranges and 1 dome tweeter in a line-source configuration \$2,598/pr

RL140 Speaker

Floor-standing speaker \$800/pr

Beovox S-80.2 Speaker

Three-way speaker in infinite-baffle cabinet with 8" woofer, 3" dome phase-link midrange, 1" tweeter. Features baffle moldings, speaker mounting designed for min diffraction; acoustic centers of drivers aligned on common axis to eliminate phase distortion; crossover network with min phase shift; auto protection for drivers; rosewood-veneered cabinet finish (other finishes available). Max power 80 W rms; distortion 0.7%; dispersion 100° \$600/pr

RL60.2 Speaker

Floor-standing ported speaker. Features wide dispersion; high efficiency; multiple placement; 5.9" x 13" aluminum-diaphragm passive rad; 2 5" Kapilfiber cone woofers; 1" dome tweeter. FR 45-20,000 Hz +4, -8 dB; power range 10-90 W; sens 93 dB SPL/W/m; imp 8 ohms; charcoal black finish; 21.25" W x 16" H x 7" D; 19.6 lbs \$450/pr

CX100 Compact Speaker

Bookshelf box speaker. Features 2 4" cone woofers; 4" dome tweeter. Power range 10-110 W; sens 89 dB SPL/W/m; imp 6 ohms; black or brushed aluminum; 4" W x 12" H x 8" D; 13.5 lbs \$300/pr

B&W

808 Ported Speaker

Floor-standing speaker with two 300-mm thermoplastic cone woofers, two 100-mm polyamide matrix-cone midranges, 32-mm polyamide dome tweeter. Features computer-optimized drivers and cabinet; Audio Powered Overload Circuit; 4th-order Butterworth crossover; sep terminals for bi and triamping. FR 30-20,000 Hz \pm 2 dB; min power 100 W; sens 91 dB SPL/W/m; imp 8 ohms; walnut, or black ash finish; 25.75" W x 41.25" H x 20" D; 180 lbs \$7,500/pr
Rosewood finish \$9,500/pr

Active 1 Speaker

Floor-standing acoustic-suspension speaker with built-in MOSFET 200-W amp for bass/mid drivers and 100-W amp for tweeter. Features two 150-mm bextrene cone woofers (one for lower bass and the other for bass/mid frequencies); 26-mm polyamide tweeter; internal electronic crossovers; Class A operation for first 90 dB of output and Class AB for rest; ideal amp damping of drivers. Includes integral stands. FR 45-18,000 Hz \pm 2 dB. Available in black ash and walnut veneers. 10" W x 33.88" H (with stands); 15.75" D; 66 lbs \$3,394/pr
Rosewood veneer \$3,594/pr

802F.SP Acoustic-Suspension Speaker

Floor-standing speaker with two 165-mm woofers, 100-mm midrange, 26-mm tweeter. Features Butterworth Squared crossovers; APOC; environmental controls; choice of cabinet finishes. FR 55-20,000 Hz \pm 2 dB; power range 50 W-no upper limit due to APOC; 2nd- and 3rd-harmonic distortion <1%. 100-20,000 Hz for 90 dB SPL; sens 85 dB SPL/W/m; 41" H x 14.5" W x 11.75" D; 70 lb. Walnut, teak, or black ash finish \$2,500/pr
Rosewood finish \$2,950/pr

MATRIX Speakers

All MATRIX speakers are acoustic suspension and feature an electronic time delay, overload protection, homopolymer polypropylene bass/mid drivers, and ferrofluid-cooled tweeters. MATRIX enclosure comprised of a honeycomb structure of interlocking perforated cross members bonded to the outer walls and filled with acoustic foam for resonance-free environment.

MATRIX 3. Floor-standing speaker with two 200-mm cone woofers (one for lower bass and other for bass/mid frequencies); 26-mm polyamide tweeter; heavy magnet assemblies in mid/bass drivers (5 lbs ea). FR 70-25,000 Hz \pm 2 dB; min power 25 W rms; no upper power limit due to overload protection; sens 90 dB SPL/W/m; imp 4 ohms. 10.25" W x 35.75" H x 16" D; 64 lbs. Walnut or black-ash finish \$1,998/pr
Rosewood finish \$2,798/pr

MATRIX 2. Bookshelf speaker with 200-mm woofer; 26-mm polyamide dome tweeter. FR 80-25,000 Hz \pm 2 dB; min power 25 W rms; no upper power limit due to overload protection; sens 87 dB SPL/W/m; imp 4 ohms. 10.25" W x 23.5" H x 12.25" D; 35 lbs. Walnut or black-ash finish \$1,398/pr
Rosewood finish \$1,798/pr

MATRIX 1. Bookshelf speaker with 1500-mm cone woofer, 26-mm polyamide dome tweeter. FR 80-25,000 Hz \pm 2 dB; min power 25 W rms; no upper power limit due to overload protection; sens 85 dB SPL/W/m; imp 4 ohms. 9" W x 16" H x 12.25" D; 35 lbs. Walnut or black-ash finish \$998/pr
Rosewood finish \$1,398/pr

The DM17 Limited Speaker

Speaker with top-mounted treble unit time-

aligned to bass/midrange driver. Features bextrene thermoplastic cone; dome-shaped 26-mm-diaphragm high-frequency driver. Pairs are computer-matched to \pm 0.5 dB; resonance-free cabinet; auto protection; min power 40 W; selected veneers of black ash or walnut; FR better than 85-20,000 Hz \pm 2 dB free-field on listening axis at 2 m; imp 8 ohms; sens 85 dB SPL/W/m into 8 ohms; 8.75" W x 10.5" D x 16" H; 19.8 lb \$900/pr

DM1200 Compact Speaker

Acoustic-suspension speaker with 150-mm midwoofer, 26-mm tweeter. Features electronic time delay; overload protection; choice of cabinet finishes. FR 85-20,000 Hz \pm 2 dB; power range 30 W-no upper limit due to overload protection; sens 85 dB SPL/W/m; imp 8 ohms; 14" H x 10.5" D x 8.75" W; 21 lb. Walnut or black ash finish \$770/pr

DM220 3-Way Speaker

Features two 8" drivers (one for lower bass and other for upper bass and midrange frequencies); 1" dome tweeter. Available in American walnut or black ash simulated veneers. Sens 90 dB/SPL/W/m; FR 53-20,000 Hz; power range 10-75 W rms; useful bass cutoff frequency 45 Hz; distortion <3% 2nd harmonic, <0.5% 3rd harmonic; 26.75" H x 11.4" W x 12.6" D; 30.4 lbs \$578/pr

LM-1 Leisure Monitor Speaker

2-way mini speaker with colored nextel finishes and protection against overload. For home and car use. Switchable for 8 or 4 ohms. Available in brown, beige, charcoal, black, or red. Min power 10 W; 4" woofer, 0.88" tweeter \$538/pr



B&W Matrix 1

VM1 Bass-Reflex Speaker

Bookshelf speaker with laser-optimized drivers, computer-optimized cabinet and crossover network, overload-protected high-frequency driver. Features 200-mm critically impregnated composite short-fibre-cone woofer; 26-mm polyamide dome tweeter. Double-magnet assembly with nickel-cobalt center pole magnets virtually eliminates stray magnetic field allowing placement near TV's. FR 70-20,000 Hz \pm 3 dB; min power 5 W rms; max power 75 W rms; sens 90 dB SPL/W/m; imp 8 ohms. Available in simulated black ash finish. 10.25" W x 19.25" H x 9.88" D; 19 lbs \$398/pr

DM110 2-Way Speaker

Vented speaker with 2 drive units. Features 8" woofer crossed over to 1" dome tweeter via 4th-order Butterworth squared circuit that provides

SPEAKERS

frequency division at 3,000 Hz. Sens 90 dB SPL/W/m; FR 70-20,000 Hz \pm 3 dB; recommended power 10-75 W rms; 19.3" H x 10.25" W x 9.8" D; 18.5 lbs \$378/pr

DM100 Acoustic-Suspension Speaker

Bookshelf speaker designed for small rooms. Features laser-optimized drivers, computer-optimized cabinet and crossover network; overload-protected high-frequency driver; 150-mm critically impregnated composite short-fibre-cone woofer; 26-mm polyamide dome tweeter. FR 80-20,000 Hz \pm 3 dB; min power 10 W rms; max power 75 W rms; sens 89 dB SPL/W/m; imp 8 ohms. Available in simulated walnut and black ash finishes. 8.75" W x 14.5" H x 8.25" D; 12 lbs \$258/pr



BES SM275

BES

SM300 Omnidirectional Speaker

Floor-standing 4-way system with dual-polymer diaphragm. Features 360° omnidirectional dispersion; rotary midrange/high-frequency level controls; bi-amplification capability; wood frame. Sens 93 dB SPL/W/m; recommended power 25-250 W continuous; imp 8 ohms; 79 lbs; 53.5" H x 22" W x 6.75" D \$1,500/pr

SM275 Omnidirectional Speaker

Large floor-standing 3-driver system with double computer-designed polymer diaphragm. Features omnidirectional dispersion; midrange/high-frequency rotary level controls; dual circuit breaker. FR 32-22,000 Hz \pm 3 dB; power range 10-200 W; sens 93 dB SPL/W/m; imp 8 ohms; oiled walnut frame; 58 lbs; 20" W x 40" H x 5.75" D \$990/pr

SM90 Indoor/Outdoor Speaker

Multiple-placement weather-resistant indoor/outdoor 2-driver system with single polymer diaphragm. FR 42-19,000 Hz \pm 3 dB; power range 5-125 W; sens 88 dB SPL/W/m; imp 8 ohms; anodized aluminum; 20 lbs; 19" W x 27.75" H x 4.25" D \$600/pr

SM100 Omnidirectional Speaker

Smaller floor-standing 2-way speaker with single polymer diaphragm. Features 360° omnidirectional dispersion; simulated wood frame. Sens 88 dB SPL/W/m; recommended power 5-125 W continuous; imp 8 ohms; 26 lbs; 19" W x 27.75" H x 4.25" D \$499

SM80 Omnidirectional Panel Speaker

Floor-standing 2-driver speaker with acoustic polymer panel for 360° wrap-around sound dispersion. Simulated wood frame; fuse protected.

Power range 5-70 W; sens 88 dB SPL/W/m on all axes; imp 8 ohms; 15" W x 24" H x 4" D; 21 lbs \$369/pr

BOSE

901 Series V Speaker System

Direct/Reflecting acoustic-matrix speaker with Active Equalizer and 8 rear-facing, 1 front-facing 4.5" full-range drivers. Features pentagon-shaped cabinet with multi-cell injection-molded core with particle-board external panels and walnut veneer finish; Active Equalizer with specifically designed fixed EQ; continuously adjustable mid-treble contour control to provide 6 dB of boost/or cut centered at 225 Hz; bass shelf control to provide 6 dB of attenuation at 40 Hz; tape monitor switch. Power range 10 W to unlimited; imp 8 ohms; dynamic range 106 dB; noise 90 dB re 1 V (A-wtd); max input 2.1 V rms at 35 Hz; imp 47 kilohms. Equalizer 13" W x 4.88" D x 2.75" H. Speaker 21" W x 13" D x 12.36" H. Sold only in stereo pairs (equalizer supplied with each pair) \$1,485/pr
Speakers only \$1,385/pr
901 Speaker Pedestals. Black \$100/pr
Bronze \$100/pr

601 Series III 2-Way Speaker

Floor-standing Direct/Reflecting speaker with all tweeters and one woofer mounted above main enclosure in Free Space Array configuration for lifelike stereo imaging. Features two 8" Digital Dynamic Range cone woofers; four 3" cone tweeters; support enclosure system with slotted port. Crossover points at 1,500 and 2,500 Hz. Min power 10 W; max power 200 W; sens 87 dB SPL/W/m; imp 8 ohms. Hardwood veneer with walnut finish. 12.31" W x 30" H x 12.5" D; 45 lbs \$1,026/pr



Bose 102

501 Series IV 2-Way Speaker

Direct/Reflecting acoustic-suspension floor-standing speaker system with two 3" tweeters mounted in Free Space array and 10" long-excision woofer. Features dual-frequency crossover to allow woofer and tweeter to operate simultaneously over a full octave; thermal-system protection circuit; teak-grain vinyl veneer finish. Crossover 1.5 and 2.5 kHz; power range 20-125 W continuous; imp 8 ohms; 25" H x 16" W x 14" D. Sold only in stereo pairs \$750/pr

301 Series II 2-Way Speaker

Direct/Reflecting ported bookshelf speaker system with 8" woofer, two 3" tweeters in Free Space Array. Features dual-frequency crossover

to allow woofer and tweeter to operate simultaneously over nearly a full octave; tweeter protection circuit; particle-board cabinet with walnut-grain vinyl veneer finish. Transition frequencies 3 kHz woofer, 1.2 kHz tweeter; power range 10/60 W/ch continuous; impedance 8 ohms; 17" W x 10.5" H x 9.5" D. Sold only in stereo pairs \$422/pr

101 Music Monitor

Indoor/outdoor ported speaker. Features high-impact polystyrene copolymer cabinet for environmental applications; 4.5" full-range passive-radiator speaker with integrated electronics per enclosure; optional multi-purpose mounting arms and push style brackets available at extra cost. Power range 10-60 W; black or white with white, blue, red, or green grilles; 10 lbs/pr; 9" W x 6" H x 5" D \$199-\$219/pr

EM-1 RoomMate Powered Speaker

Pair of speakers with stereo amp in one to accept output of pocket stereo and portable CD player through audio cable. 4.5" full-range driver with helical voice coils in each speaker. Features active EQ; distortion-limiting circuitry; AC powered. Power supply 25-W transformer; enclosure of structural polypropylene composite. Peak SPL 3,000 Hz pink noise at 1 meter, 101 dB. Each speaker 6" x 9" x 6"; 10 lbs. Black or white finish \$229/pr
MMA-2. Mounting arms \$40/pr
TB-1. Travel bag \$40
WB-10. Wall bracket \$20/pr

Video RoomMate Powered Speaker

Bass-reflex bookshelf speaker for use with any VCR, TV, monitor, or LaserDisc player. Features 4.5" fully shielded full-range helical-voice-coil driver; fully shielded electronic amplification/active equalization system; dual-tuned ports; 6-ft RCA cable; volume control; mono 4-conductor. Grey enclosures with black baffle and silver/grey grille. Input imp 30 kilohms; acoustic output 100 dB SPL with 300-3,000 Hz pink noise at 1 meter. 6" W x 9" H x 6" D \$279/pr
MM-2. Mounting arms \$40/pr
WB-10. Wall bracket \$20/pr

Point Two Series

10.2 Speaker

Floor-standing ported speaker with two 8" cone woofers and two 3" cone tweeters. Features Stereo Everywhere technology; Stereo Targeting system; automatic system protection; Syncom II computer quality control. Power range 10-180 W; sens 88 dB SPL/W/m; imp 4 ohms; genuine hardwood veneer, waxed teak; 12" W x 39.75" H x 12" D; 61 lbs \$1,199/pr

8.2 Speaker

Floor-standing ported speaker with 10" cone woofer and two 3" cone tweeters. Features dual-chamber design; Stereo Targeting system; Stereo Everywhere technology; ducted port enclosure; automatic system protection circuit; Syncom II computerized quality control. Power range 10-120 W; sens 86 dB SPL/W/m; imp 4 ohms; teak vinyl; 16" W x 33" H x 9.25" D; 41 lbs \$949/pr

6.2 Bass-Reflex Speaker

Bookshelf speaker with controlled-dispersion-pattern design for Stereo Everywhere performance. Features 8" woofer; two 3" tweeters; Stereo Targeting system; dual-chamber sub-ported bass venting system; interactive crossover network; hardwood veneer with teak finish. Min power 10 W rms; max power 100 W rms; imp 4 ohms. 20" W x 10" H x 9.62" D; 19.5 lbs. Optional speaker stand (AS-1) available at extra cost \$599/pr

SPEAKERS

BOSTON ACOUSTICS

T Series Speakers

T1000 3-Way Speaker

Floor-standing acoustic-suspension speaker with two active 8" copolymer-cone woofers; 6.5" copolymer-cone midrange in an internal subenclosure; 1" CFT ferrofluid-cooled tweeter. Tower design in tall slender enclosure requires minimum floor space. Oak and walnut veneers. FR 38-25,000 Hz \pm 3 dB; min power 15 W rms; max power 150 W rms; sens 90 dB SPL/W/m; imp 8 ohms. 10.25" W x 42.5" H x 11.5" D \$1,200/pr

T830 3-Way Speaker

Floor-standing acoustic-suspension speaker with 8" copolymer-cone woofer; 3.5" copolymer-cone midrange; 1" Textlite dome tweeter. Tapered grille designed to eliminate sonic diffraction. FR 45-20,000 Hz \pm 3 dB; min power 15 W rms; max power 75 W rms; sens 90 dB SPL/W/m; imp 6 ohms. 10" W x 29" H x 10.5" D \$450/pr

A Series Speakers

A400 3-Way Speaker

4-driver speaker with dual 8" woofers, 6.5" midrange unit in its own internal subenclosure; 1" copolymer dome CFT/1 tweeter; crossover frequency 300 Hz from woofer to midrange. Oak or walnut \$900/pr

A150 Series II Speaker

3-way speaker with 10" acoustic-suspension woofer, 1" CFT/1 dome tweeter and 3.5" midrange. FR 38-25,000 \pm 3 dB; imp 8 ohms; crossovers 650 and 3,000 Hz; power handling 100 W (DIN 45 573); 32.5" H x 16" W x 8.36" D. Oak or walnut veneers \$600/pr
Woodgrain vinyl finish \$500/pr

A100 Series II Speaker

2-way acoustic-suspension speaker with 10" low-frequency driver and 1" CFT high-frequency unit. Features self-damped copolymer-dome and magnetic-fluid convection cooling of CFT voice-coil structure; woodgrain vinyl-veneered cabinet; black pedestal base standard. FR 38-25,000 Hz \pm 3 dB; crossover at 2,000 Hz; power handling 75 W (DIN 45573). 32.5" H including base; 16" W x 8.36" D \$390/pr

A70 2-Way Speaker

Acoustic-suspension 2-way speaker with 8" woofer, 1" CFT tweeter with ferrofluid. Features woodgrain-vinyl finish with removable black cloth grille. FR 40-20,000 Hz \pm 3 dB; crossover 2 kHz; sens 90 dB/W/m; min power 15 W; imp 6 ohms nominal; 24" x 14" x 7.75" D \$300/pr

A60 Series II Speaker

Acoustic-suspension speaker. Features 8" polymer cone woofer; 1" Textlite dome tweeter with ferrofluid. FR 52-20,000 Hz \pm 3 dB; power range 10-75 W; sens 90 dB SPL/W/m; imp 8 ohms; woodgrain or black vinyl finish; 11.5" W x 18" H x 7.5" D \$220/pr

A40 Series II Speaker

Bookshelf acoustic-suspension speaker. Features 6.5" polymer cone woofer; 0.75" polymer dome tweeter with ferrofluid. FR 65-20,000 Hz \pm 3 dB; power range 5-50 W; sens 89 dB SPL/W/m; imp 8 ohms; woodgrain or black vinyl finish; 8.25" W x 13.5" H x 7.5" D \$160/pr

A40V Series II Video Speaker

Acoustic-suspension 2-way speaker with 6.5" woofer, 0.75" dome tweeter with ferrofluid. Features MagnaGuard magnetic shielding to allow placement near a TV or video monitor; black vinyl finish; removable black cloth grille. FR

68-20,000 Hz \pm 3 dB; crossover 3.5 kHz; sens 88.5 dB SPL/W/m; min power 5 W; imp 8 ohms; 13.5" H x 8.25" W x 7.75" D \$150/pr



Boston Acoustics A60 Series II

BOZAK

CS-310B Concert Grand Contemporary Speaker

Speaker with 4 B-199B woofers, 2 B-2098 midranges, 8 tweeters in vertical column. FR 16-20,000 Hz; imp 8 ohms; power range 60-350 W; matte walnut enclosure; 52" H x 36" W x 19" D \$3,999/pr

CS-410CL. Same as CS-310B except Classic cabinet \$4,299/pr

CS-410M. Same as CS-310B except Moorish styling \$4,499/pr

Concerto VII CS-501A Speaker

Floor-standing 3-way speaker with 12" high-compliance woofer, 6.5" midrange, 3 tweeters mounted in arc array for improved dispersion. FR 30-20,000 Hz; crossovers 400 and 2.5 kHz at 6 dB/octave; imp 8 ohms; max power 250 W program; walnut cabinet; 30" H x 20.5" W x 16" D \$1,498/pr

CS-400 Speaker

Infinite-baffle 3-way speaker with 12" variable-density woofer, 6" aluminum midrange, 2 aluminum "Z" tweeters. FR 40-20,000 Hz; crossovers 800 and 2.5 kHz; max power 100 W continuous; imp 8 ohms; walnut cabinet; 25.5" H x 18" W x 13.25" D \$898/pr

Digital Music Series

DMS-6000W Speaker

Floor-standing infinite baffle speaker with 12" cone woofer, 6" midrange, 2" cone tweeter, and 1" dome supertweeter. FR 28-21,000 Hz \pm 3 dB; minimum power 10 W rms, max power 200 W rms; sens 94 dB SPL/W/m; imp 8 ohms; genuine oak veneer finish; 80 lbs; 15.5" W x 41" H x 12.5" D \$1,349/pr

DMS-5500W Speaker

Features 12" woofer; 6" midrange; 1" tweeter. FR 30-21,000 Hz \pm 3 dB; Max power 250 W; dark oak wood veneer; 41" H x 12.25" D x 15.5" W \$550

DMS-5500 Speaker

Three-way speaker features 12" woofer; 6" midrange; 1" soft-dome tweeter. FR 30-21,000 Hz \pm 3 dB; nominal impedance 8 ohms; sens 94 dB, 1 W, 1 meter; max power 250 W; dark oak wood veneer; 41" H x 11" D x 15.5" W \$420

DMS-2000 Speaker

Bookshelf bass-reflex speaker with 8" poly-cone woofer and .75" poly-dome tweeter. FR 40-21,000 Hz \pm 3 dB; minimum power 5 W rms; max power 75 W rms; sens 92 dB SPL/W/m;

imp 8 ohms; kumaka laminate; 21 lbs; 10.5" W x 20" H x 8.5" D \$229/pr

Miniature System Series

MB-80 Speaker

2-way speaker with 6" aluminum woofer, and 1" soft plastic dome tweeter. FR 80-20,000 Hz \pm 3 dB; imp 8 ohms nominal, 6 ohms minimum; sens 85 dB SPL/W/m; min power 35 W; max power 250 W; crossover modified 6 dB/octave at 1,600 Hz. 12.5" H x 7.88" W x 7.12" D; 40 lbs/pr; genuine wood veneer, walnut, oak, black \$550/pr

MBS-1 Subwoofer

Variable-density pulp and lamb's wool cone subwoofer with 2 voice coils. Features baffle design; vented cabinet. FR 20-85 Hz \pm 3 dB; imp 8 ohms nominal; sens 88 dB SPL/W/m; min power 25 W; max power 200 W; crossover 12 dB/octave at 80 Hz. 23.5" H x 14.5" W x 12.25" D; 48 lbs; genuine wood veneer, walnut, oak, or black \$400 ea

CANTON

CA 30 Active Speaker

Quad-amplified floor-standing speaker with a differential amp and motional feedback system for each driver section (120 W woofer, 100 W midrange, 100 W tweeter). Features four 260-mm cone woofers; 190-mm cone woofer; 38-mm metal-dome midrange; 25-mm titanium-dome tweeter; Darlington output stage for amps; auto on/off stabilized dual mains supply; electronically controlled protection circuitry. FR 20-30,000 Hz \pm 3 dB; bandwidth 3-140,000 Hz; distortion <0.03%; S/N 100 dB. 15" W x 66.5" H x 16.5" D; 275 lbs \$12,000/pr

CA 10 Active Speaker

Tri-amplified floor-standing speaker with a differential amp and motional feedback system for each driver section (120 W woofer, 100 W midrange, 100 W tweeter). Features 260-mm cone woofer; 120-mm cone midrange; 25-mm titanium-dome tweeter; Darlington output stage for amps; auto on/off stabilized dual mains supply; electronically controlled protection circuitry. FR 20-30,000 Hz \pm 3 dB; bandwidth 3-140,000 Hz; distortion <0.03%; S/N 100 dB. Black-ash or matte-mahogany. 13.4" W x 25.2" H x 13.8" D; 83 lbs \$4,000/pr

CT 2000 Speaker

Modified-reflex floor-standing speaker with 310-mm cone woofer; 120-mm cone midrange; 25-mm dome tweeter. Features screw-plug connectors; 5-meter cable; removable grille; integrated stand. FR 18-30,000 Hz \pm 6 dB; max power 300 W; imp 4 ohms; gloss mahogany, ash black, ash white, or walnut finish; 14" W x 38.6" H x 13.8" D; 100 lbs \$2,300/pr
With gloss black, white, or mahogany finish \$2,700/pr

CT 800 Speaker

3-way shelf and/or floor-standing box-enclosed speaker. Features 260-mm cone woofer; 120 mm-cone midrange; 25-mm dome tweeter. FR 22-30,000 Hz; min power 50 W; max power 150 W; sens 93.4 dB SPL/W/m; imp 4 ohms. 13.8" W x 22.8" H x 13" D; 18.8 kg; black/white ash, Walnut, oak finishes \$1,200/pr
With gloss black, white, or mahogany finish \$1,400/pr

GL 260 Speaker

Weatherproof low-profile 2-way speaker with 160-mm woofer, 25-mm dome tweeter. Features wall-mounting suitability; white or black finish; perforated metal grille. 42-30,000 Hz; crossover



Once again, AR reshapes the future of high fidelity.

No longer do you need to live with components that look more at home in a power station than in your home. No longer need you sacrifice sound quality for some semblance of sound design.

AR, the company that revolutionized loudspeakers with the Acoustic Suspension design, now changes the face of stereo components forever. By combining world-class industrial and electronic design, AR has produced the first audio components as pleasing to the eye as they are to the ear.

The front fascias are gracefully angled, so controls fall readily to hand. Behind a hinged panel, infrequently-used controls are ready when you need them, out of sight when you don't.

AR has reexamined the factors that

really matter to sound quality. That's why AR amplifiers produce high current output for outstanding dynamic headroom. Four-times oversampling gives the AR Compact Disc player absolute phase linearity. And AR's unified remote control adds a final touch of elegance.

No one serious about stereo would buy equipment without listening. Now it's no longer necessary to buy without looking.

AR
ACOUSTIC
RESEARCH

We speak from experience.

CIRCLE NO. 18 ON READER SERVICE CARD

SPEAKERS

1,700 Hz; power range 60 W; distortion <1%; imp 4 ohms; 10.5" H x 7.12" W x 4.75" D \$375/pr
With walnut finish \$425/pr

Plus S Speaker

2-way bookshelf minispeaker suitable as satellite in connection with Canton Plus Beta and Plus C subwoofers. Features 110-mm cone woofer; 25-mm dome tweeter; flush wall mount; removable grille. FR 45-30,000 Hz; minimum power 20 W; max power 80 W; sens 87.2 dB SPL/W/m; imp 4 ohms. 4.72" W x 8.07" H x 3.94" D; 2 kg; black, white, brown finishes \$275/pr
Walnut finish \$400/pr

Karat Series Speakers

300. 3-way bookshelf box-enclosed speaker. Features 260-mm cone woofer; 38-mm dome midrange; 25-mm dome tweeter. FR 25-30,000 Hz; min power 45 W; max power 130 W; sens 90.9 dB SPL/W/m; imp 8 ohms. 12.2" W x 19.7" H x 11.4" D; 13 kg; black, white, walnut finishes \$900/pr

200. 3-way bookshelf box-enclosed speaker. Features 220-mm cone woofer; 28-mm dome midrange; 20-mm dome tweeter. FR 28-30,000 Hz; min power 30 W; max power 100 W; sens 89.9 dB SPL/W/m; imp 8 ohms. 10.4" W x 16.5" H x 9.9" D; 9.5 kg; black, white, walnut finishes \$725/pr

100. Compact 3-way bookshelf box-enclosed speaker. Features 200-mm cone woofer; 28-mm dome midrange; 20-mm dome tweeter. FR 36-30,000 Hz; min power 20 W; max power 80 W; sens 89.7 dB SPL/W/m; imp 8 ohms. 8.7" W x 13.4" H x 8.3" D; 6.5 kg; black, white, walnut, pine finishes \$550/pr

Fonum Series Speakers

200. Acoustic-suspension floor-standing speaker with 260-mm cone woofer, 50-mm Supranyl dome midrange, 25-mm titanium dome tweeter. FR 22-30,000 Hz \pm 3 dB; max power 150 W rms; sens 91.5 dB SPL/W/m; imp 8 ohms. Black or bronze/brown finish. 13.58" W x 21.85" H x 12.80" D; 37 lbs \$899/pr

90. Sealed-box bookshelf speaker. Features 230-mm cone woofer; 28-mm dome midrange; 20-mm tweeter. FR 25-30,000 Hz \pm 6 dB; max power 100 W; sens 88.6 dB SPL/W/m; imp 8 ohms. 12" W x 17" H x 10" D; 20 lbs; black or bronze/brown finishes \$569/pr

30. Sealed-box bookshelf speaker. Features 180-mm cone woofer; 28-mm dome midrange; 20-mm dome tweeter. FR 36-30,000 Hz \pm 6 dB; max power 60 W; sens 87.5 dB SPL/W/m; imp 8 ohms. 9" W x 13" H x 8" D; 13 lbs; black or bronze/brown finishes \$389/pr

Subwoofers

Plus Beta Active Subwoofer

Floor-standing biampified woofer system containing amplification for satellites and subwoofer. Features 310-mm cone woofer; signal-correction circuit; thermal overload; short-circuit protection; bass level control; adjustable crossover; adjustable input sens; auto on/off; terminals and switching for up to 4 satellite speakers. FR 20-70/90/120 Hz \pm 3 dB; amp output power 140 W ea; THD and <0.1%. Black, white, or walnut finish. 13.5" W x 15" H x 15" D; 50 lbs \$1,500 ea

Plus C Subwoofer

Compact passive 310-mm cone subwoofer for use in connection with satellites such as Canton Plus S. FR 22-120 Hz; min power 35 (2x) W; max power 75 (2x) W; sens 89.9 dB SPL with 1 W input measured at 1 m; imp 4 ohms. 14.7" W

x 13.4" H x 13.8" D; 10.5 kg; black, white, walnut finishes \$500 ea

CARVER

The Amazing Loudspeaker

Floor-standing speaker with ribbon-line-source drivers to produce articulate sound through low mass, high efficiency, and high speed. Features 4 planer subwoofers within panels for low frequencies and high-speed ribbon-line-source driver for mid to high frequencies. Min power 100 W rms; max power 350 W rms; sens 91 dB SPL/W/m; imp 5 ohms. Available in a black finish. 2" W x 5" H x 4" D; 160 lbs. . . \$1,536/pr

CELESTION

SL600 2-Way Speaker

Acoustic-suspension speaker with 1.25" copper-alloy dome tweeter, VHP woofer. Features honeycomb aluminum cabinet for minimal resonance \$1,250/pr

SL6S. Similar to above. Two-way speaker with aluminum one-piece tweeter and dual-surround woofer; figure 8 braced cabinet. Features gold-plated terminals \$900/pr

DL10 3-Way Speaker

Bass-reflex speaker with separate midrange enclosure. 10" woofer, 6.5" midrange; 1.25" aluminum hard-dome tweeter. American walnut finish. Crossovers at 530 and 3,800 Hz; power range 10-150 W; sens 90 dB/W 48-20,000. 29" H x 14" W x 12" D; 42.5 lbs ea \$900/pr

Ditton 250 3-Way Speaker

Acoustic-suspension 3-way speaker with Ultra 1" dome tweeter; 5" cone midrange; 8" PVC-surround woofer. Features flush-mounted, vertically aligned drivers; walnut cabinet; 22.5" H x 11.5" W x 9.5" D \$600/pr

DL8 2-Way Speaker

Sealed cabinet speaker with 8" fiber-cone woofer and 1" metal-foil (aluminum hard-dome) tweeter. American walnut finish, dark-brown cloth over front panel; gold-plated terminals; rigid cabinets. Crossover at 2,500 Hz; power range 10-150 W; sens 89 dB/W 50-20,000 Hz; imp 8 ohms. 500 mm H x 275 W x 278 D. . . \$550/pr

Ditton 110 2-Way Speaker

Acoustic-suspension speaker with Ultra dome tweeter, 8" long-throw PVC-surround woofer. Features vertically aligned, flush-mounted drivers; walnut vinyl cabinet; 17" H x 10" W x 8.25" D \$400/pr

DL6 2-Way Speaker

Bass-reflex (rear port) speaker with 8" fiber woofer and 1" plastic-foil soft-dome tweeter. American walnut finish, dark-brown cloth over front panel; gold-plated terminals; rigid cabinets. Crossover at 2,500 Hz; power range 10-100 W; sens 89 dB/W 60-20,000 Hz; imp 8 ohms. 454 mm H x 245 W x 262 D \$440/pr

DL4 2-Way Speaker

Bass-reflex (rear port) speaker with 6.5" fiber woofer and 1" plastic-foil soft-dome tweeter. American walnut finish, dark-brown cloth over front panel; gold-plated terminals; rigid cabinets. Crossover at 2,500 Hz; power range 10-75 W; sens 89 dB/W 70-20,000 Hz; imp 8 ohms. 384 mm H x 208 W x 227 D \$350/pr

Ditton 100 Speaker

Compact 2-way speaker with 6.5" PVC surround woofer; 1" Ultra tweeter. Features vertically aligned flush-mounted drivers; walnut grain vinyl finish; black grille cloth; FR 78-

20,000 Hz; crossover 2,300 Hz; power range 10-40 W; sens 87 dB SPL/W/m; imp 8 ohms; 13" H x 8.25" W x 7.75" D; 9.75 lbs \$260/pr

CERWIN-VEGA

Digital Series Speaker Systems

D-9 Speaker System
Three-way, four-driver, floor-standing speaker with 15" woofer, dual 6" midrange and 1" tweeter. Features Helmholtz/Theile enclosure fabricated from high-density pressed board with woodgrain vinyl finish and acoustically transparent brown stretch grille. FR 29-20,000 Hz; power range 5-350 W; sens 101 dB; imp 4 ohms; crossover frequencies 500 and 3,500 Hz; 35.5" x 18" x 17.75"; 85 lbs \$950/pr

D-5 Speaker System

Floor/shelf 3-way speaker with 12" woofer, 6" cone midrange, 1" horn tweeter. Features circuit protection; tweeter level controls; FR 32-20,000 Hz \pm 3 dB; crossovers 700 and 3.5 kHz; sens 96 dB SPL/W/m; max power 150 W; imp 8 ohms \$630/pr

D-3 Speaker System

3-way shelf speaker with 10" woofer, 6" cone midrange, 1" horn tweeter. Features circuit protection; midrange, tweeter level controls; FR 30-20,000 Hz \pm 3 dB; crossovers 700 and 3.5k Hz; sens 94 dB SPL/W/m; imp 8 ohms; finished in hickory woodgrain vinyl w/brown stretch cloth grille \$530/pr

D-1 Speaker System

2-way system with an 8" woofer and 1" voice-coil high frequency horn. Features resettable high-frequency protection circuit breaker; vented cabinet; hickory woodgrain vinyl with cloth grille. FR 30-20,000 Hz; power min/max 5/100 W; sens 92 dB W/m; 8 ohms imp; crossover frequency 3,000 Hz \$310/pr

2000 Speaker Series

2000-15 Speaker

Three-way floor-standing speaker with 15" cone woofer, six 6" cone midrange drivers, 1" dome tweeter. Features dual acoustical transformer in vertical array, enclosed in vented direct-radiating monolithic cabinet; level controls for midrange and high frequency; integral base for floor placement. FR 29-20,000 Hz \pm 2.5 dB; power range 5-350 W; sens 100 dB SPL/W/m; imp 4 ohms; hand-rubbed walnut finish; 24" W x 50" H x 9.13" D; 111 lbs \$1,400/pr

2000-10 Speaker

Floor-standing speaker with 10" cone woofer, two 6" cone midrange drivers in symmetrical vertical array, 1" dome tweeter with dual acoustical transformer in vented, direct radiating monolith. FR 29-20,000 Hz \pm 2.5 dB; power range 5-125 W; sens 94 dB SPL/W/m; imp 8 ohms; hand-rubbed walnut finish; 15.5" W x 34" H x 8.5" D; 50 lbs \$800/pr

SE Speaker Series

380SE Speaker

Floor-standing bass-reflex speaker with 15" cone woofer, 2 7" polyolefin cone midranges, and 1" VC elliptical tweeter. FR 29-20,000 Hz \pm 3 dB; minimum power 5 W rms, max power 405 W rms; sens 102 dB SPL/W/m; imp 6 ohms; black vinyl; 90 lbs; 17.5" W x 36" H x 19.5" D \$1,080/pr

300SE Speaker

Floor-standing bass-reflex speaker with 12" cone woofer, 7" polyolefin cone midrange, and 1" VC horn loaded dome elliptical tweeter. FR 25-20,000 Hz \pm 3 dB; minimum power 5 W rms,



CAN YOUR SPEAKERS HANDLE THE EXTREMES?

It takes sophisticated engineering and pure craftsmanship to produce speakers that deliver the extremely wide dynamic range of digital recordings. The new EPI Time/Energy Series II speakers deliver *everything* that digital recordings have to offer; their quiet solos, thunderous finales and lightning quick transient response.

All this is made possible by the Time/Energy technology which involves making speaker cones and domes from special two layer materials. The combined physical properties of the two layers provide the performance that gets the most from *any* recording.

A case in point is the new EPI model T/E 280 Series II. It exemplifies the EPI tradition of achieving high levels of performance by using imag-

inative engineering and precision manufacturing, not complex designs and exotic, expensive materials. Its efficiency, power capacity, wide range response and just plain beautiful sound will make even the most die-hard technophile forget the graphs and specs and sit back to revel in the sound. And, with a suggested retail price of \$199.95, forget about what it cost to get it.

There is an EPI Time/Energy speaker for everyone regardless of their listening habits, their electronics or their budget. Each one gives dedicated music lovers the kind of performance, quality and reliability that will keep them listening for years to come. With the Time/Energy speakers you can literally hear today what you'll listen to in the future.

The EPI T/E 280 Series II. One of eight Time/Energy Series II speakers and Time/Energy Monitors offering EPI performance and value with suggested retail prices of from \$99.95 to \$299.95. Epicure Products, Inc., Newburyport, MA 01950, 800-225-7932, in Mass. 800-892-0565.

EPI[®]



SPEAKERS

max power 255 W rms; sens 98 dB SPL/W/m; imp 6 ohms; black vinyl; 65 lbs; 14.5" W x 32" H x 16.25" D \$900/pr

280SE Speaker

Floor-standing bass reflex speaker with 12" cone woofer, 6" cone midrange, and 1" VC horn loaded dome, elliptical tweeter. FR 32-20,000 Hz \pm 3 dB; minimum power 5 W rms, max power 155 W rms; sens 96 dB SPL/W/m; imp 6 ohms; black vinyl; 44 lbs; 14.5" W x 25.5" H x 11.5" D \$690/pr

250SE Speaker

Floor-standing bass reflex passive speaker with Hemholtz Thiele acoustically dense enclosure with sound absorbent baffle and circuit breaker protection. Speaker contains 10" cone woofer; 6" cone midrange; 1" VC horn loaded dome elliptical tweeter. FR 32-20,000 Hz \pm 3 dB; minimum power 5 W rms, max power 125 W rms; sens 95 dB SPL/W/m; imp 6 ohms; black vinyl; 41 lbs; 12.5" W x 28" H x 11.5" D \$600/pr

240SE Speaker

Bookshelf bass reflex speaker with 10" cone woofer and 1" VC horn loaded dome elliptical tweeter. FR 32-20,000 Hz \pm 3 dB; minimum power 5 W rms, max power 125 W rms; imp 6 ohms; black; 36 lbs; 12.5" W x 25" H x 11.5" D \$470/pr

DAHLQUIST

DQ-20 Speaker

Three-way vertical-phase-array speaker intended for floor placement. Speaker contains 250 mm cone woofer; 120 mm cone midrange; 20 mm dome tweeter. Min power 70 W rms; imp 4 ohms. Oak with black or white grille \$1,800/pr

DQ-10 Speaker

Phased-array speaker. Features low-diffraction time-delay treble-slope control; solid walnut or oak trim; black or white grille cloth; in mirror-image pairs. FR 37-27,000 Hz; crossovers 400, 1k, 6k, 12.5k; power range 60-200 W; imp 8 ohms; 31.5" H x 9" D \$1,200/pr

DQ-1 W Subwoofer

Subwoofer with 13" driver in heavy cast frame for biamplified systems. Features walnut or oak finish with black or white grille cloth; 28" H x 18" W x 14" D \$395

Dynamic Tracking Studio Monitors

DQM-9 Speaker System

Dual rear-firing tuned-port speaker system features rigid die-cast zinc chassis drivers on anti-diffraction baffle in "unbox" enclosure; 11" woofer and 5" cone midrange feature flat-wound ribbon wire voice coils; tweeter is 1" soft dome. FR 28-22,000 Hz; power range 25-200 W; sens 95 dB SPL/W/m; crossovers 450 and 3.5 kHz; imp 8 ohms; 14.5" W x 25" H x 13.25" D; 55 lbs; suede gray Nextel vibration damping and oak or walnut sides with black lacquer top finishes \$1,200/pr

DQM-9 Compact Speaker System

Dual rear-firing tuned-port speaker features rigid die-cast zinc chassis drivers on anti-diffraction baffle in "unbox" enclosure; 9" woofer and 5" cone midrange feature flat-wound ribbon wire voice coils; 1" soft dome tweeter; FR 35-22,000Hz; power range 25-140 W; sens 92 dB at 1,000 Hz; crossovers 450 and 3.5 kHz; imp 8 ohms; 22.75" H x 14.36" W x 11.25" D; 43 lbs; suede gray Nextel vibration damping finish \$980/pr
Oak or walnut sides with black lacquer top \$1,200/pr

DQM-5 Speaker System

Dual rear-firing tuned-port speaker in "unbox" enclosure with drivers mounted on anti-diffraction baffle. Features 9" woofer; flat-wound ribbon wire voice coil; 1" soft dome tweeter; FR 37-22,000 Hz; power range 25-100 W; sens 90 dB at 1 kHz; crossover 3 kHz; imp 8 ohms; 21.75" H x 13.36" W x 11.25" D; 46 lbs; suede gray Nextel vibration-damping finish \$600/pr
Simulated walnut grain \$520/pr

DALI

Dali 8 Speaker

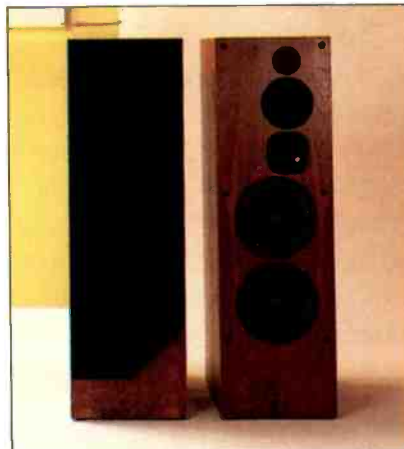
Floor-standing bass-reflex speaker. Features high-density pressed board enclosure; extensively braced; acoustically transparent black cloth grille. Speaker houses two 8" cone woofers; 4.5" cone midrange; 1.36" dome tweeter; .75" dome supertweeter. FR 33-23,000 Hz \pm 3 dB; power range 10-350 W; sens 92 dB SPL/W/m; imp 8 ohms; genuine walnut veneer finish; 11.2" W x 38" H x 16" D; 63 lbs \$1,300/pr

Dali 6 Speaker

Floor-standing acoustic-suspension speaker. Features 3rd order acoustical Butterworth crossover; high density (.88") pressed board enclosure; acoustically transparent black cloth floating grille. Speaker houses 10" cone woofer; 8" cone midrange; 1.12" dome tweeter. FR 40-20,000 Hz \pm 3 dB; power range 10-200 W; sens 91 dB SPL/W/m; imp 6 ohms; walnut veneer finish; 37" W x 11" H x 12.5" D; 48 lbs \$790/pr

Dali 4 Speaker

Floor-standing acoustic-suspension speaker. Features 3rd order Butterworth crossover; high-density pressed board enclosure; acoustically transparent black cloth grille. Speaker houses two 8" cone woofers; 1" dome tweeter. FR 55-20,000 Hz \pm 3 dB; power range 5-140 W; sens 93 dB SPL/W/m; imp 4 ohms; walnut veneer finish; 30" W x 12" H x 9.5" D; 31 lbs \$480/pr



Dali 8

Dali 3 Speaker

Bookshelf acoustic-suspension speaker with 3rd order acoustical Butterworth crossover. Features enclosure sides .62"; front and rear baffle .88"; acoustically transparent black cloth grille. Speaker houses 8" cone woofer; 1" dome tweeter. FR 55-20,000 Hz \pm 3 dB; power range 5-80 W; sens 90 dB SPL/W/m; imp 8 ohms; walnut veneer finish; 17.5" W x 11" H x 9.5" D; 19 lbs \$340/pr

dbx

Soundfield 1A Speaker System

Two floor-standing enclosures, each with four

10" woofers, four 4" midranges, and six .5" dome tweeters. Self-balancing phase arrangement produces both measurably flat axial and power response (20-20,000 Hz \pm 2 dB) and stable and consistent image anywhere in listening area (no preferred listening location). Computer-designed crossover individually tailors amplitude and phase of each driver to produce psychoacoustically optimized radiation pattern and constant imp (4 ohms). System includes processor to go in preamp/receiver tape-monitor loop. Processor equalizes speaker FR and also features power amp monitor/speaker protector; rumble suppressor; adjustable HF/LF EQ and high pass/low pass filters for ends of audio band; auto ch balancing for out-of-balance program material; ambient control; bypass (for headphone listening); and replacement tape monitor. Sens 90 dB SPL 2.83 V/1 m, average room; power range 30-400 W/ch; system will produce 110 dB SPL in 3,000 cu.-ft. room; walnut or oak veneer with dark brown grilles. 42" H x 14.5" W x 14.5" D; 80 lbs \$2,950/system



dbx Soundfield Ten

Soundfield Ten Speaker

Two floor-standing sealed box speakers with two 10" cone woofers, two 4" cone midranges, four .5" dome tweeters. Features outboard processor with adjustable low-frequency/high-frequency EQ; EQ for against-wall and out-from-wall placement; bypass switch for headphone listening; replacement tape monitor; self-balancing phase arrangement produces measurably flat axial and power response from 30-20,000 Hz. Min power 40 W, max 300 W; nominal imp 4 ohms; sens 90 dB SPL/W/m. 14.5" W x 34" H x 14.5" D; oak/walnut veneers \$1,399/pr

Soundfield 100 Speaker

Two floor-standing vented enclosures each with 10" woofer, 4" midrange, and three ultra-wide-dispersion 0.5" tweeters. Phased arrangement produces both measurably flat response (40-20,000 Hz \pm 3 dB) and consistent "Listen Anywhere. Self-Balancing" stereo imaging throughout room. Computer-designed crossover and asymmetrical cabinet individually tailor amplitude and phase of output in psychoacoustically optimized radiation pattern. Imp 4 ohms; sens 91 dB SPL 2.83 V/m; power range 20-250 W. Walnut veneer with dark brown grilles. 32" H x 16" W x 13" D \$899/pr

Soundfield 1000 Speaker

Two floor-standing vented enclosures each with 8" woofer, 4" midrange, and two ultra-wide-dispersion 0.5" tweeters. Phased arrangement produces both measurably flat response (45-20,000 Hz \pm 3 dB) and constant "Listen Anywhere, Self-Balancing" stereo imaging throughout

SPEAKERS

room. Computer-designed crossover and asymmetrical cabinet individually tailor amplitude and phase of output in psychoacoustically optimized radiation pattern. Imp 4 ohms; sens 91 dB SPL 2.83 V/m; power range 20-250 W. Walnut or black vinyl with matching grilles. 31" H x 14" W x 11" D \$599/pr

DCM

Time Frame TF 2000 3-Way Speaker

Floor-standing folded tapered transmission-line speaker with two 8" cone woofers, two 6.5" cone midranges, and 1" horn-loaded tweeter. Accurate impulse response combines with high efficiency and power handling for digital sources. FR 30-20,000 Hz ± 3 dB; min power 20 W rms; max power 1,000 W rms; sens 92 dB SPL/W/m; imp 8 ohms. Available in dark oak or brown grille. 60" H x 23" W x 11" D \$1,999 to \$2,299/pr



DCM Time Frame TF 500

Time Window 1A Speaker

Hybrid transmission-line speaker intended for floor placement. Improved version of original Time Window with wide-angle sound distribution, pinpoint imaging properties and high power-handling capability. Features cylindrical back and triangular-prism front. Optimized for min time-dispersion error. Contains two 6.5" cone woofers with acoustic lens; 2.75" soft plastic dome tweeter with acoustic lens. FR 30-20,000 Hz; min power 10 W, max power 250 W; sens 91 dB; imp 8 ohms; dark oak with dark brown fabric; 32 lbs; 15" W x 36" H x 11.75" D \$877/pr

Time Frame TF 700 Speaker

Floor-standing folded tapered transmission-line speaker with 8" cone woofer, 4" cone midrange, and .75" dome tweeter. Accurate impulse response for digital sources. FR 34-20,000 Hz ± 3 dB; min power 20 W rms; max power 250 W; sens 90 dB SPL/W/m; imp 8 ohms. 45" H x 18" W x 7" D \$699 to \$749/pr

Time Frame TF 500 Speaker

Mirror-imaged floor-standing loudspeaker. Features 6.5" cone woofer; .75" soft-plastic-dome tweeter with acoustic lens; folded, tapered transmission-line bass loading; FR 34-20,000 Hz; power range 10-100 W; sens 90 dB SPL/W/m; imp 8 ohms; dark oak finish with dark brown fabric grille; 17" W x 41" H x 6.75" D; 42 lbs \$549/pr

Time Frame TF 250 Speaker

Floor-standing bass-reflex speaker with 6.5" cone woofer and .75" dome tweeter. FR 50-20,000 Hz ± 3 dB; min power 10 W rms; max power 50 W rms; sens 89 dB SPL/W/m; imp 8 ohms. Dark oak with dark brown grille. 34" H x 13" W x 6" D \$249 to \$299/pr

DESIGN ACOUSTICS

PS-30 Three-Piece Speaker System

Consists of 2 PS-5 satellites, PS-LF bass module. Satellites are low-diffraction design with 5" midwoofer, 1" soft-dome tweeter. Bass module has 12" dual voice coil, long-throw woofer; power satellites/subwoofer 35/250 W; imp 8 ohms \$695/set

PS-LF Bass Module

Down-firing dual voice coil, long-throw 12" woofer with twin crossover networks at 18 dB/octave, 140 Hz. Features input for use with PS-5 satellites (below); biamp inputs for use with other satellites. Response to below 40 Hz; walnut veneer cabinet; brown cloth grille; power range 15-250 W; 21" H x 16" W x 16" D \$350

PS-5 Speaker

Acoustic-suspension 2-way miniature bookshelf speaker with 5" woofer, 1" dome tweeter. Features midrange, tweeter level controls; walnut veneer cabinet; brown cloth grille. FR 80-16,000 Hz ± 1.5 dB; crossover 2.5 kHz; sens 85 dB SPL/W/m; power range 15-50 W; imp 4 ohms; 11.25" H x 7.36" W x 5.5" D \$350/pr

Point Source Series

PS-10. Acoustic-suspension 3-way speaker with down-firing 10" long-throw woofer, 5" midwoofer, 1" soft-dome tweeter. Features tweeter level control; mirror-image driver placement; acoustically treated baffle; walnut-vinyl finish; brown cloth grille. FR 48-20,000 Hz; crossovers 190 and 2,000 Hz; sens 90 dB SPL/W/m; power range 15-200 W; imp 8 ohms; 14" H x 13.75" D x 11" W \$500/pr

PS-6. Two-way design with 6" woofer, .75" soft-dome tweeter; FR 50-20,000 Hz; sens 88 dB SPL/W/m; power range 15-100 W; 11.5" D x 12" H x 8.12" W; 12 lbs \$240/pr

PS-8A. Bookshelf acoustic-suspension speaker.

Features 8" down-firing, long-throw woofer; 4" cone mid-woofer; .75" soft-dome tweeter; tweeter level control; mirror-image driver placement; acoustically-treated baffle; crossover at 200 and 2,000 Hz. FR 50-20,000 Hz; power range 15-175 W; sens 89 dB SPL/W/m; imp 8 ohms; walnut-vinyl finish; 9" W x 11" H x 13.75" D \$380/pr

PS-6V. Bookshelf acoustic-suspension speaker. Features 6.5" long-throw woofer; .75" soft-dome tweeter; mirror-image driver placement; acoustically-treated baffle; shielded magnets for use with video monitors. FR 50-20,000 Hz; power range 10-100 W; sens 88 dB SPL/W/m; imp 8 ohms; black-gray grille \$260/pr

ENERGY BY API

22 Reference Connoisseur

Two-way bass-reflex mirror-imaged speaker, matched .12 dB left and right. Six different exotic matched wood veneers available. Features 7" polypropylene cone woofer with PVC stitched suspension; 1.5" dual Hyperdome tweeter. FR 25-20,000 Hz ± 1.5 dB off axis; sens 89 dB SPL/W/m; imp 8 ohms; power range 20-200 W; 35.36" H x 11" W x 14" D; 80 lbs \$1,350-2,900/pr

22 Reference Monitor

Two-way bass-reflex front-port monitor matched within .12 dB left and right. Features 7" polypropylene cone woofer with PVC stitched suspension; 1.5" dual Hyperdome tweeter; includes stands. FR 34-20,000 Hz ± 1.5 dB off axis; sens 89 dB SPL/W/m; imp 8 ohms; power range 20-200 W; 24.62" H x 10.5" W x 12" D; 34 lbs \$1,000/pr

22 Pro Monitors

Two-way bass-reflex mirror-imaged speaker,

matched 0.5 dB left and right. Includes stands. Features 7" polypropylene cone woofer with PVC stitched suspension; 1.5" dual Hyperdome tweeter. Walnut-grain vinyl with black sag-resistant fabric grilles. FR 28-20,000 Hz ± 1.5 dB off axis; sens 89 dB SPL/W/m; imp 8 ohm; power range 20-200 W; 24.62" H x 10.5" W x 12" D; 34 lbs \$800/pr

22 Pro Monitor Designer Series. Same as 22 Pro Monitor but with genuine oak veneers; stands which screw to speaker and feature spiked feet \$1,000

ESM-2 Speaker

2-way bass-reflex speaker, mirror imaged and matched within 1 dB left and right. Features 8" polypropylene cone woofer with rubber surround; 1" ferrofluid cooled tweeter; black sag-resistant fabric grilles. FR 40-22,000 Hz ± 3 dB; sens 86 dB SPL/W/M; imp 8 ohms; min power 12 W; max power 100 W; crossover 2,000 Hz phase corrected. 23.36" H x 10.5" W x 10.5" D; 24 lbs/ea; walnut grain vinyl veneer or black; stands optional \$350/pr

ESM-3 Speaker

2-way bass-reflex speaker, mirror-imaged and matched within 1 dB left and right. Features 8" polypropylene cone woofer with foam surround; .75" soft dome ferrofluid cooled tweeter; black sag-resistant fabric grille. FR 45-22,000 Hz ± 3 dB on axis; sens 86.5 dB SPL/W/M; imp 8 ohms; min power 10 W; max power 80 W; crossover 2,000 Hz phase corrected. 20" H x 10.36" W x 8.75" D; 20 lbs/ea; walnut grain vinyl veneer or black; stands optional \$250/pr

ESM-4 Speaker

Bookshelf bass reflex speaker with 6.5" polypropylene woofer and .75" ferrofluid-cooled polyamide dome tweeter. FR 60-20,000 Hz ± 3 dB; min power 10 W rms, max 80 W rms; sens 88 dB SPL/W/m; imp 8 ohms; walnut or black vinyl; 10.5 lbs; 9.24" W x 13.25" H x 9.25" D \$200

EPI BY EPICURE

Stat 450 Speaker

Floor-standing 2-way hybrid electrostatic speaker. Features 10" 2-layer Time/Energy cone woofer; 3 electrostatic panels with almost 60 square inches of sound radiating surface area; electrostatic panel level control. FR 44-20,000 Hz ± 3 dB; crossover 1,000 Hz; power range 20-250 W; imp 4 ohms; walnut-grain vinyl-veneered cabinet, brown grille cloth \$700/pr

EPI Time/Energy Series II Speakers

All EPI Time/Energy Series II speakers feature 2-layer bass and midrange speaker cones and treble speaker domes. One layer is a stiff-plastic material that resists flexing. The other damping layer controls resonances. Ferrofluid-cooled treble voice coils.

T/E 320 Series II 3-Way Speaker

Floor-standing speaker with 10" woofer, 4" midrange, 1" tweeter. Features dark-oak-grain vinyl-veneered cabinet and brown grille cloth. FR 38-20,000 Hz ± 3 dB; crossovers at 300 and 2,500 Hz; suggested power range 15-250 W; imp 6 ohms. 34.25" H x 13" W x 10" D \$550/pr

T/E 280 Series II 2-Way Speaker

Floor-standing speaker with 8" woofer, 8" passive radiator, 1" tweeter. Features dark-oak-grain vinyl-veneered cabinet and brown grille cloth. FR 32-20,000 Hz ± 3 dB; crossover at 1,800 Hz; suggested power range 10-100 W; imp 8 ohms. 34.5" H x 12" W x 9" D \$440/pr

T/E 250 Series II 3-Way Speaker

Floor-standing speaker with 8" woofer, 4"

SPEAKERS

midrange, 1" tweeter. Features dark-oak-grain vinyl-veneered cabinet and brown grille cloth. FR 42-20,000 Hz \pm 3 dB; crossovers at 300 and 2,500 Hz; power range 15-225 W; imp 6 ohms. 25.5" H x 15.5" W x 8.25" D \$360/pr

T/E 100 Series II 2-Way Speaker

Bookshelf speaker with 8" woofer, 1" tweeter. Features dark-oak-grain vinyl-veneered cabinet and brown grille cloth. FR 40-20,000 Hz \pm 3 dB; crossover at 1,800 Hz; suggested power range 15-100 W; imp 8 ohms. 21" H x 13" W x 7" D \$260/pr

EPI Time/Energy Monitor Speakers

Time/Energy Monitor speakers combine elements of Time/Energy speaker technology with design concepts of professional monitor speakers. Have many performance benefits of T/E Series II speakers.

T/E Monitor 2 Three-Way Speaker

Floor-standing speaker with two 10" woofers, 6" cone midrange, and 4.5" x 2.75" horn tweeter. Features black-ash woodgrain vinyl-veneered cabinet with black grille cloth and tweeter output level control. FR 35-20,000 Hz; crossovers at 500 and 5,000 Hz; suggested power range 10-275 W; imp 6 ohms. 37" H x 14" W x 10.75" D \$600/pr

T/E Monitor 1 Three-Way Speaker

Floor-standing speaker with 10" woofer, 6" cone midrange, and 4.5" x 2.75" horn tweeter. Features black-ash woodgrain vinyl-veneered cabinet with black grille cloth and tweeter output level control. FR 40-20,000 Hz; crossovers at 500 and 5,000 Hz; suggested power range 10-250 W; imp 6 ohms. 30.5" H x 12" W x 9" D \$440/pr

Magnus Series Speakers

EPI Magnus A24 3-Way Speaker

Floor-standing speaker with two 12" woofers, 6" mid/bass driver, and CDH tweeter. Features constant-dispersion horn tweeters; dual level controls; closed frame. FR 33-20,000 Hz; crossovers 500 and 4,000 Hz; power range 10-350 W peak; imp 4 ohms. Walnut-grain vinyl-veneered cabinet and brown grille cloth; 10.5" H x 17" W x 10.88" D \$700/pr

EPI Magnus A12 3-Way Speaker

Bookshelf speaker with 12" woofer, 6" mid/bass driver, and CDH tweeter. FR 35-20,000 Hz; crossover 500 and 4,000 Hz; power range 10-300 W peak; imp 4 ohms; walnut-grain vinyl-veneered cabinet and brown grille cloth; 25.88" H x 15.36" W x 11.5" D \$500/pr

EPI Magnus A10 2-Way Speaker

Bookshelf speaker with 10" woofer and CDH tweeter. FR 45-20,000 Hz; crossover 4,000 Hz; power range 10-200 W peak; imp 4 ohms; walnut-grain vinyl-veneered cabinet and brown grille cloth; 22.88" H x 12.88" W x 11.5" D \$320/pr

ESS

AMT Series

AMT Monitor Speaker

Floor-standing passive radiator speaker with 21.5 in² Heil Air Motion Transformer with mylar articulated diaphragm. Features 12" cone passive rad; 12" cone woofer. FR 35-23,000 Hz \pm 3 dB; minimum power 35 W rms, max power 400 W rms; sens 91 dB SPL/W/m; imp 6 ohms; oiled walnut finish; 82 lbs; 18.5" W x 41" H x 12" D \$1,400/pr

AMT 1D Speaker

Floor-standing passive-radiator 2-way speaker with 12" polypropylene woofer, 12" passive ra-

diator. Features 21.5 in² Heil Air Motion Transformer with mylar articulated diaphragm; midrange presence, brilliance controls; oiled-walnut finish; black-brown grille. FR 35-23,000 Hz \pm 3 dB; crossover 800 Hz; max power 400 W; imp 6 ohms; horizontal/vertical dispersion 120°/30° sens 91 dB SPL/W/m; 35.25" H x 16.25" W x 16.25" D; 85 lbs \$1,270/pr

AMT Bookshelf Speaker

Passive-radiator 2-way bookshelf speaker with 12" woofer, 12" passive radiator, 21.5 in² Heil Air Motion Transformer with mylar articulated silicon-edged diaphragm. Features presence/brilliance control; oiled walnut finish; black-brown grille. FR 40-23,000 Hz \pm 3 dB; crossover 800 Hz; max 400 W music power; nominal imp 6 ohms; horizontal/vertical dispersion 120°/30°; sens 91 dB SPL/W/m; 24" H x 14" W x 14" D \$1,100



ESS AMT Monitor

Mini Monitor 820 Speaker

Bookshelf speaker features 10.5 in² Heil Air Motion Transformer with mylar ribbon diaphragm. 6.5" flat passive radiator, 6.5" carbon-fiber cone woofer. FR 55-23,000 Hz \pm 3 dB; minimum power 5 W rms, max 75 W rms; sens 90 dB SPL/W/m; imp 4 ohms; oiled walnut finish; 15.5 lbs; 9" W x 13.5" H x 7.24" D \$220/pr

Mini Monitor 620 Speaker

Two-way mini bookshelf speaker. Features dynamic 5.25" long-exursion woofer; 1.25" dome shape tweeter; 5" passive radiator. FR 60-20,000 Hz \pm 4 dB; power range 10-60 W; sens 87 dB SPL/W/m; imp 8 ohms; oiled walnut veneer finish; 7" W x 12" H x 7.5" D; 16.5 lbs/pr \$152/pr

Performance Series

PS-12C Speaker System

Passive-radiator speaker system with 12" woofer, Heil Air Motion Transformer with 10.4 in² radiating area. Features walnut vinyl finish. FR 32-22,000 Hz \pm 3 dB; crossover 1.8 kHz; power range 15-160 W; sens 93 dB SPL/W/m; imp 6 ohms; 25" H x 14.5" W x 13.5" D \$718/pr

PS-6D Speaker System

Passive-radiator speaker system with 10" woofer, Heil tweeter/midrange driver. Oiled walnut-grain finish. FR 40-22,000 Hz \pm 3 dB; power range 15-140 W; imp 6 ohms; crossover 2.4 kHz; sens 93 dB SPL/W/m; 24.12" H x 14" W x 14" D; 49 lbs \$678/pr

High-Dynamic-Range Speakers

HD-312 Speaker

Floor-standing bass reflex speaker with 12"

woofer, 3" x 7" horn midrange, and 2.4" horn tweeter. FR 38-20,000 Hz \pm 3 dB; min power 10 W rms, max power 110 W rms; sens 95 dB SPL with 1 watt measured at 1 meter; imp 4 ohms; walnut or grain vinyl; 42.5 lbs; 14.5" W x 25" H x 12" D \$498

HD-210 Speaker

Floor-standing bass reflex speaker with 10" woofer, 2.4" horn tweeter. FR 45-20,000 Hz \pm 3 dB; minimum power 10 W rms, max power 65 W rms; sens 95 dB SPL/W/m; imp 4 ohms; walnut or grain vinyl finish; 33.5 lbs; 12.25" W x 22" H x 12" D \$298/pr

FISHER

STV-890 3-Way Speaker

Speaker with 15" woofer, 5" ferrofluid midrange, 3" ferrofluid tweeter. Features magnetic field compensation for placement near a TV or video monitor. Max power 150 W rms. 17.7" W x 38.6" H x 13.5" D \$600/pr

STV-875 3-Way Speaker

Speaker with 15" woofer, 4" ferrofluid midrange, 3" ferrofluid tweeter. Features magnetic field compensation for placement near a TV or video monitor. Max power 100 W rms. 16.75" W x 36" H x 12.9" D \$400/pr

STV-015 3-Way Speaker

Bookshelf speaker with 8" woofer, 4" midrange, 3" tweeter. Features magnetic field compensation for placement near a TV or video monitor. Max power 100 W rms. 11" W x 19" H x 14.25" D \$300/pr

STV-827 3-Way Speaker

Speaker with 12" woofer, 4" midrange, 3" tweeter. Features magnetic field compensation for placement near a TV or video monitor. Max power 100 W rms. 14.3" W x 29.7" H x 12.9" D \$300/pr

STV-816 3-Way Speaker

Speaker with 10" woofer, 4" midrange, 3" tweeter. Features magnetic field compensation for placement near a TV or video monitor. Max power 60 W rms. 12.1" W x 25.7" H x 10.9" D \$200/pr

TV/Audio Speakers

All speakers feature 8" woofer; 4" midrange; 3" tweeter; magnetic field compensation for placement near a TV or video monitor. Max power 50 W rms.

STV-380. 10.2" W x 25.6" H x 11" D \$220/pr

STV-012A. 11" W x 19" H x 11" D \$200/pr

STV-013A. 10.2" W x 24" H x 11" D \$200/pr

STV-340. 10.2" W x 23.4" H x 11" D \$200/pr

FRIED

G/3 3-Way Speaker

Floor-standing transmission-line speaker with series crossover networks and duocone drivers. Features full-free-flow transmission line loading of midrange and aperiodic-design principles for linearity and dynamic range. 10" polypropylene duocone woofer; 6.5" midrange; 0.75" dome tweeter; FR 23-22,000 Hz \pm 3 dB; min power 10 W rms; max power 200 W rms; sens 91 dB SPL/W/m; imp 8 ohms. Walnut/oak finishes. 16" W x 44" H x 18" D \$2,200/pr

C/3-L 2-Way Speaker

Full transmission-line-loaded speaker for use alone or as a satellite. Features 6.5" duocone woofer; 0.75" dome tweeter; series networks; pyramid shape. FR 60-22,000 Hz \pm 3 dB; min power 10 W rms; max power 250 W rms; sens 91 dB SPL/W/m; imp 8 ohms. 10.5" W x 13.5"



'Before we could make our speakers better, we had to invent a better speaker test!'

—*Laurie Fincham, DIRECTOR OF KEF RESEARCH & DEVELOPMENT*

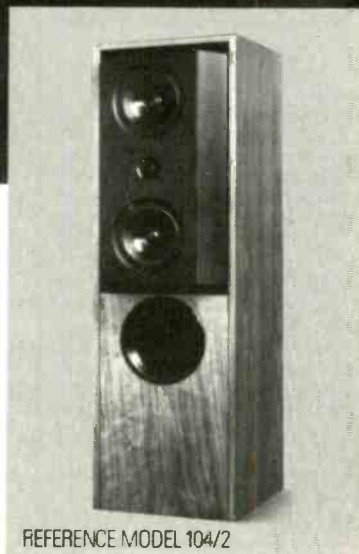
ONE STEP IN THE MAKING OF A KEF

A speaker is usually measured by frequency response sweeps. But their proper interpretation is difficult at best — misleading at worst.

So in 1971, KEF joined forces with Hewlett Packard and Bradford University to develop a more reliable test: computerised Fast Fourier Transform (FFT). Our computer

analyzes a series of pulse tones to produce a far more accurate, more detailed picture of frequency, phase, and transient time-domain behaviour.

'FFT testing has already spurred us to major advances in phase integrity and production consistency. It's certainly easier to make progress when you can see where you're going.'



REFERENCE MODEL 104/2



KEF Electronics Ltd., Tovil, Maidstone, Kent ME15 6OP
 KEF Electronics of America Inc., 14120-K Sullyfield Circle, Chantilly, VA 22021 703/631-8810
 Smyth Sound Equipment Ltd., 595 Rue du Parc Industriel, Longueuil, Quebec Canada 514/679-5490

SPEAKERS

H x 15.5" D; 20 lbs \$950/pr assembled
C/3-L Kit. As above except as a kit to put
together \$430/pr

Q/3 2-Way Speaker

Speaker with 8" polypropylene woofer, dome
tweeter. Features edge-on free-flow filters; cir-
cuit-breaker protection. Power range 20-100 W;
vinyl finish; 20" H x 13" W x 10.5" D. \$400/pr

Duo Subwoofer

"Flow resistance" floor-standing subwoofer
with dual-voice-coil polypropylene driver. Fea-
tures 10" cone woofer. FR 30-100 Hz \pm 3 dB;
min power 20 W, max power 200 W; sens 90 dB
SPL/W/m; imp 8 ohms; walnut finish; 50
lbs \$325 ea

GENESIS

G 66 II Three-Way Speaker

Floor-standing speaker with twin 8" polypropy-
lene woofers, 3" fabric-dome midrange, and alu-
minum-alloy tweeter. Features Bessel-function
venting and oak cabinet \$1,500/pr

G 44 II Speaker

Floor-standing quasi-infinite-baffle passive-ra-
diator speaker. Features 10" cone passive rad; 8"
treated cone, long-excursion woofer; 0.75" dou-
ble-inverted rigid-dome ferrofluid tweeter. FR
27-24,000 Hz \pm 4 dB; power range 30-250 W;
sens 87 dB SPL/W/m; imp 6 ohms; teak vinyl,
hand-rubbed oak veneer. 18" W x 31.5" H x 9"
D; 42 lbs \$825/pr

G 33 II Speaker

Floor-standing quasi-infinite-baffle passive-ra-
diator speaker. Features low crossover point for
wide dispersion; low distortion; 10" cone pas-
sive rad; 8" treated-cone long-excursion woofer;
1" inverted-dome ferrofluid tweeter. Power
range 20-100 W; sens 90 dB SPL/W/m; imp 6
ohms; teak vinyl finish; 16" W x 29" H x 8" D;
31 lbs \$500/pr

G 22 II Speaker

Quasi-infinite-baffle speaker. Features low
crossover point; 8" cone passive rad; 6.5" treat-
ed-cone long-excursion woofer; 1" inverted-
dome ferrofluid tweeter. FR 40-20,000 Hz \pm 4
dB; power range 20-100 W; sens 87 dB
SPL/W/m; imp 6 ohms; teak vinyl finish; 14" W
x 23.5" H x 7.5" D; 28 lbs \$398/pr

G 7 II Two-Way Speaker

Features 6.5" woofer; tiny plastic cone tweeter;
vented enclosure with vinyl wrap. FR 70-21,000
Hz \pm 3 dB \$198/pr

HITACHI

HSA4000 Speaker

Floor-standing tower speaker with detachable
grille. Features 12" cone passive radiator, 12"
cone woofer; 4" cone midrange; 2" cone tweeter.
FR 35-20,000 Hz; max power 100 W; sens 90
dB SPL/W/m; imp 8 ohms; hickory woodgrain
vinyl finish; 11.75" W x 39.75" H x 15.75" D; 44
lbs \$290/pr

HSA 3000 Speaker

Floor-standing tower speaker. Features 10" cone
passive radiator; 10" cone woofer; 4" cone
midrange; 3" cone tweeter. FR 40-20,000 Hz;
power range 50 W; sens 90 dB SPL/W/m; imp 8
ohms; hickory woodgrain vinyl finish; 13.5" W
x 35.75" H x 10.5" D; 27 lbs \$230/pr

HSA 2000 Speaker

Floor-standing speaker with 10" passive radia-
tor; 10" cone woofer; 4" cone midrange; 2" cone
tweeter. FR 45-20,000 Hz; max power 30 W;

sens 90 dB SPL/W/m; imp 8 ohms; hickory
grain finish; 12.5" W x 32.19" H x 10.5" D; 22
lbs \$140/pr

INFINITY

IRS Reference Standard Speaker Series III

Modular 4-piece 3-way floor-standing speaker.
Features 2 woofer modules with six 12" woofers
in feedback loop of servo amp (2 1,500-W woofer
amps); 2 midrange/tweeter modules with 12-
dipole midrange drivers; 36 tweeters in dipole
line-source array (24 front/12 rear-facing); bass
variable low-pass filters; low-pass variable
damping; woofer level controls; selectable input
imp midrange/tweeter amp control; woofer
phase switch; servo bass on/off circuit; Monster
Cable wiring for midrange, woofer. FR 16-
40,000 Hz \pm 2 dB; crossovers 70 Hz nominal,
60-120 Hz at main control unit woofer/mid-
range, 5 kHz midrange/tweeter; midrange/
tweeter amp input range 100-500 W/ch; oiled
and "Grand Piano" Indian rosewood finish;
100-ft cable for hookup of midrange/tweeter
to midrange/tweeter amp. Woofer modules: 7'6" H
x 18" square; midrange/tweeter modules 7'6" H
x 40" W (with hollow and sand-filled curved
wing sections) \$37,500/system



Infinity RS 3000

Reference Standard Series Speakers

Reference Standard 1B

Modular 4-piece floor-standing speaker: 2 woofer
modules with 6 servo 8" polypropylene woofer-
s, 2 midrange/tweeter curved sections with 7
dipole EMIT drivers, 3 EMIT tweeters, 1 super-
high-dispersion EMIT in dipole source array.
Features bass variable low-pass filters; low-pass
variable damping with level control; selectable
imp controls for midrange/tweeter amp; bass
amp phase switch; servo-controlled bass circuitry;
Monster Cable throughout; mid-tweeter
and high-tweeter control on rear of
midrange/tweeter module; lacquered oak and
hardwood veneers. FR 22-32,000 Hz \pm 1.5 dB;
woofer crossover variable 100-200 Hz; cross-
overs 125, 750, 3,000, 8,000 Hz; 60" H x 12" W
x 12" D bass column; 60" H x 24" W
screens \$5,900/system

Reference Standard 2B Speaker System

Floor-standing 5-way speaker with active equal-
izer (contour and level) for extended low FR. 3
EMIT midrange drivers, 2 EMIT (1 front, 1
back) tweeters, and 1 EMIT supertweeter. Oak
diffraction wings. 55" H x 25" W x 20"
D \$3,400/system

Reference Standard 3B Speaker System

Floor-standing 3-way speaker with 2 10" poly-
propylene woofers with L-C tuning for bass ex-
tension, 2" polypropylene dome midrange,
EMIT tweeter. Designed for min diffraction dis-
tortion. Features hand-rubbed oak hardwoods
and veneers. FR 35-32,000 Hz \pm 3 dB; cross-
overs 1 and 4 kHz; power range 50-200 W; 48"
H x 18" W x 7.75" D \$1,498/pr

Reference Standard 4B Speaker System

Floor-standing 3-way speaker designed for min
diffraction distortion with two 8" polypropylene
woofers with L-C tuning for bass extension, 2"
polypropylene dome midrange, EMIT tweeter.
Features hand-rubbed oak hardwoods and ve-
neers. FR 40-32,000 Hz \pm 3 dB; crossovers 1
and 4 kHz; power range 40-150 W; imp 4-8
ohms; 42" H x 14.5" W x 10.88" D \$1,118/pr
Reference Standard 5B. Same as 4B except FR
43-32,000 Hz \pm 3 dB; power range 35-160 W;
24.36" H x 15.5" W x 9.5" D \$878/pr

Reference Standard 6B Speaker System

Floor-standing or bookshelf 3-way speaker with
8" polypropylene woofer, 2" polypropylene
dome midrange, EMIT tweeter. Features hand-
rubbed oak hardwoods and veneers. FR 45-
32,000 Hz \pm 3 dB; crossovers 600 and 4 kHz;
power range 35-100 W; imp 4-8 ohms; 22" H x
13.5" W x 10" D \$638/pr

SM Speaker Series

SM 150 Speaker

Floor-standing bass-reflex speaker with 15" cone
woofer, (2) 4.5" midranges, and 1" polycell
dome tweeter. FR 29-27,000 Hz \pm 3 dB; mini-
mum power 10 W rms, max power 300 W rms;
sens 101 dB SPL/W/m; imp 8 ohms; rosewood
vinyl; 19" W x 39.5" H x 12.5" D \$1,038/pr

SM 120 Speaker

Floor-standing bass-reflex speaker with front
mounted high and mid level controls. Speaker
contains 12" cone woofer; 4.5" cone midrange;
1" polycell dome tweeter. Minimum power 10
W rms, max power 200 W rms; sens 98 dB
SPL/W/m; imp 8 ohms; rosewood vinyl; 15.75"
W x 33.25" H x 12.5" D \$718/pr

SM 100 Speaker

Floor-standing bass-reflex speaker with 10" cone
woofer and 1" polycell dome tweeter. Minimum
power 10 W rms, max power 150 W rms; sens
98 dB SPL/W/m; imp 8 ohms; rosewood vinyl;
14" W x 29.5" H x 12.5" D \$478/pr

RS Speaker Series

RS 5000 Speaker

Acoustic-suspension speaker with 10" cone
woofer, 3.5" cone midrange, and EMIT planar
tweeter. FR 42-32,000 Hz \pm 3 dB; minimum
power 20 W rms, max power 135 W rms; sens
89 dB SPL/W/m; imp 6 ohms; oak vinyl; 15" W
x 24" H x 10.25" D \$558/pr

RS 3000 Speaker

Bookshelf acoustic-suspension speaker with 8"
cone woofer and 1" polycell dome tweeter. FR
45-22,000 Hz \pm 3 dB; minimum power 20 W
rms, max power 100 W rms; sens 89 dB
SPL/W/m; imp 6 ohms; oak vinyl; 12" W x
20.75" H x 10.25" D \$298/pr

RS 2000 Speaker

Bookshelf acoustic-suspension speaker with 6.5"
cone woofer and 35 mm polycell dome tweeter.
FR 57-22,000 Hz \pm 3 dB; minimum power 15
W rms, max power 75 W rms; sens 89 dB
SPL/W/m; imp 6 ohms \$198/pr

INTERAUDIO BY BOSE

All Interaudio speakers feature 6-layer voice-coil
woofer for high power handling; internal cabinet
bracing for tighter bass response; computer-de-
signed tuned port for deep bass; high-efficiency
tweeter system with wide-angle lens; push-type
connectors; removable cloth grille assembly;
automatic tweeter-overload protection circuitry
with fiber-optic indicator; full 5-year transferable
warranty; and walnut-grain vinyl finish.

ONE STEP IN THE MAKING OF A KEF

'Many so-called "8 Ohm" speakers present your amplifier with an impedance that varies from 3 to 30 Ohms, depending on frequency. Such speakers can seriously degrade your amplifier's performance.

That's why KEF developed the conjugate load matching crossover. It presents your amplifier with an ideal 4 Ohm resistive load at all frequencies. Because it's easier to drive,

sensitivity and maximum amplifier output are effectively doubled. A conjugate load matching network is difficult to design because it simultaneously tailors frequency, phase and impedance. But the computer helps quite a bit.

'It is this scientific approach, so different from hi-fi pseudo-science, that convinced me to leave the University of Sydney and join KEF.'

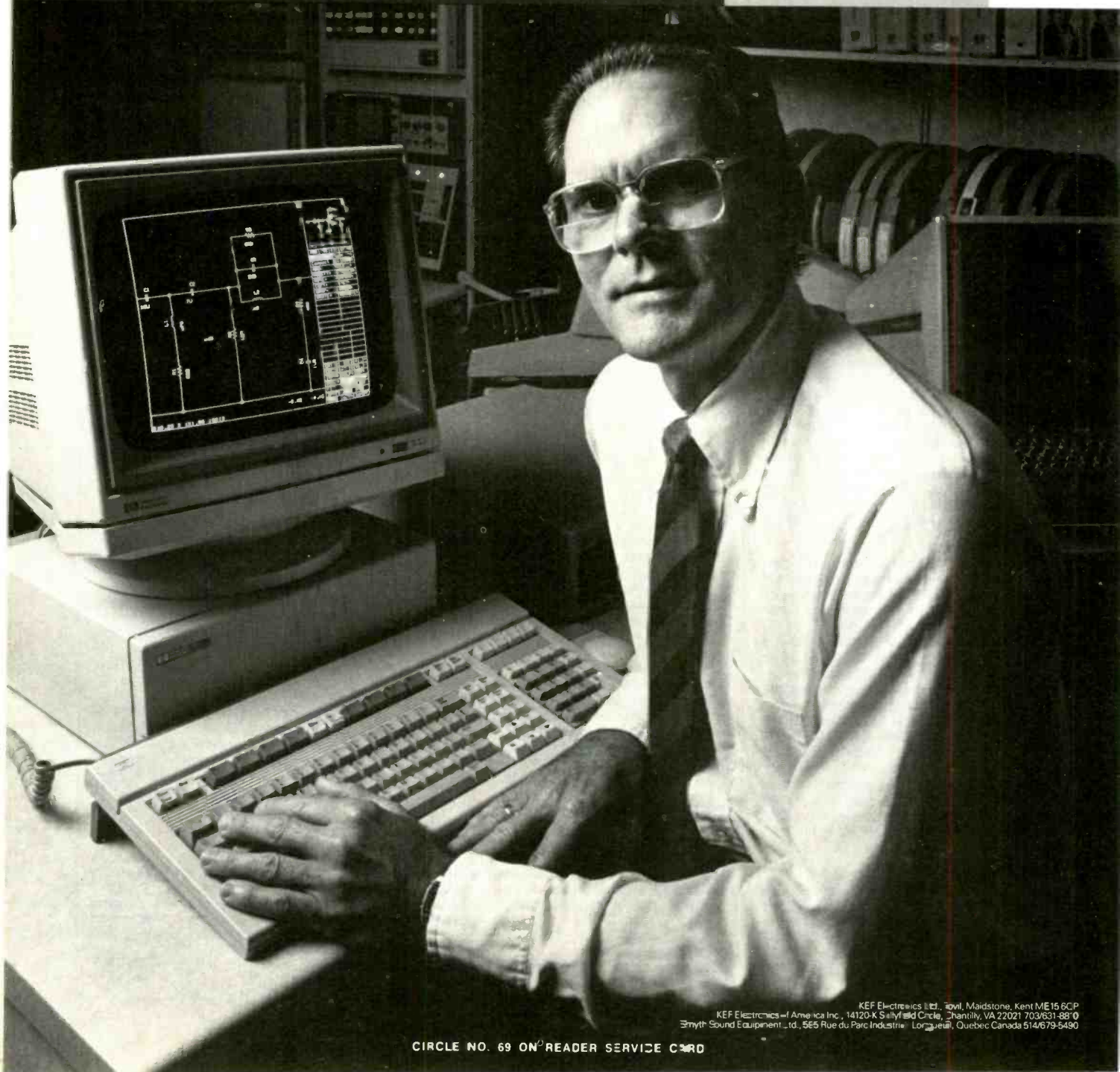


KEF
The Speaker
Engineers

MCDEL C30

'We wanted to make our speakers easier to drive. We ended up making your amplifier twice as powerful!'

— Dr. Richard Small, HEAD OF KEF RESEARCH



KEF Electronics Ltd., Lovell, Maidstone, Kent ME15 6CP
KEF Electronics - America Inc., 14120-K Sallyfield Circle, Chantilly, VA 22021 703/631-8870
Smyth Sound Equipment Ltd., 585 Rue du Parc Industriel, Longueuil, Quebec Canada 514/679-5490

CIRCLE NO. 69 ON READER SERVICE CARD

SPEAKERS

SA 1000. Floor-standing speaker with 10" subwoofer, 6" cone woofer, and 3" cone tweeter. Features tuned-port design with dual-port system. Min power 15 W, max power 200 W; sens 90 dB SPL/W/m; imp 8 ohms. \$858/pr

SA 500. Floor-standing speaker with 10" cone woofer and 3" cone tweeter. Features tuned-port design with dual-port system. Min power 15 W, max power 150 W; sens 91 dB 2.83 V input at 1 m, 2-pi field; imp 8 ohms; crossover frequency 1,300 Hz; 22.25" H x 13.25" W x 11.25" D; 22.5 lbs ea \$549/pr

SA 300. Bookshelf or floor-standing speaker with 8" woofer and 3" tweeter. Features tuned port design with single port. Min power 15 W, max power 100 W; sens 90 dB 2.83 V input at 1 m, 2-pi field; imp 8 ohms; crossover frequency 1,100 Hz. 18.25" H x 11.25" W x 9" D; 15.5 lbs ea \$349/pr

SA 200. Bookshelf speaker with 6" cone woofer and 3" cone tweeter. Features tuned-port design with single port. Min power 10 W, max power 75 W; sens 90 dB 2.83 V input at 1 m, 2-pi field; imp 8 ohms; crossover frequency 1,900 Hz. 9" W x 14" H x 7.25" D; 10.3 lbs ea \$289/pr

JAMO

Digital Monitor Series

All Jamo Digital Monitor speakers have anthracite finish and detachable grilles.

CBR 200. 3-way speaker with 10" woofer, 5" midrange, 1" dome tweeter. Features treble and midrange sound pressure control; treble overload diode. Peak power 300 W; continuous power 200 W; sens 92 dB SPL/W/m; FR 25-24,000 Hz \pm 3 dB; crossover 540/3,800 Hz; imp 8 ohms. 32.25" x 15.75" x 13.75"; 53 lbs \$1,198/pr

CBR 120. 3-way speaker with 8" woofer, 4" midrange, 1" dome tweeter. Features treble sound pressure control; treble overload diode. Peak power 180 W; continuous power 120 W; sens 91.2 dB SPL/W/m; FR 28-22,000 Hz \pm 3 dB; crossover 890/4,900 Hz; imp 8 ohms. 27.5" x 13.75" x 11.75"; 37.5 lbs \$798/pr

CBR 90. 3-way speaker with 6.5" woofer, 4" midrange, 1" dome tweeter. Features treble sound pressure control; treble overload diode. Peak power 130 W; continuous power 90 W; sens 90 dB SPL/W/m; FR 35-20,000 Hz \pm 3 dB; crossover 960/5,000 Hz; imp 8 ohms. 23.5" x 11.75" x 9.75"; 24 lbs \$598/pr

Power Line Series

566. Features 12" woofer; 2" horn midrange; five 1" horn tweeters; midrange/tweeter sound pressure control; midrange/tweeter overload diode. Peak power 500 W rms; continuous power 300 W rms; sens 94 dB SPL/W/m; FR 30-20,000 Hz; crossover 1,200/3,500 Hz; imp 8 ohms. 30" x 18" x 14"; 75 lbs \$1,180/pr

266. Features 8.25" woofer; 1" horn midrange; 1" horn tweeter; midrange/tweeter overload diode. Peak power 200 W rms; continuous power 150 W rms; sens 92 dB SPL/W/m; FR 40-20,000 Hz; crossover 1,400/4,800 Hz; imp 8 ohms. 26.5" x 13" x 10.25"; 33 lbs \$520/pr

166. Features 8.25" woofer; 1" horn tweeter; tweeter overload diode. Peak power 150 W rms; continuous power 100 W rms; sens 91 dB SPL/W/m; FR 45-20,000 Hz; crossover 2,500 Hz; imp 8 ohms. 16.5" x 10.5" x 10"; 19.8 lbs \$320/pr

Scan Line Series

SL-150. 2-way bass-reflex speaker with 6.5" woofer and 1" tweeter. Features tweeter overload diode; tweeter sound pressure control. Peak power 140 W rms; continuous power 100 W rms; sens 99.5 dB SPL/W/m; FR 32-20,000 Hz; crossover 3,800 Hz; imp 8 ohms. 33" x 10.5" x 9.25"; 28.6 lbs \$480/pr

SL-140. 3-way bass-reflex speaker with 8" woofer, 5" midrange and, 1" dome tweeter. Peak power 200 W rms; continuous power 130 W rms; sens 92 dB SPL/W/m; FR 36-20,000 Hz; crossover 1,400/4,000 Hz; imp 8 ohms. 23.5" x 12" x 9"; 18 lbs \$360/pr

SL-80. 2-way bass-reflex speaker with 6.5" woofer and 1" dome tweeter. Peak power 100 W rms; continuous power 70 W rms; sens 90 dB SPL/W/m; FR 45-20,000 Hz; crossover 2,500 Hz; imp 8 ohms. 17.5" x 9" x 8"; 9.5 lbs \$238/pr

Compact Line Series

C90. Bookshelf bass-reflex speaker with 8" cone woofer, 3.25" cone midrange, and 1" dome tweeter. FR 40-20,000 Hz \pm 3 dB; peak power 120 W; continuous power 90 W; sens 91.6 dB SPL/W/m; crossover 1,200/4,000 Hz; imp 8 ohms. 14.5" x 9" x 8.75"; 11 lbs; black finish \$240/pr

C50. Bookshelf bass-reflex speaker with 4" cone woofer and 2" cone tweeter. FR 70-20,000 Hz \pm 3 dB; peak power 60 W; continuous power 50 W; sens 89 dB SPL/W/m; crossover 2,600 Hz; imp 4 ohms. 6.5" x 4" x 6.75"; 5 lbs; black finish \$140/pr

JBL

L Series

L100T Speaker

Three-way floor-standing loudspeaker. Features 12" Aquaplas laminate low frequency transducer; 5" high-polymer laminate mid-frequency transducer; 1" pure titanium diaphragm high-frequency transducer. Max power 200 W continuous, 800 W peak; crossover 800 Hz and 4,500 Hz; sens 91 dB SPL 2.83 V at 1 meter. Oiled hardwood veneer; 36.5" H x 16" W x 13.25" D; 70 lbs \$1,150/pr

L80T Speaker

Three-way floor-standing loudspeaker. Features 10" Aquaplas laminate low frequency transducer; 5" polymer laminate mid-frequency transducer; 1" pure titanium diaphragm high frequency transducer. Power handling: 150 W continuous, 600 W peak; crossover 800 Hz and 4,500 Hz; sens 90 dB SPL 2.83 V at 1 meter. Oiled hardwood veneer; 33.5" H x 14" W x 11.75" D; 53 lbs \$850/pr

L60T Speaker

Two-way floor-standing loudspeaker. Features 8" high-polymer laminate low frequency transducer; 1" pure titanium high-frequency transducer. Power handling: 120 W continuous, 400 W peak; crossover 2,500 Hz; sens 89 dB SPL 2.83 V at 1 meter. Oiled hardwood veneer; 30.5" H x 12" W x 10" D; 38 lbs \$590/pr

L20T Speaker

Two-way bookshelf loudspeaker. Features six .5" filled polypropylene low-frequency transducers; 1" pure titanium diaphragm high-frequency transducer. Power handling: 100 W continuous; 400 W peak; crossover 3,000 Hz; sens 88 dB SPL 2.83 V at 1 meter. Oiled hardwood veneer; 9.36" H x 14.75" W x 8.5" D; 36 lbs \$430/pr

LT-1 Mini Loudspeaker

Mini speaker with 5.25" woofer; 1" dome radiator and high-resolution dividing network. Can be mounted in automobile rear decks, vans, mobile homes and boats; recommended amp power 5-50 W; nominal imp 4 ohms; crossover frequency 2,000 Hz; sens 86 dB SPL/2.83 V/m \$395/pr

B-380 Bass System

Bass system with 15" bass driver and 4" ribbon wire voice coil in a vented alignment. Features

hand-crafted oiled American black walnut veneer cabinet; biamp option with BX63A; max recommended amp power 600 W continuous sine wave; crossover frequency 63 Hz; sens 90 dB; 27.5" x 20.75" x 17" \$750 ea

B460 Bass/Subwoofer

Bass system consists of JBL Model 2245H 18" driver mounted in vented enclosure of 8 cubic feet; the combination is third-order quasi-Butterworth. Features die-cast aluminum frame; integrally stiffened cone with foam surround; edge-wound voice coil 4" diameter and nearly 1" long; individually machined magnetic pole piece and back plate; cone coated with aquaplas damping formulation for optimum mass and density; driver features large high-flux symmetrical-field-geometry magnetic structure to reduce second-harmonic distortion; enclosure is high-density compressed wood, 1" thick and heavily braced. Min recommended amp power 200 W continuous wave; normal imp 8 ohms; crossover frequency 63 Hz (external crossover); sens 94 dB SPL; magnetic assembly weight 20 lb; 24.81" H x 38.31" W x 24.25" D; shipping weight 125.5 lb \$1,700 ea



JBL L100T

Ti Series

250 Ti Speaker

Four-way floor-standing 14" loudspeaker. Features ultra low mass pure titanium diaphragm high-frequency transducer; SFG magnetic structure and polypropylene mid-frequency transducer. Max power 400 W; nominal imp 8 ohms; crossover 400 Hz, 1,400 Hz, 5,200 Hz; sens 90 dB SPL 2.83 V at 1 meter. Hand oiled Burmese teak; 52" H x 22.5" W x 14.25" D; 126 lbs \$3,790/pr

240 Ti Speaker

Three-way floor-standing 14" loudspeaker. Features ultra-low-mass pure titanium diaphragm high-frequency transducer; SFG magnetic structure; polypropylene mid-frequency transducer. Max power 300 W/ch; nominal imp 8 ohms; crossover 900 Hz, 4,000 Hz; sens 89 dB SPL 2.83 V at 1 meter. Hand-oiled Burmese teak; 36.62" H x 18" W x 12" D; 85 lbs \$1,790/pr

120 Ti Speaker

Three-way 12" loudspeaker. Features ultra-low-mass pure titanium diaphragm high-frequency transducer; SFG magnetic structure; polypropylene mid-frequency transducer. Max power 250 W/ch; nominal imp 8 ohms; crossover 900 Hz, 4,000 Hz; sens 89 dB SPL 2.83 V at 1 meter. Hand-oiled Burmese teak; 24.5" H x 14.5" W x 11" D; 54 lbs \$1,190/pr

SPEAKERS

18 Ti Speaker

Two-way 6.5" loudspeaker. Features ultra-low mass pure titanium diaphragm high-frequency transducer; SFG magnetic structure; polypropylene low-frequency transducer. Max power 200 W/ch; nominal imp 8 ohms; crossover 3,000 Hz; sens 88 dB SPL/2.83 V at 1 meter. Hand-oiled Burmese teak; 14.75" H x 9.36" W x 7.19" D; 17.5 lbs. \$590/pr

JBL series

JBL 940 Speaker

Floor-standing bass-reflex 4-way speaker featuring 1" titanium laminate dome tweeter; 2 10" x 8" high polymer laminate cone woofers; 5" high polymer laminate cone midrange. FR 34-25,000 Hz ± 3 dB; minimum power 10 W rms, max power 300 W rms; sens 94 dB SPL/W/m; imp 6 ohms; rosewood vinyl finish; 65 lbs; 18.5" W x 43.75" H x 10.25" D \$790/pr

JBL 830 Speaker

Floor-standing bass-reflex 3-way speaker with 2 8" high polymer laminate cone woofers; 1" titanium laminate dome tweeter. FR 40-25,000 Hz ± 3 dB; minimum power 10 W rms, max power 200 W rms; sens 94 dB SPL/W/m; imp 6 ohms; rosewood vinyl finish; 53 lbs; 16.75" W x 39.75" H x 8.75" D \$590/pr

JBL 630 Speaker

Floor-standing 3-way bass-reflex speaker with 2 6.5" high polymer cone woofers and 1" titanium laminate dome tweeter. FR 42-25,000 Hz ± 3 dB; minimum power 10 W rms, max power 150 W rms; sens 93 dB SPL/W/m; imp 6 ohms; rosewood vinyl finish; 40 lbs; 15" W x 35.75" H x 8.25" D \$450/pr

JBL 82 Speaker

Floor-standing bass-reflex speaker with 8" polymer laminate cone and 1" titanium laminate dome tweeter. FR 45-25,000 Hz ± 3 dB; minimum power 10 W rms, max power 125 W rms; sens 90 dB SPL/W/m; imp 8 ohms; rosewood vinyl finish; 30 lbs; 14" W x 22" H x 8" D \$330/pr

JENSEN

Concert Series Speakers

1230. Acoustic-suspension 3-way speaker with 12" woofer, 5" midrange, 3" direct-radiator tweeter. Features walnut-grain vinyl finish; black cloth grille. FR 56-21,000 Hz; crossovers 3.5 and 10 kHz; power range 10-70 W continuous; imp 8 ohms; 27" H x 16.94" W x 11.06" D \$398/pr

1030. Similar to 1230 except has 10" woofer. Low-end response 58 Hz; power range 10-60 W; 24.5" H x 15" W x 10.19" D \$338/pr

820. Similar to 1030 except 8" woofer, no midrange driver; crossover 3.5 kHz; power range 10-50 W; 20.94" H x 11.75" W x 9.25" D \$238/pr

JSE

Infinite Slope Model 1.8 Speaker

Infinite Slope, Phase Shift Bass Loading speaker with patented phase shift. Contains 8" and 10" cone woofers, 6" cone midrange, and 28 mm dome tweeter. FR 35-20,000 Hz ± 3 dB; minimum power 20 W rms, max power 300 W rms; sens 90 dB SPL/W/m; imp 8 ohms; oak, walnut, black gloss; 100 lbs; 16" W x 38" H x 16" D \$1,595/pr

Infinite Slope Model 1 Loudspeaker

Sealed floor-standing speaker featuring Infinite Slope crossover and patented Phase Shift Bass Loading. Front of speaker angled 15°. Two cone woofers 7", 8"; 28 mm dome tweeter. Available

in oak, walnut, black gloss. FR 40-20,000 Hz ± 2 dB; power range 10-150 W; imp 8 ohms; sens 90 dB SPL/W/m; 55 lbs; 13" W x 29" H x 14.5" D \$969/pr

Model 2. Similar to above except has cone woofers of 12" and 10", with 6.5" cone and 2" dome midranges, 21 mm dome tweeter. Front of speaker angled 8°. FR 25-24,000 Hz ± 2 dB; power range 50-350 W; sens 90 dB SPL/W/m; imp 8 ohms; 47" H x 18" W x 16" D at bottom, 11" D at top; 150 lbs \$2,195/pr

Infinite Slope Model .6 Speaker

Floor-standing ported speaker with infinite slope crossover (100 dB/octave). Features 8" cone woofer, 1" dome tweeter. FR 40-20,000 Hz ± 3 dB; power range 5-150 W; sens 91 dB SPL/W/m; imp 8 ohms; walnut, oak, black lacquer finish; 11" W x 23" H x 13" D; 35 lbs \$579/pr

JVC

SX-A3 2-Way Speaker

Bookshelf passive-radiator speaker with self-restoring protection for more tweeter power, LED overload indicator. Magnetically shielded for both audio and video use. Features 8" x 12" passive radiator; 8" cone woofer; 1" soft-dome tweeter. FR 35-23,000 Hz ± 3 dB; min power 130 W rms; max power 200 W music; sens 88 dB SPL/W/m; imp 6 ohms. Wood finish. 13.5" W x 24.5" H x 11.31" D; 31 lbs \$400/pr

SX-A6 Passive-Radiator Speaker

Floor-standing 4-way 5-speaker system with two 3" ambience enhancement drivers in rear, self-restoring protection for more tweeter power, LED overload indicator. Features 9.25" x 13.75" passive radiator; 8" cone woofer; 1.25" soft-dome midrange; 1" soft-dome tweeter. FR 25-23,000 Hz ± 3 dB; min power 150 W rms; max power 240 W music; sens 89 dB SPL/W/m; imp 6 ohms. Wood finish. 15.36" W x 31.88" H x 10.23" D; 38.6 lbs \$250 ea



KEF C40

KEF

Professional Series

KM-1 Monitor Loudspeaker

Monitor speaker designed to produce high sound-pressure levels without sacrificing sonic accuracy. Includes integral power amp with 2 power supplies and output sections producing a max output >1,200 W. Features 3-way dividing/equalizing network fed from separate power supply; floating input circuit; S-type soft-clipping limiter; full electronic overload protection. Sound-pressure level on peaks of 120 dB under typical listening conditions; FR 30-20,000 Hz ± 2 dB; S/N > 100 dB; 2nd and 3rd harmonic distortion < 1.0% 20-20,000 Hz (measured at 1 m on axis at mean SPL of 96 dB under an-

echoic conditions); volume compression < 1 dB 20-20,000 Hz to 120 dB; input imp 20 kohms balanced; input sens 0.774 V nominal (0 dB), adjustable in 2 dB steps from -20 dBm to +12 dBm for full output. 264 lbs (120 kg); 30.5" H x 52.75" W x 26" D \$19,000/pr

Reference Series

Model 107 3-Way Speaker

Floor-standing coupled-cavity bass-loading speaker uses 2 woofers operating into a resonant chamber vented at top of enclosure to combine sensitivity of bass reflex with accuracy and bass-extension of acoustic suspension. Features two 10" cone woofers; 4" polypropylene-cone midrange; 1" ferrofluid-cooled soft-dome tweeter; pivoting midrange/tweeter head assembly with individual contoured enclosures for minimum diffraction, reduced off-axis coloration, and optimum stereo imaging; hybrid crossover network with built-in passive crossover and outboard KUBE active bass EQ with controls for contour, damping, and extension. Conjugate load-matched passive crossover presents amp with uniform imp at all frequencies. FR 20-20,000 Hz ± 2 dB; min power 50 W rms; max power 300 W rms; sens 90 dB SPL/W/m; imp 4 ohms. Walnut, black ash, rosewood. 13" W x 46" H x 17.75" D; 99 lbs \$3,900/pr

104/2 3-Way Speaker

Floor-standing speaker with cone woofers vertically aligned, coupled-cavity bass loading technique, chassis-less drivers, conjugate load matching. Two 8" cone woofers, two 4.5" cone midranges and 1" ferrofluid-cooled dome tweeter. FR 55-20,000 Hz ± 2 dB; power range 25-200 W; sens 92 dB SPL/W/m; imp 4 ohms; walnut, black ash, rosewood finish; 11" W x 35.5" H x 16.36" D; 70.5 lbs. Walnut or black ash finish \$1,750/pr
Rosewood finish \$1,850/pr

103/3 3-Way Speaker

Bookshelf coupled-cavity bass-loading speaker with woofer operating into a resonant chamber vented at bottom of enclosure to combine sensitivity of bass reflex with accuracy and bass-extension of acoustic suspension. Features 8" cone woofer; 6" polypropylene-cone midrange; 1" ferrofluid-cooled soft-dome tweeter; hybrid crossover network with built-in passive crossover and outboard KUBE active bass EQ with controls for contour and extension. Conjugate load-matched passive crossover presents amp with uniform imp at all frequencies. FR 50-20,000 Hz ± 2 dB; min power 50 W rms; max power 200 W rms; sens 92 dB SPL/W/m; imp 4 ohms. Walnut, black ash, rosewood. Includes feet for shelf mounting. 10.5" W x 22.75" H x 12.5" D; 38 lbs \$1,390/pr

Model 102 2-Way Speaker

Bookshelf closed-box speaker with 6" polypropylene-cone woofer; 1" ferrofluid-cooled soft-dome tweeter. Features hybrid crossover network with built-in passive crossover and outboard KUBE active bass EQ with controls for contour and extension. Conjugate load-matched passive crossover presents amp with uniform imp at all frequencies. FR 65-20,000 Hz ± 2 dB; min power 50 W rms; max power 200 W rms; sens 92 dB SPL/W/m; imp 4 ohms. Walnut, black ash, rosewood. 8.25" W x 13" H x 10.5" D; 15 lbs \$790/pr

C Series

C80 3-Way Speaker

Floor-standing closed-box speaker with conjugate load-matched crossover network that presents amp with uniform imp at all frequencies. Features flat-diaphragm woofer; 6" poly-

SPEAKERS

propylene-cone midrange; 1" ferrofluid-cooled soft-dome tweeter; matched walnut, rosewood, or black-ash veneers. FR 50-20,000 Hz \pm 3 dB; min power 15 W rms; max power 150 W rms; sens 89 dB SPL/W/m; imp 4 ohms. 10.5" W x 33.5" H x 12.5" D; 44 lbs \$1,090/pr

C60 2-Way Speaker

Bookshelf closed-box speaker with conjugate load-matched crossover network that presents amp with uniform imp at all frequencies. Features 8" polypropylene-cone woofer with die-cast alloy chassis; 1" ferrofluid-cooled soft-dome tweeter; matched walnut, rosewood, or black ash veneers. FR 66-20,000 Hz \pm 3 dB; min power 10 W rms; max power 100 W rms; sens 89 dB SPL/W/m; imp 4 ohms. 10" W x 18.5" H x 12.25" D; 27 lbs \$690/pr

C40 2-Way Speaker

Floor-standing closed-box speaker with 3rd-order bass loading to increase low-frequency extension and power handling. Features two 8" polypropylene-cone woofers; 1" soft-dome tweeter. FR 68-20,000 Hz \pm 3 dB; min power 10 W rms; max power 100 W rms; sens 91 dB SPL/W/m; imp 8 ohms. Simulated black-ash and walnut finishes. \$490/pr

C30 2-Way Speaker

Bookshelf closed-box speaker with 8" polypropylene-cone woofer and 1" soft-dome tweeter. FR 70-20,000 Hz \pm 3 dB; min power 10 W rms; max power 100 W rms; sens 90 dB SPL/W/m; imp 8 ohms. Simulated walnut and black-ash finishes. \$350/pr

C20 2-Way Speaker

Bookshelf closed-box speaker with 3rd-order bass loading to increase low-frequency extension and power handling. Features 8" polypropylene-cone woofer; 1" soft-dome tweeter; shelved low-frequency response. FR 72-400 Hz \pm 3 dB rising 3 dB to \pm 3 dB 800-20,000 Hz; min power 10 W rms; max power 100 W rms; sens 90 dB SPL/W/m; imp 8 ohms. Simulated black-ash and walnut finishes. 9.75" W x 13.5" H x 8.5" D; 12 lbs \$290/pr

C10 2-Way Speaker

Bookshelf closed-box speaker with 3rd-order bass loading to increase low-frequency extension and power handling. Features 6" polypropylene-cone woofer; 1" soft-dome tweeter; shelved low-frequency response. FR 90-500 Hz \pm 3 dB rising 3 dB to \pm 3 dB 1,000-20,000 Hz; min power 10 W rms; max power 60 W rms; sens 88 dB SPL/W/m; imp 8 ohms. Simulated black ash and walnut finishes. \$220/pr

KENWOOD

LSK-701(W) Speaker

Bookshelf acoustic-suspension 3-way, 3-driver speaker with 12" thermal shock-treated cone woofers; 4.36" cone midrange; 2.36" tweeter. Max power 160 W; sens 90 dB SPL/W/m; imp 8 ohms; walnut-grain vinyl finish; 14.94" W x 26.36" H x 10.19" D; 24.2 lbs each \$284/pr

LSK-501(W) Speaker

Bookshelf acoustic-suspension 3-way, 3-driver speaker. Features high-strength enclosure with edgeless baffle; 10" thermal shock-treated cone woofer; 4.36" cone midrange; 2.36" cone tweeter. Max power 130 W; sens 89 dB SPL/W/m; imp 8 ohms; walnut-grain vinyl finish; 14" W x 25.36" H x 10.19" D; 20.9 lbs each \$245/pr

LSK-301(W) Speaker

Bookshelf acoustic-suspension 2-way, 2-speaker system. Features high-strength enclosure with

edgeless baffle; 8" woofers; 2.36" tweeter. Max power 100 W; sens 89 dB SPL/W/m; imp 8 ohms; walnut-grain vinyl finish; 12.06" W x 21.81" H x 8.56" D; 13.2 lbs each \$142/pr

KIRKSAETER

Monitor 200 Amplified Speaker

Floor-standing or bookshelf infinite baffle-speaker with two 200-W amplifiers in each speaker. Features built-in electronic crossover; room-matching controls; 12" long excursion woofer; 2" soft-metal dome midrange; 0.75" titanium-dome tweeter with ferrofluid magnet. FR 18-32,000 Hz \pm 5 dB; walnut, mahogany, cherry, teak, oak finishes. 13.75" W x 22.88" H x 10.62" D \$1,999/pr

Monitor 130 Amplified Speaker

Bookshelf infinite-baffle speaker with two 130-W amplifiers in each speaker. Features electronic crossover; room matching controls; 10" long excursion woofer; 2" dome suprynl midrange; 0.75" titanium-dome tweeter with ferrofluid magnet. FR 20-32,000 Hz \pm 5 dB; walnut, mahogany, teak, cherry, oak finishes; 12.25" W x 20.5" H x 10.25" D \$1,699/pr

Monitor 100 Amplified Speaker

Bookshelf infinite-baffle speaker with one 110-W amplifier in each speaker. Features passive crossover; room matching controls; 8" long excursion woofer; 2" dome suprynl midrange; 0.75" titanium-dome tweeter with ferrofluid magnet. FR 22-32,000 Hz \pm 5 dB; walnut, mahogany, teak, cherry, oak finishes; 10.62" W x 18.12" H x 8.62" D \$1,399/pr

Monitor Tower 140 Speaker

Floor-standing acoustic-suspension infinite-baffle speaker with 10" long-excursion woofer, 2" suprynl-dome midrange with 2.3-lb magnet; 0.75" titanium-dome tweeter with ferrofluid. FR 25-32,000 Hz; power range 10-140 W; sens 93 dB SPL/W/m; imp 4/8 ohms. 6 wood, 10 glossy-color finishes. 11.12" W x 37" H x 11.12" D \$1,399/pr

Monitor 100 3-Way Speaker

Bookshelf infinite-baffle speaker. Features 8" long-excursion woofer; 2" suprynl dome midrange; 0.75" titanium-dome tweeter with ferrofluid magnet. FR 30-32,000 Hz \pm 5 dB; power range 10-100 W; sens 92 dB SPL/W/m; imp 4/8 ohms; walnut, mahogany, teak, cherry, oak. 10.6" W x 18.4" H x 8.6" D \$680/pr

Monitor 80 2-Way Speaker

Bookshelf infinite-baffle speaker. Features 8" long-excursion woofer; 1" titanium-dome tweeter with twin magnet. FR 35-32,000 Hz \pm 5 dB; power range 10-80 W; sens 93 dB SPL/W/m; imp 4/8 ohms; walnut, mahogany, teak, cherry, oak; 10.62" W x 18.36" H x 8.62" D \$520/pr

SAT-1 Ported Speaker

Bookshelf speaker with 4.25" long-excursion woofer and 7" titanium-dome midrange/tweeter with twin magnet. FR 68-32,000 Hz \pm 5 dB. power range 15-70 W; sens 88 dB SPL/W/m; imp 4/8 ohms; walnut, mahogany, teak, cherry, oak; 5.5" W x 9.88" H x 7" D \$480/pr

Subwoofer 500

Floor-standing infinite-baffle amplified subwoofer with an impulse power of 500 W. Features built-in adjustable electronic crossover (80, 120, 150 Hz); volume control; 12" long excursion subwoofer. FR 20-80, 20-120, 20-150 Hz \pm 5 dB; max power 500 W; walnut, mahogany, black/antique/unfinished oak; 14.62" W x 15.12" H x 14.62" D \$799

KLH BY KYOCERA

Model 882 Speaker

2-way acoustic-suspension speaker with eight-sided enclosure for versatile placement. Features 8" woofer; 1" polymer soft-dome tweeter with ferrofluid-cooled voice coil. Woofer uses a heavy-duty magnet structure and an oversized, 1" voice coil for increased efficiency and power handling. For smooth, linear motion, woofer has a compliant neoprene surround. Enclosure has back left and right edges cut off at a 45° angle \$320/pr

Model 862. Similar to Model 882 except has 6" polypropylene woofer \$238/pr

KLIPSCH

Klipschorn Speaker

Fully horn-loaded 3-way speaker requiring corner placement. Sens 104 dB SPL/W/m; power handling 100 W; FR 35-17,000 Hz \pm 5 dB; 52" H x 31.25" W x 28.5" D. Priced depending on finish from approx \$2,800/pr

Belle Klipsch. Fully horn-loaded floor-standing 3-way speaker. Utilizes same drive components



Klipsch Klipschorn

as Klipschorn. Sens 104 dB SPL/W/m; power handling 100 W; FR 45-17,000 Hz \pm 5 dB; 35.62" H x 30.12" W x 18.75" D. Available in exotic woods, priced depending on finish from approx \$2,250/pr

Cornwall II. 3-way speaker with horn-loaded compression tweeter and midrange, 15" woofer in ported enclosure. Sens 100 dB SPL/W/m; power handling 100 W; FR 38-20,000 Hz \pm 3 dB; 35.75" H x 25.5" W x 15.5" D. Available in exotic woods, priced depending on finish from approx \$1,550/pr

Forté. 3-way speaker with horn-loaded compression drivers for tweeter and midrange, 12" woofer, and 12" passive radiator mounted on rear of cabinet. FR 32-20,000 \pm 3 dB; sens 96 dB SPL/W/m; power handling 100 W. 35" H x 17" W x 12" D. Priced depending on finish from approx \$1,000/pr

Hersey II. 3-way speaker with horn-loaded compression tweeter and midrange, 12" woofer in sealed enclosure. FR 50-20,000 Hz \pm 3 dB; max handling power 100 W; sens 96 dB SPL/W/m. 21.36" H x 15.5" W x 13.5" D. Priced depending on finish from approx \$830/pr

kg[®] Floor-Standing Speaker

2-way speaker with 12" rear-mounted passive radiator, two 8" polymer-cone woofers, horn-loaded tweeter. FR 38-20,000 Hz \pm 3 dB; max power 100 watts; sens 94 dB SPL/W/m. 24.25" H x 15.75" W x 10.75" D. Oak or walnut. From approx \$590/pr

At last, you've found the perfect Partners.™



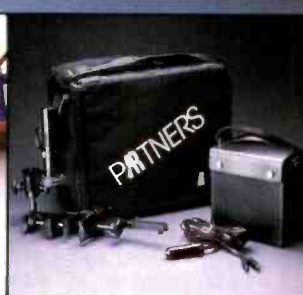
THE PERFECT PARTNERS FOR YOUR JEEP.™
Now you can take high fidelity sound wherever four wheels take you.



THE PERFECT PARTNERS FOR YOUR STEREO TV.
Add theatrical excitement to your favorite movies and videos.



THE PERFECT PARTNERS FOR YOUR DISCMAN.™
Now your Discman™ can play to a larger audience.



THE PARTNERS' PARTNERS.
Custom Carrying Case; Wall/Shelf Mount Bracket; 12V Adaptor; Rechargeable Battery Pack.

Jeep is a trademark of American Motors. Walkman and Discman are trademarks of Sony Corp.

For those of you who have wanted to listen to *high quality* sound both in and out of the listening room, your wait is over. AR's new Powered Partners™ stereo loudspeakers are unlike any portable or transportable speakers to date. They feature an individual powerful amplifier, a 4" woofer and 1" tweeter in each impact-resistant, black crackle, cast aluminum enclosure. They also feature individual volume and tone controls, inputs for anything from an FM or cassette

Walkman™ or Stereo TV Receiver to the latest portable CD players. A battery pack, DC adaptor, and carrying case featuring Music Windows with Velcro™ closures, are optional touches of perfection.

Simply put, the Powered Partners deliver the best sound you can carry. No surprise. They come from AR, the company that's been making speakers sound great for 32 years.

SPEAKERS

KOSS

Dynamite M/80 Plus Speaker

Acoustic-suspension bookshelf speaker with automatic circuit breaker guard against speaker damage. Features dual active 4.5" woofers, 1" dome tweeter; FR 50-30,000 Hz \pm 3 dB; min power 10 W rms; max power 100 music; imp 6 ohms. 8 lbs. 5.25" W x 12" H x 5.25" D. \$180

LINN BY AUDIOPHILE SYSTEMS

DMS Isobarik Speaker System

Isobarik-loading 3-way floor-standing speaker with 12", 9" woofers, 5" midrange, two 1" dome tweeters. FR 25-20,000 Hz \pm 1.5 dB; crossovers 375 and 3 kHz; instantaneous dynamic range 54 dB; imp 4 ohms; power range 50-500 W; 30" H x 15" W x 16.5" D. \$2,995/pr

S.A.R.A. Isobarik Speaker System

Isobarik-loading 2-way bookshelf speaker system with two 8" woofers, 1" dome tweeter. Features cast structural foam housing. FR 36-20,000 Hz \pm 2 dB; imp 4 ohms; 17" H x 13" W x 10" D. \$1,250/pr

K.A.N. Speaker System

Acoustic-suspension 2-way bookshelf speaker with 5" woofer, 1" dome tweeter. FR 70-20,000 Hz \pm 3 dB; imp 8 ohms; 12" H x 7.5" W x 6.5" D. \$595/pr

INDEX Loudspeaker

2-way floor placement or bookshelf loudspeaker with acoustic suspension. Features 8" KEF B200 cone woofer; 1" dome tweeter; cabinet of full .75" high density particle board; 50 strand 20 amp cable. FR 60-20,000 Hz \pm 3 dB; minimum power 15 W; max power 50 W; sens 87 dB SPL/W/m; imp 8 ohms. 11" W x 17" H x 8" D; 17 lbs; available in black woodgrain. \$350/pr

MAGNASPHERE BY MAGNAT

Delta 3-Way Speaker

Floor-standing acoustic-suspension speaker with six 5.25" long-throw woofers, 2" Magnasphere spherical soft-metal midrange, and 1" Magnasphere spherical soft-metal tweeter. Baffle-free spherical midrange and tweeter provide omnidirectional dispersion and complete freedom from baffle effects, providing superior imaging. Extremely small, oddly shaped baffles surround bass/midbass drivers to maintain omnidirectional baffle-free characteristics in low frequencies. Unique shape also increases effective rigidity of cabinet and virtually eliminates internal standing waves. Soft-metal drivers provide rigidity without the sharp resonant peaks of metal drivers. All drivers use voice coils made of Magnat rectangular Ribbon-Wire for increased winding density and better transient response. FR 32-29,000 Hz \pm 3 dB; min power 30 W rms; max power 120 W rms; sens 88.5 dB SPL/W/m; imp 4 ohms. Gray lacquer finish with black steel grille. 13.75" W x 44" H x 13.75" D; 65 lbs. \$2,490/pr

Gamma Acoustic-Suspension Speaker

Floor-standing speaker with two 5.25" cone mid/bass drivers; two 8" long-fiber-pulp cone woofers; 2" Magnasphere spherical soft-metal midrange; 1" Magnasphere spherical soft-metal tweeter. Baffle-free spherical midrange and tweeter provide omnidirectional dispersion and complete freedom from baffle effects, providing superior imaging. Extremely small, oddly shaped baffles surround bass/midbass drivers to maintain omnidirectional baffle-free characteristics in low frequencies. Unique shape also increases effective rigidity of cabinet and virtually eliminates internal standing waves. Soft-metal drivers provide rigidity without the sharp resonant

peaks of metal drivers. All drivers use voice coils made of Magnat rectangular Ribbon-Wire for increased winding density and better transient response. FR 32-29,000 Hz \pm 3 dB; min power 30 W rms; max power 140 W rms; sens 87 dB SPL/W/m; imp 4 ohms. Mahogany or black-oak finish with black metal grille. 14" W x 50" H x 14" D; 67 lbs. \$1,990/pr

Beta Acoustic-Suspension Speaker

Floor-standing speaker with 5.25" cone mid/bass driver; 8" long-fiber-pulp cone woofer; 2" Magnasphere spherical soft-metal midrange; 1" Magnasphere spherical soft-metal tweeter. Baffle-free spherical midrange and tweeter provide omnidirectional dispersion and complete freedom from baffle effects, providing superior imaging. Extremely small, oddly shaped baffles surround bass/midbass drivers to maintain omnidirectional baffle-free characteristics in low frequencies. Unique shape also increases effective rigidity of cabinet and virtually eliminates internal standing waves. Soft-metal drivers provide rigidity without the sharp resonant peaks of metal drivers. All drivers use voice coils made of Magnat rectangular Ribbon-Wire for increased winding density and better transient response. FR 37-29,000 Hz \pm 3 dB; min power 30 W rms; max power 100 W rms; sens 87 dB SPL/W/m; imp 4 ohms. Mahogany or black-oak finish with black metal grille. 13" W x 43" H x 13" D; 54 lbs. \$1,590/pr



Magnat MSP 300

MSP Series Speakers

All MSP speakers are acoustic suspension with all drivers using voice coils made of Magnat's exclusive Ribbon-Wire which allows up to 40% more winding density and improved transient response. Crossovers use ultra-low-dissipation-factor poly capacitors for improved imaging and transient texture. Soft-metal tweeter domes offer greater rigidity without sharp resonant peaks. Baffle is coated with electrostatically deposited flocking material to reduce diffraction and local reflection. Cabinets are 1.1" ultra-high-density multi-layer wood with heavy internal bracing.

300. Floor-standing. Two 8" long-fiber-pulp cone woofers; 2" Supranyl dome midrange; 1" soft-metal dome tweeter. FR 32-29,000 Hz \pm 3 dB; min power 25 W rms; max power 140 W rms; sens 87 dB SPL/W/m; imp 4 ohms. Walnut finish with 8-layer black piano-lacquer top. 11.5" W x 42.25" H x 11" D; 60 lbs. \$1,390/pr
200. Floor-standing. 8" long-fiber-pulp cone woofer; 2" Supranyl dome midrange; 1" soft-metal dome tweeter. FR 37-29,000 Hz \pm 3 dB;

min power 25 W rms; max power 100 W rms; sens 87 dB SPL/W/m; imp 4 ohms. Walnut finish with 8-layer black piano-lacquer top. 11.5" W x 36.36" H x 11" D; 52 lbs. \$1,190/pr

All-Ribbon Series Speakers

Acoustic-suspension bookshelf speakers using Magnat's Ribbon-Wire voice coils in all drivers for up to 40% greater winding density and improved transient response. Front-baffle surface is coated with electrostatically deposited flocking material to reduce local reflection and diffraction. Cabinets are constructed of internally braced ultra-high-density multi-layer wood.

8P. 10" cone woofer with cast-aluminum-alloy basket; 2" Supranyl dome midrange with cast-alloy frame; 1" soft-metal dome tweeter with cast-alloy frame. FR 33-29,000 Hz \pm 3 dB; min power 15 W rms; max power 120 W rms; sens 89 dB SPL/W/m; imp 8 ohms. Walnut finish with brown cloth grille. 13.75" W x 22.62" H x 11.88" D; 44 lbs. \$950/pr

4V. 8" long-fiber-pulp cone woofer; 2" Supranyl dome midrange; 1" soft-metal dome tweeter. FR 42-29,000 Hz \pm 3 dB; min power 15 W rms; max power 90 W rms; sens 89 dB SPL/W/m; imp 4-8 ohms. Walnut-grain-vinyl finish with brown cloth grille. 11" W x 20" H x 9.62" D; 29 lbs. \$500/pr

Monitor Series Speakers

Bookshelf acoustic-suspension 3-way speakers with ultra-low-resonance, high-rigidity diaphragms. Crossover networks use ultra-low-dissipation-factor capacitors. Magnat Ribbon-Wire voice coils used in tweeter.

D. 10" cone woofer with cast-aluminum basket; 4" cone midrange; 1" soft-metal dome tweeter. FR 40-29,000 Hz \pm 3 dB; min power 10 W rms; max power 100 W rms; sens 90 dB SPL/W/m; imp 4-8 ohms. Black wood-grained vinyl with black metal grille. 16.5" W x 24.5" H x 15.75" D; 26.5 lbs. \$458/pr

C. 8" long-throw cone woofer; 4" cone midrange; 1" soft-metal dome tweeter. FR 46-29,000 Hz \pm 3 dB; min power 10 W rms; max power 90 W rms; sens 90 dB SPL/W/m; imp 4-8 ohms. Black wood-grained vinyl with black metal grille. \$398/pr

A. 8" long-throw cone woofer; 4" cone midrange; 0.75" Supranyl dome tweeter. FR 54-20,000 Hz \pm 3 dB; min power 10 W rms; max power 60 W rms; sens 90 dB SPL/W/m; imp 8 ohms. Black wood-grained vinyl with black metal grille. \$298/pr

MAGNEPAN

Magneplanar Tympani-IVa

Planar-magnetic speaker with reduced-mass midrange driver. Features 5-ft-long, 2.5-microns-thick transformerless and bipolar aluminum-ribbon tweeter; 2 bass panels. Tweeter FR 2,000-50,000 Hz. \$3,800/pr

Magneplanar MG-IIIa Speaker

Floor-standing full-range bipolar panel speaker with planar-magnetic and ribbon-driver design. Can be bi-amplified. Drivers are 1 planar-magnetic woofer (620" sq.); 1 planar-magnetic midrange (170" sq.); 1 line-source 5' bipolar ribbon tweeter (14.25" sq.). Imp 4 ohms; off-white cloth, oak frame; 55 lbs. \$1,995/pr

Magneplanar MG-IIC Speaker

Floor-standing 2-way speaker with Magneplanar woofer and tweeter. Features oak side rails; brown fabric grille. FR 40-18,000 Hz \pm 3 dB; power range 25-200 W rms; imp 5 ohms purely resistive; crossover 400-1,600 kHz at 6 dB/octave; 71" H x 22" W x 2" D; 70 lbs. \$1,225/pr

SPEAKERS

Magneplanar MG-IC Speaker

Floor-standing 2-way speaker with Magneplanar woofer and tweeter. Features oak side rails; off-white fabric grille. FR 45-18,000 Hz \pm 4 dB; crossover 1.6 kHz; sens 82-dB SPL/W/3 ft.; power range 40-200 W rms; imp 5 ohms purely resistive; 60" H x 22" W x 2" D \$875

Magneplanar SMGa Speaker

Full-range 2-way speaker with 0.5-mil diaphragm driven by Magneplanar magnetic field. Features oak side rails; brown fabric grille. FR



Magnepan MG-IIIa

50-16,000 Hz \pm 4 dB; power range 20-100 W rms; imp 4 ohms purely resistive; crossover 2.4 kHz; 48.56" H x 24.25" W x 1.75" D \$535

M&K

Satellite 1B 2-Way Speaker

Acoustic-suspension with two 5" polypropylene woofers, two 1" soft-dome tweeters. Features 36 tonal balances through midrange; tweeter character switches. Walnut or oak finish with black grille. FR 70-22,000 Hz \pm 3 dB; power range 7.5-400 W; imp 4 ohms. 21" H x 7.75" W x 7.62" D; 19 lb \$695/pr

Satellite 2B 2-Way Speaker

Acoustic-suspension speaker with 6.5" polypropylene woofer, 1" soft-dome tweeter. Features selector for 36 tonal balances; midrange, treble character switches. Walnut or oak finish with black grille. FR 65-20,000 Hz \pm 3 dB; power range 15-100 W. 10.5" H x 7" D x 6.5" W; 9 lb \$525/pr

SX-4 2-Way Satellites

Acoustic-suspension speaker with two 5" woofers and two 1" soft dome tweeters. 4 tonal balances available through multiple inputs. Hickory/walnut vinyl or black vinyl finish. FR 70-20,000 Hz \pm 3 dB \$475/pr

Satellite 3B 2-Way Speaker

Acoustic-suspension speaker with 5" polypropylene woofer, 1" soft-dome tweeter. Features selector for 4 tonal balances via multiple inputs. Walnut veneer or black finish with black grilles. FR 100-20,000 Hz \pm 3 dB; power range 15-100 W; 10.5" H x 7" D x 6.5" W; Black \$375/pr Walnut \$425/pr

SX-7 Satellites

Bookshelf acoustic-suspension speaker with circuit-breaker protection. Features cast-aluminum box with perforated metal grille; 4" paper-cone midrange; 0.75" soft-dome tweeter. FR 100-20,000 Hz \pm 3 dB; min power 5 W; max power 100 W; sens 87 dB SPL/W/M; imp 4 ohms. 4.5" W x 7.36" H x 4.5" D; 6 lbs. Black finish \$220/pr

Subwoofers

VIB Subwoofer

Internally amplified subwoofer with 12" polypropylene driver. Features preamp, power amp inputs; active filtering at 24 dB/octave; with adjustable roll-off point. Walnut or oak finish with black grille. FR 18-125 Hz \pm 3 dB; 18.75" W x 17.75" H x 15.75" D; 50 lb \$800 ea

VX-4 Subwoofer

Internally amplified subwoofer with 12" driver. 50 W continuous power output. Hickory/walnut vinyl finish. Features adjustable low-pass filter. FR 40-125 \pm 3 dB \$400 ea

Goliath 3B Subwoofer

Acoustic-suspension passive subwoofer with 12" driver, internal crossover network. Black painted finish. FR 135-150 Hz; power range 30-150 W; imp 4 ohms; 17.5" H x 17.5" W x 14.5" D; 40 lbs \$300 ea

MARTIN-LOGAN

The Monolith Electrostatic Speaker

Floor-standing curvilinear electrostatic panel speaker mounted atop a tuned subwoofer box. Designed for wide dispersion without the use of delay lines or lenses. Constant Voltage Crossover provides phase coherency. Electrostatic cell is 2 ft x 4 ft for 100-22,000 Hz. Polypropylene-cone 12" subwoofer (with 2" voice coil) is down 3 dB at 26 Hz. FR 28-22,000 Hz \pm 2 dB; power range 30-500 W; sens 90 dB SPL/W/m; imp 8 ohms; oak finish; 25" W x 75" H x 13.5" D; 165 lbs ea \$4,850/pr

McINTOSH

XRT18 Speaker System

2-piece speaker consisting of a bass cabinet containing 12" woofer and 6" midrange and a high-frequency column frame containing sixteen 1" dome tweeters. Features 3-ampere fast acting fuse for woofer and midrange and 1.25-ampere fuse for tweeters. Cabinet constructed of 48-pound-density fiber board with walnut veneer exteriors. Sens 86 dB SPL/W/m; max power 150 W continuous program power, 500 W peak; min power 30 W; imp 8 ohms; crossover frequencies 350 and 1,500 Hz. Bass cabinet 27.22" H x 17.5" W x 11.75" D, tweeter column 57.31" H x 10.5" W x 1.63" D; total weight 92 lbs \$4,500/pr

XD 717 3-Way Speaker

Floor-standing speaker with 12" woofer, 6.5" midrange, and 1" dome tweeter. Sens 87 dB SPL/W/m; recommended power handling 30-100 W; imp 8 ohms; crossover frequencies 350 and 1,000 Hz. Cabinet constructed of 0.75" high-density particle board with internal bracing and airtight assembly. Walnut veneer protected by multi-coat hand-rubbed lacquer finish. 37.75" H x 17.5" W x 11.88" D \$1,598/pr

XD 715 3-Way Speaker

Floor-standing speaker with 10" woofer, 5" midrange, and 1" dome tweeter. Sens 87 dB SPL/W/m; max power 100 W program noise; min power 30 W; imp 8 ohms; crossover frequencies 350 and 1,000 Hz. Cabinet constructed of 0.75" high-density particle board with inter-

nal bracing and airtight assembly covered by a walnut veneer. 30" H x 14.75" W x 10.06" D; 43 lbs \$1,198/pr

XL1 2-Way Compact Speaker

Bookshelf speaker with 6" woofer, dome tweeter, and 1,000 Hz crossover network. Features 0.6-ampere fast-acting fuse. Max power 80 W program noise, 200 W peak; min power 30 W; imp 8 ohms; sens 85 dB SPL/W/m. Cabinet constructed of 0.75" high-density particle board with internal bracing and airtight assembly \$525/pr

MERIDIAN BY MADRIGAL

M100 Speaker System

Inter-Active design incorporating 4 power amps. 3 with 70 W/ch, 1 with 35 W/ch-driving two 5" woofers, two 5" midranges, 2" dome tweeter. 0.75" birch cabinet of low resonance with rear-loaded passive radiator. FR 33-24,000 Hz; 39" H x 16" W x 18" D cabinet; 70 lbs ea; walnut \$5,495/pr Rosewood finish \$5,795/pr

M20 Speaker System

Ported 2-way integrated speaker with two 5" woofers, 2" tweeter, power supply, 2 power amps in low-resonance cabinet. Features Inter-Active technology; .75" A-quality birch plywood cabinet construction; all metal stand with resonance damping available. FR 38-20,000 Hz \pm 3 dB; max output 105 dB; 20" H x 15" D x 7" W. Walnut or teak finish; with amps \$2,000/pr Rosewood finish; with amps \$2,200/pr

MIRAGE ACOUSTICS BY API

M1 Speaker

Floor-standing bass reflex speaker with two 8" polypropylene woofers with 38 oz magnets; two 4" cone midranges (1 front, 1 back); two .75" soft dome tweeters (1 front, 1 back). FR 25-22,000 Hz \pm 3 dB; min power 40 W rms; max power 500 W rms; sens 86 dB SPL/W/m; imp 6 ohms; oak, walnut, rosewood veneers; 120 lbs; 19.5" W x 60" H x 9" D \$2,000/pr

650 Speaker

Very-high-power-handling speaker with cast-frame woofer using 1.5" voice coil, and exclusive Mirage tweeter with integral anti-diffraction treatment, ferrofluid cooling and proprietary dome material; multi-time constant crossover designed for superb imaging. 10" flat diaphragm passive radiator; 10" plastic-impregnated woofer; 1" proprietary thermoplastic dome tweeter. FR 44-20,000 Hz \pm 3 dB; min power 20 W, max 150 W; sens 90 dB SPL/W/m; imp 8 ohms; available in walnut vinyl; 44 lbs; 12.25" W x 31.5" H x 9.25" D \$550/pr

450 Speaker

Acoustic suspension speaker uses exclusive Mirage 1" tweeter with high-gloss plastic dome, integral anti-diffraction treatment, ferrofluid cooling and 8" polypropylene cone woofer. FR 56-20,000 Hz \pm 3 dB; min power 10 W; max 200 W; sens 90 dB SPL/W/m; imp 6 ohms; available in walnut vinyl, oak veneer, black vinyl \$350/pr

The Subwoofer

Acoustic-suspension subwoofer for floor placement. Totally independent chs, includes passive crossover for use with Mirage bookshelf speakers. Ideal low-frequency room loading. Can be used with other sets. Contains two 10" cone subwoofers. FR 37-300 Hz \pm 3 dB; min power 20 W, max 200 W; sens 92 dB; imp 6-10 ohms; available in walnut vinyl; 67.5 lbs; 24.75" W x 19.88" H x 15.25" D \$450 ea

Radical Designs And Innovations By Magnat

While some manufacturers have been content with decades-old technology, Magnat® engineers have consistently developed radical new designs in their pursuit of the perfect loudspeaker.

1974 Magnat designs exclusive computer-wound ribbon-wire woofer voice coils for greatly improved transient response and dynamic range.

1976 Magnat introduces their first speaker where all drivers use computer-wound ribbon-wire.

1979 Magnat develops revolutionary plasma high-frequency driver, which produces sound by modulating a small, controlled cloud of ionized air.



1982 Magnat's Plasma speakers win "Hi Fi Preis," Germany's most prestigious audio award, and "Decibel d'honneur," France's highest award.



1983 Magnat develops a patented soft-metal dome tweeter that is far more rigid than soft plastic or textile domes, but doesn't suffer from the high-frequency resonances of other metal domes.

1984 Magnat designs Magnasphere® omnidirectional drivers. These ball-shaped, baffle-free transducers emanate sound in all directions. Magnasphere speakers receive a record *three* "Decibel d'honneurs."



Magnat®

Box 808
Marblehead, MA 01945
(617) 639-1400

® Magnat and Magnasphere are registered trademarks of Magnat Electronik, GMBH & Co. KG

SPEAKERS

MISSION

780 Argonaut Speaker

2-way speaker with transverse-folded cabinet construction. Optimum for near rear wall placement; 2 reinforced homopolymer 8" cone woofers; 1" super-ellipse cavity-loaded tweeter. FR 35-20,000 Hz \pm 3 dB; min power 50 W, max power 200 W; sens 94.5 dB SPL/W/m; imp 4 ohms; walnut and gray; 50 lbs; 11" W x 38" H x 12" D \$1,499/pr

770 Freedom Speaker

2-way speaker with integral locking stand. Features transverse-folded cabinet construction with visco-elastic dampings; optimum for rear wall placement; 8" reinforced homopolymer cone woofer; 1" super-ellipse cavity-loaded tweeter. FR 40-20,000 Hz \pm 3 dB; min power 20 W; max power 150 W; sens 92 dB SPL/W/m; imp 8 ohms; black and walnut; 28 lbs; 11" W x 24.5" H x 12" D \$899/pr

737 Renaissance Speaker

Two-way speaker with integral locking stands. Features transverse-folded cabinet construction with visco elastically dampened walls; 8" polypropylene cone woofer; .75" polymer-dome tweeter with ferrofluid; crossover frequency 2,400 Hz. FR 40-20,000 Hz \pm 3 dB; nominal imp 8 ohms; power range 20-125 W/ch; sens 90 dB SPL/W/m; 10" H x 21.6" W x 11" D; 23 lbs ea; finish black/walnut \$649

707 Speaker

Bass-reflex 2-way speaker with special limestone/polypropylene front baffle board. Features steel-reinforced 8" paper woofer; .75" ferrofluid dome tweeter. FR 50-20,000 Hz \pm 3 dB; min power 20 W, max power 100 W; sens 92 dB SPL/W/m; imp 8 ohms; black and walnut; 10" W x 19" H x 11" D \$449/pr

700 Leading Edge Speaker

Acoustic-suspension speaker with 7" high rigidity plastiflex cone woofer and .75" ferrofluid cooled dome tweeter. Features injection molded polypropylene and limestone baffle board. FR 50-20,000 Hz \pm 3 dB; min power 15 W rms; max power 100 W rms; sens 90 dB SPL/W/m; imp 6 ohms; black, walnut \$299

NEC

RS-100 Passive-Radiator Speaker

Floor-standing speaker with twin-transmission-path low-frequency (variably damped) enclosure. Features Poly-Arc adjustable high-frequency array; 10" polypropylene passive rad; two 8" polypropylene woofers; 35-mm cambric-dome midrange; 1" elliptical-dome tweeter. FR 28-18,500 Hz \pm 3 dB; min power 25 W; max power 200 W; sens 90 dB SPL/W/M; imp 4 ohms. 14" W x 42" H x 16" D; 103 lbs \$1,500/pr

RS-500 3-Way Speaker

Floor-standing acoustic-suspension magnetically shielded speaker with mirror-image design. Features 12" cone woofer; 5" poly-vinyl acetate-cone midrange; 1" soft-cone tweeter. FR 40-20,000 Hz \pm 3 dB; min power 15 W rms; max power 130 W rms; sens 92 dB SPL/W/m; imp 8 ohms. Teton oak finish. 14" W x 27" H x 10.75" D \$499/pr

OHM ACOUSTICS

Walsh 5 Vented Speaker

Features Walsh driver; 3 controls for lows, perspective (midrange), and highs, each with 3 positions; gold-plated 5-way binding posts; gold internal connectors; Monster Cable internal wiring; veneered top edge of cabinet. FR 25-25,000 Hz \pm 4 dB; min power 50 W rms; max

power 500 W rms; imp 4 ohms; 1,000-W headroom rating for CD's. Available in walnut, oak and rosewood finishes or teak/white/black lacquer. 95 lbs; 17.5" x 17.5" at bottom tapering to 15" x 15" at top; 43" tall. Limited edition run of only 500 sets worldwide, each signed and numbered \$4,800/pr

Walsh 4 Speaker

Features Walsh driver; 3 controls for lows, perspective (midrange), and highs, each with 3 positions; press-connector inputs accept banana plugs and up to 12-gauge wire; casters; standard finish walnut and oak, available in Scandinavian rosewood, black or white lacquer. FR 32-17,000 Hz \pm 4 dB; sens 87 dB SPL/m/2.83 V; rec power 50-500 W/ch; 40" H, 12.5" x 12.5" at top, 15.5" x 15.5" at base; 63 lbs \$1,895/pr

Walsh 2 Speaker

Floor-standing vented speaker designed for improved imaging and reliability. Features inverted conical surface; sub-bass activator; tufflex transmission block; ferrofluid ferro lube; protection circuits; acoustic insulation; acoustical attenuator; acoustically transparent circular metal grille; high-frequency balance control. FR 45-16,000 Hz \pm 4 dB; sens 89 dB SPL/m/2.83 V; max power 120 W rms; imp nominal/minimal 4/4 ohms; 32.5" H x 11.5" x 11.5" at bottom tapering to 9.25" x 9.25" at top. \$995/pr

Ohm C3 Speaker

Features 10" polypropylene driver; 38-oz ferrite magnet; 1.5" liquid-cooled voice coil; pentavented liquid-cooled 1" soft dome tweeter; 10-oz ferrite magnet; 2,400 Hz/14,000 Hz sub-bass activator; vented (quasi-third order Butterworth filter); press connectors; .62" flakeboard stock-oiled walnut finish, oak on special order. FR 37-21,000 Hz \pm 4 dB; imp 4 ohms; 26.36" H x 15" W x 11.75" D \$750/pr

Model L2 Speaker

Features 8" woofer; 2" tweeter; 2" supertweeter; tweeter level control; oiled-walnut finish. FR 42-20,000 Hz \pm 4 dB; crossovers 1.7 and 10 kHz; power range 8-100 W; sens 100-dB SPL at 3 ft; 20" H x 12" W x 9.75" D \$595/pr

Model E2 Speaker System

2-way vented speaker with 8" woofer with 5-oz ferrite magnet and 1" liquid-cooled voice coil. Features liquid-cooled Penta-Vented tweeter; 2,700 Hz Sub-Bass Activator; vented enclosure (quasi-third order Butterworth filter); press connectors; 0.62" flakeboard stock, oiled-walnut finish; imp nominal/min 8/4 ohms; FR 48-17,000 Hz \pm 4 dB; efficiency 0.73%; recommended power 7-75 W rms on music \$395/pr

ONKYO

S-70 Bass-Reflex Speaker

Features 12" polypropylene-cone woofer with high-power voice coil; 5" PVA-treated ferrofluid-cooled midrange; 1" polycarbonate-dome ferrofluid-cooled tweeter; 0.5" polycarbonate-dome ferrofluid-cooled supertweeter; self-resetting, auto overload protection. FR 55-20,000 Hz \pm 3 dB; min power 10 W rms; max power 150 W rms; sens 93 dB SPL/W/m; imp 8 ohms. Natural-oak-veneer finish. 16" W x 40.75" H x 10.25" D; 49 lbs \$600/pr

S-55 Bass-Reflex Speaker

Floor-standing speaker with self-resetting overload protection. Features 15" polypropylene-cone woofer; 5" PVA-treated ferrofluid-cooled cone midrange; 1" polycarbonate-dome ferrofluid-cooled tweeter. FR 65-20,000 Hz \pm 3 dB; min power 10 W rms; max power 100 W rms; sens

New World Technology From Old World Artisans.

92 dB SPL/W/m; imp 8 ohms. Walnut vinyl finish. 17.5" W x 33.12" H x 12.88" D; 48 lbs \$400/pr

HS-15 Compact Speaker

Features dual tweeters; high-strength mesh grille; 6.25" cone woofer; two 2.75" cone tweeters. FR 55-20,000 Hz; max power 45 W; imp 8 ohms. 8.12" W x 13.87" H x 9.62" D; 10 lbs. Dark grey, mirror-image pair \$240/pr

PARASOUND

Perfect Image Speaker

Ported floor-standing speaker designed to be very linear with uncanny imaging, unrestrained dynamic range, high sens, and smooth imp. Rounded and angled baffle minimizes diffraction and time-aligns drivers. 8" polypropylene cone woofer, 1" soft-dome tweeter. FR 25-20,000 Hz \pm 2.5 dB; power range 10-300 W; sens 92 dB SPL/W/m; imp 8 ohms. Simulated dark rosewood finish. 19" W x 37" H x 13" D; 50 lbs \$750/pr

BPI-A60 Bass Perfect Image Subwoofer

Subwoofer with 60-W built-in amp. 6th-order bass alignment with amp equalized for driver. Features 12" driver with 2" voice coil and 5-lb magnet; high- or low-Z inputs; auto turn-on relay; adjustable crossover gain; 1"-thick nonresonant enclosure. Simulated rosewood finish. FR 20-180 Hz \pm 3 dB; THD at 100 dB < 0.5%; input sens line 250 mV-1.5 V, low-Z 1 V; input imp line 50 kilohms, speaker 22 ohms; power output 60 W rms form 20-180 Hz with less than 0.05% THD; low-pass crossover adjustable from 63-180 Hz; 12-dB/octave slope and infrasonic filter. 27.5" H x 15.75" W x 13.75" D \$450 ea

VPI-660 Video Perfect Image Speaker

Magnetically shielded speaker with 6" high-compliance carbon-fiber-reinforced polypropylene cone woofer and 1" ferrofluid-damped soft-dome tweeter with acoustic blanket. Features nondiffraction cabinet; 1st-order network with polypropylene capacitor; 4th-order vented design. Simulated dark rosewood finish. FR 55-22,000 Hz \pm 4 dB; THD at 95 dB < 1%; imp 4 ohms; sens 90 dB SPL/W/m; sustained power handling 80 W rms; max power 250 W rms; time aligned within 0.05 μ s. 18.5" H x 8.75" W x 9.75" D \$295/pr

PIONEER

CS-V900D Speaker

Floor-standing, digital-ready speaker system. Features ported enclosure; 12" polymer graphite cone woofer; 4.75" single-piece boron-cone midrange; beryllium tweeter; metalized film capacitors in crossover; magnetically shielded. FR 30-50,000 Hz \pm 3 dB; max power 240 W; sens 91 dB SPL/W/m; imp 6 ohms; 15.36" W x 26.75" H x 13.88" D; 57 lbs, 5 oz; real walnut veneer; mirror image pair \$1,300/pr

DSS-E10 L/R Speaker

3-way bass-reflex speaker system. Features linear-drive magnetic circuit; electronic bass drive; dynamic response suspension; two 12" PG cone woofers; two 4.75" boron-cone midranges; 2 beryllium-ribbon tweeters. FR 30-50,000 Hz; maximum power 240 W; sens 91 dB SPL/W/m; imp 6 ohms; natural wood veneer finish; 15.36" W x 26.75" H x 13.88" D; 57 lbs, 5 oz \$1,000/pr

DSS-9R/L Speaker

3-way bass-reflex floor-standing box speaker. Features two 12" PG cone woofers; two 4.75" boron-cone midranges; 2 beryllium-ribbon tweeters; tone selectors; symmetrical speaker arrangement. FR 30-50,000 Hz; maximum power

Over the past decades, products from Germany have earned a reputation for precise engineering and innovative use of technology. And over the past centuries, German furniture craftsmen have earned a similar reputation for their superb woods and their passionate concern for seemingly small details.

The MSP Series of loudspeakers from Magnat® combines the best elements of both of these traditions.

The MSP Series was developed with extensive use of computer-aided design techniques, and implements the latest in speaker technology—like Magnat's own patented ribbon-voice coils and soft-metal dome tweeters (see opposite page). The result is a series of speakers with very low distortion, very wide frequency response and impeccable tonal balance.

All this technology is enclosed in elegant columnar cabinets made with materials and craftsmanship normally found only in fine furniture. Sheathed in the best European veneers. And topped with a surface of eight layers of black piano lacquer.

So visit your nearest dealer and audition the MSP Series. You'll hear and see why—in a country known for its quality products—Magnat outsells all the competition.

Magnat

Germany's Number One Brand
Of High-Performance Speakers

Box 808
Marblehead, MA 01945
(617) 639-1400

® Magnat is a
registered trade-
mark of Magnat
Elektronik GMBH
& Co KG



Distributed in Canada by Evolution Technology, Inc., Toronto. In Canada: 1-800-263-6395

CIRCLE NO. 56 ON READER SERVICE CARD

STEREO REVIEW FEBRUARY 1987 145

SPEAKERS

240 W; sens 91 dB SPL/W/m; imp 6 ohms; 15.36" W x 26.75" H x 13.88" D; 57 lbs, 5 oz. \$960/pr

CS-705 Speaker

Bass-reflex floor-standing four-way speaker features electronic bass drive; 3-position tone selector, LED power indicators. Contains 15" cone woofer; 4.75" cone midrange; horn tweeter; aluminum ribbon supertweeter. FR 20-40,000 Hz; max power 200 W; sens 98 dB SPL/W/m; imp 8 ohms; walnut; 44 lbs; 17.69" W x 27.94" H x 10.19" D \$660/pr

CS-605 Speaker

Bass-reflex floor-standing four-way speaker features electronic bass drive, 3-position tone selector, LED power indicators. Contains 12" cone woofer; 4.75" cone midrange; horn tweeter; aluminum-ribbon supertweeter. FR 25-40,000 Hz; max power 150 W; sens 96 dB SPL/W/m; imp 8 ohms; walnut; 35 lbs 8 oz; 16.12" W x 27.36" H x 10.94" D \$560/pr

DSS-5 R/L Speaker

3-way bass-reflex speaker system. Features linear-drive magnetic circuit; dynamic response suspension; electronic bass drive; two 10" cone woofers; two 2.5" cone midranges; 2.75" dome tweeters. FR 38-30,000 Hz; maximum power 120 W; sens 91 dB SPL/W/m; imp 8 ohms; 12.81" W x 22.44" H x 11.44" D; 31 lbs, 15 oz. \$460/pr

CS-405 Speaker

Bass-reflex floor-standing 3-way system. Contains 12" cone woofer; 3.94" cone midrange; aluminum ribbon tweeter. FR 40-40,000 Hz; max power 120 W; sens 93 dB SPL/W/m; imp 8 ohms \$330/pr

POLK AUDIO

SDA-SRS "True Stereo" Speaker

Floor-standing speaker that incorporates coherent Line-Source True Stereo (SDA) technology for lifelike three dimensional imaging. Features 15" planar passive radiator; eight 6.5" trilaminate polymer midranges; four 1" silver-coil soft-dome tweeters. FR 14-2,600 Hz 23 dB; power range 10-1,000 W; sens 95 dB SPL/W/m; imp 4 ohms. Oiled oak or walnut. 21" W x 63.75" H x 13" D \$2,998/pr

SDA-SRS2 "True Stereo" Speaker

Floor-standing smaller-version SDA-SRS. Features Polk's SDA True Stereo Technology for 3 dimensional imaging; 15" passive radiator; four 6.5" trilaminate polymer bass/midrange drivers; two 1" silver-coil polymer-dome tweeters. Min power 10 W rms; max 750 W rms; sens 93 dB SPL/W/m; imp 4 ohms. Oiled-walnut or -oak finish \$1,998/pr

SDA-1B "True Stereo" Speaker

Speaker with 4 Polk MW 6600x trilaminate polymer bass/midrange drivers; Stereo/Dimensional isophase crossover system for blending all 12 active drivers of 2 SDA-1's; SL 2000 L/P high-frequency radiator incorporating an exclusive silver-coated voice coil windings for FR beyond 25,000 Hz and hyperbolic section polyamide diaphragm; sub-bass radiator. Recommended amplification 10-500 W/ch; FR 15-26,000 Hz; imp 4 ohms; crossover frequencies 50 Hz, 100 Hz, 2,500 Hz; system resonance 15 Hz; efficiency 95 dB SPL/W/m. Grade-walnut or rosewood-vinyl cabinet. Oiled walnut or oak at higher cost. 43.5" H x 16" W x 12" D; 85 lbs \$1,398/pr

SDA-2A Speaker. Similar to SDA-1B except 2 6600X bass-midrange and SL2000 tweeter driv-

ers. Crossover frequencies at 50 and 2,500 Hz. FR 15-26,000 Hz; system resonance 15 Hz; efficiency 92 dB SPL/W/m. Furniture-grade walnut or rosewood woodgrain vinyl; oiled walnut or oak. 39.5" H x 16" W x 12" D \$998/pr



Polk "True Stereo" SDA-SRS

R.T.A. 12C Monitor Speaker

Real-time-array 3-way floor-standing speaker with 12" low-resonance molded-foam subwoofer, two 6.5" polymer laminated bass-midrange drivers, SL 2000 tweeter. FR 17-25,000 Hz; crossovers 40 and 2,000 Hz; power range 10-500 W; imp 4 ohms; walnut- or rosewood-grain finish (genuine walnut veneer at extra cost); 39" H x 16" W x 12" D \$960/pr

SDA-CRS+ "True Stereo" Speaker

Bookshelf speaker with SDA technology for lifelike three-dimensional imaging. Two 6.5" trilaminate polymer bass/midrange drivers; 1" SL 2,000 polymer dome tweeters; 10" passive cone radiator. FR 24-25,500 Hz; power range 10-250 W; sens 92 dB SPL/W/m; imp 4 ohms; walnut or rosewood furniture-grade vinyl finish or real hand-rubbed oak or walnut at extra cost; 20" W x 12.5" H x 9.5" D \$798/pr

Monitor 10B 3-Way Speaker

Sub-bass radiator/sealed 3-way floor-standing speaker with 10" fluid-coupled subwoofer, two 6.5" bass/midrange drivers, 1" soft-dome tweeter. FR 20-25,000 Hz; crossovers 60 and 3,000 Hz; power range 10-250 W/ch; imp 6 ohms; walnut or rosewood grain finish (genuine walnut veneer available at extra cost); 28" H x 16" W x 11.5" D \$698/pr

Monitor 7C 3-Way Speaker

Sub-bass radiator/sealed 3-way bookshelf speaker with 10" subwoofer, 6.5" plasticized bass/midrange, 1" soft-dome tweeter. FR 26-25,000 Hz; crossovers 60 and 3,000 Hz; power range 10-150 W; imp 4 ohms; wood-grain finish; 24" H x 14" W x 9.25" D \$498/pr

Monitor 5B. Similar to Seven B but 8" subwoofer; SL 2000 tweeter; FR 28-25,000 Hz; power range 10-125 W \$398/pr

Monitor 5jr 2-Way Speaker

Bookshelf speaker with 1" SL 2000 tweeter; 6.5" trilaminate polymer bass-midrange, 6.5" passive radiator. FR 29-28,000 Hz; power range 10-100 W; imp 4 ohms; furniture-grade walnut- or rosewood-grain vinyl finish \$298/pr

Monitor 4A Speaker

Speaker with trilaminate-polymer 6500 woofer, 1-inch moving-coil high-frequency radiator; isophase crossover network. Features terminated transmission duct that loads bass/midrange driver into deep-bass range. FR 31-21,000 Hz \pm 3 dB; power range 10-100 W; max output 108 dB SPL; crossover 4.5 kHz; imp 4 ohms; 14.5" H x 8.5" W x 7.36" D \$170/pr

Monitor 4.5. Larger version of 4A, designed for lower bass, greater range and higher efficiency. Power range 10-100 W; imp 4 ohms. 17" H x 9" W x 8.9" D \$218/pr

PROTON

318 3-Way Speaker

Acoustic-suspension floor-standing speaker with 12" woofer, 4" midrange in own enclosure, and 1" ferrofluid soft-dome tweeter. Features 2nd & 3rd order crossover network. FR 40-20,000 \pm 3 dB; sens 80 dB SPL/W/m; power handling 100 W nominal, 300 W peak; imp 4 ohms; crossover frequencies 650 Hz at 12 dB/oct, 3,200 Hz at 18 dB/oct. 15.56" W x 28.56" H 14" D \$449/pr

QUAD

ESL-63 Electrostatic Loudspeaker

Full-range electrostatic double speaker with dipole source. Features 2 protection circuits. Power range 100-190 W; sens 86 dB, 2.83 V rms; imp 8 ohms; axis band limits -6 dB at 35 Hz, third-order, -6 dB at 20 kHz; 92.5 x 66 x 27 cm; 23 kg \$2,950/pr

RCA

Dimensia SPK-385 3-Way Speaker

Floor-standing acoustic-suspension magnetically shielded speaker. Features midrange and tweeter level controls; 11" polypropylene cone woofer; 4" polypropylene cone midrange; 1" soft-cloth dome tweeter. FR 35-20,000 Hz; max power 120 W; sens 91 dB SPL/W/m; imp 6 ohms. 13.88" W x 24.88" H x 12.75" D; 36 lbs; oak/ebony finishes \$449/pr

SPK-380 Digital Command 3-Way Speaker

Floor-standing acoustic-suspension magnetically shielded speaker. Features midrange and tweeter level controls; 11" polypropylene cone woofer; 4" polypropylene cone midrange; 1" soft-cloth dome tweeter. FR 35-20,000 Hz; max power 120 W; sens 91 dB SPL/W/m; imp 6 ohms. 13.88" W x 24.88" H x 12.75" D; 36 lbs; oak/ebony finishes \$449/pr

SPK-125 Digital Command 2-Way Speaker

Bookshelf acoustic-suspension magnetically shielded speaker. Features tweeter level control; 6" polypropylene cone woofer; 1" soft-cloth dome tweeter. FR 50-20,000 Hz; max power 80 W; sens 89 dB SPL/W/m; imp 6 ohms. 9.25" W x 15.75" H x 9.56" D; 14.74 lbs \$199/pr

REALISTIC

Optimus Speakers

1000. Floor-standing bass-reflex tuned-port speaker with 15" high-compliance woofer, 5" midrange, 3" tweeter. FR 50-20,000 Hz \pm 3 dB; max power 100 W rms; sens 92 dB SPL/W/m; imp 8 ohms. Oiled-walnut finish. 17.31" W x 31.84" H x 11.62 D; 44 lbs \$400/pr

T-120. High-efficiency 3-way tower speaker in genuine walnut veneer. Features 10" long-throw woofer; 5" midrange driver; 1" liquid-cooled tweeter; sealed acoustic-suspension enclosure; ferrofluid-cooled dome tweeter; removable cloth grille; level controls for midrange and tweeter. Power-handling capacity 80 W; sens 91 dB SPL/W/m; imp 8 ohms \$400/pr

SPEAKERS

900. Floor-standing bass-reflex tuned-port speaker with 12" high-compliance woofer, 4" midrange, 2.5" ferrofluid tweeter. FR 50-20,000 Hz \pm 3 dB; max power 100 W rms; sens 90 dB SPL/W/m; imp 8 ohms. Oiled-walnut finish. 14" W x 29.75" H x 10.88" D; 33 lbs. \$300/pr

600. 3-way bass-reflex speaker. Features 8" woofer; 4" midrange; 2.5" cone tweeter; removable cloth grille; recessed color-coded spring-loaded terminals. Max power 70 W; sens 90 dB SPL/W/m; oiled-walnut finish. \$200/pr

Mach Two Speaker

Vented speaker with 15" woofer, 5" cone midrange, 4" dual-radial tweeter. Level controls for midrange and tweeter. FR 25-40,000 Hz; 27.56" x 17.75" x 11.81" \$460/pr

Nova 15 Speaker

Walnut-veneered vented speaker with 2.5" tweeter. FR 60-20,000 Hz \$160/pr

Minimus Speakers

35. 2-way mini speaker. Features 5.25" honeycomb woofer; 2" liquid-cooled tweeter; color-coded spring-loaded terminals. Max power 50 W; FR 60-20,000 Hz. Oiled walnut; 11" x 6.5" x 6.81" \$140/pr

7W. Walnut-veneered mini speaker. Features 4" woofer; 1" soft dome tweeter; removable cloth grille; spring terminals. Power handling capacity 40 W; 8" x 5" x 4" \$100/pr



RCA Dimensia SPK-385

MC-1800 Acoustic-Suspension Speaker

Bookshelf speaker with 8" high-compliance woofer and 2.5" wide-dispersion tweeter. FR 70-20,000 Hz \pm 3 dB; max power 50 W rms; imp 8 ohms. Oiled-walnut finish. 10.88" W x 17.75" H x 6.88" D \$120/pr

REVOLVER BY MUSIC HALL

Revelation 3 Two-Way Speaker

Infinite-baffle speaker with undamped cabinet and simple construction. Features 8" cone woofer; 0.75" magnesium-dome tweeter. FR 30-20,000 Hz \pm 3 dB; min power 10 W rms; max power 100 W rms; sens 89 dB SPL/W/m; imp 8 ohms. Black-ash veneer. 9" W x 20" H x 12" D; 12 lbs. \$625/pr

Revelation 2 Two-Way Speaker

Infinite-baffle speaker with undamped cabinet and simple construction. Features 5" cone woofer; 0.75" magnesium-dome tweeter. FR 40-20,000 Hz \pm 3 dB; min power 15 W rms; max power 100 W rms; sens 89 dB SPL/W/m; imp 8 ohms. Black-ash veneer. 7.5" W x 17.75" H x 12" D; 8 lbs. \$475/pr

Revelation 1 Two-Way Speaker

Infinite-baffle bookshelf speaker with undamped cabinet and simple construction. Features 5" cone woofer; 0.5" fabric-dome tweeter. FR 50-20,000 Hz \pm 3 dB; min power 15 W rms;

max power 80 W rms; sens 89 dB SPL/W/m; imp 8 ohms. Black-ash veneer. \$325/pr

REVOX

Agora B Amplified Speaker

Floor-standing triamplified active ported speaker incorporating three 100-watt amps with active dividing networks in each enclosure. Designed to be driven from preamp or direct from high-level sources such as CD player. Features push-pull dual woofer design with one woofer facing into enclosure to eliminate even-order harmonic distortion. Two 8" cone woofers; 4.75" cone midrange; .75" titanium dome tweeter. Low-frequency amp utilizes feedback to compensate for back-EMF. Also features 4-step bass and treble controls; bass blend switch; auto power on/off. FR 30-21,000 Hz \pm 3 dB; sens 110 dB SPL/W/m; real walnut veneer finish with brown grille or polished ebony finish with black grille. 16.75" W x 29" H x 16.75" D; 68 lbs. \$3,600/pr

Piccolo Miniature Speaker

Satellite speaker may be used with or without companion subwoofer. Satellites feature 4.19" cone woofer; .75" dome tweeter. Subwoofer features 10.19" cone subwoofer. FR 48-22,000 Hz \pm 3 dB; power range 20-70 W; sens 86 dB SPL/W/m; imp 4 ohms; black finish. Satellite 5.5" W x 8.75" H x 5.75" D, 5.5 lbs; subwoofer 15.36" W x 14.19" H x 14.62" D, 32 lbs. Satellites. \$300/pr
Subwoofer. \$350 ea

SANSUI

XL-500C 4-Way Speaker

Floor-standing passive-radiator tower speaker. Features ported enclosure; TCCF; polypropylene mica and carbon midrange (PM-C); 12" passive rad; 12" TCCF cone woofer; 4.75" cone midrange; 2" dome tweeter; 0.62" dome supertweeter. Max power 320 W; sens 93 dB SPL/W/m; imp 8 ohms. Available in walnut finish. 15" W x 40.56" H x 13" D; 55 lbs. \$1,320/pr

XL-100 3-Way Speaker

Floor-standing speaker. Features ported enclosure; 3-step level control; 10.5" TCCF cone woofer; 4.75" PM-C cone midrange; 2" dome tweeter. Max power 200 W; sens 91 dB SPL/W/m; imp 8 ohms. Available in walnut finish. 14.75" W x 26.56" H x 12.81" D; 28.7 lbs. \$840/pr

S-91U 4-Way Speaker

Floor-standing speaker with 12" cone passive radiator; 12" cone woofer; 4" cone midrange; 3" cone tweeter. FR 29-22,000 Hz \pm 3 dB; max power 175 W rms; sens 92 dB SPL/W/m; imp 8 ohms. Simulated woodgrain finish. 15.25" W x 41" H x 11" D; 44 lbs. \$480/pr

S-71U 3-Way Speaker

Floor-standing speaker with 15" cone woofer; 4" cone midrange; 3" cone tweeter. FR 29-22,000 Hz \pm 3 dB; max power 175 W rms; sens 92 dB SPL/W/m; imp 8 ohms. Simulated woodgrain finish. 17.5" W x 32" H x 13" D. \$420/pr

S-U9000 3-Way Speaker

Floor-standing or bookshelf speaker with 9" cone woofer; 2" cone tweeter; 0.5" dome supertweeter. FR 40-20,000 Hz \pm 3 dB; max power 90 W rms; sens 90 dB SPL/W/m; imp 8 ohms. Simulated woodgrain finish. 11" W x 19.62" H x 8.75" D; 13.7 lbs. \$326/pr

S-41U 3-Way Speaker

Floor-standing or bookshelf acoustic-suspension



Revox subwoofer and Piccolo satellites

speaker with 10" cone woofer; 5" cone midrange; 3" cone tweeter. FR 35-20,000 Hz \pm 3 dB; max power 70 W rms; sens 90 dB SPL/W/m; imp 8 ohms. Simulated woodgrain finish. 14" W x 26" H x 11" D; 23 lbs. \$220/pr

SCOTT

Bostonian Four 3-Way Speaker

Floor-standing acoustic-suspension multi-directional speaker with drivers on top of enclosure for 3-dimensional effect. Features 15" air-suspension PVA-coated woofer; 4.5" cone midrange; three 1" soft-dome tweeter; 3-way binding posts. FR 36-20,000 Hz \pm 4 dB; min power 20 W rms; max power 750 W rms; sens 90 dB SPL/W/m; imp 4 ohms. Oiled walnut veneer. 18.75" W x 35.5" H x 13.25" D; 72 lbs. \$1,600/pr

S120 Acoustic-Suspension Speaker

Floor-standing 3-way air-suspension speaker with PVA-coated woofer for smooth response and increased resistance to humidity. Features 12" cone woofer; 4.5" ferrofluid-cooled midrange; 1.5" ferrofluid-cooled dome tweeter. FR 45-20,000 Hz \pm 4 dB; min power 10 W rms; max power 120 W rms; sens 92 dB SPL/W/m; imp 8 ohms. Walnut or oak vinyl finish. 16" W x 31.62" H x 12" D; 35 lbs. \$540/pr

S108 2-Way Speaker

Acoustic-suspension bookshelf speaker with PVA-coated woofer for smooth response and increased resistance to humidity. Features 8" woofer; 1.5" ferrofluid-cooled cone woofer. FR 55-20,000 Hz \pm 4 dB; min power 5 W rms; max power 85 W rms; sens 91.5 dB SPL/W/m; imp 8 ohms. Walnut vinyl finish. 22" W x 8.36" H x 12" D; 16 lbs. \$240/pr

S106. Similar to S108 except 6.5" woofer and 70-W max power. \$200/pr

SHERWOOD

S-728 4-Way Speaker

Floor-standing acoustic-suspension speaker. Features 12" cone-shaped passive radiator; 12" cone woofer; 5" liquid-cooled cone midrange; 3" liquid-cooled cone tweeter; Planar Ribbon supertweeter; removable grille; wire-mesh driver protectors; furniture base. Max power 120 W; imp 8 ohms; Nottingham hickory vinyl finish. 14.75" W x 43.25" H x 13" D; 51 lbs. \$500/pr

S-724 4-Way Speaker

Floor-standing acoustic-suspension speaker.

SPEAKERS

Features 12" cone woofer; 5" liquid-cooled cone midrange; 3" liquid-cooled cone tweeter; Planar Ribbon supertweeter; wire-mesh driver protectors; removable grilles; furniture base. Max power 120 W; imp 8 ohms; 15.25" W x 29.5" H x 13" D; 36 lbs \$400/pr

SNELL ACOUSTICS

Type A/III Speaker System

Floor-standing acoustic-suspension 4-way speaker with curved baffle to eliminate diffraction, mechanically isolated midrange enclosure, floor-loaded woofer, rear-loaded supertweeter for accurate room response. Hand-adjustment of crossover values for specific drivers assures acoustic performance virtually identical to reference speaker. Features 12" high-power long-excursion mass-loaded mechanically-isolated cone woofer; 5" mechanically-isolated cone midrange; 1" individually adjusted controlled-dispersion dome tweeter; 0.75" low-mass ferrofluid-cooled dome supertweeter. Dual gold-plated inputs allow biwiring or biamping with or without Snell EC-2 electronic crossover. FR 24-26,000 Hz \pm 3 dB, 38-18,000 Hz \pm 1 dB; min power 80 W rms; max power 400 W rms; imp 4 ohms. Hand-sanded, hand-rubbed matching oak or walnut veneers. 23.5" W x 50.75" H x 14" D; 148 lbs. Oak \$3,960/pr
Walnut \$4,085/pr

Type C Acoustic-Suspension Speaker

Floor-standing sloped mirror-imaged speaker with midrange and tweeter baffle and rear-loaded supertweeter for optimum room response and flat early-arrival sound. Hand-adjusted crossover values for specific drivers assures acoustic performance virtually identical to reference speaker. Features 10" mass-loaded dynamically balanced long-throw high-power woofer; 5" cone midrange, 0.75" low-mass polymer-dome tweeter; 0.75" low-mass polymer-dome supertweeter. Dual gold-plated inputs for biwiring or biamping with or without Snell EC-2 electronic crossover. Hand-sanded hand-rubbed matched oak or walnut veneers. FR 24-20,000 Hz \pm 3 dB; min power 80 W rms; max power 400 W rms; sens 86 dB SPL/W/m; imp 8 ohms. 44" H x 14.75" W x 12.75" D. Oak \$1,800/pr
Walnut \$1,890/pr

Type E/II Bass-Reflex Speaker

Floor-standing speaker with 8" polymer-treated woofer, 1" soft-dome tweeter, and ultra-low-mass 0.75" ferrofluid-cooled rear-loaded dome supertweeter designed for flat early-arrival sound and accuracy of listening room response. Hand-adjusted crossover for specific drivers assures acoustic performance virtually identical to reference speaker. Dual gold-plated inputs allow biwiring or biamping. Features rear-loaded port for optimum low-frequency room loading. Hand-sanded, hand-rubbed matching oak or walnut veneers. FR 39-22,000 Hz \pm 1.75 dB; imp 8 ohms; sens 93 dB SPL/W/m; min power 15 W rms; max power 150 W rms. 33" H x 14" W x 11" D. Oak \$960/pr
Walnut \$990/pr

Type J/II 2-Way Speaker

Bookshelf bass-reflex speaker designed to maximize accuracy of early arrival sound and listening room response. Hand-adjustment of crossover values for specific drivers assures acoustic performance virtually identical to reference speaker. Features 8" polymer-treated curvilinear cone woofer; 1" soft-dome tweeter; dual gold-plated inputs for optional biwiring and biamping. Hand-sanded, hand-rubbed oak or walnut veneers. Sens 92 dB SPL/W/m; min

power 15 W rms; max power 150 W rms; FR 49-22,000 Hz \pm 2 dB; imp 8 ohms. 23" H x 13" W x 10" D; 38 lbs. Oak \$650/pr
Walnut \$680/pr

Type K Acoustic-Suspension Speaker

Bookshelf speaker using 8" polymer-treated curvilinear cone woofer and 0.75" ferrofluid-cooled soft-dome tweeter. Designed for accuracy of both early-arrival sound and listening-room power response. Hand-adjusted crossover values for specific drivers assures acoustic performance virtually identical to reference speaker. Dual inputs for optional biwiring or biamping. Oak, walnut or black veneers. Imp of 8 ohms; sens 90 dB SPL/W/m; min power 10 W rms; max power 100 W rms; 18" H x 11" W x 9" D. Oak \$430/pr
Walnut \$450/pr

SONAB BY AUDIOSOURCE

OA-52 2-Way Speaker

Bass-reflex (tuned to 38 Hz) speaker with 7" woofer and 1" dome tweeter. FR 27-20,000 Hz \pm 3 dB; sens 89 dB SPL/W/m; imp 8 ohms; 16.06" x 20.75" x 14.5"; 43.5 lbs ea; rosewood or walnut veneers \$1,700/pr

OA-50 2-Way Speaker

Bass-reflex (tuned to 30 Hz) speaker with 6.5" woofer and 1" dome tweeter. FR 28-20,000 Hz \pm 3 dB; sens 89 dB SPL/W/m; imp 8 ohms; 14.5" x 18.31" x 12.44"; 33.5 lbs; walnut, black, and oak veneers \$800

SONY

APM-66W Bass-Reflex Speaker

Floor-standing speaker with square-diaphragm woofer, midrange, and tweeter. FR 30-30,000 Hz \pm 4, -8 dB; min power 20 W rms; max power 200 W rms; sens 89 dB SPL/W/m; imp 8 ohms. Oiled-walnut finish. 15" W x 26" H x 15" D \$1,000/pr

APM-22UI Bass-Reflex Speaker

Bookshelf or floor-standing 2-way speaker with square-diaphragm drivers. FR 40-20,000 Hz \pm 4, -8 dB; sens 88 dB SPL/W/m; min power 20 W rms; max power 160 W rms; imp 8 ohms. Walnut or black finish. 11.5" W x 21" H x 13" D \$450/pr

SOUND ASSOCIATES

Enigma Dipole Subwoofer

Free-standing enclosureless single-source moving-coil subwoofer with electronic crossovers and all cables. Features fail-safe over-excursion protection device; 2 self-contained signal generators; active 3rd-order (18 dB/octave) electronic crossovers with FET/polystyrene highpass and FET/polycarbonate lowpass design; straight-through (no switch contacts or controls) highpass and gold Tiffany input and output jacks; internal-system polarity testing; 1" solid-rock ample speaker frame; front-panel switch for before/after comparing; optional 450-W MOSFET drive amp. Min power 50 W; max power 600 W continuous, 1,200 W pulses; sens 88 dB SPL/W/m at 50 Hz; imp 6 ohms min. Solid exotic hardwood finish. Without amp \$2,495 ea

SPEAKERLAB

DAS Series Speakers

All DAS speakers are available in either natural or black-oak finishes.

DAS-8. Floor-placement speaker with Inverse Axis Alignment (IAA); computer-designed rear vent, and rear-mounted subwoofer. Features one 10" and one 12" woofer; 1" dome tweeter;

one 6" cone and one 3" dome midrange. Crossover 150, 350, 1,500, 5,000 Hz, sens 94 dB SPL/W/m; imp 4 ohms; FR 23-21,000 Hz \pm 3 dB; min power 20 W rms/ch; max power 300 W rms/ch. 46" H x 16" W x 13" D \$1,798/pr

DAS-6. Floor-placement speaker with IAA, computer-designed rear vent, and rear-mounted subwoofer. Features one 8" and one 10" woofer; 1" dome tweeter. Crossovers 180, 2,500 Hz; sens 94 dB SPL/W/m; imp 4 ohms; FR 30-21,000 Hz \pm 3 dB; min power 20 W rms/ch; max power 275 W rms/ch. 36" H x 12.5" W x 14" D; 62 lbs \$898/pr

DAS-5. Bookshelf or floor-placement speaker with IAA, computer-designed rear vent, and rear mounted subwoofer. Features one 8" and one 6.5" woofer; 1" dome tweeter. Crossover 180, 2,500 Hz; sens 93 dB SPL/W/m; imp 4 ohms; FR 34-21,000 Hz \pm 3 dB; min power 20 W rms/ch; max power 175 W rms/ch. 31" H x 11" W x 13" D; 47 lbs \$698/pr

DAS-4. Bookshelf or floor-placement speaker with IAA and computer-designed rear vent. Features 8" woofer; 75" dome tweeter. Crossover 2,500 Hz; sens 92 dB SPL/W/m; imp 4 ohms; FR 36-21,000 Hz \pm 3 dB; min power 20 W rms/ch; max power 100 W rms/ch. 28" H x 10" W x 12" D; 39 lbs \$438/pr

DAS-2. Bookshelf or floor-placement speaker with IAA and computer-designed rear vent. Features 5.25" woofer; 75" dome tweeter. Crossover 2,500 Hz; sens 91 dB SPL/W/m; imp 8 ohms; FR 50-21,000 Hz \pm 3 dB; min power 5 W rms/ch; max power 75 W rms/ch. 13" H x 7" W x 8.5" D \$220/pr

SYMDEX

Epsilon Floor-Standing Speaker

Sealed-box speaker with modular phase-linear crossovers. Features time-aligned drivers; polypropylene capacitors in crossover; 10" cone woofer; 6.5" cone midrange; 1" soft-dome tweeter. Power range 50-250 W; sens 85 dB SPL/W/m; imp 8 ohms; 13" W x 48" H x 13" D; 110 lbs; black cloth with oak or black top plate; computer-matched pairs \$1,495/pr

TECHNICS

SB-M3 3-Way Speaker

Ported floor-standing linear-phase honeycomb-disc speaker. Right-left mirror-image cabinets. Tweeter and midrange attenuators. Low-noise crossover network. 18-dB/octave mid/high crossover. Heavy-duty terminals accommodate large-gauge speaker wires. Resettable thermal relay protection. Contains 13" honeycomb-disc woofer; 3.12" honeycomb-disc midrange; 1.12" honeycomb-disc tweeter. FR 38-35,000 Hz \pm 5 dB; max power 200 W music, 100 W DIN; sens 90 dB SPL/W/m; imp 6 ohms; walnut grain; 68.3 lbs; 15.75" W x 26.36" H x 13.12" D \$1,800/pr

SB-R200 Wall-Mounting Speaker

Ported (passive radiator) speaker. Features concentric coaxial honeycomb-disc drivers, outermost of which is a passive radiator, all in the same plane for phase linearity. Resettable thermal relay protection; internally shielded. Includes wall kit, angled stands and flat speaker cables. 12.5" honeycomb passive radiator; honeycomb-disc woofer; honeycomb-disc tweeter. FR 65-25,000 Hz \pm 5; max power 160 W music, 80 W DIN; imp 8 ohms; available in black; 19.8 lbs; 23.88" x 14.88" x 3.75" D \$600/pr

SB-X500A Ported Speaker

Floor-standing speaker. Features thermal relay protection; easy-to-use connections; 10" honeycomb-disc woofer; 3.12" honeycomb-disc midrange; 1.12" honeycomb-disc tweeter. FR

SPEAKERS

37-30,000 Hz \pm 10 dB; max power 130 W; sens 90 dB SPL/W/m; imp 8 ohms; walnut-grain finish: 14.19" W x 24.81" H x 12.88" D; 33 lbs\$420/pr

SB-L95 3-Way Speaker

Floor-standing speaker with a multi-way bass-reflex configuration and difuser-equipped tweeter. Linear-phase design assures waveform fidelity. Features 15" computer-designed cone woofer; 4" computer-designed cone midrange; 2.12" computer-designed cone tweeter; aluminum bobbins and heat-resistant voice coils for high power handling, select diaphragm materials; dust caps with nonresonant fabric. FR 32-22,000 Hz at 16 dB below average level; max power 200 W music; sens 93 dB SPL/W/m; imp 8 ohms. Simulated woodgrain finish. 17.75" W x 31.36" H x 12.92" D; 35.9 lbs\$350/pr

SB-C250 2-Way Speaker

Compact speaker with crystallized MICA PP-di-

aphragm bass/mid driver. Features 7" cone woofer; 1" dome tweeter. Max power 100 W music. 9.19" W x 14.62" H x 8" D\$300/pr

SB-L55 3-Way Speaker

Floor-standing bass-reflex speaker with 10" cone woofer, 4" cone midrange, 2.12" cone tweeter. FR 37-22,000 Hz at 16 dB below average level; max power 120 W music; sens 92 dB SPL/W/m; imp 8 ohms. 12.78" W x 25.59" H x 10.56" D; 18.7 lbs\$200/pr

Micro Series

SB-F2MK2 Mini Speaker

Sealed-box speaker in die-cast metal enclosure. Internally shielded. Resettable thermal relay protection. Protective metal grilles. Honeycomb-disc drivers. Switchable 4/8-ohm imp; tripod mountable. Linear-phase design. Contains 5.5" honeycomb disc woofer; 1.12" honeycomb disc tweeter. FR 55-33,000 Hz \pm 5; max power 100 W music, 50 W DIN; sens 88 dB SPL/W/m;

imp 4/8 ohms; metallic; 11 lbs; 6.25" W x 10.06" H x 6.75" D\$300/pr

SB-F1MK2 Mini Speaker

Sealed-box speaker in die-cast metal enclosures. Internally shielded. Resettable thermal relay protection. Protective metal grilles. Honeycomb-disc drivers. Switchable 4/8-ohm imp; tripod mountable; linear-phase design. Contains 4.75" honeycomb-disc woofer; 1.12" honeycomb-disc tweeter. FR 65-33,000 Hz \pm 5 dB; max power 80 W music, 40 W DIN; sens 86 dB SPL/W/m; metallic; 6.4 lbs; 5.25" W x 8.5" H x 5.36" D\$220/pr

THIEL

CS 3.5 Speaker

Floor-standing electronic bass equalized speaker with 10" cone woofer, 4" cone midrange, and 1" dome tweeter. Features complete time coherence by sloping baffle; complete phase coher-

advertising in the world today.

We're fresh and imaginative and aggressive and daring and realistic.

...ing... great... ing... ..

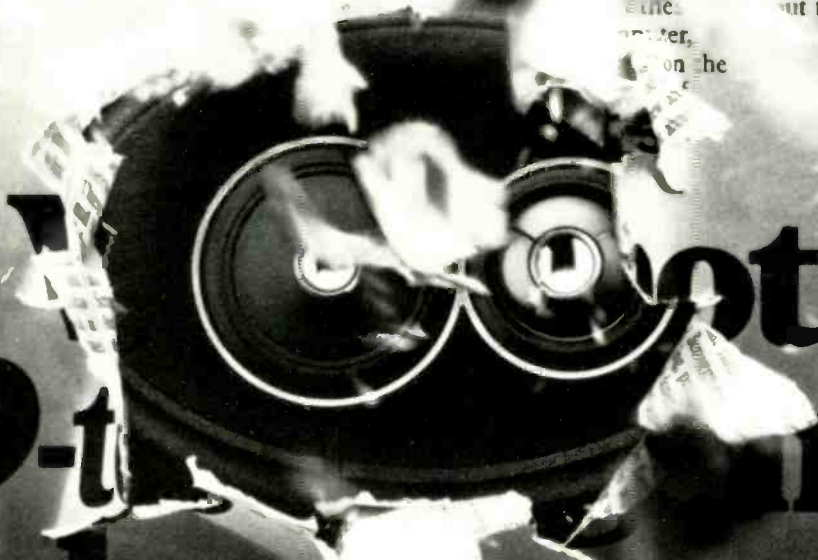
We're an... known for integ... financial stature...

We believe... at just...

On... we... the... big... cept... program... for cam... home... fe...

But...st of all, we're real people abounding with warmth and understanding and feeling and sensitivity and the know-how to take all these things that we are... and put them to work for you.

not
a 9-to-5
because
it's not a 9-to-5.



SPEAKERS

ence by synthesized first order crossover system; three-dimensional sculpted anti-diffraction baffle; electronic bass system; magnetic distortion reducing drivers; cast magnesium driver chassis; polypropylene crossover capacitors; 30-mm thick cabinet panels; real wood veneer. FR



Thiel CS 2

18-18,000 Hz ± 2 dB; minimum power 40 W rms, max power 250 W rms; sens 89 dB SPL/W/m; imp 4 ohms; teak, oak, walnut, black, rosewood finishes; 75 lbs; 13" W x 41" H x 13" D \$2,450/pr

CS 2 Coherent Source Speaker

Floor-standing ported speaker. Completely time and phase coherent. Time coherence achieved with sloping baffle; phase coherence achieved with synthesized first-order crossover networks. Features anti-diffraction grille; cast magnesium driver baskets; polypropylene crossover capacitors; 8" cone woofer; 3" cone midrange; 28 mm dome tweeter. FR 38-20,000 Hz ± 2 dB; power range 40-250 W; sens 87 dB SPL/W/m; imp 6 ohms; teak finish; 12" W x 39" H x 12" D; 62 lbs \$1,550/pr

CS1 Coherent Source Speaker

Floor-standing bass reflex speaker with 7" cone woofer and 1" dome tweeter. Features complete time coherence by sloping baffle; complete phase coherence by synthesized first order crossover system; anti-diffraction grille; polypropylene crossover capacitors; cast magnesium woofer chassis; 30-mm thick cabinet panels; real wood veneer. FR 56-17,000 Hz ± 2 dB; minimum power 40 W rms, max power 150 W rms; sens 87 dB SPL/W/m; imp 6 ohms; teak, oak, walnut, black, rosewood finishes; 41 lbs; 10.5" W x 36" H x 10.5" D \$950/pr

TRIAD DESIGN

System One Speaker

3-piece all-acoustic-suspension speaker. Features 2 time-offset-corrected satellites; infinitely adjustable volume control; 6.5" polypropylene cone woofer; 3.5" treated-cone midrange; 0.75" ferrofluid-cooled dome tweeter. FR 40-20,000 Hz ± 4 dB; power range 25-200 W; sens 87 dB SPL/W/m; imp 8 ohms; oak or walnut finish; 5.5" W x 8.5" H x 5" D; 20 lbs ... \$500/system

HSW-400 Acoustic-Suspension Speaker

Floor-standing powered woofer with 2 opposing 8" woofers designed to cancel cabinet resonances and couple with floor and back wall when placed near a wall. Features built-in 100-W power amplifier for operation below resonance; two 8" polypropylene cone woofers. FR 44-115 Hz ± 3 dB; power range 5-200 W; imp

1,000 ohms. Walnut or black finish. 14" W x 14" H x 11" D; 24 lbs \$400 ea

HSS-300 Bookshelf Speaker

Acoustic-suspension speaker with time-offset-corrected satellite design to match HSW-300. Triad powered woofer crossover designed for minimum phase shift. Features 6.5 polypropylene cone woofer; 1" dome tweeter. FR 90-16,000 Hz ± 3 dB; power range 10-100 W; sens 89 dB SPL/W/m; imp 8 ohms; oak or walnut finish; 8" W x 12" H x 12" D \$350/pr

HSW-300 Powered Subwoofer

Floor-standing acoustic-suspension powered subwoofer augments bass performance of small to medium-sized speakers. Features 70-W power amp for operation below resonance; 8" polypropylene woofer. FR 25-90 Hz ± 3 dB; power range 5-200 W; imp 1,000 ohms; oak or walnut finish; 12" W x 10" H x 11" D \$250 ea

VELODYNE ACOUSTICS

ULD-15 Subwoofer

Floor-standing box speaker with 350 W rms mated amp and 85 Hz adjustable electronic crossover. Features 15" down-firing servo controlled subwoofer. FR 20-85 Hz ± 3 dB; max power 350 W; available in walnut, oak, satin black \$1,250/ea

ULD-18. Similar to above with 18" down firing cone subwoofer \$1,850

WHARFEDALE

Option One Speaker

Dipole floor-standing speaker designed to be perpendicular to rear wall so bass and midrange radiate as a dipole to overcome effects of listening room. Midrange and tweeter mounted in swiveling enclosure. 4 separate 150-W amps power drivers through 4-way electronic crossovers. Subwoofer is switchable to extend bass response to 25 Hz, uses modified 6th-order reflex alignment. 90-liter enclosure covered with honeycomb fiberglass/aluminum layers for stiffness and low mass. FR 35-20,000 Hz ± 3 dB; max power 600 W; max SPL 123 dB; white finish; 12" W x 53" H x 30.25" D \$12,500/pr

Option Two Speaker

Floor-standing cabinetless dipole speaker operates with drivers firing sideways, eliminating effects of parallel room boundaries. Features eight 8" polypropylene-cone woofers; four 4" polypropylene-cone midranges; two 0.75" aluminum-dome tweeters. FR 50-25,000 Hz ± 3 dB; min power 15 W; max power 200 W program; sens 86 dB SPL/W/m; imp 4 ohms. Black finish \$3,500/pr

512 Bass-Reflex Speaker

Floor-standing speaker with rear-port design. Features two 8" polypropylene-cone woofers; 4" polypropylene-cone midrange; 0.75" aluminum-dome tweeter. FR 30-25,000 Hz ± 3 dB; min power 15 W; max power 250 W program; sens 90 dB SPL/W/m; imp 4 ohms. 11" W x 34" H x 11" D. Black-ash finish \$795/pr

708 Acoustic-Suspension Speaker

Features 0.75" metal-dome tweeter; 8" propylene cone bayonet-mounted woofer; lightweight "sandwich" cabinet with melamine construction; fully soldered internal wiring; computer grade crossover board; five-way terminals. FR 40-40,000 Hz (DIN); power range 15-100 W; sens 87 dB SPL/W/m; gray veneer or black finish; 10" W x 19.25" H x 9" D \$750/pr

510 Bass-Reflex Speaker

Bookshelf speaker with rear-port design. Fea-

tures 8" polypropylene-cone woofer; 4" polypropylene-cone midrange; 0.75" aluminum-dome tweeter. FR 35-25,000 Hz ± 3 dB; min power 15 W; max power 200 W program; sens 90 dB SPL/W/m; imp 4 ohms. 11" W x 24" H x 11" D. Black-ash finish \$595/pr

507 Bass-Reflex Speaker

Bookshelf speaker with rear-port design. Features 8" polypropylene-cone woofer; 0.75" aluminum-dome tweeter. FR 42-25,000 Hz ± 3 dB; min power 15 W; max power 130 W program; sens 90 dB SPL/W/m; imp 8 ohms. 10" W x 19" H x 11" D. Black-ash finish \$425/pr

Delta Series

Delta 11 Bass-Reflex Speaker

Floor-standing speaker with twin 10" 3-way design and rigid-box construction. Features two 10" cone woofers; 4" cone midrange; 0.75" dome tweeter. FR 32-25,000 Hz ± 3 dB; min power 15 W; max power 150 W program; sens 90 dB SPL/W/m; imp 8 ohms. 12" W x 34" H x 11" D. Black-ash finish \$595/pr

Delta 5 Acoustic-Suspension Speaker

2-way 8" design with rigid-box construction. Features 8" cone woofer; 0.75" dome tweeter. FR 40-25,000 Hz ± 3 dB; min power 15 W; max power 100 W; sens 90 dB SPL/W/m; imp 8 ohms. 11" W x 23" H x 8" D \$295/pr

Delta 3 Acoustic-Suspension Speaker

Bookshelf speaker with 2-way 6" design and rigid-box construction. Features 6" cone woofer; 0.75" dome tweeter. FR 50-20,000 Hz ± 3 dB; min power 15 W; max power 75 W program; sens 90 dB SPL/W/m; imp 8 ohms. 9" W x 15" H x 7" D. Black-ash finish \$175/pr

Diamond Bookshelf Speaker

Ported 2-way speaker designed for rear-wall placement. Bass alignment uses 5th-order computer-optimized reflex; 4.25" cone, .75" dome tweeter. Power range 20-75 W; sens 86 dB SPL/W/m; imp 8 ohms; walnut finish; 7.5 4" W x 9.5" H x 8" D; 15 lbs \$190/pr

YAMAHA

Monitor Speakers

NS-1000X 3-Way Speaker

Bookshelf speaker with 12" pure-fiber cone woofer, 3.5" beryllium-dome midrange, 1.12" tweeter. Features in-line configuration with rounded baffle; low-distortion crossover network; midrange and tweeter level controls. Music input power 200 W; sens 90 dB SPL/W/m. 16.75" W x 27.75" H x 13.19" D ... \$1,980/pr

NS-1000M 3-Way Speaker

Bookshelf speaker with 12" cone woofer, 1.12" beryllium-dome midrange; 3.5" tweeter. Features tangential-edge suspension; acoustic-suspension design; acoustic equalizers. Music input power 200 W; sens 90 dB SPL/W/m. 14.75" W x 26.62" H x 12.89" D; 68.2 lbs ... \$1,398/pr

NS-500M 3-Way Speaker

Bookshelf speaker with 12" carbon-cone woofer, 4" titanium-carbide semi-dome midrange; 1.19" beryllium-dome tweeter. Features resonance-free enclosure with 3-way mitered construction; low-distortion crossover network; midrange and tweeter level controls. Music input power 200 W; sens 92 dB SPL/W/m. 14.75" W x 26.75" H x 12.75" D; 51.7 lbs \$798/pr

NS-200Ma 3-Way Speaker

Bookshelf speaker with 10" laminated carbon-fiber/spruce cone woofer, 4" pure-carbon fiber cone with titanium-carbide dome midrange;

SPEAKERS

1.19" titanium-carbide dome tweeter. Features low-distortion crossover network; midrange and tweeter level controls. Music input power 200 W; sens 90 dB SPL/W/m. 12.62" W x 23" H x 12.88" D; 36.3 lbs \$598/pr

NS-100X 3-Way Speaker

Bookshelf speaker with 9" pure-carbon-fiber cone woofer, 2.36" pure-carbon fiber cone with titanium-carbide dome midrange; 1.19" titanium-carbide dome tweeter. Features field-isolation dual-magnetic system; low-distortion crossover network. Music input power 160 W; sens 91 dB SPL/W/m. 12.25" W x 20.88" H x 10.88" D; 30.8 lbs \$498/pr

NS-10M 2-Way Speaker

Bookshelf speaker with 7" singlesheet white-cone woofer, 1.36" soft-dome tweeter, acoustic-suspension enclosure, high-efficiency max-sound-dispersion design. Music input power

100 W; sens 90 dB SPL/W/m. 8.44" W x 15" H x 7.75" D; 13.2 lbs \$338/pr

NS-W2 Super Woofer

Supplements bass response for any speaker system. Especially useful for compact speakers. Features 10" woofer; built-in 40-W amp with volume control; magnetic shielding; 17.81" W x 14" H x 12.36" D; 24.6 lbs \$249 ea

T-Series Speakers

NS-75T 3-Way Speaker

Bookshelf speaker with 12" carbon-cone woofer; 2.36" titanium-carbide-dome midrange; 1.36" titanium-carbide-dome tweeter. Features heavy-duty cable-connection terminals; American-walnut-veneer cabinet; midrange and tweeter level controls; low-distortion crossover network. Music input power 200 W; sens 90 dB SPL/W/m. 14.36" W x 26.75" H x 12.75" D; 47.3 lbs \$770/pr

NS-55T 3-Way Speaker

Bookshelf speaker with 10" spruce-cone woofer; 2.36" titanium-carbide-dome midrange; 1.36" titanium-carbide-dome tweeter. Features heavy-duty cable-connection terminals; low-distortion crossover network. Music input power 200 W; sens 89 dB SPL/W/m. 14.12" W x 24.36" H x 12.36" D; 40.7 lbs \$570/pr

NS-35T 2-Way Speaker

Bookshelf speaker with 10" spruce-cone woofer; 1.36" titanium-carbide-dome tweeter. Features heavy-duty cable-connection terminals; low-distortion crossover network. Music input power 180 W; sens 90 dB SPL/W/m. 12.62" W x 21.75" H x 12.25" D; 29.7 lbs \$390/pr

NS-25T 2-Way Speaker

Bookshelf speaker with 8" spruce-cone woofer; 1.36" titanium-carbide-dome tweeter. Features heavy-duty cable-connection terminals; low-distortion crossover network. Music input power 160 W; sens 89 dB SPL/W/m. \$270/pr

**To the advertiser preceding us,
we apologize for the loudness
of our new JXL speakers.**



If you're the advertiser on the preceding page, sorry. We didn't realize the JXL's would be so loud.

But if you want car speakers with plenty of power, no apology is necessary. Because the new Jensen® JXL's are the most powerful speakers we've ever designed.

What makes them so powerful? Polycarbonate dynamic cone tweeters. They allow the JXL's to smoothly handle high and mid-range frequencies even at high volumes. And long throw woofers with

a "bass optimizer" bridge design. For the deepest, richest bass you could possibly imagine.

Together, these elements give you up to 175 watts of peak power handling capability.

So, for car speakers with extreme loudness (CD capability and great looks, too!), buy a pair of JXL's. You won't be sorry.

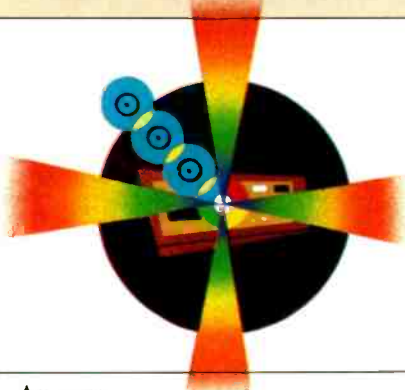


JENSEN®
When you want it all.

© 1986, International Jensen Inc. Jensen® is the registered trademark of International Jensen Inc.

CIRCLE NO. 24 ON READER SERVICE CARD

CD PLAYERS



ACCUPHASE BY MADRIGAL

DP-80/DC-81 Separate-Type CD Player

CD-playing system consisting of the DP-80 CD player to read digital signals from CD's and the DC-81 digital processor to convert the digital signals the DP-80 reads into audio signals. Separate transport and digital-processing chassis connected by optical fiber. Uses a D/A converter with discrete elements. DP-80 CD player features one master clock to control all operation timing; linear motor laser pickup and 18-bit microprocessor to achieve a <1-sec selection time; player mechanism mounted on ceramic-resin mounting and floated from chassis; front-panel play, track-search, and pause keys; subpanel skip-back, fast-forward, fast-reverse, repeat-disc, and repeat-phrase keys. Cues by track number. Displays current track number. DC-81 digital processor features wideband optical-fiber input receptacles; 16-bit digital signal and deglitch signal for each channel input to D/A converter through 17 optoisolators; 121-stage double-oversampling digital filter in each channel; 9-pole GIC-type Butterworth active filters; directly coupled 0-dB gain buffer amp used solely as an output stage; de-emphasis circuit consisting of passive elements and buffer amp; independent power transformer for each digital and analog circuits; fixed- and variable-level audio outputs; XLR-type balanced output. 75-ohm coaxial terminal allows the DC-81 to be connected to players of other manufacturers. 17.5" W x 5.75" H x 15" D; 33 lbs \$7,000

ACOUSTIC RESEARCH

CD-04 Compact Disc Player

Drawer-loading CD player with proven 14-bit 4X-oversampling DAC system. Features programming of 99 tracks in any order, 99 tracks in sequential order; skip forward; skip back; fast forward; fast reverse; time/track selection; repeat track, disc; full-function remote control; one-beam laser; 14-bit digital filtering; dual D/A converter. Oversamples at 176.4 kHz. Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc. 17" W x 4.33" H x 14.5" D \$480

ADC

16/2R Compact Disc Player

Slide-drawer-loading CD player with advanced error-processing circuitry for precise tracking. Features programming of 16 tracks in any order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, program; full-function remote control; 7-pole (7th-order) analog filtering; 3-beam laser. Cues by track number. Samples at 44.1 kHz. Displays current track number, elapsed time of current track; remaining time on disc; program in memory. 17" W x 3.12" H x 11.75" D; 10 lbs \$370
16/1. As above without remote control \$330
CD 100X. Similar to above except mid-sized and no remote control. \$299

ADCOM

GCD-300 Compact Disc Player

Drawer-loading CD player. Features three-beam laser; skip forward; skip back; repeat phrase; remote control; displays current track number, elapsed time of current track, elapsed time of disc, program stored in memory. Cues by track number. Max line output 2.5 V; THD at 1,000 Hz 0.004%; sep 80 dB; FR 5-20,000 Hz ± 0.5 dB \$500
GCD-200. Without remote control \$450

ADS

Atelier CD3 Compact Disc Player

Drawer-loading CD player. Features 3-beam laser; digital filtering (resampling frequency 88.2 kHz); programming of 30 tracks in random order; sound audible during fast forward and fast reverse; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, program; full-function remote control; headphone jack with adjustable level. Displays current track number, elapsed time of current track, elapsed time of disc, remaining time on disc, program stored in memory. Cues by track number, index number. Max line output 2 V; headphone output 2 V; THD at 20-20,000 Hz <0.01% at -0 dB; S/N >102 dB; sep >86 dB; FR 20-20,000 Hz ± 0.25 dB; 20 lbs; 17.5" W x 2.75" H x 14.8" D \$1,250
RC1. Hand-held infrared remote control unit which can be used with CD3 and future Atelier components \$100

Atelier CD4 Compact Disc Player

CD player with cast laser and disc transport assembly shock mounted in rubber isolators, aluminum and steel chassis/housing, and multiple power supplies to isolate digital and analog stages for minimum interaction and noise generation. A servo-laser intensity system switches focus intensity depending on quality of disc to maximize performance. Brick-wall digital filter works in conjunction with advanced multiple-pole low-pass filter. Features error-correcting system using a variable-size window of correction; 16-bit D/A converters; fast-focus 3-beam laser; programming of 16 tracks in random order; repeat disc, track, user-marked phrase, and program; random-access by time within a track; access by index code; audible fast search; 5-function infrared remote control. Displays elapsed time from track start, remaining time to disc end, track/program selection number, index, program in memory \$900

AIWA

DX-1500 Compact Disc Player

Drawer-loading CD player with 9-function remote control. Features programming of 16 tracks in any order, 99 tracks in sequential order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, program; headphone jack with adjustable level; sound au-

dible during fast scan. Samples at 44.1 kHz. Displays current track number, elapsed time on disc; program in memory; remaining time on disc. 13" W x 2.89" H x 11.75" D; 7.5 lbs \$375

AKAI

CD-A70 Compact Disc Player

Drawer-loading CD player with anti-resonant construction including high-polymer cabinet, insulated floating suspension, and support feet for accurate tracking. Dual power supply eliminates mistracking during dynamic sections. Natural-logic programming allows 27-keystroke programming for virtually unlimited number of track programmability. Features gold-plated RCA jacks; subcode terminal; disc center support; stabilized servo control system; independent left/right monaural amps; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, program; 32-function remote control; 3-beam laser; steep 90-dB attenuation digital filtering; 7th-order active analog filtering; single D/A converter; sound audible during fast scan. Cues by track and index number. Oversamples at 88.2 kHz. Displays current track number, elapsed time of current track, elapsed time on disc, program in memory. 17.3" W x 3.1" H x 10.2" D; 8.6 lbs \$475

CD-A3X Compact Disc Player

Drawer-loading CD player with anti-resonant insulated floating mechanism and stabilized servo control system for accurate tracking. Gold-plated RCA jacks, disc center support. Features programming of 36 tracks in random and sequential order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, program; 3-beam laser; 7th-order active analog filtering; single D/A converter; sound audible during fast scan. Cues by track and index number. Samples at 44.1 kHz. Displays current track number, elapsed time of current track, elapsed time on disc, program in memory. 17.3" W x 3.1" H x 10.2" D; 7.7 lbs \$350

CD-M515 Compact Disc Player

Mid-sized-chassis drawer-loading CD player with anti-resonant insulated floating mechanism and stabilized servo control system for accurate tracking and disc center support. Features programming of 36 tracks in random and sequential order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, program; 3-beam laser; 7th-order active analog filtering; single D/A converter; sound audible during fast scan. Cues by track and index number. Samples at 44.1 kHz. Displays current track number, elapsed time of current track, elapsed time on disc, program in memory. 13.8" W x 3.3" H x 10.2" D; 7 lbs \$340

CD-A30 Compact Disc Player

Drawer-loading CD player with anti-resonant insulated floating mechanism and stabilized servo control system for accurate tracking and disc

CD PLAYERS

center support. Features programming of 36 tracks in random and sequential order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, program; 3-beam laser; 7th-order active analog filtering; single D/A converter; sound audible during fast scan. Cues by track and index number. Samples at 44.1 kHz. Displays current track number, elapsed time of current track, elapsed time on disc, program in memory. 17.3" W x 3.1" H x 10.2" D; 7.7 lbs. \$340

AUDIO-TECHNICA

AT-CD20 Compact Disc Player

Drawer-loading 3-beam-laser CD player with programming of 9 tracks in random order. Features full-function wireless remote control; double resolution digital filtering; repeat of disc, phrase, program; display of current track number, elapsed time of current track; sound audible during fast scan; dual D/A converters; headphone jack with adjustable volume. Headphone output 0.16 V. 7 lbs; 17" W x 3.60 H x 11.5" D. \$400

BANG & OLUFSEN

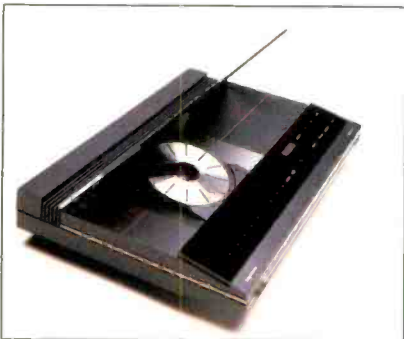
CD50 Compact Disc Player

Drawer-loading CD player. Features three-beam laser; digital filtering (resampling frequency 88.2 kHz); programming of 34 tracks in random order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, program; full function remote control. Displays current track number, elapsed time of current track, elapsed time of disc, program stored in memory. Cues by track number, index number. Max line output 2 V; THD at 1,000 Hz 0.003% at -0 dB; S/N 95 dB; sep 94 dB; FR 4-20,000 Hz ± 0.3 dB; 17.7 lbs; 16.5" H x 3" W x 12.75" D. \$999

Optional CD 50 Remote Terminal \$150

Beogram CDX Compact Disc Player

Top-loading CD player. Features one-beam laser; digital filtering (resampling frequency 176.4 kHz); programming of 40 tracks in random order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, program. Displays current track number, elapsed time of current track, elapsed time of disc, program stored in memory. Cues by track number, time. Max line output 2 V; THD at 1,000 Hz 0.003% at -0 dB; S/N 96 dB; sep 94 dB; FR 3-20,000 Hz ± 0.3 dB; 13.4 lbs; 16.5" W x 3" H x 12.25" D. \$699



Bang & Olufsen Beogram CDX

CALIFORNIA AUDIO LABS

Tempest Compact Disc Player

Programmable compact disc player uses six vacuum tubes to perform current-to-voltage conversion, Besselworth filtering, and noise-shaping functions. The elimination of transistors and integrated circuits from the audio signal path is said to reduce noise distortion, and the

active distortion correction uses no negative feedback. Other components in the Tempest include: RAM tubes, Sideral Akustic capacitors, Tiffany connectors, and oxygen-free linear-crystal wire. The player has standard search and access controls. Black finish \$1,895
Silver finish \$1,945



Carver Digital Time Lens

CARVER

DTL-200 Compact Disc Player

Drawer-loading CD player with 3-beam laser and Digital Time Lens circuitry to correct sonic problems in source material. Features 18-bit linear-phase digital filter for virtual elimination of sampling distortions through a 726 dB/octave rolloff; programming of 9 tracks in any order; programming of 99 tracks in sequential order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, and program; 24-function remote control; 121st-order linear-phase digital filtering (F.I.R. at 88.2 kHz); dual D/A converters. Cues by track and index number. Oversamples at 88.2 kHz. Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc, program in memory. Sound audible during fast forward and reverse. 19" W x 3.44" H x 11.25" D; 13 lbs. \$699

Digital Time Lens Compact Disc Player

Drawer-loading CD player. Features three-beam laser; digital filtering (resampling frequency 88.2 kHz); programming of 9 tracks in random order; display of current track number, elapsed time of current track, elapsed time of disc, program stored in memory; sound audible during fast forward and fast reverse; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, program; cues by track number, index number. Max line output 1.9 V; THD at 1,000 Hz 0.05%; S/N 96 dB; sep 86 dB; FR 5-20,000 Hz; 13 lbs; 19" W x 3.44" H x 11.25" D. \$650

DTL-50 Compact Disc Player

Drawer-loading CD player with 3-beam laser and Digital Time Lens circuitry to correct sonic problems in source material. Features programming of 9 tracks in any order; programming of 99 tracks in sequential order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, and program; 12-function remote control; 88.2 kHz double digital filtering; dual D/A converters. Cues by track and index number. Oversamples at 88.2 kHz. Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc, program in memory. Sound audible during fast forward and reverse. 17" W x 3" H x 11.25" D; 10 lbs. \$549

CITIZEN

CDP-120 Portable CD Player

Portable CD player with 2 headphone jacks. Programmable for up to 16 selections. Features pushbutton controls: program, memory, repeat, mode, stop, play/pause, cue, and review. LCD indicator reveals track number, time, and acti-

vated mode. AC power supply is built in. 1.2" H x 5" W x 7.36" D. Black or blue \$250

dbx

DX3 CD Player

Drawer-loading CD player. Features 3-beam laser; digital filtering (resampling frequency 88.2 kHz); programming of 9 tracks in random order; sound audible during fast forward and fast reverse; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, program. Displays current track number, elapsed time of current track. Cues by track number, index number. Equipped with 3 dbx signal-processing circuits: DAIR, a 2-band design for adding impact to musical transients, a compression control for background listening (has fixed threshold with variable gain below threshold and professional OverEasy compression with variable ratio above threshold), and an ambience control to add or subtract L-R (out-of-phase) information in midrange and treble increasing/decreasing spaciousness of sound field. Max line output 2 V; THD <0.002% 20-20,000 Hz, less than 0.07% with dbx processing; S/N 90 dB below 1 V A-wtd, 96 below 2 V A-wtd, 100 dB player in use, with dbx same as without processing except full compression limits max dynamic range to 60 dB while full DAIR increases dynamic range 10 dB to 106 dB; separation 90 dB; frequency response 10-20,000 Hz $+0.5$ dB, -1 dB; 10 lbs; 17.12" W x 3.69" H x 11.44" D. \$599



dbx DX3

DENON

All Denon CD players feature Direct Digital to Analog Converters (DDAC) to virtually eliminate distortion in digital-to-analog conversion process.

DCD-1500 Compact Disc Player

Drawer-loading CD player. Features three-beam laser; digital filtering (resampling frequency 88.2 kHz); programming of 20 tracks in random order; sound audible during fast forward and fast reverse; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, program; 10-function remote control; headphone jack with adjustable level. Displays current track number, elapsed time of current track, elapsed time of disc, remaining time on disc, program stored in memory. Cues by track number, index number, time. THD at 1,000 Hz 0.0025%; S/N 96 dB; sep 95 dB; FR 5-20,000 Hz ± 0.3 dB. \$650

DCD-1300 Compact Disc Player

Features real-time super-linear D/A converter; 20 random presets; headphone jack with adjustable level; analog and digital filtering; call and repeat selectors; index search. \$550

DCD-700 Compact Disc Player

Features super-linear D/A converter; wireless remote control; analog filtering; headphone jack with adjustable level. \$400

DCD-500 Compact Disc Player

Features super-linear D/A converter; 15 random presets; analog filtering; headphone jack. \$330

"CARVER CD PLAYER: SUPERB SOUND PLUS THE DIGITAL TIME LENS"

AUDIO MAGAZINE

"Leave it to Bob Carver to come up with a CD player designed to please both those who love CDs and those who still have reservations about their sound quality."

—Leonard Feldman
AUDIO MAGAZINE



The Carver Compact Disc Player answers the audiophile's demand for a CD Player which provides not only the greater dynamic range and richer bass expected from compact disc technology, but also the musicality, spectral balance and spatial qualities of well executed analog high fidelity recordings.

LOGICAL

How logical it is for a physicist dedicated to delivering music with maximum dynamic impact to offer a state-of-the-art CD player. Anyone who ever wondered why Carver makes amplifiers capable of delivering hundreds of watts of power need wonder no longer after they have heard the Carver Compact Disc Player as a sound source.

There are dozens of models of compact disc players now available, many of them demonstrating little regard for the finer points of digital playback technology. Bob Carver was in no hurry. He wanted to do digital right. And he did.

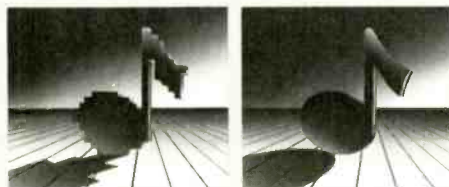
The state of the art has advanced considerably since the first players appeared several years ago. The Carver Compact Disc Player makes use of the latest **triple laser beam** pickups, **sophisticated oversampling**, **digital**

filtering technology and, very importantly, Carver's unique distortion reducing **dither signal** that effectively removes the low level quantization distortion existing in all other CD players.

Except for features like display and programming, the real determining factor in CD player quality is its ability to reconstruct music from digital information bits. And that is not an easy job nor one that can be effectively achieved while skimping on circuitry.

IMPROVED TRACKING

The Carver Compact Disc Player reads discs with more precisely focused laser power than most other models, resulting in improved tracking and less chance of drop-outs when dust or smudges are encountered on a CD.



The Digital Time Lens circuitry restores the octave-to-octave balance originally intended by the musician and recording engineer.

DIGITAL FILTERING

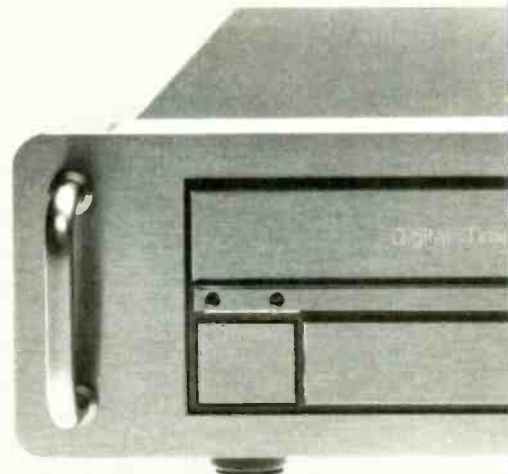
Along with a potentially audible signal ranging up to 20kHz, there are endless images of the signal at 40kHz, 80kHz and 160kHz. While they are above the range of human hearing, they must be removed from the signal to prevent harmonic problems which could turn into audible distortion. Earlier CD models placed an anti-imaging filter after the digital/analog converter stage. Carver uses DIGITAL filtering ahead of the D/A converter through a process called multiple oversampling. The sig-

nal is passed through a shift register which delays the samples, so that the weighted average of a large number of signals is generated. Through a complicated process, frequency bands are suppressed between 20kHz and 160kHz, eliminating harmonic distortion problems early on before the complicated D/A 16 bit translation.

The same oversampling process also distributes the same amount of noise over twice as wide a frequency range, resulting in half as much noise in the final signal. Then after translation to analog, the signal is once again filtered for a gentle roll-off above 20kHz. This yields a marvelously natural musical sound to the final output.

ABSENCE OF PHASE ERROR

One of the important tests applied to determine the effectiveness of digital-to-analog translation circuitry is the reproduction of a square wave.



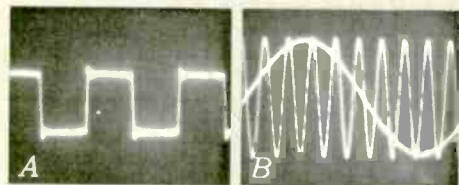
CARVER

POWERFUL

Corporation, PO Box 1237, Lynnwood, WA 98046

"Reproduction of a 1kHz digitally generated signal was as close to a true square wave as I have ever seen from a CD player that used digital filtering. (The Carver Digital Disc Player) shows a virtual absence of phase error."

AUDIO MAGAZINE



A. Square-wave reproduction, 1kHz.
B. Two-tone phase test signal (200Hz and 2kHz) with Digital Time Lens off.

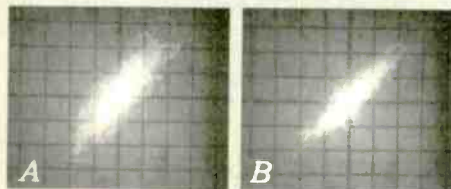
PLUS THE DIGITAL TIME LENS

On top of this unerring ability to produce natural, real-sounding music from the CD's digital bits, the Carver Compact Disc Player has the remarkable Digital Time Lens circuit to insure your listening enjoyment.

The Carver Compact Disc Player is the world's **only** compact disc player to address the problem of the bright, hot, harsh sounding midrange and a lack of ambience and spatial detail characteristic of the **majority** of compact discs currently available.

When Bob Carver obtained his first compact disc player, he was surprised at the sound derived from most of the compact discs he purchased. The three-dimensional musical perspective which his analog system provided in lush abundance on phono discs evaporated into a flat, brittle wasteland. After extensive testing, Bob uncovered two fundamental flaws in almost all compact discs: 1) An unpleasant, harsh spectral energy balance. The overall octave-to-octave energy balance was shifted on the CD towards more midrange above 400Hz; 2) The amount of L-R signal (which carries the spacial detail of the music) on the CD was inexplicably, but substantially, reduced

when compared with the amount of L-R signal found on the corresponding analog disc.



A. Lissajous pattern showing spatial detail (L-R)/(L+R) ratio from an LP record.
B. The same instant of music but taken from the CD version. Note the decreased (L-R) content, as shown by the narrowed trace.

Carver's circuitry corrects the ratio of L-R to L+R by performing one extra, but important mathematical operation on the signal stream that all other CD players fail to perform. This final operation makes all the difference.

The result is a natural sound with more of the three-dimensional information that places us in the same space with performers. You won't need the Digital Time Lens on all CD's. But it is there when you need it.

In the beginning, Carver hoped, indeed he expected, that once recording artists and engineers became more experienced with CD technology fewer and fewer CDs would require the Digital Time Lens. But both laboratory and listening tests reveal that the great majority of even the most recently released CDs benefits significantly from the Digital Time Lens.

EASY TO USE

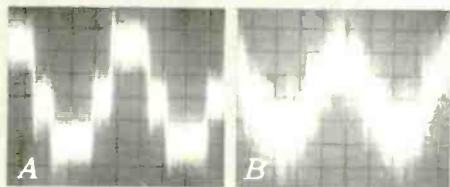
Ease of operation is a hallmark of Carver components and the Carver Compact Disc Player is no exception. A subtle but easy-to-read LCD display not only shows selection number, elapsed time and total time of the CD, but also "talks" to the user. Turn on the Carver Compact Disc Player and the display asks for a disc. When the disc tray is open, the display reminds you with an OPEN readout. When a CD has completed playing, the multi-function display reads END.

With the Carver Compact Disc Player's Programmable Random Access Playback System, track search and programming of different selections is a snap, as is automatic repeat of a previous selection or an entire CD. For classical music lovers, the Carver Compact Disc Player has complete indexing capabilities as well.

The large, easy-to-use feather-touch controls include pause, fast forward and reverse. You can even monitor music at high speed to find a certain portion of a selection.

We know you really enjoy music so, you owe it to yourself to begin your digital experience with the only full feature CD player that has the Carver touch. The only CD player that can actually improve on what is already the best playback medium ever offered.

Audition the Carver Compact Disc Player with Digital Time Lens at your Carver Dealer.

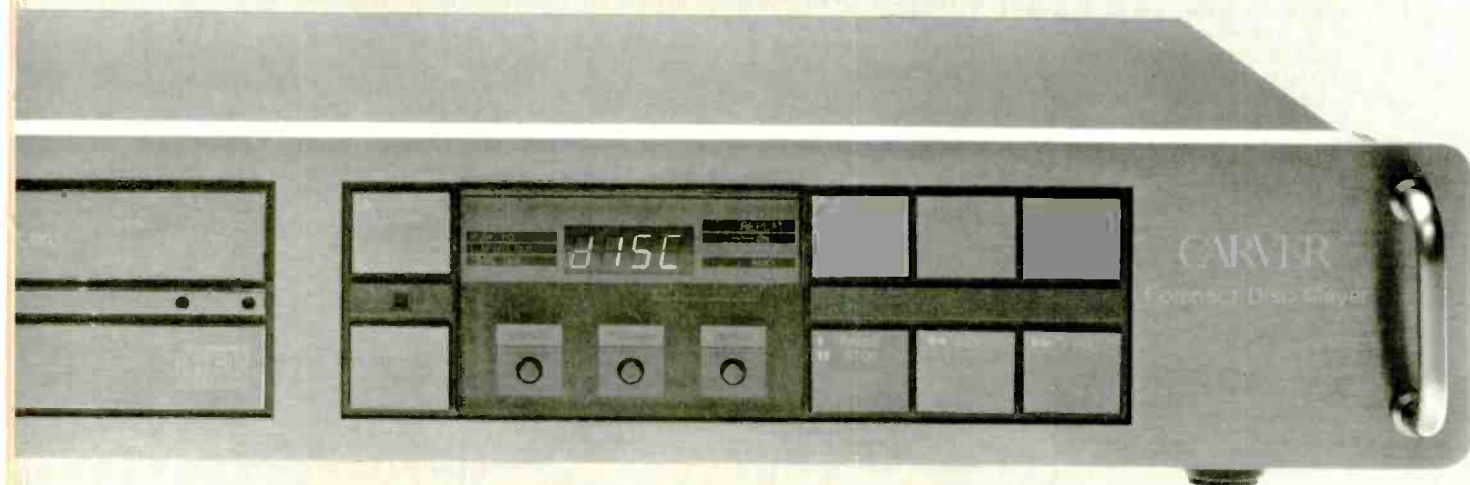


A. Ultra-low-level (4 significant bits) 1kHz signal, as reproduced by conventional CD players.
B. Same signal with dither added before D/A conversion by Carver CD player. Note that dither has caused the distorted step-wise approximation of the 1kHz tone virtually to vanish. Quantization distortion has been reduced to insignificance.

IF YOU ALREADY HAVE A CD PLAYER

By buying a CD Player you made a commitment to vastly improve your sound source, now you can go the short extra step that lets digital realize its true potential.

That step is the CARVER Digital Time Lens. Simply connect it between your CD player and your preamplifier or receiver.



CD PLAYERS



Fisher AD-815B

FISHER

AD-815B Compact Disc Player

Features 6-function wireless infrared remote control; 8-selection programmable scan function; horizontal-load system with motorized drawer; skip forward and reverse; ALL/ONE/OFF repeat function with LED indicator; digital display of track and index numbers; index search. 440 mm W \$400

AD-924B Compact Disc Player

Features 16-selection programmable scan function; horizontal-load system with motorized drawer; skip forward and reverse; ALL/ONE/OFF repeat function with LED indicator; digital display of track and index numbers; index search. 440 mm W \$380
AD-922B. As above except 400 mm W \$380

GENERAL ELECTRIC

3-7050 Portable Compact Disc Player

AC/DC portable component system with CD player, cassette deck, and radio. CD section: vertical loading; disc carry door; cushion eject; noncontact laser pickup with auto focusing and precision tracking; LCD display for track number, track time, total time, repeat, memory; controls for eject, display, play, pause/stop, FF/Rev; music skip & memory; synchronized recording from CD to cassette. Cassette section: 6-pushbutton tape transport; auto shut-off in play and record modes; cassette carry door with cushion eject; Dolby B; 3-digit tape counter. Radio section: AM/FM/FM-stereo; rotary volume, balance, and tuning controls; LED stereo indicator; telescopic FM whip antenna; 5-band graphic EQ; direct on-air recording; jacks for 0.25" headphones, L/R mikes, AC input with auto AC/DC switching, L/R speakers, L/R aux input and output (RCA), DC input. Black, silver, red. 25.8" x 10" x 6.3" \$400

11-4911 Compact Disc Player

Drawer-loading CD player with infrared remote control. Features 3-beam laser; programming of 15 tracks in any order; repeat program, disc, phrase; forward and reverse skip search; forward and reverse index search; audible fast forward and reverse music search; timer playback function. Displays track number, index number, elapsed time. Lighted symbols/words indicate program, repeat, A-B repeat, play, pause. 10-key front-panel number pad. 17.12" x 2.88" x 10.44"; 9.5 lbs \$270

11-4800 Compact Disc Player

Drawer-loading CD player. Features 3-beam laser; programming of 15 tracks in any order; repeat program, disc, phrase; forward and reverse skip search; forward and reverse index search; 2-speed audible fast forward and reverse music search; timer playback function. Displays track number, index number, elapsed time. Lighted symbols/words indicate program, repeat, A-B repeat, play, pause. 17.12" x 2.88" x 10.44"; 9.5 lbs \$230

GOLDSTAR

GCD-616 Compact Disc Player

CD player features programming of up to 9 tracks in any order; repeat disc and program;

16-bit decoding; digital and analog filters. FR 5-20,000 Hz \pm 1.5 dB; dynamic range 90 dB; S/N 90 dB; ch sep 85 dB; THD 0.03%. 16.9" x 3" x 15"; 11 lbs \$250

HARMAN KARDON

HD300 Compact Disc Player

Drawer-loading CD player with zero-feedback, all-discrete analog stage to ensure very low IM distortion from DC-100,000 Hz eliminating "alias error" and allowing the use of very shallow analog filter after D/A converter to preserve spatial information. Features programming of 15 tracks in any order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase and program; cueing by track number; 3-beam laser; single D/A converter; 16-bit linear-conversion digital filtering with dual sample; all discrete, gradual-slope analog filtering. Oversamples at 88.2 kHz. Displays current track number. 17.36" W x 4" H x 13.25" D; 12.8 lbs \$575

HITACHI

DA005 Compact Disc Player

Drawer-loading CD player with direct PIT servo, 5-stage error correction, 121-band digital filter. Programs 15 tracks in any order. Features skip forward; skip back; fast forward; fast reverse; cancel; repeat track; repeat disc; repeat phrase; repeat program; cue by track; 28-function remote; headphone jack with adjustable level; three-beam laser; single D/A converter; display of current track number; display of elapsed time of current track; display of remaining time on disc; sound audible during fast scan. Headphone output 2 V; 11 lbs \$800

DAC50 Compact Disc Changer

CD player with ability to load 6 discs and program 32 tracks on any disc in any order. Features skip forward; skip back; fast forward; fast reverse; repeat track; repeat disc; repeat program; cue by track; 26-function remote; headphone jack with adjustable level; three-beam laser; analog filtering; single D/A converter; display of current track number; display of elapsed time of current track; display of program in memory; sound audible during fast scan. Headphone output 2 V \$700

DA501 Compact Disc Player

Drawer-loading CD player with 4-way repeat and direct PIT servo. Programs 15 tracks in any order. Features skip forward; skip back; fast forward; fast reverse; timer play; repeat track; repeat disc; repeat phrase; repeat program; cue by track; 18-function remote; headphone jack with adjustable level; three-beam laser; analog filtering; single D/A converter; display of current track number; display of elapsed time of current track. Headphone output 2 V; 10 lbs \$600

DA6001 Compact Disc Player

Drawer-loading CD player with direct PIT servo, new floating mechanism, 6-digit FL display and 4-way repeat. Programs 15 tracks in any order. Features skip forward; skip back; fast forward; fast reverse; timer play; repeat track; repeat disc; repeat phrase; repeat program; cue by track; 6-function remote; three-beam laser; single D/A converter; display of current track number; display of elapsed time of current track; sound audible during fast scan \$450

DA500 Compact Disc Player

Drawer-loading CD player. Features three-beam laser; programming of 15 tracks in random order; display of current track number, elapsed time of current track; program stored in memory; sound audible during fast forward and fast

reverse; skip forward; skip back; fast forward; fast reverse; repeat track, disc, phrase, program; cues by track number, index number. Max line output 2.5 V; THD at 1,000 Hz 0.003%; IMD 0.003%; S/N 95 dB; sep 92 dB; 10 lbs; 17.12" W x 3.25" H x 10.36" D \$450

DA600 Compact Disc Player

Drawer-loading CD player with 4-way repeat and 6-digit FL display; direct PIT servo; new floating mechanism. Programs 15 tracks in any order. Features skip forward; skip back; fast forward; fast reverse; timer play; repeat track; repeat disc; repeat phrase; repeat program; cues by track; three-beam laser; analog filtering; single D/A converter; display of current track number; display of elapsed time of current track; sound audible during fast scan. 9 lbs; 14.5" W x 2.88" H x 10.24" D \$400

DAP100 Portable Compact Disc Player

Top-loading portable CD player with built-in AC/DC converter; AA battery (x6) operation; automatic repeat function; music scan. Other features include skip forward; skip back; fast forward; fast reverse; repeat track; repeat disc; headphone jack with adjustable level; three-beam laser; analog filtering; single D/A converter; display of current track number, elapsed time of current track; sound audible during fast scan. Headphone output 2 V \$350

JVC

XL-V100BK Compact Disc Player

Drawer-loading CD player with high-precision 3-beam laser pickup design for high sensitivity and low resonance and vibration, separate digital and analog circuits for improved isolation and lower noise; Independent Suspension System (ISS) and large insulators to protect the pickup and disc from vibration and resonance; 2 outputs (fixed and variable). Remote controllable with selected JVC Compu-Link Components. Features programming of 15 tracks in any order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, and program; 30-function remote control; headphone jack with adjustable level; higher-filter digital filtering; analog filtering; dual D/A converters; sound audible during fast scans. Cues by track number, index number, and time. Oversamples at 176.4 kHz. Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc, program in memory. Headphone output 2 V. 17.19" W x 3.94" H x 15.88" D \$1,000

XL-M700BK Multi-Disc Compact Disc Player

Drawer-loading CD player with an automatic changer, 6-disc magazine, and single-disc tray for 7-disc playback. Remote controllable with selected JVC Compu-Link Components. Features programming of 15 tracks in any order from 7 discs; oversized fluorescent display; 20 direct-call keys; continuous, programmed, random, and timer play; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc; 32-function remote control; headphone jack with adjustable level; digital filtering; single D/A converter; sound audible during fast scans. Cues by track number. Oversamples at 88.2 kHz. Headphone output 2 V. 17.19" W x 3.36" H x 12.12" D \$600

XL-V440BK Compact Disc Player

Drawer-loading CD player with high-precision 3-beam laser pickup design for high sensitivity and low resonance and vibration, Independent Suspension System (ISS) to protect the pickup and disc from vibration and resonance; 10-key direct access and programming; new Y Servo

CD PLAYERS

System with High-Balance Servo and High-Trackability Servo for unerring tracking of any disc. Remote controllable with selected JVC Compu-Link Components. Features programming of 15 tracks in any order; skip forward; skip back; fast forward; fast reverse; repeat disc, and program; 23-function remote control; 3-beam laser; headphone jack with adjustable level; digital filtering; single D/A converter. Cues by track number and time. Oversamples at 88.2 kHz. Displays current track number, elapsed time of current track. Headphone output 2 V. 17.19" W x 3.31" H x 11.36" D; 7.3 lbs. \$400

XL-V330BK Compact Disc Player

Drawer-loading CD player with high-precision 3-beam laser pickup design for high sensitivity and low resonance and vibration, Independent Suspension System (ISS) to protect the pickup and disc from vibration and resonance; direct access programming; new Y Servo System with High-Balance Servo and High-Trackability Servo for unerring tracking of any disc. Remote controllable with selected JVC Compu-Link Components. Features programming of 15 tracks in any order; skip forward; skip back; fast forward; fast reverse; repeat disc and program; 23-function remote control; 3-beam laser; headphone jack with adjustable level; digital filtering; single D/A converter. Cues by track number and time. Oversamples at 88.2 kHz. Displays current track number, elapsed time of current track. Headphone output 2 V. 17.19" W x 3.31" H x 11.36" D; 7.3 lbs. \$350

XL-V220BK Compact Disc Player

Drawer-loading CD player with high-precision 3-beam laser pickup design for high sensitivity and low resonance and vibration, Independent Suspension System (ISS) to protect the pickup and disc from vibration and resonance; new Y Servo System with High-Balance Servo and High-Trackability Servo for unerring tracking of any disc. Remote controllable with selected JVC Compu-Link Components. Features programming of 15 tracks in any order; skip forward; skip back; fast forward; fast reverse; repeat disc, and program; headphone jack with adjustable level; digital filtering; single D/A converter. Cues by track number and time. Oversamples at 88.2 kHz. Displays current track number, elapsed time of current track. Headphone output 2 V. 17.19" W x 3.31" H x 11.36" D; 7.3 lbs. \$275



Kenwood DP-750

KENWOOD

DP-1000 IIB Basic Series Compact Disc Player

Drawer-loading CD player displays elapsed time of current track, remaining time on disc, and program in memory. Features programming of 16 tracks in any order; skip forward; skip back; repeat track, disc, and program; cue by index number; 24-function wireless remote control; linear-skate disc loading; 16-bit linear quantizing per channel; semiconductor laser; audible FF and FR. W&F below measurable limit; dynamic range 95 dB; constant linear velocity 1.2-1.4 m/sec; sampling frequency 44,100

Hz; max line output 2.0 V; headphone output 31 mW/32 ohms; THD <0.0015% at 1,000 Hz; FR 20-20,000 Hz ± 0.5 dB; 15 lbs; 15.31" W x 3.16" H x 12.22" D \$510

DP-850(B) Compact Disc Player

Drawer-loading CD player displays elapsed time and remaining time on disc. Features laser with servo control; repeat disc and program; cue by track and index number; headphone jack with adjustable level; linear-skate disc loading; index and track search; memory function; 16 bits linear quantizing per channel; timer play. W&F below measurable limit; max line output 2.0 V; headphone output 25 mW/32 ohms; THD less than 0.003% at 1,000 Hz; sep 90 dB at 1,000 Hz; FR 5-20,000 Hz ± 0.5 dB; 12 lbs; 16.22" W x 3.31" H x 12.16" D \$315

DP-750(B) Compact Disc Player

Drawer-loading CD player displays elapsed time and remaining time on disc. Features laser with servo control; repeat disc and program; 16 track random program memory; 12 lbs. \$255



Kyocera DA-810

KYOCERA

DA-910 Compact Disc Player

Compact disc player with motorized drawer. Features 1-beam laser; digital oversampling filtering; programming of 24 tracks in random order; display of current track number, elapsed time of current track, remaining time on disc, program stored in memory; skip forward; skip back; cancel; repeat track, disc, phrase, program; cues by track number, index number; 8-function remote control; headphone jack (adjustable output). Max line output 5 V; THD at 1,000 Hz 0.005%; S/N 95 dB; sep 90 dB; FR 5-20,000 Hz ± 0.5 dB; 22 lbs; 17" W x 5.5" H x 13" D \$1,600

DA-810 Compact Disc Player

Compact disc player with motorized drawer. Features 1-beam laser; digital oversampling filtering; programming of 24 tracks in random order; display of current track number, elapsed time of current track, remaining time on disc, program stored in memory; skip forward; skip back; cancel; repeat disc, phrase, program; cues by track number, index number; headphone jack (adjustable output). Max line output 4 V; THD at 1,000 Hz 0.005%; S/N 95 dB; sep 90 dB; FR 20-20,000 Hz ± 0.5 dB; 18.12" W x 4.5" H x 12.62" D \$1,100

DA-710 CX Compact Disc Player

Drawer-loading CD player. Features programming of 24 tracks in any order, 99 tracks in sequential order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, and program; 39-function remote control; headphone jack with adjustable level; digital oversampling filtering; 3rd-order analog filtering; dual D/A converters; sound audible during fast scans. Cues by track and index num-

ber. Displays current track number, remaining time on disc, and program in memory. Headphone output 50 mW. 18.12" W x 3.56" H x 12.12" D; 13 lbs. \$750

DA-610CX Compact Disc Player

Drawer-loading CD player with 3-beam laser. 24-key hand-held remote control can be used in a system remote or separately. Features skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, and program; programming of 15 tracks in any order, 99 tracks in sequential order; headphone jack with adjustable level; 9th-order analog filtering; single D/A converter; sound audible during fast scans. Displays current track number, remaining time on disc, and program in memory. \$550

DA-610 Compact Disc Player

Drawer-loading CD player. 3-beam laser; digital filtering; programming of 16 tracks in random order; skip forward; skip back; fast forward; fast reverse; repeat track, disc, program; 8-function remote control; headphone jack with adjustable level; auto shut-off at end of play; remote control independently or through remote system center; 16-bit quantization; 9th order analog pass filter. Displays current track number, elapsed time of current track. Max line output 2 V; headphone output 40 mW; THD at 1,000 Hz 0.005%; S/N 90 dB; sep 90 dB; FR 5-20,000 Hz ± 0.5 dB \$550

LUXMAN

D-03 Compact Disc Player

Drawer-loading CD player. Features one-beam laser; programming of 20 tracks in random order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, program; 7-function remote control. Displays current track number, elapsed time of current track, elapsed time of disc, remaining time on disc, program stored in memory. Cues by track number, index number, time. Max line output 2 V; THD at 1,000 Hz 0.003% at -1 dB; S/N 97 dB; FR 5-20,000 Hz -0.5 dB; 18.7 lbs; 17.81" W x 3.31" H x 12.94" D \$1,500

D-408 Compact Disc Player

Drawer-loading CD player. Features one-beam laser; sound audible during fast forward and fast reverse; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, program; 22-function remote control; headphone jack with adjustable level. Displays current track number, elapsed time of current track, program stored in memory. Cues by track number, index number, time. Max line output 2 V; THD at 1,000 Hz 0.003% at -1 dB; S/N 96 dB; sep 90 dB; FR 5-20,000 Hz -0.5 dB; 34.7 lbs; 16.56" W x 6.62" H x 17.62" D \$1,300

D-404 Compact Disc Player

Drawer-loading CD player. Features one-beam laser; programming of 8 tracks in random order; skip forward; skip back; fast forward; fast reverse; repeat track, disc, program; 5-function remote control; headphone jack with adjustable level. Displays current track number, elapsed time of current track, remaining time on disc, program stored in memory. Cues by track number. Max line output 2 V; THD at 1,000 Hz 0.003% at -1 dB; S/N 96 dB; sep 90 dB; FR 5-20,000 Hz -0.5 dB; 13.2 lbs; 17.81" W x 3.31" H x 12.38" D \$580

D-100 Compact Disc Player

Drawer-loading CD player with STAR circuitry. Features programming of 15 tracks in any order; skip forward; skip back; fast forward; fast reverse; cancel; repeat disc, program; 10-function

CD PLAYERS

infrared remote control; 3-beam laser, mirror-image/phase-coherent anti-aliasing analog filtering; single D/A converter. Cues by track number. Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc, program in memory. 17.25" W x 3.36" H x 12.31" D; 9.7 lbs. \$480



Magnavox FD2041 SL

MAGNAVOX

CD8850 Portable Compact Disc Player

Vertical-loading CD player with 7 W max continuous rms power output per ch in "boom-box"-type unit. Features detachable 3-way speaker system; 5-band graphic EQ; cue and review on CD and cassette; 3-way power supply. CD player features skip forward; skip back; headphone jack with adjustable level. Displays current track number. 10" W x 8.75" H x 6.25" D (w/o speakers); 22.5" W x 8.75" H x 6.25" D (with speakers) \$500

CD8650 Compact Disc Player

Drawer-loading CD player with Favorite Track Selection (FTS) to allow user to program favorite tracks from a CD library. Includes an additional altered output; music scan; single play; and a digital output for CD graphics, CD ROM, etc. Features random access programming of 785 tracks in any order; skip forward; skip back; 3-speed fast forward and reverse; 4-sec record-pause insertion; anti-jamming protection; repeat track, disc, and program; headphone jack with adjustable level; infrared remote control; one-beam laser; low-order analog low-pass digital filtering; high-order analog filter with phase and amplitude characteristics; dual D/A converters. Cues by track number. Oversamples at 176.4 kHz. Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc. Headphone output 0-5 V. 16.5" W x 3.5" H x 11.75" D; 9.75 lbs \$430

CD8880 Portable Compact Disc Player

Portable CD player with radio and cassette deck in "boom-box"-type unit. Includes 3.5 W min rms output power per ch, stereo cassette deck with electronic speed control; CD-to-cassette dubbing; 2-way speaker system; 5-band graphic EQ; cue and review on CD and cassette; 3-way power supply. CD player features vertical loading; skip forward; skip back; fast forward; fast reverse; headphone jack with adjustable level; 1-beam laser; dual D/A converters. Cues by track number. Displays current track number. 26" W x 6/75" H x 6" D \$400

CD8560 Compact Disc Player

Drawer-loading CD player with 16-bit digital-to-analog converter and 8-function infrared remote control. Features programming of 20 tracks in any order; skip forward; skip back; fast forward; fast reverse; repeat track, disc; dual D/A converters. Oversamples at 176.4 kHz. Displays current track number, elapsed time of current track, 16.5" W x 3.5" H x 11.75" D; 9 lbs \$330

FD2041 SL Compact Disc Player

Tray-loading CD player. Features digital filtering (resampling frequency 176.4 kHz); programming of 20 tracks in random order; sound audible during fast scans; skip forward; skip back; fast forward; fast reverse; cancel; repeat track; 10-function remote control (optional). Displays current track number, elapsed time of current track, time on disc, program stored in memory. Cues by track number. Max line output 2 V; THD at 1,000 Hz 0.003% at -0 dB; IMD 86 dB below 0-dB level; S/N 96 dB; sep 94 dB; FR 20-20,000 Hz ± 0.15 dB. 16.5" W x 3.5" H x 11.75" D \$299

FD1051 BK Compact Disc Player

Drawer-loading CD player with digital output for CD-ROM or digital sound processing. Features digital filtering (resampling frequency 176.4 kHz); programming of 20 tracks in random order; skip forward; skip back; fast forward; fast reverse; 8-function remote control. Displays current track number, elapsed time of current track. 12.5" W x 3.5" H x 11.75" D \$290

CDB460 Compact Disc Player

Drawer-loading CD player with 16-bit dual D/A converters. Features programming of 20 tracks in any order; skip forward; skip back; fast forward; fast reverse. Oversamples at 176.4 kHz. Displays current track number, elapsed time of current track. 16.5" W x 3.5" H x 11.75" D; 10 lbs \$250

FD1041 BK Compact Disc Player

Drawer-loading CD player. Features digital filtering (resampling frequency 176.4 kHz); programming of 20 tracks in random order; sound audible during fast scans; skip forward; skip back; fast forward; fast reverse; cancel. Displays current track number, elapsed time of current track, time on disc. 12.5" W x 3.5" H x 11.75" D \$240

MARANTZ

CD 74 Compact Disc Player

Drawer-loading CD player. Features one-beam laser; digital filtering (resampling frequency 176.4 kHz); programming of 24 tracks in random order; display of current track number, elapsed time of current track, program stored in memory; sound audible during fast forward and fast reverse; skip forward; skip back; fast forward; fast reverse; repeat track, disc, phrase, program; cues by track number. Max line output 2 V; THD at 1,000 Hz 0.005%; S/N 96 dB; sep 90 dB; 14.3 lbs; 16.5" W x 4.62" H x 13.12" D \$650

CD 152 Compact Disc Player

Drawer-loading CD player. Features 3-beam laser; digital filtering (resampling frequency 176.4 kHz); programming of 16 tracks in random order; display of current track number, elapsed time of current track, program stored in memory; sound audible during fast forward and fast reverse; skip forward; skip back; fast forward; fast reverse; repeat track, disc, phrase, program; cues by track number. Max line output 2 V; THD at 1,000 Hz 0.005%; S/N 96 dB; sep 90 dB; 9.5 lbs; 16.2" W x 4" H x 11.62" D \$330

CD 30 Compact Disc Player

Drawer-loading CD player with 3-beam laser. Features programming of 16 tracks in any order; skip forward; skip back; fast forward; fast reverse; repeat track and disc; digital filtering; dual D/A converters. Cues by track number. Oversamples at 88.2 kHz. Displays current track number, elapsed time of current track, remaining time on disc. 16.5" W x 3" H x 10.88"

D; 7.7 lbs \$330
CD 50. Same as CD 30 with wireless infrared remote control \$400



McIntosh MCD 7000

McINTOSH

MCD 7000 Compact Disc Player

CD player with linear-torque, vibration-free, flutter-free, controllable-speed motor with digital PLL motor control to keep speed at correct value and permanently keep correct phase relationship. Motor is mounted to a precision platform. Features double digital filtering; remote control; music scan; skip forward and back; repeat track; 3-speed music search with search protection; pause; programming of up to 20 tracks in any order; cancel; headphone jack with adjustable level; damaged disc/mute error-correction indicator; positive-lock synchronization. Displays number of current track, elapsed playing time of track. FR 2-20,000 Hz ± 0.3 dB; S/N 96 dB; dynamic range 96 dB. 16-bit equivalent through oversampling with digital filter and 14-bit D/A conversion. 22 lbs \$1,399

MERIDIAN BY MADRIGAL

207 Professional Compact Disc Player

Drawer-loading 2-piece CD player with additional inputs and switching for tuner and tape. Remote control of volume. Can operate as a preamp. Features programming of 99 tracks in any order; skip forward; skip back; fast forward; fast reverse; repeat track, disc, and program; full-function remote control; one-beam laser; dual D/A converters; sound audible during fast scan. Cues by track and index number. Oversamples at 176.4 kHz. Displays current track number, elapsed time of current track, program in memory \$1,500

MISSION

DAD7000R Compact Disc Player

Drawer-loading CD player with infrared remote control. Features one-beam laser; programming of 20 tracks in random order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, program; Displays current track number, elapsed time of current track. Cues by track number, index number. Max line output 2 V; THD at 1,000 Hz 0.004% at -0 dB; IMD < -86 dB; sep 90 dB; FR 20-20,000 Hz ± 0.3 dB; 15 lbs; 13" W x 3" H x 11" D \$749

PCM 7000 Compact Disc Player

Drawer-loading CD player with twin DAC-single chip and fully interactive electronic display. Programs 20 tracks in any order. Features skip forward; skip back; fast forward; fast reverse; cancel; repeat track; repeat disc; repeat phrase; repeat program; cues by track; cues by time; full-function remote; headphone jack with adjustable level; one-beam laser; oversamples at 176.4 kHz; twin DAC-single chip VSLI digital filtering; post-DAC analog filtering; dual D/A converters; display of current track number; display of elapsed time of current track; display of elapsed time on disc; display of remaining time on disc; display of program in memory. 17" W x 3" H x 13.5" D \$699

BEYOND CONVENTIONAL AUDIO



THE ONKYO INTEGRA DX-320 WITH OPTO-COUPLING THE SOUND IS NO ILLUSION

The Integra DX-320 Compact Disc player is the first of ONKYO's new generation of CD players to incorporate our unique Opto-Coupling digital signal processing system. Conventional CD players transmit digital data internally via printed circuit board wiring, which interacts with analog audio signals to produce Digital Signal Interference (DSI), resulting in an audible "harshness" in the music.

Specially designed high speed Opto-Coupling modules in the DX-320 transfer the digital audio and other data signals to the analog output stage via fiber optics, preventing DSI. The result is noise-free, life-like reproduction with none of the harsh sound characteristics often attributed to other CD players. This remarkable new technology can only be found in the ONKYO DX-320.

Double oversampling and digital filtering greatly improve phase and harmonic accuracy. A fully programmable wireless remote control includes memory selection, phrase capability, and indexing for maximum convenience.

Our unique transport design incorporates ONKYO's exclusive Poly-Sorb, a rubber-like compound that improves isolation by absorbing extraneous vibrations, eliminating skipping and mistracking.

The Integra DX-320 Compact Disc player fulfills the promise of digital audio, with sound quality that's as close to the original as anything you've ever heard. Audition the DX-320 at your authorized ONKYO dealer today.

Artistry In Sound

ONKYO

200 Williams Drive, Ramsey, N.J. 07446

CD PLAYERS

PCM 7000R. Similar to the PCM 7000 with massive transformer in analog section, optimized grounding, and four separate regulated power supplies \$899

MITSUBISHI

DP-409 Multi Compact Disc Player

CD player with 5-disc auto changer and magazine. Provides continuous or programmed play from any or all 5 discs. Features programming of 30 tracks in any order; skip forward; skip back; fast forward; fast reverse; cancel; repeat disc, track, and program; 16-function remote control; three-beam laser; analog filtering; single D/A converter. Cues by track number. Sound audible during fast scans. Displays current track number, elapsed time of current track, program in memory. 16.81" W x 4.12" H x 13.36" D; 17 lbs \$500

DP-209R Compact Disc Player

Drawer-loading CD player with 3-beam tracking system. Features programming of 36 tracks in any order; skip forward; skip back; fast forward; fast reverse; repeat track, disc, and program; headphone jack with adjustable level; wireless remote control; analog filtering; single D/A converter; sound audible during fast scans. Cues by track and index number. Displays current track number, elapsed time of current track. 16.81" W x 2.5" H x 11" D; 7.26 lbs \$330

DP-109. Similar to DP-209R except no remote control or adjustable headphone jack \$280

NAD

5355 Compact Disc Player

Drawer-loading compact disc player. Features three-beam laser; display of current track number, elapsed time in track, remaining time on disc; sound audible during fast forward and fast reverse; skip forward; skip back; repeat disc; fast forward; fast reverse; repeat disc, program; cue by track number, display of program in memory; 9-function remote. Max line output 2.0 V; THD at 1,000 Hz 0.003% at 0 dB; S/N 98 dB de-emphasis on; sep 90 dB at 1,000 Hz; FR 5-20,000 Hz ± 0.5 dB \$498

5330 Compact Disc Player

Drawer-loading CD player. Features skip forward; skip back; fast forward; fast reverse; repeat disc; 3-beam laser; 3-pole analog filter; sound audible during fast scan. Cues by track number. Displays current track, elapsed time of current track, remaining time on disc. 16.5" W x 3.3" H x 12.2" D \$348



NEC CD-705

NEC

CD-705 Compact Disc Player

Drawer-loading compact disc player. Features one-beam laser; digital filtering (resampling frequency 88.2 kHz); nondelay digital filter with 5-pole active low pass; programming of 15 tracks in random/sequential order; display of current track number, elapsed time of current track,

elapsed time of disc, remaining time on disc, program stored in memory; sound audible during fast forward and fast reverse; skip forward; skip back; cancel; repeat track, disc, repeat program; cues by track number, index number, time; dockable full-function remote control; max line output 2.5 V; headphone output 1.5 V; THD at 1,000 Hz 0.005%, at 5-20,000 Hz 0.01%; IMD 0.01%; S/N 95 dB at 1,000 Hz; sep 70 dB at 5-20,000 Hz, 90 dB at 1,000 Hz; FR 5-20,000 Hz ± 0.5 dB; 23 lbs; 16.94" W x 4.09" H x 14.19" D \$749

CD-607 Compact Disc Player

Drawer-loading CD player. Features three-beam laser; digital filtering (resampling frequency 88.2 kHz); programming of 15 tracks in random/sequential order; sound audible during fast forward and fast reverse; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, program; remote control; 5-pole active low pass filter; high-speed CMOS D/A switching circuit. Displays current track number, elapsed time of current track, elapsed time of disc, remaining time on disc, program stored in memory. Cues by track number. Max line output 2.5 V; THD at 1,000 Hz 0.005%; S/N 95 dB; sep 90 dB at 1,000 Hz; FR 5-20,000 Hz ± 0.5 dB; 14.77 lbs; 16.28" W x 3.22" H \$599

CD-650E Compact Disc Player

Drawer-loading compact disc player with nondelay 16-bit digital filter, dual D/A converters, variable and fixed output levels, 99 accessible tracks. Features programming of 15 tracks in any order; skip forward; skip back; fast forward; fast reverse; repeat disc, phrase, program; full-function remote control; headphone jack with adjustable level; sound audible during fast scan. Cues by track number. Double oversamples at 88.2 kHz. Displays current track number, elapsed time of current track, remaining time on disc. 16.91" W x 2.98" H x 10.78" D; 9.81 lbs \$449

CD-500E Compact Disc Player

Drawer-loading CD player with 12-function remote control. Features programming of 15 tracks in any order; skip forward; skip back; repeat disc, program; 3-beam laser; headphone jack with adjustable level; analog filtering. Cues by track number. Displays current track number, program in memory. 16.91" W x 2.98" H x 10.78" D; 9.81 lbs \$329

NAKAMICHI

OMS-7AII Compact Disc Player

Drawer-loading CD player. Features 3-beam laser; digital filtering (resampling frequency 176.4 kHz); dual 16-bit, glitch-free D/A converters; programming of 24 tracks in random order; display of current track number, elapsed time of current track, remaining time on disc, program stored in memory; sound audible during fast forward and fast reverse; skip forward; skip back; fast forward; fast reverse; cancel; repeat disc, program; cues by track number, index number; 7-function remote control; headphone jack with adjustable level. Max line output 2 V; headphone output 35 mW; THD at 1,000 Hz 0.0025%; S/N > 104 dB; sep > 100 dB; FR 5-20,000 Hz ± 0.5 dB; 16 lbs; 17.12" W x 3.94" H x 12.12" D \$1,650

OMS-5AII. Similar to OMS-7AII without remote and programming functions \$1,375

OMS-4A Compact Disc Player

Drawer-loading CD player with shunt-connected de-glitching; multi-regulated power supply; magnetic chuck; remote control. Features programming of 15 tracks in any order; skip for-

ward; skip back; fast forward; fast reverse; cancel; headphone jack with adjustable headphone level; 3-beam laser; 16-bit digital filter; dual D/A converters. Oversamples at 176.4 kHz; Displays current track number, elapsed time on disc. Headphone output 8 mW/8 ohms. 16.94" W x 3.95" H x 12.81" D; 15 lbs \$995

OMS-3A Compact Disc Player

Drawer-loading CD player with shunt-connected de-glitching; multi-regulated power supply; magnetic chuck; remote control. Features programming of 15 tracks in any order; skip forward; skip back; fast forward; fast reverse; cancel; headphone jack with adjustable headphone level; 3-beam laser; 16-bit digital filter; single D/A converter. Oversamples at 176.4 kHz; displays current track number, elapsed time on disc. Headphone output 8 mW/8 ohms. 16.94" W x 3.95" H x 12.81" D; 15 lbs \$699

ONKYO

Integra DX-320 Compact Disc Player

Drawer-loading CD player with Opto-coupling system using 6 fiber-optic coupling modules to electrically separate the digital and analog sections for improved digital-to-analog conversion. Features separate power supplies for the digital, analog, and 3-motor/transport sections; programming of 16 tracks in random or sequential order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, and program; 13-function remote control; headphone jack with adjustable level; 3-beam laser; 96-stage digital filter; 7-pole shielded analog filter; single D/A converter; sound audible during fast scans. Cues by track and index number. Oversamples at 88.2 kHz. Displays current track number, elapsed time on disc, remaining time on disc, program in memory. 17.12" W x 3.62" H x 14" D; 13 lbs \$580

CW-320. Optional woodgrain side panels for DX-320 \$60/pr

DX-220 Compact Disc Player

Drawer-loading CD player with Opto-coupling system using 1 Opto-coupling fiber optic module to electrically separate the digital and analog sections for improved digital-to-analog conversion. Features separate power supplies for the digital and analog sections; programming of 16 tracks in random or sequential order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, and program; 10-function remote control; headphone jack with adjustable level; 3-beam laser; 20-stage digital filter; 7-pole analog filter; single D/A converter; sound audible during fast scans. Cues by track number. Oversamples at 88.2 kHz. Displays current track number, elapsed time on disc, remaining time on disc, program in memory. 17.12" W x 3.62" H x 13.75" D; 11 lbs \$400

DX-120 Compact Disc Player

Drawer-loading CD player with custom analog-output-common-mode noise filters to remove extraneous digital noise from the analog-output signal. Features programming of 16 tracks in random or sequential order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc; 3-beam laser; 20-stage digital filter; 7-pole analog filter; single D/A converter; sound audible during fast scans. Cues by track number. Oversamples at 88.2 kHz. Displays current track number, elapsed time on disc, elapsed time of current track; program in memory. 17.12" W x 3.62" H x 13.75" D; 10 lbs \$300

PANASONIC

RX-CD70 Portable Compact Disc Player

Vertical-loading CD player with a fine-focus

CD PLAYERS

single-beam laser system. Part of a 3-piece portable boombox-type unit with dual cassette deck and FM/AM/FM-stereo radio. CD player features programming of 15 tracks in any order; skip forward; skip back; fast forward; repeat track, disc, and program; headphone jack; digital phase comparison system; sound audible during fast scan. Displays current track number, elapsed time on disc, remaining time on disc. Entire unit 30.06" W x 6.89" H x 9.36" D; 15 lbs, 7 oz \$600

SL-NP20 Portable Compact Disc Player
Vertical-loading portable CD player with built-in AM/FM/FM-stereo digital tuner. Features programming of 15 tracks in any order; skip forward; skip back; repeat track, disc, and program; headphone jack with adjustable level; one-beam laser. Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc \$350

SL-NP10 Portable Compact Disc Player
Features skip forward; skip back; repeat track, disc, and program; headphone jack with adjustable level; 1-beam laser. Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc. 1265 mm W x 22.9 H x 126 D \$280

SL-P3620 Compact Disc Player
Drawer-loading CD player with fine-focus single-beam laser pickup, high-speed linear motor to minimize access time, large multi-function display, auto space. Features programming of 20 tracks in any order; skip forward; skip back; cancel; repeat track, disc, and program; 1-beam laser. Cues by track and index number. Samples at 44.1 KHz. Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc, program stored in memory. 16.88" W x 3" H x 10.36" D; 9.3 lbs \$270

PARASOUND

CDD 940 CD Player/Cassette Deck
Combination compact disc player and cassette deck in one unit. CD section: drawer loading; skip forward; skip back; fast forward; fast reverse; repeat disc, track; headphone jack; 3-beam laser, multiple digital filtering; gentle analog filtering; single D/A converter; sound audible during fast scan. Cues by track number. Samples at 44.1 kHz. Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc. Cassette section: 2 heads; 2 motors; Dolby B & C; Dolby HX Pro; elapsed-time counter; LED meters; soft-touch controls; headphone jack; electronic counter; sendust head. W&F 0.07% wrms; FR (± 3 dB) ferric 20-16,000 Hz, high bias 20-17,000 Hz; metal 20-18,500 Hz; S/N (A-wid) ferric 65 dB Dolby B, 75 dB Dolby C, high bias 67 dB Dolby B, 77 dB Dolby C; metal 67 dB Dolby B, 77 dB Dolby C. 17.25" W x 3.75" H x 10" D; 16 lbs \$500



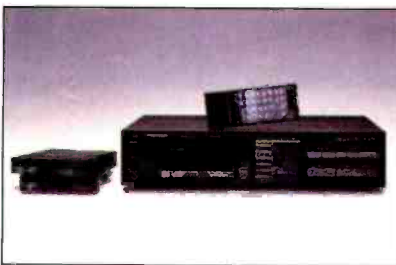
Pioneer PD-9010X

PIONEER

CLD-900 Compact Disc/LaserDisc Player
Drawer-loading player for compact discs and

LaserVision videodiscs. Features 3-beam laser; programming of 1 track; sound audible during fast forward and fast reverse; skip forward; skip back; fast forward; fast reverse; repeat track, disc, phrase; remote control; headphone jack with adjustable level. Displays current track number, elapsed time of current track, remaining time on disc. Cues by track number, index number, time; 6 separate servo systems including tilt servo to compensate for warped discs; 83-mm disc damper for added playback stability. THD at 1,000 Hz 0.003% at -0 dB; S/N 96 dB; sep 94 dB; FR 5-20,000 Hz ± 0.5 dB; 34 lbs, 7 oz; 16.56" W x 6.62" H x 17.62" D \$1,200

CLD-909 Compact Disc/LaserDisc Player
Features semiautomatic front loading; programming of 10 CD tracks and 10 LD chapters; high-resolution video reproduction; CD subcode output; on-screen display; remote control of CX NR \$900



Pioneer PD-M60

PD-9010X Compact Disc Player
Drawer-loading CD player. Features three-beam laser; digital filtering (resampling frequency 176.4 kHz); programming of 32 tracks in random order; sound audible during FF and FR; skip forward; skip back; cancel; repeat track, disc, program; remote control; headphone jack with adjustable level. Displays current track number, elapsed time of current track, remaining time on disc, program stored in memory. Cues by track number, index number. Max line output 2 V; THD at 1,000 Hz 0.001% at -0 dB; S/N 98 dB; sep 95 dB; FR 2-20,000 Hz ± 0.3 dB; 12 lbs, 8 oz; 18" W x 3.75" H x 12.19" D \$540

PD-M70 Multi-Play CD Player
Multi-play CD player with six-disc magazine. Features programming of up to 80 tracks on eight magazines; "SR" compatible remote with LCD programming screen and built-in microchip circuitry; digital filter; gold-plated output jacks; anti-resonance chassis; random play; digital level control for direct connection to power amp; large screen display of elapsed/total/programmed time; two-speed audible search; repeat track, disc, magazine and program; single-play tray. FR 4-20,000 Hz, ± 0.5 dB; S/N >100 dB; dynamic range >96 dB; ch sep >93 dB; THD $<0.0035\%$ \$599
PD-M60. Similar to PD-M70 except has standard remote control and output jacks, no digital-level control and programming of 32 tracks on each magazine \$499

PD-M6(BK) Multi-Play CD Player
Multi-disc player holds up to 6 CD's. Features wireless remote control; random access programming of 32 tracks from up to 6 discs; skip forward; skip back; fast forward; fast reverse; pause; cancel; random play for continuous shuffle play from 6 discs. Repeats all 6 discs, single disc, program, track. Displays disc number, track number, elapsed time on disc, total playing time on disc, program in memory. Includes 6-disc and single-disc magazine \$500

PD-7030(BK) Compact Disc Player
Features auto-program edit; auto-pause programming; program-time calculation; programming of 24 tracks in any order; track and index search; 2-speed audible manual search; repeat disc, program; multi-mode display; disc stabilizer; honeycomb chassis; headphone jack with adjustable volume; remote control. Oversamples at 88.2 kHz \$470

PD-6030(BK) Compact Disc Player
Features programming of 24 tracks in any order; track search; 2-speed audible manual search; repeat disc, program; disc stabilizer; honeycomb chassis; 6-digit display; headphone jack; remote control \$350

PD-5030(BK) Compact Disc Player
Features programming of 24 tracks in any order; track search; 2-speed audible manual search; repeat disc, program; disc stabilizer; honeycomb chassis; 6-digit display; headphone jack \$300

PROTON

830R Compact Disc Player
Programmable CD player with remote control. Features single-beam laser pickup; digital filtering; four-times (176.4 Hz) oversampling frequency; random programming of 20 selections; headphone jack with variable level; dual error-correction circuit. Bi-directional scan function features 3-speed music search, fine-step adjustment accurate to within one second of playback time, and two lower speeds for precise cueing during playback. Display indicates total number of tracks, playing time remaining, track and index in use, and minutes and seconds elapsed. Repeat function of single track, entire disc or program in memory \$350

QUASAR

CD8956 Compact Disc Player
Drawer-loading 20-step random-access CD player with direct access. Features high-speed linear-motor access system; skip forward; skip back; fast forward; fast reverse; cancel; programming of 20 tracks in any order; repeat track, phrase, disc, and program; one-beam laser; single D/A converter; 96th-order FIR double oversampling filter; sound audible during fast scan. Cues by track and index number. Samples at 44.1 kHz. Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc \$250

CD8936 Portable Compact Disc Player
Top-loading portable CD player with direct access and switchable high-cut filter for HP output. Features skip forward; skip back; fast forward; fast reverse; headphone jack; repeat disc and track; one-beam laser; single D/A converter; sound audible during fast scans. Cues by track number. Samples at 44.1 kHz. Displays current track number, elapsed time of current track; remaining time on disc. Headphone output 15 mW. 4.97" W x 1.25" H x 4.97" D; 13.8 oz \$240

RCA

MCD-145 Dimensia Compact Disc Player
Drawer-loading CD player. Features 3-beam laser; programming of 15 tracks in random order; skip forward; skip back; cancel; repeat track, disc, program; full-function remote control; headphone jack with adjustable level; automatic status indication and switching; local or remote programming; display of all functions on Dimensia monitor; use of standard or system link cabling. Displays current track number, elapsed time of current track. Cues by track

CD PLAYERS

number, index number. Max line output 1.8 V; THD at 1,000 Hz > or equal to 0.005% at -0 dB; S/N > or equal to 90 dB; sep > or equal to 80 dB; FR 20-20,000 Hz \pm 1 dB; 17.12" W x 3.36" H x 11.12" D \$399

MCD-141 Digital Command CD Player

Drawer-loading CD player. Features 3-beam laser; programming of 15 tracks in random order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, program; full-function remote control. Displays current track number, elapsed time of current track. Cues by track number, index number. Max line output 1.8 V; THD at 1,000 Hz > or equal to 0.005% at -0 dB; S/N > or equal to 90 dB; sep > or equal to 80 dB; FR 20-20,000 Hz \pm 1 dB; 17.12" W x 3.36" H x 11.12" D; approx \$399

CD180 Compact Disc Player

Drawer-loading CD player. Features 3-beam laser; programming of 15 tracks in random order; audible 2-speed forward and reverse scan; skip forward; skip back; repeat disc, track, program; fluorescent display of track and elapsed track time; independent disc suspension system. Max line output 2 V; THD at 1,000 Hz 0.005%; S/N 90 dB; sep at 1,000 Hz 90 dB; FR 5-20,000 Hz. 17.12" W x 2.88" H x 10.36" D; approx \$199

REALISTIC

CD-3000 Portable Compact Disc Player

Top-loading CD player with headphone jack. 110 mm W x 70 H x 110 D; 420 g \$280

CD-1400 Compact Disc Player

Drawer-loading CD player with infrared remote control and 3-beam laser. 14.56" W x 2.89" H x 10.36" D \$260

CD-2200 Compact Disc Player

Drawer-loading CD player with 3-beam laser. Programs up to 15 tracks in any order. Displays current track number and elapsed time of current track. 12.62" W x 3.31" H x 12.06" D; 8.6 lbs \$200



Revox B225

REVOX

B225 Compact Disc Player

Drawer-loading compact disc player with infrared or wired remote and 1,000-Hz calibration tone corresponding to max output level. Features 1-beam laser; digital filtering (resampling frequency 176.4 kHz); programming of 19 tracks; display of current track number, elapsed time of current track, elapsed time of disc, program stored in memory; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, program; cues by track number, index number, time; 7-function remote control; headphone jack (adjustable output). Access time 3 seconds or less. Max line output 2 V; headphone output 13 V (600 ohms); THD 0.006% at 1,000 Hz at rated output; S/N 96 dB; sep 90 dB; FR 20-20,000 Hz +0, -0.6 dB; 25 lbs; 17.7" W x 4.3" H x 13" D \$849



Rotel RCD-850

ROTEL

RCD-850 Compact Disc Player

Drawer-loading CD player with programming of 9 tracks in random or sequential order. Features skip forward; skip back; fast forward; fast reverse; cancel; repeat track; repeat disc; 3-beam laser; high-slope digital filtering; 3rd-order analog filtering; single D/A converter. Samples at 44.1 kHz. Cues by track number. Displays current track number, elapsed time of current track. 17" W x 3.81" H x 11.44" D; 9 lbs. \$399



Sansui CD-V550R

SANSUI

CD-E750 Compact Disc Player

Drawer-loading CD player. Features programming of 8 tracks in any order; fast forward; fast reverse; repeat track, disc, program; headphone jack with adjustable level; 3-beam laser; combination digital/analog filtering; sound audible during fast scan. Cues by track number, index number. Displays current track number, elapsed time on disc, remaining time on disc, program in memory. 9.9 lbs; 14.97" W x 3.62" H x 12.19" D \$400

CD-V350. Similar to CD-E750 except no display of program in memory. 16.94" W x 3.22" H x 12.36" D; 8.8 lbs \$400

CD-V550R Compact Disc Player

Drawer-loading CD player with auto spacing to add 4-second blanks between dubbing sections. Features programming of 16 tracks in any order; fast forward; fast reverse; repeat track, disc, program; 4-function remote control; headphone jack with adjustable level; combination digital/analog filtering; 3-beam laser; sound audible during fast scan. Cues by track number. Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc, program in memory. 8.8 lbs; 16.94" W x 3.22" H x 12.36" D \$370

SANYO

MCD40 Compact Disc Player

Portable CD player, AM/FM tuner, cassette deck. Features programming of 16 tracks in any order; auto reverse; synchro dubbing; Dolby NR; soft-touch controls; graphic EQ; line-in and -out jacks; auto stop; 2-way speakers; 3-way power source; LED indicators; LCD \$450

CP 710 Compact Disc Player

Features 16-selection memory; 3-beam laser; skip forward; skip back; repeat disc, track; 2-speed fast forward and reverse; 8-digit fluorescent display; wireless remote control \$300
CP 700. Same as CP 710 (above) but does not include wireless remote control \$250

CP10 Portable CD Player

Features multi-function LCD display; AC/DC operation; 16-selection programmability; skip forward and back; search forward and back; headphone jack; repeat disc. Battery pack optional \$240

SCOTT

960DA Compact Disc Player

Drawer-loading CD player with Large Scale Integrated (LSI) circuitry for improved reliability. Features programming of 15 tracks in any order; skip forward; skip back; fast forward; fast reverse; repeat track, disc, program; 8-function remote control; 3-beam laser; 7th-order analog filtering; single D/A converter; sound audible during fast scan. Cues by track number. Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc, program in memory. 11.1 lbs; 17.25" W x 3.75" H x 11" D \$350
950DA. Same as above without remote control \$300

SHARP

DX-620(BK) Compact Disc Player

Horizontal-drawer-loading CD player with 3-way music search system (APMS, APLD, APSS) and infrared remote control. Features programming of 9 tracks; cue and review; LCD digital time counter; displays playback time in minutes and seconds; headphone jack. 17" W x 3.12" H x 11.75" D; 9.7 lbs \$300

DX-110(BK) Compact Disc Player

Drawer-loading CD player with 2-way music search, Auto Program Locate Device (APLD), Auto Program Search System (APSS). Features cue and review; one-beam laser; LCD digital time counter; displays playback time in minutes and seconds; headphone jack. Tray automatically retracts at touch of finger. 13" W x 3.12" H x 11.75" D; 10.4 lbs \$250
DX-610(BK). As DX-110 except 17" W, 11.7 lbs \$260

SHERWOOD

CDP-300R Compact Disc Player

Drawer-loading CD player remote compatible with Sherwood remote-controlled receivers. Features programming of 20 tracks in any order; skip forward; skip back; fast forward; fast reverse; one-beam laser; 4x-oversampling digital filtering; 1st-order linear-phase analog filtering; sound audible during fast scan. Oversamples at 88.2 kHz. Displays current track number, elapsed time of current track, elapsed time on disc. 17.36" W x 3.25" H x 9.75" D; 11 lbs \$400
CDP-310R. As above with remote control \$450

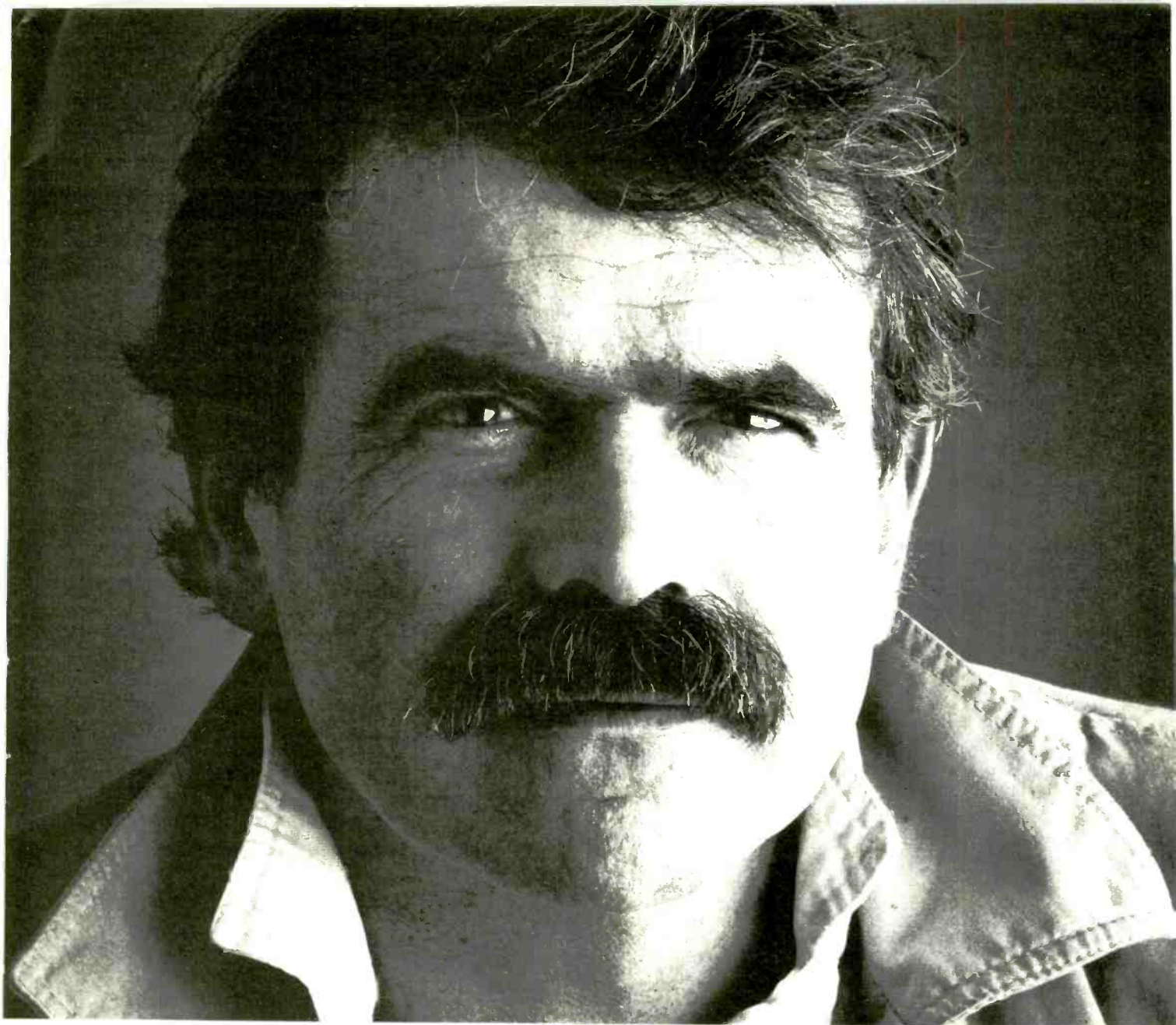
SHURE BROTHERS

D6000 Compact Disc Player

Drawer-loading CD player with remote control including remote volume. Programs 15 tracks in any order. Features skip forward; skip back; fast forward; fast reverse; cancel; repeat track; repeat disc; repeat phrase; repeat program; cue by track; cue by time; 19-function remote; headphone jack; adjustable headphone; three-beam; oversamples at 88.2 kHz; independent L/R digital filters 80 dB attenuation; five-pole active above 30,000 Hz analog filtering; dual D/A converter; display of current track number; display of elapsed time of current track; display of program in memory; sound audible during fast scan. Headphone output 5 V; 11 lbs; 16.9" W x 2.9" H x 12.9" D \$599

SV40 Compact Disc Player

Drawer-loading CD player with volume control included on 17-function remote. Programs 15 tracks in any order. Features skip forward; skip back; fast forward; fast reverse; cancel; repeat track; repeat disc; repeat program; cue by track; headphone jack; adjustable headphone; three-beam; samples at 44.1 kHz; dual-break-point



“Will Those Speakers Work With My CD?”

The introduction of the compact disc player has created a lot of confusion and false information.

At KLIPSCH,[®] we think you deserve to know the truth: any *good* loudspeaker or amplifier will work with a CD.

The virtues of a CD are really quite simple. You get a more durable “record,” so to speak. That is, scratches become a thing of the past. And you get tremendous increases in dynamic range. Now what does that mean?

Simply stated, the expanded dynamic range of a CD allows you to hear *lifelike* musical surges. Loud portions of music are closer to the

loudness of the original performance; quiet portions are more realistic too. And you should know that dynamic range provides the *emotional* qualities of music. Which brings us to the purpose of this message.

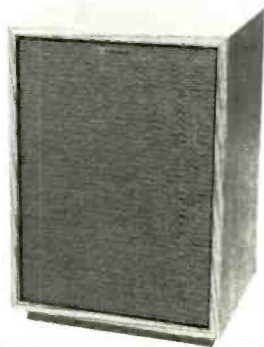
Since our first model in 1943, KLIPSCH Loudspeakers have delivered more dynamic range than any other loudspeakers made. We had a love for dynamic range before most companies knew what it was.

You don't have to have new speakers with a CD. But to hear a CD at its best, all the dynamic range and emotional power, make sure you listen to KLIPSCH. You'll hear a *real* difference for your hard-earned dollars.

You'll hear your money's worth in every part of your system.

Judge for yourself.

To find your nearest KLIPSCH dealer, look in the Yellow Pages. Or call toll free, 1-800-223-3527.



KLIPSCH HERESY II[®] PICTURED ABOVE

 **klipsch**[®]
A LEGEND IN SOUND[™]

P.O. BOX 688 • HOPE, ARKANSAS USA 71801
CIRCLE NO. 2 ON READER SERVICE CARD

CD PLAYERS

analog filtering; single D/A converter; display of current track number; display of elapsed time of current track; display of program in memory; sound audible during fast scan. Headphone output 5 V; 9 lbs, 11 ozs; 16.9" W x 2.9" H x 10.6" D \$399

D5000 Compact Disc Player

Drawer-loading CD player with 14-function wireless remote control, 16-bit process with oversampling. Programs 15 tracks in any order. Features skip forward; skip back; fast forward; fast reverse; cancel; repeat track; repeat disc; repeat phrase; repeat program; three-beam laser; oversamples at 88.2 kHz; digital filtering; analog filtering; single D/A converter; display of current track number; display of elapsed time of current track; display of program in memory; sound audible during fast scan. 11 lbs; 16.9" W x 3.9" H x 10" D \$399



Sony CDP-50

SONY

CDP-650ESD II Compact Disc Player

Drawer-loading CD player. Features 3-beam laser; digital filtering (resampling frequency 88.2 kHz); programming of 20 tracks in random order; sound audible during FF and FR; skip forward; skip back; cancel; repeat track, disc, phrase, program; 20-function remote control; dual D/A converters; linear motor; headphone jack with adjustable level; digital output stage; auto-delex; shuffle play. Displays current track number, elapsed time of current track, elapsed time of disc, remaining time on disc, program stored in memory. Cues by track and index number \$1,300

CDP-620ES II Compact Disc Player

Drawer-loading CD player. Features 3-beam laser; digital filtering (resampling frequency 88.2 kHz); programming of 20 tracks in random order; sound audible during FF and FR; skip forward; skip back; FF; FR; cancel; repeat track, disc, phrase, program; 20-function remote control; dual D/A converter; linear motor; headphone jack with adjustable level; auto delex; shuffle play. Displays current track number, elapsed time of current track, elapsed time of disc, remaining time on disc, program stored in memory. Cues by track number, index number \$1,000

CDP-C10 Multi-Disc CD Player

Drawer-loading CD player with ten-disc magazine. Features programming of 20 tracks in any order, 99 in sequential order; skip forward/back; fast forward/reverse; cancel; repeat track, disc, phrase, program; 13-function remote control; single D/A converter; headphone jack with adjustable level; 3-beam laser. Cues by track and index number. Displays current track number, elapsed time of current track, elapsed time of disc, remaining time on disc, program stored in memory. Sound audible during fast scans \$800

CFD-W888 Compact Disc System

Portable drawer-loading CD system with AM/FM tuner, speakers, and double tape deck. CD player features programming of 16 tracks in any order, 99 tracks in sequential order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, program; 3-beam laser; 7-pole digital-stage analog filtering;

single D/A converter; sound audible during fast scan. Cues by track number; Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc, program stored in memory. 22" W x 8.25" H x 6" D \$650

CDP-520ES II Compact Disc Player

Drawer-loading CD player. Features 3-beam laser; digital filtering (resampling frequency 88.2 kHz); programming of 16 tracks in random order; sound audible during FF and FR; skip forward; skip back; FF; FR; cancel; repeat track, disc, phrase, program; 15-function remote control; headphone jack with adjustable level. Displays current track number, elapsed time of current track, remaining time on disc, program stored in memory. Cues by track number, index number, time. Max line output 2 V; THD at 1,000 Hz 0.003%; IMD 0.003%; S/N 96 dB; sep 96 dB; FR 2-20,000 Hz ± 0.3 dB. 17" x 3.12" x 13.25" \$600

CDP-302 II Compact Disc Player

Drawer-loading CD player. Features 3-beam laser; digital filtering (resampling frequency 88.2 kHz); programming of 16 tracks in random order; sound audible during FF and FR; skip forward; skip back; FF; FR; cancel; repeat track, disc, phrase, program; 15-function remote control; headphone jack with adjustable level. Displays current track number, elapsed time of current track, remaining time on disc, program stored in memory. Cues by track number, index number. Max line output 2 V; THD at 1,000 Hz 0.003%; IMD 0.003%; S/N 96 dB; sep 95 dB; FR 2-20,000 Hz ± 0.5 dB; 15 lbs; 17" W x 3.12" H x 13.25" D \$550

CDP-203 Compact Disc Player

Drawer-loading CD player features programming of 20 tracks in any order, 99 tracks in sequential order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, program; 12-function remote control; 3-beam laser; 96th-order digital filtering; final-stage analog filtering; single D/A converter; sound audible during fast scan. Cues by track number, index number, time. Displays current track number, elapsed time of current track, remaining time on disc, program stored in memory. Oversamples at 88.2 kHz. 17" W x 3.25" H x 13" D; 11 lbs \$500

CDP-55 Compact Disc Player

Drawer-loading CD player features programming of 20 tracks in any order, 99 tracks in sequential order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, program; 11-function remote control; 3-beam laser; 96th-order digital filtering; single D/A converter; sound audible during fast scan. Cues by track number, index number. Displays current track number, elapsed time of current track, remaining time on disc, program stored in memory. Oversamples at 88.2 kHz. 17" W x 3.25" H x 13" D; 11 lbs \$400

CDP-50 Compact Disc Player

Drawer-loading CD player features programming of 20 tracks in any order, 99 tracks in sequential order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, program; 11-function remote control; 3-beam laser; 9-pole final-stage analog filtering; single D/A converter; sound audible during fast scan. Cues by track number, index number. Displays current track number, elapsed time of current track, remaining time on disc, program stored in memory. 17" W x 3.25" H x 13" D; 11 lbs \$370

D-77 Portable CD Player

Top-loading portable CD player with AM/FM tuner. Features programming of 16 tracks in any order, 99 tracks in sequential order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, program; headphone jack with adjustable level; seven-pole final-stage analog filtering; single digital-to-analog converter; sound audible during fast forward/reverse. Cues by track number. Displays current track number, elapsed time of current track, elapsed time on disc; remaining time on disc, program stored in memory. 5" W x 1" H x 5.25" D; 3 pounds with battery \$360

CDP-45 Compact Disc Player

Drawer-loading CD player features programming of 20 tracks in any order, 99 tracks in sequential order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, program; 6-function remote control optional; 3-beam laser; 9-pole final-stage analog filtering; single D/A converter; sound audible during fast scan. Cues by track number, index number. Displays current track number, elapsed time of current track, remaining time on disc, program stored in memory. 17" W x 3.25" H x 13" D; 11 lbs \$330

D-55 Compact Disc Player

Top-loading portable CD player with FM tuner. Features programming of 16 tracks in any order, 99 tracks in sequential order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, program; headphone jack with adjustable level; 3-beam laser; 7-pole final-stage analog filtering; single D/A converter; sound audible during fast scan. Cues by track number. Displays current track number, elapsed time of current track, elapsed time on disc; remaining time on disc, program stored in memory. 5" W x 1" H x 5.25" D; 2.25 lbs \$330

D-7 Compact Disc Player

Top-loading portable CD player features programming of 16 tracks in any order, 99 tracks in sequential order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, program; headphone jack with adjustable level; 3-beam laser; 7-pole final-stage analog filtering; single D/A converter; sound audible during fast scan. Cues by track number. Displays current track number, elapsed time of current track, elapsed time on disc; remaining time on disc, program stored in memory. 5" W x 1" H x 5.25" D; 2.75 lbs \$300

CDP-7F Compact Disc Player

Top-loading CD player. Features 3-beam laser; programming of 16 tracks in random order; sound audible during FF and FR; skip forward; skip back; FF; FR; cancel; repeat track, disc, phrase, program; 4-function remote control; headphone jack with adjustable level. Displays current track number, elapsed time of current track, remaining time on disc, program stored in memory. Cues by track number. Max line output 2 V; THD at 1,000 Hz 0.004%; IMD 0.004%; S/N 90 dB; sep 90 dB; FR 2-20,000 Hz ± 0.5 dB; 9 lbs; 8.5" W x 3.12" H x 12" D \$300

D-5SPL Portable CD Player

Comes with AC adaptor for home use; optional battery pack allows portable use. Features 3-beam laser; sound audible during FF and FR; skip forward; skip back; FF; FR; repeat track, headphone jack with adjustable level. Displays current track number, elapsed time of current track, remaining time on disc. Cues by track number. Includes battery and case. Max line output 2 V; THD at 1,000 Hz 0.008%; IMD

CD PLAYERS

0.008%; signal-to-noise ratio 85 dB; separation 85 dB; frequency response 5-20,000 Hz \pm 1 dB; 1 lb, 5 oz; 5" W x 1.5" H x 5.25" D \$270

CDP-35 Compact Disc Player

Drawer-loading CD player features programming of 20 tracks in any order, 99 tracks in sequential order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, program; 3-beam laser; 9-pole final-stage analog filtering; single D/A converter; sound audible during fast scan. Cues by track number, index number. Displays current track number, elapsed time of current track, remaining on disc, program stored in memory. 14" W x 3.25" H x 13" D; 10 lbs \$270

CDP-25. Similar to CDP-35 except programs 16 tracks \$270

D-170 Mini Compact Disc Player

Drawer-loading CD player features programming of 16 tracks in any order, 99 tracks in sequential order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, program; 3-beam laser; 7-pole final-stage analog filtering; single D/A converter; sound audible during fast scan. Cues by track number. Displays current track number, elapsed time of current track, elapsed time on disc; remaining time on disc, program stored in memory. 7.5" W x 3" H x 14" D; 9 lbs \$265

SYLVANIA

CD1560 Compact Disc Player

Drawer-loading CD player with 3-speed search forward/reverse. Features 8-function infrared remote control; skip forward; skip back; 20-track random access programming; digital filtering; 4x oversampling; dual 16-bit D/A converter; anti-jamming protection; repeat; track/total, time/memory displays; LED function indicators; pause; line output jacks; digital output jacks. 16.5" W x 3.5" H x 11.75" D \$330

FDE203 Compact Disc Player

Drawer-loading CD player. Features skip forward; skip back; fast forward; fast reverse; repeat track and program; 20-track random-access programming; single-stage servo tracking; soft muting; 4x oversampling. 16.5" W x 3.5" H x 11.75" D \$299

CD1460 Compact Disc Player

Drawer-loading CD player with 3-speed search forward/reverse. Features skip forward; skip back; 20-track random access programming; digital filtering; 4x oversampling; dual 16-bit D/A converter; anti-jamming protection; repeat; track/total, time/memory displays; LED function indicators; pause; headphone jack; line output jacks; digital output jacks. Optional remote control available. 16.5" W x 3.5" H x 11.75" D \$250

CD1150 Compact Disc Player

Drawer-loading CD player with 3-speed audible search forward/reverse. Features skip forward; skip back; memory programming; digital filtering; 4x oversampling; store/cancel/review; pause; LED function indicators; pause; headphone jack; line output jacks; digital output jacks. 12.5" W x 3.5" H x 11.75" D \$240

TANDBERG

TCP 3015A Compact Disc Player

Drawer-loading CD player with all analog signal path circuits completely direct coupled and discrete. Programs tracks in any order. Features skip forward; skip back; fast forward; fast reverse; cancel; repeat track; repeat disc; repeat phrase; repeat program; cue by track; full-func-

tion remote; headphone jack; adjustable headphone; one-beam laser; oversamples at 176.4 kHz; dual D/A converters; display of current track number; display of elapsed time of current track; display of program in memory; sound audible during fast scan. 12.5 lbs; 17.12" W x 3.5" H x 13.75" D \$1,295

TEAC

ZD-5000 Compact Disc Player

Drawer-loading CD player with zero-distortion circuit, gold-plated fixed and variable outputs, intro check, timer play, subcode output, in-operation program editing, variable volume from remote, all-metal chassis, floating isolation system, heavy-duty audiophile-grade insulator feet, RC-301 20-function remote control included. Features programming of 20 tracks in any order: skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, program; headphone jack with adjustable level; 3-beam laser; oversampling digital filter; 7th-order analog filtering; dual D/A converters; sound audible during fast scan. Cues by track and index number. Oversamples at 88.2 kHz. Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc, program in memory. 17.5" W x 3.88" H x 13.44" D; 20.2 lbs \$1,100

ZD-3000. Similar to ZD-5000 without front-panel direct-access keypad, intro check, and indexing. No variable volume from remote (front panel only); large insulator feet. Includes RC-301 remote control. 17.5" W x 3.44" H x 13.44" D; 17.6 lbs \$950

AD-7 CD Player/Cassette Deck

Combination CD player and cassette deck. CD section: drawer loading; programming of 15 tracks in any order; independent output for CD; auto space; random programming; dubbing from CD to tape; skip forward; skip back; fast forward; fast reverse; repeat track, disc, program; 15-function remote control; 3-beam laser; single D/A converter; headphone jack with adjustable level. Cues by track and index number. Displays current track number, elapsed time of current track. Sound audible during fast scan. Cassette section: full IC-logic 3-motor rotary head; quick auto reverse record and playback; Dolby B, C, dbx; 15-selection memory playback; music search; bias fine tuning; blank scan; synchronized record start \$999

ZD-700 Compact Disc Player

Drawer-loading CD player with zero-distortion circuit. Features programming of 16 tracks in any order: skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, program; headphone jack with adjustable level; 15-function remote control; 3-beam laser; digital filter; 7th-order analog filtering; single D/A converter; sound audible during fast scan. Cues by track and index number. Samples at 44.1 kHz. Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc. 17.12" W x 2.89" H x 11.62" D; 16 lbs \$699

PD-400 Compact Disc Player

Drawer-loading CD player. Features programming of 16 tracks in any order; skip forward; skip back; fast forward; fast reverse; repeat track, disc, phrase, program; 8-function remote control; 3-beam laser; single D/A converter; sound audible during fast scan. Cues by track and index number. Oversamples at 88.2 kHz. Displays current track number, elapsed time of current track. 17" W x 2.94" H x 10.89" D; 7.75 lbs \$449

PD-200. Similar to PD-400 without remote con-

trol and oversampling \$399
PD-100 \$349

TECHNICS

SL-P1200 Disco Compact Disc Player

Top-loading CD player designed for use in discos or production environments. Cues CD to any track or any point within a track. Rocker control allows momentary advance or retard of music. Quartz-locked pitch control (\pm 8%) and 2-speed cueing. Skip forward; skip back; fast forward; fast reverse; sound audible during fast



Technics SL-P500

scan; repeat track, disc, program; programming of 20 tracks in any order; headphone jack with adjustable level. Cues by track number, index number, time. Oversamples at 88.2 kHz. Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc, remaining time on track, program in memory, 17" W x 7" H x 15" D; 22 lbs \$1,000

SL-P720 Compact Disc Player

Programmable compact disc player with cueing dial that enables the user to cue the unit to any point in a track. Features wireless remote control with volume adjustment; two-speed cueing; two-layer nonresonant base; Class AA circuitry; double-oversampling digital filter; 20-step random-access programming; auto space; auto pause; A-B repeat; repeat; search; skip; recall; headphone jack with adjustable level; and a programmable music scan to provide previews of CD content by playing the beginning of each track for up to 99 seconds. Fluorescent display indicates volume level and function information. Music matrix display indicates which tracks have been programmed and which one is playing. Eight-digit readout indicates track number, index number, and time. Time display can be switched to indicate elapsed or remaining time for track in play, entire disc, or just the programmed items \$549

SL-P520. Similar to SL-P720 except does not have two-layer base or programmable music scan \$475

SL-P500 Compact Disc Player

Drawer-loading CD player with Fine Focus Single Beam (FF1) laser pickup, copper-plated styrol capacitors and audio-application electrolytic capacitors in analog circuitry. Average access time to each track is approx 0.8 seconds. Features programming of 20 tracks in any order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, program; 27-function remote control; headphone jack with adjustable level; one-beam FF1 laser; high-resolution digital filtering; single D/A converter; sound audible during fast scan. Oversamples at 88.2 kHz. Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc, program in memory. 10.1 lbs; 16.94" W x 3.44" H x 10.84" D \$520

CD PLAYERS

SL-P310 Compact Disc Player

Drawer-loading CD player with remote programming, access, and volume control. Features programming of 20 tracks in any order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, program; 20-function remote control; headphone jack; one-beam laser; digital filtering; single D/A converter; sound audible during fast scan. Oversamples at 88.2 kHz. Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc, program in memory. 16.94" W x 3.03" H x 9.44" D \$375

SL-XP8 Portable Compact Disc Player

Top-loading portable CD player with built-in quartz-synthesizer AM/FM tuner. Features programming of 18 tracks in any order; 8 AM/8 FM station presets; skip forward (tune up); skip back (tune down); fast forward; fast reverse; cancel; repeat track, disc, program; headphone jack with adjustable level; one-beam laser; digital filtering; single D/A converter; sound audible during fast scan. Oversamples at 88.2 kHz. Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc, program in memory. Includes carrying case and power supply. 4.97" W x 1.09" H x 4.97" D \$370

SL-P110 Compact Disc Player

Drawer-loading CD player with 96th-order high-resolution FIR double-oversampling digital filter and Tchebyshev active low-pass analog filter. Features programming of 20 tracks in any order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, program; one-beam laser; single D/A converter; sound audible during fast scan. Oversamples at 88.2 kHz. Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc, program in memory. 16.94" W x 3.03" H x 9.44" D \$320

SL-XP5 Portable Compact Disc Player

Top-loading portable CD player with FF1 single-beam laser. Features programming of 18 tracks in any order; high-speed linear motor traverse mechanism; skip to next track; skip back; fast forward; fast reverse; cancel; repeat track, disc, program; headphone jack with adjustable level; digital filtering; single D/A converter; sound audible during fast scan. Oversamples at 88.2 kHz. Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc, program in memory. Includes vinyl carrying case, strap, and power supply. 4.97" W x 0.91" H x 4.97" D \$300

SL-PJ11 Compact Disc Player

Drawer-loading CD player. Features programming of 15 tracks in any order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, program; one-beam laser; analog filtering; single D/A converter; sound audible during fast scan. Samples at 44.1 kHz. Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc, program in memory. 12.41" W x 2.97" H x 10.5" D \$300

TOSHIBA

XR-V22 Compact Disc Player

Double-drawer-loading CD player can hold and play 2 discs. Features 3-beam laser; programming of 30 tracks in random order; fast forward; fast reverse; repeat disc. Displays current track number, elapsed time of current track, elapsed time of disc. 13.36" W x 4.31" H x 14.19" D; 13.4 lbs \$550

XR-V11 Compact Disc Player

Drawer-loading CD player. Features 3-beam laser; digital filtering (resampling frequency 88.2 kHz); programming of 8 tracks in random order; sound audible during fast forward and fast reverse; skip forward; skip back; fast forward; fast reverse; repeat track, program; headphone jack with adjustable level. Displays current track number, elapsed time of current track, elapsed time of disc, remaining time on disc, program stored in memory. Cues by track number. Max line output 2.0 V; headphone output 0-5 V; THD at 1,000 Hz 0.003%; S/N 96 dB; sep 90 dB; FR 20-20,000 Hz \pm 1.0 dB; 10.6 lbs \$499

XR-P9 Portable CD Player

Top-loading compact disc player for home or portable use. Features 2-way power capability; 3-beam laser; programming of 16 tracks in any order; 14-key wireless remote control; skip forward; skip back; repeat track; headphone jack. Displays current track number, elapsed time on disc, remaining time on disc. 4.97" W x 1.56" H x 7.03" D; 1.1 lbs \$350

XR-35 Compact Disc Player

Drawer-loading CD player with 10-key remote control. Features 3-beam laser; programming of 16 tracks in any order; fast forward; fast reverse; repeat track. Displays current track number, elapsed time on disc. 16.53" W x 3.19" H x 12.16" D; 9 lbs \$350



Toshiba XR-V22

XR-30 Compact Disc Player

Drawer-loading CD player with 16-program random memory and auto repeat. Features 3-beam laser; fast forward; fast reverse; repeat disc. Displays current track number, elapsed time on disc, remaining time on disc. 16.53" W x 3.19" H x 12.16" D; 9 lbs \$300

XR-J9 Portable Compact Disc Player

Top-loading personal CD player with 16-program random memory and auto repeat. Features 3-beam laser; skip forward; skip back; repeat program; headphone jack. Displays current track number, elapsed time on disc. 9.84" W x 1.84" H x 5.12" D; 2.9 lbs \$250

VECTOR RESEARCH

VCD-900 Compact Disc Player

Drawer-loading CD player with full-function remote control (10-key direct-track access, remote volume control). Features programming of 15 tracks in random and sequential order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, and program; 3-beam laser; digital and analog filtering; single D/A converter; sound audible during fast scans. Cues by track number. Oversamples at 88.2 kHz. Displays current track number, elapsed time of current track, elapsed time on disc; program in memory. 17" W x 3.5" H x 12.5" D; 11 lbs \$500

VCD-770 Compact Disc Player

Drawer-loading CD player with 12-key remote control and quadruple oversampling. Features programming of 15 tracks in random or sequential order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, and program; 3-beam laser; digital filtering; sin-

gle D/A converter; sound audible during fast scans. Cues by track number. Oversamples at 176.4 kHz. Displays current track number, elapsed time of current track, elapsed time on disc; remaining time on disc; program in memory. 17" W x 3.5" H x 8.25" D; 11 lbs \$350

YAMAHA

CD-2000M Compact Disc Player

Features Yamaha LSI technology; 3-beam laser; independent L/R ch digital filters; vibration damping circuit assembly; 10-key direct-selection access; 12-selection programmable random-access playback; index search; 3-way music search; 3-way repeat play; 6-digit multi-function fluorescent display; fixed/variable-level output terminals; output-level volume controls and display; space-insert function; 10-key remote with volume control; timer-operated playback; front-panel headphone jack; gold-plated output terminals; XLR connectors; rack-mount adapters. 17.12" W x 3.75" H x 11.12" D; 11.4 lbs \$899

CD-2000B Compact Disc Player

Features Yamaha LSI technology; 3-beam laser; independent L/R ch digital filters; vibration damping circuit assembly; 10-key direct-selection access; 12-selection programmable random-access playback; index search; 3-way music search; 3-way repeat play; 6-digit multi-function fluorescent display; fixed/variable-level output terminals; output-level volume controls and display; space-insert function; 10-key remote with volume control; timer-operated playback; front-panel headphone jack; subcode output terminal; gold-plated output terminals. 17.12" W x 3.75" H x 11.12" D; 11.4 lbs \$799

CD-1000B Compact Disc Player

Features Yamaha LSI technology; 3-beam laser; double-resolution digital filter; vibration damping circuit assembly; 10-key direct-selection access; 12-selection programmable random-access playback; index search; 3-way music search; 3-way repeat play; 6-digit multi-function fluorescent display; space-insert function; 10-key remote control; timer-operated playback; front-panel headphone jack; subcode output terminal; gold-plated output terminals. 17.12" W x 3.75" H x 11.12" D; 11.2 lbs \$699

CD-700B Compact Disc Player

Features Yamaha LSI technology; 3-beam laser; double-resolution digital filter; 12-selection programmable random-access playback; index search; 3-way music search; 3-way repeat play; 6-digit multi-function fluorescent display; 10-key direct-selection access; timer-operated playback; 10-key remote control; subcode output terminal. 17.12" W x 3.81" H x 11.44" D; 10.9 lbs \$599

CD-500B Compact Disc Player

Features Yamaha LSI technology; 3-beam laser; double-resolution digital filter; 9-selection programmable random-access playback; index search; 3-way music search; 3-way repeat play; 4-digit multi-function LED display; front-panel headphone jack with adjustable level; 10-key direct-selection access; timer-operated playback; remote control. \$399

CD-300B Compact Disc Player

Features Yamaha LSI technology; 3-beam laser; double-resolution digital filter; 9-selection programmable random-access playback; index search; 3-way music search; 2-way repeat play; 4-digit multi-function LED display; front-panel headphone jack; timer-operated playback. 13.12" W x 3.75" H x 11.12" D; 11.4 lbs \$259

DIRECTORY OF MANUFACTURERS

AAL (American Acoustics Labs), One Mitek Plaza, Winslow, IL 61089

Accuphase by Madrigal, 2081 S. Main St., P.O. Box 781, Middletown, CT 06457

Acoustat (David Hafler Co.), 3103 Southwest First Terrace, Fort Lauderdale, FL 33315

Acoustic Research, 330 Turnpike St., Canton, MA 02021

ADC (Division of dbx), 71 Chapel St., Newton, MA 02195

Adcom, 11 Elkins Rd., New Brunswick, NJ 08816

ADS, One Progress Way, Wilmington, MA 01887

Advent (Division of Int'l Jensen, an Esmark Co.), 4136 N. United Parkway, Schiller Park, IL 60176

Aiwa America, 35 Oxford Dr., Moonachie, NJ 07074

Akai by Mitsubishi, 225 Old New Brunswick Rd., Piscataway, NJ 08854

AKG Acoustics, 77 Selleck St., Stamford, CT 06902

Allison Acoustics, 7 Tech Circle, Natick, MA 01760

Altec Lansing, Consumer Products Division, Milford, PA 18337

Analog Excellence, 12021 Wilshire Blvd., West Los Angeles, CA 90025

Apogee Acoustics, 35 York Industrial Park, Randolph, MA 02368

AR (see Acoustic Research)

Astatic, P.O. Box 120, Conneaut, OH 44030-0120

Audiophile Systems, 8709 Castle Park Dr., Indianapolis, IN 46256

Audio Research, 6801 Shingle Creek Parkway, Minneapolis, MN 55430

Audio-Technica, 1221 Commerce Dr., Stow, OH 44224

Azden, 147 New Hyde Park Rd., Franklin Square, NY 11010

B & W Loudspeakers (Anglo-American Audio), P.O. Box 653, Buffalo, NY 14240

1200 Markham Rd., No 506, Scarborough, Ontario, Canada M1H3C3

Bang & Olufsen, 1150 Feehanville Dr., Mt. Prospect, IL 60056

B.E.S. (Bertagni Electroacoustic Systems), 12753 Moore St., Cerritos, CA 90701

Bose, 100 The Mountain Rd., Framingham, MA 01701

Boston Acoustics, 247 Lynnfield St., Peabody, MA 01960

Bozak, 326 South St., New Britain, CT 06051

Bryston Ltd., RFD #4, Box 2255, Montpelier, VT 05602

California Audio Labs, 21962 Annette Ave., El Toro, CA 92630

Canton North America, 254 First Ave. N., Minneapolis, MN 55401

Carver, P.O. Box 1237, 19210 33rd Ave. W., Lynnwood, WA 98036

Celestion Industries, Box 521, Kuniholm Dr., Holliston, MA 01746

Cerwin-Vega, 12250 Montague St., Arleta, CA 91331

Citizen Consumer Products, 2999 Overland Ave., Los Angeles, CA 90064

Counterpoint Electronic Systems, P.O. Box 12294, La Jolla, CA 92037

Dahlquist, 601 Old Willets Path, Hauppauge, NY 11788

Dali, P.O. Box 55386, Valencia, CA 91355

dbx, 71 Chapel St., Newton, MA 02195

DCM, 670 Airport Blvd., Ann Arbor, MI 48104

Denon America, 27 Law Dr., Fairfield, NJ 07006

Design Acoustics, 1221 Commerce Dr., Stow, OH 44224

Dual by Ortofon, 122 Dupont St., Plainview, NY 11803

Energy by API, 135 Torbay Rd. Markham, Ontario L3R 1G7

Epicure Products (EPI), 25 Hale St., Newburyport, MA 01950

Epoch by Stanton, 200 Terminal Dr., Plainview, NY 11803

ESS, 9613 Oates Dr., Sacramento, CA 95827

Fisher Corporation, 21314 Lassen St., Chatsworth, CA 91311

Fried Products, 7616 City Line Ave., Philadelphia, PA 19151

General Electric, Electronics Park, Syracuse, NY 13221

Genesis Physics Corporation, 225 Heritage Ave., Portsmouth, NJ 03801

GoldStar Electronics, 1050 Wall St. West, Lyndhurst, NJ 07071

Hafler, 5910 Crescent Blvd., Pennsauken, NJ 08109

Harman Kardon, 240 Crossways Dr. West, Woodbury, NY 11797

Hitachi Sales, 401 W. Artesia Blvd., Compton, CA 90220

Induced Magnet Systems, 115 Henry St., Freeport, NY 11520

Infinity Systems, 9409 Owensmouth, Chatsworth CA 91311

Interaudio by Bose, 100 The Mountain, Framingham, MA 01701

Jamo Hi-Fi, 425 Huehl Rd. Bldg 3A, Northbrook, IL 60062

JBL, 8500 Balboa Blvd., Northridge, CA 91329

Jensen Sound Labs, 4136 N. United Pkwy., Schiller Park, IL 60176

JSE, 519 East Middle Turnpike, Manchester, CT 06040

JVC Company of America, 41 Slater Dr., Elmwood Park, NJ 07407

KEF, 14120-K Sullyfield Circle, Chantilly, VA 22021

Kenwood Electronics, 1315 E. Watsoncenter Rd., Carson, CA 90745

Kirksaeter, 4648 Evansdale Rd., Woodbridge, VA 22193

KLH (Div. of Kyocera International), 7 Powder Horn Dr., Box 4227, Warren, NJ 07060

Klipsch & Associates, P.O. Box 688, Hope, AR 71801

Koss, 4129 N. Port Washington Ave., Milwaukee, WI 53212

Kyocera International, 100 Randolph Rd., Somerset, NJ 08873-1284

Linn Products (Audiophile Systems), 8709 Castle Park Dr., Indianapolis, IN 46256

Luxman (Alpine Electronics of America), 19145 Gramercy Place, Torrance, CA 90501

Madrigal, 2081 S. Main St., P.O. Box 781, Middletown CT 06457

Magnasphere by Magnat America, 70 Atlantic Ave., Marblehead, MA 01945

Magnavox (North American Philips), Interstate 40 & Straw Plains Pike, P.O. Box 14810, Knoxville, TN 37914

Magnepan, 1645 9th St., White Bear Lake, MN 55110

Marantz, 20525 Nordhoff St., Chatsworth, CA 91311

Mark Levinson by Madrigal, 2081 S. Main St., P.O. Box 781, Middletown, CT 06457

Martin-Logan, Box 741, 619 E. 8th St., Lawrence, KS 66044

McIntosh Laboratory, 2 Chambers St., Binghamton, NY 13903

Meridian by Madrigal, 2081 S. Main St., P.O. Box 781, Middletown, CT 06457

Micro Seiki by Analog Excellence, 12021 Wilshire Blvd., West Los Angeles, CA 90025

Mirage Acoustics by API, 135 Torbay Rd., Markham, Ontario L3R 1G7

Mission Electronics, 5985 Atlantic Dr., Unit 6, Mississauga, Ont. CAN L4W 1S4

J. A. Michell by RMI, 2615 Javaranda, Carlsbad, CA 92008

Mitsubishi Electric Sales America, 5757 Plaza Dr., P.O. Box 6007, Cypress, CA 90630-0007

Monster Cable, 101 Townsend St., San Francisco, CA 94107

M & K (Miller & Kreisel Sound), 10391 Jefferson Blvd., Culver City, CA 90230

NAD (USA), 675 Canton St., Norwood, MA 02062

Nagatronics, 115 Henry St., Freeport, NY 11520

Nakamichi USA, 19701 S. Vermont, Torrance, CA 90502

NEC Home Electronics, 1401 W. Estes Ave., Elk Grove Village, IL 60007

New York Audio Laboratories, 2 Westchester Plaza, Elmsford, NY 10523

Ohm Acoustics, 241 Taffe Pl., Brooklyn, NY 11205

Onkyo USA, 200 Williams Dr., Ramsey, NJ 07446

Ortofon, 22 Dupont St., Plainview, NY 11803

Panasonic, One Panasonic Way, Secaucus, NJ 07094

Parasound, 945 Front St., San Francisco, CA 94111

Perreux by Signet, 4701 Hudson Dr., Stow, OH 44224

Pickering & Company, 101 Sunnyside Blvd., Plainview, NY 11803

Pioneer Electronics, 5000 Airport Plaza Dr., Long Beach, CA 90801

Polk Audio, 1915 Annapolis Rd., Baltimore, MD 21230

Proton, 737 W. Artesia Blvd., Compton, CA 90220

Quad, 695 Oak Grove, Menlo Park, CA 94025

Quasar, 9401 W. Grand Ave., Franklin Park, IL 60131

RCA, 600 North Sherman Dr., P.O. Box 1976, Indianapolis, IN 46201

Realistic by Radio Shack (Div. Tandy Corp.), 1300 One Tandy Center, Fort Worth, TX 76102

Revolver by Music Hall, 108 Stanton Rd., Great Neck, NY 11023

Revox, 1425 Elm Hill Pike, Nashville, TN 37210

Rotel, P.O. Box 653, Buffalo, NY 14240

SAE, 1734 Gage Rd., Montebello, CA 90640

Sansui Electronics, 1250 Valley Brook Ave., Lyndhurst, NJ 07071

Sanyo Electric, 1200 Artesia Blvd., Compton, CA 90220

H.H. Scott, 5601 West Side Ave., North Bergen, NJ 07047

Sharp Electronics, Sharp Plaza, P.O. Box 650, Mahwah, NJ 07430

Sherwood (Division of Inkel Corp.), 13845 Artesia Blvd., Cerritos, CA 90701

Shure Brothers, 222 Hartrey Ave., Evanston, IL 60204-3696

Signet, 4701 Hudson Dr., Stow, OH 44224

Snell Acoustics, 143 Essex St., Haverhill, MA 01830

Sonab by AudioSource, 1185 Chess Dr. Suite G, Foster City, CA 94404

Sonus by Sonic Research, 180 Sunnyside Valley Rd., New Milford, CT 06776

Sony, Sony Drive, Park Ridge, NJ 07656

Sota Industries, P.O. Box 7075, Berkeley, CA 94707

Sound Associates, 11112 N. Port Washington Rd., Suite A, Mequon, WI 53092

Soundcraftsmen, 2200 S. Ritchey, Santa Ana, CA 92705

Souther Engineering, 429 York St., Canton, MA 02021

Speakerlab, 735 N. Northlake Way, Seattle, WA 98103

Stanton Magnetics, 200 Terminal Dr., Plainview, NY 11803

Sumiko, P.O. Box 5046, Berkeley, CA 94705

Sylvania (North American Philips), Interstate 40 & Straw Plains Pike, P.O. Box 14810, Knoxville, TN 37914

Tandberg of America Inc., Labriola Court, Armonk, NY 10504

Teac Corp. of America, 7733 Telegraph Rd., Montebello, CA 90640

Technics (Division of Panasonic), One Panasonic Way, Secaucus, NJ 07094

Thiel Audio, 1042 Nandino Blvd., Lexington, KY 40511

Thorens (EPI Products, Inc.), 25 Hale St., Newburyport, MA 01950

Threshold Corporation, 1945 Industrial Dr., Auburn, CA 95603

Toshiba America, 82 Totowa Rd., Wayne, N.J. 07470

Triad Design, P.O. Box 99, Fairview, OR 97024

Uher of America, 7067 Vineland Ave., North Hollywood, CA 91605

Ultron, 1200 West Artesia Blvd., Compton, CA 90220

Vector Research, 1230 Calle Suerte, Camarillo, CA 93010

Velodyne Acoustics, 2565 Scott Blvd., Santa Clara, CA 95050

Wharfedale, 700 Billings St., Suite E, Aurora, CO 80011

Yamaha Electronics, 6600 Orangethorpe Ave., Buena Park, CA 90620



The concert continues with the Ford JBL Audio System.

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

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

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

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

Imagine the sheer impact of 140 watts of total system power. Ample power to virtually eliminate distortion for the most comfortable listening—even at high volume for very long periods of time.

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

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

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

CIRCLE NO. 70 ON READER SERVICE CARD



AUDIO SYSTEMS

Stereo Review's critics choose the outstanding current releases

SPRINGSTEEN: MASTERPIECES OF A DECADE

REVIEWING Bruce Springsteen's long-awaited live set is a bit like reviewing the Sistine Chapel, which is not as farfetched a comparison as you might imagine. Like Michelangelo's masterpiece, "Live/1975-85" is big, crammed with detail, and regarded by many people with religious reverence.

The difference, of course, is that Bruce's effort has a good beat and you can dance to it. It is also as close

as possible to the Great Live Album that his long-time partisans have always hoped he would make. Exhausting, exhilarating, moving, funny, raunchy, majestic, it wraps up just about everything of value in the last thirty years of rock history, shoves it into the trunk of a '57 Chevy, and then kicks it into overdrive.

I don't want to overdo the automotive metaphors, however. Bruce has taken a lot of critical flak over the years for just that, but if this set proves anything, it's that as a songwriter and interpreter he's covered more—and more important—ground than just about any other rock-and-roller around. The evidence is all over the album. The early *Spirit in the Night*, for example, remains the best song ever written about what the critic Lester Bangs called "the interrupted dry grope of growing up in the late Sixties." And

if there is a more poignant exploration of the gulf between fathers and sons than *Independence Day*, I have never heard it.

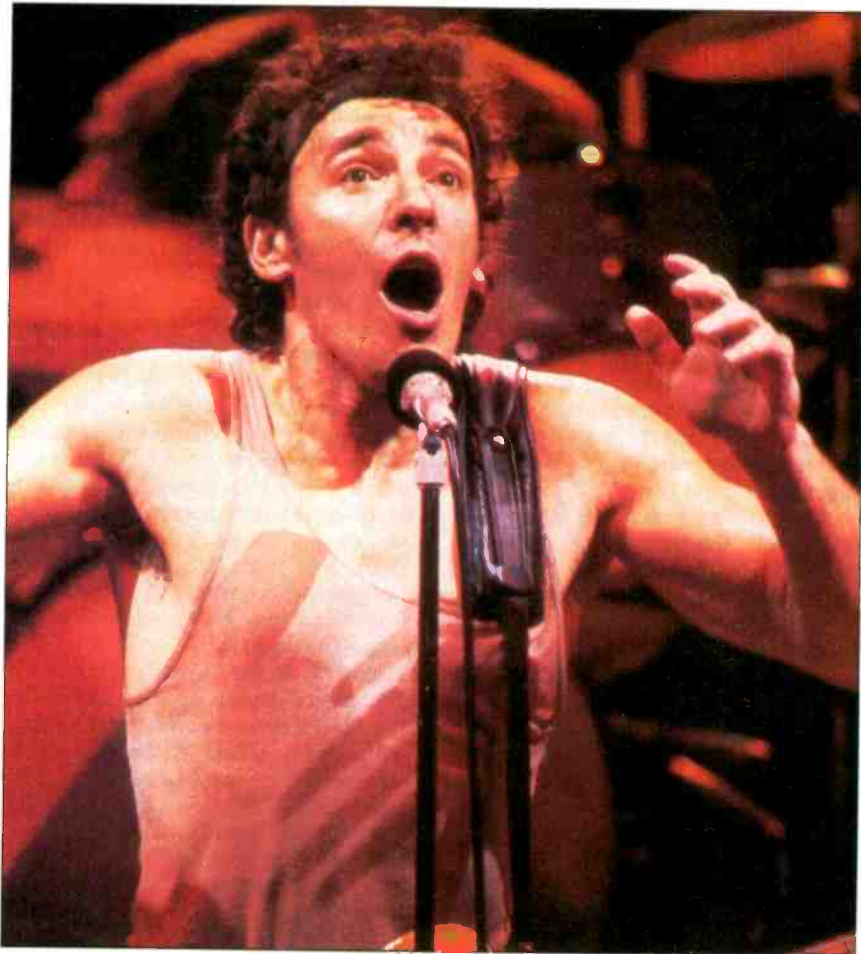
The range on display here, in fact, is almost mind-boggling. It includes raucous roadhouse r-&-b (*Rosalita*), Woody Guthrie populism (a brilliant reclamation of *This Land Is Your Land*), neo-rockabilly (the erotically charged *Fire*), under-the-boardwalk romanticism (*Sandy*), Motown (*War*), Studs Terkel-style portraiture (*Nebraska*, *Johnny 99*), near-symphonic grandeur (*Backstreets*, *The Promised Land*), and laughs (*You Can Look*). Basically, if it's not here, it's probably not worth doing.

There is, of course, an enormous amount of music to digest on "Live/1975-85," and the past and present E Streeters play with enormous consistency and power across the album. The previously unrecorded numbers are uniformly glorious (though you may miss some of your particular favorites), and the mix by Bob Clearmountain is absolutely phenomenal, given the vagaries of time and venues.

Will this set supplant the more famous Springsteen bootlegs? Probably not. Does it justify the almost unprecedented media hoopla? Unquestionably. Should you shell out your hard-earned lunch money to own it? C'mon . . . is the Boss from New Jersey? *Steve Simels*

BRUCE SPRINGSTEEN & THE E STREET BAND: *Live/1975-85*. Bruce Springsteen and the E Street Band (vocals and instrumentals). *Thunder Road; Adam Raised a Cain; Spirit in the Night; 4th of July, Asbury Park (Sandy); Paradise by the "C"; Fire; Growin' Up; It's Hard to Be a Saint in the City; Backstreets; Rosalita (Come Out Tonight); Raise Your Hand; Hungry Heart; Two Hearts; Cadillac Ranch; You Can Look (But You Better Not Touch); Independence Day; Badlands; Because the Night; Candy's Room; Darkness on the Edge of Town; Racing in the Street; This Land Is Your Land; Nebraska; Johnny 99; Reason to Believe; Born in the U.S.A.; Seeds; The River; War; Darlington County; Working on the Highway; The Promised Land; Cover Me; I'm on Fire; Bobby Jean; My Hometown; Born to Run; No Surrender; Tenth Avenue Freeze-Out; Jersey Girl*. COLUMBIA C5X 40558 five discs, ©CXT 40558 three cassettes, © C3K 40558 three CD's, no list price.

Bruce Springsteen: exhilarating, moving, funny, raunchy, majestic



PETER SERKIN: HAPPY DISCOVERIES

PETER SERKIN'S new collection of piano music by Stravinsky, Stefan Wolpe and Peter Lieberson, issued by New World Records, is the sort of thing anyone hearing it would suppose to be the "sleeper" of the year. Stravinsky's Piano Sonata and Serenade in A have never become repertoire favorites, so the entire program is likely to be new to many listeners. I think anyone would find it a stunning sequence of happy discoveries.

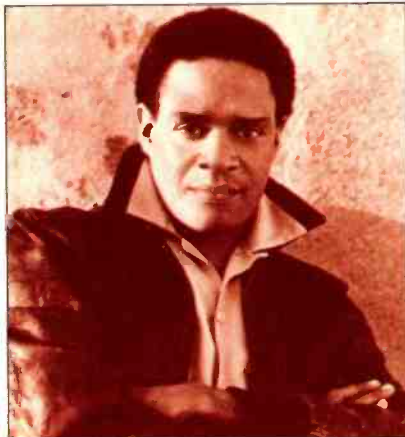
Both of the Stravinsky works are filled with the sharp-etched, lean, frequently witty material characteristic of his so-called neo-Classical period at its richest and most inventive, and neither of them has come across with such a combination of polish and charm in any previous recording known to me. Peter Lieberson's provocative yet strangely agreeable little set of *Bagatelles* ("Proclamation," "Spontaneous Songs," "Dance") is a welcome encore to Serkin's recent recording of that composer's meaty Piano Concerto—all the more welcome, in fact, for being so distinctively different from anything in the concerto.



Peter Serkin: assurance and conviction

The revelation, to listeners coming upon it for the first time, will surely be the music of Wolpe. Many who have never heard a note of his

music tend to identify him vaguely as one of those twelve-tone fellows whose music must be so little known because it is cerebral stuff that could not have any appeal for people comfortable with Schubert and Brahms. But what ear-opening appeal it does have! As Michael Steinberg points out in his concise



Al Jarreau: irresistible energy

but illuminating annotation, Wolpe was concerned with finding "ways to combat what he regarded as a static quality in much twelve-tone music," and in the remarkable *Pasacaglia* here (the last of his *Four Studies on Basic Rows*, composed in 1936) he produced "a piece as grandly expressive and varied as it is rigorously worked." The two shorter works by Wolpe are hardly less distinctive in their quite different ways, or less fascinating. Hearing all three, whose total playing time comes to a bit less than twenty minutes, will surely leave many a listener wondering where this stuff has been all his life.

It is to Peter Serkin's immense credit that the listener is not likely to be aware of the music's difficulty in these performances but only of its stimulating quality and the surprising level of response it commands—on the part of both performer and listener. This album is not just an interesting assortment but a thoughtfully balanced program. These particular works by these three composers work splendidly with one another in terms of both contrast and cohesiveness, and it would be virtually impossible to imagine any of them played with more assurance, conviction, or com-

municativeness. For all the clarity and crispness of his playing, Serkin never allows a trace of brittleness, and the warm, natural quality of the recording enhances the appeal of the performances without calling attention to itself. *Richard Freed*

STRAVINSKY: *Serenade in A; Piano Sonata*. WOLPE: *Form IV: Broken Sequences; Pastorale; Passacaglia*. LIEBERSON: *Bagatelles*. Peter Serkin (piano). NEW WORLD ● NW 344 \$10.98, © NW 344-4 \$10.98, © NW 344-2 no list price.

SUPERIOR POP MUSIC FROM AL JARREAU

AL JARREAU'S new album, "L Is for Lover," effectively combines the exuberantly athletic vocal style of his earlier years as a dazzlingly innovative jazz vocalist with the propulsive, lighthearted music that pleases crowds today. Working with producer Nile Rodgers—who has an uncanny sense of how to outfit each particular pop artist (from Mick Jagger to Madonna) in the most attractive musical trappings—Jarreau has made an album that sails along with irresistible energy while sacrificing nothing in terms of musical imagination.

Once known as "the man with a whole orchestra in his throat," Jarreau muted most of that orchestra in quest of a broader audience unprepared to appreciate his complex vocal improvisations. While the whole orchestra is not heard again as resplendently here, Jarreau does simulate a conga drum on the title track, and there are other welcome hints that his earlier capabilities are intact and may be fully displayed at some future date.

But "L Is for Lover" offers such superior popular music that it demands acceptance on its own terms. And those terms include notable daring in the choice of rhythms. Jarreau and Rodgers have avoided the all-too-familiar boom-boom, thump-thump clichés of contemporary black popular music. Instead, we get the strutting bass lines of *Tell Me What I Gotta Do*, the intricate

**THINK OF IT AS THE
WORLD'S SMALLEST DIGITAL PLAYER.**



Now you can take the dynamics of digital performance anywhere. With TDK HX-S. It captures the purity and nuances of digital sound like no other high-bias audio cassette.

Specifically designed to record digitally-sourced materials, HX-S offers four times the magnetic storage capability of other high-bias cassettes available today. Plus unmatched high Frequency MOL (Maximum Output Level) for optimum performance.

What's all this going for it, HX-S does more than step-up your pocket-sized player. It also acts like fuel injection for your car audio system. And it can turn a boombox into a portable music hall.

TDK HX-S. One small step for digital. One giant leap for music-kind.



THE ART OF PERFORMANCE.

TDK is the world's leading manufacturer of audio & video cassettes and floppy disk products.

CIRCLE NO. 48 ON READER SERVICE CARD

© 1986 TDK Electronics Corp.

vocal-instrumental interplay of *L Is for Lover*, the Latin lilt of *Across the Midnight Sky*, and the intoxicating flavors of *Says*, which combines French innuendo with Brazilian rhythms. Rodgers's own spicy guitar accompaniments provide a binding thread almost as essential as Jarreau's vocal acrobatics.

"L Is for Lover" gives us an Al Jarreau we haven't heard for some time. If it's not the jazz album his fans are still waiting for, it's still full of songs that hug the ears and linger in the mind. *Phyl Garland*

AL JARREAU: *L Is for Lover*. Al Jarreau (vocals); vocal and instrumental accompaniment. *Tell Me What I Gotta Do; L Is for Lover; Says; Pleasure; Golden Girl; Across the Midnight Sky; (We Got) Telepathy; Give a Little More Lovin'; No Ordinary Romance.* WARNER BROS. ● 25477-1 \$8.98, © 25477-4 \$8.98, © 25477-2 no list price.

ABBADO'S APPEALING RAVEL PACKAGE

RAVEL'S orchestral works have been released in just about every possible combination on LP, CD, and tape over the years, but I don't remember having encountered before the particular sequence on Claudio Abbado's new Deutsche Grammophon album. While many collectors will already have one or more satisfactory recordings of *Boléro*, *Rapsodie espagnole*, *Ma Mère l'Oye*, and *Pavane pour une infante défunte*, Abbado's wonderfully refined performances and the very good recorded sound, especially on CD, make the package extremely appealing.

It is especially good to have the complete ballet version of *Ma Mère l'Oye* instead of the usual suite, and I found Abbado's treatment of it of more than usual interest as well. He not only catches the light, airy aspect of the score (as Charles Dutoit did in his recording for London) but also, and in a more telling way than I have ever heard before, the sinister undertones associated with the Gustave Doré illustrations for Mother Goose familiar to French children.



Claudio Abbado: refined Ravel

In *Boléro* Abbado achieves a reasonable compromise between Ravel's own ritualistically slow tempo and the brisker pace favored by some other conductors. The superb playing by the London Symphony reveals Abbado's absolute command of the changes in coloration from one "verse" to the next, and the ending is truly articulated, not just a blur of noise—credit CD technology at least in part!

The magically disembodied sound of the opening of the *Rapsodie espagnole* represents another tour de force of performance and recording. The *Malagueña* movement is characterized by unerring articulation and phrasing together with the finely gauged dynamics needed to produce the effect of a distant festival. Fine solo-violin work highlights the *Habanera*, and the concluding *Feria* displays a remarkable range of nuance, color, and dynamics.

I have always found the famous *Pavane* a bit hard to take in its orchestral guise, not only because it is all too often sentimentalized but also because, as an ex-horn player, I have felt the uncomfortable lay of the register. As far as I am concerned, this performance finally sets the standard of how this piece should go. *David Hall*

RAVEL: *Boléro; Rapsodie espagnole; Ma Mère l'Oye; Pavane pour une infante défunte.* London Symphony Orchestra, Claudio Abbado cond. DEUTSCHE GRAMMOPHON ● 415 972-1 \$10.98, © 415 972-4 \$10.98, © 415 972-2 no list price.

NOW ON CD Compact Discs of previously released LP's

POP

- **ERIC CLAPTON: *Another Ticket.*** RSO/POLYGRAM 813 581-2. "Hard-nosed blues" (July 1981).
- **GREASE (Jim Jacobs-Warren Casey).** POLYDOR 827 548-2. Original Broadway-cast recording with Carole Demus, Barry Bostwick. "Trash, but right on" (October 1972).
- **GEORGE JONES: *Shine On.*** EPIC EK 38406. "Chock-full of fine performances" (September 1983).
- **CHUCK MANGIONE: *Love Notes.*** COLUMBIA CK 38101. "Sturdy, good-humored playing" (October 1982).
- **GLENN MILLER: *In Hollywood.*** MERCURY 826 635-2. Original recordings made for the films *Sun Valley* (1941) and *Orchestra Wives* (1942).
- **LUTHER VANDROSS: *Forever, for Always, for Love.*** EPIC EK 35235. "Music with a cool, sensual grace" (February 1983).
- **DINAH WASHINGTON: *The Bessie Smith Songbook.*** EMARCY 826 663-2. Recorded December 1957-January 1958.
- **DENIECE WILLIAMS: *So Glad I Know.*** SPARROW/CAPITOL SPD-1121. "Contemporary gospel and much to savor" (November 1986).

CLASSICAL

- **BERLIOZ: *Les Troyens.*** Veasey, Vickers; C. Davis. PHILIPS 416 423-2 (four CD's). "Sweeping beauty and eloquence" (Best of Month, August 1970).
- **BERNSTEIN: *Trouble in Tahiti.*** Wolff, Atkinson; Winograd. POLYDOR 827 845-2. The composer's first stab at opera, a one-acter depicting suburban mores in the Fifties.
- **CHOPIN: *Piano Concerto No. 1.*** Rubinstein, Skrowaczewski (recorded 1961). *Piano Concerto No. 2.* Rubinstein, Wallenstein (recorded 1958). RCA 5612-2. Catalog classics.
- **R. STRAUSS: *Elektra.*** Nilsson; Solti. LONDON 417 345-2 (two CD's). "Utterly convincing" (Best of Month, February 1968).
- **TCHAIKOVSKY: *Manfred Symphony.*** Muti. ANGEL CDC-47421. "A magnificently theatrical treatment" (November 1982).
- **VAUGHAN WILLIAMS: *Sinfonia antartica.*** Haitink. ANGEL CDC-47516. An "extraordinarily sympathetic account" (March 1986).

If you can't afford it, spare yourself the heartache of listening to it.

We are all aware that money aside, it is an easy matter to upscale our quality of life, but difficult to lower it. In this regard, ignorance is bliss and strict abstinence is sometimes better than a taste of something finer that we can't have. So it is with Concord high-fidelity, high performance car audio. One listen, one taste, will significantly alter your demands for mobile high-fidelity.

Uncompromising performance; the Concord story begins and ends with it. Concord's performance engineering over the years has resulted in a list of mesmerizing characteristics that, as you become aware of them, will change your perception of car stereo.

For instance: A sound critics claim is the best they've ever heard in a car stereo—home high-fidelity sound. □ Superior stereo imaging, wide band frequency response, and very low distortion levels are just some of the qualities of Concord's exclusive Matched Phase Amorphous Core Tape Head.

□ Electronic DC Servo tape drive for extended life and accurate control of tape speed. □ A cleaner sounding FM than you ever believed possible, thanks to the exclusive Concord FNR FM noise reduction system. □ High powered inboard amplifiers—rated at 50 watts—and the ability to simply plug in external amplifiers for additional power.

A few of the features found in the HPL 540 shown here are: Dolby B and C noise reduction systems, tuner/tape switch, tape search, and the smooth convenience of full logic tape controls. The ergonomic design insures easy operation of all functions.

One listen to all of this and you will be exhilarated, and if you've read this far you are no longer blissfully unaware. Your taste has been improved. If you can afford it, you already *deserve*, and probably *demand* the best in design, engineering and of course—uncompromising performance.



CONCORD[®]
Anything else is a compromise.

Concord Systems, Inc.
25 Hale Street, Newburyport, MA 01950
800-225-7932, (in MA) 800-892-0565
A Penril Company

CIRCLE NO. 11 ON READER SERVICE CARD

In this century, there are but a few classical violinists whose artistry commands the accolades master and legend. The career of Cho-Liang Lin is a stunning indication that he is heir apparent to this rare honor. Already one of the world's most sought after and respected violinists, Lin's live and recorded performances have inspired *Stereo Review* to remark:

"Lin's playing has *everything*—the most gorgeous, pure tone, an unflinching sense of style, grace, flare and an obvious joy in making music."

CBS Masterworks is proud to present Cho-Liang Lin's newest and most important recording to date, Bruch's *Violin Concerto No. 1*; a masterful interpretation by Lin, a magnificent performance by the renowned Chicago Symphony Orchestra under the direction of Leonard Slatkin.

Cho-Liang Lin. A legend in the making. Exclusively on CBS Masterworks Records, Cassettes and Compact Discs.

CHO-LIANG LIN

A NEW GENERATION OF GENIUS

M
A
S
T
E
R
W
O
R
K
S



FREE CDs FROM CBS!!!

Get details at your favorite record store.

"CBS" "Masterworks" are trademarks of CBS Inc.

© 1986 CBS Inc.



*Discs and tapes
reviewed by
Robert Ackart
Richard Freed
David Hall
Stoddard Lincoln*

BACH: Partita No. 4, in D Major (BWV 828); Three-Part Inventions (BWV 787-801). Jeffrey Kahane (piano). NONESUCH ● 79121-1 \$10.98, © 79121-4 \$10.98.

Performance: *Excellent*
Recording: *Excellent*

BACH: Italian Concerto (BWV 971); French Overture (Partita in B Minor, BWV 831); Four Duets (BWV 802-805). Jean Louis Steurman (piano). PHILIPS ● 416 410-1 \$10.98, © 416 410-4 \$10.98, © 416 410-2 no list price.

Performance: *Flabby*
Recording: *Fine*

I am delighted that pianists continue to play Bach's music rather than being intimidated by all the harpsichordists who are now recording Bach in "authentic" style. But having heard Bach on the harpsichord, no pianist can play his music in quite the same way as it was played before the revival of that instrument.

Jeffrey Kahane has learned this lesson well. Fully understanding the capabilities of the harpsichord, he has translated its characteristics to the piano with tremendous success. While utilizing the sonorities of the piano and simplifying the ornamentation so that it is more appropriate for the instrument, Kahane retains the original vigor and clarity of Bach's music. His rhythms are sharply defined, his dances dance, and, like Glenn Gould, he knows how to make effective pianistic sense out of Bach's counterpoint.

Jean Louis Steurman seems never to have heard of the harpsichord or any of its conventions. Take, for example, his flabby reading of the opening movement of the French Overture, or B Minor Partita, and its dances, which are played more like Schumann character pieces. Steurman's idea of counterpoint is to play the voice with the subject louder than the rest rather than articulating each voice independently. His velvety tone is inappropriate for Bach and creates a sluggishness that takes the fire out of the music, as in the



Soprano Gabriele Beňáčková: warm sincerity and simplicity

THE BARTERED BRIDE

ASPECIAL pleasure in reviewing records is the opportunity of restudying music you've long known and which you may have dismissed as not particularly important. Then a new recording of a carefully prepared performance reveals that the piece in question is, indeed, moving, engaging, and delightful. Smetana's *The Bartered Bride* is certainly not a "major" opera, but it is not an insignificant one either. Far from it. Its strongly nationalistic melody and rhythm, its winning characters, and even its naïve plot are attractive and deserve the caring performance it gets in a new recording made in Czechoslovakia in 1982 by Supraphon and distributed here, on compact disc, by Denon.

The performances are unusually appealing. Gabriele Beňáčková sings Mařenka with warm sincerity and simplicity; her melodically graceful Act III aria is most movingly rendered. Peter Dvorský, whose well-focused tenor is heard to advantage in Donizetti's *L'elisir d'amore* on RCA, is an affecting Jeník. His ardent singing characterizes the young lover nicely. Miroslav Kopp creates a sympathetic character in Vašek, not the stuttering dolt he is frequently made to be. If these contributions stand out because of their importance to plot and score, the other artists must be applauded too.

But the quality of the performance that makes me eager to recommend it to

anyone who enjoys Smetana's music is the strong Czech feeling that it evokes. Because the opera itself has such a specific national character, I doubt that another group could convey the same *élan* and vigor, the same involvement, and the same dramatic truth evident here. This engagement with the work and skill in performance are shared alike by soloists, chorus, and orchestra, all under the able leadership of Zdeněk Košler, whose commitment to what he is about is no less joyous than the participation of his colleagues.

The recording itself is clear and sharp, and while some of the singing by the women in the cast does have a slightly unpleasant edginess, the effect may be only what is sometimes called the "Russian soprano" sound and not a technical fault. The enclosed booklet contains a libretto and notes (set in minuscule type) in Japanese, Czech, and English.

Robert Ackart

SMETANA: *The Bartered Bride*. Marie Veselá (soprano), Ludmila; Gabriele Beňáčková (soprano), Mařenka; Marie Mrázová (contralto), Háta; Peter Dvorský (tenor), Jeník; Miroslav Kopp (tenor), Vašek; Jindřich Jindrák (baritone), Krušina; Jaroslav Horáček (bass), Mícha; Richard Novák (bass), Kecál; others. Czech Philharmonic Chorus and Orchestra, Zdeněk Košler cond. SUPRAPHON/DENON © 90C37-7309/11 three CD's no list price.

EXPLANATION OF SYMBOLS:

- = DIGITAL MASTER ANALOG LP
- Ⓢ = STEREO CASSETTE
- Ⓣ = DIGITAL COMPACT DISC
- Ⓜ = MONOPHONIC RECORDING



Pierre Amoyal: spontaneity and straightforward exuberance in Franck

first movement of the Italian Concerto. The second movement is very beautiful, but only because it yields to a Romantic approach. The finale, however, is full of verve and fire. S.L.

BEETHOVEN: Piano Concerto No. 1, in C Major, Op. 15; Piano Concerto No. 2, in B-flat Major, Op. 19. Martha Argerich (piano); Philharmonia Orchestra, Giuseppe Sinopoli cond. DEUTSCHE GRAMMOPHON ● 415 682-1 \$10.98, © 415 682-4 \$10.98, © 415 682-2 no list price.

Performance: *Big-scale*
Recording: *Resplendent*

BEETHOVEN: Piano Concerto No. 1, in C Major, Op. 15; Piano Concerto No. 2, in B-flat Major, Op. 19. Emanuel Ax (piano); Royal Philharmonic Orchestra, André Previn cond. RCA © RCD1-7199 no list price.

Performance: *Elegant*
Recording: *Intimate*

These two couplings of Beethoven's First and Second Piano Concertos present beautifully turned performances that are quite different in their musical and sonic characteristics. With Martha Argerich and Giuseppe Sinopoli we have a virtuoso *par excellence* working with a conductor of decidedly theatrical bent in terms of both temperament and experience. The result is a big-scale, modern, symphonic approach. Even the modest B-flat Concerto (actually composed six years before the concerto called No. 1) is wholly convincing with-

in the performers' chosen musical frame of reference. The coda of its slow movement and Argerich's dazzling work in the final cadenza are among the high points, and also noteworthy is Sinopoli's carefully inflected phrasing throughout. The sound is simply gorgeous in both works.

Emanuel Ax and André Previn, both superb chamber-music keyboard players, offer more intimately scaled treatments for which RCA chose an appropriately intimate acoustic ambience. Their performances achieve a classic poise, but there's no lack of vitality. In general the balance between the winds and the string section is better than on the Deutsche Grammophon recording, notably in the slow movement of No. 1, which boasts some lovely first-chair clarinet phrasing, and the recorded sound is excellent overall, if not quite as spectacular as DG's. D.H.

DEBUSSY: Violin Sonata in G Minor (see FRANCK)

DRUCKMAN: Prism (see ROCHBERG)

DUTILLEUX: Symphony No. 1; Timbres, espace, mouvement. Orchestre National de Lyon, Serge Baudo cond. HARMONIA MUNDI © HMC 905159 no list price.

Performance: *First-rate*
Recording: *Very good*

Henri Dutilleux, now seventy, has composed fewer than a dozen big works, the

latest being the Violin Concerto introduced by Isaac Stern last season, but he has distinguished himself in all of them with his profound and original treatment of conventional resources. He is without question the outstanding French symphonist of our time, and his provocative First Symphony (1950) is especially welcome. It has not been available on records since the all-too-brief circulation of Jean Martinon's performance on an ORTF "Inédits" LP.

The always reliable Serge Baudo does just as well with it as Martinon. He has his Lyon orchestra on its toes, quite justifying the "National" in its name, and he makes a similarly strong case for the more recent *Timbres, espace, mouvement*, a sort of two-part tone poem with reference to Van Gogh's *Starry Night*. Harmonia Mundi has come through with fine sound but has missed a bet by not giving us *both* of the Dutilleux symphonies. The Second would have been a still more welcome companion piece for the First since *Timbres, espace, mouvement* has already been so well recorded, for Erato, by Mstislav Rostropovich, who commissioned and introduced it. This first-rate new CD, however, should make Dutilleux's admirers happy—and help to increase their number. R.F.

FRANCK: Violin Sonata in A Major. DEBUSSY: Violin Sonata in G Minor.

RAVEL: Violin Sonata in G Major. Shlomo Mintz (violin); Yefim Bronfman (piano). DEUTSCHE GRAMMOPHON ● 415 683-1 \$10.98, © 415 683-4 \$10.98, © 415 683-2 no list price.

Performance: *Elegant Franck*
Recording: *Very good*

FRANCK: Violin Sonata in A Major. GRIEG: Violin Sonata No. 3, in C Minor, Op. 45. Pierre Amoyal (violin); Mikhail Rudy (piano). ERATO/RCA ● NUM 75258 \$10.98, © MCE 75258 \$10.98, © ECD 88177 no list price.

Performance: *Fresh, impassioned*
Recording: *Very good*

There is much to admire about both of these releases, but there is a good deal more sheer enjoyment in one than the other. The Deutsche Grammophon recording is the first by Yefim Bronfman to come my way, and he proves to be a sympathetic partner for Shlomo Mintz—who by now, of course, is quite a familiar quantity himself. The Franck sonata gets off to a fine start: Mintz's tone is lovely, his playing elegant and aristocratic, and he and Bronfman are not only in complete accord but ideally balanced in DG's warm recording. In the final movement, however, the elegance takes on a slightly self-conscious air, and momentum seems to droop—as if the players were distrustful of the music's innate radiance. The Debussy and Ravel performances extend this impression: for all the polish in the playing, I sense an excessive restraint.

Pierre Amoyal and Mikhail Rudy, whose partnership is no less sympathetic, supply spontaneity in abundance,

THE ALL-HIT BENEFIT

**TODAY'S TOP SUPERSTARS UNITE
TO SUPPORT THE T.J. MARTELL FOUNDATION
FOR LEUKEMIA & CANCER RESEARCH.**

BRYAN ADAMS
RUN TO YOU

HALL & OATES
OUT OF TOUCH

CYNDI LAUPER
SHE BOP

HUEY LEWIS & THE NEWS
HEART AND SOUL

POINTER SISTERS
I'M SO EXCITED

REO SPEEDWAGON
CAN'T FIGHT THIS FEELING

LIONEL RICHIE
RUNNING WITH THE NIGHT

SADE
SMOOTH OPERATOR

BRUCE SPRINGSTEEN
COVER ME

TEARS FOR FEARS
EVERYBODY WANTS TO RULE
THE WORLD

WHAM!
CARELESS WHISPER

PAUL YOUNG
EVERYTIME YOU GO AWAY

'TIL TUESDAY
VOICES CARRY*

JOHN WAITE
MISSING YOU*

*2 BONUS SONGS ON CASSETTE ONLY.



MUSIC FOR THE MIRACLE

AVAILABLE WHEREVER RECORDS AND CASSETTES ARE SOLD. © 1986 CBS INC.

and their straightforward exuberance seems unselfconsciously and ideally tailored to the particular character of the works on their release. Erato's sonic focus is more close-up than DG's, and in some sections (for instance, the end of the second movement of the Franck) a tad less well defined, but in general it is quite good enough to put the performances themselves in the very best light. There is a real sense of involvement in Amoyal's playing, which is at once gutsy, impassioned, and unfailingly tasteful—suitably but never excessively voluptuous in the Franck, suit-

ably robust and outdoorsy in the Grieg. He and Rudy enliven both works with a sense of uncontrived freshness, and the endearing Grieg sonata, still far from being overexposed, is so irresistibly fetching here that it alone would justify buying the Erato release no matter how many good recordings of the Franck you may already have. *R.F.*

GREIG: *Violin Sonata No. 3, in C Minor, Op. 45* (see **FRANCK**)

LIEBERSON: *Bagatelles* (see **Best of the Month**, page 170)

MARTINŮ: *Double Concerto for Two String Orchestras, Piano, and Timpani; Frescoes of Piero della Francesca.* Josef Růžička (piano); Jan Bouše (timpani); Prague Radio Symphony Orchestra, Charles Mackerras cond. SUPRAPHON/DENON © 33CO-1056 no list price.

Performance: *Brilliant*
Recording: *Top-drawer*

The Double Concerto was composed by Bohuslav Martinů in 1938 in Switzerland for Paul Sacher and the Basel Chamber Orchestra, the same ensemble for which Béla Bartók had written his Music for Strings, Percussion, and Celesta two years earlier. At the time of its completion, Martinů's native Czechoslovakia was in the process of being sacrificed to the Nazis at Munich. Small wonder that following a brilliant, motoric opening movement we get an adagio and a final allegro that are by turns heartbreaking and defiant. As in the Bartók work, the double string orchestra comes across superbly in stereo, as do the superbly played solo piano and timpani.

The three-movement *Frescoes of Piero della Francesca* dates from 1953, when Martinů, by this time an exile from the Communist regime in his homeland, visited the Church of San Francesco in Arezzo, Italy, which houses the fresco cycle *The Legend of the True Cross* by the great Renaissance master. He was moved to evoke in music his personal reaction to the paintings' grandeur and order. The work has been called "Czechized Respighi," but I sense considerably more substance in the Martinů score, and certainly its comparably gorgeous sounds are unsoftened by mere bombast.

While the Double Concerto has had an ample number of recordings, this seems to be only the second of the *Frescoes*. The performances of both are masterly in their vitality and color, with the Prague Radio players giving their all for Sir Charles Mackerras, who began his conducting career as a student of the legendary Václav Talich. The recording is wholly satisfying on all counts. Highly recommended! *D.H.*

MOZART: *Piano Pieces. Fantasia in D Minor (K. 397); Rondo in D Major (K. 485); Rondo in A Minor (K. 511); Minuet in D Major (K. 355); Adagio in B Minor (K. 540); Gigue in G Major (K. 574); Eight Early Salzburg Pieces.* Daniel Barenboim (piano) EMI/ANGEL © CDC 47384 no list price.

Performance: *Exquisite*
Recording: *Excellent*

Daniel Barenboim proves himself a master of Mozart in this fascinating collection of short piano pieces. The demands on the artist playing this music are greater than you'd think, and Barenboim meets them magnificently, whether in the tragic Adagio in B Minor, the floridly poignant A Minor Rondo, the jaunty D Major Rondo, or the operatic drama of the wordless *scena* that Mo-

M & K asks: How do other companies know their speakers accurately reproduce the sound of live music?



M & K President and chief speaker designer Ken Kreisel, recording the English Chamber Orchestra at London's Abbey Road Studios, using M & K S-1B Satellites and V-1B Subwoofers.

We know M & K speakers give you the most realistic reproduction of live music, because we are the only speaker manufacturer that is also a digital recording label (RealTime and Perpetua Records). No other speaker manufacturer constantly references the sound of their speakers to live professional musicians in a digital recording environment. The lifelike superiority of M & K Satellite-Subwoofer Systems is a direct result of this dual heritage.

Systems from \$220 to \$2500 at select audio specialists. Call or write for speaker and CD literature, plus the name of your nearest dealer.



MILLER & KREISEL SOUND CORPORATION

10391 Jefferson Boulevard, Culver City, CA 90230 USA 213/204-2854

CIRCLE NO. 46 ON READER SERVICE CARD

Your loudspeakers may well have some of the most advanced drive units and crossovers in the whole world.

Even so, something is still standing between all the natural sound they produce and your ears.



MATRIX
B&W
DIGITAL MONITORS

The loudspeaker cabinet walls.

When the drive units vibrate, they will make the cabinets vibrate as well. Stopping the complete sound spectrum that comes from the drive units from ever reaching you.

This effect is known as colouration. And it's the reason you're always conscious that you are listening to music produced by two loudspeakers rather than a truly live concert performance.



INSIDE EVERY BOX IS THE NATURAL SOUND STRUGGLING TO GET OUT

Colouration is a great barrier to pure sound reproduction. Loudspeaker manufacturers all over the world have been searching for a way to break through it.

Now B&W have finally done it. With an invention that's the most exciting and important breakthrough in loudspeaker technology that even they have made in the last 20 years.

It's the Matrix series of new digital monitors. The first ever loudspeakers to totally eliminate the colouration from the loudspeaker cabinet.



The bass has depth and body and no resonant boom.

The mid- and high-frequencies have a new sparkle and definition.

And, for the first time ever, the natural decay of reverberation is heard exactly as it's heard in a live performance.

The familiar, but greatly unloved hangover effect is dead. Long live the Matrix.

This revolution was achieved with an idea so very simple that B&W practically invented the Matrix by accident.

They discovered that all that

is required to virtually eliminate unwanted sound radiation from the cabinet is a honeycomb-like structure of unique design inside it.

They also discovered that this so improved the performance of the cabinet that they also had to improve the quality of all the drive units.

Consequently, as well as the drivers with homopolymer cones manufactured under licence from CBS Inc., Matrix also features a newly designed ferrofluid tweeter.

The new Matrix series itself features three digital monitors.

Matrix 1, 2 and 3.

Each has a different size, maximum acoustical output and bass extension. All have the same enhanced stereo imagery, improved transient response, low distortion and total freedom from colouration.

The Matrix series takes its place in the B&W range, succeeding loudspeakers that in their time have made history. You just cannot miss them at your B&W stockist.

They are truly the only loudspeakers that are seen but definitely not heard.



LISTEN & YOU'LL SEE

B&W Loudspeakers (UK Sales) Limited Marlborough Road Lancing West Sussex BN15 8TR Telephone (0903) 750750

CIRCLE NO. 51 ON READER SERVICE CARD



Conductor William Boughton, founder of the English String Orchestra

ENGLISH STRINGS

THE cream of the early twentieth century's English music for string orchestra is offered on four CD's from Nimbus, a British CD-only label that now has its own distribution in the U.S. A Britten and a Vaughan Williams disc join earlier releases featuring the music of Elgar and works by Holst and Warlock, all performed by the English String Orchestra led by William Boughton. The group seems to have had its origins in the BBC's decision a decade ago to disband its small, local studio orchestras in the Midlands. From their players Boughton formed a group called the Vivaldi Ensemble, which in time became the English String Orchestra.

Nimbus was one of the first British labels to specialize in high-tech recording and the first to have its own CD pressing plant. Its engineers chose to record all four English String Orchestra discs in the Great Hall of Birmingham University, whose decay period runs, to my ears, almost five seconds. This gives a wonderful sound to the magnificent Vaughan Williams Tallis Fantasia, but it presents problems of textural clarity and balance in the trickier passages of Britten's Variations on a Theme of Frank Bridge and in his Prelude and Fugue. In the Vaughan Williams Oboe Concerto, a work by turns ravishing and peppery, it seems to have been necessary to place the soloist, Maurice Bourgue, very much front and center. I suspect, too, that the long decay period of the hall gave him problems in achieving more subtle dynamic nuances.

Among the more unusual items on these two discs is the Vaughan Williams Concerto Grosso, composed to be played by three bodies of instrumentalists—beginners, proficient amateurs, and skilled professionals. The première involved some four hundred players, but as heard here, with a small group in a very resonant acoustic, the effect ranges from the ceremonious to a certain rumbustious charm. On a far more

serious and introspective level is the Britten *Lachrymae*, built around the John Dowland lute song "If my complaints could passions move," with a passing reference to Dowland's "Flow, my tears." Written originally for solo viola and piano, Britten was persuaded in 1976 by Cecil Aronowitz of the Amadeus Quartet to make an arrangement for string orchestra. To the best of my knowledge, this is its first recording, with Roger Best the fine viola soloist.

Britten's Simple Symphony, with its lovely slow movement, Vaughan Williams's *Greensleeves* Fantasia, and, to a lesser extent, his Variants on *Dives and Lazarus* are all string-orchestra staples, at least in England.

If I had to pick any single performance that would impel me toward purchase of the Vaughan Williams CD, it would be the Tallis Fantasia. Not only does it get a noble reading, but the recording, more than any other I have heard, conveys the depth perspective of the three distinct bodies of players—large and small string orchestras and a string quartet. The *Lachrymae* would be my main motivation to acquire the Britten disc. *David Hall*

VAUGHAN WILLIAMS: *Fantasia on a Theme by Thomas Tallis; Concerto for Oboe and Strings; Concerto Grosso for Strings; Fantasia on Greensleeves; Five Variants on Dives and Lazarus.* Maurice Bourgue (oboe); Margaret Campbell, Colin Lilley (flute, in *Greensleeves*); Audrey Douglas (harp, in *Greensleeves*); English String Orchestra, William Boughton cond. NIMBUS © NIM 5019 no list price.

BRITTEN: *Variations on a Theme of Frank Bridge, Op. 10; Simple Symphony, Op. 4; Lachrymae, Reflections on a Song of Dowland, Op. 48; Prelude and Fugue, Op. 29.* Roger Best (viola, in *Lachrymae*); English String Orchestra, William Boughton cond. NIMBUS © NIM 5025 no list price.

zart titled *Fantasia in D Minor*. Then, after playing these mature masterpieces, Barenboim turns to the composer's Salzburg juvenilia. In appreciating and conveying their innocence, he displays his own artistry as well as Mozart's. The recorded sound is superb. *S.L.*

RAVEL: *Boléro; Rapsodie espagnole; Ma Mère l'Oye; Pavane pour une infante défunte* (see Best of the Month, page 172)

RAVEL: *Violin Sonata in G Major* (see FRANCK)

ROCHBERG: *Oboe Concerto.*
DRUCKMAN: *Prism.* Joseph Robinson (oboe, in Rochberg); New York Philharmonic Orchestra, Zubin Mehta cond. NEW WORLD ● NW 335 \$10.98, © NW 335-4 \$10.98, © NW 335-2 no list price.

Performance: *Very good*
Recording: *Very good*

George Rochberg may have started the "neo-romantic" movement, but Jacob Druckman popularized it by using the label for one of his Horizons festivals at the New York Philharmonic. Rochberg broke with serialism and ultra-modernism years ago by introducing a seemingly modernist idea into his music: collage and quotation. Little by little tonality began reappearing in his music; eventually, instead of borrowing tonal effects from Classical, Romantic, and early twentieth-century composers, he simply went back to the fork in the road and began writing his own neo-tonal, neo-romantic music as though atonality had never happened. Mahler is often mentioned in connection with Rochberg's music, but his Oboe Concerto is rather more reminiscent of post-Mahler expressionism: Sibelius, Bartók, early Prokofiev, even Berg. This is an unshowy concerto—plangent, dark, emotional—and it is very well played and recorded.

In spite of his festival programming, I have never particularly thought of Druckman as having neo-romantic tendencies. Like Rochberg, he has begun to introduce tonal quotes into a nontonal serial style. In the manner of his earlier *Windows*, *Prism* creates colorful serialist textures in which we catch strains of Baroque and Classical (not Romantic!) music. The choice of quotations is not whimsical; the music of Charpentier, Cavalli, and Cherubini all comes from operas on the subject of Medea, which is also the theme of Druckman's opera-in-progress for the Met. The tension between the tonal and atonal elements is very theatrical and moving (the second movement with the Cavalli sara-bande is a heartbreaker). I don't know if this music or these kinds of ideas will be in the opera (I suspect they will), but they work extraordinarily well as orchestral music. *Prism* is an important and appealing piece of work. It is also very effectively recorded here. *Eric Salzman*

Remote control sounds great. If the components sound great.

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

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

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

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

DENON

DESIGN INTEGRITY



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

Denon America, Inc., 27 Low Drive, Fairfield, NJ 07006
Denon Canada, Inc., 17 Denison Street, Markham, Ont. L3R 1B5 Canada
CIRCLE NO. 27 ON READER SERVICE CARD

STRAVINSKY: *Serenade in A; Piano Sonata* (see Best of the Month, page 170)

STRAVINSKY: *Symphony No. 1, in E-flat Major, Op. 1; Scherzo fantastique, Op. 3.* Detroit Symphony Orchestra, Antal Dorati cond. LONDON 414 456-1 \$10.98, 414 456-4 \$10.98, 414 456-2 no list price.

Performance: *Sympathetic*
Recording: *The very best!*

Antal Dorati, recording in Detroit's old Orchestra Hall, comes through with

simply beautiful performances of both these early Stravinsky scores. He treats the first movement of the symphony affectionately as the Glazunov-style music it is, and he makes the most of the Rimskian flavor cropping up in the middle section of the somewhat Mendelssohnian scherzo. The slow movement is genuinely touching in its early-Tchaikovsky manner, and it explains to a degree why Stravinsky himself used to feature the older master's *Little Russian* Symphony (No. 2) on his concert programs. Dorati also makes the best of the less than effective finale.

The more complex textures and fanciful coloration of the *Scherzo fantastique* are treated with the greatest artistry by both players and conductor, and it is this piece that shows off to fine effect the acoustic ambience of old Orchestra Hall (now registered as a Historic Landmark). The music here may not fall into the category of world-class masterpieces, but the disc makes for most pleasurable listening. *D.H.*

TCHAIKOVSKY: *The Nutcracker.* London Symphony Orchestra, Charles Mackerras cond. TELARC 80137 two CD's no list price.

Performance: *Strong*
Recording: *Wonderful*

Most people going to the *Nutcracker* are so busy searching out the corps of mice and soldiers for their children that they rarely get a chance to concentrate on the music. Now is your chance, with a wonderful recording of the entire score in a strong performance by Sir Charles Mackerras and the London Symphony. Mackerras brings power to the dramatic events of the first act and relaxed grace to the delightful divertissements of the last act, a masterpiece of orchestration. This CD, incidentally, is the soundtrack for the just-released Maurice Sendak movie based on the popular Pacific Northwest Ballet production, which returns to the spirit of the E. T. A. Hoffmann tale instead of the rather watered-down Petipa version. The sound is first-rate. *S.L.*

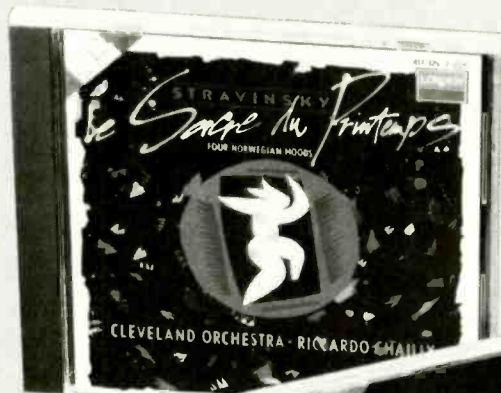
VERDI: *Otello.* Placido Domingo (tenor), Otello; Katia Ricciarelli (soprano), Desdemona; Justino Diaz (bass-baritone), Iago; Ezio di Cesare (tenor), Cassio; Constantin Zaharia (tenor), Roderigo; John Macurdy (bass), Lodovico; Petra Malakova (mezzo-soprano), Emilia. Chorus and Orchestra of La Scala, Milan. Lorin Maazel cond. ANGEL DSB-3993 two discs \$23.98, 4D2S-3993 two cassettes \$23.98, CDCB-47450 two CD's no list price.

Performance: *Taut*
Recording: *Good*

This recording serves as the soundtrack for Franco Zeffirelli's motion-picture adaptation of Verdi's towering opera. In the notes, the director is quoted as saying, "I affectionately bullied [the artists, chorus, and orchestra] because I felt that the musical performance should bear the stamp of the actual production" (namely, the film version). Fortunately, the recording is not marred by the few aberrations Zeffirelli allowed himself in the film when he departed momentarily from Verdi's sharply focused telling of the story. Fortunately, too, his "bullying" seems to have contributed to an unusually tight, propelled, and powerful reading of the opera. There may be more musically satisfying recorded performances of *Otello*, but none, to my knowledge, is more theatrically compelling.

A large measure of the excitement is

SONIC



© 1987 London/PolyGram Records, Inc.

BOOM!

CIRCLE NO. 3 ON READER SERVICE CARD

THE COMPACT DISC MUSIC GUILD PRESENTS...

THE BOSTON POPS TREASURY OF MUSICAL FAVORITES

FOR ONLY \$49⁹⁵—Less Than \$1⁰⁰ A Selection

FREE FOR 10 DAYS!



Almost 3 hours of Waltzes, Marches, Screen Music, "Memory Music" and more. Available for the first time on 3 Compact Discs.

A COMPLETE COMPACT DISC LIBRARY OF MUSIC FOR EVERY MOOD, EVERY MOMENT, EVERY INTEREST!

Here, in one COMPLETE TREASURY is a remarkable collection of the World's Most Wanted Music—performed by the renowned Boston Pops, under the incomparable baton of Maestro Arthur Fiedler whose programming genius helped create the legend that is the Boston Pops.

Imagine, MORE THAN 50 of the World's Most Famous selections—many captured for the very first time on Compact Discs. You'll thrill to the Boston Pops' rendition of **STARS and STRIPES FOREVER**—by John Philip Sousa. Enjoy the unique "Pops" rendition of **By The Time I Get To Phoenix**, **September Song**, and **The Look Of Love**.

POPULAR MUSIC OF OUR TIMES — AND LIGHT CLASSICAL THEMES THAT SHOULD BE AVAILABLE IN EVERY HOME! THREE COMPACT DISCS — ALL DIGITALLY REMASTERED

Some of the most beautiful melodies ever written are included—**The Theme from "Romeo and Juliet,"** **Waltz of the Flowers from "The Nutcracker"** and **The Blue Danube Waltz**. And, that's just the beginning. Please see the partial list of contents below!

PARTIAL LIST OF CONTENTS . . . THE BOSTON POPS TREASURY OF MUSICAL FAVORITES . . . ARTHUR FIEDLER CONDUCTING

Stars and Stripes Forever
Stardust
Seventy-Six Trombones
September Song
Sabre Dance
Days of Wine and Roses
Festive Overture
When You Wish Upon A Star
Theme from "Love Story"

Those Were The Days
Forgotten Dreams
The Blue Danube Waltz
Medley From: "The Man of La Mancha"
Raindrops Keep Fallin' On My Head
Medley From: "Fiddler On the Roof"

Theme from "Midnight Cowboy"
An Outdoor Overture
The Look of Love
Do You Know The Way To San Jose?
You Will Be My Music
Waltz of the Flowers from "The Nutcracker"

By The Time I Get To Phoenix
It Might As Well Be Spring
Hava Nagila
Rainy Days and Mondays
Promises, Promises
Springtime Overture
Night and Day
Claire De Lune
Gentle On My Mind

AUDITION THE TREASURY FREE FOR 10 DAYS . . . KEEP THE "CD" STORAGE RACK AS OUR GIFT

Enjoy all 50 selections over and over again on your own equipment. If then, you don't agree that this is indeed one of the most remarkable musical collections ever—just return the complete Treasury for our "no quibble" refund but keep the Compact Disc storage rack—**FREE!** The return option is yours, so there is NO risk!

ORDER TODAY BY PHONE OR MAIL AN EXCLUSIVE COLLECTION AT A REMARKABLE PRICE — ONLY FROM THE COMPACT DISC MUSIC GUILD

This exclusive set is **NOT AVAILABLE IN STORES ANYWHERE**. It has been prepared by the Guild especially for this offer and to make the services and advantages of the Guild (which presents Compact Discs of special interest only) known to serious collectors.

We invite you to join us—there is **NO CONTINUING OBLIGATION**.

To take advantage of this offering, please fill in and mail the attached coupon at once—or for fastest service, telephone **TOLL FREE** to the Guild at **1-800-255-3472** (in Connecticut call **(203) 452-0203**).

FREE DISCBOX Compact Storage System



- Wall or shelf mounting
- Holds 10 CD's
- Interlocking modular design

Yours just for listening to the **BOSTON POPS' TREASURY** for 10 DAYS!

THE COMPACT DISC MUSIC GUILD SR-287
41 Monroe Pkce, Trumbull, CT 06611-1315

YES, send me the COMPLETE BOSTON POPS TREASURY OF MUSICAL FAVORITES for my 10 day **FREE AUDITION** at the special Guild price of **\$49.95** (plus \$4.00 shipping, handling and insurance, total \$53.95*). Be sure to include my **FREE DISC STORAGE CASE**. I understand that if I am not absolutely delighted in every way, I can return the Treasury for a full refund. In any case, the **STORAGE CASE IS MINE TO KEEP**.

Name _____

Address _____

City _____ State _____ Zip _____

Telephone number (_____) _____

Check enclosed

CHARGE MY CREDIT CARD

Visa MasterCard American Express Discover

Card Number _____ Exp. Date _____

*Connecticut residents please add 7½% sales tax.

generated by conductor Lorin Maazel, always an authoritatively knowledgeable musician, who upon this occasion shows none of the dispassion that sometimes characterizes his conducting. Here his involvement elicits telling intensity. It is difficult to imagine a greater communication of the terror of the storm in Act I, the warmth of the tribute to Desdemona in Act II, or the anguish of the climax of Act III. The tension with which Act II closes on Otello's oath of justice and Iago's cynical abetting of it is almost unbearable.

Plácido Domingo, who sang the Moor for RCA in the late Seventies, again offers an impressive interpretation. His performance here is moving mostly by virtue of the intelligence and dramatic cogency he brings to it, for as fine a singer as he is (and I feel he is without peer in his chosen repertoire), his voice seems light for Otello, lacking the clarion thrust necessary, for example, to the protagonist's first line. If in dramatic outbursts his voice loses some musicality, he is very much at home in sustained *forte* passages. His *mezzo voce* and *piano* singing are beautifully molded.

Justino Diaz's Iago marks the first time, I believe, that this singer has recorded a true baritone role—a "Verdi baritone" at that! Hitherto a specialist in the bass repertoire, he sings well here, undaunted by the high tessitura of

much of the part. I feel that his "Credo" lacks evil and that "Cassio's Dream" is short on insinuation—in both arias, these qualities are questions of inflection—but his warm, robust voice and thoughtful musicianship make it a praiseworthy performance overall.

Katia Ricciarelli has been criticized of late for undertaking roles damaging to her voice; the Elisabetta of *Don Carlos* and Aida are, indeed, not for her light *spinto* soprano. In more recent recordings, however, she has sung with unforced tone and agility, as in her performances in Rossini's *La donna del lago* for CBS and *Il viaggio a Reims* for Deutsche Grammophon. Desdemona lies very well for her, and she sings with sincerity befitting the character. The Act I duet with Otello and the Act IV solo scene, in which her music is very exposed, are touchingly effective. John Macurdy is an impressive Lodovico, and the remaining members of the cast are just fine.

The La Scala chorus and orchestra perform with accuracy and feeling for the musical complexities of the score, and Maazel's sharply contrasting dynamics lend additional impulse to their intensely dedicated singing and playing. The recording itself is both clear and crisp, and it offers the opera on two discs or tapes instead of the customary three. Recommended. R.A.

VIVALDI: *Gloria in D Major (RV 589); Gloria in D Major (RV 588)*. Cecilia Gasdia (soprano); Margarita Zimmermann (mezzo-soprano); Ambrosian Singers; I Solisti Veneti, Claudio Scimone cond. ERATO/RCA • NUM 75260 \$10.98, © MCE 75260 \$10.98, © ECD 88179 no list price.

Performance: *Splendid*
Recording: *Splendid*

The first *Gloria in D Major* here, RV 589, is the well-known one; the other, RV 588, will be new to most Vivaldi fans. And while RV 589 is of more immediate appeal, with its stunning opening, brilliant writing, and rich harmonies, RV 588 is an equally splendid work and well worth looking into. Characteristically, Claudio Scimone's performances are thoroughly modern in approach, with good clean playing, propelling rhythms, and a sense of climax and drama. One of the joys of this album is the singing of Cecilia Gasdia and Margarita Zimmermann. Their duets in both works are especially fine, with Gasdia's bright soprano pitted against Zimmermann's lusty chest tones. The recorded sound is first-rate throughout. S.L.

WOLPE: *Form IV: Broken Sequences; Pastorale; Passacaglia* (see Best of the Month, page 170)

Discwasher® takes the tackies off your tape path.

For home and car.



Discwasher tape care products do away with tacky contaminants for the purest sound possible.

The Discwasher® Perfect Path™ Cassette Head Cleaner removes oxides and residues from all tape heads and the entire tape path. This unique dry cleaning system is gently effective and totally non-abrasive.

Discwasher® C.P.R.™ cleans capstans and pinch rollers to prevent

tape jamming. And Discwasher® D'Mag™ eliminates magnetism problems that could erase portions of your tapes.

Discwasher, with a complete tape care system, is the technological leader in keeping your tapes and equipment in top form. Discwasher, 4309 Transworld Road, Schiller Park, IL 60176.

Find out what we can do for your record, compact disc and video equipment, too!

discwasher®
For good, clean fun.

© 1986 Discwasher
A Division of International Jensen Inc.



CIRCLE NO. 40 ON READER SERVICE CARD

ZAPCO auto sound



a world apart

IN POWER • IN CONTROL • IN ACCURACY

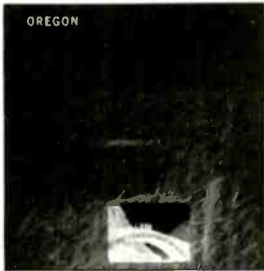
Amplifiers providing 75-200 watts per channel • graphic/parametric equalization from 4-9 bands • Fully adjustable electronic crossover • Total harmonic distortion less than .005% • Signal to noise ratio greater than 102dB • Discover a new world in auto stereo power and fidelity.

See your ZAPCO dealer or call toll free 1-800-25-P-O-W-E-R.

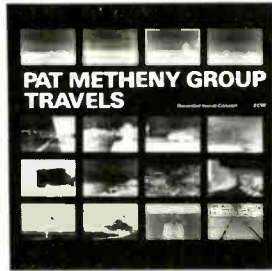
**ZAPCO**
Zeff Advanced Products Company

ECM

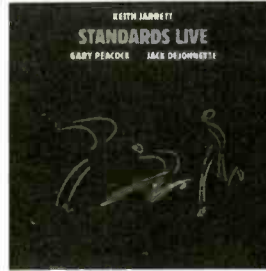
Now on Compact Disc



Oregon
CROSSING
825 323-2



Pat Metheny Group
TRAVELS
810 622-2



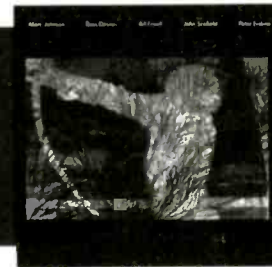
KEITH JARRETT
STANDARDS LIVE
GARY PEACOCK JACK DEJOHNETTE
827 827-2



John Abercrombie
CURRENT EVENTS
827 770-2



Keith Jarrett
STANDARDS VOL. 1
811 966-2



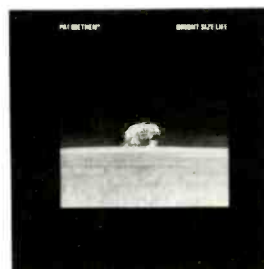
Marc Johnson
BASS DESIRES
827 743-2



Pat Metheny
NEW CHAUTAUQUE
825 471-2



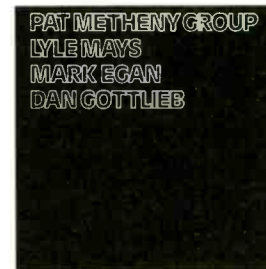
Keith Jarrett
STANDARDS VOL. 2
825 015-2



Pat Metheny
BRIGHT SIZE LIFE
827 133-2



Keith Jarrett/
Jan Garbarek
BELONGING
829 115-2



PAT METHENY GROUP
**LYLE MAYS
MARK EGAN
DAN GOTTLIEB**
825 593-2



Dino Saluzzi
**ONCE UPON A TIME-
FAR AWAY IN THE SOUTH**
827 768-2



Ralph Towner/
Gary Burton
SLIDE SHOW
827 257-2



Pat Metheny
REJOICING
817 795-2

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

BOSTON: *Third Stage.* Boston (vocals and instrumentals). *Amanda; We're Ready; The Launch; Cool the Engines; My Destination; A New World;* and five others. MCA MCA-6188 \$7.98, © MCAC-6188 \$7.98.

Performance: *Awe-inspiring*
 Recording: *Good*

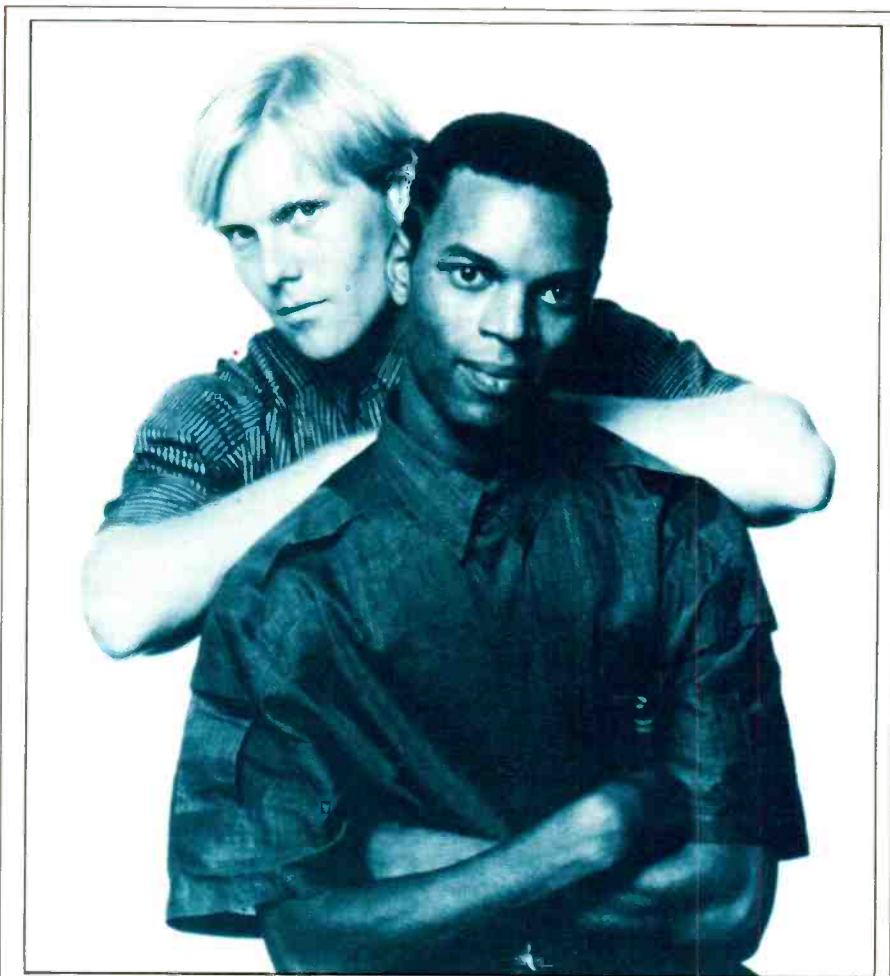
Even though it took six years to record, "Third Stage" seems stuck in time—1977, to be exact, the height of the mega-Platinum AOR era. If studio prodigy Tom Scholz hasn't budged, there are a lot of Boston fans who are glad of it. As carefully paced as a concert set, "Third Stage" builds an enormous monument of sound, beat by beat, chord by chord, starting with the acoustic-guitar intro to the ballad *Amanda*, cranking up the decibels a little with *We're Ready*, and unleashing the full force of Scholz's wizardry in *The Launch*.

Ever true to his instrument, Scholz uses no synthesizers. Instead, he creates thunderstorms, rocket blasts, and an entire choir of violins on his Les Paul Goldtop, which is run through an amplifier of his own invention called a Rockman. (Scholz's technical notes on the album jacket, on "How to make a record in just six years," are both illuminating and funny.) Granted, Scholz's lyrics are wide-eyed and naïve in the extreme. But you don't listen to Boston to be challenged intellectually (or at least I hope you don't). You listen to be swept up in the sonic tidal wave. *M.P.*

COMMUNARDS. Jimmy Somerville (vocals); Richard Coles (piano, synthesizer, drum machine); vocal and instrumental accompaniment. *Don't Leave Me This Way; La Dolarosa; Disenchanted; Reprise; So Cold the Night; You Are My World;* and four others. MCA MCA-5794 \$7.98.

Performance: *At extremes*
 Recording: *Good*

Communards Jimmy Somerville (formerly a founding member of Bronski



Lead singer-musicians Dave Wakeling (behind) and Ranking Roger

GENERAL PUBLIC

WITH ex-members of the English Beat, the Specials, and Dexy's Midnight Runners. General Public was the first Two-Tone "supergroup." And, as in most supergroups, its constituent stars had a difficult time translating their individual reputations into a cohesive album. General Public's 1984 debut, "All the Rage," was a notable disappointment—predictable arrangements and polemical, unconvincing lyrics. The group's new album, "Hand to Mouth," is another story altogether. It's smart, snappy, and often side-splittingly funny.

Come Again, for instance, is ostensibly about the Second Coming, although there are enough double entendres to make you wonder. *Faults and All* establishes a new standard for tolerance, eclipsing Billy Joel's *Just the Way You Are* with such lyrics as, "I love your faults, they make you you." *Cheque in the Post* may lose a little in translation, but anyone who grew up in the Fifties

will get the allusion that opens *Forward as One*: "Duck and cover in the Tower of Babel."

If "Hand to Mouth" doesn't hit you over the head with its social themes, the arrangements don't try to blow you away either. Instead, the group works in a steady, rocking groove, with saxophone, guitar, percussion, and backing vocals shuffling in and out and dancing around the off beat. Together with UB40's "Rat in the Kitchen," "Hand to Mouth" indicates that British reggae may be poised for a comeback after a couple of lean years. *Mark Peel*

GENERAL PUBLIC: *Hand to Mouth.* General Public (vocals and instrumentals) *Come Again; Faults and All; Forward as One; Murder; Cheque in the Post; Too Much or Nothing; Love Without the Fun; In Conversation; Never All There; Cry on Your Own Shoulder.* I.R.S./MCA IRS-5782 \$8.98, © IRSC-5782 \$8.98, © IRSD-5782 no list price.

EXPLANATION OF SYMBOLS:

- = DIGITAL-MASTER ANALOG L.P.
- Ⓢ = STEREO CASSETTE
- Ⓢ = DIGITAL COMPACT DISC
- Ⓢ = MONOPHONIC RECORDING



AUTHORIZED DEALER LIST

CANADA Call Mission
Electronics in Toronto for
nearest dealer 1-416-673-3777

ALABAMA Huntsville: Sound
Stage

ALASKA Anchorage: Magnum
Electronics

ARKANSAS Fayetteville: The
Stereo Buff

CALIFORNIA Berkeley: Honkers
Sound Co. • Campbell: Sound
Goods • Encinitas: Norm
County Stereo • Fair Oaks:
Pinkerton Audio • Foster City:
Digital Sonics Inc. • Goleta:
House of Audio • Hollywood:
Amtron • Irvine: Soundquest •
La Hoya: Stereo Vision • Los
Angeles: Supervision • Mission
Viejo: Videolaser •
Mountainview: Sound Goods •
Redondo Beach: Systems
Design Group • San Diego:
Stereo Design • San Francisco:
Maybrun's • Santa Monica: Safe
& Sound • Santa Rosa: Golden
Ear HiFi Video • Sherman Oaks:
Systems Design Group •
Torrance: Dimensions in Stereo
• Visalia: Visalia Sight & Sound
• Westminster: Audio Today

COLORADO Boulder: Recycled
Audio • Colorado Springs: The
Sound Shop • Denver:
Soundings, U.S. Tech • Grand
Junction: The Sound Company •
Longmont: Odin Sound

CONNECTICUT Danbury:
Carlson Stereo • Manchester:
Sound Advice • New Haven:
Take 5 Audio

DELAWARE Wilmington: HiFi
House

DISTRICT OF COLUMBIA
Washington: Audio Krafters

FLORIDA Boca Raton: Captain
Video • Ft. Lauderdale, Miami:
Captain Video • Jacksonville:
Hoyt HiFidelity Center • Lake
Park, Lake Worth: Audio
Advisors • Lauderdale, Miami:
Captain Video • N. Miami:
Burton's Camera • St.
Augustine: Audio Design •
Stuart: Fox Audio • Tallahassee:
The Stereo Store

HAWAII Honolulu: The Stereo
Station

IDAHO Boise: The Stereo
Shoppes • Ketchum: Infinite
Audio & Video • Pocatello:
Sound Waves • Twin Falls: The
Sound Company

ILLINOIS Algonquin: Team
Electronics • Bloomington:
Audio Visions Inc. • Champaign:
Glenn Poor's Audio Video •
Charleston: Uptown Audio •
Chicago: United Audio, Victor's
Stereo • Deerfield: United Audio
• Kankakee: Barrett
Entertainment Ctr. • Morton
Grove, Niles: United Audio •
Normal: Glenn Poor's Audio
Video • Rockford: Absolute
Audio • Schaumburg: United
Audio • Springfield: The King's
Stereo • Vernon Hills: United
Audio • Watseka: Hear/Here

INDIANA Indianapolis: Audio
Workshop

IOWA Burlington: Vintage Audio
• Coralville: Spencer Sound
Systems • Fairfield: Golden
Ears • Iowa City: Spencer
Sound Systems

KANSAS Emporia: Audio Video
Connection • Lawrence:
University Audio • Manhattan:
Rolling Thunder Ltd. • Overland
Park: Brands Mart • Topeka:
Nelson's

MAINE Falmouth: Hi-Fi
Exchange

MARYLAND Baltimore:
Discerning Ear • College Park,
Rockville: Audio Krafters

MASSACHUSETTS Amherst,
Greenfield, Northampton:
Adirondack Music • Boston
Braitree, Hanover, Hyannis
Peabody, Saugus: Nantucket
Sound • Waltham: Waltham
Camera Inc.

MICHIGAN Ann Arbor: Sound
Associates Inc. • Lansing:
Stereo Types Audio •
Adirondack Music • American TV &
Appliances • Plymouth: Digital
Entertainment

MISSOURI Ballwin, Crestwood:
Flip's Stereo • Columbia: D & M
Sound • Creve Coeur: Audio
Visions Inc. • Jefferson City:
The Stereo Buff • Kansas City:
Brands Mart • Rola: End of the
Rainbow

MONTANA Springfield: The
Stereo Buff • Billings: New
Horizon HiFi • Bozeman: Thrifty
Ear Ltd. • Missoula: The Logical
Choice • Kalispell: Electronic
Parts

NEBRASKA Lincoln: Natural
Sound

NEVADA Las Vegas: R.P. Miller

NEW HAMPSHIRE Manchester,
Rochester: Campus Hi-Fi

NEW JERSEY New Brunswick:
Hi-Fi Haven • Paramus: Stereo
Warehouse • Tom's River:
Rand's Camera & Hi-Fi • Upper
Merclair: C&A Audio Video

NEW MEXICO Santa Fe: Santa
Fe Audio

NEW YORK Albany: Mom's
Music Systems • Amhurst: The
Speaker Shop • Brooklyn:
Stereo Warehouse • Buffalo:
The Speaker Shop • Garden
City: Ratson's • Ithaca: Stellar
Stereo • Manhattan: Bryce
Appliances & Records, Rabson's
• Mt. Kisco: The Sound Concept
• New Paltz: New Paltz Audio •
Plattsburg: Alpha Stereo •
Rochester: The Sound Concept
• Syracuse: Clark Music •
Valley Stream: White Plains:
Stereo Warehouse

NORTH CAROLINA Chapel Hill:
Select Audio Systems •
Conover: Audio Haus • Denver:
Taylor House • Durham: Kerr's
Audio Visions Inc. • Greenville:
Stereo Village • Hendersonville:
Pro Sound • Jacksonville:
Onslow Audio • New Bern:
Anderson Audio II

OHIO Akron, Highland Heights:
Ohio Sound Inc. • Canton: Audio
Corners, Ohio Sound Inc. •
Lakewood: Play It Again Sam •
Lakewood: Stereo & Audio Inc. •
Sandusky: The Audio Force •
South Euclid: Atlanta Home
Entertainment Systems •
Youngstown: The Speaker Shop

OKLAHOMA Tulsa: The
Photograph

OREGON Hermiston: Quicksilver
Audio

PENNSYLVANIA Allentown,
Bryn Mawr, Feasterville,
Jenkintown, Montgomeryville,
Pottsville: Stereo & Audio Inc. •
Campbell: HiFi House • Erie:
House of Record • Harrisburg:
HiFi House • Throop: Shehadi
Sound

PUERTO RICO Rio Piedras: On
Top Audio

SOUTH CAROLINA Columbia:
Audio Alternative • Greenville:
Stereo Video Inc. • Hilton Head:
Video Plus Inc.

TENNESSEE Johnson City: The
Sound Room • Memphis: Opus
II • Sevierville: Sound Concepts

TEXAS Austin: Audio Concepts
• Dallas: Ed Kallum & Son

UTAH Ogden: HiFi Shop • St.
George: Arrow Audio • Woods
Cross: Trax Audio & Video

VIRGINIA Alexandria: Excelsior
Audio • Charlottesville: Sound
Machine • Richmond: The Audio
Exchange • Virginia Beach:
Digital Sound

WASHINGTON Friday Harbor:
Sea Acoustics • Longview:
Lines & Designs • Pullman:
Optimum Sound • Redmond:
Total Engineering Design Ltd. •
Richland: Quicksilver Audio •
Tacoma: The Stereo Shoppe

WEST VIRGINIA Charleston:
Hi-Fi Clinic • Morgantown: Video
Den

WISCONSIN Appleton, Oak
Creek, Waunakee: American TV
& Appliances • Madison:
American TV & Appliances,
Specialized Sound

Beat) and Richard Coles have such a heavy social and political agenda that it's hard to react to the duo on a strictly musical level. Taking their name from a clutch of Parisian revolutionaries in the 1870's, they brandish the banner of gay rights even as they march out onto the dance floor. But no matter how much you may agree with their program, this first album is pretty uneven.

"Communards" starts off promisingly with a bracing cover of one of the great anthems of the disco era, *Don't Leave Me This Way*, a hit for Thelma Houston in 1975. Somerville's *bel canto* falsetto luxuriates in the melodramatic possibilities of a song that represents, in effect, his musical roots. But if *Don't Leave Me* gets the album off to a rousing start, *La Dolarosa* sends it falling flat on its face just as quickly. This phony Spanish serenade is so unintentionally hilarious that you can't help but give in to the most obvious fantasies—like Somerville singing from behind a black-lace veil to a tavern full of Spanish Loyalists, a rose clenched in his teeth.

The zigzagging from spirited dance songs to bathos goes on for most of side one. Coles sets up a riveting synth beat on *Disenchanted* (with no apparent diminution of the song's message), and on its heels comes *Reprise*, with a cello part so doleful you're squirming with embarrassment two bars into the song.

"Communards" gets back on firmer footing on side two, and the steady influence is again Coles. A classically trained pianist, he moves confidently from rhapsodic accompanist to swinging soloist, anchoring a duet between Somerville and Sarah Jane Morris on the jazz standard *Lover Man* and teaming up with Crispin Cioe in a terrifically expressive sax and piano duet on *Forbidden Love*. In fact, after playing "Communards" a couple of times, I found I'd stopped listening to Somerville altogether—not an easy thing to do—and was focusing entirely on Coles's keyboards.

"Communards" isn't as good an album as you'd like it to be, but if Somerville and Coles can rein in some of the former's romantic excess and exploit more of the latter's exceptional musicianship, their next one might be. *M.P.*

ROBERT CRAY: *Strong Persuader*. Robert Cray (vocals, guitar), the Memphis Horns; other musicians. *Smoking Gun; Still Around; Foul Play; Fantasized; New Blood*; and five others. MERCURY 830 568-1 \$8.98, © 830 568-4 \$8.98.

Performance: *Excellent*
Recording: *Lacks presence*

If you have not heard of Robert Cray before, be prepared to hear a great deal of him in the future. I first became aware of his talent when I reviewed a videotape of the 1983 San Francisco Blues Festival, and I was impressed then. But he is even better on "Strong Persuader," his first album on a major

label. What a delight it is to hear a young man of thirty-three step into the shoes of B. B. King and Al Collins to continue a blues tradition that goes back to Robert Johnson and Blind Willie McTell. Of course, the style has changed with the times, but mostly only as far as the accompaniment is concerned; the vocal style Cray uses seems to be frozen in time, with strong shades of Sam Cooke and Otis Redding. The essence is totally intact. This is uncomplicated, soulful music that communicates well, and it has found a master storyteller in Robert Cray.

I wish Mercury's engineers had given Cray more presence, however, especially on *Smoking Gun*, where he seems to be singing from the back of an empty room, but I have no criticism of the performances. Cray's voice has an engaging urgency about it, and when he delivers the lyrics, he doesn't just throw them at you. As a guitarist he plays in a style that gets to the point without dazzling. His accompaniments are otherwise unobtrusive, serving more to punctuate the stories than to earn equal billing. There are ten selections on this album, and they all bear repeat listening. *C.A.*

DONNA FARGO: *Winners*. Donna Fargo (vocals); vocal and instrumental accompaniment. *Woman of the 80's; You Can't Be a Beacon (If Your Light Don't Shine); Happiest Girl in the Whole U.S.A.; Sign of the Times; Winners; Me and You*; and four others. MERCURY 830 236-1 \$8.98, © 830 236-4 \$8.98.

Performance: *Solid*
Recording: *Good*

Donna Fargo, who never quite got the credit she deserved as one of country music's more insightful songwriters, is back after an extended hiatus from recording. For her debut on Mercury, Fargo has reprised six of her most famous hits from the Seventies and added four new tunes that, in part, sharply define the woes of the current decade.

Aside from the attractive way Fargo's soprano has deepened and taken on color through the years, what stands out on "Winners" is a new maturity of delivery. *Happiest Girl in the Whole U.S.A.*, first recorded in 1972, now sounds more like the ruminations of a woman settled into a secure marriage than the ramblings of a newlywed. There are some affecting new personal songs, too, especially *Me and You*, an account of the singer's relationship with her husband in light of her bout with multiple sclerosis and her decline from the top of the commercial heap. All in all, a solid effort and an oddly affecting collection from one of the true survivors in the business. *A.N.*

MICHELLE GOULET. Michelle Goulet (vocals); vocal and instrumental accompaniment. *Stop & Think; I'm in Love; It's Gonna Take a Miracle; Natural Woman; So Satisfied; All the Other*

Boys; and two others. ISLAND 90526-1 \$8.98, © 90526-4 \$8.98.

Performance: *High-octane*
Recording: *Very good*

Michelle Goulet, it says here, first gained national attention playing guitar in Aretha Franklin's *Freeway of Love* video. That may be so, but Michelle Goulet has other talents. A hot-blooded rocker with a five-octave range, she emerges on her first album as a powerhouse vocalist who can do just about whatever she wants. There are a couple of minor drawbacks to her approach. The late Minnie Riperton was obviously a big influence, but Goulet uses her extraordinary range to mimic Riperton rather than to use what Riperton taught her. And although Goulet is a long-haired blond from Detroit, she lapses into an affected black sound occasionally, especially on Aretha's old *Natural Woman*, where Goulet also hits a note that sounds less human than supernatural—something akin to the mating call of an alien creature.

There is a sameness to this album, an all-stops-out, high-energy, dance-'til-you-drop attitude—but Goulet delivers some sinewy stuff, and her reading of *It's Gonna Take a Miracle* hints at a depth she isn't allowed to explore in most of the other material. Keep an eye on this girl: Goulet is obviously on her

way. Meanwhile, place this record near the top of your stack. It's guaranteed to start your engine on a cold night. *A.N.*

BILLY IDOL: *Whiplash Smile*. Billy Idol (vocals, guitar, bass); Steve Stevens (guitars, bass, keyboards and programming). *Worlds Forgotten Boy; To Be a Lover; Soul Standing By; Sweet Sixteen; Man for All Seasons; Don't Need a Gun;* and four others. CHRYSALIS OV 41541, © OVT 41541, © VK 41541, no list price.

Performance: *Self-pitying*
Recording: *Good*

Billy Idol's "Rebel Yell" was such an overwhelming demonstration of blood-and-guts power rock that it made you forget what a basically creepy guy he is. It's ironic, then, that "Whiplash Smile"—song for song a much tamer and, if this can ever be said of Idol, more introspective album—reminds you once again how chilling the character you're listening to is.

"Whiplash Smile" is about failed love, and it makes the mistake of trying to engage you emotionally instead of viscerally. The songs evoke the Fifties rock-and-roll of Roy Orbison, Johnny Ray, and Elvis Presley through dozens of lyric references ("sweet sixteen," "little runaway") and through Idol's strangely slurred, low-key delivery,

which suggests Elvis at his drugged, self-pitying worst. My reaction is to want to say, "Look, Idol, stop whimpering and take it like a man. If you run around in black leather and chain mail with crosses dangling from your ears, you're bound to have girl troubles."

Amazingly, guitarist Steve Stevens almost rescues this album singlehandedly with another bravura display of electro-vauch technique. Stevens works non-stop, providing headlong, syncopated accompaniment, lurching into vicious arpeggiated attacks, pulling up into incredibly nimble dances up the neck of his instrument, then diving back into incendiary, unapologetic power chording. His guitar takes command while Idol seems to fade out of earshot, as if he were falling backward into the drum kit. Stevens is so good that I'll probably keep playing what is otherwise a much-less-than-hoped-for performance. *M.P.*

AL JARREAU: *L Is for Lover* (see *Best of the Month*, page 170)

GEORGE JONES: *Wine Colored Roses*. George Jones (vocals); vocal and instrumental accompaniment. *Wine Colored Roses; The Right Left Hand; Don't Leave Without Taking Your Silver; The Very Best of Me; You Never Looked That Good When You Were Mine; These Old Eyes Have Seen It All;*

KRAV-FM cleans its valuable library of compact discs with Discwasher®. They must know something.



Charlie Derek, Station KRAV-FM.

With one of the largest compact disc collections in the country, Radio Station KRAV knows it has to clean CDs because it can't afford playback tracking problems. And a dirty compact disc will distort the sound by blocking or scattering the CD player's laser beam.

Station KRAV also knows that the new Discwasher Compact Disc Cleaner provides *true radial cleaning*—the only right way to clean a CD according to manufacturers. You'd expect a superior product from Discwasher, the leader in audio care.

To keep the near perfect sound of your CDs, take your cue from the experts: clean them with the Discwasher Compact Disc Cleaner. Get Discwasher's Guide to Compact Disc Care from your dealer or by writing to Discwasher.



New discwasher® Compact Disc Cleaner

The only right way to clean a compact disc.

© 1985 Discwasher
A DIVISION OF INTERNATIONAL JENSEN INC.

4309 Transworld Road, Schiller Park, IL 60176

and four others. EPIC FE 40413, © FET 40413, © EK 40413, no list price.

Performance: *Vintage Jones*
Recording: *Good*

In some ways, it's hard to listen to a George Jones album without smiling all the way through. First, there is the comedy inherent in the material—from the corny sort in *Wine Colored Roses*, where Jones sends Chianti-colored flowers to his old lady friend to let her know he's still drinking, to the broad, hugely amusing *The Very Best of Me*, where he divvies up his anatomical parts upon his demise ("Send my backside to my ex-wife/Tell her, 'Seal it with a kiss'"). After that, you have to marvel at the way Jones, a peerless interpreter of psychological pain, delivers his material. And, finally, you have to shake your head at the way this guy manages to squeeze so much publicity out of his real-life misfortunes, milking his series of separations, divorces, and drinking bouts with no apparent shame. In the end, there is nothing to do but sit back and enjoy it.

More than any other George Jones album in recent memory, "Wine Colored Roses" is chock-full of terrific songs, particularly *The Right Left Hand*, *Don't Leave Without Taking Your Silver*, *Ol' Frank*, and *You Never Looked That Good When You Were*

Mine, the last of which pairs Jones with another old pro, the long-neglected Patti Page. From start to finish, this one's a winner. If you've never understood the fuss about the man they call Ol' Possum, "Wine Colored Roses" should set you straight. Chances are, you'll be grinning when it's through. *A.N.*

KATHY MATTEA: *Walk the Way the Wind Blows*. Kathy Mattea (vocals); vocal and instrumental accompaniment. *Train of Memories; Reason to Live; Evenin'; Leaving West Virginia; Love at the Five & Dime; Song for the Life*; and four others. MERCURY 830 405-1 \$8.98, © 830 405-4 \$8.98.

Performance: *Perfection*
Recording: *Ditto*

If every country album were as tasteful and well executed as "Walk the Way the Wind Blows," Kathy Mattea's third effort, the reviewer's life would be a happy one indeed. Producer Allen Reynolds, the man behind Crystal Gayle's early success, scores a perfect 100 on the three basic ingredients necessary for a sterling album, starting with a remarkable singer.

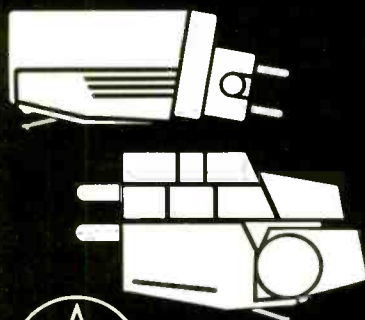
Mattea, whose full-throated, trained sound is reminiscent of Anne Murray, has the ability to reach off the record and grab the listener where it counts, as well as a natural feel for nuance and

emotional reading. To show that off to best advantage, Reynolds has chosen ten well-paced, varied, and *intelligent* songs, including Nanci Griffith's *Love at the Five & Dime* (where Mattea benefits from Don Williams's unexpected presence), Rodney Crowell's underrated *Song for Life*, Mattea's own *Leaving West Virginia*, and *Reason to Live* by the team of Johnny Pierce, Joanne Christy, and Geoff Levin. The last song is made even more compelling by Vince Gill's soulful harmony vocal. To top it off, Reynolds has iced the cake with Nashville's finest and most innovative young pickers, including Ray Flacke on electric guitar, Mark O'Connor on fiddle, Bela Fleck and Pat Flynn of New Grass Revival on banjo and acoustic guitar, and Jerry Douglas on dobro. All of them echo Mattea's forthright, sparkling energy.

There is something genuinely uplifting and, at times, something magical about Mattea's performance on "Walk the Way the Wind Blows." This is what all country-music albums should be like—a celebration of the truth and beauty inherent in everyday living. An honorable and touching record. *A.N.*

WILLIE NELSON: *Partners*. Willie Nelson (vocals, guitar); vocal and instrumental accompaniment. *Partners After All; When I Dream; Heart of Gold;*

The last word in phono cartridges



audio-technica®

Want more product information?

Whenever a product advertised in *Stereo Review* sounds interesting, turn up the volume!

Use our FREE INFORMATION SERVICE to get the detailed facts and figures you need to make sound purchasing decisions.

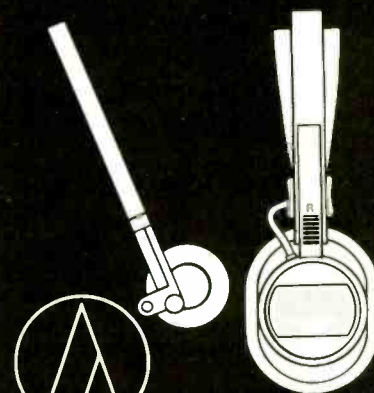
Manufacturers are only too glad to send you their literature . . . free and without obligation.

Just make a note of the Reader Service Number at the bottom of an ad, and circle that number on one of the FREE INFORMATION SERVICE cards facing page 201. Fill in your name and address and drop the card in the mail. No postage necessary.

THE NEXT TIME AN AD TURNS YOU ON, TURN TO A

FREE INFORMATION CARD!

The last word in stereo-phones



audio-technica®

Sonic Impressions.

Do you like to listen to great-sounding music... or to state-of-the-art sine waves?

At Cooustic, after ten years' experience in car audio design and manufacturing, we don't use technology for technology's sake. We use it only when it benefits you... only when it makes what you listen to sound better.

That's the philosophy behind our new 500 series of cassette/receivers.

This series is designed specifically for the discriminating car audio buyer who demands quality products that are also functional and reliable. Some of the visible user-friendly features of various 500 series models are Dolby B & C, Tape Program Search, AM-FM station presets for instant electronic frequency selection, and a

digital clock display. The control for each of these functions is easily accessible in a handsome illuminated control panel.

The not-so-visible, but still highly desirable features of the 500 series radios are auto-azimuth correction tape transport with servo motor, high power (50 watts), auxiliary inputs to accept a portable CD player, and pre-amp outputs for the easy addition of a power amplifier or equalizer component.

All of this means the Cooustic 500 series radios allow you to create the ultimate car audio system at any time you choose. After all, isn't it great music you're interested in?

Cooustic... a sound investment.



cooustic

4260 Charter Street
Vernon, CA 90058-2596
213/582-2832



Available at these fine dealers:

San Diego, CA
Mad Jack's
619-582-1985

Boise, ID
Mobile Music
208-336-5515

Antioch, CA
Pantell's Music Box
415-757-6618

Ft. Myers, FL
Stereo World
813-939-2353

Madison, WI
Auto Marketing
608-274-7400

Yuma, AZ
Warehouse Stereo
602-726-4316

The Federated Group
California
Arizona Texas

Puerto Rico
Consumer Electronic Distributors
809-743-3132

Vancouver, B.C.
Aralex Acoustics Inc.
604-879-2966

Something in the Way She Moves; My Own Peculiar Way; Remember Me; and four others. COLUMBIA FC 39894, © FCT 39894, no list price.

Performance: *Flexing his muscle*
Recording: *Very good*

Willie Nelson records seem to come along so often that a reviewer turns to them with something just short of dread, terrified that Nelson will finally come down to singing duets with the local mayor or the neighborhood grocer. "Partners," however, is a reminder of why the world fell in love with Nelson

to begin with. Who else could follow a sturdy, fresh-sounding version of Neil Young's *Heart of Gold* with that aging chestnut *Kathleen* and make them equally moving?

In some ways, this album is Nelson's answer to Johnny Cash's exquisite "Rainbow" of 1985. Both albums are filled with songs and performances that resonate with truth and integrity. Two of the songs, *Partners After All* and *So Much Like My Dad*, both written by producer Chips Moman and keyboardist Bobby Emmons, shoot straight to the soul with searing emotional vulnerabili-

ty. The former is about the need for reassurance in even the strongest relationships, the latter a son's heartbreaking appeal to his mother for advice when his wife has threatened to leave.

Nelson may sometimes record his albums in a matter of hours, or appear in film vehicles that sell him short, but when it comes down to showing exactly what he's about, it is hard to find anyone who plies his craft as well. "Partners" is a gem of a Nelson sampler, cut to perfection by Moman and his usual cast of players. *A.N.*

RIC OCASEK: *This Side of Paradise.* Ric Ocasek (vocals, guitar, keyboards); vocal and instrumental accompaniment. *Keep On Laughin'; True to You; Emotion in Motion; Look in Your Eyes; Coming for You;* and five others. GEF-FEN GHS 24098 \$8.98, © M5G 24098 \$8.98, © 24098-2 no list price.

Performance: *Good*
Recording: *Excellent*

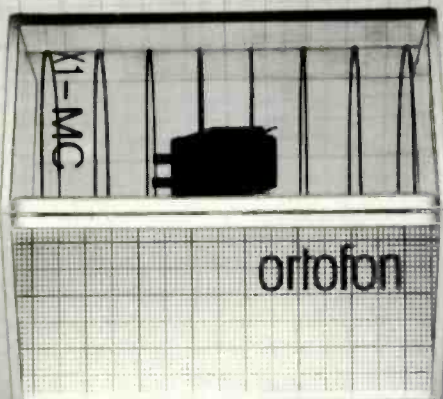
I don't think Ric Ocasek is capable of making a record that sounds less than great, and "This Side of Paradise" is no exception. It brims with exotic electronics, simmering rhythms, percolating counterpoint, and eerie, otherworldly tunes. Yet for such a keenly focused performance and recording, the album has no discernible point of view. Ocasek is talking to hear himself talk, and the result is a patchwork of generic love songs, all either obvious or nonsensical. Typical is *Keep On Laughin'*, which concludes, "It's up to you to turn this night, 'cause everybody needs some love to feel alright." On *True to You*, Ocasek can't decide whether he wants to be ironic ("What a thrill it is to see you, but I forgot your name") or sincere ("I carry you in my heart, but sometimes the memory smarts/I'm true to you"). It's as though he just decided to record whatever popped into his head. With its hundreds of glimmering sonic details, "This Side of Paradise" is continually fascinating from an instrumental point of view—and just as frustrating from a lyrical one. *M.P.*

MARK O'CONNOR: *Meanings Of.* Mark O'Connor (violin, viola, guitars, mandolins, mandola, mandocello, bass, hammered dulcimer, synthesizers, piano, percussion); instrumental accompaniment. *Opus 21, A Bowl of Bula (Then Twice Clap the Hands); Opus 26, Irish Maiden; Opus 25, The Emperor's Komposit; Opus 24 (Guitar Medley). Amazing Grace/OMAC Blues/Will the Circle Be Unbroken/Taps; Opus 22, My Celebration;* and four others. WARNER BROS. 25353-1 \$8.98, © 25353-4 \$8.98.

Performance: *Extraordinary*
Recording: *Excellent*

Last year, when instrumental virtuoso Mark O'Connor decided to record a solo album, he opted to sign with Warner Bros. instead of MCA. As a result, O'Connor's brilliant and emotionally invigorating offerings of New Age mu-

BETTER SOUND GUARANTEED* ...



OR GET YOUR MONEY BACK!



From Ortofon of Denmark, the X1MC and X3MC are a new generation of moving coil cartridges designed to match perfectly any standard phono input, without the need for an expensive step-up device.

These two products incorporate such advanced technology and provide such clarity, depth and musical detail that to adequately describe them here is impossible.

So instead, we want to describe the only feature of these two great phono cartridges that you really care about, **THEY SOUND BETTER!** We're so confident that either of these new cartridges will make your records sound better than the one you're listening to now, we guarantee* it!

Purchase either cartridge from a participating authorized Ortofon Dealer. They're affordably priced. Compare the sound from your records. Even compare it to compact discs. If you're not 100% convinced that a new Ortofon X-Series High Output Moving Coil Cartridge sounds better than your old phono cartridge, return it to your dealer for a prompt refund!

*Your participating authorized Ortofon Dealer has all the details on this Better Sound Guarantee. Offer expires 3/31/87.

122 Dupont Street, Plainview, New York 11803

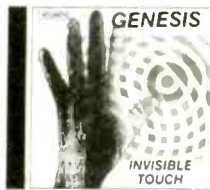
CIRCLE NO. 16 ON READER SERVICE CARD

DISCOVER THE CBS COMPACT DISC CLUB

ANY 3 COMPACT DISCS FOR \$1.00 WITH MEMBERSHIP



344721



346023



347955



345785



347153



348324



346478

CHOOSE STATE-OF-THE-ART SOUND
IN THE LATEST CD RELEASES.



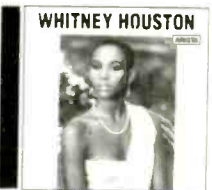
WINNER IN YOU

344705



J Mood

348706

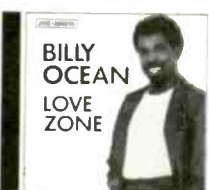


334391



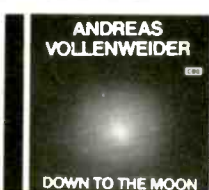
5150

343582



BILLY OCEAN
LOVE ZONE

344812



ANDREAS VOLLENWEIDER

DOWN TO THE MOON

346643



BACK IN THE HIGH LIFE

346957



LINDA RONSTADT

'ROUND MIDNIGHT
WITH NELSON RIDDLE
AND HIS ORCHESTRA

348987/398982

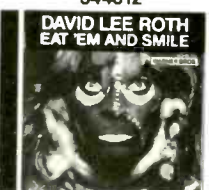


345751



PETER GABRIEL
So

345777



DAVID LEE ROTH
EAT 'EM AND SMILE

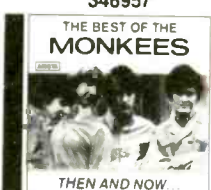
347054



Barbra Streisand

The Broadway
Album

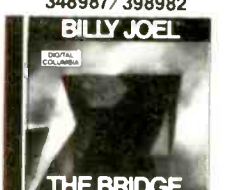
342097



THE BEST OF THE
MONKEES

THEN AND NOW...

349530



BILLY JOEL

THE BRIDGE

346312

343327 Wynton Marsalis—Jolivet/Tomas: Trumpet Concertos. Philharmonia Orchestra. (Digital—CBS Masterworks)
343251. Bach: Goldberg Variations—Glenn Gould. (Digital—CBS Masterworks)
316604. Tchaikovsky: 1812 Overture; Marche Slave; Beethoven: Wellington's Victory. Lorin Maazel, Vienna Phil. (Digital—CBS Masterworks)

348458. Dvorák: Concerto In B Minor For Cello And Orchestra, Op. 104. Yo-Yo Ma, Cello. Lorin Maazel, cond., Berlin Phil. (Digital—CBS Masterworks)
349373. Beethoven: Symphony No. 9 "Choral." The Juilliard Chorus, New York Philharmonic. (CBS Masterworks)
339200. Stevie Wonder—In Square Circle. #1 album. (Tamla)

340323. Sade—Promise. #1 Smash. (Paritair)
339226. Gershwin: Rhapsody In Blue; Second Rhapsody; etc.—M. Tilsan Thomas, Las Angeles Phil. (Digital—CBS Masterworks)
308049. Creedence Clearwater Revival featuring John Fogerty/Chronicle. Greatest hits. (Fantasy)
333286. Phil Collins—No Jacket Required. (Atlantic)

343095. Philip Glass—Songs From Liquid Days. (CBS)
326629. Bruce Springsteen—Born In The U.S.A. (Columbia)
348649. The Pachelbel Canon And Other Digital Delights. The Toronto Chamber Orchestra. (Digital—Fantasy)
347492. Glenn Miller Orchestra—In The Digital Mood. (Digital—GRP)

246868. Jim Croce—Photographs And Memories—His Greatest Hits. (Saja)
314443. Neil Diamond's 12 Greatest Hits, Vol. 2. (Columbia)
219477. Simon & Garfunkel's Greatest Hits. (Columbia)
263293. Bolling: Suite For Flute & Jazz Piano—Rampal, Bolling. (CBS Masterworks)

336222. Dire Straits—Brothers In Arms. (Warner Bros.)
345553. Branford Marsalis—Romances for Saxophone. (Digital—CBS Masterworks)
341305. Robert Palmer—Riptide. (Island)

COMPACT
disc
DIGITAL AUDIO

The age of CD sound is here—and you have a practical way to find the CDs you want. As your introduction to the CBS Compact Disc Club, you can choose any 3 CDs listed in this ad for just \$1.00. Fill in and mail the application—we'll send you CDs and bill you for \$1. You simply agree to buy 2 more CDs (at regular Club prices) in the next year—and you may then cancel your membership anytime after doing so.

How the Club works. About every four weeks (13 times a year) you'll receive the Club's music magazine, which describes the Selection of the Month for your musical interest...plus many exciting alternates. In addition, up to six times a year, you may receive offers of Special Selections, usually at a discount off regular Club prices, for a total of up to 19 buying opportunities.

If you wish to receive the Selection of the Month, you need do nothing—it will be shipped automatically. If you prefer an alternate selection, or none at all, fill in the response card always provided and mail it by the date specified. You will always have at least 10 days in which to make your

Selections with two numbers contain 2 CDs and count as 2—so write in both numbers.

CBS COMPACT DISC CLUB: Terre Haute, IN 47811

decision. If you ever receive any Selection without having 10 days to decide, you may return it at our expense.

The CDs you order during your membership will be billed at regular Club prices, which currently are \$14.98 to \$15.98—plus shipping and handling. (Multiple-unit sets may be somewhat higher.) After completing your enrollment agreement you may cancel membership at any time; if you decide to continue as a member, you'll be eligible for our money-saving bonus plan. It lets you buy one CD at half price for each CD you buy at regular Club prices.

10-Day Free Trial: We'll send details of the Club's operation with your introductory shipment. If you are not satisfied for any reason whatsoever, just return everything within 10 days and you will have no further obligation. So why not choose 3 CDs for \$1 right now.

ADVANCE BONUS OFFER: As a special offer to new members, take one additional Compact Disc right now and pay only \$6.95. It's a chance to get a fourth selection at a super low price!

CBS COMPACT DISC CLUB, 1400 N. Fruitridge
PO. Box 1129, Terre Haute, Indiana 47811-1129

Please accept my membership application under the terms outlined in this advertisement. Send me the 3 Compact Discs listed here and bill me only \$1.00 for all three. I agree to buy two more selections at regular Club prices in the coming year—and may cancel my membership at any time after doing so.

SEND ME THESE 3 CDS:

My main musical interest is (check one). (But I may always choose from any category)

ROCK/POP CLASSICAL

Mr. _____

Mrs. _____

Miss _____

Print First Name Initial Last Name

Address _____ Apt. _____

City _____

State _____ Zip _____

Do you have a VCR? (Check one.) Yes No 163/587

Do you have a credit card? (Check one.) Yes No

ADVANCE BONUS OFFER: Also send me

a fourth CD right now at the super low price

of just \$6.95, which will be billed to me.

This offer is not available in APO, FPO, Alaska, Hawaii, Puerto Rico; Please write for details of alternative offer.

Note: We reserve the right to request additional information or reject any application.

CL1/C2

CL2/C3



Jamie O'Hara (left) and Kieran Kane: refreshing synthesis

THE O'KANES

THEY have been called "the most exciting news since the Judds," and to anyone who appreciates acoustic, bluegrass, and melodic country music, that enthusiastic bit of comparison may just be right. "They" are the O'Kanes, the male duo of Jamie O'Hara and Kieran Kane, two veteran Nashville songwriters who have tired of playing by the rules and constructing radio-ready nuggets of commercial sound for other artists—Alabama's *Gonna Have a Party* and the Judds' *Grandpa (Tell Me 'Bout the Good Old Days)*.

As with any sound that is inventive and slightly unorthodox, the O'Kanes' music is hard to describe. The main instruments are O'Hara's acoustic guitar and Kane's mandolin, and with those as the foundation, they build contemporary, rhythmic country music laced with old-time and bluegrass instrumentation. The current single, *Oh Darlin' (Why Don't You Care for Me No More)*, takes its subject matter—the spurned and stunned lover—straight from Bill Monroe. Its jaunty rhythm, however, comes out of a more modern sensibility.

There is something overtly sweet about the O'Kanes' sound—owing in part to Jay Spell's unselfconscious accordion (yes!), which comes forward to take small bows occasionally—and their lyrics, which don't try to impart big messages but reflect a humility and a best-foot-forward philosophy. The nine original songs explore love lost and found and such unexpected subjects as parental guilt (*Daddies Need to Grow*

Up Too). The one cover tune, Arthur Crudup's timeless *That's All Right Mama*, is given a tamer, less urgent, and less sexually charged performance than the Elvis Presley rendition.

But the strength of the O'Kanes is unquestionably their stylistic approach—their sometimes Everly Brothers-inspired, sometimes delicate bluegrass vocal harmonies, and the way they put instruments together. Perhaps the most refreshing aspect of this rather astounding musical synthesis is that it sounds completely natural—and that it was conceived out of the duo's desire to make honest, pretty, emotionally soaring, and personally satisfying music unburdened by a hot-shot producer or the straitjacket imposed by thinking about commercial acceptance.

Only after the recording was near completion did the O'Kanes play it for any of the Nashville label heads. The finished product is a debut album of uncommon grace and beauty, and proof that the O'Kanes are a credit to an ever-changing, if confused and confusing, Nashville music scene. *Alanna Nash*

THE O'KANES. Jamie O'Hara (vocals, guitar); Kieran Kane (vocals, mandolin); instrumental accompaniment. *Oh Darlin' (Why Don't You Care for Me No More)*; *Just Lovin' You*; *Daddies Need to Grow Up Too*; *Can't Stop My Heart from Loving You*; *Bluegrass Blues*; *Oh Lonesome You*; *When We're Gone*; *Long Gone*; *That's All Right Mama*; *Gonna Walk That Line*; *When I Found You*. COLUMBIA B6C 40459, © B6T 40459, no list price.

music have received less attention than they might have as part of the highly acclaimed MCA Master Series. That, it turns out, is a pity for all, and the situation should be rectified immediately.

On "Meanings Of," for which he wrote all the music and handled the production and arrangements, O'Connor plays no fewer than seventeen instruments and turns in nine richly textured "opuses," as he calls his pieces, ranging in flavor from traditional Irish to the South Seas to the futuristic. Along the way, he stops to pay tribute, in a guitar medley, to the late Merle Watson, with whom he often performed, and to honor the musical traditions of the Deep South (in *Folktunes*). Through it all, O'Connor, twenty-five, performs with a vision and fluency far beyond his years. A positively remarkable album—don't miss it. *A.N.*

IGGY POP: *Blah Blah Blah*. Iggy Pop (vocals); Kevin Armstrong (guitar); Erdal Kizilcay (drums, bass, synthesizer); Steve Jones (guitar); vocal accompaniment. *Real Wild Child*; *Baby, It Can't Fall*; *Shades*; *Fire Girl*; *Isolation*; and four others. A&M SP 5145 \$8.98, © CS 5145 \$8.98, © CD 5145 no list price.

Performance: *Sane*
Recording: *Good*

Iggy Pop's live act was the stuff of rock-and-roll legend. He was the role model for every head-bashing, bottle-slinging punk rocker. Yet his records were always too raw, too primal to get air play. He was lucky if he could buy a bottle of Thunderbird with his royalty check. "Blah Blah Blah" is Iggy's attempt to turn the tables—the round ones in radio stations. It's his most commercial, least offensive album, with none of the anger, outrage, or misanthropy that were his trademarks. Do we really need a tame Iggy Pop? Well, we may not need him, but it's nice having him around.

"Blah Blah Blah" manages to be both polished and gut-slammng at the same time. More surprising, it's an affecting album too. David Bowie produced it, and he smoothed off just enough of Iggy's rough edges to mollify the public. Iggy's deep, resonant baritone is propelled by driving drum-machine rhythms, crackling horns, and slashing guitar. You expect him to rock, and he does. *Real Wild Child*, for instance, mows you down with a blistering fuzz-guitar attack by Kevin Armstrong. But you're not quite prepared for Iggy the romantic, and that's the Iggy who dominates this record. His love songs are puzzling but ultimately engaging non sequiturs. It's as though rock's angry young man were confused by the experience of having things work out right. On *Baby, It Can't Fall*, Iggy sings, "We have swum in the ocean and that was really alright/I'm not a big man/It's hard to face the world." You sense his vulnerability even when you're not sure what he's talking about.

My favorite song here is *Shades*. In

one of the most extreme cases of love-starved gratitude on record, Iggy gets choked up by his girl friend's gift of a pair of sunglasses: "I'll bet they cost a lot/I hope I don't break them/I hope we don't break up." I got choked up too. This isn't to suggest that Iggy's turned into a complete softy. There's no mistaking the old Iggy when he growls. "Cat taboo girl—raped by an ape" on the album's title track. But "Blah Blah Blah" shows that Iggy Pop can rock without going off the deep end. And that's probably good news for both Iggy and his fans. *M.P.*

THE PRETENDERS: *Get Close*. The Pretenders (vocals and instrumentals); Bernie Worrell (keyboards); other musicians. *My Baby; When I Change My Life; Light of the Moon; Dance!; Tradition of Love; Don't Get Me Wrong;* and five others. SIRE/WARNER BROS. 25488-1 \$8.98, © 25488-4 \$8.98.

Performance: *Appealing*
Recording: *Excellent*

Though the Pretenders get the billing, "Get Close" is *de facto* more or less a Chrissie Hynde solo album. Given the press hype about how her new-found domestic bliss is affecting her songwriting, I am relieved to report it is not the Chrissie Gets Mellow effort one might have expected. In fact, despite the per-

sonnel changes and guest musicians, "Get Close" finds the Pretenders' trademark sound and energy level generally intact. There are more love songs here than usual (the gorgeous *My Baby*, for example) and little of the lovable bitch-on-wheels image making that first brought Hynde to our attention, but her intelligence and pop flair have obviously not deserted her.

Hynde's voice remains one of the marvels of the age. The songs she sings here range, most attractively, all over the stylistic map, from Sixties pop orientalism (*Tradition of Love*) to contemporary funk (*Light of the Moon*) to neo-Motown (the sublime *Don't Get Me Wrong*) to a Jimi Hendrix cover (*Room Full of Mirrors*) that calls to mind the Patti Smith Group on a good day. But they all hang together in satisfying fashion. This is, in fact, the most consistent album Hynde has ever had her name on. Still, though it's an affecting piece of work, if not quite so affecting as the previous "Learning to Crawl," the question before the court now is whether the Chrissie Hynde Show will ultimately prove as interesting as the Pretenders were when they were a real band—that is, a collaboration. Stay tuned. *S.S.*

BRUCE SPRINGSTEEN & THE E STREET BAND: *Live/1975-85* (see *Best of the Month*, page 169)

RAY STEVENS: *Surely You Joust*. Ray Stevens (vocals, keyboards, synthesizers, tympano); vocal and instrumental accompaniment. *Southern Air; People's Court; Fat; Smokey Mountain Rattlesnake Retreat;* and six others. MCA • MCA-5795 \$7.98, © MCAC-5795 \$7.98.

Performance: *Stretching it*
Recording: *Good*

"Surely You Joust," Ray Stevens's third MCA album, is another of the singer's comedic efforts lampooning everything from Shriners' conventions to church revivals. No sacred cow goes unskewered. There's at least one good chuckle in most of these musical send-ups, and more than that in *Smokey Mountain Rattlesnake Retreat* (about an adventure in a snake-handling church), *Fat*, and *Camp Werthahekahwee* (Indian for "Where the heck are we?"). On the whole, though, this collection is a bit on the thin side—the spoof of low-budget airlines, with guest comics Jerry Clower and Minnie Pearl, falls embarrassingly flat—and the canned laughter and applause cheapen even the strongest routines. *A.N.*

PETE TOWNSHEND: *Deep End Live!* Pete Townshend (vocals, guitar); other musicians. *Barefootin'; After the Fire; Behind Blue Eyes; Stop Hurting People;*

Wanna become a legend?
Wear the
**STEREO REVIEW
T-SHIRT**



*Navy blue with white type or
White with navy blue type*

Available in men's sizes Small, Medium, Large, and Extra-large.
TO ORDER: Send \$7.50 plus \$2 for postage and handling to T-Shirt, Department TB00-SR, Box 4175, Huntington Station, New York, NY 11746. Don't forget to indicate size and color.



TOMORROW'S HEADPHONES TODAY

Digital music has challenged the engineering capabilities of the world's leading headphone manufacturers.

AZDEN CORPORATION (A leader in transducer technology for 35 years) proudly introduces 3 new models designed to provide maximum performance for Compact Disc, Digital Audio Tape, and standard analog record/tape formats.

Utilizing the latest state-of-the-art designs, materials, and manufacturing techniques, Azden delivers great performance and maximum comfort.

DSR-50 (Full-sized headphone)	\$79.95
DSR-48 (Lightweight headphone)	69.95
DSR-88 (In-ear earphone)	44.95

As with all great audio products the proof is in the listening. For more information and the location of your nearest Azden dealer please contact us.

AZDEN[®] 147 New Hyde Park Road
Franklin Square, NY 11010 • (516) 328-7500
QUALITY YOU CAN HEAR



TEAC CASSETTE DECKS



\$99⁹⁵ Teac V-538
Dolby dbx Stereo Cassette Deck
 •Dolby B/C and dbx noise reduction •Soft touch transport control •One touch recording •Bias fine tuning •Microphone inputs •LED input meters •Black finish •List \$199



\$339⁹⁵ Teac V-850X
Three Head Stereo Cassette Deck
 •Dolby B/C and dbx noise reduction •2 motor •Full logic control •Programmable music search •Memory stop play/repeat •List \$579



\$249⁹⁵ Teac R-606X
Auto Reverse Stereo Cassette Deck
 •Dolby B/C and dbx noise reduction •Real time auto reverse mechanism •Programmable music search •Intro check/blank scan •Digital tape tape •2 motor design •Black finish •List \$499



\$299⁹⁵ Teac V-770
Three Head HX Pro Cassette Deck
 •Dolby B/C and NX Pro noise reduction •True tape monitoring •Bias fine tuning •Black finish •List \$469

COMPACT DISC PLAYERS



\$199⁹⁵ Teac PD-400
Remote Programmable Compact Disc Player
 •New and improved 3 beam laser •Oversampling digital filter •16 track random programming •Index search •81 direction speed search •Black slim line finish •List \$469



\$129⁹⁵ ADC CD-100X
Programmable Compact Disc Player
 •Triple beam laser pickup •16 track programmable •High tech black finish •List \$99

FREE SHURE V15 TYPE IV-MR PHONO CARTRIDGE WITH PURCHASE



\$269⁹⁵ Shure SV-40
Programmable Compact Disc Player
 •17 function wireless remote with volume control •15 track random programming •3 beam laser pickup with 5-year warranty •Black finish •List \$399

MOVIE SPECIALS



YOUR CHOICE ANY MOVIE ONLY \$18⁹⁵
 Please Specify VHS or BETA

- Beverly Hills Cop \$18.95
- Bonnie & Clyde \$18.95
- Chinatown \$18.95
- Clockwork Orange \$18.95
- Complicated Beasts \$18.95
- Deliverance \$18.95
- Dirty Harry \$18.95
- Forbidden Planet \$18.95
- Genesis: 3 Sides Live \$18.95
- Killing Fields \$18.95
- King Kong (1977) \$18.95
- North by Northwest \$18.95
- Pink Floyd The Wall \$18.95
- Raiders of the Lost Ark \$18.95
- Road Warrior \$18.95
- Shining \$18.95
- Star Trek I, II, or III \$18.95
- Superman \$18.95
- Witness \$18.95

SINATRA CD SPECIAL



Sinatra's Digital Debut...
 At last nine classic albums from the '60s, remastered on compact disc!

- Frank Sinatra/Count Basie: It Might As Well Be Swing \$13.99
- Frank Sinatra: The Concert Sinatra \$13.99
- Frank Sinatra: September of My Years \$13.99
- Frank Sinatra: A Man and His Music (2CD set) \$27.98
- Frank Sinatra: That's Life \$13.99
- Frank Sinatra: My Way \$13.99
- Frank Sinatra: Strangers in the Night \$13.99
- Frank Sinatra: Sinatra at the Sands \$13.99
- Frank Sinatra: Ol' Blue Eyes is Back \$13.99

DOUBLE CASSETTE DECKS



\$279⁹⁵ Teac W-660R
Double Auto Reverse Cassette Deck
 •Dolby B/C and noise reduction •One touch high speed cassette dubbing •Continuous play •Memory play/search/dubbing •Full logic control •List \$599



\$459⁹⁵ Teac W-880RX
Double Auto Reverse Cassette Deck
 •High speed dubbing •Dolby B/C and dbx noise reduction •Memory program play/dubbing •Dual frequency 5-band equalizer •Intro check memory dubbing •Black •List \$799

TEAC GRAPHIC EQUALIZERS



\$79⁹⁵ Teac EQA-10
10-Band Graphic Equalizer/Analyzer
 •10 Individual sliders per channel •LED spectrum analyzer display •Tape monitor with EQ recording •List \$150

PHONO CARTRIDGES



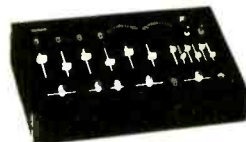
\$129⁹⁵ Shure V-15 Type V-MR
Deluxe Micro Ridge Phono Cartridge
 •Micro ridge stylus tip •Excellent trackability •Dynamic stabilizer •Side-guard stylus protection •Duo-point alignment gauge •List \$275



\$89⁹⁵ Audio Technica AT-152MLP
P-Mount Stereo Phono Cartridge
 •Linear contact diamond stylus •Lightweight beryllium cantilever •Wide flat frequency response •Improve the sound of your turntable •List \$239

- Audio Technica AT231LP New universal mount \$29.95
- Shure M104E Universal P-mount \$27.95
- Shure M111HE Universal P-mount \$49.95
- Shure V15 Type IVMR Micro ridge stylus \$69.95
- Stanton 680EL Disco cartridge w/extra stylus \$44.95
- Stanton L500AL Heavy duty P-mount disco \$19.95

NUMARK MIXER



\$289⁹⁵ Numark DM-1800
Mixer/Pre Amp/Equalizer
 •Pro series studio mixer •3-phono-line inputs •Mic input with pan pot •6-band equalizer •3-color peak reading LED power meters •Cue monitor •headphone output •List \$540



WE OFFER YOU TOLL-FREE TELEPHONE ORDERING - You can call your order in to our Order Desk anytime Monday through Saturday between 9:00 A.M. to 7:30 P.M. Our friendly operators will gladly help with your selections.



WE OFFER YOU THE LOWEST PRICES - on 100% U.S. warranted brand name merchandise - not gray-market goods. Also, we will always meet the competitors advertised price.



WE STOCK WHAT WE ADVERTISE - Our huge \$10 million dollar inventory assures you that you'll get what you order...when you order!!!

SONY WALKMAN



\$134⁹⁵ Sony WM-F107
Solar Powered Sports Walkman
 •Auto reverse stereo cassette •AM/FM tuner •Solar panel powers unit & recharges built-in NiCad battery •Sturdy water resistant case •MDR headphones •List \$230

SONY CLOCK RADIO



\$34⁹⁵ Sony ICF-A10
DC AM/FM Clock Radio
 •wake to pleasant melody or your favorite radio station •Easy dial alarm setting •Illuminated dial •Chaos white, black, pink, blue or red •Optional AC adaptor •List \$40

RADAR DETECTOR



\$118⁸⁸ Cobra RD-3110
Trapsnooter Superhet Radar Detector
 •Dual X and K band super sensitivity •Alarm rate increases as the signal approaches •Dash or visor mount •Compact design •List \$140

AUDIO TAPE SPECIALS



\$3⁴⁹ TDK Super Avilyn 90
Two Pack Special - Get one each - TDK SA-90 and TDK SA-X90 - Save money and try the high bias standards of audio tape
 Maxell XLI1590 \$2.09
 Maxell XLI190 \$1.69
 Sony UXPRO90 \$2.89
 TDK MAXG90 \$5.49



HOW TO ORDER BY MAIL: SEND MONEY ORDER, CERTIFIED OR CASHIER'S CHECK, MASTERCARD, VISA or DISCOVER CARD (include card number, interest bank No, expiration date and signature.) TO: J&R MUSIC WORLD, 23 PARK ROW, NEW YORK, NY 10038, DEPT. SRO287. DO NOT SEND CASH. Personal and business checks must clear our Authorization Center before processing. \$25 Minimum Order. Shipping, Handling & Insurance Charge is 5% of Total Order with a \$3.95 minimum. (Canadian Orders Add 15% Shipping, with a \$9.95 minimum charge). For shipments by air, please double these charges. SORRY, NO C.O.D.'s. NEW YORK RESIDENTS PLEASE ADD SALES TAX. ALL MERCHANDISE SHIPPED BRAND NEW, FACTORY FRESH, AND 100% GUARANTEED. WE ARE NOT RESPONSIBLE FOR ANY TYPOGRAPHICAL OR TRANSCRIPTIONAL ERRORS.

MUSIC WORLD



\$289⁹⁵ Akai Clarity M-8W 30 Watt Per Channel Audio System • AM/FM stereo receiver • 30 watts RMS per channel • Easy analog tuning • 5-band graphic equalizer • Dolby stereo double cassette deck • High speed dubbing • Belt drive semi-automatic turntable • P-Mount cartridge • Powerful 2 way speaker system • List \$479

AUDIO COMPONENTS



\$129⁹⁵ Akai HXA-351 Stereo Double Cassette Deck • Hi-speed cassette dubbing • Dolby B noise reduction • Continuous playback mode • Peak reading LED meters • Sliding input volume controls • Black finish • List \$229



\$299⁹⁵ Audio Technica CD-20 Remote Control Compact Disc Player • 9-track random access programming • 3-beam laser pickup • Full function wireless remote • Double resolution digital filtering • Track and index search • Headphone Jack • Black • List \$400

TECHNICS AUDIO COMPONENTS



\$229⁹⁵ Technics SA-390 AM/FM Stereo Digital Receiver • 50 watts RMS per channel • Computer drive class A amplifier • 5-band graphic equalizer • 16 station preset memory • Two VCR inputs • Black • List \$399



\$199⁹⁵ Technics SL-P310 Remote Control Compact Disc Player • Direct access keypad on the front panel and wireless remote • 20-track memory • High resolution digital filter • 3-way repeat • Headphone Jack • Slim line black finish • List \$449



\$379⁹⁵ Technics SA-590 Digital AM/FM Stereo Remote Control Receiver • 100 watts RMS per channel • Computer drive New Class A Amplifier • 16-station preset memory • 7-band touch-sensor graphic equalizer • Graphic spectrum analyzer display • Two VCR inputs • List \$499.95



\$164⁹⁵ Technics SL-P110 Programmable Compact Disc Player • High resolution digital filter enhances sound quality • 20-track programming • Fine focus single beam laser • 3-way repeat • Large digital display • Black finish • List \$349

AUDIO ACCESSORY



\$59⁹⁵ Terk FM-8403 Indoor Omnidirectional FM Stereo Antenna • Enjoy better FM reception • Adjustable gain control • Amplifies incoming signal by up to 18 times • AC operated • One-year warranty • List \$89

Terk 9500 "New" FM Indoor Antenna \$79.95

HEADPHONES



\$99⁹⁵ AKG K-24ODM Studio Monitoring Stereo Headphones • Precise reproduction of the full audio range • Improved calibrated version of the famous K-240M • Wide frequency response • Self adjusting headband • List \$149



\$38⁸⁸ Koss Pro 4/AAA Top Rated Stereo Headphones • Original pro closed ear design • Excellent low bass response • Cushioned headband • Long wear comfort • List \$75

- Koss JCK200 New wireless stereo headphones \$119⁹⁵
- Koss SST/4 Digital ready lightweight \$24⁹⁵
- AKG K340 2-way Electrostatic drivers \$159⁹⁵
- Sony MDR-CD5 Perfect for portable CD players \$59⁹⁵
- Beyer DT330 Super lightweight semi-open ear \$49⁹⁵

STEREO RECEIVERS



\$529⁹⁵ Sansui SX-1130 Digital Audio/Video Receiver • 130 watts RMS per channel • 3-video inputs with dubbing • FM/AM stereo tuner • A/V switching • Black finish • List \$1149



\$449⁹⁵ JVC RX-9VB Remote Digital AM/FM Stereo Receiver • 120 watts RMS per channel • 32-station presets • Electronic 7-band per channel graphic equalizer • EQ memory • Spectrum analyzer • Sleep timer • Wireless remote • Black finish • List \$719

ADC COMPUTER EQUALIZER



\$169⁹⁵ ADC Sound Shaper 415X Computer Memory Graphic Equalizer • 12-band per channel • Stores up to 4 EQ curves in memory for instant recall • Perfect for all audio/video systems • List \$399

HI-FI STEREO VIDEO RECORDERS



\$499⁹⁵ Panasonic PV-1564 Four Head VHS HQ Hi-Fi Video Recorder • HQ high quality video system • 4 video heads • Special effects playback • 38-function wireless remote • Cable ready tuner • 14 day/4 event timer • List \$849



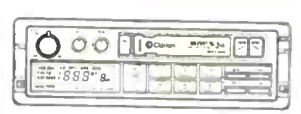
\$659⁹⁵ Sony SL-HF900 SuperBeta Hi-Fi Stereo Video Recorder • Wireless remote • Multi-function jog/shuffle super search dial • Video editing • MTS/SAP cable ready stereo tuner • 21 day/8 event timer • Loaded • List \$1500

PIONEER LASERVISION



Call Pioneer CLD-909 Laser Video Disc/Audio Compact Disc Player • New compact cabinet • 400-line video resolution • Programmable CD playback • Improved on-screen display • Wireless remote control • Decodes digital laser discs • Black finish • List \$899

CLARION CAR STEREO



\$274⁹⁵ Clanor 8825RT Digital Stereo Cassette Auto Receiver • New slide-out chassis • 18 station presets • Seek & scan tuning • Auto reverse cassette • Dolby B • Music search • 2x25 Watt: Per channel • LCD display • List \$350

PANASONIC CD PLAYER



\$469⁹⁵ Panasonic CGE-800CD AM/FM Compact Disc Car Stereo • 15 selection random programming • Multi-function digital display • 18 station preset tuner • Bass, treble and fader controls • Requires separate amp • List \$549

SHOP WITH CONFIDENCE

We stand behind what we sell. We are the nation's largest audio/video mail order house and we have been in business since 1969.



OUR PROFESSIONALLY TRAINED STAFF IS READY TO ASSIST YOU - with an average of over 10 years experience. They are available to take your order and answer any technical questions you may have.



SHOP IN THE COMFORT AND CONVENIENCE OF YOUR OWN HOME - It's as easy as picking up your phone...and the call is free! We accept Visa, MasterCard, Discover Card and American Express.

VIDEO TAPE SPECIALS



Maxell T-120EX Video Cassette Tape • New improved standard grade video cassettes for high performance

\$43⁵⁰ 10-Pack

- TDK T120MS High standard \$4.49
- TDK T20EHG Extra high grade \$5.49
- TDK T20HPD Pro grade \$7.99
- Maxell T20HX High grade \$5.49
- Maxell T20GOLD Pro grade \$6.99

DISCWASHER SYSTEM CARE



\$13⁴⁹ Discwasher "Discset" Record & Stylus Care • Contains original D4 record cleaner with plush pad and brush • SC-2 stylus cleaner with mirror • Record and stylus fluids • Wood tray • List \$26

CIRCLE NO. 39 ON READER SERVICE CARD



STEREO REVIEW PRESENTS

New for 1987



THE BASIC REPERTOIRE
ON COMPACT DISC
A Critical Discography

In response to many readers' requests, noted critic Richard Freed has chosen the best available CD recordings of the standard compositions in the classical orchestral repertoire. Nearly 200 symphonic works from Bach to Wagner!

To receive your copy of this useful pamphlet send a self-addressed, long envelope (stamped with 44¢ postage) and a check or money order for \$1.50 (no cash, please) to BASIC REPERTOIRE, Stereo Review, 1515 Broadway, New York, N.Y. 10036.

Outside the United States, where you cannot buy American stamps, send the self-addressed envelope and \$2.50 to the above address.

FREE details
A DIFFERENT KIND
OF RECORD CLUB

**TREMENDOUS SAVINGS
INCLUDING COMPACT DISCS...**

on every record and tape in print—
no "agree-to-purchase" obligation of any kind.

DISCOUNTS OF 20% TO 73%
off mfg. suggested list... special catalog
features hundreds of titles and artists.

MOST LABELS AVAILABLE
including most imports through special custom
ordering service—guarantees satisfaction

SCHWANN CATALOG
lists thousands of titles.

DISCOUNT DIVIDEND COUPONS
redeemable immediately for extra discounts.

NEWSLETTERS
informational news and happenings in the
world of music... special super sale listings.

DISCOUNT NEEDLE GUIDE
most mfg. replacements available.

QUICK SERVICE
same day shipping on many orders...
rarely later than the next several days.

100% IRON-CLAD GUARANTEES
on all products and services—your total
satisfaction is unconditionally guaranteed

Discount Music Club is a no-obligation membership club that guarantees tremendous discounts on all stereo records, tapes and CD's and let you buy what you want... when you want... or not at all if you choose.

These are just a few of the money-saving reasons to write for free details. You can't lose so why not fill out and mail the coupon below for immediate information.

DISCOUNT MUSIC CLUB, INC. 009-0287
481 Main Street, New Rochelle, N.Y. 10801

Name _____
Address _____
City _____
State _____ Zip _____

CIRCLE NO. 71 ON READER SERVICE CARD

I'm One; and five others. ATCO/ATLANTIC 90553-1 \$8.98, © 90553-4 \$8.98.

Performance: *Intriguing*
Recording: *Good*

Pete Townshend's post-Who solo albums have been, to say the least, problematic, but this new live set, derived from a video of the same title, catches everybody's favorite middle-aged angry young man in relaxed and extremely impressive form. Fronting a very large band (there's a horn section, back-up singers, and Pink Floyd's David Gilmour on guitar), Townshend runs through a series of intelligently rearranged Who numbers as well as some purist-faithful versions of the sort of early-Sixties r-&-b tunes the young Who would have put through a heavy-metal blender. The high point, for me, is an exceptionally moving version of *I'm One* (from *Quadrophenia*), but everything here is rewarding. In fact, my only criticism is that you can't see Townshend's charming dance moves the way you can on the video. Highly recommended. S.S.

WANG CHUNG: *Mosaic*. Jack Hues (lead vocals, guitar, keyboards); Nick Feldman (backing vocals, bass, guitar, keyboards); vocal and instrumental accompaniment. *Everybody Have Fun Tonight*; *Hypnotize Me*; *The Flat Horizon*; *Betrayal*; *Let's Go*; and three others. GEFEN GHS 24115 \$8.98, © M5G 24115 \$8.98 © 24115-2 no list price.

Performance: *Unguarded*
Recording: *Very good*

Wang Chung manages to sound both familiar and different with each new release. While sticking pretty close to a basic vision of pop music that's high-tech and coolly intense, Jack Hues and Nick Feldman have gone from world-weary, disaffected night-club habitués on "Points on a Curve" to deliberate, impassive technicians on "Live and Die in L.A." "*Mosaic*" finds them more exuberant than you'd have thought possible, although they don't give themselves over to pleasure altogether.

Under the encouragement of Austrian producer Peter Wolf, Hues and Feldman kick off "*Mosaic*" with, of all things, a party anthem, *Everybody Have Fun Tonight*, a song so unguarded and fun-loving it would have been inconceivable on the first two Wang Chung albums. They even use real horns, with charts that burn like an Earth, Wind & Fire arrangement. While Wolf has a tendency to busy-up songs like *Hypnotize Me* with unnecessary electronic clutter, it's a small price to pay for the infusion of good-natured funk. Still, this is Wang Chung, so a fair amount of "*Mosaic*" is devoted to the dark and inscrutable—betrayal, manipulation, alienation, mortality, the usual Hues and Feldman themes. Don't worry, though. With the duo's patented layers of pulsing electric rhythms and punchy brass counterpoint, you can ignore the bad news if you want to. M.P.

JAZZ



BRANFORD MARSALIS: *Royal Garden Blues*. Branford Marsalis (soprano and tenor saxophones); Larry Willis, Kenny Kirkland, Ellis Marsalis, Herbie Hancock (piano); Ron Carter, Charnett Moffett, Ira Coleman (bass); Jeff Watts, Ralph Peterson, Al Foster, Marvin "Smitty" Smith (drums). COLUMBIA FC 40363, © FCT 40363, no list price.

Performance: *Out of the shadow*
Recording: *Excellent*

While everybody is talking about wunderkind Wynton Marsalis, his brother Branford has been preparing to blow up a storm. That storm has been brewing for a while now: in the Lionel Hampton band, on the road with Clark Terry and VSOP II, and—as if you hadn't guessed—in that touring school of higher jazz learning, Art Blakey's Jazz Messengers. Now it reaches full force in his new album, "*Royal Garden Blues*."

Branford Marsalis's last album, "*Scenes in the City*," was well received, but the two and a half intervening years have seen him develop tremendously, and "*Royal Garden Blues*" turns out to be well worth the wait. It is a splendid album, with a title track that is worth the price of admission by itself. Marsalis shows his New Orleans heritage with the marvelously fluent soprano reading of Clarence and Spencer Williams's early jazz standard. It is Sidney Bechet incarnate, but only in feeling. The style is Marsalis's, and it thrives over the superb rhythmic support of bassist Ron Carter and drummer Al Foster.

All seven tracks feature Branford Marsalis playing either soprano or tenor saxophone, and there's not a weak moment. The entire album is a gem, and if you buy only one Marsalis album this year, let this be the one. C.A.

CHARLES MINGUS: *New Tijuana Moods*. Charles Mingus (bass); Clarence Shaw (trumpet); Jimmy Knepper (trombone); Curtis Porter (alto saxophone); Bill Triglia (piano); Danny Richmond (drums); Frankie Dunlop (percussion); others. *Dizzy Moods*; *Ysabel's Table Dance*; *Los Mariachis*; and three others. BLUEBIRD/RCA ● 5635-1-RB two discs \$11.98, © 5644-2-RB one CD no list price.

Performance: *Major Mingus*
Recording: *Excellent*

This album was recorded in 1957 but, for reasons that defy explanation, not released until 1962, and then only after

W E D DELIVER S SAVINGS!

WDS!!!

JVC Disc Player



\$139

- ★ 15 Track Random Programming
- ★ Independent Suspension System
- ★ Digital Filter with Y Servo System
- ★ Extended Warranty Available

Teac R606



\$229

- ★ Dolby B + C + dbx
- ★ Bi-Directional Record & Play
- ★ Bias Fine Tuning, Intro-Scan, CPS, Blank Scan, Block Repeat
- ★ Extended Warranty Available

Sherwood S2770



\$289

Wireless Remote

- ★ 70 Watts/Ch, Audio/Video Receiver
- ★ 7-Band EQ with 4 Memories
- ★ Synthetic Stereo and Surround Sound
- ★ Extended Warranty Available

GE 97150

\$299



- ★ 35 Function Remote Control
- ★ Remote Programming
- ★ Slow-Motion, HQ
- ★ Extended Warranty Available

Sansui AVC10



\$159

- ★ Audio/Video Control Center
- ★ Cinema Surround Sound
- ★ 4 Video Inputs with Bi-Directional Dubbing
- ★ 15 Watts/Ch, 5-Band EQ

WE CARRY EVERY MAJOR BRAND OF: STEREO, VCR, AND TV

AR, Akai, Alphasonic, Aiwa, Audio Source, Audio Control, AAL, Advent, ADC, BOSE, BEL, Concord, Celestion, Canon, Clarion, dbx, Dual, Design Accoustics, EPI, GE, Hitachi, Infinity, JVC, Jensen, Kenwood, Koss, Maxell, MTX, NEC, Nikko, Numark, Onkyo, Ortofon, Proton, Panasonic, Pentax, Quasar, RCA, Recoton, SAE, Sansui, Sharp, Symphonic, Scott, Sony, Sherwood, Stanton, Shure, Technics, Teac, Toshiba, Whistler, Zenith and MORE.

800 356-9514

OR CALL 608-271-6889

WDS

WISCONSIN DISCOUNT STEREO
2417 W. BADGER RD.
MADISON, WIS. 53713

Hours M-T 8-8

FRI 9-8

SAT 9-5



or COD

Some items closeouts. some limited quantities.

WDS Confidence Checklist	WDS	The "Competition"
7-Day Repair Service	✓	No
Orders Processed Immediately	✓	?
Factory Sealed	✓	?
Full Warranty	✓	?
Toll Free Service #	✓	?
Factory Trained Sales Staff	✓	?
Extended Warranties	✓	?

WEA

ELECTRONICS

ORDERS SHIPPED IN 24 HRS.

FIXED SHIPPING COSTS:

*10 VCR/AUDIO COMP. *15 CAMCORDER/
TVS/MICROWAVES *5 ALL OTHER
NO CREDIT CARD FEES

WHY WE'RE BEST!

- Guaranteed lowest prices.
- No hidden charges.
- All merchandise factory fresh U.S. goods.
- All brand names with manufacture warranty at lowest price possible.
- 38 years in the electronics business.
- 4 million sales transactions a year, over \$140,000,000 sales volume.
- Publicly traded on NASDAQ Exchange.

VCR'S		CAR STEREO & SPEAKERS	
JVC HRD180U	*Call	AUDIOVOX AVX3000	*36**
JVC HRD470U	*579**	AUDIOVOX AVX686	*78**
MAGNAVOX VR9510	*Call	CRAIG 1508	*59**
MAGNAVOX VR9512	*Call	CRAIG 1509	*69**
PANASONIC PV1461	*Call	CRAIG 1727	*119**
RCA VMT295 Series	*Call	CRAIG V506	*29**
RCA VMT385	*Call	CRAIG V510	*119**
RCA VMT630	*Call	EPI ALL MODELS	*Call
RCA VMT670	*Call	JVC KSRX410	*189**
RCA VMT400	*Call	JVC KSRX605	*199**
SHARP VC6846U	*339**	JVC KSR605	*329**
SHARP VC685U	*Call	JVC KSR710	*289**
TOSHIBA DX7	*289**	JVC KSA201	*179**
TOSHIBA M2300 Series	*Call	PIONEER GMI23	*129**
HITACHI VT1310	*Call	PIONEER KE1111	*126**
HITACHI VT1450	*Call	PIONEER KE4141	*179**
HITACHI VT1710A	*Call	PIONEER KEH5151	*199**
HITACHI V186	*Call	PIONEER KEH9191	*289**

CAMCORDERS	
CANON VME1	*999**
HITACHI VM5000A	*1299**
JVC GR7U	*1099**
JVC GR9C	*Call
PANASONIC PV210	*Call
PANASONIC PV300	*Call
RCA CMR200	*999**
RCA CMR300	*1259**
SONY CCDV8AFU	*1249**

PROJECTION TV	
BIGGEST BRAND NAMES-NO SALES TAX (OUT MD.)	
JVC XLV220	*1899**
JVC XLV330	*2199**
JVC XLM700	*429**
PIONEER PDM6BK	*Call
SHARP DX111	*1099**
TECHNICS SLP110	*Call
TECHNICS SLP330	*Call

COMPACT DISC	
JVC XLV220	*1899**
JVC XLV330	*2199**
JVC XLM700	*429**
PIONEER PDM6BK	*Call
SHARP DX111	*1099**
TECHNICS SLP110	*Call
TECHNICS SLP330	*Call

RECEIVERS	
JVC RX1	*179**
JVC RX3	*209**
JVC RX5	*349**
JVC RX9	*389**
PIONEER SX1000	*Call
PIONEER SX1500	*Call
PIONEER SXV400	*269**
PIONEER VSX5000	*Call
SHERWOOD S2730	*169**
SHERWOOD S2750	*179**
SHERWOOD S2770	*359**
TECHNICS ALL MODELS	*Call

KEYBOARDS	
CASIO CX111	*119**
PANASONIC RKH500	*169**
PANASONIC KXR200	*179**
PANASONIC RKT36	*279**

CASSETTE DECKS	
JVC TDV66	*339**
JVC TDX301	*189**
JVC TDX30	*179**
PIONEER CT1170W	*189**
PIONEER CT1270W	*219**
PIONEER CT1370W	*349**
TECHNICS RS20 Series	*169**
TECHNICS RS5849R	*149**
JVC CDDV877	*369**

RADAR DET.	
BEL 834	*189**
BEL 837	*199**
BEL 860	*149**
BEL 864	*174**

WALKMANS	
PANASONIC RKS470	*44**
PANASONIC RKS28	*64**
SONY WMF77	*89**
SONY SRFF1	*44**

SURROUND SOUND PROCESSORS	
SONY SRFF1	*44**

TO ORDER:

1-301-799-8222

If you don't see it here-SCALL55!

Monday-Friday 9am-6pm

Saturday 10am-3pm

Sunday 12pm-5pm

*25 Minimum Order

Credit Cards

7540 Washington Blvd.

Baltimore, Md. 21227

Returns accepted within 10 days with copy of invoice, original packing and blank warranty cards, subject to restocking fee and shipping. Not responsible for mfr shipping delays. Prices good until 3rd of mo.

pianist Ran Blake—at that time a waiter at New York's Jazz Gallery—presented RCA with a petition he had circulated in the jazz community.

Careful digital remastering has greatly enhanced the sound of these thirty-year-old recordings, but rather than tamper with the original release by smoothing out some of its rough splices or re-ordering the selections, the repackagers have otherwise left it intact. After all, Mingus himself called this "the best record I ever made." Sensibly, the repackagers have placed the alternate takes on a second disc, in the same order—well, perhaps these are not true alternate takes but rather the same takes with cuts restored. What we have on the second disc is longer alternate approaches.

Together, the two discs provide an interesting look into the way Mingus worked, but the best news is that this extraordinary album is once again available, complete with the original notes by Mingus and a new, better sound. No Mingus recording date was ordinary, but there was something special about this one. It brought together an odd assortment of musicians, including the now legendary trumpeter Clarence Shaw, for whom this session was a career peak but who seems to have disappeared shortly thereafter. Alto-sax player Danny Richmond apparently used the opportunity to switch to drums, and he has done very well with that instrument ever since. Pianist Bill Triglia has since vanished into thin air; Lonnie Elder is credited as having contributed "voices," and Ysabel Morel wielded mean castanets. This is one album no jazz lover should be without. Thank you, Ran Blake. C.A.

Collection

THE RIVERSIDE HISTORY OF CLASSIC JAZZ. Scott Joplin, Blind Lemon Jefferson, Ma Rainey, Ida Cox, Bessie Smith, Jelly Roll Morton, Big Bill Broonzy, New Orleans Rhythm Kings, King Oliver's Creole Jazz Band, State Street Ramblers, Meade Lux Lewis, Fats Waller, James P. Johnson, Duke Ellington, Fletcher Henderson, Original Memphis Five, Wild Bill Davison, Muggsy Spanier, others. RIVERSIDE/FANTASY © RB-005 five discs \$34.98.

Performance: *Roots*
Recording: *Aged*

Before they founded Riverside Records, Bill Grauer and Orrin Keepnews published *The Record Changer*, a magazine for jazz collectors. In those days, almost forty years ago, most jazz collectors were staunch traditionalists, so-called "moldy figs," who listened with great glee to rare, scratchy sides by such revered figures as King Oliver and Ma Rainey, swapped legends about Buddy Bolden and Lulu White, looked for missing matrix numbers, and wondered whether Bix Beiderbecke wore socks on January 26, 1925.

As Riverside Records grew, its scope

expanded to encompass the very latest in jazz styles, but Grauer and Keepnews never lost their love for the sounds that started it all. In 1956 they gathered some of those sounds into a five-record deluxe set called "History of Classic Jazz," divided into ten "volumes" (one to each LP side) that ranged from "Backgrounds" to "New Orleans Revival." The records were beautifully packaged in a soft, padded album with an illustrated essay by Charles Edward Smith, a discography, and a brief note on each selection.

Fantasy Records, which acquired Riverside a few years back, has reissued that remarkably eclectic collection. The cardboard box is not as fancy as the original album, but the music and illustrated annotation are intact. In fact, the reissue is a better sounding package, for it has been remastered using equipment that did not exist in the days of Riverside Records. Anyone familiar with the poor sound of the original release will appreciate that improvement. I just wish Fantasy had also rerecorded the piano-roll sides at the correct, slower speed.

Since this is the history of classic jazz, there is a jump in the chronology. We hear, in a 1928 side by the Fletcher Henderson Orchestra, a hint of the Swing Era to come, but the jazz styles that characterized the Thirties and Forties are bypassed, and the set ends with sides made between 1947 and 1954 representing the New Orleans Revival, which began in the Forties. But considering that the producers were not licensed to include recordings owned by the major labels, this is a surprisingly comprehensive collection, and some of the material may surprise you.

The old story that jazz originated in Africa still provokes heated discussion, but nobody can deny that African music is one of its many ingredients. Side one, "Backgrounds," begins with three early-Fifties recordings of tribal music from what was then the Belgian Congo, followed by street cries of Charleston and a 1926 side by Blind Lemon Jefferson. There is also a sermon by the Reverend J.M. Gates, a novelty number by an early twentieth-century military band, and a minstrel-type banjo solo by Fred Van Eps—not exactly jazz, but certainly some of the stuff jazz is made of.

The rest of the set tinkles rhythmically through the ragtime music of major composers like Scott Joplin and Joseph Lamb, paints a broad and wonderful picture of the blues—from Ma Rainey, Ida Cox, and Bessie Smith (the soundtrack of her 1929 film *St. Louis Blues*) to Big Bill Broonzy—and stomps and boogies happily through the Twenties. The selections are not always the most representative, but few major artists have been left out. Any serious study of early jazz history will have to include other material, such as the Armstrong Hot Five and Jelly Roll Morton Red Hot Peppers sides, but with its informative, authoritative notes, this remains an excellent, scholarly collection. C.A.

illinois audio

illinois audio

illinois audio

illinois audio

illinois audio

SONY

K

KOSS

ZENNEISER

AKAI

SANSUI

marantz

**LOUDSPEAKERS****JENSEN**

820 8" 2-WAY	\$39.95 ea.
1030 10" 3-WAY	59.95 ea.
1230 12" 3-WAY	79.95 ea.

SANSUI

S-620 12" 3-WAY	\$ 79.00 ea.
S-820* 10" 3-WAY Tower	99.00 ea.
S-920* 12" 3-WAY Tower	119.00 ea.

TECHNICS

SB-135 10" 2-WAY	\$39.95 ea.
SB-155 10" 3-WAY	49.95 ea.
SB-175* 12" 3-WAY	69.95 ea.
SB-195 15" 3-WAY	99.95 ea.

* = Truck Freight Collect

**PORTABLES/AUTO****SONY PORTABLES**

D-7S Programmable CD	\$239.00
D-14 CD w/AC Adaptor	CALL
WM-F77 AM/FM, Cassette w/dolby	79.95

TOSHIBA PORTABLES

XR-P9 Program. CD w/Remote	\$229.95
KT-4066 AM/FM Rec. w/Dolby & EQ.	89.95

TECHNICS PORTABLES

SL-XP7K Programmable, CD w/Carrying Case	\$169.95
SL-XP8 Above w/Digital AM/FM	CALL

SHARP PORTABLE

WQ-CD158K AM/FM, Cassette W/CD	CALL
--------------------------------	------

PANASONIC PORTABLES

RX-CD70 AM/FM, Dubbing Cassette W/CD	\$455.00
RX-HD10 Mini-AM/FM, Dubbing Cassette w/HD.	155.00

SONY AUTO.

ES-S93 6 x 9 Tri-axial Speakers (pr)	\$56.00
--------------------------------------	---------

PANASONIC AUTO.

EAB-540 4" Duocone Speakers (pr)	\$ 18.00
CQE-280 Digital AM/FM, cassette player with Seek Tuning, Auto-Replay, 4-way Bal. & Compact Chassis	124.00

JENSEN AUTO.

JTX-300 6x9 Tri-axial Speakers (pr)	\$ 59.00
JXL-35 Digital AM/FM, w/Seek Tuning, Auto-Rev. Tape Eq. & Universal Chassis	143.00

SHERWOOD AUTO.

CRD-210 Digital AM/FM w/Dolby B & C	\$169.00
-------------------------------------	----------



Save
money.time.freight
800-621-8042 312-664-0020

**CASSETTE PLAYERS/
CD's/EQUALIZERS****TECHNICS CASSETTE
DECKS**

RSB-18 Dolby B, C, & dbx	\$ 89.00
RST-20 Dolby B & C w/Hi-Speed Dubbing	130.00
RST-60R Above w/Auto-Reverse	254.00

TEAC CASSETTE DECKS

V-360C Dolby B & C	\$ 70.00
V-450X Above with dbx	110.00
R-606X Dolby B, C & dbx w/Auto-Reverse	299.95

AKAI CASSETTE DECKS

HXA-301 Hi-Speed Dubbing w/Dolby	\$139.95
----------------------------------	----------

SONY CASSETTE DECK

TCW-233 Hi-Speed Dubbing w/Dolby B & C	\$149.95
--	----------

SANSUI CASSETTE DECK

DW-10 Top Dubbing w/Dolby B & C	\$360.00
---------------------------------	----------

SONY VIDEO

SL-HF450 Super Beta HI-FI w/Remote	\$449.95
------------------------------------	----------

SANSUI VIDEO

SVR-9700HF HQ VHS HI-FI w/Remote	CALL
----------------------------------	------

EMERSON VIDEO

VCS-966H HQ VHS HI-FI w/Remote	\$449.95
--------------------------------	----------

SHARP CD PLAYER

DX-110 IA's Most Affordable	\$98.00
DX-620 Programmable w/Remote	\$199.95

ADC CD PLAYER

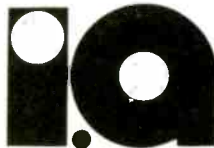
CD-100X Programmable	\$129.95
----------------------	----------

SONY CD PLAYER

CDP-50 Programmable w/Remote	\$249.95
CDP-35 Programmable	\$199.95
Sony Promo: Get 2 Compact Discs Free	

TEAC CD PLAYER

PD-400 Programmable w/Remote	\$219.95
------------------------------	----------



illinois audio
12 East Delaware Place
Chicago 60611

P
H
O
N
E

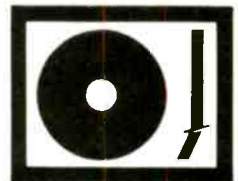
10-5 MONDAY-SATURDAY
800-621-8042 312-664-0020

PLEASE, NO 800 CALLS FOR PRICE LIST.

Price & Availability Subject to Change

Clearance time required on Personal & Company checks.

illinois audio
12 East Delaware Place
Chicago 60611

**TURNTABLES****TECHNICS**

SL-BD35K Fully Auto, Belt Drive	\$ 80.00
SL-QD35K Above w/Quartz Direct Drive	90.00
SL-QD33K Full-Auto, Quartz Direct Drive	100.00
SL-L20K Full-Auto, Linear Tracking	110.00
SL-J2 Jacket Size, Linear Tracking	115.00
SL-D93 Black, Direct Drive, Full Size, Fully Automatic	75.00

AKAI

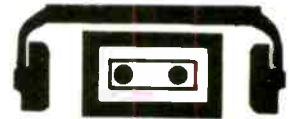
APA-1 Belt-Drive, Semi-Auto	50.00
-----------------------------	-------

KENWOOD

KD-54R Quartz Semi w/Cart.	70.00
----------------------------	-------

DUAL

CS-620Q Quartz Direct-Drive Semi Auto	129.00
---------------------------------------	--------

**ACCESSORIES/
TAPE/FURNITURE****CASSETTE TAPE**

BASF CRE II-90 CrO ₂	\$16.90/10
TDK SA-90 Super Avilyn Hi-Bias	18.00/10
TDK HXS-90 Metal Particle Cr ₂ Bias	20.00/10
FUJI Metal-90	30.00/10
MAXELL XLII-90 High Bias	18.00/10
MAXELL XL'S II-90 Premium High Bias	24.00/10
MAXELL MX-90 Metal	34.00/10
SONY UCX-90 High Bias	14.00/10

VIDEO TAPE

MAXELL T-120EX	\$4.69/ea
MAXELL T-120 & L-750 HGX Gold Hi-Fi	7.50 ea.
TDK T-120HS	\$4.69/ea
TDK T-120 & L-750 HD PRO	9.50 ea.

CARTRIDGES

SHURE V15 Type VMR	\$137.00
SHURE M-110HE 'P' and Standard Mount	36.50
AUDIO TECHNICA AT-155LC with Linear Contact Stylus	79.95
AUDIO TECHNICA AT-132EP P-Mount	\$59.95

HEADPHONES

KOSS JCK-200 Kardless!	CALL
KOSS SST-7 Digital Ready	\$44.95
SONY MDR-CD5 CD Monitors	\$63.00
Sony MDR-M55 Designed for Portable CD's	43.00
Sennheiser HD-414SL Light Weight, Open Air	49.50
Sennheiser HD-222 Light Weight, Closed Design	59.00



SHURE

JENSEN

JVC

Technics

Dual

TEAC

TDK

illinois audio

AIWA

AOC

MAXELL

AudioControl

discwasher

Technics

dbx

audio-technica

DEALERSCOPE MERCHANDISING PRODUCTS OF THE MONTH

Vidtech Presents RS-2001



Vidtech's RS-2001 converts every TV into MTS stereo cinema-like sound and has every conceivable remote control feature all in one cable-ready integrated system. The RS-2001 transforms your TV into a \$1000 high-performance audio/video system and has all the extras, including Secondary Audio Programming (SAP) and dbx noise reduction. For additional information, call 212-868-5590, or write Vidtech, Inc., 350 5th Avenue, Ste. 6707, New York, NY 10118.

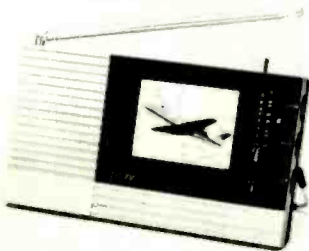
SKC's SG Videocassettes for Outstanding Performance Plus Outstanding Value

SKC's SG videotape has a worldwide reputation for great performance—featuring vibrant color, superb sound and the durability to use over and over again. It's even earned the Good Housekeeping Seal. And since SKC is always value-priced, it might just be the best videotape value on the market. The proof is waiting at your SKC dealer!



Citizen Debuts Micro-Portable LCD TV

Citizen's new 10TA micro-portable wall-mounted LCD TV set can be mounted on



virtually any surface and moved from one location to another. It features a 3.5-inch viewing screen yielding a high-contrast black-and-white picture. The 10TA weighs 1.6 ounces, is 8.6 inches long and 1.3 inches thick. The 10TA operates from AC power and yields 18 hours of continuous viewing using 4 "C" alkaline batteries. Suggested retail price is \$149.95.

Coastar Audiocassette Organizers

The "Sound Organizers" are portable carriers for audio-cassettes. The cassettes are locked into position in a "Stay-Loc Cushion" for no rattle or damaging movement. The "Red Accent" line features six colors. They are available in black with red accent and grey with red accent. The remaining colors are pale blue with white trim, lavender with lavender and yellow trim, pale pink with pink trim and bright red with red trim. The organizers are available in carriers of 12 and 24 cassettes. The suggested list is \$15.95 and \$24.95 respectively. For full details, call or write Coast Manufacturing Company, Inc., 118 Pearl St., Mt. Vernon, NY 10550, 800-221-8748.



Dealerscope Merchandising is the Marketing Magazine for Consumer Electronics and Major Appliance Retailing

STEREO REVIEW
GUIDE TO AUTHORIZED RETAILERS

Leonard Radio

FOR OVER 50 YEARS
CUSTOMERS WORLDWIDE—BEST PRICES
MOST KNOWLEDGEABLE SALES STAFF

AUTHORIZED DISTRIBUTOR

ADCOM ADS ALPINE B&W CROWN DAYTON WRIGHT DBX DENON	DUAL DYNVECTOR GRACE HARMON- KARDON JB LUXMAN McINTOSH NAKAMICHI	OHM ORTOFON PROTON REVOX SOUND- CRAFTSMEN STAX-SUMIKO TANDBERG THORENS
--	--	--

55 WEST 44TH ST. NYC (212) 840-2025
69-34 51ST AVE. WOODSIDE, QUEENS, NY
(718) 803-1111

LEONARD RADIO OF NJ INC.
160 ROUTE 17, PARAMUS, NJ
(201) 261-5525

*Available in Paramus only
VISIT OUR SHOWROOMS FOR
LOWEST POSSIBLE PRICES

Now in Greenwich: the Total End in High End Audio.

Visit our Demonstration Studio, fully equipped with the latest high-technology, Hi-Fi audio equipment from such dedicated manufacturers as ...

Apogee • Canton • Carver • Kycocera
Microseiki • Mirage • MIT
J. A. Mitchell • Monster Cable • Nagaoka
Perreux • Pioneer • QED • Revolver
Spectrum • Stax • Straight Wire • Sumiko
Target • Triad • Vandersteen • VPI
Wharfedale • Well Tempered Arm • Zeta

... a relaxed place. Where you can hear what can be done with today's newest equipment. Where you can compare ... unimpaired. Where you can discuss your needs with the experienced, knowledgeable Aud-Vid people who can turn personal preferences into reality. Phone ... or just stop in ... Mondays through Saturdays.



79 E. Putnam Av. (Rte US 1)
Greenwich, CT 06830
(203) 869-0666

YOUR COMPLETE AUDIO ENTERTAINMENT CENTER



NEW JERSEY'S best value source for DENON

- Answers to your DENON questions—a technically competent staff
- Entire DENON line on display
- Entire DENON line in stock
- Complete DENON factory service

014 CALL OR COME IN TODAY

CSA AUDIO

193 Bellevue Ave., Upper Montclair, NJ
201/744-0600

MONSTER CABLE & INTERLINK at LOWEST POSSIBLE PRICES

Authorized Dealers for:

ADS Advent Aiwa Bose Carver Dahlquist DBX DCM Grado Hafler	JBL Kenwood Luxman Mitsubishi Nitty Gritty Onkyo Sinyet Sony Thorens Wharfedale
---	--



TROLLEY STEREO

360 Trapelo Road (617) 484-7847

Belmont, MA 02178

"YOU'RE ON THE RIGHT TRACK WITH TROLLEY"

audio den ltd.

THREE AUDITIONING ROOMS

Authorized Sales and Service
AUDIO AND VIDEO COMPONENTS

- | | | |
|---|---|--|
| • ADCOM
• A. R. TURNTABLES
• CLASSE
• CONRAD JOHNSON
• DUAL
• GRADO
• HAFLER
• KLIPSCH
• MAGNEPAN
• MAGNET PLANAR
• M.I.T. CABLES | • MONSTER CABLE
• MAD
• NAKAMICHI
• N.E.C.
• OHM
• PARADIGM
• PINNACLE
• ROGERS
• SENNHEISER
• SHURE ULTRA
• SOTA | • SPECTRAL
• STAX
• SUMIKO
• SYSTEMDEK
• TERK
• THORENS
• VELODYNE
• V.P.I.
• YAMAHA |
|---|---|--|

RENTALS • TRADE-INS • DISCS & TAPES

SMITH HAVEN PLAZA
2021 NESCONSET HWY. (RT. 347)
LAKE GROVE, N.Y. 11755
(ADJ TO SMITH HAVEN MALL)

(516) 360-1990

The Best Price on Sound Advice



At SOUND STAGE you can talk to a knowledgeable salesperson who will advise you on the best audio or video equipment that meets your needs and budget. From our large selection you can compare performance specifications and prices.

ALL SOUND STAGE equipment includes:

- 30-day best price protection
- free 3-year warranty with parts & labor
- free delivery

PLEASE, NO MAIL ORDER

NEC ALPINE ENERGY TUSAWAN THE UNICO BOX
ADS SIGNED LUXMAN AUDIO PRO AUDIOCONTROL
DCM HAFLER ALISON C.J. WALKER BEYER DYNAMIC
STAX GRACE PROTON NITTY GRITTY DBX SOUNDFIELD
KLOSS FOXTEK CLIFFORD JENSEN VIDEO BANG & OLUFSEN
AMBER DENON CUNTECH 30 ACoustics SURROUND SOUND

Call for store hours
(718) 961-9888

173 Broadway
NYC, NY 10007
(NW corner of
B'way & Cortlandt
Enter on Cortlandt
One flight up.)
OR

184-10 Horace Harding Expwy
Fresh Meadow, NY 11365 (Exit 25 L.I.E.)



polkaudio

The Speaker Specialists®

Where to buy Polk Speakers?

AUTHORIZED DEALER LIST

CANADA: Call Evolution Technology, Toronto for nearest dealer 1-800-263-6395
AL Auburn: Audio Warehouse
Birmingham (Homewood): Audion
Huntsville: Campbell's Audio Video
Dallas: Mobil; Sound Advice
Montgomery: The Record Shop
AK Anchorage: Shimek's; Fairbanks: Hottis Music
AZ Flagstaff: Sound Pro • Mesa: Hi-Fi Sales • Tucson: Audio Emporium
AR Little Rock: Leisure Electronics • Searcy: Sound Room
CA Arcata: Arcata Audio • Bakerfield: Sound Advice • Berkeley: Soundings Board • Campbell: Sound Goods • Canoga Park: Shelley's • Chico: Sounds By Dave • Davis: World Electronics • Fairfield: C. & M. Stereo • Fremont: Banana's Hi-Fi • Los Angeles: Beverly Stereo • Mill Valley: World of Sound • Mountain View: Sound Goods • Napa: Palaversin • Orange: Absolute Audio • Pennington: California Stereo • Sacramento: World Electronics • San Diego: Sound Company • San Francisco: Stereo Store • World of Sound • San Gabriel: Audio Concepts • Santa Barbara: Creative Stereo • Santa Maria: Creative Stereo • Santa Monica: Shelley's Stereo • Stockton: Giguans Camera Audio Video • Thousand Oaks: Creative Stereo • Ventura: Creative Stereo • Visalia: Metro Stereo • Walnut Creek: High Fidelity Shoppe
CO Arvada: Soundtrack • Aurora: Soundtrack • Boulder: Soundtrack • Waverly Stereo • Colorado Springs: Sunrise Audio • Denver: Soundtrack • Littleton: Soundtrack • Pueblo: Sunshine Audio • Thornton: Soundtrack
CT Avon: Hi-Fi Stereo House • Fairfield: Audio Design • Greenwich: Al Franklin's • Groton: Roberts • Hartford: Al Franklin's • New Haven: Audio Den • Newington: Hi-Fi Stereo House • New London: Roberts • Norwalk: Audio Concepts
DE Wilmington: Bryn Mawr Stereo
DC Silver Spring
FL Altamonte Springs: Audio Spectrum • Boca Raton: Capl Video • Daytona Beach: Stereo Plus • Ft. Lauderdale: Capl Video • Ft. Myers: Stereo Garage • Ft. Pierce: Sound Shop • Ft. Walton Beach: Audio International • Jacksonville: Audio Tech • Lakeland: Sound Factory • Merritt Island: Southern Audio • Miami: Audio By Caruso • Oak Park: Synthesis • Sebring: Stereo Garage • Orange Park: Audio Tech • Deland: Audio Spectrum • Pensacola: Fidler Hi-Fi • Tallahassee: Stereo Stereo • Tampa: Audio Vision • W. Palm Beach: Electronic Connection
GA Atlanta: Stereo Village • Augusta: Stereo City • Duluth: Stereo Village • Macon: Georgia Music • Morrow: Stereo Village • Savannah: Audio Warehouse • Smyrna: Stereo Village • Tucker: Stereo Village
HA Honolulu: Stereo Station
ID Boise: Stereo Shoppers • Moscow: Audio Warehouse • Pocatelli: Stokes Brothers • Sandpoint: Electracraft • Twin Falls: Audio Warehouse
IL Aurora: Stereo Systems • Bloomington: Alan's Creative Stereo • Buffalo Grove: Columbia Audio Video • Carbondale: Southern Stereo • Champaign: Good Vibes Sound Inc. • Decatur: Audio Plus • Hoffman Estates: Simply Stereo • Highland Park: Columbia Audio Video • Joliet: Stereo Systems • Lansing: Audio Clinic • Mt. Prospect: Simply Stereo • Naperville: Stereo Systems • Northbrook: Alan's Creative Stereo • Peoria: Team Electronics • Riverdale: Simply Stereo • Rockford: Columbia Audio Video • Schaumburg: Alan's Creative Stereo • Skokie: Hi-Fi Hub • Springfield: Sundown One • Sterling: Midwest Hi-Fi • Vernon Hills: Alan's Creative Stereo • Villa Park: Hi-Fi Hutch • Waukegan: Alan's Creative Stereo
IN Bloomington: Hoesler Electronics • Bluffton: Eley TV & Stereo • Ft. Wayne: Classic Stereo • Lafayette: Good Vibes Sound Inc. • Marion: Classic Stereo • Muncie: Classic Stereo • South Bend: Classic Stereo • Terre Haute: Hoesler Electronics
IA Des Moines: Audio Labs • Fairfield: Golden Ear Audio Video • Mason City: Sound World • Sioux City: Audio Emporium
KS Junction City: Audio Junction • Overland Park: Audio Electronics • Wichita: Audio Visions • Topeka: Nelson's
KY Bowling Green: Audio Center • Lexington: Stereo Shopper • Oxon: Audio • LA Grains: Stereo Village • Lafayette: Sound Electronics • Metairie: Stereo Village • New Orleans: Stereo Village • Opelousas: Sound Electronics • Shreveport: Audio Fidelity • West Monroe: Audio West
ME Bangor: Sound Source • Camden: Harbor Audio Video • Westbrook: Haves: TV: The Sound Cellar
MD Annapolis: Sockeyes Sound • Baltimore: Soundage • Frederick: Evergreen Audio • Rockville: Myer Emco
MA Boston: Waltham Camera & Stereo • Fitchburg: Fitchburg Music • N. Dartmouth: Creative Sound Systems • Worcester: O'Connell
MI Ann Arbor: Absolute Sound • Birmingham: Amas Hi-Fi • Dearborn: Amas Hi-Fi • East Lansing: Stereo Shopper • Farmington Hills: Amas Hi-Fi • Grand Rapids: Classic Stereo Ltd. • Iron Mountain: Sound Room • Kalamazoo: Classic Stereo Ltd. • Lansing: Stereo Shop • Portage: Sound Room • Royal Oak: Absolute Sound • Saginaw: Audio Shoppe • Court St. Listening Room • Traverse City: Stereo Shoppe
MN Brooklyn Center: Audio King • Burnsville: Audio King • Duluth: Me's TV & Audio • Edina: Audio King • Minnetonka: Audio King • Minneapolis: Audio King • Minnetonka: Audio King • Rochester: Audio

King • Roseville: Audio King • St. Paul: Audio King
MS Columbus: Audio Advantage • Gulfport: Empress • Jackson: Walters Audio • Pascagoula: Empress • Tupelo: Audio Advantage
MO Cape Girardeau: Stereo One • Columbia: D. & M. Sound • Lebanon: Segi Music & Sound • St. Louis: Sound Center
MT Bozeman: Thrifty Ear • Great Falls: Rocky Mountain Hi-Fi
NC Asheville: McLoadi Stereo Video • Chapel Hill: Stereo Audio • Charlotte: Stereo Video • Ias • Gastonia: Ias • Greensboro: Stereo Sound • Kannapolis: Ias • Morehead City: Anderson Audio • New Bern: Anderson Audio • Pineville: Stereo Video • Raleigh: Audio Bays • Stereo Sound • Wilmington: Atlantic Audio • Winston-Salem: Stereo Sound
ND Bismarck: Pacific Sound • Minot: Midwest Audio
NE Lincoln: Stereo West • Norfolk: Mid City Stereo • Omaha: Stereo West
NH Concord: Audio of New England • Lacrosse: Audio of New England • New London: North Star Electronics • Salem: Cuomo's • South Portland: Atlantic Stereo • Franklin Lakes: Franklin Lakes Stereo • Maple Shade: Bryn Mawr Stereo • Montclair: Perdue Radio • Raritan: AC Audio • Ridgewood: Stereo Video • Shrewsbury: Mermouth Stereo • Toms River: Rands Camera • West Caldwell: Perdue Radio
NM Albuquerque: Real Time Audio • Albuquerque: DBX Electronics • Carlsbad: Beason
NV Las Vegas: Upper Ear • Reno: The Audio Authority
NY Albany: Clark Music • Batavia: Union Audio • Buffalo: Speaker Shop • Corning: Chemung Electronics • Elmira: Chemung Electronics • Fredonia: Studio One • Glens Falls: Audio Genesis • Huntington: Audio Breakthrough • Rhineclere: Chemung Electronics • Jamestown: Studio One • Manhasset: Audio Breakthrough
Newburgh: Randon's Electronics • New York City: Stereo Sound • Westchester: Stereo Shop • Rochester: JB Sound • Scarsdale: Listening Room • Syracuse: Clark Music • West: Hart Electronics • Wappingers Falls: Beason
OH Cleveland: Audio Craft • Cincinnati: Stereo Lab • Columbus: Stereo Lab • Fairview: Audio Craft • Findlay: Audio Craft • Lima: Audio Craft • Marietta: Audio Craft • Toledo: Audio Craft • Westlake: Audio Craft
OK Lawton: Hi-Fi Shop • Oklahoma City: Audio Emporium • Tulsa: Stereo Concepts
OR Beaverton: Stereo Superstores • Eugene: Bradford's High Fidelity • Portland: Stereo Superstores
PA Allentown: Bryn Mawr Stereo • Altoona: Sound Concepts • Blakely: Hart Electronics • Bryn Mawr: Bryn Mawr Stereo • Camp Hill: Bryn Mawr Stereo • Erie: Studio One • Frazier: Bryn Mawr Stereo • Indiana: Sound Concepts • Jankintown: Bryn Mawr Stereo • Johnstown: Gary's Entertainment • Kingston: Hart Electronics • Lancaster: Hi-Fi Stereo • Montgomery: Bryn Mawr Stereo • Norcross: Stereo Lab • Philadelphia: Bryn Mawr Stereo • Pittsburgh: Audio Junction • Quakertown: Bryn Mawr Stereo • Reading: Hi-Fi Stereo • Sellersburg: Stereo Shop • Williamsport: Robert M. Sides
PR RICO RICO Rio Piedras: Precision Audio • San Juan: Network Electronics
SC Charleston: Audio Warehouse • Columbia: Stereo Shop • Greenville: Mitchell's • Hilton Head: Stereo Shop • Myrtle Beach: Stereo Shop • Spartanburg: Stereo Shop
TN Rapid City: Team Electronics • Sioux Falls: Audio King
TX Chattanooga: College Hi-Fi • Dallas: Network Electronics • Dallas: Johnson City • Mt. Lewis Stereo Video • Kingsport: Mr. Toad's Stereo Video • Knoxville: Lindsey Ward • McMinnville: Network Entertainment • Memphis: Ous II • Nashville: Hi-Fi Boys
TX Arlington: Sound Idea • Austin: Audio Video • Beaumont: Brock Audio • College Station: Audio Video • Corpus Christi: Tape Town • El Paso: Sounddeck • Ft. Worth: Sound Idea • Galveston: Island Audio • Houston: Sheffield Audio • Hurst: Sound Idea • Longview: Audio Techniques • Lubbock: Ultra Electronics • Odessa: Harold's Electronics • Sherman: Worldwide Stereo • Temple: Audio Tech • Tarrant: Audio Tech • UT Logan store only: Stokes Brothers • Salt Lake City: Broadway Music • VA Bristol: Mr. Toad's Stereo Video • Charlottesville: Sound Machine • Falls Church: Myer Emco • Leesburg: Evergreen Audio • Richmond: Gary's Stereo • Roanoke: Audio Concepts • Virginia Beach: Digital Stereo • VA Bellevue: Northwest Audio Video • Bellingham: QC Stereo • Lynnwood: Northwest Audio Video • Oak Harbor: QC Stereo Center • Richland: Mr. Toad's Stereo • Seattle: Delivertive Audio • Northwest Audio Video • Spokane: Electrical (Hal's) • Tukwila: Northwest Audio Video
WV Barbourville: Pied Piper • Beckley: Pied Piper • Huntington: Pied Piper • Morgantown: Sound Post • Piedmont: Sound Gallery
WI Appleton: Sound World • Eau Claire: EMF Electronics • Green Bay: Sound World • Lacrosse: Sound World • Madison: Happy Medium • Marinette: Sound Source • Milwaukee: Audio Emporium • Wausau: Sound World
WY Cheyenne: Team Electronics • Riverton: Sound Room

STEREO REVIEW GUIDE TO AUTHORIZED RETAILERS

SOUTHEASTERN



YOU CAN AFFORD SOMETHING BETTER AT HI FI BUYS

WE CARRY THE BEST STEREO & VIDEO AT THE BEST PRICE!

- Acoustat
- Canon
- Magnavox
- Quasar
- Adcom
- Carver
- Minolta
- Sharp
- ADS
- DCM
- Mitsubishi
- Sony
- Advent
- Denon
- Monster Cable
- Systemdek
- Bang & Olufsen
- Infinity
- Nakamichi
- Thorens
- Belles
- KEF
- NEC
- Toshiba
- Bose
- Kenwood
- NYAL Moscode
- AND MORE!

14 ATLANTA LOCATIONS • (404) 351-8354

STEREO REVIEW MAIL ORDER MART



FOR FASTEST SERVICE CALL:
(212) 684-6363

or Write Direct:
2 PARK AVE., DEPT. 15, New York, NY 10016
HOURS: 9AM-7PM est Mon-Sat

RECEIVERS

DENON	YAMAHA	SONY	JVC
DRA755	399 R9	Call	
DRA555	339 R7	409	
DRA355	209 R3	199	
STRAV880	Call RX9VBK	Call	
STRAV580	299 RX7VBK	349	
STRAV480	249 RX5VBK	289	

COMPACT DISC PLAYERS

DENON	YAMAHA	SONY	PIONEER
DCD1000	249 CDX3	219	
DCD1100	329 CD400	249	
DCD1300	Call CD700	449	
DCD700	309 CD1000	529	
DCD500	269 CD2000	Call	
CDP55	299 POM6	339	
CDP203	Call CLD909	Call	
CDP302II	Call		

CASIO KEYBOARDS

SONY	AIWA	
SK-1	Call CZ1000	319
CZ101	319 MT205	159
CT6000	499	

PERSONAL STEREO

SONY	AIWA	
WMD6C	259 HSG600	104
WM100	89 HST600	139
ECM939	69 HSJ600A	165

CASSETTE DECKS

DENON	YAMAHA	
DRM44HX	429 K1020	Call
DRM33HX	379 K540	Call
DRM22	199 K420	219
DRM10	319 K320	159

PHONES / ANSWERING MACHINES

PANASONIC	SW BELL	SONY
KXT1421	79 FF1700	149
KXT1426	109	
KXT1625	99 ITA500	159
KXT2135	78 ITA600	189
KXT2345	63 IKT300	67
KXT2425	158 SPP100	159
KXT3135	88 SPP300	229
KXT3160	148 PHONEMATE	
KXT3845	119 7000	89
	SANYO	8000
TAS1100	59 8050	139
TAS255	88 9700	169
TAS355	98 9750	189

VIDEO RECORDERS

JVC	PANASONIC	SONY
HRD180	359 PV1361	279
HRD470	609 PV1642	679
	NEC	
DX1000	549 SLHF450	Call
N965	729 SLHF750	Call
	TOSHIBA	SHARP
DX7	679 HiFi	379
M2100	269 VC6846	259

AMPS AND TUNERS

DENON	YAMAHA	
POA1500	479 M85	759
PRA1000	339 M65	539
PMA757	259 C85	609
PMA900V	509 C65	409
PMA700V	389 A1020	469
PMA500V	269 A720	379
TU747	179 A520	259
TU600	279 T1020	259
TU400	169 T720	259
		T320
		99

TURNTABLES

DENON	TECHNICS	
DP59L	409 SL1200II	Call
DP35F	219 SL0L5	129
DP23F	169	YAMAHA
	DUAL	PF800
CS5000	Call	359

LOUDSPEAKERS

MISSION	CANTON	
780A	849 Karat100	439
770F	Call Karat200	569
737	529 Karat300	699
707	379 CT800	939
700.2	189 CT1000	1199
	CELESTION	CT2000
DL8	399	B&W
SL6	679 DM3000	Call
SL600	1199 DM2000	1049
	KEF	DM1400
103.2	675 DM220	Call
104.2	Call Matrix 2	Call

CAR STEREO

SONY	DENON	
XR787R	309 DCR7600	379
CDXA10	Call DCR5420	359
XM120	Call DCA3250	189
	PIONEER	ALPINE
KEH4141	149	7272
KEH8020	279	3519
CDX-P1	279	3311
	KENWOOD	CONCORD
KRC636	369	HPL540
KAC8020	259	HPL550
	HIFONICS	JVC
Odin	Call	KSR605J
		299

STEREO REVIEW
MAIL ORDER MART

**LOWEST PRICES
ANYWHERE—
ON NAME
BRAND
PRODUCTS**

electronics

**Now
In Stock!**

JVC

VHS CAMCORDER

GRC7U



LARGE SELECTION

**THE LATEST IN AUDIO
& VIDEO EQUIPMENT**

Video Recorders, Players, Color Video Cameras, Camcorders, Big Screen & Portable TV's, Compact Disc Players, Computers, Radar Detectors, Satellite Dishes, Microwave Ovens, Audio Rack Systems, Receivers, Amps, Tuners, Turntables, Cassette Decks, Speakers, Car Stereo, Phono Cartridges, Blank Tapes & more!

**NATIONAL
SALES**

**1-800-942-9421
IN GEORGIA**

1-800-932-9321

OUTSIDE GEORGIA

**Monday-Saturday
9 AM-5 PM E.S.T.**

**American Express, Visa,
Mastercard accepted**

THIS MAGAZINE IS
AVAILABLE IN MICROFORM
DIRECT INQUIRIES TO:

MICRO PHOTO DIVISION
BELL & HOWELL

OLD MANSFIELD ROAD
WOOSTER, OH 44691
Contact Christine Ellis
Call toll-free (800) 324-9881
In Ohio, call (216) 264-6666 collect

STEREO REVIEW
MAIL ORDER MART

Chicago Speaker Stand
THE AUDIOPHILES CHOICE



In order to capture the increased fidelity afforded by today's digital and high quality analogue recordings, audiophiles realize that they must place great attention on proper speaker mounting. Improperly mounted speakers fail to project the advantages of new recording technology as increased dynamics are lost in carpets, furnishings and other environmental factors.

For more musical enjoyment from your audio-video system, elevate your speakers on Chicago Speaker Stands.

CALL TODAY!!

1-800-882-2256

312-745-5500



LIBERTY FROM HIGH PRICES

COME ON IN WHERE THE WHOLE COUNTRY SHOPS FOR VIDEO AT WHOLESALE PRICES... FOR OVER 5 YEARS.



marantz

RCA

ZENITH

Canon Magnavox

Panasonic



If you're fortunate to live near our Florida, Ohio or Kentucky stores, come on in for expert advice.

We'll show you the best equipment for your needs and how to use it.

Our 8 locations give us tremendous buying power which means substantial savings for you!

Unlike others, WE QUOTE PRICES ON THE ITEMS WE STOCK.

Shipped Within 24 Hours.

C.O.D.



Audio Video Center

Video Mart

"When You Take Home Entertainment Seriously."

TAMPA, FL (813)968-8005
BRANDON, FL (813)684-1800
WINTER HAVEN, FL (813)294-4188
LAKELAND, FL (813)647-1988

CINCINNATI, OH (513)874-4300
BEACHMONT, OH (513)474-3555
DAYTON, OH (513)252-5681
FLORENCE, KY (606)525-9393

CALL TOLL FREE 1-800-228-9700

Dealers Inquiries Welcome.

LOWEST PRICES

On over 125 Brands

STEREO/ESOTERIC COMPONENTS,
VIDEO, CAR STEREO, ACCESS.

Call or write for free price list today!

AUDIO UNLIMITED

1203 1/2 E Adams Avenue
La Grande, Oregon 97850
(503) 963-5731

catalog hotline (800) 233-8375

10-6 p.m. M-TH, 10-3 Fri. (Pacific Time)

Call or write for free price list today!

STEREO REVIEW MAIL ORDER MART lets you turn up the volume where your customers are...

Want to beam your mail order message where the customers are? Sell surplus inventory? STEREO REVIEW's new Mail Order Mart was designed with your marketing needs in mind. And this flexible new medium is so budget-wise, you can't afford not to use it!

Call Toll Free
(800) 445-6066

Nationwide Electronic Distributors, Inc.

"The service that spans the nation"—over 130 brands.

ELECTRONIC HOTLINE

212 575-1840

FREE NEWSLETTER

2 WEST 47 ST. ROOM 901, DEPT. 5

NEW YORK, N.Y. 10036

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

C.O.D. ORDER'S

ALL PRODUCTS

USA WARRANTY FACTORY FRESH

HOME AUDIO

DENON DCD 1500	CALL
DENON DRM 14HX	449
DENON DRA 75 VR	399
YAMAHA R-7	399
HARMON KARDON TD-192	189
DUAL CS-5000	CALL
THORENS TO 320	389
PERREAUX PMF 1850	1199
CARVER 900	529
PROTON D12 30	469
ONKYO TX-38	289
PIONEER PDM-6	369
SONY CDP 520 ES	489
SHERWOOD 2750	199
SONY STR-A 880	489
NAD 7175	599
NAKAMICHI EX 300	CALL
HAFLER	IN STOCK

HI-END SPEAKERS

AR PARTNER	239
B & W 220	399
MISSION 707	419
KEF 104.2	1475
ADVENT BABY	149
EPI 100 PLUS	249
JBL 630	CALL
CELESTION DL10	CALL
DESIGN ACOUSTICS PS10	349
CANTON KAROT 100	449
CAR STEREO	
NAKAMICHI TD 400	419
XENWOOD KRC 636	389
SOUNDSTRTEAM TC 305	379
DENON DCR 7600	429
SONY XR 780	269
CARVEER TX-7	CALL
JBL SPEAKERS	IN STOCK

VIDEO RECORDERS

PANASONIC PV-300	1329
PANASONIC PV 1360	269
NEC 965 U	CALL
NEC 925 U	399
SONY SLHF 900	669
FISHER FVH 990	789
TOSHIBA DX-7	699
JVC GR7U	1249
SONY CCDC8AFU	1099
MINOLTA CR 1200	CALL
HARMAN KARDON VCD 4000	CALL

TELEVISIONS

SONY KV 1370R	299
SONY KV 25XBR	889
NEC 2610A	669
PROTON 619 A	CALL
SHARP 19' REMOTE	289
SONY KV 36XBR	2199

RETAILERS' EXCLUSIVE!

Network with *proven* customers in your region
via *Stereo Review*

Now for the first time, *Stereo Review* helps you beam your sales message to proven, ready-to-buy customers in your region. With no "interference" from mail order advertising.

83% of *Stereo Review* subscribers plan to buy in the next 12 months.
Over four-fifths of *Stereo Review*'s young, affluent, educated subscribers plan to buy equipment in the next 12 months. And your advertising can connect you with these desirable customers every month in *Stereo Review*'s GUIDE TO AUTHORIZED RETAILERS.

An effective, exclusive regional network—at reasonable cost.

This ideal new medium is open *only* to authorized retailers.

And unlike ads in local media, your message in *Stereo Review*'s new GUIDE TO AUTHORIZED RETAILERS is virtually guaranteed to tune in the *proven* customers in your region. So you target your true market as never before—at very reasonable cost: \$600 per 1/9 page regional insertion (minimum size), additional inches \$200 each. Discounted rate for 6 insertions, \$575.

Call Toll Free: (800) 445-6066

To place your ad or for more information, call today. We're waiting to connect you!

© 1983 Stereo Review Subscriber Survey

STEREO REVIEW CLASSIFIED

EQUIPMENT

audio-technica *Grace*

GRAIN!

DIAMONDS ARE NOT FOREVER!

When was the last time you changed your stylus? If you can't remember, then it may already be too late!!

We specialize in phono cartridges, factory original replacement styli & record care items only!!

(800) 221-0906

CALL TOLL-FREE FOR FREE PRICE QUOTES AND VISA/MC ORDERS N.Y. STATE (516) 599-1112

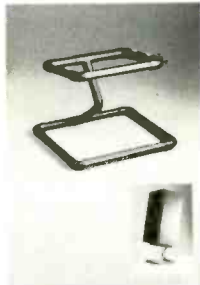
SEND SELF ADDRESSED STAMPED ENVELOPE FOR OUR FREE CATALOG.

LYLE CARTRIDGES
Dept. SR, Box 158
Valley Stream, N.Y. 11582

Phones Open Mon-Sat 9 am-8 pm

ortofon SHURE STANTON

COUNTERFEIT LAST MONSTER-CABLE **Dynavector** **Bang & Olufsen** **PICKERING**



SAASS HI-TECH SPEAKER STANDS. Reduces "booming" more than any other speaker stand due to the SAASS unique design. Surround your properly angled speakers with air for dramatic improvement in sound. Fits any speaker up to "30 LBS". Satisfaction guaranteed. Price: \$34.95 per pair, plus \$3.50 shipping/handling. California residents add 6.5% tax. Send check, money order, VISA/MC account numbers to: SAASS DESIGN, 3145 Geary Blvd, Suite 232, San Francisco, CA 94118. (415) 221-3454. Allow 4-6 weeks delivery. U.S. Patented.

LOWEST POSSIBLE PRICES ANYWHERE! Full warranty—Most Audio brands! C.D's—Car Products—Computers (Hardware—Software)—Most Video Brands!! **ELECTRIFIED DISCOUNTERS**, 996 Orange Ave., West Haven, CT 06516, MC/VISA (203) 937-0106.

HAFLEER OWNERS, DYNA OWNERS, ALL MUSIC LOVERS! Jensens Stereo Shop, respected designers of higher performance circuits for Hafler and Dyna chassis, has a new name—AUDIO BY VAN ALSTINE. Send \$1.00 (to cover postage) for our great new catalog describing our new equipment and cost-effective amplifier, preamp, tuner, and CD player upgrading services. Audio by Van Alstine, 2202 River Hills Drive, Burnsville, Minnesota 55337. (612) 890-3517.

Stereo Express **CALL NOW** (714) 594-5749

CALL FOR PRICE FAST & FRIENDLY SERVICE
Most Orders Shipped Within 48 Hours
HOME AUDIO
YAMAHA, ADS, BOSE, HAFLER, HARMAN, KARDON, INFINITY, AR, ALTEC, SONY, DBX, JBL, JVC, AIWA, TECHNICS, AKAI, SAE, MICRO SEIKI, ADCOM, TEAC, STAX, ADVENT, AUDIO SOURCE, AND MANY MORE

CAR AUDIO
ADS, ALPINE, BLAUPUNKT, CONCORD, SONY, KENWOOD, PIONEER, CLIFFORD, ALARMS

VIDEO
SONY, JVC, RCA, PANASONIC
709 Brea Canyon Rd., Suite 9, Walnut, CA 91789

DIRECT SIGHT AND SOUND, America's best kept audio and video secret, continues to please... Five years and over 40,000 customers later, we still offer the best in audio, video, and auto sound including esoterics at incredible prices! We sell and service only U.S. warranty merchandise! Our staff is not only knowledgeable, but helpful and courteous in choosing the right component for you. Become one of the ELITE! Call (404) 351-6772. Direct Sight and Sound, 3095 Bolling Way, Dept. S, Atlanta, GA 30305. MC/VISA/AMEX. COD with deposit.

CABLE TELEVISION CONVERTERS, DESCRAMBLERS and WIRELESS REMOTE CONTROL VIDEO EQUIPMENT ACCESSORIES. CATALOG FREE. Cable Distributors Unlimited, 116 Main Lane, Washington, AR 71862.

BANG & OLUFSEN, ADS, Luxman, NAD, Thorens, Kyocera. Reasonable prices. Soundcrest, Inc., (201) 756-4858.

Audio·Video Car Stereo

Lowest Prices on All Major Brands of Audio, Video & Car Stereo

FULLY WARRANTEED

GET IT FREE!

Free Delivery Anywhere in the U.S.
Major Credit Cards Accepted

The SOUND Approach
6067 Jericho Tpke., Commack, NY 11725
"Call Us" (516) 499-7680

GET LOW PRICES ON ALL types of audio equipment—including high-end and even esoteric products not normally discounted! Now we can save you money on the equipment you REALLY WANT. Extensive selection—no need to settle for second choice. Thousands of satisfied customers nationwide. FAST delivery available. All products feature USA manufacturer's warranty. Call us for price quotes or friendly, expert advice. Catalog \$1. (616) 451-3868. VISA/MC/AMEX. The Audio Advisor, Inc., 225 Oakes SW, Grand Rapids, MI 49503.

CARVER, NAKAMICHI, BANG & OLUFSEN, A.D.S., CROWN, TANDBERG, REVOX, HAFLER, ADCOM, MISSION, MERIDIAN, N.A.D., HARMAN/KARDON, KYOCERA, YAMAHA, LUXMAN, DENON, KLIPSCH, B&W, POLK, KEF, D.C.M., E-V, J.B.L., INFINITY, D.B.X., AKG, AND OTHER QUALITY COMPONENTS. BEST PRICES—PROFESSIONAL CONSULTATION. ALL PRODUCTS COVERED BY MANUFACTURERS' U.S.A. WARRANTY. AMERISOUND SALES, INC., EAST: (904) 262-4000; WEST: (818) 243-1168.

BEAT THE PRICE FIXERS with low discount prices on: Carver, ADS, Bang & Olufsen, Revox, Nakamichi, Hafler, Kyocera, Tandberg, Luxman, H.K. Manufacturers U.S.A. warranty on all. ISLAND AUDIO, INC., (904) 253-3456.

CABLE TV CONVERTERS & EQUIPMENT. Plans and Parts. Build or buy. FREE INFORMATION. C&D Electronics, P.O. Box 1402 Dept. SR, Hope, Arkansas 71801.

CALL TOLL FREE! 1(800) 826-0520 for DAN, Hafler, Denon, Dahlquist, Tandberg, dbx, 3D, Proton, Nittygritty, B&W, VSP, Thorens, Grace, CWD, Monster, M&K, Grado, Belles, Oracle, Talisman, Duntech, Stax, Snell, Tiptoes, Audioquest, DCM, Proac, Dynavector, Fried, Moscode. **SOUND SELLER**, 1706 Main, Marinette, WI 54143. (715) 735-9002.

FREE CATALOG—LOWEST DISCOUNT PRICES. 150 famous brands. Esoteric/home/car/video. Audio Unlimited, 1203D Adams Ave., La Grande, Oregon 97850. (503) 963-5731 9-6, M-Th, Pacific Time. (800) 233-8375 X100 for catalog only.

SAVE UP TO 75%! Esoteric loudspeaker kits, acoustic foam, drivers, enclosures, capacitors etc. Catalog \$2.00. Refundable. Audio Concepts, 1631 Caledonia St., LaCrosse, Wisconsin 54602. (608) 781-2110.

YAMAHA: R9 \$699, R8 \$539, GE 60 \$329, CD 2000 \$649, CD 700 \$479, CD 500 \$329, M 85 \$799, C 85 \$639, T 85 \$379, T 720 \$229, T 1020 \$299, DSP 1 \$749. **NAKAMICHI:** BX 100 \$279, BX 125 \$379, BX 300 \$599, RX 202 \$549, RX 505 \$1019, CR 7 A \$1269, DRAGON \$1629, OMS 3 A \$599, OMS 4 A \$849, SR 2 A \$389, SR 3 A \$499, ST 7 \$619, CA 5 \$629, TD 700 \$699, TD 300 \$319, PA 400 M \$359, PA 350 \$339, SP 300 \$279, SP 400 \$309, DENON: DRM 44 HX \$519, DCD 1300 \$449, DCD 1500 \$539. **SONY:** TCD 5 M \$649. USA Warranty. International models available. VISA/MC, AMEX, DINERS, COD. For catalog or order only, please call 1(800) 222-2219 extension 201. New Jersey 1(800) 222-4134 extension 201. More Information on ONKYO, LUXMAN, CARVER, HARMAN KARDON, KYOCERA please call 1(206) 747-9999. **TASKAMICHI AUDIO**, P.O. Box 331, Martinsville, NJ 08836. Prices subject to change.

CASH FOR ALL TYPES of used Stereo equipment. We buy by phone. **THE STEREO TRADING OUTLET**, 320 Old York Rd., Jenkintown, PA 19046. (215) 886-1650.

UNPRESSURED, PERSONALIZED CONSULTATION and lowest prices on a variety of superb components. **COMMUNITY AUDIO**, 318 West Duval, Philadelphia, PA 19144. (215) 843-9918.

JSE INFINITE SLOPE LOUDSPEAKERS—All models! Home Auditings!! Free Shipping! Sound Unlimited, 178 Main St., Bristol, CT 06010. (203) 584-0131.

LOUDSPEAKER COMPONENTS—KITS, Audax, Dynaudio, Focal, Eclipse, Catalog \$1.00, Meniscus, 3275S Gladiola, Wyoming, Michigan 49509. (616) 534-9121.

UPGRADES FOR THORENS TURNTABLES—GRADO PICK UPS, Corktone Platter Mat, cables and other products. For information catalog: \$3.00 refundable. **CHADWICK MODIFICATIONS**, Dept. SR, 205 Rindge Ave., Cambridge, MA 02140.

PHILIPS, AUDAX, PEERLESS, FOCAL, AND DYNAUDIO LOUDSPEAKERS in stock with good prices and competent services. Crossover components also. **MADISOUND SPEAKER COMPONENTS**, 8608 University Green, Box 4283, Madison, WI 53711.

JUST LISTEN!

"The Mod Squad Compact Disc Damper is an inexpensive device that gives better sonic results than any \$25 device has a right to. If it will fit in your CD player, it comes with my highest recommendation."

Allen Edelstein
Stereophile, vol. 9, no. 2

"We know of no other audio accessory that provides so much sonic improvement for so little cost. A must, if application dictates, for any system having compact discs as a program source."

Earl C. Hudson,
Audiogram 21



YOU'LL HEAR WHAT THEY'RE TALKING ABOUT

Available from Mod Squad dealers everywhere

The Mod Squad offers a unique portfolio of products and services. For a complete catalog, send \$2 (refundable with order) to The Mod Squad, Department R, 542 Coast Highway 101, Leucadia, CA 92024.



542 Coast Highway 101
Leucadia, CA 92024
(619) 436-7666

In Australia: Sound Centre HI-FI, Brisbane
In Canada: May Audio Marketing, Longueuil
In France: Audio Quartet, Nice
In Hong Kong: Sound Chamber
In Italy: P.F.A., Pisa
In Netherlands: Audio Quartet, Nice
In South Africa: Phonovox, Johannesburg
In Switzerland: The Critical Ear, Basel
In United Kingdom: Parabolic Sales, Devon



A SINGER'S DREAM!

REMOVES VOCALS FROM RECORDS!

Now You can sing with the world's best bands! The Thompson Vocal Eliminator can remove most or virtually all of a lead vocal from a standard stereo record and leave most of the background untouched! Record with your voice or perform live with the backgrounds. Used in Professional Performance yet connects easily to a home component stereo system. Not an equalizer! We can prove it works over the phone. Write or call for a Free Brochure and Demo Record.

LT Sound, Dept. SR, P.O. Box 338,
Stone Mountain, GA 30086 (404) 493-1258
24 HOUR PHONE DEMO LINE: (404) 493-6879

COMPACT DISC PLAYERS STEREO and VIDEO EQUIPMENT at DISTRIBUTOR PRICES!

- ★ **NO DEPOSIT** - Nothing to pay till you receive your order
- ★ **SAME DAY SHIPPING** - of orders phoned in before 1 pm
- ★ **LEMON-PROOF GUARANTEE** - 90 day replacement of equipment not able to be properly serviced

WRITE OR CALL FOR CATALOG



**INTERNATIONAL
HI FI
DISTRIBUTORS**
MORAVIA CENTER
INDUSTRIAL PARK
BALTIMORE, MD. 21206
(301) 488-9600
Daily 9 to 9; Sat. 10 to 5

WE ARE AMAZING!!! Amazing offers on HIFI, VIDEO, and CAR STEREO. Choose from: YAMAHA, SONY, ALPINE, KENWOOD, INFINITY, JBL, MERIDIAN, CARVER, NAKAMICHI, CANTON, MISSION, PS AUDIO, APOGEE, HAFLER, STAX, much more. We have no competitors. If you're serious or curious you cannot afford to wait. For a look at the future of electronic retailing **CALL OR WRITE TODAY: AMAZING INT'L SIGHT & SOUND INC., Dept. 12, 1323 South 4th Street, Philadelphia, PA 19106. (215) 969-1166.**

QUALITY TAPES

864 EAST 77 ST., BROOKLYN NY 11230
CALL FROM ANYWHERE: 718-434-3417
NO EXTRA CHARGE FOR VISA/MASTERCARD

TDK	MAXELL	VIDEOS T-120/L750
D 60 85	UR 60 85	TDK HS 4.45
D 90 95	UR 90 95	TDK HI-FI 6.99
D 120 1.79	UR 120 1.85	Mosell Ex 4.45
AD 90 1.55	UD-SIIH90 1.69	Mosell Gold 7.49
SA 60 1.55	XLIIH60 1.65	SONY 4.45
SA 90 1.65	XLIII90 1.75	ESHG 5.65
AD-SX90 1.95	XLIIH-560 2.09	SCOTCH EG 4.45
SA-X60 2.05	XLII-S90 2.25	EG 5.45
SA-X90 2.15	MX 90 3.45	
MX-S90 2.95		SONY
MAX 90 3.65	DISC WASHER	HF60 85
MA-XC90 5.45	Dishie 31.95	HF 90 95
		UXES 90 2.45
		HF120 1.65
		UX PRO 90 2.89
		UCXS 90 1.75
		ES 90 3.89

CALL NOW: 718-434-3417 OR ORDER BY MAIL
In USA Add \$4.95 Shipping To Your Order
INSTITUTIONAL ORDERS WELCOME

HIGH-END AUDIO AND HARD-TO-FIND AUDIO COMPONENTS. LOW, LOW PRICES! AUDIO AMERICA. CALL 1(804) 797-5861.

SAVE 40% ON HIGH-END home speakers, car audio. RTRD, 2105 Claremont, Springfield, IL 62703. (217) 529-8793.

CABLE TV CONVERTERS/DESCRAMBLERS Guaranteed lowest prices in U.S. Jerrold, Hamlin, Zenith—many others! Lowest dealer prices! Orders shipped within 24 hours! MasterCard—Visa—C.O.D. accepted. Free catalog—call (800) 345-8927 only! Pacific Cable Co., Inc., 7325 1/2 Reseda Blvd., #1311, Reseda, CA 91335. All other information, call (818) 716-5914.

AUDIO WORK SHOP, Florida West Coast. Sota, NAD, Polk, Luxman, Adcom, JSE Infinite Slope, Signet, Hafler. 3203 Manatee Ave., W. Bradenton, FL 33505. (813) 748-3868.

ARE YOU INTERESTED in Quality Preowned Audio Equipment? Subscribe to "The Sound Trek," published 6x annually, your listings of items for sale or wanted. \$10/yr. Call or write: Play It Again Sam, 12611-R Madison Avenue, Lakewood, Ohio 44107, (216) 228-0040. MC/VISA.

LOW PRICES-HIGH END EQUIPMENT!!! Denon, Hafler, Carver, Acoustat, Yamaha, Conrad-Johnson, ADCOM, JBL, Boston Acoustics, Proton and any others you desire. AUDIO ELITE, (414) 725-4431, Menasha, Wisconsin.

SAVINGS TO 40%: Nakamichi: Revox, NAD, KEF, B&W, Yamaha, Mission, Tanberg, Kyocera, Sony, plus 100 others East 1(202) 723-7404; West 1(206) 325-7601.

STEREO CITY ATLANTA MAIL ORDER DIVISION. We carry everything in electronics. Yamaha, Alpine, Denon, SAE, Soundcraftsman, Hafler, JVC, Pioneer, Nikko, AIWA, EPI, (404) 264-9378.

WE SELL SECOND HAND high quality audio-video with money back guarantee! Send your name and address for FREE monthly inventory. Ross Stereo, 4912 Naples Place, San Diego, CA 92110. (619) 275-3632.

HIGH-END LOUDSPEAKER systems, speaker klts and the widest selection of raw drivers from the world's finest manufacturers. For beginners and audiophiles. Free catalog. A&S SPEAKERS, Box 74625, Denver, CO 80207. (303) 399-8609.

NOW AVAILABLE—DB SYSTEMS HIGH LEVEL preamplifier - optimized for line level sources. DB-1A-HL & DB-2A \$375.00 DB SYSTEMS, Rindge Center, New Hampshire 03461. (603) 899-5121

ELECTRON TUBE SALES major brands, matched sets, since 1947. ARS Electronics, 7110 DeCellis Pl., Dpt SR, VAN NUYS, CA 91406. Nat (800) 422-4250, CA (800) 422-4277.

LOWEST PRICES. BOSE, DBX, JBL, ADCOM, and more. DYNAMIC SOUND, Box 168, STARKVILLE, MS 39759. (601) 323-0750. M-F 2-8PM.

FINALLY, a serious alternative to mail order. Expert advice and service. Authorized dealer for over 50 of the best manufacturers. ELECTRACRAFT, 400 CEDAR STREET, SANDPOINT, IDAHO. 83864. (208) 263-9516.

CONRAD JOHNSON, Harmon Kardon, Sony P.S. Audio, B&W, Sota, Adcom, Magneplanar, DBX, many more. PULSE ELECTRONICS. (305) 331-5830.

ORDER TOLL-FREE 1(800) 222-3465. DISCOUNTS! AR * ALCHEMISTS * AUDIOQUEST * BOSE * BOSTON * GRADO * HAFLER * HARMAN KARDON * JBL * KENWOOD * MONSTER * NITTY GRITTY * PREMIER * SONY * SOTA * THORENS * PLUS MORE. HCM AUDIO, 1600 BX MANGROVE, CHICO, CA 95926. (916) 345-1341.

EXPERIENCED, FRIENDLY ADVICE! ACOUSTAT, PS, HAFLER, SAE, SONY, KLIPSCH, THORENS, PROTON, FRIED, ADCOM, MONSTER CABLE, CD PLAYERS, more. Immediate, FREE shipping! READ BROTHERS STEREO, 593-B King Street, Charleston, South Carolina 29403. (803) 723-7276.

JBL, ALTEC, E-V speaker components and systems. Model 19's. Low prices, free flyer. AHCo. (201) 561-8123.

PAUL HEATH AUDIO, 217 Alexander, Rochester, NY 14607—for 30 years one of the largest state-of-the-art inventories in USA. Your best investment is calling (716) 262-4310.

REK O-KUT belts, ORK turntable parts, and suse professional cartridges. Available through: ORK, 1151 S. 7TH ST., SAN JOSE, CA 95112. (408) 971-7977.

AUDIO SPECIALTY SHOPS

AUDIOPHILES/VIDEOPHILES! We have the widest selection of audio/video equipment available. Adcom, Infinity, Harman Kardon, Kyocera, JVC Video, Canton, Klipsch, Luxman, Sony ES, Yamaha, NEC. Call for information. CONTINENTAL SOUND, 98-77 Queens Blvd., Rego Park, NY 11374. (718) 459-7507. Immediate delivery MC/VISA/AMEX/DISCOVER.

FREE HIGH END KIT CATALOG. Power amplifiers, preamps (tube/ic/JFET), active crossovers (tube/ic), Resista +/-1% MF Resistors, Gold RCA connectors, Mogami cables. OLD COLONY SOUND, Box 243R, Peterborough, NH 03458.

RECORDS

OPERA-HISTORICAL PERFORMANCES. VIDEO & DISC. Most comprehensive selection. Catalog \$1.00. LYRIC, Box 235, Roslyn Heights, NY 11577.

COLLECTORS' SOUNDTRACKS. Min. Top titles, speedy service. List \$1.00 (refundable). Jemm's. P.O. Box # 157, Glenview, IL 60025.

IN-PRINT & OUT-OF-PRINT RECORDS ALL CATEGORIES & NOSTALGIA VIDEO TAPES... Spectacular Catalog!! \$2.00 USA/\$3.00 Foreign. Serendipity Records, 4775 Durham Road, Guilford, CT 06437 USA.

RECORD COLLECTORS SUPPLIES. REPLACEMENT JACKETS, inner sleeves, 78 RPM sleeves, opera boxes, etc. COMPLETE CATALOG. Cabco, Box 8212, Room 640, Columbus, Ohio 43201.

BEST PRICES—factory sealed copies. GALE, MOBILE FIDELITY, NAUTILUS, SHEFFIELD LABS, many more. Miscellaneous single copies and sets. COMPLETE SET OF MOBILE FIDELITY SOUND LAB CATALOG—ALL UNQR'S. (303) 443-4443.

FROM EDISON TO ELVIS (AND BEYOND) LP's 78's, 45's etc. Visit or mail-in wants. The Olde Tyme Music Scene, 915 Main Street, Boonton, NJ 07005. (201) 335-5040. Tuesday-Sunday.

SOUNDTRACK COLLECTORS. Largest selection of in print, out of print, foreign and domestic records. In business 14 years. Discount and free bonus records available. Send for free catalog. SOUNDTRACK ALBUM RETAILERS, Dept SR10, Box 487, New Holland, PA 17557. (717) 656-0121.

TAPES

3.95 SHIPPING ANY SIZE ORDER, UPS		1-800-245-6000	
MAX ORD	5.99	TDK	4.59
MAR-90	5.29	TDK-MUPRO	5.29
MAR-90	5.99	MAXELL	4.59
S&S-90	2.19	MAXELL GOLD	7.29
ADD-90	1.99	FUJISONY	4.79
BA-90	1.85	SONY	5.79
BA-90	1.59	SONY US-90	1.99
AD-90	1.99	SONY US-PRO-90	2.99
D-90	99	SONY ES-90	4.29
D-90	99	SONY CRM1100	2.49
FUJIFRINT	1.89	UDS11-90	1.99

48 HR SHIPPING

WE WILL BEAT ANY PRICE OF THE TOTAL ORDER, INCLUDING ALL SHIPPING & HANDLING CHARGES BY 10%
3.95 SHIPPING ANY SIZE ORDER, C.O.D. ADD 1.95
ALL TAPES HAVE US WARRANTIES
TAPES WORLD, 228 SPRING ST., RUTLEDGE, PA 16007
COMPLETE LINE OF TDK AND MAXELL IN STOCK

M-F 9:30-5:00
SAT 10:00-4:00
800/245-6000

AMPEX OPEN REEL TAPE—USED ONCE, 1800' OR 2400' 25 REELS: \$29.00. SAMPLE: \$2.00. TEN 3600' 10 1/2" REELS: \$42.50. SAMPLE: \$4.00. NEW, PREMIUM CASSETTES: SAMPLE: \$1.00. AUDIO TAPES, BOX 9584-T ALEXANDRIA, VA 22304. (703) 370-5555. VISA/MC.

COMPACT DISCS

MUSIC SOURCE IS #1 FOR COMPACT DISCS. Thousands of titles - Classical, Pop, Rock, and Jazz. MC/Viaa. Free mini—Catalog. Full catalog \$3. MCOM, PO Box 838, Elmhurst, NY 11373.

OVER 1000 USED CDs \$9.49 EACH. NEW CDs \$9.99 to \$13.99. WE BUY USED/NEW! Specialize in purchasing complete collections. Audio House CD Club, 4304 Brayan, Swartz Creek, Michigan 48473. (313) 655-8639.

DUWARS sells classical music on compact discs at special mall order prices. Catalog \$2.00. P.O. BOX 6627, GREENVILLE, SC 29606.

COMPACT DISCS & ACCESSORIES. Call TOLL FREE 1(800) ALL-DISC (in CT 1(203) 452-0203) to be placed on MAILING LIST. ALL DISC MUSIC, INC., 41 Monroe Tpke, Trumbull, CT 06611. RETAILER PRICES AVAILABLE.

	COMPACT DISC CENTER
	P.O. Box 616S, Clifton Park, NY 12065
	NY (518) 664-2550
	Outside NY—To Order Only
	Call 1-800-232-3687
	Many Discs \$12.99
Quantity 10 and over only \$11.99	
\$2.00 Cont. U.S. shipping	
FREE CATALOGUE	

USED CD'S: We buy for \$6; sell for \$9.49. AUDIO HOUSE, 4304 BRAYAN, Swartz Creek, MI 48473. (313) 655-8639.

COMPACT DISCS AND LASER VIDEO DISCS. Nice prices—free lists. MC/VISA. SIGHT & SOUND INC., 18 Bennett St., Boston, MA 02135. (617) 787-4465.

USED CD'S: WE PAY \$6-\$10; YOU BUY FOR \$8.95-\$14.95. Audio Club, 1105 Webster, Sandy, Utah 84070-3151, (801) 571-9767.

CD DEPOT. CD's \$12.99. Thousands in stock. Free catalog. 11703-D Raintree Village Boulevard, Tampa, FL 33617; (813) 985-1574.

POPULAR/CCM CD specialists—CD's, players and accessories! KKM'S DIGITAL AUDIO/VIDEO CENTER, P.O. Box 1126, Silverdale, WA 98383.

CD's: Telarc 15.50; London DG Philips 14.50. Free shipping for 4 or more CDs. TELE-SHOP, Box 28093, San Francisco, 94128.

ANNOTATED INDEX OF CLASSICAL CD REVIEWS. 120+ pages. \$3.75. KEN'S COMPENDIUM, 2400 Hawthorne Dr., Atlanta, GA 30345

Don't you need CDs for your new CD player?

CALL US NOW!
1-800-CDS-4-EVR
(1-800-237-4387) • FLA: 305-653-5666
7 DAYS: M-F 11 AM-9 PM EST. SAT: 9 AM-4 PM. SUN 9 AM-1 PM
You'll Love Us...
R & R Music Enterprises
P.O. Box 69-4681 • Miami, FL 33269

THE AUDIO CATALOG—Today's most complete listings of CD's records and tapes. LOWEST POSSIBLE PRICES! 3000 TITLES! FREE CATALOG! 17935 NE 65th, Redmond, WA 98052. (206) 881-1961, Outside WA (800) 642-DISC.

CASH FOR CD'S! Send your CD's to us and within 48 hours we will send a check up to \$6.00 per disc. Discs must be in good condition only. Defective discs will be returned. Call (213) 379-3151 for further information. **COMPACT DISC SUPERMARKET, 246 Pacific Coast Highway, Hermosa Beach, CA 90254.**

COMPACT DISCS—AT LOW WAREHOUSE PRICES. Now in our fourth year. Over 6,000 titles available. Free catalog, plus regular updates and monthly specials starting at \$10.99. **OZ WAREHOUSE, 5246 Memorial Drive, Stone Mountain, GA 30083. (404) 292-5451.**

COMPACT DISCS AT COMPETITIVE PRICES! Large selection in stock in all music categories. Discount for multiple disc orders. Send for free catalog to **WINDY CITY COMPACT DISCS, P.O. Box 2327, Des Plaines, IL 60017-2327. OUR SERVICE WILL BLOW YOU AWAY!**

PRE—OWNED CD'S WANTED! Top dollar guaranteed. Free information. **THE CD LINK, 410—SR Weaver Lane, Simpsonville, SC 29681—8908.**

CD's, Records, Tapes, Blank VCR Tapes. **BUY ONE, GET ONE FREE.** All artists, all labels. \$10 for 20 coupon book and catalog. **RIP ENTERPRISES, P.O. Box 375, Holbrook, NY 11741.**

USED CD'S MOSTLY \$8.95—\$11.45. WE PAY YOU \$6-\$10! **Audio Club, 1105 Webster, Sandy, UT 84070-3151. (801) 571-9767.**

DISKIN. Genuine sheepskin CD and record cleaner. Audiophiles say "THEY'RE GREAT!" \$5.95 plus \$1.00 shipping to **DISKIN, 119 East Oakland Park Blvd, Ft. Lauderdale, FL 33334. Amex and COD call: (305) 561-3878.**

GOVERNMENT SURPLUS

IS IT TRUE you can buy jeeps for \$44 through the US government? Get the facts today! Call 1(312) 742-1142, ext. 4670.

BUSINESS OPPORTUNITIES

MAIL ORDER OPPORTUNITY! Start profitable home business without experience or capital. Information free. Mail Order Associates, Inc., Dept. 691, Montvale, NJ 07645.

YOUR OWN RADIO STATION! AM, FM, cable, licensed/unlicensed, transmitters! Broadcasting: Box 130-R12, Paradise, CA 95969.

ELECTRONIC REPRESENTATIVES NEEDED! Lowest possible prices! Over 100 brands! Audio, Video, Car Stereo, Computers, Electronic Experts, 1000 Orange Ave., West Haven, CT 06516.

\$10-\$360 WEEKLY/Up. Mailing Circulars! No quotas/bosses. Sincerely Interested RUSH Self-Addressed Envelope: Headquarters-(MGG), POB 464, Woodstock, Illinois 60098.

START YOUR OWN speaker company in YOUR GARAGE. It's easier than you think. Our advice is free. **AMS Enterprises, 1007 Capello Way, Ojai, CA 93023.**

SALES—MONSTER CABLE—If you are energetic, hard working, have sales experience, and are familiar with the audio industry, **WE NEED YOU!** Small fast growing audio accessories company is looking for bright sales-minded individuals for management positions. Insert your ideas in sales, marketing strategies. Call Julie at (415) 777-1355 between 2 PM and 4 PM PST.

PUBLICATIONS

FREE promotional albums, concert tickets, stereos, etc., information: **BARRY PUBLICATIONS, 477 82ND Street, Brooklyn, NY 11209.**

MOVIE FILM/VIDEO TAPE

OPERA ON VIDEO. Greatest performances—selections—lowest prices. Free catalog. **CLASSICS ON VIDEO, Box 578, Riverside, CT 06878.**

INSTRUCTION

FREE CATALOG. Institute of Audio/Video Engineering, 1831 Hyperion (SR), Hollywood, CA 90027. **RECORDING SCHOOL. (800) 551-8877, (213) 666-2380.** Approved for International Students.

BOOKS & MAGAZINES

FREE SAMPLE COPY

Write for your free copy of the most accurate satellite tv guide

satellite TV week

p.o. box 308(H1601) Fortuna CA 95540

CLUBS

CLASSICAL MUSIC LOVERS EXCHANGE. Nationwide Link between unattached music lovers. Write: **CMLE, Box 31sr, Pelham, NY 10803.**

MEET THE FIRST CLUB dedicated entirely to quality Sixties music. Sample newsletter: \$2.50; \$4.00 outside North America. US funds. **Classic Rockers, Box 1043A, Stevens Point, WI 54481.**

FOR INVENTORS

INVENTORS! Can you patent and profit from your idea? Call **AMERICAN INVENTORS CORPORATION** for free information. Over a decade of service. 1(800) 338-5656. In Massachusetts or Canada call (413) 568-3753.

SECURITY SYSTEMS

FOOL A THIEF. Don't buy an alarm, just buy the stlckr! \$10. each. Send check to: **COONEY, 112 Lake Ave., Matunuck, RI 02879.**

LASER VIDEO DISCS

Laser Video Discs	
Largest selection in the U.S., with over 1,400 titles. We STOCK what others just list. 10% discount on all titles. C.O.D.—personal check, VISA, MASTER CHARGE, and telephone orders accepted. No time limit on warranty returns. FOR FREE CATALOG, write: Starship Industries, 605 Utterback Store Road, Great Falls, VA 22066. Or call (703) 430-8692 or (703) 450-5780.	
LASER DISC HOTLINE	
Recorded message on new laser disc releases available 24 hours a day. (703) 430-0330.	

EMPLOYMENT INFORMATION

GOVERNMENT JOBS \$16,040 - \$59,230/yr. Now Hiring. Call (805) 687-6000, Ext. R-20040 for current federal list.

EDUCATIONAL OPPORTUNITIES

LEARN HOW TO BE A RECORDING ENGINEER at the world's foremost school of audio technology. Nine month program in Multi-track Recording Technology at the **INSTITUTE OF AUDIO RESEARCH.** Learn recording, mixing, "micing", editing, digital circuits, systems design, and more at the INSTITUTE's fabulous Greenwich Village facility including classes, labs, and two fully equipped control rooms (including MCI 24-tk automated console) and studio complex. Professional internships at recording studios throughout "The Big Apple." Lifetime job placement. Classes start quarterly. Call or write today. **INSTITUTE OF AUDIO RESEARCH, 64 University Place, Dept. S.R., Greenwich Village, New York City, NY 10003. (212) 777-8550.**

MISCELLANEOUS

GOVERNMENT HOMES from \$1 (U repair). Delinquent tax property. Repossessions. Call (805) 687-6000, Ext. GH-20040 for current repo list.

ATTENTION CLASSIFIED ADVERTISERS! Call Toll-Free (800) 445-6066 for rates and information on how to place your low cost, response-producing, mail order ad in these columns. In New York State, please call (212) 503-5999.

EQUIPMENT

Reference Audio Systems

We believe serious audiophiles deserve serious service. And that's what you'll get at Reference Audio Systems. We offer the best in high-end audio and the best in friendly service by our knowledgeable staff. From the latest CD player to a classic mega-watt amplifier, you'll like our surprisingly affordable prices and free shipping.

Perreaux · Revox · PS Audio · Counterpoint · Luxman · Kyocera · Adcom · Hafler · Apt · JSE · Tandberg · Denon · Proton · Sony · Synthesizer · Infinity · dbx · Soundfield · Onkyo · Klipsch · Ohm · DCM · ADS · Oracle · Thorens · NAD · Magnavox · Celestion · JBL · Alquist · Concord · Fosgate · Zapco and more!

CALL US! (213) 398-4205 (213) 391-2679
Use your VISA or MasterCard
18214 Dalton Avenue, Gardena, CA 90248
Hours: Mon.-Fri. 9 to 6, Sat. 10 to 2 P.S.T.

EVENTS

THE BEST PRODUCED SOUND YOU'VE EVER HEARD California High End Hi-fi Show presented by Stereo-ophile Magazine and Nelson and Associates. Over 50 premiere audio brands demonstrated. Meet the designers and inventors in person. Recalibrate your ears at the show's continuous live classical guitar concert, plus other ear-and soul-satisfying musical events. Located at the Bayview Plaza Holiday Inn in Santa Monica, CA on West Pico near the beach. Dates: Friday (3/27/87) 5-10 p.m. Saturday (3/28) 11 a.m.-10 p.m. Sunday (3/29) 11 a.m.-7 p.m. Admission: at door, \$10/ticket (good for all 3 days); by mail, \$9/ticket. Send check, m.o. or MC/Visa information to Stereophile, P.O. Box 5529, Santa Fe, NM, 87502.

RECORDS & TAPES

RECORDS, CASSETTES, CD'S, IMPORTS, VIDEOS, OLDIE 45's ARTIST CATALOGUES \$3; KANKEYTOWN RECORDS, P.O. BOX 268-SR, LAWRENCE, MA 01842-0468

Stereo Review
MAIL ORDER MART
lets you turn up
the volume where
your customers are...

Want to beam your mail order message where the customers are? Sell surplus inventory? STEREO REVIEW's new Mail Order Mart was designed with your marketing needs in mind. And this flexible new medium is so budget-wise, you can't afford not to use it!

To place your Mail Order Mart ad,
Call Toll Free
(800) 445-6066

THIS MAGAZINE IS
AVAILABLE IN MICROFORM
DIRECT INQUIRIES TO:
MICRO PHOTO DIVISION
 BELL & HOWELL
OLD MANFIELD ROAD
WILLOUGHBY OH 44094
Contact Christine Ellis
Call toll-free (800) 321-9881
In Ohio call (216) 264-6666 collect

STEREO REVIEW
MANUFACTURERS' DIRECTORY

Tweak Your System . . . see what it can do.

The Ultimate in Audio Cable Engineering. Introducing Esoteric Audio USA Inc. — the world's largest, most sophisticated audio cable specialty manufacturer... dedicated to achieving perfection in audio cable systems design.
Perfection Through Innovation And Material Quality. With a combination of state of the art design and utilization of the most superior inner component materials, Esoteric Audio USA creates high definition cable systems that are sonically and technologically unsurpassed.
These advanced innovations and highest-quality materials include oxygen-free high conductivity copper windings, state of the art electro magnetic geometries, enamel coated litz wires, teflon "virgin litz" wires, teflon dielectrics, ultimate air dielectrics, superior copper connectors with teflon dielectrics, special 5% silver solder, and much more.



Cables That Approach The Quality Of Direct Coupling. From Esoteric Audio USA's new era of cable design, we offer exceptional cables that are sonically transparent and uncolored, yet maintain excellent imaging, phase coherency and dimensional character... cables that enable you to experience every subtle nuance your system is capable of.

Make A Sound Decision. Replace your inter-connect and speaker cables with a new set of high definition Esoteric Cables. Tweak your system — and achieve sonic superiority! Call or write today for the dealer nearest you.



RR3 Box 262
Winder, Georgia 30680
Phone: (404) 867-6300
Telex: 80-4294

Dealer and sales representative inquiries welcome.

RETAILERS:

Let *Stereo Review* connect you to the best prospects in your region!

Now for the first time, you can send your sales signal to the *proven* equipment customers in your region, via *Stereo Review's* GUIDE TO AUTHORIZED RETAILERS, a brand-new section in *Stereo Review*.

83% of *Stereo Review* buyers plan to buy — soon!

Yes, over four-fifths of *Stereo Review* subscribers plan to buy home video, audio and/or autosound equipment in the next 12 months.* So your display ad exposes your message to a prime market that's young, affluent, educated — and ready to buy. This *Stereo Review* connection is designed exclusively for you, the retail dealer.

Stereo Review's GUIDE TO AUTHORIZED RETAILERS is a new, monthly section that's open *only* to authorized retailers of audio, video and autosound equipment, as well as records and tapes.

Tune in thousands of real customer prospects in your region. Only *Stereo Review* offers this great regional distribution value. Wherever you are, we'll help you connect with our quality-subscriber audience.

An effective regional connection — at reasonable cost!

Unlike ads in local media, your *Stereo Review* ad is virtually guaranteed to reach the proven customers for audio and video equipment in your region. So you target your true market at these reasonable rates: \$600 per 1/9 page regional insertion (minimum size), additional inches \$200 each. For 6 insertions, the discounted rate is \$575.

Call Toll Free (800) 445-6066

To place your ad or for more information, call Lois Price today.
We're waiting to connect you!

* 1983 *Stereo Review* Subscriber Survey



by Christie Barter
& Steve Simels

AUSTRALIAN soprano Dame Joan Sutherland returned to the Metropolitan Opera this season in a gala benefit performance of Bellini's *I Puritani* that brought in an estimated \$400,000 at the box office. The occasion was the celebration of the twenty-fifth anniversary of her Met debut. She sang well, the audience clapped and carried on a lot, and the *New York Times* said she was the best-preserved sixty-year-old soprano before the public.

After the gala a fan told Dame Joan that it didn't seem like a quarter of a century to him. She said, "What about me? I'm not a statistician. If I didn't have a few photographs to prove it, I could never believe twenty-five years have passed."



Sutherland: gala twenty-fifth

With the help of her husband, conductor Richard Bonyng, Dame Joan has collected those photographs in an album that chronicles her dazzling career, and it has been published by Simon and Schuster as *The Joan Sutherland Album* (191 pp., \$19.95). The book makes her career look like twenty-five swell years. □

A FEW years ago artist Maurice Sendak collab-



Nutcracker: holiday classic

orated with choreographer Kent Stowell on a production of Tchaikovsky's classic ballet *The Nutcracker* for the Pacific Northwest Ballet in Seattle. Sendak and Stowell also collaborated with director Carroll Ballard on *Nutcracker: The Motion Picture*, a highlight of the holidays just past.

When we talked with Sendak at a pre-release screening, he said, "Ballet purists may be surprised that there is no Sugarplum Fairy. In our version, Clara dances that part. It's important to understand that this is not just a filmed stage performance. About 75 percent of it is different from what we did on stage. This is a distinct work, a real motion picture."

We liked it a lot. The soundtrack, a performance of the complete Tchaikovsky score by the London Symphony Orchestra conducted by Sir Charles Mackerras, has been released on compact disc by Telarc. Our critic Stoddard Lincoln liked that a lot too. For his review see page 182. □

DURING the week of January 26 the AT&T Presents Carnegie Hall Tonight series, carried by nearly two hundred commercial and noncommercial radio stations throughout the country, is honoring Artur Rubinstein on the one-hundredth anniversary of his birth. The pianist's son, John Rubinstein,

who hosts the series, will play recordings of some of Rubinstein's most memorable Carnegie Hall performances and will share his own memories of life with father.

RCA Records recently resumed its rerelease of the Rubinstein catalog on CD with a two-disc set of the Chopin Nocturnes. And there's a good deal more to come. □

THE IG IS BACK! Funny how time flies. Seems like it was only yesterday that we caught the irrepressible Iggy Pop at a 1974 Max's Kansas City show where he walked all over the audience (we were in the third row), smashed a cocktail glass on his bare chest, and finally had to be hospitalized. But *plus ça change, plus c'est le même Iggy*. Here we are in 1987, and the former James Osterberg is on the road again, promoting, of all things, a hit album ("Blah, Blah, Blah" on A&M).

Iggy may have abandoned the self-destructive life style that made him an underground legend, but our spies at a recent New York concert report his dancing remains as athletic and Dionysian as ever. Still, the man sounds as if he's embraced, albeit tentatively, the Yuppie present. Quoth the Ig: "I'm knocked out by the reception the album's gotten, and I'll try to give the best shows of my life." □

GOOD NEWS: *The Women in Rock* video (MCA)



that we alerted you to back in May is finally on the shelves. Directed by Stephanie Bennett (who earlier gave us the sublime *Compleat Beatles* and *Girl Groups*), it's a very nice documentary look at over thirty of rock's most memorable femmes, from Brenda Lee to Madonna.

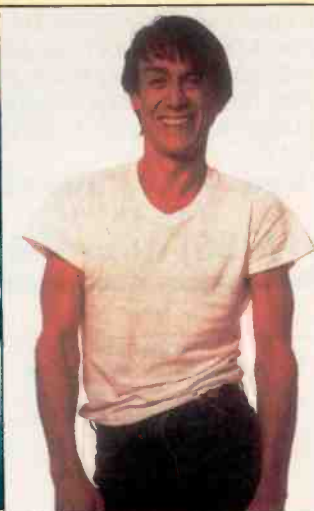
Bad news: conspicuously absent from the hour-long program is the meanest, moodiest, and most magnificent rock woman ever to wear Yardley Slicker lipstick. We



Sinatra: Sixties classic

refer, of course, to the incomparable Nancy Sinatra. But don't despair. The folks at Rhino Records have just released the first Nancy Sinatra compilation album in well over a decade. "Boots: Nancy

Iggy Pop circa 1974 (left) and on tour today



ATLANTIC

BILL HAYWARD/LONDON RECORDS

CAMERA 5

COLUMBIA RECORDS/RETNA LTD.



CATHEDRAL ARTS, INC.

Takezawa: Indianapolis gold-medal winner

Sinatra's Greatest Hits" immortalizes fourteen of the miniskirted chanteuse's classic waxings, including *Something Stupid*, her smash duet with father Frank (often mistakenly referred to as *The Incest Song*), the themes from *Tony Rome* and *The Last of the Secret Agents*, and the ultimate Sixties Women's Lib anthem, *These Boots Are Made for Walkin'*. □

THE first-prize winner in this year's International Violin Competition of Indianapolis was nineteen-year-old Kyoko Takezawa from Japan. Currently a student at the Juilliard School in New York, Takezawa was awarded the competition's gold medal as well as \$12,000 in cash, a Carnegie Hall debut, numerous recital and orchestral engagements, and a recording on the Vox Cum Laude label. Her award-winning performances as a finalist were of Tchaikovsky's *Sérénade mélancolique* and Bartók's Second Violin Concerto with the Indianapolis Symphony under John Nelson. □

ATTACK OF THE KILLER REISSUES! Frankie Lymon and the Teenagers were, arguably, the most influential rock-and-roll vocal group of the Fifties, despite a run on the charts that lasted only eighteen months. Lymon himself, a mere thirteen when he recorded the group's first hit (the often covered *Why Do Fools Fall in Love*), was an astonishing bundle of tal-

ent, a heartbreaking ballad singer, and a riveting performer—the Michael Jackson of his day. Though the group's story ended badly, in classic Fifties fashion (Lymon OD'd, a has-been at twenty-six, and none of the group



Lymon and the Teenagers

ever saw any money), they remain genuine legends. And now, finally, comes an album that does them justice.

Schuller: ragtime classics from the golden age



"Frankie Lymon and the Teenagers," a new five-disc set on Murray Hill, collects (from original masters) the very best of their output, group and solo, as well as a bonus 45 featuring the first true-stereo version of their 1958 anthem, *I Am No. 1 a Juvenile Delinquent*. The set also includes a nicely illustrated booklet detailing their recording history and some poignant reminiscences by longtime fans and journalists Marcia Vance and Phil Groia. A terrific package, and long overdue. □

THE latest release in the Met's series of Historic Broadcast Recordings is a performance of Verdi's *Simon Boccanegra* recorded in 1939. Baritone Lawrence Tibbett, in the title role, heads a cast that includes soprano Elisabeth Rethberg, baritone Leonard Warren, and bass Ezio Pinza. The recording will be mailed to people who contribute \$125 or more to the Metropolitan Opera Fund, P.O. Box 930, New York, NY 10023. □

THE New England Ragtime Ensemble, formed and conducted by composer Gunther Schuller in the early Seventies when he was president of the New England Conservatory of Music in Boston, was in the vanguard of the Scott Joplin revival of those years with its recording, for Angel, of "The Red Back Book," containing ten Joplin classics from ragtime's golden age. The album was released in 1973 and sold like hotcakes, picking up a Grammy as Best Chamber Music Performance of the year. It re-

mains one of Angel's bestsellers and was recently released on compact disc.

Still very much alive and well under Schuller's direction, the ensemble recently taped a PBS special to be shown on January 28 in the network's On Stage at Wolf Trap series. The program will, of course, include music by Joplin as well as by two of



REINA LTD.

Morrison: best-seller

his contemporaries, James Scott and Joseph Lamb, whose reputations as ragtime composers around the turn of the century were second only to Joplin's. □

WEIRD SCENES INSIDE THE GOLDMINE: Jim Morrison, the late lead singer of the Doors ("He's hot! He's sexy! He's dead!" as *Rolling Stone* once put it), is about to become a posthumous best-selling author. A heretofore unsuspected cache of Morrison scribbles has surfaced in San Francisco, and, as we go to press, representatives of major publishers—including Random House, Macmillan, and Putnam—are engaged in spirited bidding. The new material includes more than two hundred pages of poems and song lyrics in Morrison's own hand, the magnum opus being a twenty-four-page epic titled *An American Knight*. The publication of the material will doubtless spur new interest in the Doors' still commercially active Elektra catalog. Perhaps we'll even get a CD version of the two-disc "Absolutely Live" set, one of the most remarkable artifacts of the late Sixties. □

MURRAY HILL RECORDS

ROBERT MILLARD/WOLF TRAP FOUNDATION

On The Go With The

SONY DISCMAN D-10



DAVID KELLEY

by Michael Smolen

SONY'S Discman D-10, the smallest portable compact disc player now available, weighs just 14 ounces and measures less than 5 inches wide, about $\frac{3}{4}$ inch high, and less than $5\frac{1}{4}$ inches deep—that's 40 percent smaller than Sony's earlier D-7. And downsizing has meant no loss of convenience. In fact, the D-10 offers some new features not found on any previous Discman models, including an Automatic Music Sensor (AMS) for quick selection of up to ninety-nine tracks in forward or reverse, random programmability for up to twenty-one selections, high-speed music search in both directions at normal pitch, and five repeat modes. And for the ultimate in armchair "disc-jockeying," all of these features can be controlled with an optional Remote Commander.

Hidden Improvements

Whether one CD player sounds better than another is still hotly debated, but Sony claims that a number of new technological devel-

opments built into the D-10 provide improvements in both tracking and sonics. A Unilinear Converter that uses an oversampling digital filter is said to afford a uniform high-frequency response while reducing spurious noise. A more efficient pulse-width-modulation integrated circuit reduces power consumption to 1.8 watts (30 percent less than the D-7) and provides more than four hours of playback time on a single five-hour charge from the supplied rechargeable battery.

An ultrathin (19.9-millimeter), three-spot optical pickup uses a single plastic lens that integrates the functions of both the objective lens and the colimator lens into a simpler and lighter design. Finally, the laser-pickup assembly is integrated with a new elastic damper arm that realizes better antivibration characteristics for portable and car use.

The manufacturer's specifications for the Discman D-10 include a dynamic range of 90 dB, a signal-to-noise ratio of 90 dB, a frequency response of 20 to 20,000 Hz ± 0.5 ,

-1 dB, and total harmonic distortion of 0.007 percent.

The basic D-10 package retails for \$349.95 and includes the BP-100 rechargeable battery pack, an AC adaptor, a connecting cable for use with a home stereo system, and a soft carrying case with a shoulder strap. Optional accessories include the CPA-1 car cassette adaptor (\$39.95), the CPM-100 mounting plate and flexible mounting bracket (\$74.95), the DCC-120 car battery cord (\$36.50), and the RM-DM1K Remote Commander and its receiver (\$49.95).

Here, There, and Everywhere

With the D-10 conveniently stuffed in my pocket—a large pocket, but a pocket nonetheless—it was hard to think of anywhere I could not use it. But because of the ingenious array of automotive accessories available, I decided to start in the car.

Even without mounting instructions, it took only a few minutes to install the CPM-100 mounting

bracket and arm in my car. Then, however, a touch of frustration set in. My car has a small interior and a standard shift, and once I had the entire D-10 rig installed there was not much room left to maneuver the shift. It was also difficult to get to my in-dash stereo controls and the car's climate controls.

I decided to try mounting the system between the front passenger seat and the console instead of between the driver's seat and the console—better, but not by much. I would have to conclude that as convenient as this kind of mounting is, it is much better suited for a larger car. Searching around under my dash, I finally found a large bolt to mount the bracket and arm to. I was then able to bend the mounting arm so that the D-10 was in a comfortable, accessible position. All this took some time, however, and my solution may not work in every small car.

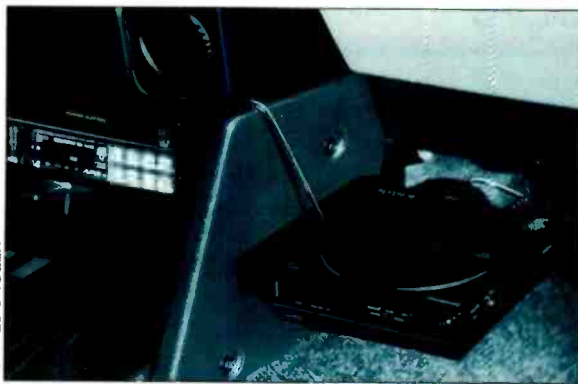
Sonically, the D-10 was excellent, providing the tight, noise-free, full-range sound we've come to expect from virtually any CD player. In A/B comparisons with the D-7 that I have been using in my car for some time—mounted on my dash with Velcro or resting on the passenger seat—I could not detect any difference in sound, although the D-10 did not skip once on my hazard-filled test route while the D-7 skipped twice.

Programming the D-10 while driving is no mean feat. Its display is not illuminated—a major drawback, especially during night travel. The situation is relieved somewhat by using the system's remote control, whose markings are easier to see, but it seems foolish to use a remote control for something that's less than a foot from your hand.

Altogether, the Sony D-10's automotive accessories are intriguing and well thought out, though they seem to be designed for larger cars and would benefit from a few design changes in the D-10 itself. Considering that this player is not much bigger than your wallet, the system is nothing short of amazing.

Taking It Home

With the car cooling down in the driveway, I took the D-10 inside and quickly had it wired into my home stereo system. Here I immediately came to appreciate the Remote Commander. The tiny infrared receiver plugs into the left



DONALD SMOLEN

Installing the Sony D-10 with all of its accessories in the cockpit of a small car is not very easy. When it's placed between the seats, access to the in-dash stereo and climate controls is severely hampered. Mounting it under the dash provided the best solution, although this may not work in all small cars.

side of the D-10 with a mini-plug, much the way headphones do, and it swivels around a full 360 degrees to receive signals from practically any seating position in the room.

Operating the D-10 with the Remote Commander is far easier than with the tiny buttons on the D-10's top and face plate. And after studying the remote control for a few minutes, another surprise was revealed—a button labeled TUNER/CD. Obviously Sony has some radio-equipped models, much like its current D-77 CD/tuner combinations, waiting in the wings.

It will also be interesting to see if Sony imports a couple of fantastic accessories that we saw at the 1986 Japan Audio Fair, stereo transmitters that allow the D-10 to send its output through the air to the receiving system's amplifier. One plugs in between the D-10 and a car's cigarette lighter and transmits to an in-dash head unit, and the other is a transmitter module that attaches to the bottom of the D-10 just like the battery pack and can transmit to portable radio.

All of the D-10's programming functions worked well, and access time was quite fast. I did note with some disappointment, however, that in comparison with my D-7, the D-10 made an inordinate amount of mechanical noise. What this means in terms of a trouble-free future for the D-10 is, of course, impossible to predict, but I have never felt comfortable with excessive mechanical noise from any hi-fi product. The D-10 I used was a pre-production model, however, and Sony has assured me that the noise problem has been taken care of on the production run.

Walking and running showed the D-10's shock resistance to be a definite improvement over its predecessors; its new elastic damper arm provides a reasonable amount of

resistance from vibration. Another significant improvement is the length of the battery's charge. The D-10 was up and running at least 30 to 40 minutes longer on a full charge than my D-7. I was not impressed with the D-10's soft case, however, which does not offer the D-7 case's Velcro closure, clear plastic window to see the function buttons, and dual holes in the back for the AC line and the stereo patch cord.

Sonically, I found it nearly impossible to hear any difference between the D-10 and the D-7—both sounded excellent. Whenever I thought I was hearing differences, they were extremely subtle and not always there.

In the long run, the true advantage of the D-10 over any other portable available is its size. The convenience of being able to stick it in my pocket, hide it in the glove compartment, use it comfortably on the train, put it in my briefcase, or walk and run with it is unbeatable. About the only thing that's left for Sony to do with the Discman is to make a water-resistant sports model (and they will probably have done that by the time you read this).

The Mouse That Roared

Using the D-10 as the music source during a play for which I was sound designer prompted one of the theatergoers to sum up the essence of the Sony D-10 in a single phrase. Surrounded by the massive Crown amplifier, the huge rack of outboard noise-reduction units, digital delays, digital reverbs, compressors, and noise gates, the sixteen-channel mixing board, the piano-size PA speakers, the miles of cables, this distinguished gentleman asked, "Where is that loud and lovely music coming from?" I pointed to the tiny D-10 sitting on top of a rack case. He said, "Ah, the mouse that roared." □

NEW PRODUCTS



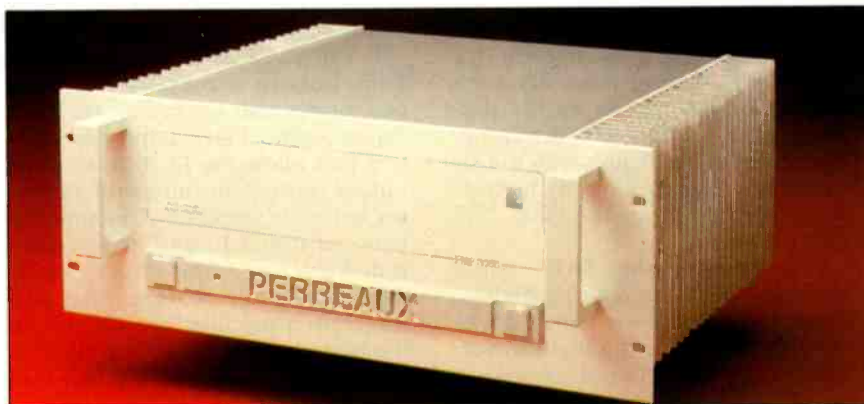
Fosgate

The Fosgate DSM 3602 360° Digital Space Matrix surround-sound processor has a pair of 40-watt-per-channel Dolby Surround amplifiers, a wireless remote control, and audio/video switching functions. It offers three Dolby Surround modes with different front stereo sound-stage widths and provides up to eight output channels, depending on the operating mode selected. Digitally derived control voltages are said to enable precise tracking of all changes in phase and amplitude in the incoming audio signal. The Class A design and the use of polypropylene and polystyrene capacitors are said to help keep the DSM 3602 sound "transparent." Other features include a bass equalizer, five audio/video inputs, and synthesized-surround-sound circuitry for mono sources. Price: \$995. Fosgate, Dept. SR, P.O. Box 70, Heber City, UT 84032. **Circle 125 on reader service card**

Perreaux

Utilizing Class A and Class A/B circuitry, the PMF-3150 and PMF-1850 power amplifiers from Perreaux are both rated for a rise time of less than 1 microsecond and 2 dB of dynamic headroom with music programs. The power output of the PMF-3150 (shown) is given as 300 watts per channel continuous rms, both channels driven, into 8 ohms from 20 to 20,000 Hz with no more than 0.03 percent total harmonic distortion (THD). Phase response is rated as +1 degree at 20 Hz, -1 degree at 20,000 Hz.

The PMF-1850 is rated at 180 watts per channel continuous rms, both channels driven, into 8 ohms from 20 to 20,000 Hz with no more than 0.15 per-



cent THD. Phase response is given as +2 degrees at 20 Hz, -2 degrees at 20,000 Hz. Prices: PMF-3150, \$2,395; PMF-

1850, \$1,895. Perreaux/Signet, 4701 Hudson Dr., Stow, OH 44224. **Circle 126 on reader service card**



Pioneer

Up to eighty tracks from eight six-disc magazines can be programmed for automatic play using the wireless remote

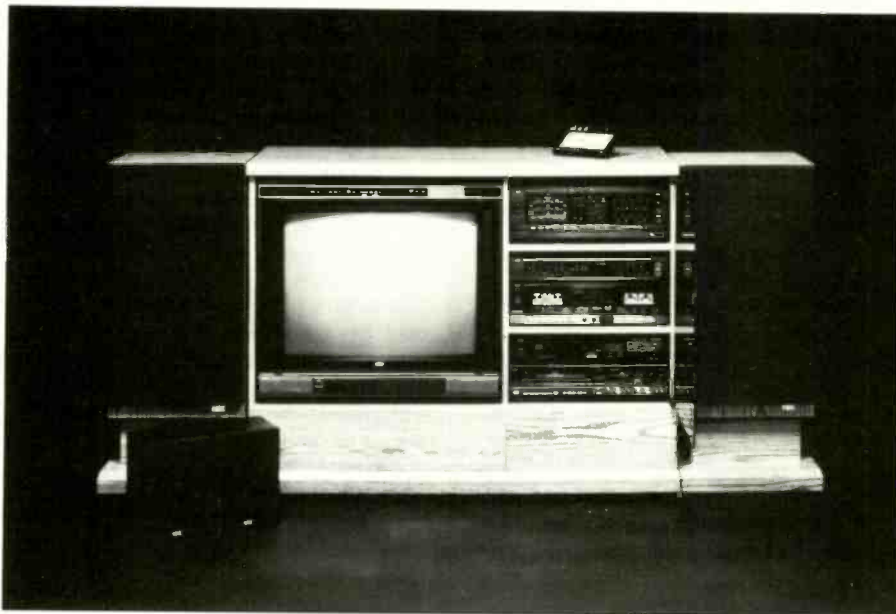
control supplied with the Pioneer PD-M70 compact disc changer. The remote unit, which has its own liquid-crystal-display (LCD) screen, can also program up to thirty-two tracks from a single

magazine. Other convenience features include random play and repeat play of individual tracks, entire discs, complete magazines, and programmed sequences. The player's large, front-panel LCD screen shows elapsed time, total time, and programmed time.

Other features include a digital filter and gold-plated output jacks. The digital attenuator adjusts line-level output. Frequency response is given as 4 to 20,000 Hz +0.5 dB, signal-to-noise ratio as more than 100 dB, distortion as less than 0.0035 percent. Price: \$599. Pioneer, Dept. SR, 5000 Airport Plaza Dr., Long Beach, CA 90815.

Circle 127 on reader service card

NEW PRODUCTS



NEC

All six components in the NEC ES-2600E Renaissance audio/video system are operated by the UR-371 wireless remote control, which has a liquid-crystal display. The A-1300 audio/video integrated amplifier is equipped with Dolby Surround circuitry and is rated for 130 watts per channel continuous rms into 8 ohms from 20 to 20,000 Hz with no more than 0.05 percent total harmonic distortion. The 26-inch CT-2610 receiver/monitor decodes TV broadcasts with stereo sound or a separate audio program. The N-955 VHS Hi-Fi VCR has HQ circuitry and a 142-channel cable-compatible tuner.

The CD-500 compact disc player can be programmed to play up to fifteen tracks from the remote control. The

T-601 tuner can be preset with sixteen AM and sixteen FM stations. The K-700 dual-transport cassette deck features Dolby B and Dolby C noise-reduction circuitry and can be programmed to play back fifteen selections in any sequence. The three-way RS-500 shielded main loudspeakers are built for NEC by JBL and have 12-inch woofers. The speakers are finished to match the VR-500 audio/video cabinet that holds the entire system. All the components are also available separately. Price: \$3,999, complete. The small AVS-300 rear-channel speakers shown in the photo are optional, in oak or black finish. Price: \$199. NEC, Dept. SR, 700 Nicholas Blvd., Suite 10, Elk Grove Village, IL 60007.

Circle 128 on reader service card



dbx

The dbx Soundfield 1000 is a three-way, floor-standing vented speaker system with an 8-inch woofer, a 4½-inch midrange, and two ½-inch tweeters. It is said to be a "self-balancing" system that provides true stereo imaging to all parts of the listening room. The Soundfield 1000 is compatible with power amplifiers rated to provide an output of 20 to 250 watts per channel. Nominal impedance is 4 ohms. Frequency response is given as 45 to 20,000 Hz ±3 dB. The asymmetrical, walnut-grain cabinet measures 14 inches wide, 31 inches high, and 11 inches deep. Price: \$600 per pair. dbx, Dept. SR, P.O. Box 100C, Newton, MA 02195.

Circle 129 on reader service card

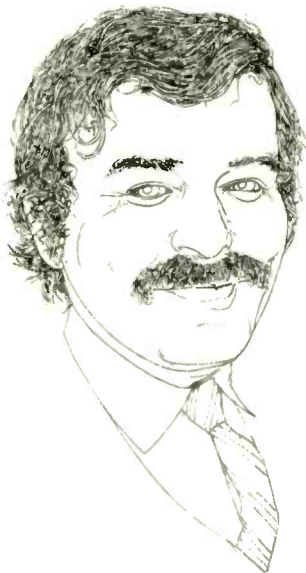
INDEX TO ADVERTISERS

READER SERVICE NO.	ADVERTISER	PAGE NUMBER
18	Acoustic Research	129
18	Acoustic Research	141
32	Adcom	20-21
	ADS	85
17	Altec-Lansing	68-69
	Audio-Technica	190
	Audio-Technica	190
57	Azden	195
51	B&W Loudspeakers	179
31	Bose Corporation	49
	Boston Acoustics	36
33	Canton	123
49	Carver Corporation	92-93
49	Carver Corporation	98-99
49	Carver Corporation	110-111
49	Carver Corporation	154-155
5	CBS Records	174
	Columbia House CD Club	193
45	Compact Disc Music Guild	183
11	Concord Electronics	173
68	Coustic	191
	Crutchfield Corporation	24
	Dealerscope	202
27	Denon America, Inc.	39
27	Denon America, Inc.	181
71	Discount Music Club	198
40	Discwasher	184
10	Discwasher	189
12	Epicure Products	131
70	Ford Audio Systems	168
21	Fujitsu Ten	52
	Harman Kardon	C4
13	Hitachi	9
	Illinois Audio	201
	Infinity	125
39	J&R Music World	196-197
	JBL	14
24	Jensen	149, 151
28	Jet Sounds	25
69	KEF	135, 137
2	Klipsch & Associates	163
72	Kyocera	70
3	London Records	182
56	Magnat Electronik	144-145
58	Magnavox	31
46	M&K Sound	178
	Marlboro	56-57
22	McIntosh Laboratory, Inc.	16
50	Mission Electronics	42-45
	Mission Electronics	188
66	Mitsubishi Electric Sales	34-35
66	Mitsubishi Electric Sales	50-51
	Mitsubishi	177
74	Nakamichi	12-13
19	NEC	29
19	NEC	55
	Onkyo	73
	Onkyo	159
16	Ortofon	192
55	Pioneer Electronics	81
37	Polk Audio	C2-5
3	PolyGram Classics	58
3	PolyGram Classics	186
	Proton Corporation	77
	Radio Shack	6
	RCA Direct Marketing	19
38	Recoton	26
38	Recoton	47
	R. J. Reynolds-Camel	33
	R. J. Reynolds-Vantage	41
15	SAE	96
44	Sansui Electronics Corp.	C3
53	Sony Tape	10-11
48	TDK	171
25	We R Electronics	200
	Wisconsin Discount Stereo	199
65	Yamaha	23
14	Yamaha	102-103
29	Zapco	185

FEBRUARY

More New Products on page 15

by Ralph Hodges



Stereo Imaging

MANY audiophiles contend that some speakers project a seductively spacious, deep, precise, and stable stereo image while others that seem to sound just as satisfactory in most respects do not project that kind of image. Yet, as I've mentioned here before, researchers such as Dr. Floyd Toole of the National Research Council of Canada have tentatively concluded that the imaging capabilities of a conventional speaker are really a function of its overall "goodness" and that two or three well-chosen cone drivers in a well-chosen box are likely to make a stereo effect as good as any other such combination would make.

It has been sufficiently demonstrated that "stereo" is not likely to be precisely the same thing in different rooms, to say nothing of with different speakers, and products like the Polk SDA series show that speakers can be deliberately built for a special stereo effect and sound quite unlike almost anything else. Little wonder that an untutored listener might conceive some radical notions as to what is going on when unfamiliar speakers confront him in an unfamiliar environment.

The scientist, on the other hand, "knows" that a pair of ordinary boxes, ordinarily fitted with ordi-

nary drivers, can provide only two aural cues to produce the stereo effect: differences in amplitude and differences in arrival times at the two ears. Correct as he may be, it is possible that his confidence in this unassailable truth may cause him to miss, or facily explain away, certain things that the innocent ear comprehends with awe.

For example, interaural time differences, although rarely taken seriously by commercial record makers, are potent stereo cues, as Polk, Carver, and others have dramatically reminded us. In a concert-hall situation, interaural amplitude differences, which are the bread and butter of home stereophony, virtually disappear with distance from the sound source, while the interaural time differences remain unchanged and appear to be responsible for almost all the "stereo" the listener in Row 25 ever gets.

It is common on multimed recordings to find the amplitude cues in actual conflict with whatever time cues (accidentally) exist, and the ear-brain mechanism may react very negatively to this. Conversely, an occasional recording, also by accident, can "lock in" nicely in a particular playback situation, coming up with a sort of amplitude and time coherence that renders the avid listener thunderstruck and wondering why he ever bothered with any other speaker. In time he may come to wonder why he ever bothered with any other recording, but for the moment, and in that context, he is correct.

Dynamic compression, defined for our purposes as amplitude-response nonlinearity in a speaker system or driver assembly, is believed by a number of high-end manufacturers to be a greater detriment to stereo imaging than most speaker test reports do or can allow for. And digital audio has the potential for making matters worse.

I am indebted to Rick Jordan of Vector Research for reminding me that the late Ed May's investigations showed dynamic compression to be not just an amplitude phenomenon but a frequency-bandwidth one as well. As a driver assembly approaches certain extremes of mechanical and/or thermal stress, its amplitude is self-lim-

ited and its frequency response changes, sometimes quite drastically. Also, its dispersion characteristic is likely to change as more or less of the diaphragm area is coupled to the voice coil—more because the nature of the suspension so ordains, or less because of mechanical or thermal decoupling (the voice coil can temporarily melt away from its junction with the diaphragm, I am told by those who know). And, of course, whether the diaphragm is coupled to the voice coil or not, it is unlikely to be tracking its motions with any great precision.

Drivers aside, there are crossover networks to contend with. The momentary saturation of a choke-coil may not be the sonic end of the world, but circuit components that get hot and stay that way alter the impedance characteristics and operating points of the circuit on a long-term basis. A driver's voice coil is as much a part of the crossover network as anything else, and when it heats up and changes the impedance accordingly, the speaker becomes a completely different animal from what it is when it is being scrutinized on the test bench under saner conditions. Dr. Toole likes to call it "a loose cannon on deck."

What is the relevance of digital audio to all of this? Simply that, unlike LP's and most LP playback devices, digital sources maintain full stereo separation across the entire audio band. In particular, stereo LP's are normally mixed to mono below about 100 Hz, to make the cutting and playback processes less complicated, but CD's can (and do) remain stereo throughout. Therefore, while an LP tends to stress both speakers about equally, a CD could conceivably unbalance the load to the point where the two speakers acquire distinctly different dynamic-response characteristics.

But, you say, the problem occurs only in the low bass, which is relatively unimportant to stereo imaging. Well, that's not so for many speakers, including the exquisite small two-way systems in which the woofer handles virtually half the spectrum and which normally image very well.

The matter is not worth panic, but it is perhaps worth some thought. □

Sansui's AU-G77XII amplifier is rated superior for CD reproduction.

Sansui X-cels in digital performance. Our new AU-G77XII amplifier reproduces digital signals more accurately because our X-balanced circuitry delivers more headroom—without clipping. With ordinary amplifiers you need massive amounts of power to react to the pulse-like transients produced by digital discs. But with Sansui's X-balanced circuitry, our AU-G77XII handles digital peaks and low impedance loads with no problem.

It features virtually distortion-free power* (0.008 THD) and dynamic power is 160 watts-per-channel into 8 ohms; 220 watts-per-channel into 4 ohms; and 260 watts-per-channel into 2 ohms.

The AU-G77XII also features input for phono MM/MC (selectable), CD, tuner, tape 1 and tape 2, line 1 and line 2. Plus a special adapter input/output loop for EQ or processor for added dubbing capabilities. When it comes to optimum performance with digital music sources, Sansui's AU-G77XII is an amplifier that's past digital ready. Hear it today and you'll know we're not distorting the truth.

*110 watts-per-channel minimum RMS, both channels driven into 8 ohms from 20-20,000 Hz.

We've X'd out distortion in digital reproduction.

Sansui Electronics Corp., Lyndhurst, NJ 07071, Carson, CA 90746



Sansui

Putting More Pleasure in Sound.

CIRCLE NO. 44 ON READER SERVICE CARD

THE COMPONENTS OF HIGH PERFORMANCE.



No one plays the piano better than Harman Kardon. Or the flute. Or the guitar. Or any other instrument, for that matter. No one has a better voice than Harman Kardon. Because true-to-source performance is foremost in every aspect of every Harman Kardon high fidelity component.

Harman Kardon's years of experience add up to your experiencing the full sonic range, excitement and subtle nuance of live music. From hot rock to cool jazz, symphonic grandeur to vocal timbre, Harman Kardon's technological advances have continually set the highest standards of sonic excellence. No one engineers components that bring you this near to live sound.

Advanced audio and video components from Harman Kardon. We put the live performance in high performance.

For a live audition at a dealer near you, call toll free 1-800-633-2252 Ext. 250. Or write to 240 Crossways Park West, Woodbury, New York 11797.

harman / kardon

A Harman International Company