All the Stereo Fit to Hear- and Quadraphonics Too

New Equipment 1973
The Fisher Fidelity Standard. A low distortion musical program source for evaluating high-fidelity equipment.
To prove Fisher sounds best, we created a record that even makes our competitors sound good.

We're thoroughly convinced that we make the best-sounding stereo and 4-channel equipment. But what good is that if we can't prove it to you? Because, let's face it, a Fisher won't impress you more than any other brand if you hear it playing the usual scratchy, distorted record.

That's why we created The Fisher Fidelity Standard. A compatible stereo/4-channel record made with fanatical care, so that any distortion you hear has got to come from the equipment, not from the grooves. We don't know of any commercially available record that can equal it for testing or showing off a system.

Only Fisher dealers have it. (If you want your own copy to take home, see coupon.) Of course, it makes everything in the store sound better because at least one source of distortion has been eliminated.

But, for the same reason, it makes the best equipment sound best.

FISHER

We invented high fidelity.

$7.00 value!* Only $1.00!

The Fisher Fidelity Standard is a 12-inch long-playing album, produced exclusively for Fisher and recorded with up-to-the-minute engineering techniques to be the ultimate demonstration record. Five classical selections on one side; seven rock and jazz selections on the other: no incomplete excerpts. Yours for only $1—along with a free copy of The Fisher Handbook, a 52-page guide to high fidelity. (*Other compatible stereo/4-channel records sell for up to $7!) To get your copy, fill out this coupon and present it to any participating Fisher dealer.

Name:
Address:
City State Zip

For the name of your nearest participating Fisher dealer, call (800) 243-6000 toll free. In Connecticut, call 1-(800) 882-6500.

In Canada, for name of your nearest dealer write:

Tr-Tel Associates Ltd., 55 Birchmount Road, Downsview, Ontario

This offer expires February 1, 1973.
The right Pickering cartridge for your equipment is the best cartridge money can buy.

There's a "right" Pickering cartridge for every record player, and only Pickering has developed a way for you to be absolutely certain you select the "right" cartridge for your high fidelity music system.

It is a simple way for you to precisely match one of our XV-15 (100% Music Power) cartridges to whatever kind of record player you have or plan to buy. It's called Dynamic Coupling Factor—DCF for short.

We have taken virtually every record player and pre-analyzed the vital variables affecting cartridge design and those related to the engineering features of the various turntables and changers. So, no matter what equipment you own or plan to purchase, there is a Pickering XV-15 cartridge exactly "right" for it. The DCF number enables you to select the proper Pickering XV-15 cartridge in relation to a particular type of playback equipment to achieve maximum performance.

If you're ready to buy your next cartridge, be certain you end up with the Pickering XV-15 cartridge that's best for your system. Have your Pickering high fidelity dealer show you our DCF Chart, or write Pickering & Co., Inc., Dept. G, 101 Sunnyside Boulevard, Plainview, N.Y. 11803.

PICKERING
"for those who can hear the difference"

The 100% Music Power Cartridges

All Pickering cartridges are designed for use with all two and four-channel matrix derived compatible systems.
October 1972
VOL. 22
NO. 10

**music and musicians**

Gene Lees  NEWPORT IN NEW YORK 26
The jazz festival finds a sympathetic home

Owen Lee  CHANGING TASTES IN POPULAR MUSIC 62
From Lucky Strike's Hit Parade to Billboard's Hot 100

Conrad L. Osborne  AN INTERVIEW WITH LAURITZ MELCHIOR 78

**audio and video**

TOO HOT TO HANDLE 28
NEWS AND VIEWS 30
Come to the show . . . Digital audio

EQUIPMENT REPORTS 35
Pioneer SX-626 receiver
JVC CD-1667 ANRS cassette deck
Infinity 1001 speaker system
Shure M91ED cartridge
Teac AT-201 tuner and AZ-201 oscilloscope unit

William Tynan  A FIRST LOOK AT THE NEW EQUIPMENT 46

Leonard Feldman  HOW TO READ OUR PREAMP GRAPHS 72

**record reviews**

Conrad L. Osborne  HELDENTENOR OF THE CENTURY 75
Reissues from Melchior's unparalleled prime

Robert P. Morgan  SONIC INNOVATIONS FOR THE STRING QUARTET 80
An old form sets out in new directions

Arnold Shaw  SCOTT JOPLIN AND RAGTIME 81
Five recent albums herald a revived interest in the composer

CLASSICAL 84
Karajan's Schumann: his best yet . . . Mozart's concertos for winds

POP 120
Nilsson Schmilsson . . . . The Moonglows . . . . David Ackles

JAZZ 124

R. D. Darrell  THE TAPE DECK 128
Harmony and variety in 8-track quadrachronic cartridges

**etc.**

LETTERS TO THE EDITOR 6
Our Movie Music issue . . . A critic's philosophy

THOSE WERE THE DAYS 22
A nostalgic romp through our old issues

PRODUCT INFORMATION 37
An "at home" shopping service

ADVERTISING INDEX 94

Published at Great Barrington, Mass. 01230 by Billboard Publications, Inc. Copyright 1973 by Billboard Publications, Inc. The name and contents of High Fidelity Magazine are fully protected by copyright and must not be reproduced in any manner. Second-class postage paid at New York and at additional mailing offices. Authorization for second-class postage granted by the Post Office, Department of Commerce and Labor. Postmaster: Send address changes to High Fidelity Magazine, Billboard Publications, Inc., 250 East 45th Street, 16th Floor, New York, New York 10017. Regular price of a copy, $2.95. Subscription price: Domestic, $35 per year; foreign, $40 per year. Single copies, $2.25 each. Allow four weeks for change of address. Subscriptions for the year from January 1 to December 31, $35, price not subject to change. Current and back issues are available on microfilm from University Microfilms, 300 N. Zeeb Road, Ann Arbor, Michigan 48106.
You have some questions about 4-channel?
We have the answers.

Q. With so many different matrix encodings (E-V Stereo-4™, SQ, OS, Dyna, and all the rest) how do I know which decoder to buy?
A. Simple. Choose the new EVX-44 Universal Decoder. It plays ALL matrixes accurately without switching, no matter how they are made.

Q. The EVX-44 has an extra Separation Enhancement circuit. Why?
A. To keep a soloist firmly in the front of the room by increasing center-front to back isolation to as much as 18 dB (at the cost of some back left-right separation). The enhancement is automatic and unobtrusive, acting only when the center soloist is performing. It can also be switched “on” continuously or “off” completely if preferred. The circuit works equally well with all encodings and even with 2-channel stereo records.

Q. What if so-called “discrete” records become popular? Won’t I be wasting my money buying a matrix decoder now?
A. Not at all. Major record companies are firmly committed to matrix four channel. In addition E-V decoders enhance 2-channel sources, adding a feeling of ambience and dimension that is rivaled only by actual 4-channel material. Discrete demodulators can’t do this. After all, 2-channel records, tapes, and FM won’t disappear overnight, no matter what happens with 4-channel sound. Our decoders can even “enhance” the main channels of discrete 4-channel recordings. So your E-V decoder will be useful for years to come.

Q. Why does E-V offer two decoders?
A. Cost, mostly. The original EVX-4 is still a great bargain. It does an excellent job of decoding matrix records and is tops for enhancing 2-channel stereo. But the new EVX-44 does a more accurate job with all matrixes, and it has the separation enhancement circuit. It’s quite a bit more complex, hence more expensive. E-V thinks you should have a choice.

Q. I don’t want to buy 2 stereo systems to get 4-channel sound. What should I do?
A. Choose the EVR-4X4 4-channel AM/FM receiver. It has everything including the Universal Decoder circuit built right in. Simply hook up 4 loudspeakers (hopefully E-V!) and whatever tape or record players you prefer, and play.

When it comes to 4-channel...there’s no question about it. Electro-Voice makes it happen.

Electro-Voice

E-V 4-channel products are produced under U.S. Patent No. 3,532,686

LEONARD MARCUS
Editor
NORMAN EISENBERG
Executive Editor
PETER G. DAVIS
Music Editor
ROBERT LONG
Audio-Video Editor
SHIRLEY FLEMING
Editor, Musical America Section
EDITH CARTER
Associate Editor
WAYNE ARMENTROUT
SHEILA RIZZO
Assistant Editors
WILLIAM TYNAN
Special Projects Editor
ROY LINDSTROM
Art Director
ROBERT MADDOCKS
Associate Art Director
RUTH W. DUNTON
Production Editor
JUDITH WEST
Assistant Production Editor
MORGAN AMES
R. D. DARRELL
HENRY EDWARDS
ALFRED FRANKENSTEIN
HARRIS GOLDSMITH
DAVID HAMILTON
DONAL HENENAHAN
MIKE JAHN
MILES KRUEGER
PAUL HENRY LANG
GENE LEEs
ROBERT C. MARSH
H. C. ROBINS Landon
Contributing Editors
STANLEY BINDER
Circulation Manager
CLAIRE N. EDDINGS
Associate Publisher and
Director of Advertising Sales
WARREN B. SYER
Publisher

Cover photograph by Bernard Lawrence

ADVERTISING


Frankfurt/Main: Eschersheimer Landstrasse 69, Frankfurt/Main, West Germany. Telephone (0611) 580805-6.


Tokyo: Billboard Publications, Inc., Comfy Homes 7B 8-6-20, Akasaka, Minato-Ku, Tokyo, Japan. Telephone: 588-0261 Hiro Tatsuk
We enjoy telling you how each aspect of the 12 year basic research program on sound reproduction contributed to the unconventional features found in the Bose 901 and 501 DIRECT/REFLECTING® loudspeakers.* We also take pride in quoting from the unprecedented series of rave reviews because to us they are like awards won for the best design.†

However, it is important to realize that the research and the reviews are of only academic interest unless the speakers really are audibly superior. It is equally important to realize that YOU are in every sense the ultimate judge, for you are the one who lives with the sound you choose.

So—forget the rave reviews and the research and sit in judgement of two fascinating experiments. Take your most exacting records to any franchised BOSE dealer and:

1. Place the BOSE 901's directly on top of any other speakers, regardless of their size or price, and make an A-B listening test with your records.

2. Place the BOSE 501's beside (with at least 2 feet clearance) any other speaker using woofers, tweeters and crossovers and perform the A-B listening test. (Don't ask the price of the 501 before the test)

Then, just enjoy your records. When you finish you will know why we get much more satisfaction from our work than could ever be derived from profits alone.

P.S . . . . If you already own speakers, many dealers will lend you a pair of BOSE 901's for an A-B in your living room, where the acoustics are generally far superior to those of the speaker-lined showroom.

* Copies of the Audio Engineering Society paper, 'ON THE DESIGN, MEASUREMENT AND EVALUATION OF LOUDSPEAKERS', by Dr. A. G. Bose, are available from the Bose Corp. for fifty cents.

† For copies of the reviews, circle our number(s) on your reader service card.

You can hear the difference now.

Unless they're audibly superior it's all academic.

It is not well known that the Bose Corp. has been an electronics company from its inception, doing work in exotic industrial and government R & D.

Now it has been rumored that something new, electronic and powerful is coming soon from Bose for consumer use.

Visit your Bose dealer in mid-October and ask him to amplify.

The BOSE 901 and BOSE 501 are covered by patent rights, issued and pending.
Congratulations on Elmer Bernstein's enjoyable article ["What Ever Became of Great Movie Music?" July 1972]. I think it is high time someone spoke up about the declining state of film music; those who have been collecting as long as I have find the tremendous number of junk soundtracks on the market an insult to our taste and intelligence. Title songs too deserved the smart smack Mr. Bernstein gave them.

I was also delighted to note Mr. Bernstein's desire to form a club devoted to film music. Television has introduced many of us to the splendors of movie scoring in the '30s and '40s, and it is frustrating not to be able to hear those scores as well.

Ted Otten
Brooklyn, N.Y.

I hope Mr. Bernstein will be able to record the music of Bernard Herrmann when his new film-music club is formed. Very little of Herrmann's music is on disc and I would very much like to hear his scores from The Ghost and Mrs. Muir and Fahrenheit 451.

David P. James
Chicago, Ill.

Count me in! What wouldn't I give to hear some of the great Copland and Korngold scores—not to mention Mr. Bernstein's own—in up-to-date recordings.

William S. Goodfellow
Chicago, Ill.

I'd like to suggest that the club record some scores by the late, great Alfred Newman such as All About Eve, Leave Her to Heaven, Keys to the Kingdom, and The Razor's Edge.

Frank Pagani
Forest Hills, N.Y.

I would hope that Mr. Bernstein's club will not confine itself to previously released recordings. Bernstein's own score for The Miracle, one of my favorites, was never released to my knowledge. I've seen the movie at least six times just to hear the score. Everyone has his list of never released scores. High on mine is The Miracle and L. B. Jones, also by Bernstein.

Thomas S. Sharp
Hammond, La.

Just because Elmer Bernstein is having trouble finding work in Hollywood is no reason to assume that the art of film scoring is dead. This myth is simply a result of narrow thinking. Film music is not dead. But the idea that a good score must be spooned over every foot of film is dead, and thank goodness!

People who are so terribly caught up in the film industry's past should take a long, objective look at Gone With the Wind and listen carefully to Steiner's incredible overscoring. Every raised eyebrow was accompanied by a Steiner trumpet blast. Today's producers and composers realize that films don't require such bulk music.

A little good music can go a long way if used properly (note Jerry Goldsmith's sparse but superb score to Patton). There are some outstanding young composers working in films these days, and they are turning out some marvelous movie music, notably Jerry Goldsmith (The Other), John Williams (The Cowboys), Jerry Fielding (The Nightcomers), David Shire (Skin Game), Billy Goldenberg (Red Sky at Morning), Michael Lewis (Julius Caesar), and Nino Rota (The Godfather).

Mr. Bernstein is one of the most gifted composers in Hollywood—his To Kill a Mockingbird is still a classic. But he must come out of Hollywood's past and try to convince today's young producers that he can still provide quality film music. If Goldsmith can, certainly Bernstein can too.

Steve Harris
Anaheim, Calif.

Recently I had the great pleasure of watching David Rakim conduct the Vermont Symphony in an excerpt from his score for Laura while silent footage from that particular sequence was projected on a screen. The audience loved it.

Many of your readers will be interested to know that there is a Max Steiner Music Society with an international membership. Particulars may be obtained by writing to Albert K. Bender, P.O. Box 45713, Los Angeles, Calif. 90034.

John W. O'Grady
Stamford, Conn.

The Film Dubbers

Answers to the letters in this section were supplied by Miles Kreuger, who notes that he has been unable as yet to verify our readers' scholarship unless otherwise specified. One final dubbing note: Several readers have asked who sang for Zsa Zsa Gabor in Moulin Rouge. Mr. Kreuger reports that the lady was Muriel Smith, according to director John Huston.

The other picture I sang for Esther Williams was Easy to Love. I also sang for the Autumn Bride in Funny Girl.

I talked with Marie Greene, and the only other dubs she can remember she did were Anna Lee in Sound of Music and Sandra Dee in Doctor, You've Got to Be Kidding.

Doreen Tryden did Angela Lansbury in The Holland Saints, MGM; Joy Ann Page in Kiss Me, Daddy, MGM; and Jeanne Crain at Universal in a picture she can't remember [The Second Greatest Sex].

Virginia Rees sang for Marlene Dietrich in The Lady Is Willing, Columbia; Lucille Ball in Easy to Wed, MGM; Evelyn Keyes in The Johnson Story, Columbia; and Angela Lansbury in The Harvey Girls, MGM.

I did a tremendous amount of dubbing at RKO. I sang for almost every dance hall girl in the honky-tongs in their westerns but can't remember names.

I'm delighted with the prospect of a book on this subject: it is something I swore someday I'd do.

Betty Wand
Sherman Oaks, Calif.

Is it possible that Marilyn Monroe had two different singing voices in Gentlemen Prefer Blondes? A few bars were almost of operatic quality in one song.

Also, didn't Harry Belafonte dub for Sidney Poitier in Lilies of the Field?

Charles Anderson
Sacramento, Calif.

It appears that Marilyn Monroe's voice was never dubbed in her movies. Jester Hairston, not Harry Belafonte, dubbed for Sidney Poitier in Lilies of the Field.

I think I read that Barbara Bel Geddes' singing voice in The Seven Pennies was dubbed by Eileen Wilson.

Alvin E. Ruda
Hamden, Conn.

Stark Hesseltine, Miss Bel Geddes' agent, verified the above information by checking with Paramount Pictures.

The voice used for Rita Hayworth in Blood and Sand (in the song Vendle Lani) is that of Graciela Parraga—with the guitar of Vincente Gomez. Both Miss Parraga and Mr. Gomez recorded three songs he composed for the film, and they were issued on a Decca 78-rpm album.

Michael Arida
New York, N.Y.

Both Mr. Arida and reader H. E. Holmquist of Wilmington, Delaware supplied the information about Miss Parraga. The 78-rpm album of six titles was reissued with two additional selections on a Decca LP, DL 4629.

Jean Harlow was dubbed in Suzy by my good friend Eadie Adams who was under contract to MGM at that time. Miss Adams is now a prominent and prosperous real estate woman in Palm Springs, California.

William H. Smith
San Francisco, Calif.

Miss Adams confirms that she did sing Did I Remember? for Jean Harlow in Suzy.

I have some answers to Mr. Kreuger's queries on film dubbers, plus a few additions.


Martha Means for Marjorie Reynolds in the Bing Crosby Holiday Inn, and for Lynn Bari in Nocturne.

Lynn Martin for Ann Sheridan in Shine on Harvest Moon.

Sally Mueller for Martha Vickers in The Time, the Place & the Girl.

Nadine Connor for Betty Hutton in the operatic sequences of Dream Girl.
For years, Zero Tracking Error has been the elusive goal of the automatic turntable maker.

The objective: to develop an arm which would keep the stylus perpendicularly tangent to the grooves...to each groove throughout the record, because this is the way music is put on a record.

Garrard's Zero 100 is the only automatic turntable to attain this. It is done with an ingeniously simple, but superbly engineered tone arm. Through the use of an articulating auxiliary arm, with precision pivots, the angle of the cartridge continually adjusts as it moves across the record.

The stylus is kept at a 90° tangent to the grooves...and the cartridge provides the ultimate performance designed into it.

They have confirmed that they can hear the difference that Zero Tracking Error makes in the sound, when the Zero 100 is tested against other top model turntables, in otherwise identical systems. Until now, we cannot recall any turntable feature being credited with a direct audible effect on sound reproduction. Usually that is reserved for the cartridge or other components in a sound system.

Zero Tracking Error is more than just a technical breakthrough. It translates into significantly truer reproduction, reduced distortion and longer record life.

Once we had achieved Zero Tracking Error, we made certain that the other features of this turntable were equally advanced. The Zero 100 has a combination of features you won't find in any other automatic turntable. These include variable speed control; illuminated strobe; magnetic anti-skating; viscous-damped cueing; 15° vertical tracking adjustment; the patented Garrard Synchro-Lab synchronous motor; and our exclusive two-point record support in automatic play.

The test reports by independent reviewers make fascinating reading. You can have them, plus a detailed 12-page brochure on the Zero 100. Write today to British Industries Co., Dept. J-22 Westbury, New York 11590.

GARRARD ZERO 100
The only automatic turntable with Zero Tracking Error.

$199.95
less base and cartridge

Mfg. by Plessey Ltd. Dist. by British Industries Company
Circle No. 103 on Reader Service Card
get the NEWS FREE!

The new McIntosh 36 page catalog gives you all the details on the new McIntosh solid state equipment. In addition, you'll receive absolutely free a complete up-to-date FM Station Directory.

FREE
SEND TODAY

MC 2505
SOLID STATE POWER AMPLIFIER

I received absolutely free a complete up-to-date FM Station Directory.

Charles Finley
Hollywood, Calif.

Tube Amplification

Miles Kreuger's articles on movie music (July 1972) interested me immensely. My mother played for the silent movies around 1910. It was necessary in part to improvise, changing from one kind of music to another as the picture on the screen changed. The pianist's eyes had to stay on the flickering picture (rather than on the piano scores referred to in Elmer Bernstein's article in the same issue?—Ed.). She was totally on her own.

I'm sure I should never get all the enlightening words about the Audion tube invented by Dr. Lee de Forest would be of interest to your readers. As a specialist on Barbara Stanwyck, I should know the names of her various dubbers. I don't, but I can tell you that Miss Stanwyck did own singing in This Is My Affair (20th Century-Fox, 1937) and in Lady of Burlesque (United Artists, 1943).

John B. Fisher
New York, N.Y.

I seem to remember Mary Martin telling me many years ago that she sang for Gypsy Rose Lee in The Battle of Broadway. My luck of assurance is due to my dismissing the information, at the time, as unimportant.

Roger Gerry
Port Murray, N.J.

It's absolutely true.

De Forest (who patented Phonofilm, a method for making movie soundtracks, in 1904) received a patent on the three-element (triode) Audion in 1907, specifying its use as an amplification device among other applications, and on the grid electrode itself in 1908. He is generally credited (in this country at least) with inventing the modern vacuum tube as opposed to the two-element (diode) rectifier, which had been invented by Ambrose Fleming working from basic experiments of Thomas Edison. A case can be made in favor of Fleming as the true inventor of the vacuum tube.

Few pages in the early history of radio are unclouded by doubt. The acrimonious fight between De Forest and Edwin Armstrong (generally credited with inventing FM broadcasting, though there are at least one counterclaim can be made) over the subject of regenerative (feedback) receiver circuits is particularly revealing. Armstrong had the prior patent claim, and De Forest even seemed unclear in his understanding of the regenerative circuit, as he had been about the Audion itself, yet so great was De Forest's prestige in the Twenties, when the struggle was at its height, that it dragged on for years and eventually was decided in his favor. The striking thing about this saga is that in 1912 De Forest had been at the opposite end of the balance; in charging his company with mail fraud a New Jersey prosecutor said that the company's only assets, De Forest's Audion patents, "had proven worthless." Fleming and De Forest had both believed that some gas was needed in the tube if it was to operate. Only

Correction

In sorting out the stars and who sang for them ("The Film Dubbers," July 1972) Miles Kreuger incorrectly identified two vocal doubles. It was Anita Gordon, not Marie Greene, who sang for Pamela Tiffin in the 1962 remake of State Fair, and Francia White, not Diana Gaylen, dubbed for Virginia Bruce in The Mighty Barnum.

Imogene Lynn for Mona Freeman in Mother Wore Tights.

India Adams for Joan Crawford in Torch Song.

Theodora Lynch for Dorothy Patrick in New Orleans.

Trudi Erwin for Lucille Bremer in Till the Clouds Roll By (in the duet with Van Johnson).

Joan Barton for Nancy Guild in Somewhere in the Night.

And finally, a question. Is it true that three different singers—a bass, a tenor, and a baritone—sang for Cornel Wilde in A Thousand and One Nights?

Doris de Vaster
Bowling Green, Ky.

As a specialist on Barbara Stanwyck, I should know the names of her various dubbers. I don't, but I can tell you that Miss Stanwyck did own singing in This Is My Affair (20th Century-Fox, 1937) and in Lady of Burlesque (United Artists, 1943).

John B. Fisher
New York, N.Y.

I seem to remember Mary Martin telling me many years ago that she sang for Gypsy Rose Lee in The Battle of Broadway. My luck of assurance is due to my dismissing the information, at the time, as unimportant.

Roger Gerry
Port Murray, N.J.

It's absolutely true.

De Forest (who patented Phonofilm, a method for making movie soundtracks, in 1904) received a patent on the three-element (triode) Audion in 1907, specifying its use as an amplification device among other applications, and on the grid electrode itself in 1908. He is generally credited (in this country at least) with inventing the modern vacuum tube as opposed to the two-element (diode) rectifier, which had been invented by Ambrose Fleming working from basic experiments of Thomas Edison. A case can be made in favor of Fleming as the true inventor of the vacuum tube.

Few pages in the early history of radio are unclouded by doubt. The acrimonious fight between De Forest and Edwin Armstrong (generally credited with inventing FM broadcasting, though there are at least one counterclaim can be made) over the subject of regenerative (feedback) receiver circuits is particularly revealing. Armstrong had the prior patent claim, and De Forest even seemed unclear in his understanding of the regenerative circuit, as he had been about the Audion itself, yet so great was De Forest's prestige in the Twenties, when the struggle was at its height, that it dragged on for years and eventually was decided in his favor. The striking thing about this saga is that in 1912 De Forest had been at the opposite end of the balance; in charging his company with mail fraud a New Jersey prosecutor said that the company's only assets, De Forest's Audion patents, "had proven worthless." Fleming and De Forest had both believed that some gas was needed in the tube if it was to operate. Only

Correction

In sorting out the stars and who sang for them ("The Film Dubbers," July 1972) Miles Kreuger incorrectly identified two vocal doubles. It was Anita Gordon, not Marie Greene, who sang for Pamela Tiffin in the 1962 remake of State Fair, and Francia White, not Diana Gaylen, dubbed for Virginia Bruce in The Mighty Barnum.

De Forest (who patented Phonofil in the early '40s, sang for Virginia Mayo in her various Warner Bros. films (She's Working Her Way Through College. Painting the Clouds with Sunshine. She's Back on Broadway). In Miss Mayos appearance in the Samuel Goldwyn film A Song Is Born it was Jan Southern who dubbed, but I can't be certain about her other films for Goldwyn.

Buddy McDaniel
Wichita, Kan.

I seem to remember Mary Martin telling me many years ago that she sang for Gypsy Rose Lee in The Battle of Broadway. My luck of assurance is due to my dismissing the information, at the time, as unimportant.

Roger Gerry
Port Murray, N.J.

It's absolutely true.

De Forest (who patented Phonofilm, a method for making movie soundtracks, in 1904) received a patent on the three-element (triode) Audion in 1907, specifying its use as an amplification device among other applications, and on the grid electrode itself in 1908. He is generally credited (in this country at least) with inventing the modern vacuum tube as opposed to the two-element (diode) rectifier, which had been invented by Ambrose Fleming working from basic experiments of Thomas Edison. A case can be made in favor of Fleming as the true inventor of the vacuum tube.

Few pages in the early history of radio are unclouded by doubt. The acrimonious fight between De Forest and Edwin Armstrong (generally credited with inventing FM broadcasting, though there are at least one counterclaim can be made) over the subject of regenerative (feedback) receiver circuits is particularly revealing. Armstrong had the prior patent claim, and De Forest even seemed unclear in his understanding of the regenerative circuit, as he had been about the Audion itself, yet so great was De Forest's prestige in the Twenties, when the struggle was at its height, that it dragged on for years and eventually was decided in his favor. The striking thing about this saga is that in 1912 De Forest had been at the opposite end of the balance; in charging his company with mail fraud a New Jersey prosecutor said that the company's only assets, De Forest's Audion patents, "had proven worthless." Fleming and De Forest had both believed that some gas was needed in the tube if it was to operate. Only
Audition
important new recordings
months before
they are available to
the general public.

Begin today—Send for special Advance Edition of
Beethoven's MISSA SOLEMNIS
superbly conducted by EUGEN JOCHUM

Yours for Half Price if you decide to keep it!

MISSA SOLEMNIS, called by Beethoven himself "the most successful of his intellectual products," has just been given its definitive modern recording, conducted by the illustrious Eugen Jochum. This Philips album will not be available to the American public for some months, but you may preview it now for ten days, without charge and without obligation. Furthermore, should you decide to keep it, you may do so for only half the suggested list price at which it will eventually be sold in stores!

The Carnegie Hall Selection Committee's fascinating report which accompanies the album points out why this performance was singled out for the Committee's recommendation: Jochum's devout, meticulously prepared interpretation... the self-effacing artistry of famous vocal soloists Agnes Giebel, Marga Hoffman, Ernst Haefliger and Karl Ridderbusch... inspired music-making by the peerless Concertgebouw Orchestra of Amsterdam and Netherlands Radio Chorus. Plus the truest, warmest sound of any Missa Solemnis yet recorded. The two stereo discs themselves are superior, silent-surfaced European pressings, manufactured by Philips to highest quality control standards, and come with full text, notes and exclusive Committee report.

Our preview offer of the Missa Solemnis cannot be repeated! So please mail the attached postpaid card today. Listen for ten days. Then either return the album and pay nothing, or keep it for only $6.98 plus small postage/handling charge (and sales tax where required). This is a 50% saving off the suggested retail price when the regular edition is finally released.

How you can be first to enjoy the greatest new recordings!
By replying now, you assure yourself of the privilege of receiving, for future ten-day free previews, special ADVANCE EDITIONS of major new albums... chosen EXCLUSIVELY for the International Preview Society by the Carnegie Hall Selection Committee. Since the Society is NOT a record "club", you will never be required to buy any album, nor will you receive a "record-of-the-month" like clockwork. Only when the Committee discovers a new album of the most extraordinary musical interest, artistic excellence and technical quality will it be sent for your free audition, so that there will often be months when no album at all is offered by the International Preview Society.

In every case, you will preview these records long before they reach the stores... with the option of purchasing any album you wish, in a superb imported pressing, including exclusive Committee report... never at a higher price than the ordinary edition will retail for months later, and frequently at big savings! You may cancel this arrangement at any time.

If you truly love great music, please mail the card today for your exciting Missa Solemnis pre-release audition.

Julius Bloom
EXECUTIVE DIRECTOR/CARNEGIE HALL

---Mail This Coupon if Postpaid Card is Missing---
FREE AUDITION AND HALF-PRICE PRIVILEGE
THE INTERNATIONAL PREVIEW SOCIETY
333 North Michigan Avenue, Chicago, Illinois 60601
Please send, for my free preview, the two-record special advance edition of Missa Solemnis by Eugen Jochum. I may return it after ten days and owe nothing, or keep it and pay only $6.98 plus small postage/handling charge (sales tax extra, where required). This is 50% of the suggested list price of the regular edition, when it becomes available months from now. I will also receive, at intervals of one or more months, free ten-day previews of albums chosen by the Carnegie Hall Selection Committee, far in advance of general release. I may keep any album for no more, and often for far less, than suggested list once. I am not obligated to buy any minimum number of albums and I may cancel this arrangement at any time.

NAME
ADDRESS
CITY STATE ZIP

OCTOBER 1972
CIRCLE 31 ON READER SERVICE CARD
DOKORDER introduces a new space age tape deck with the sophisticated 9100 to establish a new criterion of excellence, quality and dependability. Advance computer technology and proven audio engineering expertise combine to create a new standard in operation, reliability and performance, providing the audiophile with such exceptional features as these:

**ELECTRONIC TAPE TRANSPORT SYSTEM:** The feather-light, push-button switches are controlled electronically by the exclusive use of integrated circuits, allowing a faster, quieter and more positive response. One of its unusual capabilities includes a Fast Sensor Mechanism that stops the tape automatically in fast forward in either direction, pauses, and automatically plays back in reverse direction.

**THREE-WAY AUTOMATIC PROGRAMMING:** (1) Bi-directional Recording—automatically reverses, records in the opposite direction, and stops at the end of the tape; (2) Automatic Continuous Reverse and Repeat Playback—plays continuously in both directions until you stop the tape; (3) Standard Operation—stops the tape when it reaches the end in either direction. The Photo-Electronic Automatic Shut-off Circuit will automatically stop the motors.

**OTHER FEATURES INCLUDE:** Six Heads, with four superior MBD Heads • Three Precision Motors • Tape Counter Memory • Built-In Head Demagnetizer • Bias Control, Three Oscillators • Tape Select Switch • Mixing, Echo, SOS, SWS • Tape/Source Monitor and other professional features.

For complete specifications write:

Dokorder Inc. 11264 Playa Court, Culver City, Calif. 90230
Setting New Sound Standards in Tape Recorders
CIRCLE 22 ON READER-SERVICE CARD

when others (notably Harold Arnold and Irving Langmuir) added the idea of vacuum did the tube become a reliable, viable product. To that extent, the prosecutor was right. With so much confusion (and perhaps even obscurantism) in the official records, it’s easy to question their absolute validity.

**Soundtrack Collectors**

Ken Sutak says the reissue of rare soundtracks will send soundtrack investors to the aspirin cabinet. Is there anything wrong with that? It is all very nice for these dollar-conscious speculators to charge outlandish prices for soundtracks (and Broadway shows), but pity the poor collector who collects soundtracks (and Broadway shows) as a hobby for the sheer enjoyment of listening to the good music.

Ellis M. Nassour, Jr. New York, N.Y.

I’ve been a soundtrack album collector for many years and was surprised to note that British film composer Malcolm Arnold was not included in the list of selected composers in Ken Sutak’s article. His score for The Bridge on the River Kwai was outstanding and is very difficult if not impossible to obtain.

I’ve been trying to obtain Jerry Goldsmith’s score for The Blue Max for some years now and would appreciate hearing from anyone willing to part with a copy.

Jack MacLeod
206 Reade Street
Moncton, New Brunswick
Canada

**Bruckner and Mahler Omissions**

In his review [June 1972] of the Bruckner symphonies Nos. 4 and 7 (Karajan) and 6 (Steinberg), Robert C. Marsh stated that the “selected comparisons” for these works are by Mehta, Haitink, and Solti. However, in the review itself, these comparisons were never made. Why?

Ellis M. Nassour, Jr.
New York, N.Y.

Unfortunately our typesetter dropped the final paragraph of Mr. Marsh’s review, an error that was not caught until the pages were on the press and too late to rectify. Herewith Mr. Marsh’s missing comparisons.

“The Haitink version I reviewed in these pages recently is comparable as a performance (although I prefer some of the details in the Steinberg) and considerably better engineered throughout. For No. 7 my choice would be Solti. However, in the review itself, these comparisons were never made. Why?

B. Wonnick
San Mateo, Calif.

Of the six inches devoted to Robert C. Marsh’s review of new recordings of Bruckner symphonies in the June 1972 issue, a total of three-quarters of an inch is expended on the performances, which Mr. Marsh dispatches with these two zingers:

1) “They [Karajan and Steinberg] have the style at their fingertips, and they have the skill to achieve full realization of the scores’; 2) “As studies in interpretation, Karajan’s treatment [sic] of the Fourth and Seventh are valuable documentations of what he does with tempo and phrasing and his current over-all view of these works.”

When Mr. Marsh refers to this “style” they “have at their fingertips,” is he suggesting that
The new Dual 1229.
For those who want nothing less than a full-size professional turntable.

If you now own a 1219, we don't believe you'll want to rush right out and trade it in for its successor, the 1229. But if you have been considering a 1219, we do believe the additional refinements of the 1229 will bring you closer to a decision.

For example, the 1229 has a built-in illuminated strobe for 33-1/3 and 45 rpm. With a typical Dual innovative touch: an adjustable viewing angle that you can set to your own most comfortable position.

Another refinement is on the stylus pressure dial which is now calibrated in tenths of a gram from 0 to 1.5 grams. This provides finer control in setting optimum stylus pressure for today's finest cartridges, designed for tracking in this range.

Such refinements, while giving you more control over your Dual, don't actually affect its performance. Dual performance is a function of the total precision inherent in the design which has long made Dual's premier model the best-selling "high-end" turntable of them all.

The gyroscope is the best known scientific means for supporting a precision instrument that must remain perfectly balanced in all planes of motion. That is why we selected a true gyroscopic gimbal for the suspension of the 1229 tonearm. This tonearm is centered and balanced within two concentric rings, and pivots around their respective axes. Horizontal bearing friction is specified at less than fifteen thousandths of a gram, and Dual's unerring quality control assures that every 1229 will meet those stringent specifications.

The platter of the 1229 is a full-size twelve inches in diameter, and cast in one piece of non-magnetic zinc alloy. Each platter is individually dynamically balanced. Dual's powerful continuous-pole/synchronous motor easily drives this massive seven pound platter to full speed in one quarter turn.

A turntable of the 1229's caliber is used primarily in its single-play mode. Thus, the tonearm was specifically engineered to perform precisely as a manual tonearm: parallel to the record instead of tilted down. For multiple play, the Mode Selector raises the entire tonearm base to parallel the tonearm to the center of the stack.

All these precision features and refinements don't mean that the Dual 1229 must be handled with undue care. On the contrary, like all Duals, it is quite rugged and virtually foolproof.

So we're not being rash when we include a full year guarantee covering both parts and labor. That's up to four times the guarantee you'll find on other automatic units.

Visit your franchised United Audio dealer and ask for a demonstration. We believe you will join the other "purists" who prefer Dual.

United Audio Products, Inc., 120 So. Columbus Ave., Mt. Vernon, N.Y. 10553

Exclusive U.S. Distribution Agency for Dual

CIRCLE 80 ON READER-SERVICE CARD

October 1972
People are talking about

**Magnum Opus**

Creators of “Dynamic Damping” Patented

A new concept in Loudspeaker Technology

Werner Klemperer, Film and T. V. Actor "No shelf speaker, I have ever heard comes even close to the Opus 7 in authenticity and delineation of individual instruments...as to the Opus 24A—altogether unbelievable Owners of Crown, Marantz, and other fine amplifiers will be flabbergasted."

Barbara Cook, Broadway Actress and Singing Star "The sound is gorgeous. Voices and instruments are completely natural. Orchestral crescendos are so solid they seem organic. You can feel the air around each instrument.

**Magnum Opus** Loudspeakers are available in 5 Models, Priced from $129. to $795.

For additional information and Dealer List write or phone—

**Magnum Opus** ELECTRONICS LTD.
220 West 19 St., New York, N.Y. 10011
(212) 255-8156

Mr. Marsh replies: Stravinsky (in Retrospectives and Conclusions) declared "the useless generalities of most record reviewing" and proceeded to offer three parallel reviews of recent versions of his *Sacre*. They consisted of the type of commentary which music critics might make to one another, and you can appreciate that this is the type of commentary a Stravinsky might want to read. But no editor is likely to consider the regular publication of this type of criticism, even though his writers might be perfectly capable of producing commentary of this type, because readers of general circulation magazines are not likely to be very receptive to conductorial shop talk. What they want to know is the kind of over-all satisfaction a new record is likely to provide.

Mr. Marsh goes on to say: "If one is flabbergasted, his current over-all view is bound to contain some general statements on the assumption that if the reader is interested in these matters he is quite capable of pursuing them for himself."

Mr. Glass obviously would have preferred a feature review of these albums, but he seems to have missed my point. Precise statements require precise data. I can only write about what I hear, and if a recording comes to you in such a form that inner voices are lost, textures are vague, and balances are suspect, you mention those elements of the performance that are reasonably clear—in the case of this Karajan set, phrasing and tempo. If the music is a mugle, then the muddle is the music. Mr. Glass's suggestion, that in some way a performance can be abstracted and discussed apart from the sounds in which it is conveyed hardly represents the views of the majority of record buyers who, quite reasonably, expect the recorded sound to present a fair likeness of the work.

In general terms, Karajan's Bruckner would seem to be more romantic than Steinberg's, which is, at times, somewhat reserved, but a more detailed answer of this question would require better recordings. Both styles are quite consistent with the printed notes and a direct expression of the established artistic profile of each of the performers.

The Steinberg album is, on the whole, a better representation of its original, except in the matter of dynamics. I am convinced that dynamic changes in a work of music are as important as pitch changes. If you alter these relationships, you are doing something quite as fundamentally harmful as playing wrong notes. And it seems to me that the dynamics of the Steinberg set have been altered by cautious engineers to the point where it is no longer a faithful account of his work at Bruckner's design.

With respect to Mr. Curtis, the Mahler tradition at the New York Philharmonic is the fanciful product of the orchestra's publicists, born of an intent to achieve prestige by association through the creation of a Gussie-Lenny axis. In fact, Mahler was unhappy in his brief tenure with the orchestra. He played little of his own music, and it was not well received. Mengelberg had to contend with this hostility to Mahler during his period in New York, and he was followed by Toscanini who once declared that Mahler's music was fit to be used only as toilet paper. Thus in the period from Mahler's death until the opening of *World War II*, when the Concertgebouw was playing Mahler regularly, the Philharmonic was hardly playing him at all.

The Mahler revival in New York begins with the arrival of Bruno Walter (who hesitated to play all the symphonies) and was continued by men such as Rodzinski, Mitropoulos, and Slobodkina (whose Philharmonic performances of the Eighth Symphony are a landmark), and these men had to fight audience indifference and hostility in the press for many seasons. Bernstein came along as the tide was turning and rode the crest of Mahler's new popularity, but he gets little credit for pioneering. I find his edition of the symphonies musically uneven and technically outdated. In its present price bracket, it simply does not hold up well against newer issues. On *Odyssey* it could offer some interesting alternatives for the budget-conscious record buyer.

**Romantic Conservative**

By confusing the difference between form and content in her review of *Raff's Piano Suite*, Op. 91 [May 1972], Andrea McMahon, it
Our new SX-727.
So much for so little.

If you think that value is an abstraction, you'll change your mind when you see and hear the new Pioneer SX-727 AM-FM stereo receiver. Comparison proves it has greater power, performance, precision, features and versatility than any similar priced receiver.

Locking behind its power rating — 195 watts IHF, 40 + 40 watts RMS at 8 ohms, both channels driven — you find a direct-coupled amplifier and dual power supplies. The result is consistent power throughout the 20-20,000 Hz bandwidth for improved transient, damping and frequency responses, with low, low distortion.

You're in complete command of the FM dial, even in congested areas. New and advanced FET/IC circuitry has substantially improved sensitivity and selectivity. Reception is crystal clear and free of interference.

There's a wide range of connections for turntables, tape decks, headphones, microphones and even 4-channel. You can connect three speakers: which are protected against damage by an exclusive, new Pioneer safeguard system. Additional features include: loudness contour, high & low filters, FM and audio muting, click-stop tone controls, ultra wide FM tuning dial, dual tuning meters, mode lights and an oiled walnut cabinet. Sensibly priced at $349.95, the SX-727 is one of Pioneer's new line of four 'margin of extra value' receivers.

The others are SX-828, SX-626 and SX-525, designed for both more luxurious and more modest budgets. Hear them all at your Pioneer dealer today.

PIONEER®

when you want something better

U.S. Pioneer Electronics Corp., 178 Commerce Road, Carlstadt, New Jersey 07072

West: 13300 S. Estrela, Los Angeles 90048 / Midwest: 1500 Greenleaf, Elk Grove Village, III. 60007 / Canada: S. H. Parco Co., Ontario
Sony's quintessential deck.

The top of the Sony stereo line. Without question, the finest component 3-motor stereo tape deck you can buy. No true stereo buff should be without the Sony TC-850, ($895.00). See the entire line of Sony reel-to-reel tape decks starting at $159.95 at your Sony/Superscope dealer.

Introducing the BSR McDonald 810 Transcription Series Automatic Turntable.

Three-Heads. For Tape/Source monitoring and wider frequency response.

Giant 10½ Inch Reels. For maximum record and playback time.


Automatic Program Scanner. Locates and plays individual segments to music.

From its Sequential Cam System that antiquates the conventional noisy cam gear and swinging plate to its Synchronous Power Unit, the BSR McDonald 810 is designed to match or exceed the performance of any automatic turntable currently available. Some other highlights include a Variable Pitch Control, A 12" dynamically balanced turntable platter, A viscous damped cue and pause control with exclusive friction Cue Clutch to keep the tone arm cued over the exact groove. An automatic tone arm lock to eliminate accidental damage to the stylus or record. A Concentric Gimbal Arm Mount and featherweight push-button operation featuring the widest selection of operating modes. Your BSR McDonald dealer will be happy to audition the 810 for you. The price for this unbelievable performer? $149.50. From BSR. The world's largest manufacturer of automatic turntables. BSR (USA) Ltd., Blauvelt, N.Y. 10913

Support the Society

Thanks for the reviews of the Bruno Walter Society releases [June 1972]. I ordered the Berg Mozart LP by Szegedi and enjoy it tremendously. It was saddening, however, to read in the first newsletter I received from BWS that many friends of members are taping the Society's recordings and as a result sales are much lower than expected. It would be a shame if this project were to go under because of such a practice.

According to BWS, only one of ten inquirers joins, and only 20% of those buy more than the introductory LP. Too bad. I hope a lot of HF readers join me in buying these records at regular intervals instead of "pirating" them. The Society has a very interesting list of LPs available in addition to the ones mentioned in David Hamilton's article.

David Pierce
Vero Beach, Fla.

Open-Reel Addendum

In our August 1972 four-page chart "Open-Reel Recorders Over $200" Braun was inadvertently omitted. The company's Model TG 1000 is a 4-track stereo tape recorder with a top speed of 7½ ips, three heads including monitor head, three motors, pause control, no automatic reverse, takes a maximum 8½" reel. Includes sound-on-sound and photo-electric tape tension control, is convertible to four-channel with the TG 1000 Kit, and costs $749.00.
The DYNACO loudspeaker systems have won unparalleled reputations for clarity, smoothness, precision and above all, value. Markedly similar sonics and closely matched characteristics for the most natural stereo and 4-D sound permit them to be used in any combination. The A-10: Best Buy. More realism for under $50 than ever before. A-25: Unquestionably the greatest value. Extra power handling plus the deepest bass at less than $80. New A-35: The most accurate. Refinement of the A-25 in a larger dual-section cabinet for comparison at 3 times its $120 price. The A-50: Two woofers for those who want even more bass output and power handling capability at under $180. Each exemplifies DYNACO’s value-conscious, no-nonsense approach to high fidelity—pure, articulate, balanced sound.
There's a Heathkit receiver with specs you never

The Heathkit AR-14 — a great beginning for a first system. Experts call it one of the best kit-form values ever. $99.95 less cabinet.

The all new Heathkit AR-1214 — a young-at-heart AM/FM receiver with a bold new styling, unbelievable performance. $169.95 includes cabinet.

The new Heathkit AR-1302 offers a newly designed FM IF utilizing two ceramic filters, two ICs. You have to hear it to believe it. $239.95 less cabinet.

The Heathkit AR-29 — a solid 50 watts per channel with every state-of-the-art design feature you would expect in a top quality receiver. $299.95 less cabinet.

The incomparable AR-1500 — Julian Hirsch said it was the most powerful receiver he had ever tested. Check the specs for yourself and save some shopping time. $379.95 less cabinet.

The most sophisticated components in the audio world are kits.
in your price range
thought you could afford

<table>
<thead>
<tr>
<th>Model No.</th>
<th>AR-1500</th>
<th>AR-29</th>
<th>AR-1302</th>
<th>AR-1214</th>
<th>AR-14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>$379.95*</td>
<td>$299.95*</td>
<td>$239.95*</td>
<td>$169.95*</td>
<td>$99.95*</td>
</tr>
<tr>
<td>IHF Sensitivity (uV)</td>
<td>1.8</td>
<td>1.8</td>
<td>1.9</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>IHF FM % THD</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
</tr>
<tr>
<td>IHF FM Capture Ratio (dB)</td>
<td>1.5</td>
<td>1.5</td>
<td>1.8</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>IHF FM Selectivity (dB)</td>
<td>90</td>
<td>70</td>
<td>60</td>
<td>60</td>
<td>40</td>
</tr>
<tr>
<td>Radiated AM Sensitivity uV/meter</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>100</td>
<td>—</td>
</tr>
<tr>
<td>AM Selectivity (dB)</td>
<td>10kHz</td>
<td>20</td>
<td>25</td>
<td>20</td>
<td>—</td>
</tr>
<tr>
<td>IHF Power Per Channel @ % THD</td>
<td>8Ω</td>
<td>90 W @ 0.25</td>
<td>50 W @ 0.25</td>
<td>30 W @ 0.25</td>
<td>25 W @ 0.5</td>
</tr>
<tr>
<td></td>
<td>4Ω</td>
<td>120 W @ 0.25</td>
<td>65 W @ 0.25</td>
<td>30 W @ 0.25</td>
<td>30 W @ 0.5</td>
</tr>
<tr>
<td>Continuous Power Per Channel @ % THD</td>
<td>8Ω</td>
<td>60 W @ 0.25</td>
<td>35 W @ 0.25</td>
<td>20 W @ 0.25</td>
<td>15 W @ 0.5</td>
</tr>
<tr>
<td></td>
<td>4Ω</td>
<td>100 W @ 0.25</td>
<td>35 W @ 0.25</td>
<td>20 W @ 0.25</td>
<td>20 W @ 0.5</td>
</tr>
<tr>
<td>% THD @ 1 Watt</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.2</td>
<td>0.5</td>
</tr>
<tr>
<td>% IM Distortion @ Continuous Power</td>
<td>0.1</td>
<td>0.2</td>
<td>0.25</td>
<td>0.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Input Sensitivity (mV)</td>
<td>Phono</td>
<td>1.8</td>
<td>2.2</td>
<td>2.4</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>Aux</td>
<td>140</td>
<td>180</td>
<td>180</td>
<td>190</td>
</tr>
<tr>
<td>Signal to Noise Ratio (dB)</td>
<td>Phono</td>
<td>63</td>
<td>65</td>
<td>65</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Aux</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>70</td>
</tr>
<tr>
<td>Dimensions</td>
<td>5½&quot; H x 18½&quot; W x 13½&quot; D</td>
<td>5½&quot; H x 16¼&quot; W x 14½&quot; D</td>
<td>3½&quot; H x 17&quot; W x 13&quot; D</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Mailing Weight</td>
<td>53 lbs.</td>
<td>34 lbs.</td>
<td>30 lbs.</td>
<td>16 lbs.</td>
<td>18 lbs.</td>
</tr>
<tr>
<td>Cabinet</td>
<td>ARA-1500-1/$24.95*</td>
<td>AE-19/$19.95*</td>
<td>AE-19/$19.95*</td>
<td>Included</td>
<td>AE-55/$12.95*</td>
</tr>
</tbody>
</table>

See them all at your Heathkit Electronic Center... or fill out the coupon below


HEATH COMPANY, Dept. 8-10
Benton Harbor, Michigan 49022

Please send FREE Heathkit Catalog.
Enclosed is $ , plus shipping. Please send model(s)

Name ____________________________
Address __________________________
City ____________________________ State __________ Zip __________

Prices & specifications subject to change without notice. *Mail order prices; F.O.B. factory. HF.265

NEW FREE HEATHKIT CATALOG!

CIRCLE 30 ON READER-SERVICE CARD

October 1972
We’d like to hand you a line on a new stereo cartridge.

A nostalgic romp through the pages of High Fidelity and Musical America

60 Years Ago
Richard Strauss’s Ariadne auf Naxos premiered this month in Stuttgart and received a cordial reception from an audience that included celebrities from all parts of Europe. New phases of Strauss’s musical genius are revealed in the work. There are passages most gracefully fascinating alternating with moments of tragic portent and Strauss has utilized the effects of contrast in a highly imaginative and masterful manner. Even so, it seems to be a general opinion that the cleverness of Ariadne will please the few but that its appeal is not broad enough to reach the many.

Leopold Stokowski made his debut as conductor and musical director of the Philadelphia Orchestra on October 11. It did not take long for the slender, boyish-looking conductor to win his audience, which was impressed by the conductor’s dignity, reserve, and freedom from “temperamental” eccentricity. Mr. Stokowski conducted the Brahms First Symphony without notes. When Stokowski came forth to begin the composition the score was on his desk, but he picked it up and tossed it to the floor at his feet.

40 Years Ago
Leopold Stokowski has thrown down the gauntlet. The Philadelphia Orchestra Association announced “no debatable music,” and now the conductor comes along and says he knew nothing about the edict and is going to play all the debatable—i.e., modern—music he wants to, perhaps at the end of regular programs. His “musical convictions are contrary” and he is going to stick by them regardless.

San Francisco’s War Memorial Opera House opened its doors on October 15 with an inaugural performance of Tosca starring Claudia Muzio and Dino Borgioli. Two nights later, Lily Pons stopped the show in Lucia di Lammermoor. “Skeptics who believed no singer could be as good as Miss Pons was said to be, capitulated even during her singing of Lucia’s first aria, and Gaetano Merola, who was conducting, had to stop the orchestra at the conclusion of the song and wait for the deafening applause to subside.

Furtwangler’s Meistersinger at the Berlin State Opera (October 7) threw the public and press into such delirious paroxysms of ecstasy that it would seem unbecoming to question its perfection. The fact must not be overlooked, however, that at present the national spirit in Germany is at fever heat and in the eyes of the mob Furtwangler was given a distinctly bad deal at Bayreuth where his Meistersinger mantle had fallen on a foreigner [Toscanini]. He is the undisputed musical idol of the German people and has become the object of a tremendous national sympathy. ... For Berlin this Meistersinger had a character of ritual that lifted it far above the darts of academic criticism.

20 Years Ago
There is an African gray parrot in a restaurant out on Long Island who entertains customers nightly by whistling the drinking song from La Traviata, the triumphal march from Aida, Hall of the Mountain King from Peer Gynt, airs from La Bohème and Carmen, and several other songs. When he gets stuck in the operatic repertoire, as he frequently does, he ad libs for a moment and then swings into Ciribiribin, his favorite. Before the war, a waiter taught him the Fascist hymn, Giovanezza, and he still sings it lustily to the embarrassment of practically everybody. His name is Coco and he is sixty-five years old, which is not a doddering age for a parrot.

The National Broadcasting Company made television history on October 19 by giving the first American performance of Benjamin Britten’s newest opera, Billy Budd, in an uninterrupted hour-and-a-half production—a shot of adrenalin to our all but dead faith in the most magical medium of communication ever devised by man. The production was an unqualified triumph for everyone connected with it except, possibly, the composer. Billy Budd is not a very good opera, an uninspired work not to be compared to Britten’s Peter Grimes and some of his other happier projects.
Your next receiver should have 3 things missing.

The input transformer. The output transformer. And the output capacitor. Because when you cut those three things out of a receiver, you cut down on a fourth thing. Distortion. We do it with a system called direct coupling. And Panasonic puts it in all its FM/AM/FM Stereo Receivers.

With this system the amplifier circuit is coupled directly to the speaker terminals. To improve transient response and damping. So there's less than 0.8% harmonic distortion. To help you hear only the sound of music.

The sound of the SA-6500 is really something to listen to. With a full 200 watts of power (IHF). To fill even a big room with music. And there's also a power band width of 5 to 60,000 Hz.

The SA-6500 also has two 4-pole MOS FET's. That provide 1.8μV FM sensitivity. To pull in FM stations that are too weak or too far to make it on their own. Integrated circuitry and a crystal filter improve the capture ratio. And there are low-filter, high-filter, and loudness switches. So the music comes out closer to the way it started out. And an FM linear dial scale and two tuning meters. To make the music you want just a little easier to find.

You can also find that music on the SA-6200. With 150 watts of power. Plus 2 RF stages and 6 IF stages. To provide selective station tuning. And there are PNP low-noise silicon transistors in the differential amplifier drive-stage. To give almost noise-free performance. No matter who's performing.

For less money you can still get a lot of power. From our SA-5800. With a full 100 watts. The SA-5500. With 70 watts. Or our newest receiver, the SA-5200. With 46 watts. And some of the features you'll find in our more expensive stereo receivers.

So before you get your next receiver, see your franchised Panasonic Hi-Fi dealer. He'll show you what should be missing. So you don't miss out on anything.

FOR YOUR NEAREST FRANCHISED PANASONIC HI-FI DEALER, CALL TOLL FREE 1-800 882-6500.
There are 57 FM stations in New York, 73 in Los Angeles, 41 in San Francisco and 37 in Chicago—all crammed between 88 and 108 MHz. With so many stations, and so little space, there's bound to be a bit of pushing and shoving. Now and again, an unfortunate overlap. A receiver with ordinary sensitivity and selectivity just won't cut it. But Sony doesn't make ordinary receivers. It gives you a choice of six models—all with extra ordinary tuner sections. The FET front ends, solid-state IF filters, combine to bring in even the weakest stations with an unusual immunity to overload from strong ones. Station selection on the long linear dial is razor sharp. Interference and noise have been reduced to where they can't intrude on your listening pleasure. And the amplifier sections are equally extraordinary. They feature Sony's dual-power-supply, direct-coupled approach. There's no coupling capacitor to stand between you and the music. The only problem you might have is in making up your mind as to which Sony is best for you. Power and price might be a good criteria. The top-of-the-line 6200F has 245 watts of power, $699.50. The 6065 delivers 220 watts at $429.50. The 6055, 100 watts at $319.50, and the 6045,
Second Hand Rose make a poor medley

75 watts at $249.50. The 6036 is a frill-free, receiver with 44 watts of power (it does not have direct coupling) at $199.50. The new Sony SQR-6650 provides virtually every form of 4-channel (SQ, matrix and discrete) as well as excellent stereo performance, only $329.50. The best way to make up your mind is to visit your Sony dealer for a demonstration. Sony Corporation of America, 47-47 Van Dam Street, Long Island City, N.Y. 11111. Prices: Suggested retail. Power ratings: IHF standard constant supply method into 8 ohms.

CIRCLE 71 ON READER-SERVICE CARD
Newport in New York

In the summer of 1960, there were those in the jazz world who felt that the worst enemy jazz had ever known was Boston impresario and sometime pianist George Wein. In the summer of 1972, some of those same people were saying that George Wein was his best friend.

Wein has been staging the Newport Jazz Festival since its inception nineteen years ago in Newport, Rhode Island. By the late 1950s, Wein had begun booking into the festival blatantly commercial acts—acts having little if anything to do with jazz—to bolster box office receipts.

Jazz admirers objected, feeling that these acts diluted the interest and value of the festival. Equally important, these performers began attracting to the festival a scruffy element of young people who came not to hear jazz (they didn't know what it was and didn't care) but to swill beer and chase chicks and ball on the beaches. Various musicians and writers predicted that their presence would some day result in a riot.

On the Fourth of July weekend of 1960, the prediction came true. The riot was so bad that musicians had to leave the festival in convoys of cars for safety. As things deteriorated further, the state police and elements of the Rhode Island National Guard had to be called in to quell the disorders. As night turned into dawn, agitated musicians and press people at the Viking Hotel heard what sounded like tanks in the street. But it wasn’t quite that bad: the noise was coming from street-cleaning equipment as rotary brushes swept up the mounds of beer cans.

Newspapers had a field day with the story, and jazz received the worst publicity black eye in its history—from people who weren't even jazz fans.

Jazz went into decline in the 1960s, both commercially and aesthetically. Record companies were pushing rock and building the myth of its profundity. Brilliant jazz musicians were hard pressed to make a living, much less create anything fresh and vital. Many, like drummer Arthur Taylor, trumpeter Arthur Farmer, composer George Russell, and tenor saxophonist Johnny Griffin, simply abandoned the United States for Europe, where jazz had always been treated with the respect it deserves.

Some, like trumpeter and composer Johnny Carisi—one of the important innovators—took menial jobs in Broadway pit orchestras. By a bitter irony, Carisi ended up in the orchestra of Hair, performing music infinitely inferior to his own.

By 1971 Wein was interpolating rock groups into the festival. Their followers (now flying on grass instead of beer) gave him the Second Newport Riot. The disgruntled city fathers of Newport let him know that as far as they were concerned the festival was finished.

They were wrong. Wein simply moved it to New York City. This year there was not a single rock act in the event—it was all jazz. And 100,000 people turned up to attend the many concerts (some of them held simultaneously) in Philharmonic Hall, Carnegie Hall, Radio City Music Hall, and even on the Staten Island Ferry. The festival, now expanded to a week in length, left musicians, fans, and critics alike in virtual euphoria, remembering the well-behaved crowds of young (and old) people, some superb music, the excitement, and a great deal of just plain fun. And some of Wein’s most severe critics in 1960, including me, had nothing for him now but praise. The New York-Newport Jazz Festival was a stunning success.

Said pianist Bill Evans, one of the performers, “This is probably the greatest thing that’s happened to jazz. I think the festival this year will put jazz back up to its legitimate confines.”

The festival spread out, as it were, beyond its legitimate confines. Nightclubs around town booked jazz acts for the fans to hear after the regular concerts. For the first time in years they were able to hear the great guitarist Jimmy Raney, in a little club just north of Greenwich Village called Bradley’s. In the jazz depression of the ‘60s, Raney had, as he put it, “developed a bit of a drinking problem” and went home to his native Louisville to vegetate. Now he was back, off the sauce, and picking up the pieces of his career and his life, and people who had not forgotten turned up at Bradley’s to hear his subtle, thoughtful, modern music. Said singer Sylvia Syms, listening, “It’s as if something light and airy touched your cheek, but you’re not quite sure.”

The return of Jimmy Raney, fit and healthy and productive, seemed to symbolize something that’s happening to jazz itself. And that mood was all through the city. Raney off liquor, another great musician I know off heroin, and the brilliant Stan Getz off both.

Interestingly, some of the youngest festival-goers were deeply interested in some of the oldest music. When the Papa French Original Tuxedo Band performed in three successive trips on a ferry boat, three crowds of about two thousand each went along for the ride, and like the music, the dancing, the joy. Seventy or eighty per cent of them were under twenty.

At the other end of the musical spectrum, the avant-gardist Ornette Coleman impressed many people with a new composition for jazz quartet and orchestra called The Skies of America.

Duke Ellington got half the second front page of the New York Times. The Stan Kenton and Woody Herman bands appeared in concert together. Count Basie’s powerful and still utterly fresh orchestra played the festival, then went into a two-week engagement in the elegant dining room of the St. Regis Hotel. For his opening there, a virtual Who’s Who of show biz turned out to cheer him.

As the week wore on, the festival accelerated. Newspapers gave extensive coverage to the event, and as word went out on the wire services that this was the kind of jazz festival people wanted—no trash acts in it—fans began to pour into New York, some by plane from as far away as Texas, to get in on the fun.

It is impossible to list all of the artists who performed in New York that week; it was in fact impossible to hear them all. But Dizzy Gillespie, Freddie Hubbard, Eubie Blake, Herbie Hancock, Eddie Condon, Teddy Wilson, Kenny Burrell were there, along with a lot of little-known people who deserved (and for once got) the chance to be heard.

The fans, as a Times writer noted, were as intense as a chamber music audience. And the feeling of good fellowship among them was almost palpable.

As awareness of his success pressed in on George Wein, he said, “This festival will be in New York forever. New York is the jazz capital of the world, and it should be the permanent home of the festival.... I feel as though I’ve been re-born.”

So he has. So has the Newport Jazz Festival. So has jazz.

Gene Lees
We've made no major change in the Klipschorn in 30 years

Would you really want us to?

IT IS STILL HORN LOADED
Properly designed and balanced exponential horns handle bass, mid-range, and treble notes with a freedom from distortion never approached by acoustic suspension type speakers. Requiring only short diaphragm excursion, they deliver crisp dynamic peaks without strain on the drivers, amplifiers, or your ears.

IT IS STILL DESIGNED FOR CORNER PLACEMENT
As with the first 1940 KLIPSCHORN, corner walls and floor are utilized to provide the required radiation area for the deepest bass notes. That is why the KLIPSCHORN is the smallest loudspeaker available which can reproduce honest 32 foot wavelength sounds.

SOLID RESEARCH IS STILL THE BASIS OF DEVELOPMENT
The basic principles of physics haven't changed. Klipsch relies on these principles as expounded by the most respected research laboratories. The Symposium on Auditory Perspective from Bell Telephone Laboratories and Principles of Stereophonic Sound by William B. Snow are acknowledged as authoritative. The technical papers of Paul W. Klipsch are likewise acknowledged as authoritative and constitute substantial contributions to the field of sound reproduction. The weight of the work is prodigious when one considers the small size of the staff.

THE POINT OF IT ALL REMAINS THE SAME
Klipsch loudspeakers have always been designed for but one thing, the reproduction of original sound. The gap between original sound and recorded sound, already minimal in the KLIPSCHORN, has been narrowed further by a series of slight modifications. Any model bearing a serial number above 20 can be updated to 1972 performance. And you'll still have the best sound reproduction in 2002.
I'm currently using an Advent Model 100 Dolby noise-reduction unit with my tape deck, and I'm considering buying a Revox A-77 with built-in Dolby B. Would there be any further improvement in noise reduction by first passing the signal through the Advent 100 and then through the Dolby circuit in the Revox?—Nancy K. Levy, Milwaukee, Wis.

In terms of raw S/N ratio, yes; but we wouldn't recommend it. The 10-dB maximum noise reduction of the Dolby B circuit was carefully worked out as optimum in terms of its original design criteria: appreciable reduction in audible noise levels with no undesirable audible side effects. Of the side effects, "breathing" or "pumping" are typical of overdriven dynamic level control devices, of which the Dolby circuit is one. By double-Dolbying, so to speak, you could introduce such effects on some program material.

My present Fisher system consists of a 440T receiver, two XP-10 speakers, and a K-10 SpaceXpander reverb. I have become entranced with the idea of more powerful, sophisticated equipment. But if I had it would I be getting true sound reproduction, or would I just be wasting my money?—L. Theodore Sharp, Lynchburg, Va.

This sort of question keeps coming our way now that superpower amplifiers with extremely low distortion have become almost a commonplace of high fidelity. Suffice it to say that "true sound reproduction" can be made by switching to a state-of-the-art amplifier driving first-rate speakers, though subjective descriptions of what those improvements consist of can vary widely. Clarity, transparency, transient response, frequency response, power-handling capacity, freedom from distortion, and subtlety of detail all are involved. Will it all be worth the extra expenditure? To answer that, use the equation \( W = ST - P \), where \( W \) equals worth, \( P \) equals price, \( S \) equals the sensitivity of your ears, and \( T \) equals the thickness of your billfold.

RCA now has given us long-playing records that warp in ways none of us dreamed possible just a few years ago. What will the sons of Little Nipper give us next? Since 1942 when I began collecting records, music and I have survived Studio 8H, standing waves in Symphony Hall, wildly eccentric 78s, the 800-cps turnover, the threat of 45s, overmodulation, the sham of Miracle Surface, the antimusic binge of Dynagroove, the technical decline of RCA's domestic efforts since the glories of Reiner in Chicago, and now Dynaflex. Doesn't anyone at RCA care? I must ask that my name be withheld.—Name Withheld, Conshohocken, Pa.

This is only about half of N.W.'s letter, which continues in much the same aggrieved vein. It's true that we shared a certain amount of a reader's initial shock at the apparent flimsiness of Dynaflex. That response seems to be at least in part psychological. Many early Dynaflex copies included a questionnaire asking how the purchaser liked the new disc shape. Response was overwhelmingly unfavorable. RCA also sneaked the questionnaire into many non-Dynaflex albums—with the same response. Experience has shown that RCA's contention (see the article by Rex Isom of RCA in our September issue) that Dynaflex and other thin records will remain or even become unwarped if handled and stored correctly seems to prove out. The positive advantages of Dynaflex—more perfect molding of the groove area in particular—are harder to prove at the receiving end. Long-term record collectors probably will concede more justice to some of N.W.'s accusations of past inequities, however.

When rating loudspeakers in your equipment reports you give the maximum power a speaker can handle without distorting. But how would one determine the power per channel required to drive a pair of speakers to their full capability to establish a minimum power rating when selecting a power amplifier?—A. D. Bergstrom, Omaha, Neb.

It isn't necessary to drive all speakers to the limits of their capability. What you need to know for an exact determination of power requirements is the sound-pressure levels that will be required in your room. Our reports give power requirements for an acoustic level of 94 dB as measured in the test chamber. Your listening room can have a major effect on the sound levels you can hear; however, so we are speaking only in the roughest of terms when we say that 94 dB represents fairly high levels. For example, we said that the Harman-Kardon Citation Thirteen requires 11 watts (per channel, continuous power) to reach the 94-dB mark. This would mean that in some small, live rooms you might be quite satisfied with 10 watts per channel; in large, dead rooms—particularly if you want really big sound—you will need several times this figure if you are not to drive the amplifier into distortion in trying to reproduce the loudest musical passages. So while you can use the wattage rating for 94-dB output as a reliable guide to relative speaker efficiency, it is only a rough indication of minimum power required for average listeners in average rooms.

Twice now I have read statements in your magazine to the effect that while wireless stereo headphones have been designed, none has "made it to market." I don't wish to contradict the experts, but how can I explain to my wife that the Panasonic RF-60 wireless FM stereo headset she gave me as an anniversary present is nonexistent?—Bernard J. Jandorf, Baltimore, Md.

The RF-60 is a special-design battery-powered stereo FM radio. Headphones normally can be used to listen to any signal source—not just FM. You could hook the RF-60 into your stereo system in order to listen to records or tapes, but then it would no longer be wireless. Ergo, she didn't give you a true wireless headset.

Your announcements that RCA's discrete Quadradiscs are now available raise a number of questions: Can this system be used by stereo FM stations; will it require a wider frequency allocation for the stations; will it eliminate SCA broadcasts; and will the playback equipment enhance present stereo discs the way Dynaquad does?—F. S. Nance, Sumter, S.C.

Your first three questions depend more on broadcast techniques than on the Quadradisc technique itself. Quadradiscs will reproduce as stereo on present stereo equipment (meaning both disc players and broadcast equipment) more or less the way matrixed four-channel discs will. When a Quadradisc is reproduced in stereo the back channels are telescoped into the front channels and the combination projected simply as left and right signals. The only questions arise when you consider the problems of quadraphonic broadcasting, and these questions can only be answered when (or if) the Federal Communications Commission approves a broadcast technique. Neither of the major plans now before the FCC would call for increased carrier bandwidth or eliminate SCA broadcasting. But whatever happens in broadcasting, the quadradisc system does not inherently lend itself to any sort of "enhancement" of stereo records, and none of the Quadradisc demodulators we've seen makes any provision for this sort of use.

Which make is better—American or Japanese?—Anatol Kolenoff, Sidney, B.C., Canada.

For American, Canadian, and Israeli silk flags, musical versions of Gone with the Wind, and miniature reproductions of the Statue of Liberty—Japanese. For pizza, musical versions of Pygmalion, and film for Japanese cameras—American. In audio a good American component is better than a bad Japanese one, a good Japanese component better than a bad American one.
Quick. Name the most powerful receiver under $300 . . .

with a walnut case included.

Two auxiliary inputs.

Front panel provision for a 4-channel decoder (which can double as a second tape monitor).

Direct-coupled output circuit.

Illuminated selector indicators.

18 uv FM sensitivity.

Maybe you still can't tell from this description.

But if you heard it, you'd know.

Ask your dealer. Or write:

Sherwood Model S7200.

Sherwood Electronic Laboratories, Inc.

4390 North California Avenue

Chicago, Illinois 60618

The Sherwood Experience
Life Is a Hi-Fi Show, Old Chum

After a period of relatively desultory interest, the bright lights seem to be going on over high fidelity music shows once again. The Institute of High Fidelity, for many years the central moving force behind most major efforts in this direction, has decided to resume what once was the season's major event: a center-city show in New York. That show, at the Statler Hilton, is scheduled for September 28 through October 1. These dates, as it turns out, are almost identical to those chosen by a West Coast industrial-show management group, Westcon, for its first foray into consumer shows: the Expo Electronex, which is being held at the new Los Angeles Convention Center over the same weekend.

Meanwhile, in mid-September, IHF will have presented a somewhat different type of show at the Stauffer Denver Inn in Colorado as part of a High Fidelity Week, as it is to be called. Sound demonstrations are barred from the Denver exhibit areas and reserved instead for a continuous series of seminars and recorded concerts. (One seminar will be conducted by our Audio-Video Editor; two others by authors familiar to readers of High Fidelity: Leonard Feldman and Larry Zide.) The purpose of this format is to avoid the skirmishes of competing 1812 Overtures that can be the bane of high fidelity shows. In the display areas attention can center on the equipment itself, instead of the program material.

San Francisco also will have a high fidelity music show—with heavy emphasis on the music and on music education—this fall. The National Music and Hi Fi Expo '72 will take place in the Cow Palace October 6 through 8. Then at the end of October Dallas will have a show at the Northpark Inn. Other fall shows in smaller communities also are in the planning stage at this writing, and the IHF has been approached with requests for participation. A Cleveland show is under consideration for January. The traditional Washington, D.C. show will occur on schedule in February at the Hotel Washington, and the same management is planning a Miami show for March. And there may be an IHF show in Northern California in April.

This flurry of interest from outside the Institute coupled with the successful IHF shows in Southern California and Chicago last season suggest that the festivities are only just beginning.

Once Again: Digital Recording

Ever since the computer generation really took over some ten years ago, "blue-sky" articles on the possible future of audio have talked of digital processing of sound signals. In computer terms, our present signal-handling equipment is analog, rather than digital; it carries voltages that are proportional (analogous) to the instantaneous sound pressures they "represent" in the recording. A digital system would convert these waveforms of fluctuating voltage into a pulsed code, rather like converting verbiage into Morse Code for telegraphic transmission.

The elegance of this idea lies in its imperviousness to noise and distortion—including such fidelity deterrents as wow and flutter. Digital transmissions are used in many types of space communications for that reason. Though the pulses themselves may pick up noise and become distorted in their journey from Mars, the code can still be picked out of the interference and the information it conveys reconstructed virtually unaltered.

To be sure, audio application would require analog-to-digital conversion in the recording process, digital-to-analog conversion in playback. Since each conversion requires a computer or its equivalent for processing, the equipment would be far more complex and expensive than anything we now use in the home. But digital information can be mixed and transformed much the way that analog audio can; and as long as appropriate computer circuits were built into studio equipment there's no reason why audio couldn't be mixed and equalized—as well as stored—in digital form so that no noise or distortion would accrue in the process. Just think of the clean transients, for example, if they're utterly innocent of phase shift!

Well, one company has made a practical start toward this audio nirvana. Nippon Columbia in Japan—known here as the maker of Denon products—now has a $300,000-plus professional tape recording system that uses the pulse code modulation system, otherwise known as PCM. Its initial product will be a sampler record that we are told should be available by the time you read this. Of course the discs themselves presumably will be made conventionally, but for the future—who knows?

Stylized waveform representations suggest why digital signals come through unaltered. Regular audio (analog) signals carry into the output any noise or distortion they pick up along the way; digital code is still visible (and recoverable) through the noise.
Only the sound is heavy.

Koss breaks the lightweight sound barrier with a revolutionary new High Velocity Stereophone.

Up until now a lightweight phone meant a lightweight sound. But not any more. Because Koss engineers have developed a micro/weight, high velocity type stereophone that sounds like a heavyweight. And that's an achievement no music lover will take lightly.

Unique electro-acoustical design.

Unlike conventional stereophones which contain the sound waves in a sealed acoustical chamber, the new Koss HV-1 High Velocity Stereophone vents the back sound waves to the rear. Without raising the resonance or inhibiting transient response. This unique electro-acoustical design concept provides not only unusual lightness and hearthru characteristics, but also the exciting, full-range Sound of Koss as well.

Superb tonal quality.

And by substantially reducing the mass of the moving diaphragm assemblies used in the HV-1, Koss has been able to achieve a wide-range frequency response of unusual fidelity. Delicate overtones, which add to the faithfulness of the reproduction are retained. Yet, bass response is extended, clean and “unmuddied.”

Stylish low-silhouette design.

Designed to fit close to the head, the new Koss HV-1 Stereophone has a stylish, low-silhouette design without the cone-type projections found in other headphones. This slim design permits unusually fine acoustical tuning of the element chamber at the factory. Which means that, unlike other lightweight phones, every Koss HV-1 Stereophone provides the breathtaking Sound of Koss. And that's not something to treat lightly.

Designed for unprecedented comfort.

You'll listen in comfort hour after hour. Because the new Koss HV-1 is lighter than 10 ounces. And because it has the perfect balance you expect in a Koss Stereophone. Not to mention a glove soft vinyl-covered headband and acoustical sponge ear cushions.

Hearing is believing.

Listen to the Koss HV-1 Stereophone at your favorite Hi-Fi Dealer or Department Store. And get the whole story on the heavy Sound of Koss by writing Virginia Lamm, c/o Dept. HF-372. We won't take your interest lightly either.

KOSS HV-1 stereophone
from the people who invented Stereophones.

KOSS CORPORATION, 4129 N. Port Washington Ave., Milwaukee, Wis. 53212. Koss S.r.l., Via Dei Valtorta, 21 20127, Milan, Italy
THE WORLD ISN'T READY FOR THIS RECEIVER. BUT YOU ARE.
In a world of receivers claiming to be just slightly ahead of their time, Harman/Kardon is introducing one considerably farther ahead than that. It's called the 75+, and if you buy it now you'll find it practically impossible to use to full potential.

Then why should you buy it? **You buy it because it's great for stereo.**

When buying a receiver, you should choose one that's best prepared to handle what you're prepared to hear. Given your investment in stereo records and tapes, that obviously means stereo.

And in stereo, the 75+ will deliver an honest 45 watts RMS per channel. Which most quad receivers can't. (The 75+ has a bridging circuit that combines the power from four channels into two—instead of just disconnecting two channels the way most others do.)

As a stereo receiver, the 75+ is practically identical to our own model 930, which many reviewers have judged the best available. So it isn't stretching a point to say you'll be able to hear the best stereo any receiver can provide. But why stop there?

**You enhance your investment.**

If you have two extra speakers, connect them to your 75+. And create two entirely separate stereo systems.

You'll be able to hear Beethoven in the living room and Bread in the den. Both at the same time. And each with separate tone controls.

But to really appreciate your 75+, consolidate your speakers in one room. And play stereo—tapes, records or FM—through four channels.

What you get is "enhanced stereo," and the 75+ enhances it better than any other quad receiver.

Instead of just synthesizing the two back channels by running them through a conventional matrix circuit, the 75+ uses a unique wide-band 90° phase shift network. This provides enhanced 4-channel sound that adds a new dimension to stereo music.

The 75+ is also equipped with a 360° "Joy Stick" sound field balance control. It lets you adjust the four speakers to the levels where they best complement each other.

Having gone this far, you won't want to go back to stereo. You'll probably want to move even further forward.

**You keep it because it's great for quad.**

SQ records are here now, and they'll be here in greater numbers in the future. The moment you begin buying them, your 75+ can begin playing them.

Of course, so will other quad receivers; but again, not as well.

The 75+ is the only one with two SQ modes: conventional SQ and SQ Blend. Conventional SQ best reproduces the ambiance of music recorded live in concert halls. SQ Blend is best for playing back hard rock and contemporary music or where a soloist is predominant.

What about discrete four channel records? If and when they arrive, you'll be waiting for them. A hideaway decoder will be available for simple plug-in connection.

Obviously, the 75+ is more receiver than some people need right now, and for that reason there are some people who won't buy it.

But for those with foresight and not a lot of money ($400), it represents a rare investment opportunity:

A receiver you can't outgrow in a couple of years for the price of one you almost certainly will.

We have four new multichannel receivers, ranging in price from $250 to $600 and in watts from 50 to 140. For more information, write Harman/Kardon Inc., 55 Ames Court, Plainview N.Y. 11803.

**harman/kardon**

The receivers you won't outgrow.

*Distributed in Canada by Harman/Kardon of Canada, Ltd., 9249 Cote de Liesse Rd., Montreal 760, Quebec.

CIRCLE 29 ON READER-SERVICE CARD
True to the Bozak Tradition of “best in its class”, our new Sonora (Model B-201) delivers dramatically clean sound at far higher levels than other speakers under $100 — and many costlier ones.

The secret of Sonora is our unique 8-inch Bass/Midrange driver. Its aluminum diaphragm radiates a solid, true-pitch Bass and a transparent, breakup-free Midrange, while serving as a heat-sink for the voice coil. As a result, it can easily handle the output of any amplifier up to 60 Watts RMS rating, with freedom from overloading.

Sonora is a two-way system, with an LC Crossover linking the 8-inch driver with a single-section of B-200Y, the tried-and-true Treble Speaker used in all Bozak systems. The enclosure is a sturdy, resonance-free tightly-sealed box of 3/4-inch compacted-wood material, covered with walnut-grain vinyl.

Be it rock or traditional, in stereo or quad, Music Really Comes Alive with Sonora!

Hear them at your Bozak Dealer’s.

11¾” x 20¼” x 10” deep; walnut-grain vinyl;
8 Ohms; 12.5 to 60 Watts RMS.

Bozak, Darien, Connecticut 06820 / Overseas Export by Elpa Marketing Industries, Inc. / New Hyde Park, New York 11040, USA
New Receiver Line from Pioneer


Comment: This is the first unit we have tested from a new group introduced early this year by Pioneer. More recently additional models have been added to the series to make it the "current generation" of receivers from the company. The SX-626, a moderate-priced unit in the group, is somewhat smaller and less elaborate than Pioneer receivers we have tested in the past. It has no remote-control unit, for example, nor special provision for moving-magnet phono pickups. What it does have is solid quality.

The front panel, which has an attractive appearance that might be called a "smoky" look by comparison to past Pioneer styling—and indeed by contrast to most current styling—has a dark glass tuning section illuminated in blue with light-up colored selector and stereo (for FM) indicators. When the selector is set for FM or AM, a signal-strength meter to the left of the dial also lights up; the tuning knob is at the right. The remaining controls are ranged along the bottom: speaker switch (five positions plus speakers off and power off), stepped bass and treble controls, three button switches (high filter, low filter, FM muting), balance and volume controls, four more buttons (loudness, tape monitor 1, tape monitor 2, stereo/mono), and the selector knob (AM, mono FM, auto mono/stereo FM, two phono positions, microphone, and aux). The microphone jack, which feeds a mono signal to both channels, is to the right of this knob; the headphone jack, which is live at all times, is between the speaker selector and the tone controls.

Speaker connections on the back panel are via the special polarity-coded plugs that Pioneer has used on other recent receivers. The plugs themselves have screw connections for speaker wiring, and jacks are provided for three speaker pairs. Most of the antenna connections use binding posts with knurled knobs; the exception is that for 75-ohm FM antenna lead, which has a screw for the hot lead and a special clamp for the shield. There are two convenience AC outlets: one switched, one unswitched. There also is a tape recorder.
Pioneer SX-626 Receiver Additional Data

**Tuner Section**

- **Capture ratio**: 2.0 dB
- **Alternate-channel selectivity**: 66 dB
- **S/N ratio**: 71.5 dB
- **IM distortion**: 0.5%

**Harmonic Distortion Curves**

- **30 watts output**:
  - Left channel: <0.09%, 20 Hz to 20 kHz
  - Right channel: <1.3%, 40 Hz to 20 kHz

- **15 watts output**:
  - Left channel: <0.23%, 20 Hz to 20 kHz
  - Right channel: <0.19%, 40 Hz to 20 kHz

- **0.5 watts output**:
  - Left channel: <0.27%, 20 Hz to 20 kHz
  - Right channel: <0.25%, 20 Hz to 20 kHz

**Amplifier Section**

- **Damping factor**: 66

**Input characteristics** (for 30 watts output)

- **Sensitivity / S/N ratio**:
  - **Phono 1**: 2.4 mV, 66.0 dB
  - **Phono 2**: 2.4 mV, 64.0 dB
  - **Aux**: 210 mV, 90.0 dB
  - **Tape monitors 1 & 2**: 210 mV, 90.0 dB
  - **Microphone**: 2.2 mV, 59.5 dB

**Square-wave response**

DIN socket. The remaining connections are phono-jack pairs for the two phono inputs, aux, and tape recorder inputs and outputs. Both phono inputs will accept standard moving-coil cartridges. The input and output connections for the second tape recorder also are marked for use with an outboard decoder for matrixed quadrphonics. In addition there are pre-out/main-in connections (for use with any sort of outboard equipment—including a matrix decoder—that you may wish to insert between preamp and power amplifier sections of the receiver). The unit is delivered with removable jumpers bridging these connections.

We did use the SX-626 as part of a quadrephonic system, connecting the decoder to the tape 2 jacks and using the tape 2 monitor switch to cue in the decoder. This put the decoder ahead of the volume control, which then affected the SX-626 (carrying the front channels) only. The system worked fine, and indeed would be required with an ultra-simple decoder having no straight-through mono/s stereo (that is, nondecoding) position on its function switch. Users may prefer to insert most decoders at the pre/main jumpers, however, leaving the tape 2 connections free for use with a second deck.

This point is elaborated on partly to suggest the versatility of Pioneer’s controls. Both in physical design—the elegantly precise handling of the pushbutton holes on the front panel for example—and in basic circuit options, Pioneer has studiously avoided a make-do approach; we wish we could say the same for all under-$300 receivers. And this same approach is in evidence within the circuitry, as documented by CBS Labs.

The FM-section data all are fine for a receiver in this price class, and are moreover unusually consistent in their excellence. (Often one or two specifics in an otherwise excellent receiver will be merely so-so, but not here.) Much the same can be said of the amplifier section. Note that harmonic-distortion data are based on a 30-watt-per-channel output rating. This rating, while consistent with the rating practices of other manufacturers (and therefore our testing practices for their products), produces a rising harmonic-distortion curve in the extreme bass at full rated power. While the frequencies involved are below the reach of normal program material, we could have avoided this rising distortion by basing tests on an alternate Pioneer rating—and one that is unusually conservative for equipment in this price class (much competing equipment is rated for 1% THD at midband only, a technically questionable practice)—pegging output into 8 ohms at 20 watts per channel at 1% THD over the entire audio range with both channels driven. Taking all things together, then, we would characterize the amplifier section as having ample power to drive a pair of speakers—even quite inefficient ones—in most home installations at low distortion. Two pairs of speakers also can be used, though we’d suggest avoiding the more inefficient models. The speaker switching on the SX-626 does not provide for simultaneous operation of all three speaker pairs.

Considering the excellent "feel" and detailing of the unit and its performance, we would rate the SX-626 as a good value and a particularly enjoyable unit to use.
Here's your **FREE**

**HIGH FIDELITY**

"at home" shopping service!

It's easy! All you do is use the Reader Service card at right... HIGH FIDELITY's Reader Service Department will take it from there. It's as simple as 1, 2, 3!

1. Just circle the number on the card that matches the number below the ad or editorial mention that interests you.
   You'll also find the key numbers for advertised products in the Advertiser's Index.

2. Then type or print your name and address. Don't forget your zip code, it's important!

---

**BUSINESS REPLY MAIL**
No postage stamp necessary if mailed in the United States

Postage will be paid by—

**HIGH FIDELITY**
Subscription Dept. 72
P.O. Box 14156
Cincinnati, Ohio 45214

---

First Class
Permit No. 111
Cincinnati, Ohio
USE THIS POSTAGE-FREE CARD TO

DOUBLE YOUR LISTENING
AND READING ENJOYMENT

Now you can enjoy the best in both musical worlds—in one colorful magazine:
HIGH FIDELITY/MUSICAL AMERICA.

SUBSCRIPTION ORDER FORM

☐ Please enter a one year subscription to HIGH FIDELITY/MUSICAL AMERICA in my name. I’ll receive 12 issues of HIGH FIDELITY, plus about 32 pages per issue of news and reviews of important musical happenings throughout the world—concert, opera, etc.—for only $14.

☐ Please enter my subscription to HIGH FIDELITY only. I want to take advantage of your special offer of 15 issues for only $9.47.

☐ New Subscription  ☐ Payment enclosed
☐ Renewal  ☐ Bill me

Name ________________________________

Address ________________________________

City __________________ State ______ Zip Code ______

For postage outside U.S.A., Possessions: Add $1.00 for HIGH FIDELITY/MUSICAL AMERICA subscription (12 months); add $2.00 for HIGH FIDELITY subscription (15 months).

For the full story of music and music makers today, be sure to include MUSICAL AMERICA as part of your HIGH FIDELITY subscription.

In 32 sparkling pages, MUSICAL AMERICA covers the live musical scene completely. You’ll get news, reviews and reports of important musical events all over the world—written by critics who know the score and how to write about it with wit as well as authority. You’ll meet today’s outstanding conductors, composers and performers...learn how they work and live...what they think and say about music—and about each other.
**JVC: Noise Reduction Without Dolby**


**Comment:** This is the first non-Dolby dynamic noise-reduction cassette deck we’ve tested. ANRS is admittedly similar to the Dolby circuit. It is a dynamic device that compresses the upper frequency range during recording and re-expands it during playback. It can, in fact, be taken as interchangeable with Dolby, as JVC’s instruction manual suggests; but we’ll come back to that point.

Controls are grouped in three ranks across the top plate. At the far side are the slightly angled VU meters and the tape counter. Next come the recording level controls, ANRS switch with pilot indicator, tape switch (chromium dioxide or ‘normal’), and cassette well. Across the front are the power on/off switch, the main control levers, and eject button.

In a well at the front of the base are phone jacks for left and right microphones and for headphones—the latter controlled by a high/low sensitivity switch. (There is no other output level control.) In a similar well at the back are the input and output connections (four phono jacks plus DIN connector), plus screwdriver adjustments for line input levels, to be used only if the tape-recording output levels of your receiver or amplifier result in recording-level control settings that are awkwardly high or low.

An unusual—and welcome—feature of the mechanical design is a cassette-well lid that slides off its mounting for easy head access in cleaning and demagnetizing the heads. The well cover opens automatically and the drive system disengages if the eject button is pressed or the tape runs out, and this feature operates with the transport set in any mode. You also can go from “play” directly into a fast-wind mode without first stopping the transport; but—presumably to prevent tape damage—you cannot go directly from fast wind to play. As long as a cassette is in place in the well, you also can premonitor recording levels without actually recording by depressing the record interlock but not the play lever.

The lab data, made with BASF LH tape except where chromium dioxide (again BASF) is specified, show the deck to be a good performer—better than we would expect in a $200 deck with noise reduction. JVC uses the same playback equalization for both ferric oxide and chromium dioxide, making the most of chromium dioxide’s headroom and high-frequency response. (The alternate approach, using altered playback equalization, trades off some of this capability for increased S/N ratio.) You’ll see that the chromium dioxide frequency-response curves extend to beyond 15 kHz, and are by a small margin the best we have found in terms of extended response at the top end.

Transport speed is a bit high at 0.7% fast (which makes no difference in playing cassettes recorded on
the same unit, of course, while driving prerecorded cassettes less than a half-tone sharp), but it is unaffected by line voltage over our test range. And other data are generally comparable to figures that CBS Labs has measured for Dolby decks in the $300 class.

The main question raised by this unit, however, is how ANRS compares with Dolby. Taking our cue from the CD-1667 manual’s statement that ANRS is to be used in playing Dolby cassettes, we tried recording a variety of music—orchestra, solo guitar, voice and piano, and so on—both on the CD-1667 and on a Dolby deck, then played the recordings back on both interchangeably, looking particularly for the sort of level contrasts and transients that dramatize any tendency toward “breathing” in such equipment. As long as levels and equalization were kept “correct,” little difference could be detected between the two processing systems. (In playing a chromium dioxide cassette made on the Advent 201—and therefore improperly equalized for playback on the JVC or the Dolby deck we used—we were able to detect some breathing in the ANRS but not in the Dolby; this test was hardly cricket, however.) With other program material on commercially processed Dolby cassettes—the Columbia Appalachian Spring, for instance—or recorded from our own discs and tapes the sound is first rate through the ANRS circuit, and sound quality is comparably fine (though with greater hiss of course) with ANRS turned off. For those who would like a Dolby deck but balk at the $300 price that has become common for such units, JVC offers an interesting alternative.

Infinity’s $139 System


Comment: Infinity Systems, which made its initial impact on the high fidelity world with a superperforming speaker system (the $1,995 Servo-Statik I; HF test report, June 1970), has been readying lower-priced models aimed at a wider audience. The 1001 is the “second up” in the company’s new line. A two-way system, it includes a 12-inch woofer and a pair of 2 1/2-inch cone tweeters housed with 1,300-Hz dividing network in a neatly styled walnut enclosure with a black grille. The enclosure is stuffed with sound-absorbent material and includes an auxiliary opening on the front baffle that functions as what Infinity calls a “terminated line.” The manufacturer claims—and our tests confirm—that this design makes for a smooth impedance curve, inherently good damping, and a bass line that is clean and deep but not “fat” (i.e., without a prominent mid-bass peak).

The tweeters are arranged so that one faces front while the other radiates from the rear of the cabinet. This setup results in a dipole effect that achieves a broad dispersion pattern while maintaining a fairly constant energy output through the midrange and highs; it also helps create an agreeable ambient effect by allowing the rear tweeter to bounce its output off the back wall and into the listening area. To achieve these benefits requires placing the 1001 at least 1 1/2 inches away from the wall behind it, with 6 inches being the recommended optimum distance. When jammed flush against the wall the highs lose some of their “air” and “space.”

Connections are made at the rear to polarity-coded binding posts that will accept banana plugs or ordinary stripped wire. Above the connectors is a tweeters-level control. Infinity rates the 1001 for an impedance of 6 ohms. In CBS Labs’ tests the nominal impedance, following the bass rise, was measured as 7.5 ohms. Across the audible range the impedance curve remains unusually level, never exceeding 15 ohms. Aside from desirable amplifier-signal loading, this characteristic also indicates that the 1001 would be completely safe to connect in parallel pairs across a single output. Although the manufacturer recommends 20 watts to

Infinity 1001 Speaker Harmonic Distortion*

<table>
<thead>
<tr>
<th>Output Level (dB)</th>
<th>80Hz % 2nd</th>
<th>80Hz % 3rd</th>
<th>300Hz % 2nd</th>
<th>300Hz % 3rd</th>
</tr>
</thead>
<tbody>
<tr>
<td>70</td>
<td>0.23</td>
<td>0.19</td>
<td>0.17</td>
<td>0.27</td>
</tr>
<tr>
<td>75</td>
<td>0.24</td>
<td>0.12</td>
<td>0.14</td>
<td>0.22</td>
</tr>
<tr>
<td>80</td>
<td>0.38</td>
<td>0.11</td>
<td>0.17</td>
<td>0.36</td>
</tr>
<tr>
<td>85</td>
<td>0.67</td>
<td>0.11</td>
<td>0.14</td>
<td>0.40</td>
</tr>
<tr>
<td>90</td>
<td>1.2</td>
<td>0.11</td>
<td>0.17</td>
<td>0.55</td>
</tr>
<tr>
<td>95</td>
<td>1.9</td>
<td>0.11</td>
<td>0.22</td>
<td>0.80</td>
</tr>
<tr>
<td>100</td>
<td>3.2</td>
<td>0.32</td>
<td>8.0</td>
<td></td>
</tr>
</tbody>
</table>

*Distortion data are taken on all tested speakers until distortion exceeds the 10 per cent level or the speaker produces the spurious output known as buzzing, whichever occurs first.
drive it, the 1001 is hardly an inefficient system; it needed only 4 watts to produce an output level of 94 dB at 1 meter on axis. The higher power recommendation represents "proper feeding" rather than minimal sustenance for the system. The 1001 took 50 watts of steady state power before buzzing, at an output level of 102 dB. With pulsed power it handled average levels of 180.2 watts (360.5 watts peak) before distorting significantly, and produced an output of 110.5 dB. These data indicate the system's ability to furnish ample dynamic range in normal room installations. Response to pulse test signals was exemplary, showing excellent transient recovery. Over-all frequency response is more linear than usual for a speaker system in this price class. Turning the tweeter level control to maximum brings up the high end, from about 4 kHz to 12 kHz, by about 2 dB from "flat"; reducing the control's setting to minimum lowers the high end above 4 kHz by about 10 dB.

In listening tests we found the highs to be very well dispersed, with scarcely any evidence of beaming to beyond 10 kHz. A 12-kHz tone was clearly audible all about the 1001, with tones higher in frequency becoming progressively more directive. The bass holds up firmly down to the system's rated response limit. Some doubling becomes evident, at very loud levels, at about 57 Hz and increases gradually as frequency is lowered, with fundamental bass still evident down to 30 Hz.

With the tweeter level control set to or perhaps a crack below its indicated flat position, a pair of 1001s can fill a larger-than-average room with well-balanced, clean sound. In a much smaller room we preferred a setting about two calibrations below flat. The stereo presentation in either instance is very satisfactory: broad and natural. The 1001s negotiated even the most demanding orchestral material with ease, conveying a sense of excitement not often experienced with systems in this price range.

Shure's Update of the M91ED

The Equipment: Shure M91ED, a magnetic stereo phono cartridge equipped with elliptical diamond stylus. Price: $54.95. Manufacturer: Shure Brothers, Inc., 222 Hartrey Ave., Evanston, Ill. 60204.

Comment: This cartridge, an updated version of the M91E, makes a good upper-middle-priced pickup better. Shure compares the upgrading to that represented by the "Improved" version of the V-15 Type II; only the stylus assembly is different. The result is greater compliance and, according to Shure, greater "trackability."

The differences in measurable performance are not striking, and in fact CBS Labs clocked slightly higher harmonic distortion rates for the M91ED than for a recent sample of the M91E at some frequencies. Intermodulation, however, is notably lower in the M91ED at 1 per cent in the lateral plane, 3.3 per cent measured vertically. These are, in fact, unusually low IM distortion figures for a phono pickup and approach the best we have measured to date.

The output of the new model—at 5.4 millivolts in the left channel, 5.3 in the right—using our standard test cut (1 kHz at 5 cm per sec.) is higher than that of the M91E (4.5 mV) and significantly higher than that of some competing models. Where it is to be used with preamps of only moderate gain its output level may therefore come closer to those of FM broadcasts and other inputs, while effective signal-to-noise ratios will be somewhat better since amplifier volume (and therefore electronic noise levels) will not have to be turned quite as high.

The M91ED went through its torture test at a tracking force of 0.8 grams; 1.0 grams was used in performing the remaining tests. Vertical tracking angle was measured at 21 degrees, while the tip configuration measured 0.28 by 0.65 mils with good geometry. Compliance is high, but not exceptional: 51 (x 10^-9 cm/dyne) measured laterally, 27 vertically. CBS Labs measured low-frequency resonance in the SME arm at 7.1 Hz.

Response and separation figures are excellent. Note that the graphs were made with 530 pF of capacitance in the preamp leads—a figure that Shure has determined to be representative of present equipment. Tests made earlier (with the Shure V-15 Type II and M91E, as well as cartridges of some other manufacturers) show that a rather peaky high end develops if such a cartridge works into the extremely low capacitances that one thinks of as "ideal." All practical equipment has some capacitance, however, and the performance of the M91ED once again dramatizes the importance of a long-overdue industry standard with respect to capacitance in phono leads and preamp input characteristics.

We certainly encountered no audible peakiness in listening with typical equipment. The sound is unusually clear and silky for a pickup in the price range, and some listeners could hear no difference whatever in comparing it with more expensive models that are noted for this quality. (Those who like a peak at the extreme high end to offset speaker roll-off at these frequencies might indeed prefer the sound of the M91ED working into a lower capacitance.) Designed for use with the better automatic record-playing equipment, the M91ED is a fine performer, particularly in its price-and-application class.
Tuner and Performance Indicator from Teac


Comment: A handsome pair, these two. Not only are they matched in styling, they are designed to be used together, connected by a multiconductor cable that feeds several different signals to the performance indicator's oscilloscope for display.

The tuner has a signal-strength meter to the left of the dial and a center-tuning meter to its right. The tuning knob is the only control visible with the lower flip-down panel closed. Beneath that panel are the AM/FM switch; muting sensitivity control; switches for muting, mode, high blend, and dial brightness; output level control; and power switch. In addition to the antenna connections, the back panel has an accessory AC outlet, the main audio jacks (controlled by the front-panel level control), extra output jacks with their own screwdriver level control (for direct feed to a tape recorder, for example), and the jack for the interconnect cable to the performance indicator.

The performance indicator has only the 'scope and power switch on its upper panel. Hidden below are the 'scope controls, mode selector, and volume control for the tape signal. The back panel has phono jacks for tape input, tape output, and external signals, and an accessory AC outlet.

In the tuning mode the 'scope displays a small patch of light whose height on the tube surface represents signal strength, whose left-to-right centering represents tuning accuracy, whose flatness in the maximum-height portion represents freedom from multipath distortion, and whose length represents signal modulation.

The other 'scope modes all display audio: the left-channel amplitudes along the vertical axis, and the right channel horizontally. Mono signals, being equal in both channels, form a diagonal line from the upper right to lower left; if the channels are out of phase the line shifts 90 degrees. Stereo signals form a "random" pattern determined by relative amplitudes in the two channels. The level controls in the tape-signal feed allow you to calibrate the display for your recorder's 0 VU so the 'scope becomes an instantaneous-acting level indicator, without the deceptive damping inherent in meters.

If you have never worked with such a 'scope unit, you'll find it fascinating for its own sake at first. We found ourselves dragging out all sorts of recordings just to see what the AZ-201 would make of them. Once this idle curiosity cooled, we found the unit to be a useful tool! In one setup, for example, it proved at a glance that a cassette recorder's record/play head elements were connected out of phase. In our low signal-strength area the display appears at the bottom of the 'scope in tuning most stations, and we found the tuner's meters to be more efficient than the AZ-201 for that purpose. But only the 'scope gives a clear indication of multipath as an aid to antenna orientation.

The tuner itself is a good performer though not particularly spectacular in terms of test data alone. Its undeniable charms lie rather in its unusually comprehensive controls. Good quality signals reproduced well via the AT-201, however, as the lab data indicate; and so elegant is the unit's "feel" and behavior that we found it a pleasure to use.

Teac AT-201 Tuner Additional Data

<table>
<thead>
<tr>
<th>Capture ratio</th>
<th>1.7 dB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternate-channel selectivity</td>
<td>76 dB</td>
</tr>
<tr>
<td>S/N ratio</td>
<td>67 dB</td>
</tr>
<tr>
<td>IM distortion</td>
<td>0.52%</td>
</tr>
<tr>
<td>THD</td>
<td></td>
</tr>
<tr>
<td>80 Hz: Mono</td>
<td>0.51%</td>
</tr>
<tr>
<td></td>
<td>1.2%</td>
</tr>
<tr>
<td></td>
<td>1.2%</td>
</tr>
<tr>
<td>1 kHz: Mono</td>
<td>0.39%</td>
</tr>
<tr>
<td></td>
<td>1.0%</td>
</tr>
<tr>
<td></td>
<td>1.0%</td>
</tr>
<tr>
<td>10 kHz: Mono</td>
<td>0.26%</td>
</tr>
<tr>
<td></td>
<td>2.3%</td>
</tr>
<tr>
<td></td>
<td>3.6%</td>
</tr>
<tr>
<td>19-kHz pilot</td>
<td>-65.5 dB</td>
</tr>
<tr>
<td>38-kHz subcarrier</td>
<td>-68 dB</td>
</tr>
<tr>
<td>Mono response</td>
<td></td>
</tr>
</tbody>
</table>
| L ch:                     | ±2.5 dB,
|                          | 20 Hz to 15 kHz |
| R ch:                     | ±2.5 dB,
|                          | 20 Hz to 14.5 kHz |
| Stereo response           |         |
| L ch:                     | +1.5, -3 dB, 20 Hz to 15 kHz |
| R ch:                     | +1, -2 dB, 20 Hz to 14.5 kHz |
| Channel separation        |         |
| L ch:                     | >30 dB, 96 Hz to 5.5 kHz; |
|                          | >20 dB, 25 Hz to 9.4 kHz |
| R ch:                     | >30 dB, 83 Hz to 6.8 kHz; |
|                          | >20 dB, 24 Hz to 15 kHz |
For $279 we give you engineering. For an extra $20 we throw in some furniture.

To call the Rectilinear III a piece of engineering is a rather vigorous understatement.

The equipment reviewers of leading hi-fi and other technical publications have gone on record that there's nothing better than this $279 floor-standing speaker system, regardless of type, size or price. (Reprints on request.)

But engineering is all you should expect when you buy this original version of the Rectilinear III. Its cabinet is 35" by 18" by 12" deep, handsome but utterly simple. For $279, you get quality and taste but no frills.

However, if you're the last of the big-time spenders, you can now escape this austerity for an extra $20. Because, for $299, there's the stunning new lowboy version of the Rectilinear III, 28" by 22" by 12 1/4" deep, with a magnificent fretwork grille.

Mind you, the actual internal volume of the enclosure is the same in both versions. So are the drivers and the crossover network. Only the cabinet styles and the dimensions are different. In the dark, you can't tell which Rectilinear III is which. They sound identical.

That's engineering.

(For more information, including detailed literature, see your audio dealer or write to Rectilinear Research Corp., 107 Bruckner Blvd., Bronx, N.Y. 10454. Canada: H. Roy Gray Co. Ltd., Markham, Ont. Overseas: Royal Sound Co., 409 N. Main St., Freeport, N. Y. 11520.)

Rectilinear III
Scott Components
the next best sound in the world

SCOTT

CIRCLE 100 ON READER SERVICE CARD
THE FIRST RUSH of quadraphilia that overtook equipment manufacturers last year with the introduction of entire lines of four-channel components seems to be subsiding a bit. Instead, the emphasis has shifted to building specific electronics that will support the manufacturer's quadraphonic "stance": all-out devotion to a particular system, cautious compromise, or whatever. The battle for exclusivity finds many manufacturers arguing the relative merits of CD-4 (Quadradisc), SQ, and the Sansui QS system—each claimed to be the coming four-channel disc system. And while SQ and CD-4 have shared the spotlight in this contest of concepts, Sansui supporters are quick to note that much engineering opinion favors their approach.

While the question mark hovers over the future shape of quadraphonics, we have noted significant advances in stereo equipment—especially in cassette tape decks. But there's also a new approach to an old friend—the turntable. Speakers are changing in size, grille design, and color. The separate power amplifier is back with more wattage than ever before. New tape formulations are following the increased demand for quality in all formats. And video recording has finally nudged open the door in home-oriented systems. But first a look at the receivers. In this rundown, incidentally, you will find round-figure prices, not all of which were final at press time. Actual selling prices also will vary with locale and discounting practices of course.

Receivers

Once again the overriding emphasis in electronics is on receivers—and specifically on stereo receivers. Rather than specifying two- or four-channel capability, Harman-Kardon has chosen a "multi-channel" label for its new line of four receivers ($250 to $600). The Model 100 will be available later this fall; All others are out now. The upper three models have a built-in SQ matrix and employ the joy-stick four-channel balance control—a feature that has replaced the multiple balance controls (separate left/right and front/back knobs, for example) in many lines this year. JVC's four-channel stereo line for this year includes the 4VR5414 ($370) and the 4VR5445 ($500). Three receivers have joined KLH's line. The Models 52 ($290) and 55 ($200) are available now, while the Model 54 (about $550) is expected in December. The 54 has provision for both discrete and SQ matrixed four-channel sources. Four stereo receivers ($160 to $500) have doubled the size of Kenwood's line. The Marantz Models 2010 ($200), 4415 ($400), and 4430 ($600) cover both stereo and four-channel. The 2010 is strictly two-channel, but the others can handle SQ or any other matrix system and employ a remote "quadradial" joy-stick balance control.

Sansui, one of the leaders last year in introducing four-channel hardware, is maintaining its '72 quadraphonic receivers and filling in its stereo line with the Models 6 and 7. These units have provision for noise reduction and add-on four-channel decoders. Panasonic is offering one new stereo receiver and two four-channel models. Superscope—a new budget line from the California company that owns Marantz and distributes Sony tape equipment and raw tape in this country—is initiating its receiver series with two stereo models, the R-230 ($140) and the R-250 ($200). Superscope hopes to bridge the gap between mass-market products and top-line components. Sherwood is offering a new stereo model, S-7200 ($300), and two additions to its Dynaquad line—the AM/FM 7900 ($460) and the FM-only 8900A ($430), both of which are stereo/
The products shown on this month's cover suggest the range discussed in the article. Specifically they are 1) Koss HV-1 on-the-ear headphones, 2) Tandberg TCD 300 cassette deck, 3) Harman-Kardon Citation 14 tuner with Dolby circuit, 4) Heathkit AJ-1510 digital "punchkey" FM tuner, 5) Dokorder 9100 open-reel tape deck, 6) Acoustic Fiber N-400 Nirvana speaker system in B-61 Africano styling, 7) Panasonic SL-1100 DC servodrive turntable, 8) Scott 525 AM/FM receiver, 9) JBL Prima 25 speaker system (whose molded plastic case also is available empty for use as a storage unit), 10) Fisher 504 stereo/quadraphonic receiver, 11) Dynaco Stereo 400 power amplifier, and 12) Pioneer QL-600A adapter unit for converting stereo systems to quadraphonics.
"Joystick" quadraphonic balance controls are growing in popularity. Marantz remote unit (with more elaborate controls than most) is used with several models.

Several other companies are offering amplifiers with power ratings that are not quite as exotic. Usually they're integrated amp/preamps, and some of them—predictably—are designed with quadraphonics in mind. In the latter category, Heath has the $350 AA-2004 for the kit-minded. While other new models come from such companies as JVC, Pioneer, Marantz, Sony Corp., and Panasonic. Then there are the conversion amps designed to power the back channels of a quadraphonic system using existing stereo components. Sansui and Marantz are among the major companies offering this format.

Returning to stereo equipment, all amplifier makers mentioned so far have new models, as do Dokorder, Lafayette, Nikko, Rotel, Scott, Superscope, Yamaha, and others. Radford, an English company that will be new to most Americans, has two amps: the SPA50 (stereo) and PAS50 (mono), both $375. Sherwood's latest addition is the S-9400 ($260) stereo/Dynaquad model. Audio Research Corp. of Minneapolis has added to its line of "high definition" separate components including power amplifiers rated at 75 and 50 watts per channel ($975 and $695 respectively).

As superpower separate amplifiers continue in the news, buyers are rediscovering the versatility and quality of separate tuners and preamps. Tuners seem to have benefited from their lack of direct involvement in quadraphonics and are making their own news through improved performance. Until the FCC comes to a decision on four-channel broadcasting the status quo should prevail. One major innovation is Harman-Kardon's Citation 14 ($525), which includes Dolby circuitry. Another is Heath's AJ-1510 kit ($540). On this digital tuner you can preselect three stations by punchcard, or punch up the exact frequency of your station from the ten-button front panel.

Four new tuner/amplifier pairs have been added by Kenwood, Dokorder, which until this year had offered only its tape recorders on the U.S. market, has introduced the 8070A tuner. Dynaco has added an AM/FM version of the FM-5: the AF-6 ($300; $200 as a kit). Two additions to the Marantz line are the Models 105 ($150) and the 115 ($250). Panasonic's newest tuner entry is the ST-3400, while Pilot has introduced the Model 211 ($200). Among budget tuners are the Pioneer TX-500A ($120), Superscope's T-208 ($90), and Rotel's RT-320B ($120). Rotel's other new model is the RT-620 ($180).

Expected on the market this fall is Radford's new remote-control tuner (about $475). Sansui is offering the TU555 and TU666, and Sherwood has added the S-2400.

Among separate preamplifiers, SAE has a new model, and Radford's is the SC 24 preamplifier control center ($360). Preamp/tuner combinations, popular a generation ago, continue their somewhat hesitant comeback. Sony Corp. has added a model and Altec's luxurious digital 780 ($800) with bidirectional scanning is expected in December.

To cope with the problem of converting existing stereo systems to four-channel operation, many manufacturers are offering decoding units, decoders coupled to back-channel stereo amps, or combination preamp/demodulator/amplifiers. One of the most comprehensive new decoders is the $300 Sony SQD-2000 for SQ. There are several Quadradisc demodulators, all of which contain preamp circuitry of course. Some companies offer decoders or quadraphonic synthesizers for automobile use.

Among the more esoteric of electronics are the stereo oscilloscope/analyzers offered by several companies, and the prototypes of quadraphonic scopes now beginning to appear. Audio Research Corp. of Minneapolis has added to its line of "high definition" separate components including power amplifiers rated at 75 and 50 watts per channel ($975 and $695 respectively).

Loudspeakers and Headphones

There are new names, new designs, new engineering approaches, and new models in just about every price range. Two developments of note: an increasing number of electrostatic systems, and the many new offerings by European and Japanese companies, in spite of the currency revaluation.

Electrostatic Sound Systems (ESS) has several new models plus a quadraphonic system that may be marketed late this fall. Of the former, the most unusual surely is the stereo Super Quad ($2,150) which consists of five pieces. The two largest are left...
Listen to what you've been missing in cassette sound.

You'll hear sound you may never have heard before. Brilliant highs and rich lows. Both beautifully balanced in one great cassette.

You need both highs and lows because all music contains both. High frequencies provide "life" and presence. Low frequencies add fullness and depth. And unless your cassette can deliver them in proper balance, the sound that comes out simply can't be as great as the sound you put in.

"Scotch" sound experts know this. So we've developed a tape cassette significantly superior, across both frequencies, to any other cassette we've ever made. And any we've listened to. We call it High Energy.

High Energy will perform superbly on any cassette recorder no matter how much you paid for it. Or how little. Without special switches or adjustments of any kind. You'll get the great sound you've been missing—with "Scotch" Brand High Energy Cassettes.

For non-cassette recording fans there's great sound, too, on "Scotch" 206 and 207 Low Noise/High Output reel tapes and "Scotch" Low Noise 8-track cartridges.

Behind a great sound, there's a great cassette. "Scotch" High Energy.

"Scotch" is a registered trademark of 3M Co.
New electrostatic speakers abound this year; most are hybrids having dynamic woofers. This is Mark XII from SAE, the electronics manufacturer.

Altoc has redone the Valencia as the 846B ($375; $325 unfinished) and added the 891A ($125). Also from Altec Corp. comes a new brand name—Concept EQ—specifying a combination of speaker pair plus equalizer. The initial offering is a $400 system including bookshelf-size speakers. Electro-Voice has redesigned one model to give us the E-V Seven C ($150) and added the E-V Nine A ($65). Dynaco's newest is the A-35 ($120). Scott has four new models ranging from $55 to $170. Hartley and Trusonic both have new models too. Among relatively newcomers, there are speakers from Cizek Labs (five models), Design Acoustics, Array, Audioanalyst, DWD, Magnum Opus, Carlu, Vega, and many more—often, at least for the present, selling on regional bases. American speaker companies continue among the most volatile in the industry; in fact, not only does the list change rapidly, it seems to be growing all the time. Recent arrivals (Advent, Bose, Dyna, and EPI might be cited) establish a place for themselves faster than the old companies move out.

Leslie loudspeakers, best known for their use in electronic organs, have come out with models for home reproduction systems. The rotating baffle element of the instrument speakers has been retained, but its speed has been reduced so that it introduces no audible "tremolo" into the sound; instead it is used to increase dispersion and break up standing-wave patterns within the room. Leslie is emphasizing the use of these systems for simulated quadrachonic effects, as add-ons to present stereo systems.

In a way, one long-established company also is among the volatile vanguard: JBL. Its new Prima 25 ($125) is built into molded modules in a dozen colors. The modules interlock and are available empty as well, for use in housing other components, records, or whatever. JBL also has added the 88 Plus ($213), a variation of the Nova 88 that can be upgraded (add-on kit, $69) to the equivalent of the Century L100.

So far, we've been talking only of domestic companies, but the list of new imports is long as well. From Britain, there are new lines from Radford and B&W, available through Audiophile Imports of Portland, Oregon, and LDI of New Brunswick, N.J. Respectively. Entirely new is the Spendor line from Britain, handled by Audiophile Imports of Chicago. From Norway come new Tandberg models. From Britain, there are new lines from Radford Century L100.

And there are, of course, a great many models from the Far East. Akai has increased its speaker line by seven models; MGA has added three. Onkyo's line, introduced in the U.S. earlier this year, now includes the Model 15 ($150) and the Model 100 ($500). Sansui has added three bookshelf models, plus the SF-2 Omiradial sound-field system.
While other companies have been killing themselves to invent new oxides, why has Capitol been working on the old one?
Introducing the perfected
Iron-oxide tape, Capitol 2.

Other companies aren't getting the kind of performance out of iron-oxide that we are. No wonder they've switched to different materials.

We at Capitol, on the other hand, have found a way to perfect iron-oxide tape.

And when we say perfected, we mean perfect. A tape that outperforms chromium dioxide and cobalt-energized tapes in many ways, yet retains all the inherent advantages of iron-oxide formulations.

The big advantages of iron-oxide:
1. Unlike other magnetic materials, iron-oxide is compatible with all recording equipment.
2. Iron-oxide is magnetically more stable than other oxides. Temperature and humidity stability are greater, and, even more important, iron-oxide tapes can be played back over and over again without loss of high frequencies.
3. Iron-oxide is less abrasive than other oxides.
4. Iron-oxide is less expensive than chromium dioxide and cobalt-energized tapes.
5. Iron-oxide tape has been perfected (now that Capitol has come out with Capitol 2 high-output, low-noise tape).

What has Capitol done differently?
Capitol makes more efficient use of iron-oxide particles than anyone else.

We get more energy from each iron-oxide particle by keeping the particle size small, and dispersing those particles evenly, so that small particles don't lump together to act like larger ones. The process we use is secret, but the results aren't secret:

Capitol 2 is the world's highest-output iron-oxide tape.

The new high-output, low-noise tape, both cassette and reel, works harder than other iron-oxide tapes. You can record them at a higher record-level without distortion.

Capitol 2 has the world's best dynamic range, bar none.

Efficient use of oxide particles and smooth tape surfaces all but eliminate the three most annoying forms of noise: bias, modulation, and DC. So Capitol 2 has the world's highest dynamic range. You can record both louder and softer signals than ever before.

Capitol 2 is the world's first low-print, high-output, low-noise tape.

Print-through is a problem in high-output tape (both cassettes and reels) that Capitol 2 is really the first to solve. The uniform particle size, combined with a secret processing technique, reduces print-through to inaudibility.

Capitol 2 high-output, low-noise is a tape of a different color.

The side of the new tape that faces the heads is a shiny brown, and not as dark as most tapes. The shiny mirror-smooth tape finish improves high-frequency response by improving head-to-tape contact. And it also helps reduce friction between tape and tape heads. (Friction is a major cause of squeeal, modulation noise, and head-wear. Capitol 2 doesn't wear heads the way chromium dioxide does.)

The light color is the result of taking the carbon out of the oxide side of the tape. Carbon doesn't help the recording properties of tape in any way. But other manufacturers are forced to use it in order to achieve good static properties. Capitol 2 solves that problem differently:

The backcoating.

Just as the side of the tape that touches the heads should be smooth, the texture of the back of the tape should have a controlled roughness that improves handling characteristics.

So Capitol puts the carbon into its new Cushion-Aire™ backcoating. The new black backcoating not only prevents electrostatic charges from building up, but improves the handling characteristics of our reels, helps make our cassettes jamproof, and extends the tape life considerably.
Introducing the perfected iron-oxide cassette: Capitol 2 High-Output, Low-Noise (HOLN).

Capitol cassettes aren’t just the best iron-oxide cassettes you can buy (at least 6 dB more sensitive than conventional premium tapes at high frequencies, where it really counts). For many reasons, they’re the best cassettes you can buy.

Capitol HOLN cassettes are compatible.

Say you bought a good cassette recorder two years ago. You can’t use chromium-dioxide cassettes. But you can use Capitol 2. With the kind of results chromium-dioxide users have been bragging about ever since it came out. The new iron-oxide cassettes will improve the sound of any cassette recorder in the house, from the old one you gave to your kid, to the new Dolby-ized one you bought yesterday.

Recorders with a 2-position bias switch should use the “standard” position. Recorders with 3-position switches should use the middle position. Recorders with no switch are okay as is.

Capitol HOLN cassettes are jamproof.

The Cushion-Aire backcoating not only improves cassette winding, it makes cassettes jamproof. The texture of the backcoating assures that the tape will always wind smoothly with no steps, protruding layers, and other pack irregularities that cause, among other things, jamming. So Capitol HOLN cassettes just don’t jam.

The perfect cassette package: the Stak-Pak(TM).

If you’ve ever tried to locate a cassette in a hurry, or pick one from the bottom of a pile, or put one away in an orderly fashion, you’ll appreciate the Stak-Pak. It’s modeled after something you find around the house: the chest of drawers.

Capitol 2 UHL is the perfected reel tape. At 15,000 Hz (at 3¾ ips) the new tape is, on the average, 4.5 dB more sensitive than the top tape made by the best known brand. The same new use of iron-oxide that made the perfected cassette tape possible has made the perfection of the open-reel tape possible as well. And the Cushion-Aire backcoating greatly improves handling. In addition, the backcoating provides excellent winding properties under all conditions and thus it prevents deterioration in storage.

Capitol 2 UHL is the best open-reel tape there is. But you may not always need the best there is. If your recorder is an older model, or if it’s biased for standard tape, you may want something a little less expensive than Capitol 2 UHL, at least some of the time.

So we make Capitol 2 High Performance open-reel tape. It’s an all-purpose tape, but made with the same regard for quality as Capitol 2 UHL.

The world’s most acclaimed cartridge.

The Capitol 2 Audiopak is the world’s most popular cartridge, long a favorite not just with consumers, but with broadcast studios and duplicators. The cartridge tape is a special formulation of iron oxide, different from the new Capitol 2 cassettes and reels. It is specially lubricated (that’s why it’s often called ‘lube tape’).

Capitol 2 Audiopaks are the standard against which all other cartridges are measured.

The price, perfected.

There’s a special introductory offer on Capitol 2 HOLN cassettes that would be hard to pass up, even if you didn’t know how good the tape itself is.

Your dealer will sell you four Capitol 2 cassettes, 60’s or 90’s, your choice, packaged in two Stak-Paks, for the price of three cassettes alone.

How to find Capitol 2.

Capitol 2 is new. Not all stores stock it yet. If you can’t find it, write us, and we’ll send you the name of a dealer near you. There’s no point in our coming out with the perfect iron-oxide tape unless you can find a place to buy it.

©1972 AUDIO DEVICES, INC. A CAPITOL INDUSTRIES CO. GLENBROOK, CONN 06906

CIRCLE 19 ON READER-SERVICE CARD
Yamaha has announced a new speaker line for later this year. Three Pioneer entries represent a radical design approach: Panels of American component owners were asked for subjective comparisons with competing models in blind A/B tests and the data thus gained were used to fine-tune the prototypes to American tastes.

The Century L100's high-relief, brightly colored foam grille, first visible on the American market two years ago, seems to have started a trend. Replacement grilles in many colors are now available from such companies as Fisher and Jensen, while "sculptured" grilles are available from many companies—from Altec to Utah and even Zenith. Frazier is featuring enclosure colors like Wild Fire and Frosty in its newest model. Farthest out, perhaps, is the Kriket line from Acoustic Fiber Sound Systems. How about zebra stripes? Or paisley? Recent displays have turned up everything from polyhedral enclosures (Design Acoustics and Carlu) to fur covering (AFSS) to a custom psychedelic paint job (on the current utility version of the staid old Altec Voice of the Theatre system, no less).

Speaker system kits—with the notable exception of the Heath line—have been mighty scarce in the last few years. New lines have been introduced by CTS of Paducah (Ky.), Inc. and National Teftronics, Great Neck, N.Y.

Nothing in this year's offering of headphones could be called really "far out." Koss did, however, strike out in a new direction with the introduction of its first lightweight (9 oz.) on-ear Model HV-1 ($40). Koss also continued its quadraphonic line, adding the K-6LCQ ($40), KO-747Q ($55), and PRO-5Q ($70). Superek's latest model is the PRO-BVI ($65), while AKG has the K-150 ($39) and K-100 ($29). Stax electrostats are now available (after a false start or two under other auspices) from Audiophile Imports. Pickering is making its debut in headphones with two models—the PH-4955 ($60) and the PH-4933 ($40). Sansui, Rotel, Nikko, and Mura all have new models.

**Record-Playing Equipment**

Judging from the new turntable models this year—or rather the lack of them—the best-known manufacturers can find little to upgrade these days. Benjamin has added the Miraord 625 ($100) as an update of the 620 or 620V. BSR's new 710 ($130) follows the lead of the premium Model 810. Dual has updated two models: the 1215 becomes 1215S ($110), with an antiskate control like that on the upper models, and the 1219 becomes the 1229 ($195), which features tracking forces calibrated in tenths of grams and an illuminated strobe with adjustable viewing angle. Garrard has introduced the 42M/S (with M75EC5 Shure cartridge) and the 42M/P (with Pickering V15-ATE-4 cartridge), both about $85. Of the major changer manufacturers, in fact, only Perpetuum-Ebner has made broad changes. The new PE 3000 series consists of four models from $80 to $150. Also brand new is Glenburn, a company based in Great Britain. When its changers will be on the U.S. component market remains to be seen.

The biggest news in turntables certainly comes from JansZen and from Bang & Olufsen. B&O's straight-line-tracking Beogram 4000, expected on the market early next year, uses a photo sensor to detect diameter and condition of the record. A logic circuit board chooses rotation speed (33 to 45) accordingly and either lowers the arm or, if the record is excessively warped, refuses to do so. Manual controls will override the speed selection, trigger a pause function, or recue the arm via a two-speed, bidirectional power drive. Arm return at the end of the record is automatic. The strikingly styled assembly is expected to sell for about $500 including the new B&O SP-15 cartridge, which may not be available separately until later next year. JansZen's new model, expected late this year at about $500 less cartridge, also has straight-line tracking and powered cueing. Both platter and arm float on air suspension systems. The DC servo-drive system will have continuous speed adjustment to perhaps 100 rpm with digital calibration readout.

Among semiautomatic models, Lenco has added the L-85 ($180) with automatic arm lift at the end of the record. Unlike previous Lencos, it is belt-driven from a synchronous motor and its speed control is limited to some ± 3% with respect to the nominal 33 and 45 settings. Toshiba is introducing the semiautomatic SR-80 with an electret condenser pickup cartridge. There are new direct-drive (servo DC motor) manual turntables from Panasonic, Sony Corp. of America, and Denon (Nippon Columbia), and new integrated single-play models of more conventional design from Pioneer, Sansui, and Sanyo. Transcriptors (the British makers of...
premium platterless manuals available through Audiophile Imports) has added the Saturn ($250) with integral arm assembly.

From Philips come the GC-012 and the GA-212 servo-drive turntables both featuring controls (for 33 and 45 rpm and stop) that have no moving parts and operate by a slight touch. The idea is to eliminate mechanical shock.

For the most part cartridge manufacturers have been content to upgrade the middle models in their lines by applying advances made in the premium models over the last few years. But r & d is busy behind the scenes. For example, Pickering recently unveiled the UVX-15/2400 ($75-$100)—a cartridge geared directly to the expansion of the Quadradisc software market. B&O also is understood to have a Quadradisc cartridge in the works, while other companies—though mum on the subject—doubtless are working toward the same objective.

The big news from Denmark is the Ortofon M-15E cartridge, which utilizes a new principle in its magnetic system. (The moving-coil Ortofons will continue on the market as well.) Toshiba's electret condenser cartridge is said to be the first available using the principles of the electret condenser microphone. Pickering also has a new stereo pickup (the XV-15/1200E, rated for 3/4-gram tracking) and a new series (the V-15 Micro IV, which replaces the Phase IV series). Looking to future development of the four-channel market, Panasonic has introduced the SL-800 ($200) player with a built-in Quadradisc demodulator. Nippon Columbia (Denon) has on the market in Japan a product that eventually may be available here: a Voice Changer feature that allows you to sing along with regular commercial records or even replace the star's voice with your own. The recorded vocal is said to be canceled out when the user sings in time with it. The feature is built into the QX series of four-channel equipment.

The new ecumenicism between tape formats (many readers own at least two types) is typified by the Akai multipurpose decks. This glass-head GX-1900 combines cassette and open-reel decks. We'll take a closer look at the new cassette models after perusing the newest in open-reel and eight-track.

The continued demand for quality and convenience in the cartridge and cassette formats has pushed open-reel into broadening its capabilities. Long-line open-reel manufacturers—Akai, Dokorder, Sony/Superscope and Teac—have many new models, some of which appeared in last month's open-reel round-up article. Of special interest from Dokorder are the 9100, styled like a scaled-down studio recorder and expected to appear in four-channel form before long, and the 7500, with bidirectional recording capability. Akai has a dozen new recorders, concentrating on the combination (open-reel plus cassette and/or eight-track) units from the X1800SD ($400) to the X2000SD ($600). They've also added the automatic-reverse GX370D ($700) with glass and crystal heads. Representative of Superscope's new offerings are the Sony TC-377 ($290), TC-253 ($350) with lid-mounted speakers, and TC-650-2 ($500), which also is available as the quadraphonic TC-650-4. Teac's latest entries include the 4070 G ($600) bidirectional record unit, the 3340 ($850)—a four-channel model including Simul-Sync—and a new GSL series, the 6010, 7010, and 7030, ranging up to $1,000.

The 9000X (about $650) is the new top model in the Tandberg line and the first three-motor open-reel machine for the company. It will be available with four-channel heads on special order. Henco of France is expected to enter its 800 series ($1,000 class) on the U.S. market later this fall. This is the first excursion outside the European market for Henri Cotte, the manufacturer. Astrocom has upgraded the 407 to give us the 407A ($460). Braun's premium TG-1000 can now be converted to four-channel playback with the TQE-1000 kit. Also new are the KW-4066A ($200) from Kenwood, the quadraphonic QT-6600 ($600) from Pioneer, and Sansui's four-channel entry, the SD-7000.

The explosion in sales of automobile eight-track
When it comes to power, performance and overall product integrity, KLH's classic Model Fifty-One is a tough stereo receiver to beat. At $259.95, it literally wipes out its competition. We just could not make a better AM/FM stereo receiver for the money.

So we've made a more expensive one. It's called the Model Fifty-Two. And it costs $289.95. The additional thirty dollars buys you additional power (30 watts per channel RMS compared with the Fifty-One's 20 watts per channel RMS). The Fifty-Two also has a new KLH look, dual tuning meters, and a host of new convenience features. Now we know the Fifty-Two will never replace the Fifty-One; we never intended it to. But if you have a special need for somewhat more power than the Fifty-One offers, but you want the same dependability, precision engineering and super quality, we have a new receiver for you. The Fifty-Two ... the Fifty-One's serious, but friendly rival.

See the Fifty-Two at your KLH dealer now. Just $289.95 (including walnut-grain enclosure). Also see the rest of the KLH receiver line, especially KLH's newest and lowest priced AM/FM stereo receiver, the Model Fifty-Five. Powerful, Dependable. And very special for just $199.95. For more information, write to KLH Research and Development, 30 Cross Street, Cambridge, Mass. 02139.
cartridge players is having its effect on eight-track machines for the home. This year there are on the market many stylish units that include the record function. Among the manufacturers: Akai, Dokorder, Grundig, Hitachi, Miida, Pioneer, Panasonic, Sanyo, and Wollensak. Playback units are of course, legion. Among manufacturers that are relatively new to the field: Harman-Kardon, Grundig, Pioneer, and Sanyo.

Cassette deck manufacturers seem to be going in various directions this year. Several of them are offering pocket-sized recorders. For example, Wollensak has the 401 ($100), Superscope the Sony TC-45 ($125). Concord, Hitachi, and Panasonic are among the others.

But the most attention has been paid to the larger machines. Tandberg has introduced its first cassette deck, the TCD 300 ($329) - a three-motor model with Dolby circuitry. Harman-Kardon's new Dolby model is the HK 1000 ($300), a two-head deck with memory rewind. And Panasonic's five new models include the RS-279US ($500) - a three-head, two-motor deck, with memory rewind and Dolby.

These examples make it quite obvious that the current approach is to make state-of-the-art cassette machines with virtually the quality and versatility of open-reel units, but with more convenience. This year one is tempted to ask: Who doesn't have Dolby? Well, there's JVC, whose ANRS (Automatic Noise Reduction System) resembles the Dolby system in some ways. [See the equipment report on its ANRS deck in this issue.] And there's Wollensak, which splits the difference and offers the 4780 and 4760 with Dolby and the 4770 with Wollensak's own Dynamic Noise Suppression System, which follows the lead of the Philips/Norelco DNL (Dynamic Noise Limiter).

Another innovation is the pitch control on Yamaha's and H-K's Dolby decks. Adjustments of up to five percent in the speed of the Yamaha DC servo-motor are said to be possible, allowing you to tune playback speed of cassettes recorded live on off-speed portable equipment, for example. American availability of the Yamaha is not yet scheduled.

Included in Akai's seven new cassette models are two Dolby decks, both with what Akai calls Automatic Distortion Reduction. One also has Invert-0-Matic, a feature that allows continuous playback and bidirectional recording. Panasonic's RS-277US Dolby deck ($300) also features continuous playback. Concord, Hitachi, Kenwood, Sony/Superscope, Sansui, Sanyo, and Teac all are offering new Dolby decks as well, mostly in the $250-$300 bracket. Pioneer, Grundig, Lafayette, and Craig are among the companies offering new models without noise reduction. And BASF has introduced its first recorders.

Several companies are now selling automatic cassette changers. The Panasonic RS-296US and Magnavox IV9064 both follow the basic edge-stack pattern of the Benham/Lenco models; the Panasonic will hold up to 20 cassettes.

Some new approaches are showing up in cassette tapes themselves this year. To the usual C-30 and C-60 sizes (playing thirty and sixty minutes respectively) several companies are adding C-40s or C-45s - just enough time for the majority of pop albums. Some companies plan to drop C-30s in favor of the new lengths. And TDK is the first to introduce 180-minute cassettes. TDK also is offering an Extra-Dynamic line that supersedes Super Dynamic as the top-of-the-line series; and TDK SD eight-track cartridges are available for the first time this year.

A new line of premium tapes has been introduced by Audio Devices: The Capitol 2 line is available in all three formats with low-noise coating. The new Memorex C-45 is available in both ferric oxide and chromium dioxide coatings. Ampex has the 362 extended-frequency cassette series, while RCA has added cobalt-doped ferric oxide. Longines Symphonette has moved into the blank cartridge and cassette market; packaging for both formats is marked "music," "voice," and "all purpose." Craig also has introduced a new cassette line with low-noise tape plus a premium Vista line. And several companies have added chromium dioxide cassettes in recent months.

It should be noted that Advent is making two moves calculated to enhance the status of the cassette as a playback medium. The company has made available its Model 202 playback-only Dolby deck and plans to start producing Dolby-processed recorded cassettes from various catalogues this summer, selling prices to be competitive with the disc issues.

Several companies introduced separate noise-reduction units last year, and two of these - Teac and Concord - are now offering lower-priced models. Teac has added the AN-60 ($90) Dolby system. Concord's new Dolby unit is the DBA-9 ($130). And Revox America is preparing a British-made outboard Dolby B unit for the U.S. market.

As far as purchasable home videotape equipment goes, you really have quite a choice this year. Several dozen companies offer half-inch open-reel models, many of them portable. Akai will be offering a ¼-inch color open-reel VTR - the VT-750 ($4,000). But the medium getting the biggest push right now is Cartrivision. This cartridge television format allows you to play commercially recorded cartridges or, with a small portable camera, record your own "home movies." Other cartridge/cassette companies generally are sitting tight on their video cassette/cassette machines, bypassing the consumer for the time being in favor of the business and educational markets.
BASF jamproof cassettes.

Now all BASF cassettes feature jamproof special mechanics. The most significant design breakthrough in the cassette marketplace today. Prevents jamming of invaluable recordings. Eliminates wow and flutter. Prevents tape edge dropouts.

Finally, a cassette with 100% mechanical reliability. Buy BASF Cassettes with jamproof special mechanics.

For the BASF dealer nearest you, write BASF SYSTEMS INC, Bedford, Massachusetts 01730.

Tension spring in C120's prevent jamming due to tape looping.

Two precision guide-arms insure smooth precise winds to eliminate jamming.

*Patent Pending

Audio/Video Products
Here is another wonder from Sansui. Who else but Sansui engineers could have achieved it? We've highlighted seven significant features of the many that will make this total-capability FM/AM Stereo Receiver the most wanted instrument of its kind. Actually there are more than 30, many of them Sansui exclusives, that set the SEVEN off from others. Yours for $459.95.

1. DIRECT-COUPLED POWER AMPLIFIER WITH AUTOMATICALLY RESTORING DOUBLE-PROTECTED OUTPUT. Direct coupling from one end of the power amplifier to the other yields unimpaired damping factor and transient response at exceptional power bandwidth and phenomenally low distortion levels. Both quick-acting fuses and relay circuits protect both amplifier and speakers if failures occur, with automatic self-restoration if the problem is transient.

2. FULL-FEATURED JACK FIELD FOR DOLBY, QUADAPTERS AND MORE. Connect any noise-reduction adapter, Dolby or other, and activate it with push-button convenience for tape recording. Go to four-channel stereo simply by connecting an adapter and rear-channel amplifier any time you wish, again with pushbutton activation. Connect two tape decks through a choice of regular pin jacks, three-contact phone jack or DIN multiple connector. Connect two phonographs. In addition, quick connect/disconnect links between amplifier and preamp sections permit separate use or addition of other add-on devices.

3. CERAMIC FILTERS AND IC's IN FM IF. For exceptional selectivity and rejection characteristics with full bandwidth, minimum phase shift and remarkable freedom from distortion. The IC embodies a 3-stage differential amplifier. Two ceramic resonators filter each of three stages.

4. SIGNAL-GRABBING FM FRONT END WITH DUAL-GATED MOSFET, 4-GANG TUNING CAPACITOR AND WIDE-DIAL LINEAR FM SCALE. A sophisticated two-stage RF amplifier and mixer stage uses a low-noise MOSFET in conjunction with three costly, special-purpose silicon transistors and a 4-gang frequency-linear tuning capacitor. That's why the SEVEN is outstanding with respect to sensitivity, IM distortion and image ratio, and offers a dial scale precisely calibrated in 250kHz steps for pinpoint tuning.

5. TRIPLE, STEPPED EQUALIZER-TYPE TONE CONTROLS. Separate treble, bass, and midrange tone controls, the first two calibrated in 3dB steps, the midrange in 1dB steps, for custom tailoring of response across the full audio spectrum.

6. THREE-STAGE, DIRECT-COUPLED EQUALIZER/PREAMP AND CONSTANT CURRENT DRIVER AMPLIFIER. High signal-to-noise ratio, high stability, extremely wide dynamic range and elimination of crossover distortion, as well as other types, all contribute to an exceptionally clean, effortless, unclipped sound. Broad frequency response beyond the audio extremes also prevents phase shift at the low or high end of the spectrum, to add to the exceptional purity of reproduction.

7. NEW-DESIGN, QUALITY AM TUNER. AM reception is not just an "also" on the SEVEN: learn again how good AM can sound, at its best. An RF preselector-amplifier combines with a 3-gang tuning capacitor and an IF section that includes a 2-resonator ceramic filter for ideal bandpass characteristics. A 2-stage Automatic Gain Control Circuit acts on both RF and IF sections for constant volume regardless of signal strength. A whistle filter eliminates other-station beat interference.

MORE THAN SEVEN—Other features of the SEVEN include:
- Sharp-cutoff, Negative-feedback High and Low Filters. Low-distortion circuitry using especially designed transistors provide 12dB/octave characteristics.
- Brute-strength Power Supply. High plus-and-minus DC power supplies with constant-voltage stabilization and ripple filter applied to the equalizer/control circuits, plus 4 bridge rectifiers and 2 huge 4,700-mf capacitors for the power amplifier. All for clean, rock-steady handling of signals with ample power reserve.
- Two Large Tuning Meters. One for signal strength, the other for center channel, for precision tuning.
- FM Muting Switch. Off for hunting distant stations; on for velvet-quiet tuning.
- Three-System Speaker Selector. Off for headphone-only listening; also A, B, C, A+B and A+C.
- Adjustment-free Sharp-cutoff Filter for Multiplex Carrier. Front-panel Headphone Jack, Grounding Terminals, Switched and Unswitched AC Outlets, One-Touch Connector Terminals for Speakers and Antennas, 300-ohm/75-ohm FM Antenna Inputs, Loudness Switch . . . and more, more, more.
and its seven wonders

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Output</td>
<td>160 watts, 4 ohms</td>
</tr>
<tr>
<td>IHF Music</td>
<td>47/47 watts, 8 ohms</td>
</tr>
<tr>
<td>Power Bandwidth, IF</td>
<td>10 to 50,000 Hz, 6 ohms</td>
</tr>
<tr>
<td>Frequency Response, Overall</td>
<td>15 to 40,000 Hz +1dB, -1.5 dB</td>
</tr>
<tr>
<td>Distortion, Overall</td>
<td>below 0.3%, rated output</td>
</tr>
<tr>
<td>Total Harmonic IM</td>
<td>below 0.3%, rated output</td>
</tr>
<tr>
<td>Hum and Noise, Overall (IHF)</td>
<td>80 dB (AUX input)</td>
</tr>
<tr>
<td>FM Sensitivity (IHF)</td>
<td>1.8 microvolts</td>
</tr>
<tr>
<td>FM Signal/Noise</td>
<td>better than 63 dB</td>
</tr>
<tr>
<td>FM IF or Spurious-Response Rejection</td>
<td>better than 100 dB</td>
</tr>
<tr>
<td>FM Capture Ratio</td>
<td>below 1.5</td>
</tr>
<tr>
<td>AM Sensitivity</td>
<td>46 dB/m (bar antenna)</td>
</tr>
<tr>
<td>AM Selectivity</td>
<td>better than 30 dB (+10kHz)</td>
</tr>
<tr>
<td>Phone Input Sensitivity</td>
<td>2.5 mv</td>
</tr>
<tr>
<td>Phone Input Maximum</td>
<td>100 mv</td>
</tr>
</tbody>
</table>

**THE SANSUI MODEL SIX:**

There's great news for those who want the essential performance capability of the Model SEVEN, but whose power-output requirements are somewhat less demanding. Look into the Superb Sansui SIX, close relative of the SEVEN with basically the same design, features and performance capability.

$369.95.

SANSUI ELECTRONICS CORP.
Woodside, New York 11377 • Gardena, California 90247
ELECTRONIC DISTRIBUTORS (Canada), Vancouver B.C.
SANSUI ELECTRIC CO., LTD., Tokyo, Japan • Sansui Audio Europe S. A., Antwerp, Belgium
1935-1971

The following annual tabulations of Top Ten "hits" reflect not only two eras, 1935-1950 and 1951-1971, but two rating systems. Both are annual summaries of weekly "chart positions" and are derived basically by assigning points inversely to each weekly position. But the earlier years are based on the weekly ratings of "Your Hit Parade," which reflected the popular taste in songs—even if, as the accompanying article points out, they may not have been arrived at very scientifically—while the later years' listings have been calculated by Billboard from its own weekly tabulations of "Hot 100" recordings. This is not really comparing apples and oranges since, again as the article points out, the 1950s were the years when "Tin Pan Alley... lost out to Record Row" as the indicator (and stimulator) of popular tastes.

Once "Your Hit Parade" charted the popularity of songs, but that was before the record industry made songs secondary to recordings.

by Owen Lee

1935
1. In a Little Gypsy
   Tea Room
2. Red Sails in the Sunset
3. Cheek to Cheek
4. On Treasure Island
5. I'm in the Mood for Love
6. Chasing Shadows
7. In the Middle of a Kiss
8. Lullaby of Broadway
9. East of the Sun
10. You Are My Lucky Star

1936
1. Did I Remember?
2. The Way You Look Tonight
3. In the Chapel in the Moonlight
4. Is It True What They Say About Dixie?
5. These Foolish Things
6. Lost
7. Alone
8. Goody Goody
9. When Did You Leave Heaven?
10. Lights Out

1937
1. September in the Rain
2. It Looks Like Rain in Cherry Blossom Lane
3. That Old Feeling
4. Pennies from Heaven
5. Boo Hoo
6. Sailboat in the Moonlight
7. Once in a While
8. Whispers in the Dark
9. It's Beloved
10. Vieni, Vieni
On a recent visit to New York I spent a couple of hours in the 42nd Street library—at the far end of the vast reading room, in the glassed-in area where bespectacled, quizzical folk may be seen bending intently over dim-lit microfilm desks. My film may have been the most neglected in all the library’s holdings. It snapped and crackled in the viewer. It was broken in many places. A hapless attendant had to help me rewind the scattered pieces properly on the spool. All told, it was a painfully nostalgic experience. For this battered remnant is apparently all that remains of “an accurate and authentic tabulation of America’s taste in popular music.” It preserves, virtually complete, the weekly ratings broadcast to radio listeners coast to coast from 1935 to 1953 as “Your Hit Parade.”

We were devoted listeners in those days. To anyone whose musical consciousness began in 1935, the “Hit Parade” seemed as permanent, authoritative, and civilizing a force as the presidency itself. With millions of others I waited on Saturday nights at nine for the first strains of Mark Warnow’s orchestra and Happy Days Are Here Again, and no week seemed to have come to a certified end until This Is My Lucky Day had signed it off. We sat through the jangled cries of tobacco auctioneers (F. E. Boone of Lexington, Kentucky, and L. A. “Speed” Riggs of Greensboro, North Carolina) for the harp glissandos that would introduce the next three songs in their official weekly positions, for “the song in seventh spot” which was to bring good luck in the coming week, for “the newcomer making its first appearance on the survey,” even for the dreadful “extras”—things like That’s A Plenty and Runnin’ Wild, which announcer Basil Ruysdael called “all-time all-timers” but which in fact had never made an honest appearance in the ratings. We knew the commercials by heart, from “I’ve smoked Luckies for nigh onto forty-five years” to “Lucky Strike green has gone to war,” from “LS/FT” clacked out on insistent telegraph keys to Be happy—go Lucky chirped by pert Dorothy Collins. We waited through them all as worshipers through some familiar sermon. till we reached the tense uninterrupted last segment of the broadcast—the “three top songs of the week, clear across the nation,” introduced by the customary fanfares and drumrolls.

Through the years the number of songs varied from fifteen to ten to nine to seven (depending on the amount of time CBS or NBC was willing to allot), and the singers came and went: Lanny Ross and Bea Wain, Barry Wood and Beryl Davis, Frank Sinatra and Joan Edwards, Andy Russell and Dinah Shore. Even Lawrence Tibbett, retired from the Met, had a brief flight at singing Don’t Fence Me In and Accentuate the Positive—after duly explaining that he believed in folk music, “the music of the people” (fortunately Cole Porter and Harold Arlen were in folksy moods that year). In the early days W.C. Fields did comic spots, and the music halted for “tributes” to famous Americans like General Pershing, Helen Keller, Will Hays, and the Lunts. Later Bonnie Baker and Orrin Tucker were dubbed in direct from their nightclub act to render Oh Johnny Oh during the weeks it made the survey, and Ethel Smith was on hand when Tico Tico was a long-run extra.

There was a lot of talent: Buddy Clark, Johnny Mercer, Dick Haymes, the Andrews Sisters, Margaret Whiting, Ginny Sims, Martha Tilton, Georgia Gibbs, Doris Day. But it was usually kept in too-tight rein by the conductors, from Lenny Hayton who inaugurated the proceedings on April 20, 1935, through all those middle-European names familiar to radio listeners—B. A. Rolfe, Harry Sosnick.

Owen Lee, a Catholic priest, has written a great deal in the area of classical literature including a book on Horace.
### 1944 Songs

1. **I'll Be Seeing You**
2. **My Heart Tells Me**
3. **Long Ago and Far Away**
4. **I'll Get By**
5. **I'll Walk Alone**
6. **Amor**
7. **Swinging on a Star**
8. **On the Atchison, Topeka, and the Santa Fe**
9. **Lau**
10. **Accentuate the Positive**

### 1945 Songs

1. **Till the End of Time**
2. **Dream**
3. **If I Loved You**
4. **Don't Fence Me In**
5. **Sentimental Journey**
6. **It's Been a Long, Long Time**
7. **All the Time**
8. **On the Atchison, Topeka, and the Santa Fe**
9. **Laura**
10. **It Might As Well Be Spring**

### 1946 Songs

1. **They Say It's Wonderful**
2. **The Gypsy**
3. **Symphony**
4. **To Each His Own**
5. **Oh, What It Seemed to Be**
6. **Ole Buttermilk Sky**
7. **Five Minutes More**
8. **All Through the Day**
9. **I Can't Begin to Tell You**
10. **It Might As Well Be Spring**

### 1947 Songs

1. **Peg o' My Heart**
2. **The Anniversary Song**
3. **Near You**
4. **Linda**
5. **For Sentimental Reasons**
6. **I Wish I Didn't Love You So**
7. **Mam'selle**
8. **That's My Desire**
9. **Heartaches**
10. **How Soon**

### 1948 Songs

1. **A Tree in the Meadow**
2. **Now Is the Hour**
3. **Buttons and Bows**
4. **It's Magic**
5. **Ballerina**
6. **On a Slow Boat to China**
7. **You Can't Be True, Dear**
8. **Serenade of the Bells**
9. **My Happiness**
10. **I'm Looking Over a Four Leaf Clover**

Leo Reisman, Harry Salter, Carl Hoff—to the indefatigable Mark Warnow, nervously conducting almost everything as if it were *That's a Plenty or Runnin' Wild*. Warnow did a grand total of 496 shows, interrupted only for a time in 1947 when Frank Sinatra insisted on bringing Axel Stordahl and his more listenable arrangements with him. Warnow's baton passed at his death to his brother Raymond Warnow, nervously conducting almost everything as if it were *Sh-Boom* week after week is another story altogether.

Radio editions of "Your Hit Parade" continued sporadically through the TV years, but it wasn’t the same. Guy Lombardo never managed the all-essential excitement, and he spoiled the effect by broadcasting in the middle of the week. And André Baruch’s later attempt to revive the program via recordings in 1955 couldn’t work because by then almost every local station had its own survey and its own stack of records. "Your Hit Parade" really died on radio the day it moved to the new cool medium.

And now, apparently, it is not only dead but forgotten—all the breathless rankings and ratings from 1935 to 1953 stored away on one neglected roll of microfilm in the vaults of a single library. Anyone interested in American popular music of the ‘30s and ‘40s will more easily consult Sigmund Spaeth’s articles in the *Encyclopedia Britannica* annuals, or Abe Green’s *Variety Music Cavalcade*, or back issues of the trade magazine *Billboard*. And it may be better so, for "Your Hit Parade" was not always the most reliable index of popularity. In 1935 we used to make frantic efforts to guess all fifteen songs in advance of the broadcast. We were naive enough to believe with the fierceness of fundamentalist Bible-belt preachers in the absolute authenticity of the survey. But by 1945, when *Billboard* began to run its "Honor Roll of Hits," with a dozen accompanying pages of charts and calculations, our faith in the radio survey was shaken. *Billboard* was surely "an accurate and authentic survey," if ever there was one. Even *Varien*, with its more limited listings, inspired greater confidence—and *Varien*'s columnists never ceased to heap scorn on the findings of the "Hit Parade": "The sponsor's mother-in-law sends over a list of her favorite songs, and they play those." By the mid-Forties, publishers were sending sharply worded letters to the program demanding to know why their tunes, so duly noted on other surveys, were being ignored. The publishers of *Don't Sweetheart Me* (admittedly a tune best ignored) even went to the New York Supreme Court.

The Andrews Sisters—LaVerne, Patty, and Maxine—show that Mark Warnow's baton was able to get the kind of reaction that any conductor might envy.
What was this survey which, we were reminded weekly, checked "the best sellers in sheet music and phonograph records, the songs most heard on the air, and most played on the automatic coin machines"? While it seemed to rely mostly on radio plugs and dance band performances in the New York area, the exact nature of the conducted investigations was always a closely kept secret. Even President Roosevelt, at a White House reception in 1944, was unable to ascertain from an awed Frank Sinatra what song would be number one the following Saturday. With "Your Hit Parade," suspense was of the essence.

The secret probably went to the grave with the redoubtable George Washington Hill, long-time president of the American Tobacco Company. Hill not only sold countless cigarettes with his obsessive commercial slogans, but may also be credited with thinking up a notion which was to affect the course of popular music profoundly. The "song sweepstakes," as it was first called, the weekly tabulation of the popularity of current tunes, was Hill's brainstorm. The idea is so taken for granted now, so much a part of the music scene (and so open to exploitation and manipulation) that it is almost impossible to think of a time—and I personally cannot remember a time—when it was not there, reflecting and directing popular taste.

Actually Hill had to fight his own production men to get his idea off the ground. They thought a straightforward presentation of the very songs most played on every other program had no chance at all of succeeding, and for some weeks they substituted a variety show with Fred Astaire. But when Hill finally got his way, "Your Hit Parade" caught on instantly. It became the most popular show on the air, drawing loyal listeners by the million. Its musical presentation (and Hill saw to it that it remained brassy and fast-moving) set the style for all network orchestras. Unfortunately, as the years passed this "happy marching sound," as Hill called it, didn't keep pace with the times. *Down Beat* referred to "the shotgun tempo decreed by George Washington Hill as being ideal for all tunes"; *Metronome* called the extras "murderous ragtimey junk," and Frank Sinatra, gasping for breath at the bridge of *Don't Fence Me In*, harrumphed, "This song has too many words."

But for all that, the period from 1935 to 1950, witnessing as it did the heyday of the big bands, the emergence of the singing stylists, and a significant part of the careers of our best songwriters, may well be regarded as the golden age of American popular music, and "Your Hit Parade" is at least the most nostalgic index to that period. That is why I could not send the microfilm back to the vaults without a time—and I personally cannot remember a time—when it was not there, reflecting and directing popular taste.

Take this broadcast of October 24, 1942, about midpoint in the era under consideration. We were almost a year into the war, and it wasn't going to be over so soon as we'd thought, as the song titles indicate:

1. My Devotion
2. White Christmas
3. I've Got a Gal in Kalamazoo
4. Serenade in Blue
5. Be Careful, It's My Heart
6. Dearly Beloved
7. Wonder When My Baby's Coming Home
8. I Left My Heart at the Stage Door Canteen
9. Praise the Lord and Pass the Ammunition
10. At Last

1949
1. Some Enchanted Evening
2. Again
3. Far Away Places
4. Cruising Down the River
5. You're Breaking My Heart
6. I Can Dream, Can't I?
7. Bali Hai
8. Forever and Ever
9. Riders in the Sky
10. Don't Cry, Joe

1950
1. My Foolish Heart
2. Mona Lisa
3. Bewitched, Bothered and Bewildered
4. Goodnight, Irene
5. Dear Hearts and Gentle People
6. All My Love
7. Harbor Lights
8. The Third Man Theme
9. La Vie en Rose
10. If I Knew You Were Comin' I'd've Baked a Cake

1951
1. Too Young
2. Because of You
3. How High the Moon
4. Come On-a My House
5. Be My Love
6. On Top of Old Smokey
7. Cold, Cold Heart
8. If
9. Loveliest Night of the Year
10. Tennessee Waltz

1952
1. Blue Tango
2. Wheel of Fortune
3. Cry
4. You Belong to Me
5. Auf Wiedersehen Sweetheart
6. I Went to Your Wedding
7. Half as Much
8. Wish You Were Here
9. Here in My Heart
10. Delicado

1953
1. Song from Moulin Rouge
2. Vaya Con Dios
3. Doggie in the Window
4. I'm Walking Beside You
5. You, You, You
6. Till I Waltz Again with You
7. April in Portugal
8. No Other Love
9. Don't Let the Stars Get in Your Eyes
10. I Believe

1954
1. Little Things Mean a Lot
2. Wanted
3. Hey There
4. Sh-Boom
5. Make Love to Me
6. Oh, My Papa
7. I Get So Lonely
8. Three Coins in the Fountain
9. Secret Love
10. Hernandez's Hideaway
1. 4-speed automatic turntable.

2. 4-channel AM/FM receiver.

Fisher 40. The all-in-one 4-channel component. Under $500.

The basic idea of the Fisher 40 is simple and logical. Take an automatic turntable, a 4-channel AM/FM receiver and a 4-channel tape cartridge player. Put them together on a single chassis, to save space and weight and to avoid redundant inputs, outputs and wiring. Pass the savings on to the end user, but give him his own choice of speakers to suit his listening room and budget.

That's what Fisher calls the all-in-one 4-channel component. $499.95.

Prices slightly higher in the Far West.
There's nothing specifically "4-channel" about any turntable design, but 4-channel information in the record groove certainly requires precise tracking plus freedom from wow, flutter and rumble if it is to come through accurately. The 4-speed automatic turntable of the Fisher 40 gives you component-quality performance in all those areas. The high-quality magnetic cartridge has a diamond stylus, and both stylus force and anti-skating force are adjustable. There's a cueing control for setting the stylus down gently on any groove of the record. And the Fisher 40 shuts itself off automatically at the end of the last record.

Fisher is particularly proud of the Fisher 40's receiver design, since it's undoubtedly finer than any medium-powered 4-channel receiver available separately.

Power output is 100 watts, 25 per channel, which is enough to drive four main speakers and a pair of remote speakers without the slightest strain.

The FM tuner section features ceramic filters in the IF stage and the rated sensitivity is 2.4 microvolts. The AM tuner section also has ceramic filters.

In addition, the Fisher 40 features truly sophisticated controls. Front and rear volume are adjustable with separate slide controls. Bass and treble controls are of the greatly superior Baxandall type.

And there's a control that switches in the matrix decoder of the Fisher 40. This "2 + 2" control makes possible two kinds of 4-channel playback: Ordinary 2-channel stereo material can be made to produce a quasi-4-channel effect. Or pre-matrixed 4-channel program material may be reproduced. All this, of course, is in addition to the discrete 4-channel capability of the Fisher 40.

3. This beautiful little tape player will play back any cartridge in the standard 8-track format, 2-channel or 4-channel. But, of course, its performance is considerably more advanced than what you'd expect from ordinary 8-track players. Flutter is completely inaudible. Playback equalization is accurate. The player automatically switches between the 2-channel and 4-channel modes and indicates the mode being used by means of red jewel lights. The program controls also have their associated jewel lights.

As you probably know, discrete 4-channel reproduction is the only kind that retains full channel separation at all frequencies, and the current repertory of 4-channel tape cartridges represents the primary commercial source of this ultimate form of 4-channel sound.

FISHER
We invented high fidelity.

Just add any four Fisher speakers. Special buys available this month at your dealer.

For your free copy of Fisher's factual guide to 4-channel sound, write: Fisher Radio, Dept.10,11-44 45th Road, Long Island City, N.Y.11101.
The essential thing about this list, vis-à-vis today’s top ten, is not that the songs are necessarily better. It might be possible to find ten better songs current today, though they would not be at the top of the charts. It’s simply that in 1942 everyone in the country was singing, listening, and dancing to the same tunes, which were played on all radio stations and on juke boxes, and selling both sheet music and single records. There was no “youth market,” no “good music” programming for the over-thirties, no “acid rock” station for those “with it.” There were such separate genres as race, country, and jazz—but these overlapped with the vast popular field. While today there is a distinct audience for the Osmonds, for Elton John, for Johnny Cash, and for Barbra Streisand, in 1942 everybody liked Jerome Kern’s Dearly Beloved.

It’s worth noting too that seven of the ’42 ten are from films. Indeed the most impressive single feature of the list is that three of the movie songs—White Christmas, Be Careful, It’s My Heart and Stage Door Canteen—were the work of a single composer, Irving Berlin, while three others—Kalamazoo, Serenade in Blue, and At Last—were penned for the Glenn Miller film Orchestra Wives by the songwriting team of Mack Gordon and Harry Warren. Such accomplishments are rare today, but in the “Hit Parade” radio days it was not uncommon for talented tunesmiths to land three songs simultaneously on the top ten. In fact, Gordon and Warren had four songs on the “Hit Parade” a few weeks earlier in ’42 when their lushly romantic There Will Never Be Another You joined the three Orchestra Wives tunes. Irving Berlin scored three songs out of ten in ’35, ’36, ’38, in ’42 as we’ve seen, and most notably in ’46, when three hits from Annie Get Your Gun appeared simultaneously for ten weeks. Rodgers and Hammerstein landed two songs from State Fair and one from Carousel together on the top ten in ’45, and three from South Pacific simultaneously for eight weeks in ’49. Harry Warren also brought the stunt off in the first weeks of broadcast in ’35, as did Cole Porter in ’37 and Johnny Mercer in ’42 and again in ’45.
Even those comparative unknowns, Joan Whitney and Alex Kramer, sent three songs up to the top ten in 1941. But that was during the nine long months when the networks were quarreling over royalties with the powerful American Society of Composers, Authors, and Publishers. In those months no new popular music was broadcast save a handful of tunes by Latin-American composers and a few fledging efforts by unASCAPed songwriters like Whitney and Kramer. That year the networks not only brought ASCAP to its knees, they also founded the rival Broadcast Music Incorporated, the organization generally credited with the crossbreeding of country and folk and popular styles that was, eventually, to change the entire picture.

BMI introduced, first, things like Pistol Packin’ Mama, then a more authentic folksong craze (Goodnight, Irene), and eventually rock and roll. It opened its doors to a wide range of new songwriting talent, very little of it of the ASCAP variety, and found a public ready for its product. A new middle class of less sophisticated Americans had moved from rural areas to new urban prosperity during and after the war, and in the Fifties there was an even larger and less critical adolescent public, prosperous and eager to establish an identity and culture of its own. As the new public began to reject sophistication and subtlety in its music and lyrics, as BMI tunes filled seven, eight, and nine positions on the top ten, Oscar Hammerstein and other ASCAP songwriters were in the courts pleading that they couldn’t get their kind of music played on the air.

It was small wonder that “Your Hit Parade” died, on both radio and television, in the ’50s. Tin Pan Alley, Broadway, and the Hollywood sound stages had lost out to Record Row, its proliferation of novelty, folk, and country tunes and its gimmick-mad disc jockeys. One spoke no more of a top ten. The spread was too wide. It had to be a “top forty” or a “hot hundred.” And those ratings were of individual single recordings, not of songs. So in 1956 only one song from the immensely popular My Fair Lady appeared on Billboard’s weekly ten; later the songs from West Side Story, The Sound of Music, Camelot, and Fiddler on the Roof, for want of singles of mass appeal, did not figure in the ratings at all—though they won a wide public through long-playing albums. It may not seem important that as marketing, broadcasting, and even listening trends changed through the ’60s, as popular music continued to split and diversify, there was nothing like “Your Hit Parade” to chart the popularity of the songs themselves. It does seem clear that the emphasis on marketing single records at the expense of quality brought about a decline in the musical product.

But there is reason to be optimistic for the ’70s. One may be appalled today by the exuberant ugliness of many of the single recordings at the top of the Billboard “Hot 100,” and perhaps apprehensive about some of the cultural values the songs convey to young consumers. But this is only part of the picture. The fifteen-year cross-fertilization of different idioms of indigenous American music seems at last to have resulted in interesting and expressive styles, and there are songwriters like Paul Simon, Jim Webb, and Burt Bacharach who know how to use them. Then there are fresh modes of expression from abroad, from composers like Paul McCartney, Michel Legrand, and Jacques Brel. At long last the popular song has been freed from its constraining thirty-two bar format and its inevitable succession of diminished sevenths. And it has learned to sing openly about areas of interest and experience hitherto closed off or disguised in euphemistic ASCAPian deep purples, moon mists, and falling stars. Good popular music today is nothing if not concerned about social, moral, ecological, and other problems.
10. Can't Take My Eyes Off You

1966
1. Hey Jude
2. Love Is Blue
3. Honey
4. (Sittin' On) The Dock of the Bay
5. People Got to Be Free
6. Sunshine of Your Love
7. This Guy's in Love with You
8. The Good, The Bad & The Ugly
9. Mrs. Robinson
10. Tighten Up

1969
1. Sugar Sugar
2. Aquarius/Let the Sunshine In
3. I Can't Get Next to You
4. Honky Tonk Women
5. Everyday People
6. Dizzy
7. Hot Fun in the Summertime
8. I'll Never Fall in Love Again
9. Build Me Up Buttercup
10. Crimson & Clover

1970
1. Bridge Over Troubled Water
2. (They Long to Be) Close to You
3. American Woman/No Sugar Tonight
4. Raindrops Keep Fallin' on My Head
5. War
6. Ain't No Mountain High Enough
7. I'll Be There
8. Get Ready
9. Let It Be
10. Band of Gold

1971
1. Joy to the World
2. Maggie May/Reason to Believe
3. It's Too Late/I Feel the Earth Move
4. One Bad Apple
5. How Can You Mend a Broken Heart
6. Indian Reservation
7. Go Away Little Girl
8. Just My Imagination
9. Knock Three Times
10. Never on Sunday

And yet it will surely be some time before the new folk-rock-pop synthesis reaches the level of sophistication and style of the best music of the '30s and '40s. That too was a synthesis. The musical traditions of immigrant groups (largely Jewish, with elements of Viennese operetta and middle-European cafe music) were blended with the marvelous jazz heritage of American blacks. The lyrics reflected the urbanity, the exhilaration, and the occasional loneliness of the big New Yorks of the new world. Romantic love was the theme of nine songs out of ten—a love that was sentimental, slightly melancholic, often unfulfilled, and wishfully expressed in neat rhymes and witty turns of phrase. Cole Porter and Lorenz Hart wrote about moonbeams and daydreams only for their own special parodic purposes; they preferred to declare their intentions in terms of belles lettres and objets d'art. It was a music for a slightly sophisticated urban middle class. Yet, as “Your Hit Parade” indicates, it spoke to and for millions of people for several decades.

The New York Library's microfilm has only one section missing—the summer of '41, the very time ASCAP music went off the air. So it is easy to calculate the various long-distance records set in the radio years, from 1935 to 1950. The longest-running song, and so perhaps the most popular, was Irving Berlin’s White Christmas, with fifteen appearances in 1942-43 (ten of them in first place), and eighteen places and shows in subsequent Decembers. But for sustained popularity no song can equal the Rodgers-Hammerstein People Will Say We're In Love. Its appeal was immediate, and its fresh and inventive words and music never palled through a full thirty weeks in 1943-44. Its closest long-running rivals are ballads with obvious appeal to war-time sentiment—Irving Kahal and Sammy Fain’s I'll Be Seeing You (twenty-four appearances in '44-45) and Mack Gordon and Harry Warren’s You'll Never Know (twenty-four appearances in '43).

It is not too surprising to note that Gordon and Warren are the lyricist and composer most often represented on the survey. Though each collaborated with other songwriters, they were most successful in the movie songs they wrote together, e.g., the still popular Chattanooga Choo Choo and The More I See You. Thirty-nine of Gordon’s lyrics made the top ten, and a full forty-two of Warren’s tunes (an astonishing number when one recalls that he had been turning out minor classics steadily for more than ten years before 1935).

The runner-up lyricists are, in order, Irving Berlin (33), Johnny Mercer (32), Johnny Burke (28), Leo Robin (26), Sammy Cahn (23), Al Dubin (23), and Frank Loesser (23). They wrote about slumming on Fifth Avenue, dreams, pennies from heaven, moonlight and shadows, lonely Saturday nights, Indian summers, and strange enchantments.

Runner-up composers are, again, Irving Berlin (33), and Jimmy Van Heusen (25). Jimmy McHugh (20), Harry Revel (20), Richard Rodgers (19), Ralph Rainger (17), Jule Styne (17), and Cole Porter (16). They wrote about top hats, swinging on stars, the mood for love, a date with a dream, a small hotel by a wishing well, blossoms on Broadway, walking alone, and getting out of town.

Yes, the horizon was limited in the radio days of the “Hit Parade.” There were no songs of social protest, no ecstasies of gospel and soul, no explorations of non-Western musical traditions, no affirmations of the essential humanity of all races. But neither were there the bathos, the crassness, the sentiment-seeking one hears at such ear-splitting intensity today. Silliness, yes. Sentimentality in abundance. But often too a subtlety, a genial understatement, a formal discipline, and above all a melodiousness that pop music since 1950 never attained and is only now seeking to find.
One cannot cast an eye over so many lists of ten, flashing across a microfilm screen, without making a list of his own—as objective a list as he can—of the best songs of the "Hit Parade" radio years. Some of the most eligible nominees—Summertime, Begin the Beguine, September Song—never achieved the concentrated weekly popularity needed to make the top ten. And much of the best work of Gershwin and Kern antedates 1935. But for the period when the song sweepstakes began to reflect and determine popular taste (and that is as far back as I personally remember), these are, I think, the finest achievements, listed in chronological order:

Where or When, by Richard Rodgers and Lorenz Hart.

I doubt if any songwriter can wrest as much music from a simple scale as Rodgers can, or any lyricist distill in words such feelings as déjà vu so marvelously as Hart has done here. "Haunting" is an adjective too often applied to the ASCAP style, but this is one song that has haunted me for some thirty-five years. It was introduced on Broadway in Babes In Arms, and appeared on "Your Hit Parade" for eight consecutive weeks in 1937.

Love Walked In, by George and Ira Gershwin.

Kenny Baker sang this sweet and melodic ballad in the film The Goldwyn Follies, when Andrea Leeds walked into the coffee shop where he was serving up hamburgers and waiting for his big break in show business. Whether the situation be cliché or archetype, Ira Gershwin wrote a simple lyric for the movie audiences, and his brother George supplied for the musically literate an artfully arranged series of melodic climaxes, supported by new and interesting harmonies. Love Walked In indicates the course Gershwin's popular music might have taken had he not died suddenly after its composition. In the age of thirty-nine. The song appeared fourteen times on "Your Hit Parade," four weeks as number one, in 1938.

Over The Rainbow, by Harold Arlen and E. Y. Harburg.

No one who was growing up in the troubled days of 1939 could fail to respond to this song, which Harold Arlen fashioned for the poignant voice of a young Judy Garland. Arlen touched his broad, arching melody with traces of the blues idiom he was already successful with, and Harburg, though he regarded the octave skips as too much "for a little girl from Kansas," penned a lyric about lullabies, bluebirds, and chimney tops that matched the tune all the way. The front office at MGM had doubts too about the song, and three times ordered it cut from the prints of The Wizard of Oz while that classic film was in preparation. Fortunately there were those who had faith in Over The Rainbow. It was retained in the film, remains one of its memorable moments, and appeared fifteen times on "Your Hit Parade," seven times in number one position.

All the Things You Are, by Jerome Kern and Oscar Hammerstein II.

In 1939 this one melody survived the collapse of the Broadway show for which it was written (Very Warm for May) to appear eleven times on the "Hit Parade," always at the upper reaches of the list, and twice at the top. Kern's deftly patterned melody passes through several ingenious and truly beautiful key changes, and Hammerstein's words make the quintessential ASCAP lyric, passing from sublimated metaphor to unabashed confession. In a recent survey, All the Things You Are was most often cited as the favorite song of songwriters themselves.

Blues In the Night, by Harold Arlen and Johnny Mercer.

Here black American blues idiom was only slightly commercialized by two white songwriters. The unique result—a three-part jazz construction, twelve-bar pattern, ample vocal range, earthly sentiment—won favor with a large public ranging from blues and jazz purists through the unwashed millions to the admiring composer of All the Things You Are, who considered Blues in the Night one of the great American songs. It headed the "Hit Parade" survey twice, and found a lesser position eleven other weeks in 1942.

Skylark, by Hoagy Carmichael and Johnny Mercer.

Written and popularized in the twenties, this smoothest of torch songs was revived in several movies in 1944, and appeared ten times on "Your Hit Parade" that summer. As a piano player, I find that over the years this is the song that seems to hold most memories for couples who ask me to "play it again."

Always, by Irving Berlin.

This is the master's simplest song, and perhaps the best of his fifty-year output. Though there is hardly a year since 1925 when it wasn't popular, ("that's when I'll be there—always"), Deanna Durbin revived it in her ambitious, bittersweet movie Christmas Holiday in 1944; Freshly recorded, it reappeared on the top ten for seven weeks.

If I Loved You, by Richard Rodgers and Oscar Hammerstein II.

After revolutionizing the American stage musical with Oklahoma!, the renowned composer-librettist team tried its hand at adapting a classic European play. Ferenc Molnar's Liliom. The finest moment in the resulting Carousel came when a line in the original text, "If I loved you, Mr. Liliom," took on music. In the patented Rodgers and Hammerstein tradition, words and melody conspired to take the stage characters a little further into their emotions than they cared to go, and at the close of the song they were slightly different people than they were when they started to sing. (This is marked in the music by an artful variation of the thirty-two bar formula.) If I Loved You altered the musical consciousness of the American public too for nineteen weeks in the summer of 1945. three of those weeks as number one.

So In Love, by Cole Porter.

This song from Porter's most successful show, Kiss Me Kate, is typical of his sophisticated best: a sultry melody rising steadily to a climax over an insistent beguine rhythm, a sensuous lyric that pleaded for the listener to haunt, hurt, deceive, desert. Even after a decade of rock music, where almost anything goes, where it's easy to love and get a kick from cocaine or something else under the skin, Porter remains the unchallenged celebrant of the exotic and erotic in popular song. So In Love made twelve appearances on "Your Hit Parade" early in 1949.
by Leonard Feldman

How to Understand Our Amplifier Reports

Part II

IN THE SEPTEMBER ISSUE I discussed the graphs and charts that appear in HIGH FIDELITY's power-amplifier test reports. Most amplifiers today either are integrated amps—that is, they contain both control preamps and power amplifiers—or they are built into receivers. Either way, the report on the amplifier will include one more graph, that dealing with the preamp and control characteristics themselves.

When HF tests a control preamp all by itself the report will include this graph (actually a rather complex series of curves), plus one showing frequency response and overload characteristics, and a third for harmonic distortion. The latter two graphs are basically similar to the comparable charts in a power amplifier report, and the specifics need not be repeated here. The main difference is that a preamplifier's output is measured in volts (roughly 1 to 1.5 volts is a typical output level), while that of a power amplifier is measured in watts. With this difference in mind you can easily understand HF's preamplifier reports by referring to both parts of this article.

Preamp and Control Characteristics

On this graph, like many others you see in HIGH FIDELITY test reports, frequency is plotted on the horizontal axis and response in dB along the vertical axis. If the amplifier has a built-in preamp for magnetic phono cartridges, the first curve will represent...

A. RIAA equalization. When cutting a phonograph record, the engineer alters ("equalizes") the response of the recording amplifier according to a specific formula that deliberately attenuates low frequencies (to prevent excessive excursion of the cutting stylus) while boosting high frequencies (to override inherent surface noise). This technique produces a record that is more easily tracked by the playback stylus and one that also has less audible surface noise. To reproduce the record accurately, however, the preamplifier must introduce a frequency response that is the exact reciprocal of the recording curve. This playback equalization, specified by the RIAA (Record Industry Association of America), is a world-wide standard. The uppermost curve in our graph shows to what degree (if any) the phono preamplifier response deviates from that specification. A perfectly straight horizontal line indicates complete conformance with the RIAA standard. In the sample curve you will note a relatively small...

B. Deviation from the ideal. The deviation, summarized numerically below the curve, is not serious if it does not exceed about 3 dB at the extreme ends of the 20-to-20,000-Hz range. The action of the preamp's variable controls is not so easily summarized. Tone controls allow you to alter the amplifier's response to compensate for listening tastes or for deficiencies in the system, in the listening environment, or in the source material. For instance, a heavily draped and carpeted room tends to absorb high-frequency energy and the reproduced program may lack brilliance or crispness. A slight treble boost often can correct such situations. On the other hand, too brilliant a sound often can be tamed by reducing the treble response slightly. Similarly, you might want to boost or cut the bass at times, quite apart from whatever you do (or do not do) with the treble. In addition some units have a midrange control, or even several controls, each of which covers a separate range within the audible spectrum. The maximum boost and cut range of each is shown in the solid-line curves for...

C. Tone controls. The upper solid-line curves here show how much bass and treble boost can be achieved at each frequency, while the lower curves show how much bass or treble attenuation can be achieved by moving the control in the opposite direction. Bear in mind that these curves show extremes only, so that varying degrees of boost or attenuation between these boundary lines can be set by moving the tone controls only part way. Such multiple setting options generally are not available in the...

D. Filters, though occasionally more than two switch positions will be offered—that is, the filter may have more options than simply on or off. A
A. RIAA Equalization: +1.5, -3 dB, 20 Hz to 20 kHz

B. Preamp & Control Characteristics

<table>
<thead>
<tr>
<th>Frequency (Hz)</th>
<th>Response (dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>+5</td>
</tr>
<tr>
<td>50</td>
<td>+10</td>
</tr>
<tr>
<td>100</td>
<td>+15</td>
</tr>
<tr>
<td>200</td>
<td>+20</td>
</tr>
<tr>
<td>500</td>
<td>+15</td>
</tr>
<tr>
<td>1K</td>
<td>+10</td>
</tr>
<tr>
<td>2K</td>
<td>+5</td>
</tr>
<tr>
<td>5K</td>
<td>0</td>
</tr>
<tr>
<td>10K</td>
<td>-5</td>
</tr>
<tr>
<td>20K</td>
<td>-10</td>
</tr>
</tbody>
</table>

C. Tone Controls

D. Loudness Contour (volume control at 9 o'clock)

E. Filters

---

**High Filter**

The high filter is intended to minimize such noises as record scratch or the hissing audible in listening to tapes and weak FM broadcasts. A low filter, often called a rumble filter, reduces noise at the other extreme of the frequency range and can be used to control turntable motor noises and sometimes the low-frequency feedback from poorly isolated loudspeakers. Admittedly, a filter will remove not only noise but also some signal frequencies. A correctly designed filter circuit therefore should have as little effect as possible on the midrange, but should increase its attenuation as the frequency moves toward the extreme that the filter is designed to control. In our example, the high filter has little effect until the frequency approaches 10 kHz beyond that frequency the response drops off steeply. This is an excellent filter characteristic and quite different from the treble control's action, which has considerable effect on frequencies below 10 kHz but tends to flatten out somewhat in the extreme high end. Another frequency-selective control, but one designed for an entirely different purpose, is the...

**Loudness Contour**

Our hearing tends to be less sensitive to low and high frequencies when they are listened to at low volume levels. Since home listening often involves loudness levels well below those that would be heard at a live concert, we often tend to feel that there is insufficient bass (and to a lesser degree, insufficient treble) in our reproduced music. A set of curves, known as the Fletcher-Munson curves (after the two scientists who documented this hearing characteristic), was developed to show how this effect increases as the volume level is lowered. Many amplifier manufacturers include a built-in circuit that can be switched in to compensate automatically for this effect by providing predetermined amounts of bass boost (and sometimes treble boost) depending upon the setting of the master volume control. As the sound level is lowered the amount of compensation is increased. In the graph, a plot represents the contour of this loudness compensation when the volume control is set at the nine-o'clock position—that is, with the amplifier adjusted to produce about one quarter of maximum volume. The line shows the moderate amount of bass boost that is introduced in the test sample: about 7 dB at 50 Hz, a fairly typical measurement.

The succinctness and objectivity of *High Fidelity's* test reports are due, in great part, to the fact that performance data of units under test can be depicted graphically in terms that are accurate and meaningful. In choosing your own amplifier you will want to listen to music played through it, of course, and the longer you listen, the better. The test reports can help you get started, and the data shown often can explain the otherwise inexplicable, subtle differences you may hear in your listening tests.
Presenting the complete Bernstein/Mahler symphonies, a few at a time.

Bernstein is a Mahler man. In *High Fidelity* he wrote that Mahler's time has come, "Has come? Had come, rather, was there all along, even as each bar of each symphony was penned in that special psychic fluid of his."

And the Bernstein/Mahler symphonies when they came out were praised to the skies—the *High Fidelity* that reviewed 60 recorded Mahler symphonies said of Bernstein, "...It is no less than appropriate if this article has turned out almost as much a tribute to him (Bernstein) as it has to Mahler."

Now the Bernstein/Mahler symphonies are available again, not as a bulky, costly giant set, but in four budget-priced editions.

Buy them all at once, or one at a time.

**Other new budget-priced 3-record sets:**

- **JOHN WILLIAMS**
  - *Seven Great Guitar Concertos*
  - Columbia Records
  - M3X 31908

- **GLENN GOULD/BACH**
  - *The Well-Tempered Clavier, Book 1 Complete (Preludes and Fugues 1-24)*
  - Columbia Records
  - DSM 31525

- **GLENN GOULD/BACH**
  - *The Well-Tempered Clavier, Book 2 Complete (Preludes and Fugues 25-48)*
  - Columbia Records
  - DSM 31524

- **THE ART OF IGOR KIPNIS**
  - *Harpsichord Music of France, Italy and Spain*
  - Columbia Records
  - M3X 31521

- **JOHN WILLIAMS**
  - *Seven Great Guitar Concertos*
  - Columbia Records
  - M3X 31520

- **GLEN COULD/BACH**
  - *The Well-Tempered Clavier, Book 1 Complete (Preludes and Fugues 1-24)*
  - Columbia Records
  - DSM 31525

- **GLEN COULD/BACH**
  - *The Well-Tempered Clavier, Book 2 Complete (Preludes and Fugues 25-48)*
  - Columbia Records
  - DSM 31524

**On Columbia Records**

*B *HIGH FIDELITY *MAGAZINE
Heldentenor of the Century
Reissues from Lauritz Melchior's unparalleled early prime
by Conrad L. Osborne

LAURITZ MELCHIOR'S recording career began in 1913, when as a baritone he recorded a number of Danish-language selections in Copenhagen. They were mostly songs, but included the baritone arias from La Traviata and Trompeter von Säkkingen.

After the hiatus during which he made the change from baritone to tenor, he cut several more Danish-language sides in Copenhagen, now in the new Fach. But he very soon began recording in the German language in Berlin and other sites; this was approximately coincident with the launching of his international career (Covent Garden and Bayreuth, 1924; Metropolitan, 1926). He continued recording in Europe (London, Berlin, and Vienna) until the partnership with Flagstad and the gathering war conspired to confine his career, both live and recorded, to the United States from the late 1930s until his retirement.

His commercial recording career thus extended over a period of forty years, beginning with the Copenhagen sessions of 1913 and ending with some MGM releases of the early 1950s, related to his movie career and consisting primarily of light music. For sheer longevity, in studio and onstage, this history is approached by very few singers. I can think of only one important singer still active who was recording commercially or performing professionally a comparable time ago, in the early 1930s—Jan Peerce. And among older recorded singers, only Gigli and (stretching the point) Lauri-Volpi come to mind, though in terms of retention of powers neither was as successful as Melchior. Of course, such phenomena of endurance as Patti and Battistini would have surpassed the forty-year mark as recording artists had techniques been advanced enough earlier on. But in fact they weren't, and Patti is represented by only a few sides from her career's end. Battistini by many sides, all cut during the last half of his public career.

Melchior's repertoire, on the other hand, is relatively restricted, and the sheer number of records made, while considerable, is surpassed by several other major singers. This of course relates to his almost exclusive concentration on the Wagnerian roles from the mid-1920s on. Apart from the single complete role recorded (Siegfried, the two acts at different times and places) and the very large hunks of others (Tristan, the young Siegfried), his prime-year recordings consist almost entirely of remakes of the standard Wagner arias and other excerptible sections: the Rienzi prayer at least three times, ditto for the Tannhäuser Narrative, the "Wie sie selig" from Tristan, etc.

Melchior was for many years woefully under-represented in the LP catalogue, but in the past few years this situation has changed dramatically. The latter (American) phase of his career has been well documented on low-priced labels, the Victors on Victrola, some of the relatively few Columbia As on Odyssey. And much more recently, the Berlin and London recordings of his early prime have been re-released in good portion on the discs listed herewith. For the first time we thus have available an overview of his singing virtually throughout his career, exclusive of the very earliest Danish recordings and of the last Columbias and MGMs of the late '40s and early '50s. In the early '60s, a tworecord set, ASCO 121, included nine baritone selections and six Danish-language tenor selections—the only LP appearance of this earliest material—as well as two of the Italian-language Otello excerpts from 1946 Columbias, later than anything currently available. This set also embraced much of the material now under review, and is worth a search for the serious collector or student. A current Roco release has also been announced, but I have been unable to track down a copy.)

To speak of Melchior's records on a comparative basis is to speak of small differences, subtle distinctions. The functioning of his voice was so stable, his technique so secure, that no substantial vocal change is apparent over the course of better than three decades. Even the baritone discs reveal the basic consistency of resonance, the remarkable evenness of legato, that characterized his singing; they lack only the extra ring and excitement of a great voice that has found its proper level and a temperament that is responding to the challenge of congenial repertoire. The incredible stability of his singing position is the key to both the unparalleled excitement of his tone and the durability of his voice. Regardless of the pitch,
the vowel, or the dynamic, everything is sung from one position. There is no point in the scale at which the tone either weakens noticeably or blurs out in an overbalance. The same vital ring informs the sound from top to bottom. The vowel formation is extremely clear, the intonation precise. Everything is based on a superbly sustained, full-throated legato, and the incomparable thrust of his declamatory singing springs directly from that base.

Most tenors attempting to sing Wagner encounter two tessitura-related difficulties. The first is that so much of the music lies in the lower octave—and it is sustained, singing music, not parlando—that it becomes almost necessary to drive the voice into an overbalance adjustment simply to be audible and make some sense of the music. The second is that the most common trouble spot for the tenor voice is around the "break," D sharp to F sharp, flat or so (when the voice is securely over onto the "head" side), the Heldentenor is repeatedly asked to head side, and the Heldentenor is repeatedly asked to

Of course the most obvious characteristic of Melchior’s singing was the heroic bite and ring of the sound, its festive brilliance and exuberant masculinity. But as I reheap his recordings (and he is one of a handful of singers of whom I never tire), I always find myself most impressed by the absolutely steady legato of his more lyric singing. Two of the more restrained sections of Tristan, the "O König" (heard here on LV 124) and the "Wie sie selig" (on both LV 124 and the Da Capo album) exemplify this, and there is no greater singing on records. These excerpts display the true art of great lyric vocalism—maintaining the same basic resonance at a reduced volume, and with real evenness of legato. And a byproduct is the simply gorgeous tone produced—the "wie schön" at the end of "Wie sie selig" is almost unearthly. Other magnificent examples are the "O Paradis," equivalent to that of the greatest Italian and French tenors (the attack on the opening note of the aria is in a class with Caruso’s), and the death of Siegfried, most especially that long, perfect E natural at the magical key change for "ein wöhniges Weib"—the definitive realization of one of Wagner’s most moving moments.

Perhaps a word is also in order with respect to the interpretive and musical sides of his singing, at least as preserved on records. A great deal is made of the alleged musical slovenliness of some of his performances, and indeed we have the evidence of broadcast recordings that the bar line was often waved aside. On the commercial recordings, however (and on at least some of the preserved broadcasts, e.g., his 1940 Met Lohengrin), the standard of musicianship with respect to pitch and note value is never less than respectable, and often quite unusually sharp and well defined. And as a singing interpreter he was extraordinary, far more imaginative and colorful than many lesser tenors who are singled out as interpreters, since they don’t sing exactly to excess. The intensity and fervor of Melchior’s Tristan—especially in the third act—is altogether remarkable, as is the almost contemptuous joviousness of his young Siegfried. Much of this relates to his vocal capacities—he was the only tenor who could sing the damned stuff and not leave a trail of blood across the stage. But beyond this, there is no question of the genuine passion and conviction of the performances heard here, and of the great care given to a truly musical variety of dramatic inflection.

There is not as much overt "acting" of a nonsinging sort as is today fashionable, and I would be the last to deny the great force carried by such a good artist as Windgassen at such a moment as his "Da ekelt mich der hohe Sang!" in the Rome Narrative. But we must remember that Melchior’s dramatic approach dates to a time when acting styles, even in the spoken theater, were considerably more formalized and consciously poetic than they are today. Declaimation was a discipline unto itself, and the verbal element in acting was paramount. In Melchior’s work we can hear the love of the sounds of words and their dramatic effects, always within the bounds of the music, that must have marked the recitations of great actors and orators of half a century and more ago. And there is an integrity and a nobility about it—indeed the writing clearly embraces this sort of elevated statement and is robbed of something essential when not given its due. The monologue of Otello, in German, is a magnificent example of this, parallel in many ways to the Italian version of Martinelli, though Melchior’s is better sung. But in the insistent observance of the music, in the building of tension and emotion through refusal to depart from the notes, and through a painstaking, elocutionary rendition of the text, it is very like Martinelli’s, and shares with it a mournful weight, a tragic bearing, not caught by other versions.

Naturally, Melchior was not perfect. In his last years there was a tendency toward increasing heaviness and thickness of texture in the lower part of his voice, some thinning and loss of vibrato on top tones, increasing difficulty in singing true mezza-voce. And there is no doubt that at times he preserved the integration of his singing through a certain amount of constriction and squeezing. But we are talking of relatively minor problems at the end of a very long career in the most demanding reper-
tory ever devised to challenge performers in Western musical theater; at his worst, Melchior was still demonstrably superior to all but a band of three or four of the finest heroic tenors in their prime years.

And in any event, none of the latterly Melchior attributes need concern us here, since we are dealing with material of the ‘20s and ‘30s. A few notes and comments on each of the discs under review: Heliodor: These are all acousticals, recorded in Berlin. The Rienzi premiere is here given its best of three recorded Melchior performances, the voice marginally fresher and more spinning than in later versions. Walther’s Prize Song, on the other hand, displays a bit of flutter (quite possibly a recording peculiarity) and less brilliance than his second try, mentioned below. The Tannhäuser Narrative is given in complete form, right up to Venus’ appearance, omitting Wolfram’s lines. The performance is very intense, moving, and exciting. The Wesendonk songs are, obviously, not the versions recently released for the first time on Victrola, with Ormandy. They are beautifully sung, with some marvelous, unexaggerated diminuendos in Traume.

In the substantial chunks of Walküre Act I, the singing is somewhat smoother and better knit than in the slightly later versions on LV 124 (see below). But they are still not as good as the matchless singing in the Walter Act I, and at this point Melchior has not yet learned how to squeeze out the last drop of excitement by increasing the intensity right at the end of each extended “Wälse!” Leider, who joins him in the love duet, displays a beautiful, round tone, some flutter, and a rather stately approach to the music. full of glides. He grows more fresh and vital as the scene proceeds. Leider is not in on the end of the act, where a cut is made to Siegmund’s last line, “So blühe dein Wälsung Blut!" The two brief Siegfried Act I excerpts, recorded several times by Melchior, are as incredible as ever here, and the voice is heard to good effect; one does miss the orchestra though, and the later electricals provide it. Several bands on this disc end with a fade-out, which I find incomprehensible. Otherwise the sound is excellent for the age of the material.

LV 11: Rienzi again, quite not as fine vocally as the Heliodor version, but better recorded, with the orchestra much more recognizable in this electrical edition. The Hymn to Venus follows, sung brilliantly enough but a bit rushed (side length?) and rather unraveled in its transitional quality. Then an excellent Elizabeth/Tannhäuser scene, with Bettendorf as the partner—full-throated lyric singing, if a swoopy style. This is acoustically recorded, and makes the once-common cut straight into the repeat of the duet, eliminating Wolfram and a number of other bars. This is Melchior’s only commercial recording of this scene.

The Rome Narrative is electrical for two 78 sides’ worth, and the London Symphony under Coates adds considerably to the impact of Melchior’s singing, which is much as it is in the acoustical version. After “Die sinne schwanden mir,” we revert to the acoustical version. After this the 1929 “O Paradis,” with its stunning mezzo-voice and its shining B flats. True bel canto singing. The Radames/Amneris interview from Aida, with contralto Arndt-Ober, is some of Melchior’s most impressive singing, and despite the awkward translation is phrased in an authentic Verdiian way. A great shame he did not record more of this role. Arndt-Ober is less good than I remember, somewhat cumbersome and hoity. Then come the great Otello sides (the monologue and the death), and then an almost equally splendid performance of “Vesti la gubba,” in German. again decidedly Italianate in feeling. The Aida is an acoustical recording, the Otello and Pagliacci are electrical, and with Barbirolli. What can one say of the sentimental Sjöberg song, also a favorite of Bjoerling’s? Melchior sings it well.

LV 124 opens with Lohengrin excerpts, beginning with the Bridal Chamber Scene, an electrical recording. Melchior’s singing of this is superior to this later performance with Flagstad, the line a bit leaner and better delineated. Bettendorf is again a sensitive partner, though she is a bit extended in the more proclamatory utterances and cannot build to vocal climaxes in the Flagstad manner. The opening scene is real duet singing, matching of timbre and inflection, contrasting of male and female timbres in the matched responses, careful ensemble. The scene takes in the usual cut in “Höchstes Vertrau’n,” but carries through to the real end of the scene, with Lohengrin’s instructions to the attendants. It is thus more complete than the later version.

Next, a version of the Abschied, beginning at “O Elsa! Nur ein Jahr.” Blech takes very gradual tempo that detracts from the urgency of the climax. A fine performance from Melchior, but the later Ormandy version is just as well sung, far better conducted and recorded, and more complete, beginning earlier. A different version of the Africana aria, three years earlier than the 1929 on LV 11. It is marginally less good than the later one, a bit less secure toward the bottom, but with perhaps an even better first attack. Then versions of the “Ein Schwert verhiess” and the “Siegmond heist’ ich,” inferior to both earlier and later performances (these are 1929, under Blech). The singing is rather choppy and barmy, with very rare examples of some vowel distortion on the part of the singer. He seems to have been trying for a more clipped, declamatory approach (Bayreuth influence?), and compromises his usual model line in the process. Of course this is all relative: these are still good, sturdy performances.

Then the Gotterdammerung excerpt, taking in the blood-brother oath duet and some of the subsequent dialogue. Not really one of Melchior’s most impressive discs, though the way he snaps off the boastful side of the character is unique. Schorr sounds a little tubby and hoity, but it is a real pleasure to hear both singers really phrase and look after dynamics in the duet itself. Watzke is a rock-solid Hagen, but Frau Topas, the Gutrune, has a tone of a more porous constitution. There follow the two magnificent Tristan discs mentioned above, and the record ends spectacularly with the glorious 1931 Preislied, tolerably recorded with Barbirolli. The interpretation has great exhilaration and urgency, and the voice soars and rings like that of no Walther ever heard in the theater.

Da Capo: This two-record set takes in much of the material on the two Preiser records, with some additions and substitutions. This is perhaps the place to say that both the Da Capo (Electrola) and Preiser transfers are excellent, with the Da Capo tending to a somewhat darker sound that suggests some high-frequency filtering to cut down on surface noise. The orchestra is occasionally a bit muddy and muffled in consequence, but the voice does not seem to have suffered, and there is slightly less surface scratch on two or three bands.

The album begins with Walküre: the Blech “Ein
LIKE CASEY STENGEL. Lauritz Melchior is eighty-two and one of the last of the authentic heroes. He takes smaller steps now, and his hearing is dim. He has lost weight in the last few years, though his beard-like frame keeps him a big man.

But as he bends across a table to speak, his mouth and eyes mark a temperament that is still acute and mischievous. Grave as well, like many Danes, when the issue is native food and drink. He is concerned about each item on my plate, about whether or not it has its proper sauce, about whether or not I am taking things in proper sequence. Also about the aquavit. "You don't drink it right," he says, and makes a gesture of tossing it down. "Believe me," I tell him, "it's better if I sip, a little aquavit, a little beer..." He frowns, gently.

But we were just starting to talk of the early recording days, of his first records. He grins and nods, then pauses a bit to time the beginning of his Narrative. I stare across the table. I am remembering my first Götterdämmerung. I was thirteen (it made a man of me), plastered against the Family Circle standee rail, and way down there amidst the pre-Wieland rocks were Traubel and Janssen and Ernst and Harshaw, when she was still a mezzo, and this man, a Fach unto himself.

That's a quarter-century ago, but he is thinking back much farther, to the days of my father's childhood. "Two rooms, in a hotel," he is saying. "In one room are the singers and all the musicians. The orchestra on a platform, with the kettledrums underneath, because they would be too loud. In the other room the engineers with the horn through the partition.

"And you know what else? Wax. And the wax must be kept warm, on the fire, to be kept ready for cutting the record. Hot! Sometimes we sang with no shirt on. And you know, it was very hard, to try to get the right balance, to get the instruments placed right. So you do it through, then you play it back, for test. But when you play it, the wax is destroyed. You don't have that record anymore. So you sing it many times, all the way from beginning to end, to get one side. Sometimes we ran out of wax."

Another 120 degrees around the cold table, I ask what else he particularly recalls from the early days. "Did you know that mine was the first male singing voice that went over the radio? That's right. Melba was the first female, I was the first male."

"This happened because Marconi himself picked me. He was searching for voices that were completely even. We were very disappointed—but this was good for me, to do these small things on the stage.

We spoke for a while of the non-Wagnerian roles Melchior had sung in Europe, before the Wagnerian specialty took over his career. They included Canio and Otello. Samson and the Royal Conservatory had to learn every-thing and Otello as the greatest challenge outside of Wagner. "This is very hard in every way, but especially for me, because the character is completely unlike me—I was never jealous, what Otello goes through is not part of me."

Nevertheless, he sang it a number of times, and whereas most dramatic tenors consider Otello a role to be approached after many years of singing experience, and then with great care, for Melchior it was a way station to the heaviest of all tenor parts, the mature Wagner heroes. "A singer must know his own voice, what it can and can't do. Today most young singers are not as fortunate as I was, to be able to study and test slowly. We students at the Royal Conservatory had to learn everything, we were in the ballet corps, we would be in one small scene, or carry a table on or off, but we learned to do this. Of course, another fellow and I, we played all sorts of tricks and did everything we could to get thrown out of the ballet. And finally we did—we had to pretend we were very disappointed—but this was good for me, to do these small things on the stage.

"And I was kept on while I studied to change from baritone to tenor. It is hard today in this country, and in Europe too, where we have no more the established theaters and schools, and everyone is rushing around. Singers do not take time to learn their voices, to protect themselves. You know, a role I never sang was Walther von Stolzing. Gatti wanted me to. He made me a big offer for a series of performances. I told him I didn't know, but I would learn it and try it out over the summer, and we would see. Well, I learned it and sang it through, many times, day after day, in the studio. And every time I got through I was tired, more than after Tristan or Siegfried."

"You see, I had to have music that kept going down, getting me back to the low, then going high. I could sing any high note, but staying high, like Stolzing does, without ever a chance to get back to the low—this tired my voice. But another singer might do it without trouble, yet not be able to sustain the heavier roles. Every singer must learn his voice, try things before he sings them, and then insist on this. I told Gatti, 'I am tired when I finish Stolzing,' so I never sang it."

When it is time to leave, Lauritz Melchior slowly stands at the table. Left on his plate is a sprig of dill, which he has fastidiously laid aside. He regards it with a disdainful grin. "Christmas tree," he says. C.L.O.
Siegfried" referred to above, then over to the 1935 Vienna Walter set with Lehmann for the whole section beginning at the "Winterstürme" through to the end of the act. No point in again saying the obvious about this cornerstone performance—the whole act is available in a Seraphant pressing. Then on to Siegfried, with the passage starting at "Nothung!" through to the end of Act I taken from the old ten-record 78 album. It still sounds well; Rieß is an immensely crafty if vocally shredded Mime (he was advanced in age by 1929). Melchior is so far beyond comparison—it's hardly worth discussing—he is harrowing. And even better in the Act III confrontation with Wolfram, perfectly capturing the cooiness of the invincible young Siegfried. Böckelmann is enormous here, pouring warm, big tone over the Wanderer's music in impressive fashion—it really sounds like enormous here, pouring warm, big tone over the Wanderer's music in impressive fashion—it really sounds like a superhuman battle on both sides. But then the excerpt ends, just as Siegfried heads off through the flames, and one must appeal for the restoration of this whole collection, with Schorr's splendid Wanderer for the Riddle Scene; Melchior and Tessmer for more of the first act and Tessmer and Habich for the Mime/Alberich squabbles; some of Melchior's best lyrical, inward singing in the Waldweben and end of Act II; and above all the whole final scene with Melchior and Florence Easton. Melchior's young Siegfried is a unique embodiment of what Wagner was writing about; the music cannot be properly understood unless it is heard sung to this effect. German Odeon at one point had most of the material in a two-record set, and a good pressing should be restored to the catalogue.

Then we have the Siegfried/Gunther scene again, but in this pressing cut short right after the oath duet. Then Siegfried's Narrative and Death, a justifiably famous record. Melchior is a trifle heavy-handed imitating the Forest Bird, but it all has great brilliance and some humor, and as noted above, the death is stupendous on every count. Helgers is a good, black-voiced Hagen. Rienzi again, and the Rome Narrative again, both in their second, electrical versions, and with the Narrative ending this time without reverting to the earlier version for the last section. The Leider/Melchior Liebesnacht also deserves its reputation, and it is good to have it restored to LP. As with the Lohengrin scene, this is superior to the later performance with Flagstad so far as Melchior's singing is concerned; it is better integrated and more precise, the dynamics more securely controlled, and the pitches clearer, particularly in the "O ew'ges Nacht!" etc., where intonation is crucial. The "O sink hernieder" section draws forth some of his finest mezza-voce singing. Leider really has quite a good time of it in the opening section; she is whoozy and approximate, and the music is rushed in a way that is particularly uncomfortable for her. In the latter sections, though, her singing is rich and settled, her phrasing musical and sensitive. This makes different cuts than the Flagstad/Melchior edition, starting at Tristan's entrance, but then excising Brangane's Warning.

Then the 1930 "Wie sie selig." already mentioned, and the first part of the Bridal Chamber Scene with Bettendorf, with a later "Hochstes Vertrau'n" under Blech tacked on and the last part of the scene missing—too bad. Side 4 duplicates material available on Preiser—the Lohengrin Abschied, and the L'Africaine, Otello, and Pagliacci excerpts.

Finally, there is TC9048, a strange disc which I would not mention except that it does contain a few more sections of the Siegfried set, though in oddly assorted snippets and sound that is none too clean. Good to have the end of Act II, with Nora Gruen (Grünebaum on the old Victor labels) as a pleasant Forest Bird. The single 78 side of Act III ("Wie end ich die Furche!") is merely tantalizing.

The overside includes an earlier chunk of the Walter Walkure set, from Hunding's entrance through "Nin weiser du!," again with somewhat edgy sound and with very unsophisticated splicing. Then it goes back to the earlier (inferior) versions for the rest of Siegmund's solos. All in all, not recommendable unless one is really eager for the brief sections of Siegfried otherwise unavailable.

Depending upon which specific material one wants, one could obtain a fairly decent cross-section of this period of Melchior's career by purchasing the Heliodor and either the Da Capo or the two Preiser discs—one cannot purchase both without considerable duplication. The real Melchior fan or the devoted student of great singing will, I'm afraid, be laying out import prices for the sake of two or three unduplicated bands. But then, he's used to that.
**Sonic Innovations for the String Quartet**

Crumb's overwhelming Black Angels and Berio's richly subtle Sincronie

In surveying present-day musical composition, one is struck by the resiliency shown by the traditional musical mediums under the onslaught of recent technical innovations. Whereas it is certainly true that one of the most characteristic attributes of "the new music" has been its preference for "special" instrumental combinations, conceived uniquely for the dictates of one specific composition, contemporary composers—and among them, some of the least traditionally oriented—have nevertheless remained intrigued by the problem of composing for standard ensembles. Admittedly, this is partially explained by the simple practicalities of current musical life: Such ensembles, ranging in size from the symphony orchestra to the piano/violin duo, exist in abundance, and many of them are interested in stretching their repertory to include new works—one which, moreover, are new not only chronologically but also in their demands upon the performer.

This is well illustrated by two recent works for string quartet included on recent releases from CRI and Desto—George Crumb's *Black Angels* and Luciano Berio's *Sincronie*. Both pieces were commissioned for established ensembles—the Crumb for the Stanley Quartet (in residence at the University of Michigan) and the Berio for the Lenox Quartet (in residence at Grinnell College at the time of the commission, but now at the State University of New York at Binghamton); and both represent serious, and I think successful, attempts to rethink the possibilities of string quartet writing in terms of new compositional interests and inclinations.

On the surface the string quartet might seem to be the most resistant of traditional ensembles to the main thrust of recent compositional developments; for whereas the latter have been marked by exploration of the extremes of timbral variety, the quartet is perhaps the most uniform of the ensembles inherited from the past. The four instruments, although encompassing a considerable pitch range and a wide variety of what might be called "expressive" possibilities, form a remarkably homogeneous total unit. How is the modern composer to approach such a medium?

Certainly the most radical answer to this question—not only in reference to these two pieces but to any recent quartets I have heard—is offered by Crumb's *Black Angels* for electric string quartet, which is nothing less than a tour de force of sonic innovation. The "electric" refers to the use of contact microphones with each instrument, a device which preserves the basic string quality while allowing for a certain psychological "distancing" of the sound, so that the tone quality assumes an almost surrealistic atmosphere essential to the composer's intentions. In addition, Crumb uses a variety of special performance techniques to enlarge his timbral frame: For example, he calls for several unusual effects involving partials (some of which, so far as I know, are unprecedented), requests the use of a glass rod and a metal plectrum to strike the string, has the players use metal thimbles on their fingers, and in two places even requests that they hold their instruments (with the exception of the cello) like violi—i.e., placed on the knee and held vertically—and bow them on the "wrong" side of the fingering hand (which involves learning a new, "reversed" fingering and results in a marvelously "antique" string sound). Further, he reinforces the four basic instruments with the addition of a tam-tam, maraca, and a set of tuned water glasses, all of which are performed by the string players, and with the exception of the maraca and occasionally the tam-tam are "bowless" for the production of their sound. (The effect of the bowed water glasses, which are used in an extended tonal passage in B major as an accompaniment for a cello "aria," is hauntingly beautiful.)

One should not conclude from this, however, that *Black Angels* is only a grab bag of instrumental tricks. All of the special devices are integrated into an over-all plan in which each plays a decisive role. The basic design of the work is symmetrical: Thirteen sections are laid out in an "arched" arrangement so that the first mirrors the thirteenth, the second the twelfth, etc., with the first, seventh (middle), and thirteenth sections functioning as principal formal reference points. Unlike most of Crumb's recent music, *Black Angels* has no text: yet it is essentially dramatic in conception and is based on a complex program (subtitled *Images from the Dark Land*) which is closely related to the arched formal plan. Although the details of this program are too intricate to describe here, the basic idea is of a spiritual journey of the soul (curiously—consciously?—reminiscent of Beethoven's E-flat major Piano Sonata, Op. 81a): departure (loss of grace), absence (descent into the Dark Land), and return (redemption). Also important is a number symbolism closely related to the program (the numbers involved are, significantly: seven and thirteen, which are periodically counted out like some sort of incantation by the players in a variety of languages) and which to an extraordinary degree determines such aspects of the piece as phrasing, number of attacks, and pacing.

The important thing, of course, is what the composer is able to make of all this, and the point to emphasize here is the remarkable impact of Crumb's composition.
Less precious than his recent Lorca settings, Black Angels makes an overpowering impression. It fills its twenty-three-minute span with an amazing variety of sound, ranging from the "electric insect music," which opens the work with a truly terrifying scream of sound, to the beautifully distanced, viol-like quote of Schubert's Tod und das Mädchen (Death and the Maiden). This quote, along with several others (such as the Dies Irae and Tartini's so-called Devil's Trill), are both related to other material in the score, primarily dramatic in significance and are intended to reinforce the basic idea of the composition, which in Crumb's words "was conceived as a kind of parable on our troubled contemporary world"—written, as the score attests, "in tempore hodierni, 1970."

It would be difficult to imagine an approach to the revitalization of the string quartet further removed from Crumb's than that of Berio's Sincronie. If Black Angels can be taken as an attempt to maximize the timbral differentiation within the quartet, Sincronie accepts the ensemble's basic homogeneity of sound and uses it for the point of departure in determining its basic musical substance. The work is conceived as if for a single, homophonic instrument, and the music consists essentially of a series of chordal blocks which are elaborated over and over again so that they appear in ever new guises. No special effects are employed which are not now a standard part of the quartet vocabulary. Yet despite this, the work is far from monochromatic. Although the four instruments achieve little individuality, they nevertheless move with a certain degree of independence within many of the vertical sound masses (achieved in part through the use of very elaborate grace-note patterns) and occasionally even break away from the whole for brief stretches—either through sustained tones held while the other instruments rest, or with short, "melodic" patterns, acting as effective foils to the prevailing texture. There is also considerable variety in the rhythmic pacing, both in regard to the rate of surface speed and to larger sectional relationships, so that despite the one-movement plan, a clear sense of formal regulation of contrasting segments emerges in the course of the piece. Written in 1964 and revised in 1967 by the addition of a closing section after the original ending (the latter version recorded here), Sincronie is a work whose subtle internal differentiations—which are, as it were, "played down"—require repeated hearings for their adequate perception. But with time the listener becomes aware that this is music of unusual richness. Although neither so immediately striking in effect nor so compelling in impact as the Crumb, it is nevertheless an impressive addition to the literature.

A brief word about the other pieces included in the two discs. Charles Jones's String Quartet No. 6, which unlike the Berio and Crumb works remains firmly within the earlier twentieth-century tradition of quartet writing established, among others, by Bartók, was completed in 1970. It is a well-written piece in four continuous movements; despite its derivative qualities and a certain degree of (not unattractive) eclecticism, it displays considerable originality, particularly in the combination of markedly contrasting materials. Less interesting is the much earlier Sonatina for Violin and Piano (1942). It is pleasant enough in its use of an uncomplicated, free-wheeling diatonic style, but the music does not make a strong impression. Coupled with the Berio is Ezra Laderman's Stanzas, an extended piece in five movements for chamber orchestra. Like the Jones quartet, the work is extremely eclectic, but here the material is managed with a heavy-handedness that I find rather tedious. The composer certainly knows what he is about and the piece exhibits technical facility, yet the final impression is one of too much said about too little.

The performances are uniformly excellent. Even the unidentified chamber orchestra in Stanzas plays well. The liner notes, in all cases supplied by the composers, are also helpful.

**Crumb:** Black Angels. **Jones:** Quartet for Strings, No. 6; Sonatina for Violin and Piano. New York String Quartet; Paul Zukorsky, violin; Gilbert Kalish, piano (in the sonatina). Composers Recordings CRI SD 283. $5.98

**Berio:** Sincronie. **Laderman:** Stanzas. Lenox String Quartet (in the Berio); chamber orchestra, Jorge Mester, cond. (in the Laderman). Desto DC 7129, $5.98.

by Arnold Shaw

The Scott Joplin Renaissance

Ragtime: the missing link in pop and jazz

Four delightful albums from Nonesuch and Vanguard are the latest in a continuing effort by ragtime aficionados to revive the style that so roguishly expressed the jaunty spirit of America between the Spanish-American War and World War I.

What gives them special significance is that three of them are by classically trained pianist/composers who have sparked an interest and re-evaluation of ragtime among "serious" music critics. Joshua Rifkin, with a degree in composition from Juilliard and in musicology from Princeton, is a member of the Brandeis University music faculty. William Bolcom, with a Doctor of Musical Arts from Stanford, has taught music at Queens College in New York and the University of Washington. Both display deep feeling for the jingly-jangly, sportin'-house music and play the pieces reverently on upright pianos, just as they were written down by their composers. Yet the most satisfactory of the four albums is by Max Morath, who learned to play ragtime from his mother (a silent screen accompanist) and who has for years been an interpreter, collector, and performer of the turn-of-the-century style.

William Bolcom is more impressive than his Nonesuch colleague. Without sounding thumb-tacky, his touch is more typically raggy and he performs with more of a dance beat than Rifkin. In ballad-rags like Helio-
Scott Joplin—a composer without honor in his own time, his music is enjoying a major revival.

trope Bouquet, he achieves a bittersweetness that characterized Scott Joplin's more personal rags and that somehow escapes Rifkin's languorous, legato style. For those who seek a fuller insight into the scope and development of Joplin's work, Rifkin's two volumes are illuminating, even if Bolcom is the more expressive interpreter.

Opening inevitably with the well-known Maple Leaf Rag (1899), Rifkin pedals through sixteen rags, including Joplin's last, Magnetic Rag, written in 1914 when, frustrated and embezzled by the rejection of a ballet and two operas, the composer was literally going mad. We hear the harmonies grow more experimental and the texture richer in dissonance, chromaticism, and contrary melodic motion. The high point in Rifkin's program is his inspired playing of Solace (1909), hardly a rag and a piece of such lovely lyricism that current comparisons in high places of Joplin and Chopin do not seem inapropos. I would argue that he is closer to Mozart.

Like Morath's, Bolcom's album is not limited to Joplin, but includes other ragtime pioneers as well as three rags by himself (b. 1938) and an associate, William Albright (b. 1944). Ragtime Nightmare by sportin' house-owners Tom Turpin affords us a brief hearing of the so-called St. Louis School of ragtime—Joplin followed publisher Joseph Stark from Sedalia, Missouri to St. Louis where the pianists were more showy. Joseph F. Lamb's Ethopian Rag (1909) and Charles Luckeyeth Roberts' Pork and Beans (1913) give us an insight into the New York scene where "shouts" by Eubie Blake and Willie (The Lion) Smith, stride piano by James P. Johnson, and commercial rags like Irving Berlin's Everybody's Doin' It foreshadowed the future transformation of the style into pop.

Max Morath's double album constantly conjures up nostalgic images of dancers two-stepping, cakewalking, slow-dragging. Ragtime was rhythm music even when it was played as background for poker, rye whisky, or horizontal dancing. Duplicating six Joplin rags also to be found in Rifkin's two volumes, Morath plays with a smile, crispness, and rhythmic thrust that give his renditions an authenticity only approached by the two Professors (no quotes) of Ragtime.

Morath's second disc offers an instrumental expansion—guitar, banjo, and bass added—of a basically piano art. It profits mostly from the single-string banjo style of Jim Tyler, who played with Morath when he had his "Original Quartet" at the Village Vanguard in New York City's Greenwich Village. But the disc is interesting mainly as a novelty, and for the inclusion of James Scott's masterful Grace and Beauty rag and two rags written by Morath himself, one a polyrhythmic original.

Polyrhythmic, as the Morath original is called, is as concocted as its title, though it is not unattractive in its tricky syncopation. Along with the three contemporary rags in Bolcom's album, it raises a number of aesthetic questions. Since 1940 there have been periodic issues of ragtime recordings. Except for three albums released by Riverside Records (from piano rolls made by the pioneers themselves, Joplin, James Scott, etc.,), these releases have invariably been accompanied by hoopla about a Ragtime Revival. In the '40s there was seemingly a concerted push, with Wally Rose of Lu Watters' Yerba Buena Band recording rags for Columbia and Good Time Jazz, and other pianists cutting on Capitol and other labels.

In 1960 Max Morath, whose 100 Ragtime Classics is the largest published compendium of rags, presented a series of shows on NET-TV titled "The Ragtime Era." Two years later he offered a second series, "The Turn of the Century." Again there was chatter that ragtime was not nostalgia, but now.

And now we have a concatenation of events that makes a revival almost a reality. Morath may have touched off the chain with a one-man show in the spring of 1969 at Manhattan's Jan Hus Playhouse. By the summer of '71 Rifkin's first Joplin album was on Billboard's best-selling list of classical LPs. In rapid succession came "A Concert of Joplin Works" at Lincoln Center, the first full production of his opera Treemonisha by an all-black cast at the Memorial Center in Atlanta; and publication by the New York Public Library of Collected Works of Scott Joplin in two large, facsimile volumes. All this plus the recordings under review and the release of at least two other Joplin LPs on Audophile and Biograph Records.

What does all this add up to? A ragtime revival, no. (Why can't one love and enjoy ragtime for what it was, just as we appreciate the Romantic composers for what they were?) A Joplin revival, yes—also a much-needed reassessment of his creative contribution without the snobbery and prejudice that eventually sent him to a mental institution. At the beginning of the ragtime era, Musical Courier used such epithets as "vulgar," "filthy," and "nigger music" to reach the conclusion that "a superior race may not mingle with an inferior without causing degeneration, debasement." At the same time, the Musician argued that it was "not possible for coon song
composers to invent anything" unusual in rhythmic syncopation.

Nevertheless, America two-stepped, turkey-trotted, and cakewalked into the twentieth century to the off-beat rhythms of ragtime. After the John Philip Sousa Band introduced the sound in England, the craze swept across Europe, igniting even composers like Debussy (Golliwog's Cake Walk) and Stravinsky (Ragtime). When the onward-and-upward hopes inspired by the new century were exploded by World War I, Scott Joplin died the very day (April 1, 1917) we entered the conflict—ragtime died almost overnight (almost as swing did in World War II).

But long before there Tin Pan Alley had commercialized the style evolved largely by black "professors" playing in the sportin' houses, honky-tongs, and gambling saloons of the Midwest and South. In 1910 Irving Berlin launched his fabulous career as a songwriter with Alexander's Ragtime Band, a piano piece to which he added lyrics the following year. Other songwriters took up the craze with When Ragtime Rosy Ragged the Rosary, Ballin' the Jack, Twelfth Street Rag, and the famous Nola. The syncopated sound persisted into the '20s with Zez Confrey's Kitten on the Keys, Stumbling, and Dizzy Fingers. And though it is generally forgotten, Hoagy Carmichael's great standard Star Dust was originally published as a ragtime piano solo. Truth to speak, ragtime had never died—and that may be why it cannot be revived. Can you think of a single Western on the screen, radio, or TV without the sound of a raggedy, out-of-tune upright?

It is, in fact, because ragtime provides such an instantaneous evocation of a time and place that it cannot enjoy a large-scale revival. And composing a ragtime piece cannot be more than an exhilarating exercise, even if it is done as well as Bolcom and Albright do in Graceful Ghost and Brass Knuckles. For them, ragtime is not an expression of their world, time, and guts, as it was for Scott Joplin and his confreres. The pioneer creators of this primitive style and innocent sound not only did it better. They exhausted it, as Joplin's later and larger works reveal.

But what the current upsurge of interest in Scott Joplin has done is to remind us that ragtime is the missing link of jazz and pop. Had historians paid more attention to it, they would long ago have recognized the falsity of the New Orleans theory of the birth of jazz. Ragtime is not jazz since it is written-down music for piano. But it has the blue notes, syncopation, contrapuntal rhythms of jazz, since it is written-down music for piano. But it has Louis. Historians would also have had a clearer picture of the African alchemy worked by blacks on European material (march and rondo forms, diatonic scale, and marches). They would have earlier recognized the black origins of American pop since rags were written in the sixteen- and thirty-two-bar forms that dominated Tin Pan Alley until the rise of rock.

History and aesthetics aside, there is much listening pleasure in these ragtime piano records—the nostalgic sense of an innocent time underscored by a reminder of the travail endured by gifted as well as ordinary blacks. The current Joplin renaissance is a long overdue recognition of a neglected composer who had the talent without which there is no music—the gift of graceful and memorable melody.

---

An Evening with Scott Joplin

On October 22, 1971, the first concert ever devoted to Scott Joplin was sponsored by the New York Public Library, celebrating the NYPL's publication of The Collected Works of Scott Joplin. The album has been produced by Nonesuch Records and is available in a limited edition of 1,000 copies. Included are the Lincoln Center performances by three contemporary pianists as well as four excerpts from Joplin's then unproduced opera, Treemonisha.

The pianists are academician/performers William Bolcom and Joshua Rifkin, and jazz artist/composer/arranger Mary Lou Williams. Both Bolcom and Williams play rags previously recorded on Nonesuch by Rifkin (Maple Leaf Rag, Solace, The Ragtime Dance, Elite Syncopations, and Pine Apple Rag). Bolcom's renditions are superior by virtue of their tempos, phrasing, and dynamic contrasts. Mary Lou Williams, who adds tenths and other decorative devices, achieves a jazzy piano-roll sound somewhat less authentic than Rifkin's but she does capture a flavor that eludes him. But Rifkin shines in Magnetic Rag and in the concert waltz Bethena, both of which are available on his other Nonesuch albums.

The Treemonisha operatic excerpts, performed under the direction of John Motley, include The Corn Huskers, Good Advice, A Real Slow Drag, and an encore of We're Goin' Around (A Ring Play). All profits from the sale of this disc are of course going to the financially distressed NYPL. A.S.
over-all level of performance established in the first two volumes is once again in evidence here—as is the lavish presentation, which includes full scores of all three works. No. 9, a chorale cantata from Bach's Leipzig years, is very likely to be new to most record collectors since it has had only one earlier recording—a very old Grammaphone performance on the Renaissance label. Aside from occasional weak tone from the sopranos and Alto, the large opening chorus receives a wonderfully delicate, bouncy performance. The soprano/ Alto duet with flauto traverso, oboe d'amore, and continuo is the most interesting piece, however; the instruments develop a series of canons which become complex double canons when the vocal counterpoint, but the prevailing mood of gentile, loving sweetness completely belies the incredible technical prowess that went into its creation.

Cantatas 10 and 11 will be more familiar, since both have already had several recordings. No. 10, another chorale cantata, is known as the German Magnificat, since its text paraphrases the Magnificat, hymn of the Virgin Mary, traditionally sung at Vespers and on the feast of the Visitation of the B.V.M. The only weak link in this performance is the unnamed boy soprano soloist from the Regensburg Cathedral Choir, who lacks the vocal security of his counterpart from the Vienna Boys Choir Boys who sings in Cantata No. 11 and in several numbers in Volumes 1 and 2. Here, too, Telefunken is up against strong competition from Münchinger's superb performance of this cantata on a London disc (coupled with Bach's Latin Magnificat). The soprano soloist: there is Elly Ameling, who does a remarkably fine job.

Cantata No. 11 is in fact the Ascension Oratorio, and should be grouped with the similarly designated works for Christmas and Easter instead of with the cantatas. It is longer than the other two cantatas here (filling two record sides), is more festively orchestrated (three trumpets and drums, two flutes, two oboes, and strings), and concludes with a vigorous, foot-tapping chorale chorus. An alto aria with union violins, "Ach, bleib doch!" is borrowed from the same music from which Bach later borrowed the Agnus Deus of the B minor Mass, and Paul Esswood sings expressively. In fact, the whole performance here (by Harmonicourt's group and the Vienna Choir Boys) easily outclasses all the competition, past and present. I urge all cantata collectors to keep up with this remarkably fine series.

Moving on to the Angel recording of Cantata No. 147 and three mores, we find that, in spite of the presence of the same chorus employed in two cantatas in the Telefunken box, this is a very different kind of performance. There's an aria each for the four soloists, and the all-star performers guarantee some impressive singing and playing here. Janet Baker's aria is lovely and gentle with a delicately ornamented oboe line and Ameling is shimmering, though the tempo is a little slow and careful here. The tenor aria bounces gaily and the bass aria with trumpet is really majestic and regal. Still, Willeck's over-all view of the work shows discernible traces of Victorian religious sentimentality, so unlike the more incise Telefunken performances. In the rather too slow chorale, for instance, he goes for the long, arching line at the expense of individual articulations. And occasionally we sense some wringing of hands and tear-stained cheeks in an exaggerated attempt on the part of a few soloists to make the music expressive. You might prefer Richter's reading on Archiv, but this is still a superb performance—and it will be quite a few years before Telefunken reaches No. 147.

The King's College recording of Motets 2, 4, and 6 completes their recording of the canonical six, though I don't believe Nos. 1, 3, and 5 have ever been released in this country. (An even older Argo recording of No. 3, sung in English, is still in the catalogue, however.) Presumably, the question will never be answered whether these works should be sung with accompaniment or without. I believe they all should be supported by doubling instruments, but Willcocks, anxious to show off his group's skill, presents Nos. 2 and 4 a capella and No. 6 only with continuo, and these excellent performances support his argument admirably. The King's College Choir sings with its customary careful precision, silken tone, and perfection of diction (even in the treacherous "Fuerchte dich nicht, S. 226; Lobet den Herrn, alle Heiden, S. 228; Mein Verlangen; No. 57, Selig ist der Mann, cond. Philips 6500 080, $6.98. German Bach Soloists, Helmut Winscher, mezzo; Ian Partridge, tenor; John Shirley-Quirk, bass; King's College Choir, Cambridge; Academy of St. Martin-in-the-Fields, David Willcocks, cond. Angel S 36804, £5.98. Selected comparison: Münchinger Lon. 26103

Bach: Cantata No. 32. Liebster Jesu, mein Verlangen; No. 57, Selig ist der Mann. Elly Ameling, soprano; Hermann Prey, bass; German Bach Soloists, Helmut Winscher, cond. Philips 6500 080, $6.98. Selected comparison: Münchinger Lon. 26103

Cantata collectors are hereby notified that there's a bumper crop this month with three new releases containing six cantatas in all, and each recording has its excellent points. Let's see first what's in the Telefunken box, Volume 3 of a series which in about ten years will cover all two-hundred-plus cantatas. Performing duties continue to be shared by Harmonicourt's Viennese-based group and Gustav Leonhardt's Amsterdam forces, and the remarkably high...
Not Liverpool, not Cockney, not Yorkshire, not bass, not peak, not bigger-than-life. The Wharfedale W60E adds no coloration, no intonation, nothing that isn't in the music.

High Fidelity tested the W60E. They found its frequency response to be "quite linear (± 3.5 dB is a relatively small spread for a loud speaker) with wide-angle dispersion...high end dispersion excellent, with 15kHz clearly audible at 90 degrees off axis." They reported that the W60E "handled up to 100 watts before buzzing began," and that it produces the full dynamic range—"took 300Hz pulses to 261.5 watts (523 watts peak) in its stride with an output of 110dB for that input." They said that it has "exceptional definition...without a hint of the bigger-than-life quality that many speakers introduce...Its cleanliness becomes evident on careful listening."

The new W60E. A superb 3-way speaker system in a handsome enclosure. All the qualities that made the original W60 so popular, updated to today's sound.

Just $49.95. Write for a catalog and a copy of the High Fidelity test report.

You're listening to the music, not the speakers.

No phrase is taken for granted, no note perfunctorily put forth, no reasonable nuance of dynamic shading neglected in this fine recording of chamber music. And small wonder: All four participants are chamber players par excellence—though to be sure, Pinchas Zukerman is caught out in front of an orchestra upon occasion, just like Isaac Stern and other notable practitioners of the intimate art. All four musicians here, of course, have worked together as part of the Chamber Music Society of Lincoln Center, of which Charles Wadsworth is director, and their familiarity with one another has put them in a hand-in-glove relationship: they coalesce, move apart, interwine, give and take on a single impulse, and the ability to do this allows them a splendid flexibility in dynamics as well as an instinctive feeling for the just balance of parts.

The Beethoven is particularly attractive, and among its high points are the perfect interworking of violin and viola in the first trio of the second movement, the dark coloring and pure grit of the Allegro motto, the romping spirit of the finale, with its incisive rhythm and hair’s-breadth timing in the interlocking of parts.

The C.P.E. Bach duet is straightforwardly dealt with, as it should be, with even the little tag ends of phrases emerging gracefully. The Telemann is, to me, the least interesting of the three works—being, I imagine, more fun to play than to hear—but it is not the bore it might have been, thanks to the sheer quality of the performance. The fine legato line sustained in the Affettuoso movement and the sense of momentum in the finale are by themselves enough to sell the piece, with no questions asked.

Pinchas Zukerman—joining the group.

Available at last!

The Furtwängler Ring

The COMPLETE CYCLE

DAS RHEINGOLD
SIEGFRIED
DIE WALKÜRE
GÖTTERDAMMERUNG

(3 LPs)

Slip-case Edition • 19 Records—only $53.98*
With an all-star international cast that includes Ferdinand Frantz, Martha Modl, Ludwig Suthaus, Wolfgang Windgassen and Gottlob Frick. AND . . . in the set as a free bonus: THE SERAPHIM GUIDE TO 'THE RING'—a 1-LP narrated plot synopsis with musical motifs from the legendary 1953 recordings.

*Price optional with dealer.

SPECIAL $1.00 OFFER

To acquaint yourself with these recordings

Please send me . . . . copy(s) of THE SERAPHIM GUIDE TO 'THE RING'—the plot synopsis/musical motif disc taken from the Wilhelm Furtwangler conducted Ring of the Nibelung. My □ check □ money order in the amount of $ . . . . per each disc is enclosed.

Name

Address

City

State

Zip

Note: The complete 19 disc set is available only through your record dealer.

California residents add 5% state sales tax. Offer expires 12-31-72.

Angel Records, Capitol Tower—3rd Floor, 1750 North Vine Street; Los Angeles, California 90028

CIRCLE 5 ON READER-SERVICE CARD

Pinchas Zukerman—joining the group.

BERIO: Sincronie. Lenox String Quartet. For a feature review of this recording with works by Crumb, Jones, and Laderman, see page 80.

BROZEN: In Memoriam—See Thorne: Liebesross.


COUPERIN, L.: Chaconne in G minor; Allemande grave; Tombeau de Mr. de Blancrocher; Branle de Basque; Pavane in F sharp minor; La Piémontaise in A minor.
Introducing a new concept in automatic turntables.

Precision for under $100.

The new PE 3012 at $79.95

Precision performance in automatic turntables has always required good design, fine engineering, costly materials and careful manufacturing. In short, everything you've come to expect from the craftsmen of West Germany's Black Forest.

It still does, but with the introduction of the new PE 3012, the price of such precision is now within the reach of every music lover. At $79.95, the 3012 is very close in price to ordinary changers. But its quality features bring it even closer to turntables that are known for their high standards of precision performance. (And that are also priced accordingly.)

For example, the 3012 has a variable speed control that lets you match record pitch to live instruments and compensate for off-pitch records. A cue-control viscous-damped in both directions, so the tonearm rises and descends with gentle smoothness. And a single-play spindle that rotates with the platter instead of sitting loosely in the shaft where it could bind and cause eccentric wear.

No other turntable at or near $79.95 has any of these features. And no other turntable, even those priced at well over $100, has PE's exclusive fail-safe feature which protects the stylus by preventing the tonearm from descending to the platter unless there's a record on it.

The significance of all this to you is this: Even if your budget is tight, you no longer need to settle for an ordinary changer.

If you do insist on spending freely, there are two other PE's to choose from. At $119.95 and $149.95. Both are superb precision instruments, offering progressively greater sophistication.

But we think you should consider the matter carefully before spending more than $79.95. Our new brochure, which you can get by dropping us a card, should help you decide.
SEPTEMBER IS SUTHERLAND MONTH ON LONDON RECORDS

A thrilling event for all lovers of great singing.

Richard Bonynge’s fabulous edition of OFFENBACH’S THE TALES OF HOFFMANN

with

JOAN SUTHERLAND in all four soprano roles
Olympia, Antonia, Giulietta, Stella

PLACIDO DOMINGO in the great tenor title role

GABRIEL BACQUIER as the four villains
Lindorf, Coppelius, Dapertutto, Dr. Miracle

HUGUETTE TOURANGEAU as Niklaus

PAUL PLISHKA as Crespin

HUGUES CUENOD as Andres, Cochenille, Pitichinaccio, Frantz

JACQUES CHARON of the Comédie Française as Spalanzani as Spalanzani

with RICHARD BONYNGE conducting

L’ORCHESTRE DE LA SUISSE ROMANDE AND CHORUS

OSA-13106

This is very difficult music to perform adequately because everything here lives by accent, a sort of interior accent; it is a type of music that reveals itself by little coups. While Couperin places titles on his pieces, even calls some of them portraits of known persons, his attempts at descriptive music, at “effects,” are infrequent, and in this art there is no calculated exploitation of real personal dynamism. A good harpsichordist knows this and wants to be nothing more than the medium through which these evanescent accents are communicated—but such a medium cannot help having a character of his own. Or perhaps he wants to be a faithful witness—but a witness too cannot avoid exhibiting a personality. Whichever way the performer approaches this music, he must travel through the clichés, through the known patterns to the unknown ones; through the innumerable curlicues he must search out the significant.

Rafael Puyana is an excellent artist with very good technique; the fast movements he delivers with verve and clean articulation, but the more delicate pieces do not always reveal their inner accents, they are a bit foursquare with a degree of sameness. More variety in rhythmic and agogic nuances is needed when such a large amount of French harpsichord music is offered in one sitting. Couperin was a composer of genius, delightful and affecting, but the absence of sophisticated and highly individual conception in the presentation of his music can cause aural fatigue; the endless cascade of ornaments becomes tiresome.

Puyana does a creditable job, but I prefer Albert Fuller’s playing. He has a spacious way with the small and the slow pieces that gives them weight, he pays close attention to the constantly changing accents, his tempos are excellently chosen, and the pace fluctuates ever so discreetly. Above all, his execution of the ornaments is imaginative; by never being hasty or perfunctory it effectively removes the ennui they can create when routinely applied.

This is a highly recommended performance, the more welcome because half of the recording is devoted to Louis Couperin, the celebrated uncle. His music is very attractive and this elder of the clan deserves to be better known. The sound is excellent in both sets, though as usual with harpsichord recordings, far too clangorous for this instrument. Attention of the volume does help.

CRUMB: Black Angels. New York String Quartet. For a feature review of this recording with works by Jones, Berio, and Laderman, see page 80.

DEBUSSY: “My Favorite Debussy.” Van Cliburn, piano. RCA Red Seal LSC 3283, $5.98. Tape: * RBS 1268, $6.95; ** RK 1268, $6.95.

Clair de lune; Estampes; Arabesque; Préludes; Cello Suite no. 1; Symphonie pastorale; La Mer; En blanc et noir; Le Puceron.

Van Cliburn’s “Favorite Debussy” turns out to be a fairly catholic sampling of that composer’s output. He includes some of the purest examples of “impressionism” (how the composer came to loathe that word!) by way of Jardin sous le Clair de lune, and La Terrasse des audience du Clair de lune, one ex-
All cartridges are different. Empire cartridges are more different than others! Take a technical look for yourself.

How it works.
If you know how moving magnetic cartridges are made, you can see right away how different an Empire variable reluctance cartridge is. With others, a magnet is attached directly to the stylus, so that all the extra weight rests on your record. With Empire's construction (unique of its type), the stylus floats free of its three magnets. So naturally, it imposes much less weight on the record surface.

Less record wear.
Empire's light-weight tracking ability means less wear on the stylus, and less wear on your records. Laboratory measurements show that an Empire cartridge can give as much as 50 times the number of plays you'd get from an ordinary cartridge without any measurable record wear! HI-FI SOUND MAGAZINE summed it up very well by calling the Empire cartridge "a real hi-fi masterpiece ...A remarkable cartridge unlikely to wear out discs any more rapidly than a feather held lightly against the spinning groove."

Superb performance.
The light-weight Empire cartridge picks up the sound from the record groove with amazing accuracy. Distortion is minimal. (None at all could be measured at normal sound levels with Empire's 1000ZE/X and 999VE/X.) AUDIO MAGAZINE said of the Empire cartridge "outstanding square waves... tops in separation." HIGH FIDELITY noted "...the sound is superb. The performance data is among the very best." While STEREO REVIEW, who tested 13 different cartridges, rated the Empire tops of all in light-weight tracking.

X Designates newest improved version.

Empire Scientific Corp., Garden City, N.Y. 11530.

World Famous Long Playing Cartridges

Oct 1972

CIRCLE 28 ON READER-SERVICE CARD
ample of Debussy's cryptic, tongue-in-cheek late style (the octave étude); a hefty serving of the master's popular repertory including the bravura L'Isle joyeuse and Fireworks; and the lyrical Clair de lune and Girl with the Piazzas Hair.

Cliburn's way with the music is a bit unconventional. For one thing, he tends to favor hefty, red-blooded sonorities; for another, he prefer clarity to haze (although he does occasionally use the pedal for color). I found him especially admirable in the étude which is large-scaled, exciting, and completely without affectation. He also does right well with the large -scaled, exciting, and completely without affectation. For one thing, he tends to favor hefty, red-blooded sonorities; for another, he prefers clarity to haze (although he does occasionally use the pedal for color). I found him especially admirable in the étude which is large-scaled, exciting, and completely without affectation. He also does right well with the large -scaled, exciting, and completely without affectation.

Ravel: Daphnis et Chloé, Suites 1 and 2; Ma Mere l'Oye. Concertgebouw Orchestra/Haitink 6500.311

Mozart: Religious Choral Works. Vesperae Solennes de Confessore, K. 339; Exsultate Jubilate, K. 165; Kyrie, K. 341; Ave Verum Corpus, K. 618. Te Kanawa, Soprano; London Symphony Orchestra & Chorus/Davis 6500.271

Brahms: Piano Concerto No. 2 in B-flat, Op. 83. Arrau, piano; Concertgebouw Orchestra/Haitink 6500.019

Gregorian Chants: Benedictine Monks of the Abbey of Clairvaux 6580.061

Cristina Deutekom in

Vienna: Music by Zeller, Ziehrer, Johann Strauss, Jr., and Josef Strauss. Orchestra of the Vienna Volksoper/Allers 6500.228

Beethoven: Piano Concerto No. 4 in C, Op. 58, Arrau, piano; Concertgebouw Orchestra/Haitink 6500.019

Webber: Symphony No. 1 in C Major, Op. 19, 6500.154

On Philips Imports


Music for Baroque Trumpet: Works by Torelli, Bononcini, Gabrielli, Grossi, Perti, Smithers, trumpet; I Musici 6500.304

16th Century Italian Dance Music: Musica Reservata 6500.102

Earnest readings but miss some of the brooding electricity that is essential for a complete realization.

RCA's sound has a plangent reality. It's not the most colorful tone I've heard in Debussy, but the ear soon becomes accustomed. H.G.
“The performance of the LST is truly prodigious.”  
*High Fidelity Magazine*

The idea behind our Laboratory Standard Transducer was to offer engineers and scientists a quantitative standard where before there was none. Since its introduction to the professional, however, a number of these speakers have found their way into home stereo systems.

This fact is not so remarkable, though, since the AR-LST is simply a logical extension of the philosophy long employed at AR in designing loudspeakers for the home: The best loudspeaker is the most accurate one.

**Linear response**

*High Fidelity*’s recent review of the AR-LST (January 1972) reflected their appreciation of this approach: “The performance of the LST is truly prodigious. Its response was found to be among the most linear yet measured for a loudspeaker. From 50 Hz to 15,000 Hz, the LST was measured as flat within plus or minus 3 dB!”

**Flexibility**

The AR-LST offers a choice of six different energy output characteristics — the flat one shown here, plus five others — all accurately known and available at the turn of a switch. *High Fidelity* reported that “different program material (depending on variations in high-frequency emphasis and over-all tonal balance) did seem to call for different settings of this switch”, and that the various settings were “very useful for satisfying individual listener preference and/or suiting the playback to different types of rooms.”

**Overall performance**

*High Fidelity* summed up its reaction to the AR-LST’s unique characteristics this way: “The LST’s sonic accuracy becomes manifest not only in terms of the natural tonal balance it provides for all manner of musical material, but also in the way it reveals subtle differences in the upper midrange and high-end response of different recordings — differences that often are obscured by otherwise fine loudspeakers but which are of importance to the critical listener. With good recordings and an appropriately powerful amplifier driving them, a pair of LST’s are a joy to hear whether the material is rock or chamber music, grand opera or a baroque ensemble, Sinatra or a Mahler symphony.”

---

**Please send detailed information on the AR-LST, as well as a list of Demonstrating Dealers, to**

Acoustic Research, Inc.
24 Thorndike St., Cambridge, Massachusetts 02141

CIRCLE 1 ON READER-SERVICE CARD
simple folksong. Yet again, the piece is clearly Gerhard's own. It is a beautiful, strongly melodic vehicle of considerable virtuosity for the solo violin, written in a brilliant orchestral style and couched in a form which, despite its classical framework, abounds in original touches. In sum, the concerto is a fine example of Gerhard's diversified, undocentric approach to composition.

Yfrah Neaman plays the difficult violin part of the concerto most convincingly, and Colin Davis leads the BBC Orchestra in secure, well-shaped performances of both works (although these lack the excitement of the same orchestra's performance of Gerhard's Conzerta for Orchestra, also recorded on Argo). The sound is excellent, remaining clear even during several unusually soft and delicate sections featuring pitched percussion instruments in the symphony.


Just as the war started, RCA brought out a 12-inch 78 of excerpts from Gluck's Don Juan. Critics were astounded to see that the performance was by the "RCA Victor Orchestra," a wartime panic pseudonym for the Kammerorchester der Berliner Philharmoniker conducted by Hans von Benda (the original disc had been made for German Electrola in the mid-1930s). This beautiful record was the first many of us had heard of this great score. Then, in 1949, Rudolf Moralt and the Vienna Symphony recorded the music complete in the edition of Robert Haas; this disc was issued in the U.S.A. by Westminster.

Now we have the first stereo recording of this extraordinary score. Gluck wrote it in 1761 for the Vienna Court Theatre. In 1761 Haydn, a day's ride away from Vienna at Eisenstadt, was composing his first music for Prince Esterhazy—the Symphonies Le Matin, Le Midi, and Le Soir. Boccherini was also in Vienna, playing the cello in the court orchestra and composing his first string quartets modeled on Haydn's, which were widely played and discussed. In the middle of this activity, Gluck's score must have burst like a stylistic bomb. Here, in the last scene, is terrifying music (Gluck later used it as an entrance in the French version of Orfeo). Count Carl von Zin zendorf, who kept a diary which is mostly still unpublished, was at the first night of Don Juan at the Burgtheater on October 17, 1761. Zin zendorf wrote that the subject of this ballet de pantomimes was "extremely sad, lugubrious, and frightening" and added that Gluck's music was "very lovely."

With Gluck's spectacular Finale, the world of the Austrian Sturm und Drang was officially launched. But apart from this music for the dancing demons, the rest of the ballet is delightful. There is even an eighteenth-century pizzicato polka, and in one of the numbers the audience listener will be surprised to hear a Spanish fandango (No. 18) which Mozart also used for the prewedding ceremonies in Le Nozze di Figaro. Stylistically Don Juan is partly baroque, partly entirely modern. The use of the high trumpets in the so-called clarinome register looks backward, but many of the orchestral effects are very modern. Gluck took the trombones from the church loft and installed them in the orchestra, where they create a chilling effect in the Finale. Although the Finale is perhaps the most spectacularly modern piece in the whole ballet, its form, a chaconne, is a traditional baroque conclusion to opera and ballet (Mozart also had recourse to a chaconne in the ballet music to Idomeneo). Unfortunately the whole scenario has survived only in fragments, but there is enough evidence from contemporary sources for a clever impresario to be able to stage the work. What an opportunity for some enterprising ballet company!

Like everything I have ever heard Neville Marriner do, this record is stylishly impeccable and is, moreover, performed with gusto. The Academy of St. Martin-in-the-Fields is probably the greatest chamber orchestra in the world today. It puts to shame all the German and Austrian ensembles and is rivaled only by Renato Fasano's Virtuosi di Roma. In fact the record is a delight from beginning to end, not least the excellent sleeve notes by Erik Smith.

H.C.R.L.


Continued on page 98
That's the way Stereo Review described our XLM. High Fidelity headlined their review, "Superb new pickup from ADC" and went on to say, "...must be counted among the state of the art contenders." And Audio echoed them with, "The ADC-XLM appears to be state of the art."

With the critics so lavish in their praise of the XLM, there's hardly any necessity to add anything. Far better to let the experts continue to speak for us.

**Frequency response** The CBS STR-100 test record showed less than ±1.5dB variation up to 20,000Hz. Stereo Review...response is within ±2dB over the entire range. Audio Frequency response is exceptionally flat. High Fidelity

**Tracking** This is the only cartridge we have seen that is really capable of tracking almost all stereo discs at 0.4 grams. Stereo Review The XLM went through the usual torture test at 0.4 grams (some top models require more than a gram). High Fidelity The XLM is capable of reproducing anything found on a phonograph record. Audio

**Distortion** Distortion readings...are without exception better than those for any other model we've tested. High Fidelity The XLM has remarkably low distortion in comparison with others. Audio At 0.6 grams the distortion was low (under 1.5 per cent). Stereo Review

**Hum and noise** The XLM could be instrumental in lowering the input noise from the first stage of a modern transistor amplifier. Audio The cartridge had very good shielding against induced hum. Stereo Review

**Price** This would be a very hard cartridge to surpass at any price. Stereo Review We found it impossible to attribute superior sound to costlier competing models. High Fidelity Priced as it is, it is a real bargain in cartridges. Audio

The Pritchard *High Definition* ADC-XLM $50.
ONLY FOR
Music Lovers

Doesn't matter what kind of music you love. There's lots you want to know. Like what's available in the stores — on records and tapes — the new releases, the oldies, the revivals, everything.

There's only one authoritative source, recognized by record companies, musicians, librarians. It's Schwann.

Schwann is thorough and accurate. Contains everything from composers' names to list prices. Distributed through record/tape dealers only. But some stores are funny. They forget to order enough, and a few even chain their Schwanns to the counter!

So if your favorite store doesn't have Schwann, use the coupon below to tell us who he is and get acquainted with the treasury of information you'll find in Schwann.

Schwann-1 Monthly. Special new listing section has latest releases: records, 8-track cartridge and cassette tapes. Nearly 45,000 total listings in classical, recent popular, rock, jazz, musical shows, opera, ballet, electronic, quadrisonic, etc.

Schwann-2 Semi-annual supplement. Expands coverage of Schwann-1 in specialized categories: pop more than two years old, classic jazz older and re-released mono and reprocessed stereo classical recordings, classical on lesser-known labels, international pop & folk on domestic labels, spoken, educational, religious, etc.

SPECIAL PRICE SAMPLE OFFER
If your favorite store doesn't carry Schwann, order samples by mail. Prices include postage and handling.

- Schwann Sampler: one Schwann-1 (monthly) and one Schwann-2 (semi-annual) $2.00
- Latest Schwann-1 (monthly) $1.25
- Latest Schwann-2 (semi-annual) $1.00

I enclose $ for the items checked above.

Name

Address

City State Zip

Favorite music store

Schwann Record & Tape Guide
137 Newbury Street, Boston, Mass. 02116

CIRCLE 65 ON READER-SERVICE CARD

HIGH FIDELITY MAGAZINE
Here's your **FREE**

**HIGH FIDELITY**

"at home" shopping service!

It's easy! All you do is use one of the Reader Service cards at right... HIGH FIDELITY's Reader Service Department will take it from there. It's as simple as 1, 2, 3!

Just circle the number on the card that matches the number below the ad or editorial mention that interests you.

You'll also find the key numbers for advertised products in the Advertiser's Index.

Then type or print your name and address. Don't forget your zip code, it's important!

Drop the card into the mail. No postage is needed if mailed in the United States.

You'll receive literature, colorful brochures and specifications about the products that interest you... free and without obligation!

Use HIGH FIDELITY's "at home" shopping service today!

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
<td>29</td>
<td>30</td>
</tr>
<tr>
<td>31</td>
<td>32</td>
<td>33</td>
<td>34</td>
<td>35</td>
<td>36</td>
<td>37</td>
<td>38</td>
<td>39</td>
<td>40</td>
<td>41</td>
<td>42</td>
<td>43</td>
<td>44</td>
<td>45</td>
</tr>
<tr>
<td>46</td>
<td>47</td>
<td>48</td>
<td>49</td>
<td>50</td>
<td>51</td>
<td>52</td>
<td>53</td>
<td>54</td>
<td>55</td>
<td>56</td>
<td>57</td>
<td>58</td>
<td>59</td>
<td>60</td>
</tr>
<tr>
<td>61</td>
<td>62</td>
<td>63</td>
<td>64</td>
<td>65</td>
<td>66</td>
<td>67</td>
<td>68</td>
<td>69</td>
<td>70</td>
<td>71</td>
<td>72</td>
<td>73</td>
<td>74</td>
<td>75</td>
</tr>
<tr>
<td>76</td>
<td>77</td>
<td>78</td>
<td>79</td>
<td>80</td>
<td>81</td>
<td>82</td>
<td>83</td>
<td>84</td>
<td>85</td>
<td>86</td>
<td>87</td>
<td>88</td>
<td>89</td>
<td>90</td>
</tr>
<tr>
<td>91</td>
<td>92</td>
<td>93</td>
<td>94</td>
<td>95</td>
<td>96</td>
<td>97</td>
<td>98</td>
<td>99</td>
<td>100</td>
<td>101</td>
<td>102</td>
<td>103</td>
<td>104</td>
<td>105</td>
</tr>
</tbody>
</table>

| 106| 107| 108| 109| 110| 111| 112| 113| 114| 115| 116| 117| 118| 119| 120|
| 121| 122| 123| 124| 125| 126| 127| 128| 129| 130| 131| 132| 133| 134| 135|
| 136| 137| 138| 139| 140| 141| 142| 143| 144| 145| 146| 147| 148| 149| 150|
| 151| 152| 153| 154| 155| 156| 157| 158| 159| 160| 161| 162| 163| 164| 165|

* PLEASE TYPE OR PRINT *

**NAME**

**ADDRESS**

**CITY** ___________ **STATE** ___________ **ZIP**

[ ] I am a subscriber  [ ] I am not a subscriber

**NAME**

**ADDRESS**

**CITY** ___________ **STATE** ___________ **ZIP**

[ ] I am a subscriber  [ ] I am not a subscriber
See Reverse Side for FREE "at Home" shopping service!

There's more pleasure in store for you every month with HIGH FIDELITY . . .
Hartford’s “Top 40” WDRC AM/FM (serving the community for a half century!) relies on Stanton cartridges in a variety of operations.

Chief Engineer, Wayne Mulligan says “Stanton meets our stringent standards for reliability and sound quality in on-air playback and in the production of transfers.”

Stanton’s Model 681EE cartridge is their choice for auditioning original recordings and making transfers. Its incredible low mass moving magnetic system (\(\frac{1}{4} \) to \(\frac{1}{10} \) that of ordinary pickups) and its 10Hz to 20,000Hz response, contribute to its exceptional audio quality not only in professional but in home stereo systems, as well.

For on-the-air use, Stanton 500 Series cartridges are the choice for their ability to withstand rugged handling without sacrifice of audio quality, thus assuring high quality sound with minimum maintenance.

The Stanton Dynaphase headsets seen in both photos, enjoy professional acceptance for their true and full-bodied reproduction. They are lightweight and comfortable.

Whether it’s recording, broadcasting or home entertainment, enjoy professional audio quality with Stanton products. Write for literature to Stanton Magnetics, Inc., Terminal Drive, Plainview, N.Y. 11803

All Stanton cartridges are designed for use with all 2 and 4 channel matrix derived compatible systems.

CIRCLE 74 ON READER-SERVICE CARD
The Moravian Teachers' Choir, a group long associated with the music of Janáček, here provides an excellent sampling of the composer's music for male chorus, ranging from works of a political nature to lighthearted courting songs. With very minor exceptions, the performances are of first quality; the recorded sound is good; and the whole is a fine representative survey of Janáček's work in this genre.

The nine selections fall rather easily into three types. Four of them—The Soldier's Lot, Our Birch Tree, The Evening Witch, and Leave-Taking—are relatively uncomplicated pieces, using subjects and styles drawn from folk music. Although they are all enjoyable, The Evening Witch—part of a cycle written in the early years of the century especially for this choir—is probably the most interesting.

The Czech Legion, and the three choruses on texts of the nationalistic poet Petr Bezruč—Schoolmaster Halfar, Maryúka Magdúnová, and Seveny Thousand—are compositions of a patriotic, political nature. The first celebrates the exploits of the Czech soldiers who fought against the Central Powers in World War I; the Bezruč settings express anguished opposition to the Austro-Hungarian dominance over Czechoslovakia. All four are extremely effective, musically as well as politically. Maryúka Magdúnová, the tragic tale of a poor orphan, is the most successful in its use of dramatic, declamatory choral style.

The ninth selection, The Wandering Madman, stands by itself. On a text by Rabindranath Tagore, it recounts the story of a man who ceaselessly searches for gold, finds it by accident, and discovers his strength failing as he seeks its ultimate source. The three solo performers—soprano, tenor, and baritone—are rather undistinguished, but in no way detract from the haunting, eerie beauty of the piece. One can sense here a climax in the course of Janáček's choral composition.

The informative booklet enclosed with the disc falls down on only one count: It was evidently thought necessary to include texts and translations only for the Tagore and Bezruč settings. While these may be viewed as the most important pieces, the other works would benefit by inclusion of their texts as well.

This is a recording that offers fine performances of consistently interesting, and sometimes electrifying, music. It should be a valuable addition to anyone's collection of vocal literature.

A.M. Janáček: Lachian Dances; Taras Bulba. Huybrechts, cond. London CS 6718, $5.96. Selected comparison (Taras Bulba): Kubelík, DG 2530 075. Huybrechts, a Belgian still only in his mid-twenties, is a one-time winner of the New York Mitropoulos and European Von Karajan conducting competitions, a former assistant to both Bernstein and Szell, and a fast-rising star in the international musical world. He makes his London recording debut in a refreshingly nonconventional program which reveals both the extent and limitations of his present skills.

He does extremely well with Janáček's delightfully piquant Lašťe Tance, reminding us again how unjust is the relative neglect of pieces which should be every bit as popular as Smetana's Slavonic and Brahms's Hungarian Dances. Certainly two of Janáček's (Polehání and Piličky) are if anything even more irresistibly liltirg, while another (Starostidvý II) is a quite incomparably enchanting mood evocation. However, Huybrechts demonstrates less personality projection and less taut dramatic control in the much more elaborate and picturesque Taras Bulba Rhapsody—or at least he's made to seem so by comparison with last year's masterpiece by Kubelík. Then too, the present recording, admirably clean and honest as it is, is outmatched by the extraordinarily impressive DG engineering.

But we'll be hearing again, and often, from so promising a youngster as Huybrechts—and meanwhile his Lachian Dances should not be missed. I can't claim that they're preferable to the Newman/Telefunken version of a year and a half ago, since I haven't yet had a chance to hear those, but I can heartily recommend the present recorded performances for their own mighty engaging appeal.

R.D.D.

JONES: Quartet for Strings, No. 6; Sonatina for Violin and Piano. New York String Quartet; Paul Zukofsky, violin; Gilbert Kalish, piano. For a feature review of this recording with works by Crumb, Berio, and Laderman, see page 80.


Deutsche Grammophon will sacrifice nothing in their own revolutionary path to quality of performance and sound.

Deutsche Grammophon Records, Music-Cassettes and 8 Track Stereo Cartridges are distributed in the USA by Polydor Incorporated, in Canada by Polydor Records Canada Ltd.

CIRCLE 18 ON READER-SERVICE CARD

CIRCLE 61 ON READER-SERVICE CARD
All in the family.

In the space of a few short years, the critically acclaimed Revox A77 has established itself as the tape recorder of choice for the knowledgeable enthusiast.

Now, from the same dedicated design team that created the Revox A77 come two new meticulously engineered components, an FM tuner and a stereo amplifier, that extend performance to the limits of current technology.

Take the Revox A76 FM stereo monitor tuner. With its incredibly sensitive front end, unique dual action IF strip, specially developed discriminator circuit and two regulated power supplies, the A76 represents an entirely new approach to FM signal processing.

In fact, the Revox A76 sets new performance standards in a half dozen different categories.

But simply quoting a list of specifications, however fine, doesn't begin to describe the capabilities of this remarkable instrument.

For what distinguishes the Revox A76 from all the rest is its uncanny ability to capture the weakest signals with a clarity and a freedom from noise that is truly startling.

As for the Revox A78 stereo amplifier, it does everything a superb amplifier should do. And it does it just a little better.

Together or separately these remarkable components are a fitting addition to the Revox family and provide further proof of what we've said all along...

Revox delivers what all the rest only promise.


**IS YOUR PREAMPLIFIER AS GOOD AS YOUR EARS?**

Your first preamplifier was probably a kit or prebuilt economy model with minimum quality and just the basic features. Since then you no doubt have become more discerning and can hear more music than your old preamp "lets through". Perhaps it is hindering the development of your music appreciation? We suggest that you consider the new Crown IC150 control center for significantly increased enjoyment. For example, does the loudness control on your present unit really do much? The IC150 provides beautifully natural compensation whatever the volume. Similarly, your tone controls may give inaccurate effects, while the IC150 has new "natural contour" exponential equalizers for correct compensation at low settings. Is your preamp plagued with turn-on thump and switching pops? Crown's IC150 is almost silent. The three-year parts and labor warranty is based upon totally new op-amp circuitry, not just a converted tube design. Most dramatic of all is the IC150 phono preamp. No other preamplifier, regardless its price, can give you disc-to-tape recordings so free of distortion, hum or noise, and so perfect in transient response. It also has adjustable gain controls to match the exact output of your cartridge.

These are some of the refinements which make the IC150 competitive with $400 units, although you can own it for just $269. Only a demonstration can tell you whether you are ready to graduate to the IC150 and explore new horizons in music appreciation. May we send you detailed product literature today?

---

**Acustica** experiments with unusual kinds of sound production and in this respect resembles a series of such pieces that Kagel has written over the past several years. Here the idea is to combine music for live performance (played by five instrumentalists) with electronic music on tape. To match sonically the live portion (which is not electronically in any way) with the electronic material, Kagel has invented an array of new "instruments" for the piece (the full title of which is Acustica, for Experimental Sound Generator and Loudspeaker). Although the electronic portion is for the most part so simple as to seem perfunctory, the players evoke from their unusual instrumental arsenal a truly startling variety of sound effects. The result is a "noise" piece in the purest sense: Instead of musical line and development, there is only the momentary quality of the sound on which the ear can focus.

Kagel does this kind of thing very well (he has a sense of musical humor which doesn't hurt), although the one-hour-and-twenty-minute length of this work may well put off many listeners. The piece is divided into four independent sections, however, each of which is on one side of the two records; and the com-

---

by R. D. Darrell

**The Real Stephen Foster Rediscovered**

Some of our quintessentially "American" musical prophets, like Billings and Gottschalk, were honored in their own day, then neglected for years, and only recently have begun to make a comeback. Another, Irving Berlin, was largely ignored during his active life and only lately has begun to win at least some vogue attention. Stephen Foster, however, always has commanded inacceable mass popularity; yet, paradoxically, relatively few of his many works are generally known nowadays and these almost invariably only in arrangements that disguise or distort their inherent features. In particular, Foster is far too often known as a blackface minstrel. And while a few of his more representative nostalgic airs and songs of unrequited love are familiar enough, they are seldom if ever sung in the way Foster intended and as his contemporary listeners knew them.

Innumerable Foster recordings, past and present, have been of no help in replacing myth with truth—with only two exceptions of which I know: the 1959 collection by B. A. Robertson and ensemble with occasional banjo-only accompaniments (RCA Victor LSC 2295); and the 1963 recital by Richard Dyer-Bennet with piano accompaniment (Dyer-Bennet 11). But the former is largely confined to relatively familiar selections which are done in arrangements, even though these are exceptionally deft and in good taste; and the latter, while wider-ranging repertorially and done admirably "straight," was recorded in mono and probably never achieved a fraction of the circulation its merits deserve. These considerations throw into even higher relief the impressive attractions and authenticity of the present release. It comprises four duos and ten solo songs which are evenly divided between a mezzo-soprano and a baritone, and which represent a novel as well as familiar aspects of Foster's melodic inspiration. Except for one composition of 1846, the songs date from the 1850s and '60s, and they are done as they might have been in that period, with simple parlor piano or wheezy reed-organ accompaniments, occasionally augmented by discreet flute, violin, or in one case keyedy-bugle obligato. Even the instruments themselves date back to this period: an 1850 "square" piano, 1864 melodeon, etc., all drawn from the collection at the Smithsonian Institution in Washington where these recordings were made. And best of all, the performances by both vocalists and instrumentalists are ideally restrained yet fervently expressive, never even threatening to slip over the thin edge that separates genuine sentiment from the abyss of sentimentalism. Everyone and everything here wins lively praise, not excluding the clean unmimicked engineering and the complete, full-text liner notes.

Yet, for me at least, even such exceptional musicalological and other attractions are dwarfed by the sheer magic of Miss DeGaetani's voice and artistry. It's only now that I realize how much I lost in missing her earlier recorded appearances, mostly in avant-garde works, but even belatedly she is a rare discovery indeed. So while Nonesuch's remarkable "Songs of Stephen Foster" is a must for every collector of the best of all, the performances by both vocalists and instrumentalists are ideally restrained yet fervently expressive, never even threatening to slip over the thin edge that separates genuine sentiment from the abyss of sentimentalism. Everyone and everything here wins lively praise, not excluding the clean unmimicked engineering and the complete, full-text liner notes.

**Foster: Song Recital. jan DeGaetani, mezzo; Leslie Guinn, baritone; Gilbert Kalish, piano and melodeon; Robert Sheldon, flute and keyedy bugle; Sonia Monosoff, violin. Nonesuch H 71268, $2.98. Jeannie with the Light Brown Hair, There's a Good Time Coming, Will Thou Be Gone, Low? That's What's the Matter, Ah! May the Red Rose Live Alway, I'm Nothing But a Plain Old Soldier, Beautiful Dreamer, Mr., and Mrs. brown, Slumber My Darjeing, Some Folks.**
More soundtracks have come to life over an Altec system, so...

it makes sense they come alive best over an Altec system in your home. The famed Altec Voice of Theatre speaker system is used in nine out of ten movie houses. From this granddaddy of all speakers has emerged the new Altec 891A, shown below.

The 891A bookshelf speaker offers clear, balanced highs and lows. Full dynamics so you hear more music. More than you've ever heard before.

The Altec 891A sells for only $125 each speaker. Your Altec dealer will turn it on for you.

Or write Altec, 1515 S. Manchester Avenue, Anaheim, California 92803.

When music becomes more than just something to listen to, Altec is involved.
Neither the tempo nor the rhythmic freedom does the piece any harm; the pulse is never lost and the themes and structure are strong enough to bear some exaggeration. Although Menuhin is delightful—and technically flawless throughout, he probably reaches his height in the slow movement. His playing here is as close to singing as an instrumentalist can get; it makes one wonder if the movement wouldn't sound just as good arranged as a tenor aria.

The Zukerman recording represents the opposite pole of interpretation. It is more conventional in tempo; it is straightforward, extremely well played, but utterly lacking Menuhin's lushness. Choice here is obviously a matter of personal preference, either for slightly understated or slightly overstated romanticism. The two recordings make convenient reference points to show how very different a familiar piece can sound as played by two different men.

The London Symphony and Frühbeck de Burgos give Menuhin fine support here, but their presence is somewhat overwhelming in the D minor Concerto, a work first performed in public by Menuhin. He plays it excellently, but the over-all effect is spoiled because the orchestra is simply too large. Mendelssohn composed this at fifteen for one of his family musical salons; it is safe to assume that even the wealthy Mendelssohns did not have the luxury of an entire symphony at their disposal for informal soirées. For this work I prefer the recording by I Musici. Roberto Michelucci cannot quite compare to Menuhin as a soloist, yet the piece is more effective when played by the smaller ensemble.

A.M.

Mozart: Concertos for Woodwinds and Orchestra. Andreas Blau and James Galway, flutes; Lothar Koch and Karl Steins, oboes; Karl Leister and Herbert Stahr, clarinets; Gunter Piesk and Manfred Braun, bassoons; Norbert Hauptmann, horn; Fritz Helmis, harp; Berlin Philharmonic Orchestra, Herbert von Karajan, cond. Angel SC 3783, $17.94 (three discs).

For Oboe, in C, No. 1, in D, K. 412; No. 2, in E flat; K. 447; No. 3, in E flat, K. 495; No. 4, in E, K. 494a, Concert Rondo for Horn and Orchestra, in E flat, K. 371.

Selected comparison (oboe concerto):
Holliger, Stadlmair Arc. 198342
Scherzer, Windham Lon. 6178
Selected comparisons (horn concerto):
De Payer, Maag Lon. 6403
Holliger, Stadlmair Arc. 198342

Is it possible, just barely possible, that Mozart really was a minor composer? After hearing
Continued on page 106
To each his own.

Not everybody needs a concert grand piano, nor does everybody need the best cartridge Shure makes to enjoy his kind of music on his kind of hi-fi system. Eventually, you’ll want the renowned V-15 Type II Improved, the peerless cartridge for advanced systems and ample budgets. But, if your exchequer is a little tight, consider the M91E, widely acclaimed as the second best cartridge in the world. With a sharply circumscribed budget, all is far from lost. Choose any of the three models in the M44 Series, built for optimum performance in the easy-to-take $18-25 price range. Write for a complete catalog:

Shure Brothers Inc.,
222 Hartrey Ave., Evanston, Illinois 60204.

CIRCLE 70 ON READER-SERVICE CARD

October 1972
Karajan’s Schumann—
The Best Edition Ever of the Symphonies
by Harris Goldsmith

Von Karajan has to his credit two recordings of the Schumann piano concerto (the celebrated 1948 version with Dinu Lipatti and an excellent but less well-known version with Walter Gieseking from the mid-1950’s). There is also an earlier edition of the Fourth Symphony (EMI, vintage 1959, never released in this country). On the whole, though, Schumann has not been a particular mainstay in this conductor’s repertory, on or off records—a strange lacuna, because the present collection amply demonstrates his affinity for the music. As with the recent Scotch Symphony by Mendelssohn (another composer previously sighted in Karajan’s discography), this conductor’s flawless refinement, his classical bent, his patrician reserve, and his sense for atmospheric nuance make him a natural for early Romantic music. While it is possible to find Karajan’s Mozart, Haydn, and Beethoven a bit too smooth and soupy in tone, the touch of sensuousness is far more appropriate in Schumann.

In any performance of the Schumann orchestral works, there is the question of scoring to be considered. For years, Schumann was regarded as a son of orchestral stepchild. Felix Weingartner, for example, regarded all the last movements save that of the Spring Symphony as empty banality, and thought that this music made a better effect as a piano duet. Both he and Mahler recommended wholesale revisions in the instrumentation, and even a generally conservative director such as the late George Szell followed some of their suggestions without making them obtrusive. Leonard Bernstein, on the other hand, made a big point of recording the Schumann symphonies in their original orchestration, but he received such dismal, cavernous sound, and balanced his forces so poorly that nothing could be heard clearly. On their recordings, Paul Paray and Rafael Kubelik, though, appear to be using either Schumann’s original or something extremely close to it and yet then manage to obtain clarity and suavity.

Karajan provides another such example that Schumann did know what he was about. Perhaps the finished album will include a few words vis-à-vis the conductor’s choice of edition, but listening to the test records blind, so to speak, my ear heard little deviation from the printed text. There were no Mahlerian trombone reinforcements at bars 27 et seq. in the Adagio of No. 2. None of Selli’s strange octave-higher adjustments at bar 359 onward in the same work’s finale, nor were the horns allowed to double the clarinet and bassoon parts in the first movement of the Rhenish bars 61 to 70—although that revision is both frequently encountered and, I think, highly desirable (it helps bring out an important countermelody that at best sounds a bit thin and drab in Schumann’s original scoring). On the other hand, the opening of the last-named symphony is so smooth and lustrous in sound that it is quite possible the conductor has pruned the chug-chug tremolando figures of the violas and second violins as many conductors do. Karajan, then, may well be making a few adjustments, but if so they are of a highly subtle nature—nothing at all like the sweeping changes of a Mahler or a Toscanini (who added drum rolls and even extra trumpet motifs in the last movement of No. 2).

The type of recorded acoustic is as crucial to Schumann’s music as any minor (or major) details of scoring. For the most part, DGG’s sonics are highly attractive and appropriate. The producers have given us a moderately distinct pickup in a big hall with a fairly wide reverberation span, and yet plenty of impactive detail. In a way the sound here is rather like that afforded Kubelik in his earlier DGG traversal with the same orchestra—but save for a single exception—a bit sharper in perspective, lighter, and more brilliant. By comparison, Columbia’s uncluttered pickup for Selli seems a more boxy and unreal—everything is heard there to be sure, but the effect is rather canned and one-dimensional alongside the solid and lifelike Karajan sonatas. What little I have heard of Selli’s London set seems a trifle raw and brash by comparison; and as noted earlier, Bernstein’s sonatas are a full- fledged disaster.

Karajan’s account of the Spring Symphony has a vernal freshness. I have heard more frolicsome readings (the fine old Lendalfoot-Cleveland, for instance), but for a combination of clean-cut vigor and tonal beauty, Karajan’s would be hard to beat. He judges all the tricky tempo relationships to a tee and the fine-spin detail is all there yet not too obtrusive. The triangle in the first movement, to cite one specific, is used in a coloristic way and not like an overzealous alarm clock.

The first movement of the Second Symphony fits together with wonderful launtness, and Karajan’s decision to have his timpanist play with hard sticks is to be applauded. The Scherzo, though not unduly fast, has a Mendelssohnian fleetness and none of the spiky moto perpetuo show-off quality unpleasantly stressed in the readings of Solti and Szell. The finale seemed fast rather than powerful on first hearing, but after several repetitions I came to like it more. Certainly it must be admitted that Karajan holds the movement’s dynamic and lyrical dichotomy in admirable balance (with none of Szell’s flippant point-making at bar 474 after the l’istesso tempo). Unfortunately, the Adagio espressivo—my favorite Schumann symphonic movement—is disappointing as Karajan does it. He phrases very carefully but reverts to his earlier slick, bland style. I suspect that the problem is a combination of a slightly too reticent phrasing and a faulty recorded balance which blunts the timbres. Certainly the all-important bassoon countermelody beginning at measure 9 is sadly underrecorded. On the whole, Kubelik’s account is preferable and readers might like to know that Toscanini’s sensational 1941 performance is available on disc—in surprisingly good sound—from the Toscanini Society.

Karajan’s Rhenish is a splendid statement—clean, direct, admirably energetic, and beautifully engineered. His performance resembles Selli’s in its cleanliness and lack of rhetoric. Some listeners will feel that Giulini, Kubelik, and Toscanini all gave more profile and individuality to the music, but it is hard to fault Karajan’s statement in any way.

Karajan’s account of the Fourth Symphony is pretty much in a class by itself among current editions. He commands the orchestra with cracking impetus and produces an ideal blend of light clarity and dark mass, caressing rubato and hair-trigger rhythm. Selli’s account, by comparison, sounds a shade busineslike, while Kubelik’s goes slack in a few sections. At first I thought Karajan verged on mannerism in the finale, but he does it all so consummately I was ultimately convinced.

Everything considered, this is probably the best edition ever of the complete Schumann symphonies.


<table>
<thead>
<tr>
<th>Berlin Philharmonic Orchestra, Herbert von Karajan, cond. Deutsche Grammophon 2709 036, $20.94 (three discs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DGG 138860/138856, Lon. 2310, Szell, Ovd. Y3 30844</td>
</tr>
</tbody>
</table>
From the guys who brought you the world’s best tape recorders...
The world’s newest and finest receiver.

Take a second look and you’ll begin to see some of the things that make this receiver extraordinary. Like two tuning meters...three tape facilities...eight function-indicator lights. All of which do more than meets the eye.

That left-hand meter is a field-strength indicator when you’re tuning FM. Pull out the speaker-selector knob and it becomes a power effect indicator—a built-in early warning system that will avert amplifier clipping and speaker overload.

Tapes 1 and 2 control standard rear-panel jacks for two decks—reel-to-reel, cassette, cartridge—so you can copy and convert as well as play and record. Tape 3 is a typical Tandberg touch. It’s jacked into a preamp circuit that lets you use the amplifier controls to modify the output signal. With Tape 3, you can tone down, brighten up, boost and rebalance worn discs and imperfect tapes when you re-record.

As for the pilot lamps, they’re the visible indicator of eight function controls hidden under a flip-down cover. Two scratch/hiss filters for moderate or extreme high-frequency attenuation, rumble filter, loudness contour, Tape-3 preamp, mono left, mono right, and stereo.

What meets the ear in the TR1020 comes from the same no-compromise electronics that have made Tandberg tape recorders the industry standard.

To cite just a few points, there’s the true complementary output stages, a MOSFET front end for both AM and FM, separate power supplies, fully encapsulated electronic tuning, FM sensitivity typically 1.7 uV, and a capture ratio of 1.8 dB.

In sum, the TR1020 is pure Tandberg. An AM/FM stereo receiver that delivers about $600 worth of performance for $429.90.

Including the hardwood cabinet.

Don’t just look at it. Look into it. With your nearest Tandberg dealer.
Karajan’s bloodless album of wind concertos could easily be excused for entertaining the doubt. As might be expected, the Berlin soloists acquit themselves with honor, and Karajan’s authority and technical expertise produce an ensemble sound that rarely lets a scene show. But such pallid and powdered Mozart they give us, and such a plethora of candlelight-and-silver mannerisms. Didn’t this style peak out around the time of Ray mond Scott’s In an 18th Century Drawing Room? Evidently not, as a sampling of this collection at almost any point will demonstrate. Compare, for instance, the Holliger performance of the oboe concerto with Lothar Koch’s in the Karajan set; see how Holliger curves phrases, colors the tone, and varies timbre and body in a thousand ways, whereas Karajan’s man plays with little trio and a numbing lack of contrast. Or listen to the clarinet concerto in De Peyer’s tastefully inflected version, intimate and graceful, yet more expressive at every turn than Karl Leister’s accomplished but relatively drab reading. What, one comes to wonder, is Karajan trying to tell us in these performances? That the clarinet concerto is not, as we had imagined, a touching statement by a mature genius, but rather an interlude of dinner music? That the Flute Concerto No. 1, which we know to be a lively piece even though not the best Mozart, is actually rococo trash? Certainly the flutist, Andreas Blau, seems unwilling to suggest even mild pleasure, and his clear, uncolored tone contributes to the antiseptic severity.

The uniformity of approach, of course, is Karajan’s contribution, and is reflected clearly by the soloists in the flute and harp concerto. That genial charmer is no more only a light salon piece than the other wind concertos—Einstein has written that all these works evoke a certain fresh-air quality, as if windows had suddenly been opened in the concert hall. But Karajan, with his overconcern for smooth-edged attacks and orchestral homogeneity, keeps all windows closed. He drains off the emotion from the stronger works and deprives the lesser ones of their danceable pulse. How successfully he contrives all this may be heard during a few moments when his hand leaves the wheel—for instance, in the first-movement cadenza of the flute and harp concerto. Here, even the harp, which has plunked along in the distant background as if on an obbligato assignment, takes life, while the flute (James Galway) puts on a spirited and quite dazzling display.

But if one cannot agree with Karajan’s rather vulgar maneuvering and trivializing of Mozart, Barry Tuckwell’s remake of the Mozart horn concertos offers a thoroughly persuasive alternative. Tuckwell’s older version of these works, with Maag, stood up well against all competition, although Dennis Brain’s legendary mono performances remain in a special untouchable category. Tuckwell’s new disc, however, moves close to that category, thanks in large part to the lithe and sensitive accompaniments provided by Neville Marriner and the Academy of St. Martin-in-the-Fields. Marriner’s instrumental group includes a harpsichord, which may be justified for reasons of texture and sonority but also because its presence requires moderated volume levels that permit the horn to play in its most effective dynamic range, without cracking or forcing.

As on the older London disc, Tuckwell includes not only the four apparently complete concertos (there has long been some question about the two-movement K. 417) and the fragment in E flat, but also the unfinished Concert Rondo, K. 371. Tuckwell has filled out the orchestral parts to the Rondo—the solo part was finished by Mozart—and the result is a slight but pleasing addition to the horn repertoire. The E flat fragment is left, as in the older Tuckwell disc, to flicker out on an unresolved note, like The Art of Fugue.

Even without benefit of comparison with Karajan’s Mozart, the Tuckwell/Marriner performances would lift one’s spirits. The horn’s agility here is phenomenal: the sustained notes effortless, unwavering and dead on pitch; the staccato clean and unsmeared; the ornaments deftly integrated into the organic whole, not grafted to the music’s skin; the cadenzas (brief and sensible) flicked off with a trumpetlike flexibility and brilliance.

But what makes Tuckwell’s playing irresistible is not, in the end, that he plays the horn so well, but that he plays Mozart so well, in a way that redeems that composer from the impersonal clutches of Karajanism. A ticket, please, for Tuckwell.

D.J.H.

SHAPIRO: Rituals for Orchestra; Quartet for Strings, No. 6—See Shapira: Three Pieces for Orchestra.

SHAPIRO: Three Pieces for Orchestra.

SHAPIRO: Rituals for Symphony Orchestra; Quartet for Strings, No. 6. London Sin-
Of course!
Only AKAI combines exclusive Automatic Distortion Reduction System (ADRS) and GX Head with Dolby to achieve unparalleled Cassette recording quality...approaching that of the finest reel-to-reel recorders.

ADRS—a remarkable engineering breakthrough—is available only from AKAI. Eliminates almost all high frequency distortion above 8000Hz.

And only AKAI combines ADRS with Dolby. Add to that the extended frequency range of AKAI's exclusive GX (glass and crystal ferrite) head and it all adds up to the most perfect cassette recording in the world today.

The magnificent new GXC-46D and GXC-65D Stereo Cassette Recorders are both incredibly engineered with AKAI's exclusive GX head...ADRS...Dolby...chromium dioxide tape selector...hysteresis synchronous outer-rotor motor...pause indicator lamp...and auto-stop pinch wheel release.

In addition, the GXC-65D includes AKAI's exclusive Invert-O-Matic for continuous repeat/reverse. And the Invert-O-Matic mechanism is unconditionally guaranteed for two years—parts and labor.

What's more, superbly engineered AKAI Cassette Recorders are now available at prices starting as low as $159.95*.

Introduce your ears to the new era in cassette recording. Now. At your AKAI dealer.

*Model CS-35D

AKAI America, Ltd. / P.O. Box 55055, Los Angeles, California 90055

For your nearest AKAI dealer call 800-243-6000 Toll Free. In Connecticut, 1-800-882-6500.

In Canada: Pro-Sound Distributors, Ltd. Vancouver, B.C. In Mexico: Mexico International Imports, S.A., Apartado Postal 66-672, Mexico 12, D.F.
Sony's got a brand new angle.

Sony's new TC-377 ($289.95) has a reversible slanted base that provides the perfect angle for either horizontal or vertical operation. This Sony three-head tape deck is loaded with extra performance and convenient features. Also available the Sony TC-366, with TMS. See both only at your Sony/Superscope dealer.

Total Mechanism Shut-Off. Sony's TMS completely turns off recorder mechanism when end-of-tape is reached.

Ferrite and Ferrite Heads. Long life, high performance, lasts up to 200 times longer than permalloy type.

Three-Heads. For Tape/Source monitoring and wider frequency response.

Sony's got a brand new angle.

Ferrite and Ferrite Heads. Long life, high performance, lasts up to 200 times longer than permalloy type.

Total Mechanism Shut-Off. Sony's TMS completely turns off recorder mechanism when end-of-tape is reached.

Three-Heads. For Tape/Source monitoring and wider frequency response.

You never heard it so good.

SONY SUPERSCOPE

©1972 SuperScope, Inc. 8144 Vinedale Ave., Sun Valley, Calif. 91352 Prices and models subject to change without notice. Consult the Yellow Pages for your nearest Sony/SuperScope dealer. Send for free catalog.

CIRCLE 63 ON READER-SERVICE CARD

#1 SOUND

#1 COMFORT

Clark/Stereophones... The ultimate in performance and comfort.

Send for literature on all our models.

David Clark COMPANY INCORPORATED

360 Franklin St., Worcester, Mass., 01604

CIRCLE 14 ON READER-SERVICE CARD


Selected comparison (Quartet No. 13): Amadeus DGG 139194

A couple of years ago, on the occasion of the fifth anniversary of its founding, one of the members of the Guarneri Quartet remarked in an interview that as time went on the group found itself growing mellower and more "European." He recalled that after a concert in Germany a listener had commented that the Guarneri played like a German ensemble, while some German ensembles were beginning to play more "American." Well here it is, corroborated in this splendid Schubert A minor Quartet: a performance that refuses to be hurried, refuses to slice into accents simply for the sake of quick excitement, that takes the time to let inner and bottom voices make themselves felt. And it is perhaps this last characteristic which is the real secret of the Guarneri's special quality. For in Schubert, after all, so much more goes on than merely the activity of the top melody line, and even when it predominates, the little confirming comments of the viola, for instance (see the Minuet), or the sturdy reassurance of the cello (during that hymnal beginning of the Andante) are a good part of the story. There are four ensembles around today that match the Guarneri in this exceptional sensitivity to balance, and when this is added to its other assets,
At JVC we invented the most advanced 4-channel system there is. If that doesn’t impress you, we’ve also invented another one. The simplest.

We call it the 4600. The name is the only thing complicated about it. This unit comes complete with a 4-channel amplifier, an extremely sensitive FM/AM tuner and 4 two-way acoustic suspension speaker systems.

Now why is this simple? It’s simple because all four speakers are quickly balanced at the same time by one single lever. We call it Pin Point Control (PPC). This eliminates 4 or 5 different controls. And makes the 4600 as simple to operate as an ordinary stereo. Maybe simpler.

PPC is important. Because when it comes to balancing sound, a lot of people with good ears are all thumbs.

The 4600 is also simple because it plays anything—monaural and stereo records, and the new 4-channel records coming out (matrix and discrete) — at the flick of a switch.

With the 4600 you can even hear sounds you haven’t heard before from the stereo records you now own, as well as from stereo tapes and FM stereo broadcasts. Because its amplifier can pick up previously hidden sounds and direct them to the rear speakers, giving you the feeling of a live performance.

Hearing new sounds from the stereo records you now own. That’s something you’ll find very easy to understand.

What’s more, even though the 4600 starts out as a simple basic unit, it’s ready to be as sophisticated as you want. Because it has all the necessary inputs and outputs that make it compatible with whatever you now own. Or whatever you want to add.

In addition to the 4600, there’s also the 4800. This works just as simply as the 4600, except it has a 2- and 4-channel 8-track cartridge player, instead of an FM/AM tuner.

The 4600 and the 4800. Two simple 4-channel systems at prices you’ll also find very easy to understand.

If hearing all this about our simple 4-channel systems still hasn’t impressed you, stop by a JVC dealer. Hearing the 4600 and the 4800 is still the most impressive thing about them.
Guarneri has pulled off another triumph. Emphasized; and the Pier. But somehow the Guarneri loses nothing more overt energy than in the Guarneri performance, and the finale is tighter and snappier. But somehow the Guarneri loses nothing by its deliberation—quite the contrary. The deep introspection of the first movement is emphasized; and the finale, if it doesn’t “snap,” has the springiness of a cat’s tread, and that is even harder to achieve. In short, the Guarneri has pulled off another triumph.

The Guarneriana performance re-emphasizes the points already made, though the pacing is less deliberate and the bite is more emphatic. One’s overriding impression, once again, is the magnetism of the inner voices, which adds an extra dimension to the work.


Selected comparison (sonata): Schneider/Serkin Van. 71146

Oistrakh and his keyboard partner of twelve years, Frieda Bauer, combine a seasoned mellowness with a driving vigor that is wonderful for Schubert; it comes to the fore right away in the first movement of the A major Sonata, where the gentle and benevolent presentation of the first subject is surmounted by a surprisingly intense second subject. I say surprising because the generally high-voltage performance by Schneider and Peter Serkin makes less of the contrast between the two sections. You can argue the movement both ways, and I must acknowledge that even Oistrakh cannot make me lessen my regard for the older recording in toto, in which the piano part has a feeling of restrained power at the cohesiveness between the two players is almost unique. But there is room for both versions, and they are not as far apart as one might have imagined. Oistrakh and his pianist bite into the Scherzo and let themselves go with an exciting impetuosity without reaching the almost demonic point that Schneider and his pianist do, and Oistrakh is extremely sensuous, almost insinuating, in the trio. The Andantino, with its simple little tune that might serve as one of those deceptive openers in a Paganini caprice, is handled with the directness it deserves, and the interplay between violin and piano, here as elsewhere, is breathtakingly beautiful. The finale is a tenser matter with Oistrakh than with Schneider, but the rhythmic control remains elegant and resilient.

The Fantasia—which emptied the hall when it was first played in Vienna in 1828—is a thorough job. Oistrakh captures the disorder, the insinuation, the extreme inwardness, of that amazing opening, and then Miss Bauer takes flight and soars. The Allegretto is jubilant; the theme and variations are to the point, and the brilliance of the march theme in the course of the final section seems to put a stamp of approval on everything that has gone before. Only one complaint: The Melodiya recording renders the violin sound rather harshly, and double stops in particular tend to be edgy. The piano, on the contrary, is mellow and clear. But don’t let considerations of sound, in this case, stand in your way.


It is always a pleasure to hear Schumann’s piano textures unfold under the hands of a master such as Arrau. The sonority, though sparsely pedaled (and in this case closely mixed), takes on infinite deepness and variety. Arrau’s almost fanatical care for detail and his imaginative sense of color and inner voices add a third dimension to the music. You might say he provides the requisite magic carpet to launch Schumann’s soaring inspiration.

Alas! There are difficulties with the take-off. This pianist, it has always seemed to me, is at his best in concert. In the recording studio he is sometimes apt to become ensnared in his own meticulousness. Here a fussy concern for point-making effectively prevents the music from taking wing. Time and again, longer lines are fragmented by little hesitations and altitude is simply lost. This is particularly true of the Op. 13 which Arrau apparently regards as a series of individual studies rather than one continuous whole. Everything points to that conclusion: the slow tempos, the insertion at arbitrary points of the five introspective variations expunged by the composer from his
When it comes to fine stereo receivers...

a Marantz is a Marantz is a Marantz.

That means Marantz not only makes the finest most expensive stereo equipment in the world, but also the finest least expensive stereo equipment. Take the Marantz Model 2215 FM/AM stereo receiver for only $249.95. You're getting 15 watts RMS per channel, and exclusive Gyro-Touch tuning. You're also getting the same Marantz prestige, the same craftsmanship, and the same Marantz quality offered in our most expensive equipment.

If you're a purist and willing to pay for perfection, then you want the finest, most expensive stereo FM receiver in the world. The Marantz Model 19. Yes, it is $1200. It is the best stereo FM receiver money can buy. And will more than justify your investment.

$249.95

$1200

Same name, same quality — regardless of price. That's Marantz' superior quality, inherent in the full line of components priced from $1200.00 to as low as $149.95. And to complete your system, choose a Marantz Imperial speaker system.

We sound better.
lightness. Arrau brings warmth and charm to the score, but not the humor and whimsy. But even here I have heard more sparkle and on them without asking too many questions. The earlier Abegg Variations give less room to the music rather than the object itself. Verrted as to be unnerving. In the end I have the feeling that we have Arrau’s subjective reactions to the music rather than the object itself. The earlier Allegro Variations give less room for such soul-searching, and fortunately Arrau is mostly content to lavish beautiful pianism on them without asking too many questions. But even here I have heard more sparkle and lightness. Arrau brings warmth and charm to the score, but not the humor and whimsy. To sum it all up, Arrau is not at his best here, but students of fine pianism should hear these performances anyhow: They can learn a great deal from them. H.G.

STRAUSS, R.: Capriccio.

Countess Gundula Janowitz (s) Count Dietrich Fischer-Dieskau (b) Flattand Peter Schreier (t) Olivier Hermann Prey (t) La Roche Karl Ridderbusch (bs) Claron Taffana Troyanos (m) Monseur Tappe David Thaw (t) Italian Tenor Anton de Ridder (t) Italian Soprano Arleen Auger (s) Major Domo Karl Chri$olam Kohn (bs) Chorus and Orchestra of the Bavarian Radio. Karl Böhm, cond. Deutsche Grammophon 2709 038, $17.94 (three discs).

It was time for another version of Capriccio. The pioneering Angel set, now about thirteen years old, was never more than sonically adequate, and at some points (the Octet, for example) the recording failed to do anything like justice to the music’s complexity and amplitude. Today the Angel album sounds lusterless and lacking in clarity. Not so the performance itself, which still comes through as vibrant, lucid, and, best of all, touching. Everyone engaged on that project seems to have been fired by a sense of occasion. The compacted exchanges that form so large a part of the work’s structure are handled with impetuosity and ease, the text is buoyantly alive, the big dramatic moments are compelling, the lyrical scenes are irresistible. A lot of this comes from the admirable conducting of Wolfgang Sawallisch, a lot from the fine cast of singers led by Elisabeth Schwarzkopf.

To give a warm greeting now to Karl Böhm’s recording on DGG is not by any means to imply that the earlier performance is superseded. These sets are not alternative choices. Each is musically good enough to coexist side by side.

What makes the present set so welcome, however, is its vastly superior sound. The simple fact that the opera has been recorded in stereo means that the many strands of the music are clearer, the textures are more transparent, and the balances more finely adjusted. There is a new intimacy and richness to the music, a satisfying combination of delicacy and refulgence, of subtlety and sensuousness—essential features of Strauss’s later compositions. With these discs it is now possible fully to appreciate the radiance of the composer’s final operatic vision.

Capriccio, subtitled A Conversation Piece for Music in One Act, is an intimate work. Though it is scored for a large orchestra, it begins with a string sextet, and it never strays far from ordinary social behavior. Its subject, which might at first glance seem dauntingly abstract for a theater piece, is nothing less than the perennial conflict between words and music, and the need for a composer of opera to reconcile one with the other. But Strauss never mistakes the stage for the lecture platform, and his argument is exemplified—that is, brought to life—by characters who embody the different sides of the dispute. At the center stands the Countess Madeleine, on either side her suitors—Olivier, a poet, and Flamand, a composer. The two men are to collaborate on an opera in her honor, and she must choose between them. None of these personages is as engagingly human or sympathetic as earlier Strauss characters like Elektra, the Marschallin, the Composer, the Dyer’s Wife, or Arabella, but even if they do not call forth our love and understanding in quite the same way we never doubt that they exist. They engage our attention and draw us into Strauss’s imaginative orbit. Unlike their predecessors, they do not have destinies to fulfill, they have personalities to reveal. They constitute Strauss’s aged homage to man’s civilizing instincts. Because of their unheroic scope, because their medium is lyrical discourse, they are best encountered in the confines of a tiny house (though preferably one with high performing standards!) like Glyndebourne or the Cuvilliés’ Theater in Munich. Or, for that matter, on disc. Although...
It records your own kind of sound and plays it back through your own kind of system.

You’ve got your own 8-track recording studio with the Wollensak 8050A preamp deck. You can record onto 8-track cartridges from your turntable, receiver, tape or any sound source. And save a lot of money by doing it yourself. Then the 8050A plays back these cartridges through your stereo system. Or you can play them back in your car unit.

For recording, the Wollensak 8050A’s Logic Control Circuitry includes a unique “cueing” feature that always assures you the tape is at the beginning. Accidentally erasing previously recorded tracks is a thing of the past with its automatic eject system. Dual illuminated VU meters with a switchable automatic record level make it easy to turn out professional recordings. And you’ll find the selection you want to hear right away with its fast-forward control.

Another idea: If you’re getting into 4-channel sound, the Wollensak 8054 8-track playback deck will help keep your system right up to date. It plays back four separate channels for true quadrasonic sound. Or it can also play your present stereo cartridges. Nobody knows more about sound-on-tape or has more experience in tape recording than 3M Company. Find out why at your nearest Wollensak dealer.
Why Does INFINITY
Use a 12” Woofer in
Their $139 Speaker?

Virtually all speaker systems in this price range use a 10” or smaller woofer. This is to cut costs and to obtain decent midrange response. However, we were determined that at $139.00 our Infinity 1001 should have the widest and smoothest possible response for a bookshelf-size system.

From the basic laws of physics, we learn that the resistive component of the air load on the bass speaker is greater for larger woofers. This means that at low bass frequencies a 12” woofer will take a much larger “bite” on the air than a 10” woofer. Furthermore, a 12” woofer has to move a much smaller distance than a 10” woofer for equal sound pressure levels. This fact implies lower distortion characteristics for the larger woofer, particularly on the low organ tones and heavy bass guitar passages in rock music. Bass you can actually feel. The Infinity 1001’s 12” woofer is loaded into a transmission line enclosure. This type of loading provides very uniform response down to extremely low frequencies while maintaining smooth and well-dispersed midrange response.

What we have accomplished is a "tight" and well-dispersed midrange response. However, we were determined that at $139.00 our Infinity 1001 should have the widest and smoothest possible response for a bookshelf-size system.

We have learned that the resistive component of the air load on the bass speaker is greater for larger woofers. This means that at low bass frequencies a 12” woofer will take a much larger "bite" on the air than a 10” woofer. Furthermore, a 12” woofer has to move a much smaller distance than a 10” woofer for equal sound pressure levels. This fact implies lower distortion characteristics for the larger woofer, particularly on the low organ tones and heavy bass guitar passages in rock music. Bass you can actually feel. The Infinity 1001’s 12” woofer is loaded into a transmission line enclosure. This type of loading provides very uniform response down to extremely low frequencies while maintaining smooth and well-dispersed midrange response.

What we have accomplished is a "tight" and well-dispersed midrange response. However, we were determined that at $139.00 our Infinity 1001 should have the widest and smoothest possible response for a bookshelf-size system.

Another feature contributing to the 1001’s sonic accuracy is the utilization of a frequency boost network for the tweeters which allows constant energy response to 20 KHz. Both front and rear facing tweeters combine to eliminate the high frequency beaming effect which is sonically irritating and which hampers stereo imaging.

Can you hear the result of all these innovations in an inexpensive speaker? Emphatically, yes. Compare the 1001 with any other bookshelf on the market... regardless of price.
Introducing Pickering Headsets

They make the difference for those who can hear it.

You will hear the difference the moment you put them on. For Pickering has engineered a remarkable difference into these fine headsets.

Their sound is unmistakably natural, imparting a fuller sense of realism to the music. And Pickering’s attention to important details goes even beyond the electro-mechanical innovations which result in their extraordinary reproduction performance.

Nothing has been done in a perfunctory manner in the new Pickering headsets. Their matchless styling is the result of tasteful employment of color dynamics, making their appearance as impressive as their sound. They can be comfortably worn over long listening periods. From the natural conforming adjustable headband, to the softly comfortable ear cushions, right on down to the flexible heavy-duty plug—every detail is special with Pickering.

When it comes to headphones, however, words simply can’t do it. Demonstration does. Put ours to the test against any other comparable units... you’ll hear the difference.

ILLUSTRATED: Pickering Model PH-4955, a true two-way reproduction system with individual woofer and tweeter and L-C crossover network in each earpiece. Frequency Response: 22-20,000 Hz. Hand-stitched foam-filled headband and ear cushions, coil cord and flexible heavy-duty plug. Only $59.95. Also available, Model PH-4933, with single full-range speakers. Only $39.95.

Thorne: Liebesrock.  Anderson: Chamber Symphony.  Brozen: In Memoriam.  The most interesting item here is Francis Thorne’s Liebesrock. Although the formal organization seems almost painfully obvious, considering the gradual accumulation of materials until a climax is reached near the end, Thorne sustains interest through his effective use of musical elements derived from rock. He does not introduce these in a literal way, but gradually, almost imperceptibly, weaves them into the total fabric of the composition. The work is intended as a ballet score, and I suspect that it would be particularly effective in that role. The other two composers represented, T. J. Anderson and Michael Brozen, are new to the catalogue. Anderson’s Chamber Symphony has many interesting and imaginative moments, but it is structurally so fragmentary that it has difficulty sustaining its extended, one-movement plan. Brozen’s In Memoriam, a song cycle for soprano and string orchestra, is a very pleasant, if not overly compelling, setting of excerpts from Tennyson’s poem of the same name. It is well-written, solid music of a somewhat conservative nature, but to my ear it lacks the focus of a really strong compositional personality. The performances by the Royal Philharmonic Orchestra under James Dixon seem quite good, though there are occasional ragged moments. I suspect that rehearsal time was on the short side. Soprano Janet Price, who sings the Brozen, has clearly studied the work very carefully. Her somewhat hard, forced sound, particularly in the upper register, is not to my taste, but she communicates the sense of the score quite effectively. R.P.M.

Wagner: Die Meistersinger: Excerpts.  R.D.  Paul Robeson: Songs of My People.  Paul Robeson, bass; Lawrence Brown, tenor and piano.  The sound on Seraphim is slightly less clean than it was on Angel, but the 78s still seem uncommonly good.  D.S.H.

Lauritz Melchior: Opera Recitals.  Excerpts from works by Wagner, Verdi, Meyerbeer, and Leoncavallo, recorded between 1923 and 1935. For a feature review of these historic reissues, see page 75.

Paul Robeson’s old (musical rather than political) admirers will be happy to learn that after too long an absence as a black-listed, expatriate nonperson he is alive and (I hope) well back in his hometown of Princeton, New Jersey. They will be even more delighted to re-hear—for the first time in many years for most of us—what he sounded like in his now-legendary Victor recordings of 1925-29. The present program, admirably free from electronic rechanneling or any other kind of gimmick, comprises no less than twenty selections dubbed from their original 78-rpm pressings. The shellac-disc scratch may be present but so is the startlingly unfaded “presence” of the singer himself, and there is even considerable tonal naturalness in the ideal Lawrence Brown piano (and occasionally vocal) accompaniments. Ironically, the original releases were black-label 10-inchers (i.e., pop series) yet even in those days Robeson was widely recognized as unique: not as an art-song interpreter, like Roland Hayes, to be sure, but as a master of eloquent simplicity as well as possessing one of the truly great bass voices of all time.

His all-spiritual repertoire here (except for the somewhat superfluous Dunbar Johnson’s ‘Li’ Gal’) is of course done in the arrangements (by Brown, Boater, Burleigh, et al.) so long thought necessary for concert presentation of any folk music—even the dialect-spelling of
LAFAYETTE INTRODUCES...today's most sophisticated 4-channel SQ receiver...

Outstanding Features Include

- SQ Wave Matching Full Logic Decoder Circuitry— for the Ultimate Playback of SQ Records
- "Composer" Circuits for Derived 4-Channel Sound from All Matrixed/Encoded Program Sources Presently Available!
- Phase Locking FM-MPX Decoder for Optimum FM Stereo Separation and Minimum Distortion
- Four 47.5-Watts per Channel RMS Amplifiers

PLAYS

<table>
<thead>
<tr>
<th>SQ 4-CHANNEL RECORDS</th>
<th>SQ 4-CHANNEL FM BROADCASTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISCRETE 4-CHANNEL</td>
<td>DER VED 4-CHANNEL</td>
</tr>
</tbody>
</table>

Tomorrow's sound is here today with Lafayette's new LR-4000 4-Channel SQ 300-Watt AM/FM Stereo Receiver! It has been meticulously engineered to provide all the flexibility, compatibility, and professional features necessary to enjoy the exciting new dimension of 4-channel sound now and for years to come! Highlighted by dramatic new styling and advanced state-of-the-art circuitry, the LR-4000 features an extremely sophisticated SQ Wave Matching Full Logic Decoder with Automatic Gain Control for the ultimate in playback of SQ records. SQ FM Broadcasts are a reality now and the SQ Decoder section of the LR-4000 will flawlessly decode these into thrilling 4-channel sound!

We've also included Lafayette's famous "Composer" circuitry in the LR-4000 and it will reproduce your present 2-channel stereo records, stereo tapes, and FM stereo broadcasts in the amazing derived 4-dimensional sound. Its four powerful 47.5-watt/channel RMS amplifiers flawlessly reproduce any derived 4-channel (open reel or 8-track cartridge tape format) program source you plug in. And it doesn't end here...

The sophisticated tuner section of the LR-4000 contains a Phase Locking FM-MPX decoder which insures optimum FM-stereo separation and minimum distortion—a feature you will find only on one of the most expensive components! Believe it or not, this is only the beginning of the LR-4000! It's something you will be proud to own, enjoy, and listen to for years to come. LAFAYETTE IS 4-CHANNEL!

Send Today!
FREE!
YOUR ONE COMPLETE BUYING GUIDE FOR "EVERYTHING IN ELECTRONICS" The World's Largest Consumer Electronics Catalog

Send my FREE LAFAYETTE 1973 Catalog 730 to:

Lafayette Radio Electronics
P.O. Box 10, Dept. 19102, Syosset, N.Y. 11791

Name
Address
City State Zip
For new bright sounds a new Sharpe production Model 10/10. Improved design of the famous top-rated Model 10A. Smooth, brilliant, full response. Striking new decor.

NEW MARCH II
For new bright sounds to satisfy the highest standards of discriminating professionals and audiophiles alike. Smart new appearance with advanced acoustical designs.

NEW MODEL 7/7
See this new budget-priced version of one of Sharpe's most popular models. Price and quality make it a "best-buy." Light-weight stereo listening. Rich new ebony decor. Your Sharpe dealer will gladly demonstrate the complete Sharpe Stereo line.


Anyone who enjoyed the television re-creations of Tudor England last winter in The Six Wives of Henry VIII and Elizabeth R. may have noticed the irresistibly delightful music. Credit-watchers know the man responsible for their pleasure was David Munrow. whose Early Music Consort will rekindle your memories with this lively selection of instrumental dances. I can't recall if any of the selections on this disc were actually played on the television series, but any of them could well have been. The lusy enthusiasm of a Netherlandish band pipping away at Tielen Susato's joyful dances conjures up the young Henry cavorting about and showing off his dancing skill and high spirits before his young Spanish queen. And the more elegantly refined chamber style of Thomas Morley's consort lessons with their rich instrumental color combining strings and plucked instruments is an aural counterpart to the intricate brocades, starched ruffs, and jeweled coiffures of Elizabeth's wardrobe.

Unlike Morley, Susato leaves the instrumentation up to the performers. Munrow has chosen a delightful and effective variety of combinations from the rackety sound of the full band with its drums and iambourines to a buzzing consort of crumhorns and the mellowness of recorders and lute which lend an appropriate pastel color to Susato's adaptation of Josquin's melancholy pavane Mille regretz. The personnel of the two ensembles is almost completely different, but the performances are uniformly excellent.

R.D.D.

Delrama Dust Dat

UNIQUE ANTI-STATIC RECORD CLEANING DEVICE

- Rotating Nylon Velvet Sleeve
- Spans all Record Grooves
- Removes Dust, Dirt and Grit
- Adjusts to any Record Player
- No Fluids Required

FOR MORE INFORMATION WRITE

Delrama INTERNATIONAL
37 Newtown Road
Plainview, New York 11803

$9.95

High Fidelity Magazine

CIRCLE 37 ON READER-SERVICE CARD

CIRCLE 17 ON READER-SERVICE CARD
YOU CAN'T HEAR OUR TAPE FOR THE MUSIC

When you listen to a TDK tape, all you can hear is the living sound, just the way it reached the tape. No background hiss. No distortion. No dropouts or fluctuations in output level. Nothing added, nothing left out.

Whether your thing is cassette or open-reel recording, TDK has the tape that will give you the best results with your deck or recorder. The only sounds you will hear are the sounds you put on the tape.

World's leader in tape technology.


Super Dynamic Cassettes. Gamma ferric (SD) oxide for response to 20,000 Hz. The tape that turned the cassette into a high-fidelity medium. 30 minute, 60 minute, 90 minute and 120 minute lengths.

Deluxe Low-Noise Cassettes. High-output extended-range tape in the TDK ultra-reliable cassette. 30 minute, 60 minute, 90 minute and 120 minute lengths.

Maverick Cassettes. Economy plus TDK's ultra-reliable cassette. 30 minute, 60 minute and 90 minute lengths.

TDK ELECTRONICS CORP., LONG ISLAND CITY, NEW YORK 11103

CIRCLE 78 ON READER-SERVICE CARD
Harvey Fuqua, an original member of the Moonglows, has reassembled this powerhouse group from the Fifties and produced a brand-new disc featuring their delightful vocal harmonies. The Moonglows had eight undisputed years of success during those days when today's Golden Oldies were once new. Here they resurrect two of their greatest hits. "Sin

Mosekela is a distinguished black artist. His music has for years ridden a unique line somewhere between jazz and black pop music. This album was recorded in England and has a particularly beautiful ballad called Minawa by S. Toure. The track features a gorgeous piano solo with no credit.

The point of the double review is the art work. Perhaps music reviewers are not supposed to notice such things, nor comment on them. Certainly we do not comment often enough. Art work is critical to sales, for one thing. It is the first element that attracts the browser to an album by an unfamiliar group. It is also a highly sophisticated field, for all its lack of acclaim.

These two albums are the most striking I have seen in a long time. The Wishbone Ash cover folds out into a long color photograph of a helmeted and capped warrior viewing an empty, misty forest. At the far side of the photo is a small shining object in the sky that appears to be a flying saucer. The blend of medieval and science fiction hits with powerful impact. Graphics are credited to Hipgnosis, probably a British company.

Hugh Masekela's album is ingeniously designed with several fold-out flaps, none of which give in the way of the disc itself. Each bears a reproduction, either a painting or a sketch, of the work of Dumile Feni, presumably a black artist, whose work is strong, knowing, and emotional. Graphic designs (and one fine portrait photo of Masekela) are by Tom Wilkes and Barry Feinstein for Camouflage Productions of Los Angeles. Wilkes and Feinstein have been responsible for the number of extraordinary album designs, including those for Delaney and Bonnie, Barbra Streisand, and Dave Mason.

Check these two albums next time you're in a record store. Records are more than music. They are also big business. M.A.
**NILSSON: Son of Schmilsson.** Harry Nilsson, vocals and piano; vocal and instrumental accompaniment. *Take 54: Remember (Christmas)*: Joy; *Turn On Your Radio, You’re Breakin’ My Heart*: Spaceman; The Lottery Song; *At My Front Door*: Ambush. I’d Rather Be Dead. The Most Beautiful World in the World. RCA LSP 4717, $5.98.

Nilsson has been hinting at genius for years and now has finally achieved it. I don’t know if “Son of Schmilsson” makes Nilsson a mad genius or just a little torrid in the central lobes. “Son of Schmilsson” is a complete joy. The album flows well, shifting from one kind of mood to another contrasting one as if the two were born together. In all, “Son of Schmilsson” is a complete joy.

N.

TWO SONGS. *Take 54* and *You’re Breakin’ My Heart*. Take lyrical steps that can only be called “poetic licentious.” *Remember (Christmas)* is a fine “standard” ballad. Joy is a bogus c&w “poetic licentious.” Remember (Christmas) is a sly calypso which builds to a fine prelude, The Most Beautiful World in the World.

The album flows well, shifting from one kind of mood to another contrasting one as if the two were born together. In all, “Son of Schmilsson” is a complete joy.

RICHIE HAVENS: The Great Blind Degree. Richie Havens, vocals and guitar; Paul Williams, guitar; Emile Latimer, drums; Eric Oxenide, bass; Bob Margouleff and Malcolm Cecil, Moog synthesizer; orchestral accompaniment. What About Me; Fire & Rain; In These Flames; Think About the Children; Fathers & Sons; Teach Your Children; What Have We Done. Stormy Forest SFS 6010, $4.98.

Richie Havens remains among the best interpreters—one of the few recording artists who regularly sacrifices songwriters’ royalties for musical integrity. There is no one Havens composition on this L.P. which indicates that he knows he is not the best songwriter in the world. There is nothing wrong with the album save two things: the “see me, feel me, touch me, heal me” segment from Tommy (used as a tag at the end of Fire and Rain); and the string arrangements. Why Havens, with a voice that is rich, emotional, and powerful, feels the need to add sweetening is beyond me. It’s like three inches of icing on a one-inch cake.

Still, the album flows despite the occasional schmaltz. Note especially Dino Valente’s What About Me; James Taylor’s Fire and Rain; Cat Stevens’ Fathers and Sons; and Graham Nash’s Teach Your Children. There is an emphasis on children, especially child-parent relations, running through the album.

OCTOBER 1972
Write Today for Our FREE 28
page Wholesale Audio Catalog

*DIXIE, one of the largest stereo whole-

ers.* See our new 28 page Wholesale

Price Catalog, or write for quotes. Choose

the famous brand stereo equipment and

accessories you desire. Everything shipped

factory-sealed.

Hi-Fi Fidelity WHOLESALE

460 Central Avenue

East Orange, New Jersey 07018

(201) 673-0600

We Give DISCOUNTS

ON HI-FI COMPONENTS

Factory Sealed Cartons

Franchised Distributor

Quick Shipment

WRITE FOR QUOTATION

Over 67 years of reliability

IS WHY STEREO & HI-FI

Buyers CAN BE SURE OF

SAVINGS AT RABSONS

At Rabsons Competitive Prices, Reliability and

Personal Service have been bywords for over

67 years.

It's so easy and safe to deal with Rabsons.

As close as your telephone — as near as your

mailbox. Fast Air Mail Response on Quotation

Requests. Franchised Distributor for Hi Fi Lines.

All merchandise brand new in factory sealed

cartons, shipped double-packed, fully insured

promptly from our warehouse. Greater savings

on complete systems • Export packing • 220

Volts, 60 Cycle merchandising a specialty • Free

list of monthly specials.

Before you buy get a Rabsons quote... you'll be glad you did!

RABSONS 57 ST. INC.

119 West 57th Street, New York, N. Y. 10019

Tel. Area Code 1-212-247-0070

CIRCLE 31 ON READER-SERVICE CARD

and the liner notes include some philosophy

on the generation gap from a book. Havens has

written, The Great Blind Degree.

M.J.

De Sylvia, Brown & Henderson

Revisited. Cab Calloway, Blossom

Deane, Gloria De Haven, Dorothy

Louden, and Charles Rydell, vocals.

orchestra, Norman Paris, arr. and cond.

Broadway: Time Goes Dreaming Again; Without Love. Heel Beat.

My Song: Isn't It June?, I Want To Be

Bad; seven more. Painted Smiles

1352, $4.98.

Vincent Youmans Revisited. Cab

Calloway, Blossom Deane, Gloria De

Haven, Dorothy Louden, Charles Rydell,

Mary McCarty, and Maureen Stapleton,

vocals, orchestra, Norman Paris and Dick

Hyman, arr. and cond. Drums in My Heart,

Mean Man. Happy Because I'm in Love,

Oh Me, Oh My, Rise and Shine, The One

Girl. He Came Along, eight more. Painted

Smiles 1354, $4.98.

Ira Gershwin Revisited. Blossom

Deane, Mary McCarty, Danny Meehan,

Charles Rydell, Ethel Shutt, and Margaret

Whiting, vocals; orchestra, Dick Hyman,

and cond. Give a Girl a Break; It Happens

Every Time; In Our United State; Shoes

With Wings On; Applause; Boy Wanted;

A Rhyme for Angela; Swing Tote; six more.

Painted Smiles 1356, $4.98.

Oh it's a nice day after all. That crazy man Ben

Bagley has found another way to get his

unique albums aired.

I cannot resist producer Bagley. He goes to

so much loving trouble to give us gifts we

didn't know we wanted. He pores through

dusty catalogues of such composers and musi-
cal comedy teams as Gershwin, Cole Porter,

Rodgers and Hart, etc. He then chooses the

most obscure and least appropriate songs,

dresses them up with a showy orchestra and

some singer you haven't heard from in years,

and then presents the whole package with

an affection that makes rejection impossible.

Bagley's liner notes are as touching and

funny and unlikely as his albums. This is from

the "Vincent Youmans Revisited" set: "Vin-
cent Youmans was born in New York, the son

of a prosperous manufacturer. He joined the

Navy in 1917. Many of his finest musicals were

nautical musicals. Mr. Youmans was very

good of sailors. I also have something else in

myself which is ..." His albums were

two thousand albums on your shelf, you still have

nothing like Ben Bagley. He requires his own

index card and "miscellaneous" won't do.

Whether or not you seek out Bagley's three
new albums listed above depends on your own sense of whimsey. Myself, I wouldn't miss Ben Bagley for the world.

**BOOKER T. & PRISCILLA:** Home Grown.
Booker T., vocals and keyboards; Priscilla, vocals; rhythm and strings accompaniment. *Save Us from Ourselves; Born Under a Bad Sign; Maggie's Farm; five more. Share SP 4351, $5.98.*

Booker T. Jones and his wife, Priscilla, seem determined to make a jazzlike treatment of rhythm and blues with Priscilla's rather extravagant attempts at singing soulfully. After listening to the result, I can only conclude that Booker T. seems to have lost his musical judgment and Priscilla at best achieves nothing more than parody. It seems as if two colossal egos are at work here and, rather than compromise, both have decided to do their thing as loudly, repetitively, and with as much eagerness as they could possibly muster.

*Born Under a Bad Sign,* one of the cuts on this disc, is over eight minutes long and *Who Killed Cock Robin?*, a Booker T. and Priscilla composition, runs on for twelve endless minutes and twenty seconds. These extreme lengths give Priscilla the opportunity to display every wail, bellow, moan, and groan that she can possibly summon forth from her larynx and the results are far from illuminating. In addition, Mr. and Mrs. Jones perform two Dylan tunes, *Maggie's Farm* and *Don't Think Twice, It's All Right.* They suffer in the process.

Booker T. once led one of the better-known soul bands, Booker T. & the M.G.'s. One can only hope that he rediscovers his roots.

**RANDY BURNS:** I'm a Lover, Not a Fool.
Randy Burns, vocals; strings, rhythm, keyboard, and vocal accompaniment. **Hold On, I'm a Lover, Not a Fool:** She's No Good; eight more. Polydor PD 5030, $5.98.

Let's say this for Randy Burns: He is a talented young performer! A folkie from Manchester, Connecticut, Burns not only can create a simple and occasionally elegant song but he can also sing his own material with a warm, unaffected delivery. There's plenty of feeling on this disc's opener, **Hold On.** The title tune is also a solid number with a stand-out pedal steel guitar back-up by Bill Keith. Lisa, a perfectly conventional song backed primarily by piano, is also totally lovely. Burns's vocal on *Lady Rain Again* is a prime example of his ripe singing style.

Burns is not at a stage in his career when everything that appears on one of his discs is polished to perfection. The back-up voices here, for example, are sometimes exceedingly shrill. Burns needs to find a way to distinguish himself more clearly from the horde of other folk singers who have had the same musical influences and take the same approach to their music. "I'm a Lover, Not a Fool," does clearly indicate, however, that he is headed in the right direction.

H.E.
jazz

JOPLIN: Piano rags played by Joshua Rifkin, William Bolcom, and Max Morath. For a feature review of this recording, see page 81.

*BENNY GOODMAN: The Great Solosists. Ben Selvin's Orchestra; Buddy Campbell and His Orchestra; Ben Pollack and His Orchestra; Roy Carroll and His Sands Point Orchestra; Lloyd Keating and His Music; Ted Fishmen; Mills Musical Clowns; Steve Washington and His Orchestra. I've Got Five Dollars; One More Time; Bag O' Blues; eleven more. Biograph C 1, $5.98.

*JACK TEAGARDEN: The Great Solosists. Jimmy McHugh's Bostoniaians; Mills Merry Makers; Cornell and His Orchestra; Ben Pollack's Orchestra; Wingy Mannone's Orchestra; Frankie Trumbauer's Orchestra. Frantic Rhythm; Where You're Smiling; Diga Diga Doo; eleven more. Biograph C 2, $5.98.


Arnold Caplin of Biograph Records has scored a significant breakthrough in American jazz history by arranging to lease certain masters from Columbia for release on his own label—this marks the first time a major label has made such an agreement. The arrangement became possible because Caplin was interested in recordings which Columbia, in the normal course of events, would probably never release on microgroove.

The first fruits of this deal are a bonanza for collectors whose 78s are becoming worn to a frazzle or who have never had an opportunity even to hear some of the fringe-area jazz of the late '20s and early '30s. They include the first 12-inch LP collection of the Boswell Sisters and two discs by the studio bands that recorded for Columbia and the American Record Company (Perfect, Banner, Vocalion, Harmony, Velveteen) as Mills Merry Makers, the Ten Freshmen, Jimmy McHugh's Bostoniaians, Buddy Campbell and His Orchestra, and Roy Carbon and His Sands Point Orchestra, as well as using such real life leaders as Ben Pollack, Ben Selvin, Wingy Mannone, and Frankie Trumbauer. These are the groups that make up the Goodman and Teagarden releases. The tunes are, with two exceptions (Sr. James Ir -mand and Beale Street Blues on the Teagarden disc), pop songs of the moment; but with the Dorsey brothers, Jimmy McPartland, Charlie Teagarden, Eddie Miller, Adrian Rollini, and Bill Moore among those helping out Benny and Big T, the performances are filled with the sparkle of airy, casual jazz.

It is incredible that the Boswell Sisters have been neglected for so long. Connie Boswell's unique arrangements—with their changing tempos, fascinating harmonies, imaginative use of scat phrasing and remarkable built-in sense of swing—are unlike the writing for any other vocal group (and what a pale follow-up the Andrews Sisters were!). Beyond the writing, there is the wondrous colorful vocal texture of the trio, keyed to Connie's very personal vocal quality, and—far from least among the merits of the Boswell Sisters' records—the excellent jazz backing they got in the early '30s from groups that included the Dorseys, Bunny Berigan, Joe Venuti, Eddie Lang, and Dick McDonough. This set is scarcely "the best of the Boswell Sisters" but it includes a few of their lesser efforts—but there are several topnotch examples of the marvelous mélange of ideas that cropped up in their performances, including "There'll Be Some Changes Made, If I Ain't Love, Sentimental Gentleman from Georgia, and Mood Indigo." J.S.W.


Although Stan Kenton has formed his own label, Creative World, this two-disc report of one of his English concerts in early 1972 comes out on London Records—and happily so, because it gives the band the benefit of London's Phase-4 recording which catches the full color of both the power and the shading of the Kenton juggernaut. The program is a well-balanced mixture (much like the programs he plays everywhere these days) of flamboyant recent additions to his repertoire (Hank Levy's Chiapas, Bill Holman's Malaga, Ken Hanna's Bogan, slow ballads featuring Kenton's piano (What Are You Doing the Rest of Your Life) and some old Kenton favorites (The Peanut Vendor, Opus in Pastels, Artistry in Rhythm).

For veteran Kenton followers, the most provocative aspect of the album is his contemporary view of some of his old pieces. Opus in Pastels, for example, which features the saxophone section, remains much as it was in the 1940s, although Kenton's present saxophones play it a bit gingersly, lacking a lead with real bite. Intermission Riff, on the other hand, has been completely recast, starting with a perky, off-center piano bit and building in much more complex fashion than the straightforward riff of yore when Vido Musso pumped it out. The best of these old works is one that has always been one of Kenton's most completely realized pieces, the lovely Inver- hide, which retains all its gentle charms even though the present band is really too top heavy on slow pieces such as this. J.S.W.


High Fidelity Magazine

This volume presents most of Ives's previously unpublished writings, dovetailed into a 3-part form by Kirkpatrick who has devotedly arranged, edited, and annotated them. Part 1: The Ground. This tells Ives's life, his views on music, critics and criticism. In Part 2: Scrapbook. Ives discusses his music. Part 3: Memories, is devoted to biographical and autobiographical reminiscences.

The appendix lists his music, contains other writings of Ives that round out memoirs, material clarifying his relationship with persons who influenced him, a play and story Ives thought had operatic possibilities. Three indices: The dates, the music, the names. A book of incomparable value to all devotees of this unique American composer. No. 2101 ... $12.50


Some songs seemed to belong only to this great stylist of the haunting voice. Many collectors have everything he recorded, whether in first editions or in the publications released since his death. They surely will want this revealing biography. No. 2102 ... $6.95

UNFINISHED SYMPHONIES. Rosemary Brown.

Autobiography of the widow of London housewife; her experiences with the spirits of Liszt, Chopin, Schubert, and other great composers who visit her regularly. Talk with them and guide her hands to play and write music. An album of some of the music she "received" has been released. No. 2103 ... $6.95


In the past decade, the international art world has "discovered" the comic strip as a significant contemporary art form. Horn documents in his learned introduction the worldwide influence of Hogarth, named by French critics the "Michelangelo of the comic strip."

Now Hogarth presents a new pictorial version of the novel that inspired the original comic strip—completely redrawn for this handsome volume. A fascinating book and a marvelous gift for any generation. No. 2104 ... $9.95


Haydn was "the first to work out the possibilities of the symphony and the sonata and to show what their special qualities are ... among the first to establish the orchestra as we know it. This book is an excellent introduction to the composer's life and work. The author is a world-renowned Haydn authority. No. 2615 ... $6.95


In this first authoritative, analytical study of the development of American popular song, composer Wilder traces its roots, illustrates its evolution through the innovations of its most brilliant composers, and focuses on the special qualities—melodic, harmonic, and rhythmic—that have distinguished this form of musical expression from that of other countries. Musical examples from more than 700 songs are included. A serious—albeit engagingly accessible—book on a too-often patronized art form. No. 289 ... $15.00

NORMAN ROCKWELL ILLUSTRATOR. Deluxe slipcased edition.

It can be conjectured that the success of this splendidly produced book is based on a need to re-capture for a time at least Rockwell's uniquely benign and humorous view of American life. Dorothy Canfield Fisher (in her preface): "In a period when wormwood and vinegar are the fashionable flavorings, it is genuine originality for Rockwell to dip his brush into the honey pot of loveliness and zest in living." 437 illustrations, 43 in color, plus 30 years of Saturday Evening Post covers. A gift to warm your or a friend's heart. No. 297 ... $20.00


Had there been no black music, there would be no popular American music. So says the author in this comparative study that explicates the social and cultural matrix within which this music was created. No. 2105 ... $6.95

THE RECORDINGS OF BEETHOVEN. As viewed by the Critics of High Fidelity.

To celebrate the Beethoven Bicentenary. High Fidelity published the most immense critical discography ever undertaken by any magazine, appraising every available recording of the composer's works. At the end of the year, these separate discographies were completely revised and updated and are here collected into one convenient book. It is hard to imagine any record collection without it on an adjacent shelf. Index to performers. No. 2618 ... $6.95

RECORDS IN REVIEW. 1972 EDITION.

The 17th annual edition of this "bible for record collectors." "Hundreds of the authoritative, detailed reviews which appeared in High Fidelity in 1971 are arranged alphabetically by composer, subdivided by category of music when releases of his music were considerable. A section on Recitals and Miscellaneous too, and an Artists' index to all performers reviewed during the year, as well as those mentioned only in the text. 285 ... $9.95

THE BLUEGRASS SONGBOOK. Dennis Cyprony.

The first major collection of bluegrass music: Lyrics, melody, and guitar chords for 67 old-time mountain tunes, with photos and artwork that evoke the flavor of the hills. Everyone who loves "mountain soul" will love it. No. 2106 ... $7.95

WORDS WITH MUSIC. Lehman Engel.

A precise analysis, by a famous musical director, of the musical script, or "book." Engel assesses the musical as an integral part of world drama; traces the development, and probable future of this uniquely American theatrical form; analyzes the elements that made great musicals. No. 2107 ... $7.95

THE BALLETOMAN FROM THE COURT OF LOUIS XIV TO PAVLOVA. Parmenia Migel.

Balletomanes will treasure this beautifully illustrated portrait gallery. Three centuries of ballet are recounted through the careers, personalities, lives, and loves of the great ballerinas from the 17th century to Diaghilev's dancers. No. 2108 ... $10.95

CRITIC AT THE OPERA. Paul Henry Lang.

An informal historical discussion of opera, bounded largely by the works Lang saw while he was music critic of the New York Herald Tribune. ... a valuable work ... its style is straightforward and clear enough to be understood by any opera lover (who need not fear that a demon musicologist is snorting in the wings)."—HF/MA. No. 2109 ... $6.95

THE SONGS OF JOHNNY CASH.

Cash's greatest song hits arranged for piano and guitar, with a photographic biography of this enormously popular singer. No. 21010 ... $9.95

THE NEW MUSIC. The Sense Behind The Sound. Joan Peyser.

A penetrating account of the development of 20th-century music through a discussion of its outstanding personalities. No. 21011 ... $7.95


Anyone involved or just interested in the music record tape industry needs this unique and indispensable reference book. No other single volume contains comparable information, arranged for easy reference and readability, on the complex legal, practical, and procedural problems.

Eight new chapters and one third more material in this new edition. 544 pages. 180 pages of appendices (Federal and International laws, statutes, contracts, applications, agreements, etc.) No. 287 ... $15.00
AIC Pressure-Sensitive Record File for Anti-Warp LP Storage

A unique system of spring-loaded pressure pads provides constant, equalized pressure for storage of 1 to 100 LPs. The built-in press straightens warped records. Patented push/pull clips allow easy adjustment of divider-sets. Pressure remains constant to within 1/4 oz. per sq. in. The only safe and practical method of housing your LPs to ensure that they are kept absolutely flat...regardless of climate or conditions. Walnut finish, 16½” wide x 13½” high x 13¾” deep. Your complete satisfaction is guaranteed. Please allow 4 weeks for delivery. Price: $39.95, postage paid. Write for further information, or send check or m.o. to:


CIRCLE 7 ON READER-SERVICE CARD

in brief

CARLOS SANTANA & BUDDY MILES: Live! Columbia KC 31308. $5.98. Two of the best larger bands in rock combine for a concert recorded live at Diamond Head Crater, Hawaii. Informal. Quite nice over-all. J.S.W.

ARTHUR LEE: Vindicator. A&M SP 4356, $5.98. Arthur Lee, formerly the leader of Love, a well-respected Los Angeles rock group, was criticized in the past as a black who sang like a white (Mick Jagger) who sang like a black. Now he can be criticized as a black who sings like another black. Jimi Hendrix. The whole thing is highly silly. M.J.

CARPENTERS: A Song for You. A&M SP 3511. $5.98. More highly polished Musak from the brother and sister team who will never be confused with Peter and Jane Fonda. H.E.

BUZZ LINEHART: BUZZY. Kama Sutra KSBS 2053. $5.98. Unlike most other rock singers, Linehart makes a conscious effort to sing in a jazz-influenced style. He has a fascinating, moving live act which doesn’t often translate well onto wax. Here he does quite well, breathing through a number of songs which add up to straightforward rockers. It’s marred, though, by a sloppy reading of Elton John’s ‘‘Take Me in the Pilor.’’ M.J.

THE BEST OF JOHN HERALD AND THE GREEN-BRIAR BOYS. Vanguard VSD 79317. $5.98. This disc is a winning introduction to both bluegrass music and the lovely voice of John Herald. H.E.

ENGLAND DAN AND JOHN FORD COLEY: Fab. Bables. A&M 4350, $5.98. I don’t know about you, but I can never remember this group’s name. Nevertheless, they are very good and have been struggling just under the surface of success for the past year or so. Maybe this is the album that will do it for them. It is beautifully produced by guitarist Louie Shelton and engineered by some of A&M’s finest: Henry Lewy, Norm Kinney, and Rick Porter. M.A.

NEIL DIAMOND: Moods. Uni 93136. $5.98. A perfectly satisfactory set featuring Neil’s monster hit ‘Song Sung Blue.’’ H.E.

THE LAST POETS: Chastisement. Blue Thumb 39. $5.98. Quincy Jones was one of the first to recognize the power of this unusual group and pass the word. They are African-oriented, and often speak/shout forceful speeches over their music. No way to peg them into a category, but they’re strong. M.A.

Lowest of the LOW!

Shamelessly Low Prices...

As one of America’s largest wholesale distributors, we’re guilty of shamelessly low prices. Our buying volume has made our prices the lowest. We seriously doubt you can find one lower...and that’s we’re proud of. What’s more, at S.C.A., you can select from hundreds of NEW, Factory Sealed, Full Warranty, Brand name, Hi-Fi Stereo components. If its in the Hi-Fi, Audio field...we have it!

Write for a lowest of the low quote...we’re not ashamed.

CIRCLE 7 ON READER-SERVICE CARD

HUGEE SAVINGS ON FAMOUS BRAND STEREO COMPONENTS DISCOUNTS ON NATIONALLY ADVERTISED TURNTABLES • CARTRIDGES COMPACTS • RECEIVERS AMPLIFIERS • TAPE RECORDER Wholesale Prices! Audio Warehouse Sales, one of the capitals largest stereo wholesale dealers will fill and deliver all your mail orders promptly in factory sealed cartons, at prices that will amaze you. Write for quote on Famous Brand, Stereo Components. Ask about our Special Policy. We guarantee satisfaction.

AUDIO WAREHOUSE SALES 2024 W. VIRGINIA AVE. N.E. WASHINGTON, D.C. 20002 (202) 832-1616

CIRCLE 12 ON READER-SERVICE CARD

CIRCLE 75 ON READER-SERVICE CARD

2122 UTICA AVENUE, BROOKLYN, NEW YORK 11234 (212) 338-8566

CIRCLE 12 ON READER-SERVICE CARD

HIGH FIDELITY MAGAZINE
HIGHER FIDELITY CLASSIFIED
165 W. 46th St., New York, N. Y. • Phone (212) 757-2800

Rates: $1.00 per word. Minimum $10.00. Words in caps at 10c extra ea.

Full Payment Must Accompany All Copy for Classified Ads except those placed by accredited advertising agencies.

DEADLINE: 1st day of the month; 2 months preceding the date of issue.

for sale

CANADIAN-DYNACO COMPONENTS at TRENIDOUS DISCOUNTS. Write En-Jay Sales, Honeymoon, Ontario.

TAKE SOUND OFF your Cassette or Cartridge with "ERIESETTE." Our exclusive electronic wash (~65p/4MI) gives you a like new Cassette or Cartridge in an instant. Less than 1 lb; self-contained. 4.7" X 4.7" battery powered. $12.50 postpaid. Calif. residents add sales tax. Magnesium Corp., Box 127, Northridge, Calif. 91324.

STEREO SALES AS YOU LIKE IT! We can sell for less on top quality equipment. Fantastic DISCOUNTS on all brands. BEST VALUES. UNBEATABLE PRICES. Request quotes: SOUNDSCAPE, Box 265, Fairhaven Station, New Haven, Connecticut 06513.

RARE ROMANTIC PIANO SCORES—Miscelleneous, Henselt, Herz, Litolff, Scherwenka, Scriabine, etc. Free catalog. MUSIC TREASURE PUBLICATIONS, Box 127, Highburidge Station, Bronx, New York 10462.

TREASURE PUBLICATIONS, Box 127, Highbridge Station, Bronx, New York 10452.

VALUES. UNBEATABLE PRICES. Request quotes: SOUNDSCAPE, Calif. 91324.

like new Cassette or Cartridge in an instant. Less than 1 lb; self-free catalog. All merchandise brand new and factory sealed. LYLE for Shure, Pickering, Stanton, Empire, Grado and ADC. Send for COUNTING. Superior Sound, 1801 Brewerton Rd., Syracuse, N. Y.

TAPE CAROUSEL Compact tape file system. Eliminates awkward boxes. Details FREE!! T. Enterprises, 813H Clover Drive, Symsonia, Ky. 42082.

DELITY are available on microfilm dating from APRIL 1951 to DECEMBER 1971. Issues may be obtained from Billboard Publications at a cost of $1.00 per word. Minimum $10.00. Words in caps at 10c extra ea.

DRIVE, Symsonia, Ky. 42082.

Prices: $1.00 per word. Minimum $10.00. Words in caps at 10c extra ea.

Classified Ads except those placed by accredited advertising agencies.

CIRCULAR CASSETTE CAROUSEL Compact tape file system. Eliminates awkward boxes. Details FREE!! T. Enterprises, 813H Clover Drive, Symsonia, Ky. 42082.

SNSTOP VIDEOTAPES and Stereo Cartridges at Discount prices. Send now for 25k for new catalog to Recollections-P.O. Box 197, Roselle Park, N.J. 07079.

SIDE CARTERIDES—REELS Catalog 104. Tower, Lafayette Hill, Pa. 19444.

OPERA TAPES—GREAT PERFORMANCES OF PAST 35 years. Free catalog. Ed Rosen, P.O. Box at 97, Freeport, N.Y. 11520.

OLD RADIO PROGRAMS ON CASSETTES OR REELS. THOUSANDS OF YOUR FAVORITES LIVE AGAIN. LOW PRICES, HIGH QUALITY. CATALOG 504: REMEMBER RADIO, INC. BOX 2513, NORMAL, OKLA. 73069.

GOLDEN AGE RÁDIOS—Your best source for radio tapes. Box 8404, Olivo, Missouri 63132.

MEMOREX recording tape, audio & video, lowest prices. Write for free information. BERGETZ SYSTEMS CO., Box 1181, Melrose Park, Ill. 60161.


BASF, MEMOREX, SCOTCH, TDK, reels, cassettes, 8-tracks; Lowest prices. S & S Audio Box 2065, Champaign, Ill. 61820.

SHOW ALBUMS—Rare, out-of-print LPs. Large list 104: Broadway-Hollywood Recordings, Georgetown, CT 06829.


HERMAN'S, "7TH VOYAGE OF SINBAD"-(mint)—best offer. Harold Scheffer RR 5 Box 472, Shelbyville, Indiana 46176.

"SOUNDTRACKS and SHOW, ALBUMS, rare, send to Show Music Box 12 Wood River, Illinois 60095."

SCOTCH TAPE (USED) =150, 1 MIL POLYSTER, 3600 FOOT ON 10 INCH FIBERGLASS REELS USED ONCE. $1.99, 800 FOOT 7 INCH REELS. $994—GUARANTEED TO PERFORM AS GOOD AS NEW OR MONEY REFUNDED. (BULK, NO BOX) USED 10 INCH FIBERGLASS REELS (SMALL HOLE) 50¢. NEW HINGED BOXES: 10x10 INCH, 39 x 7 INCH. ALL PLUS POSTAGE 140 PAGE OPEN REEL MUSIC CATALOG & DISCOUNT SHEET, 25¢. SAXITONE TAPE SALES, 1761 COLUMBIA ROAD, WASHINGTON, D.C. 20009.

NORTH'S "GREEK" plus, Stein—Capitol—best offer. Wolten, 930 Pace Ave., Milford, Florida 32751.

Records—soundtracks, shows, cut-outs. Send wants—we'll quote. Lesco, 2205 Marylane, Bloomall, Pa. 19008.

have, two recorders recordings for sale back ground movie scores. First, "Quo Vadis" second, "Old Man And The Sea." Carl H. Werder, 401 East 55th Street, New York, N. Y. 10022.


SOUNDTRACKS SHOWS. 80 STAMP FOR LIST. CHESTER F. PIELD BOX 107, FLEMINGTON, NEW JERSEY 08822.

"Sound Tracks—Other LP's—reasonable prices. Hobby Records, 1312 18th, Monroe, La. 71201."

10,000 SOUNDTACKS!—$1 up—Free catalogue—RTSM, 1111 S Benito, Suite F, Alhambra, California 91803.

Investment soundtracks magnificent collection, all O.P. and Mint; send $1.00 for list; $25.00 takes all. Lynn Hunt 8989 Country Club Place Spring Valley Calif. 92077.

WHY TRY THE REST? We give you the Best/Most Unique Service in Classical Recordings Imported From Around The World! Sample Mailer—50¢ August Royal Classics Imports, 936 South Detroit, Los Angeles, California 90036.

Soundtrack record albums from movies, Waltling, 2311 G-Hill Lane, Redondo Beach, Calif. 90278.

Rare shows—soundtracks. Free list. DTCMA 9281 Harie, Anaheim, California 92824.

RARE MAX STEINER FILM SCORE RECORDS AUTGRAPHED JOHN RIDO, (245) CAMDEN BEVERLY HILLS, CALIF. 90212. (213) 275-3351.

Toccata Records: Famous Voices of the Past, vocal, instrumental, orchestra. Free numerical label, detailed catalogue $1.00, Box 175 Station "W," Toronto, Ontario, Canada.

October 1972

127
Peace Now—On One Quadrephonic Front. Even as the Big Quad War grows ever more ominous in the disc world, harmony rather than confrontation characterizes the meeting of discrete and matrix partisans in the domain of the endless-loop tape cartridge. Here discretion is the easy, noncontroversial norm; Not only RCA and Ampex (the latter representing a considerable number of labels) but also Columbia are now issuing exactly the same type of quadrasonic cartridges, with two sets of four tracks each rather than four sets of two as in stereo cartridges. These Q-8s demand new quadrasonic players and four speakers, but all older 8-track cartridges can be played on Q-8 systems (in stereo only, of course, with rear speakers merely doubling the front ones).

By courtesy of RCA, I’ve been using that company’s YZD 440 system to sample a considerable variety of Q-8 releases—first via the unit’s own four smallish open-back speakers, especially to test the claimed superiority of quadrphony over stereo in “filling” one’s listening room with sound and in achieving a better illusion of auditorium spaciousness. That claim certainly proves to be true for similar competitive systems, but wide-ranging fantasies like myself want still more—which I get by an adaptation enabling me to feed the front outputs to my regular big-speaker system while the rear outputs continue to feed the YZD 440 back speakers. Engineering purists will not approve, but since I’ve always been a heretic where strict channel symmetry is concerned, the lack of it in quadrphony doesn’t bother me at all. Here, as in stereo, the “effect” is not a mere extent independent of frequency and dynamic-range playback characteristics. But it’s only when quadrphony and true high fidelity are combined that the full potentials of the new medium can be most dramatically exploited.

A Peripatetic Listener’s Thank-You. A habitually perambulating auditor, my Q-8 experiences have involved an increase in the exercise of my legs as well as of my aural sensibilities. And even when the novelty of tracking down sound-source locations wears off, peripatetic listening is more intriguing than ever since with every step the expanded sonic patterns shift ever so subtly. Indeed it’s just this kind of fascination, rather than the sheer specificity of circumambient sound, which will ensure (I’m convinced) quadrphony’s eventual triumph.

The best Q-8 introduction I’ve found so far is the Vanguard/Ampex “Surround Sound Sampler,” L 71, $7.95. (Incidentally, that—or $7.98 for Columbia releases—is the standard price for all single-length Q-8 cartridges.) This tape provides the expected but still incomparable thrills of the Berlioz Requiem Tuba mirum with its four-corner bands, plus the novelty of eerie re-echoings in a Buffy Saint-Marie collection, and useful individual channel identifications, etc. But more exhilarating surprises are forthcoming in the revelations of quadrphony’s subtler and more substantial appeals: the heavenly eeriness of a Handel Jephtha excerpt, for instance, and the beautifully dispersed choruses, alto soloists, and orchestra in the fifth movement of Mahler’s Third Symphony.

But of course sonic sensationalism has considerable immediate appeal, and just as ping-pong gimmickry was prime propaganda in the early stereo era, so a sort of ping-pong-pang-pang all-around, tonal bits-and-pieces treatment tends to be featured at first in quadrphony. And sometimes it’s appropriate as well as great fun; RCA’s first Q-8 release, back in 1970, got the format off to a very poor start because most of them were simply “mixed-up” from non-four-channel masters. But one notable exception was the Q version of the 1964 original Broadway cast Fiddler on the Roof (RCA QQ 1005), which has been very ingeniously adapted for sound-source diversification. And, obviously, any synthetically produced original, utilizing multiple channels from the beginning, is inherently well suited for Q adaptation; e.g., Walter Carlos’ deservedly famous “Switched-On Bach” divertissements, more irresistibly amusing than ever in Columbia MAQ 31018. Similarly, the gamelan-like tintinnabulation of the 1969 “World of Harry Partch” (Columbia MAQ 31227) gains notably in atmospheric effectiveness without comparable increase in its original severe demands on one’s patience. And we get a tantalizing taste of prospective chamber-music delights in the several “classical” selections (Bach flute sonata movements and the like) which alternate with light jazz pieces in a more recent program by Paul Horn’s eight-man Concert Ensemble (Ovation/Ampex L 7293).

Expanded Musical Universes. Where novelty is not the sole aim and where standard musical materials are involved, this medium, like any other, can be used both with or without apt insight. Bernstein’s Verdi Requiem and Boulez’ Stravinsky Petrushka (Columbia QMA 30060, two cartridges, $15.98, and MAQ 31076, $7.98, respectively) both make use of the rear channels mainly for auditorium ambience, yet the results are almost unbelievably different: relatively ineffective in the 1970 Verdi, electrifyingly realistic in the more recent Stravinsky. In last February’s Ormandy/Philadelphia “Hallelujah” program of Handel organ concertos mostly transcribed for double orchestra, the pieces I liked best sound even better in quadraphony (RCA HQ 8 1198); but in one of them, the Handel organ concerto movement, the improvement is of an entirely different order of magnitude—so great as to amount to almost a difference in kind rather than degree.

But generally quadrphony enhances whatever may be present in the first place. The driving jazz of Buddy Rich’s “Different Drummer” (RCA PQ 8 1819) achieves even greater momentum; the romantic sentiment of “Chackfield Plays Rachmaninoff” (London/Ampex L 77158) assumes richer warmth; while the noisy blatancy of E. Power Biggs’ “Music for Organ, Brass, and Percussion” (Columbia MAQ 31193) becomes unconscionably pretentious. Then, no stereo program by the Mormon Tabernacle Choir has ever approached the Apotheosis of Schmaltz of its Q-8 “Climb Ev’ry Mountain” (Columbia MQ 30647), and no symphonic inflations of pop-hit tunes have ever achieved the ultralushness of those in the Q-8 edition of the Ormandy/Philadelphia “Love Story” program (RCA RQ 8 1179). Yet here the “Elvira Madigan” Mozart piano concerto movement and Tristan and Isolde Love-Death demonstrate how much we now have to revise our previous notions of sonic buoyancy and panoramic expansiveness.

New Dimensions—Creative as Well as Experiential. Originally somewhat skeptical about quadrphony’s profoundly substantial (rather than superficial) advantages, I’ve become convinced of their genuine validity by my own sustained and varied home experience via Q-8 tapes. But perhaps even more significantly, I’ve been shocked—by one work in particular—into the recognition of Q-sound’s incalculable potential for musical creation. Whatever one may have thought out about Bernstein Mass in stereo, in its Q-8 edition (Columbia QMA 31008, three cartridges, $15.98) the work emerges in an astonishingly new light, far stronger in its dramatic ingenuity. This tape alone startlingly hints at what the composers of tomorrow may be able to accomplish in an as yet barely explored medium.

In any case, quadrphony is well on its way, making its strongest first appeal (just as stereo did) to youngsters and relatively inexperienced listeners, while oldsters and "connoisseurs," more set in their ways, tend to resist still another change. But as the ancient adage warns us: "If it’s inevitable, best lie back and enjoy it!"
TEAC 3300: the strong, silent type

If you've been shopping the field for a semi-pro deck with studio-size reels, you've probably had to cut your way through a lot of noise about silence. And you've probably wondered why you haven't heard TEAC blowing its horn on the subject.
The answer is simple—we didn't feel we had to. Long before the dawning of Dolby, TEAC perfected the kind of electronics that lets you use the most advanced low-noise/high-output tapes on decks like the 3300 with startling results. We effectively reduced tape noise and hiss below audible levels. And let Dolby take it from there.

But we wanted to keep the 3300 a truly versatile semi-pro deck for the audiophile. So instead of building Dolby in, we outboarded it, as you can see—in the AN-80 Dolby Noise-Reduction Unit. Now you could get better signal-to-noise than was dreamed of in your ratio for $149.50. Not only on your 3300 but on any other existing deck. At the same time, we addressed ourselves to making the 3300 transport (already world-renowned for its superlative quality and unmatched reliability) a near-perfect mechanism. By manufacturing all critical components in-house—and to specs and tolerances we wouldn't dare impose on anyone else. By quality control tantamount to paranoia—for example, we adjust, check, and readjust our heads as many as 17 times during manufacture. Over and above this, we provide audiophile conveniences overlooked on other decks. Like a bias-level switch. And the famous Edi-Q control for one-hand editing and cueing. Two full-size VU meters. All this for only $499.50. Now would you really expect a machine as strong as all this to be anything but silent? And if all you need is a 7"-reel deck with many of the 3300's fine features, checkout our 1230 at $359.50.

TEAC * TEAC Corporation of America,
7733 Telegraph Road, Montebello, California 90640
TEAC Corporation, 1-8-1 Nishi-shinjuku, Shinjuku-ku, Tokyo, Japan
TEAC EUROPE N.V., Kabelweg 45-47, Amsterdam—W. 2, Holland
In Canada, White Electronic Development Corp., Ltd., Toronto.

*Dolby is a trademark of Dolby Laboratories, Inc.
The New KENWOOD Receivers
are More Professional than Ever!

Three elegant new models give you a choice of power
and sophistication—all with advanced
new circuitry, tough new
materials, and top professional
features that make the
choice difficult indeed!

I
0-
i---o

KR-5200...140-Watt (IHF)
FM/AM Stereo Receiver

KR-6200...240-Watt (IHF)
FM/AM Stereo Receiver

KR-7200...260-Watt (IHF)
FM/AM Stereo Receiver

Basic to all three new receivers is KENWOOD's advanced
engineering which gives you direct coupling for exceptionally flat response throughout
the audio spectrum; exclusive dual protection circuit; new NPN and PNP silicon low-noise transistors for
quiet performance; KENWOOD's newly-developed DSD circuitry in the MPX stage for improved stereo separation;
and a host of convenience features, such as the 2-system tape facility, provision for three sets of stereo
speakers, and a new linear FM dial scale. That's for starters! Check the specs, check the performance, and
choose the new KENWOOD receiver with the professional features right for you!

For complete specifications, visit your
nearest KENWOOD Dealer, or write...

CIRCLE 36 ON READER-SERVICE CARD

1977 So. Broadway, Gardena, Calif. 90248 72-02 Fifty-first Ave., Woodside, N.Y. 11377

In Canada: Magnasonic Canada Ltd., Toronto, Ontario, Montreal, Quebec: Vancouver, B.C.