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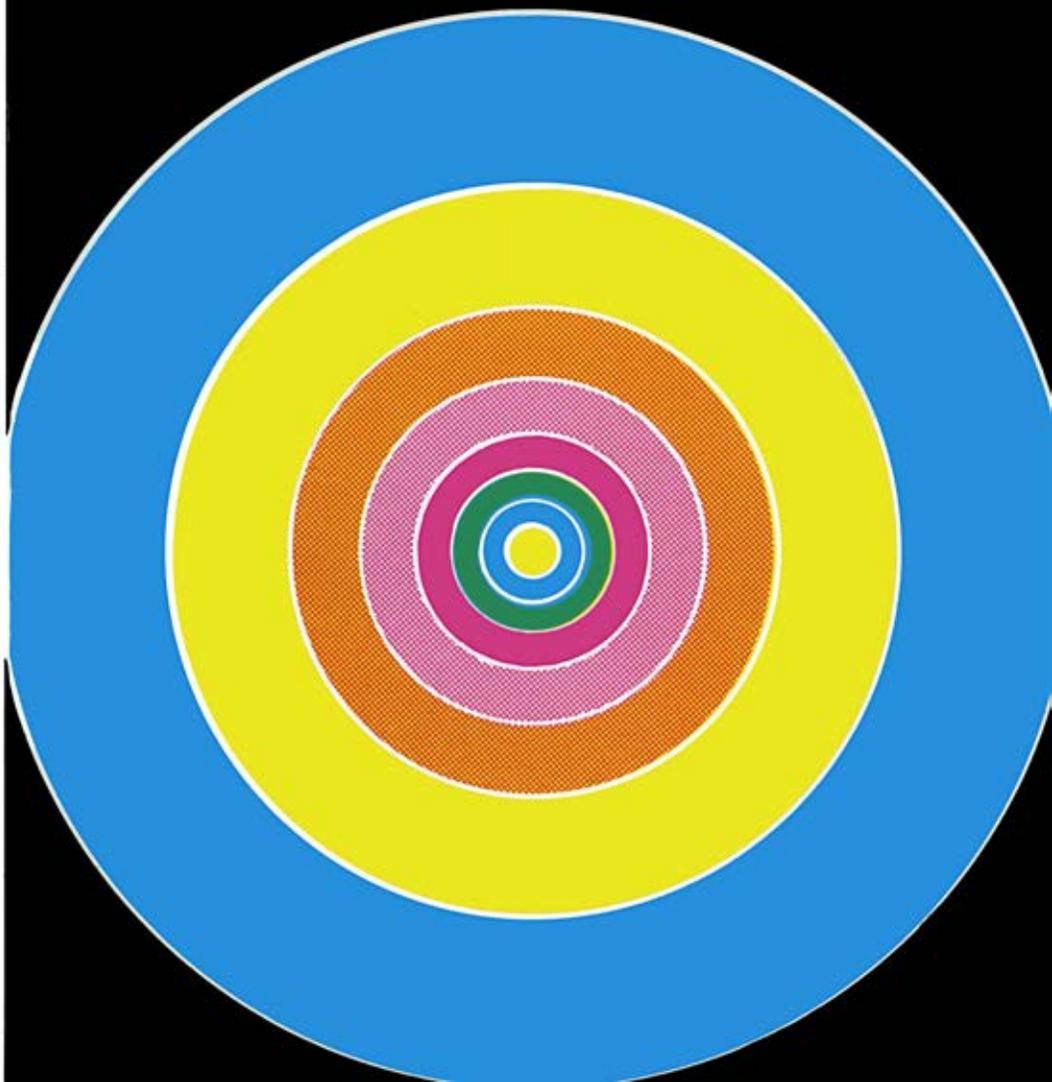
THE 1974
INTERNATIONAL
AUDIO
FESTIVAL AND FAIR

Sponsored by the Sunday Mirror

OLYMPIA

OCTOBER 28 - NOVEMBER 3

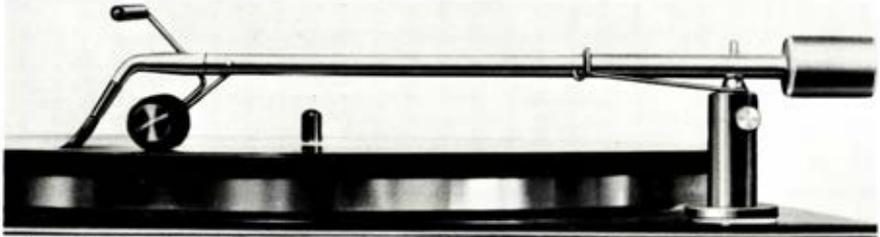
1974 Audio Festival and Fair Catalogue



Bib®

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The de-luxe Model 42 GROOV-KLEEN



RECORD CARE KIT

REF43 £2.40



CASSETTE CARE KIT
REF51

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| Item | Ref | Price | Item | Ref | Price |
|-------------------------------------|-----|-------|----------------------------------------------------|-----|-------|
| Record Care | | | | | |
| Indexa Record | A | £1.70 | Cassette Re-Record Kit | 54 | 48p |
| Stylus & Turntable Cleaning Kit | B | 34p | Cassette Containers | 55 | 26p |
| Record Handlers (10) | 25 | 42p | Cassette Hub Clips (20) | 57 | 28p |
| Stylus Balance | 32A | £1.24 | Cassette Head Cleaner (liquid) | 62 | 36p |
| Record & Stylus Cleaning Kit | 36A | 30p | Cassette Storage Rack | 65 | £4.26 |
| Auto Changer Groov-Kleen Mdl | 45 | 98p | Tape Indexa | 66 | 66p |
| Record Dust-Off | 48 | 23p | Cassette Tab Removing Tool and Winder | 74 | 38p |
| Record Care Kit | 59 | £1.17 | | | |
| GROOV-KLEEN Model | 60 | £1.36 | | | |
| ¼" Tape Care | | | | | |
| Compact Tape Head Cleaning Kit | J | 60p | Cartridge Care | | |
| Tape Editing Kit | 23 | £1.52 | Cartridge Case Holds 8 | 35 | £1.80 |
| Recording Tape Cutters (4) | M | 24p | 8 Track Cartridge Head Cleaner | 41 | 88p |
| ¼" Tape Splicer | 20 | £1.24 | 8 Track Stereo Test Cartridge | 58 | £2.30 |
| Professional Tape Head Cleaning Kit | 28 | £1.90 | Cartridge Protectors (4) | 64 | 24p |
| Splicing Tape and Plastic Dispenser | 33 | 36p | Cartridge Care Pack | 67 | £2.80 |
| Cassette Care | | | | | |
| Cassette Editing & Joining Kit | 24 | £1.64 | Hi-Fi Maintenance | | |
| Cassette Tape Recorder Care Kit | 26A | £2.08 | Hi-Fi Electrical Kit | C/4 | 74p |
| Cassette Salvage Kit | 29 | 46p | Hi-Fi Cable and Flex Tidies (5) | D/2 | 24p |
| Cassette Splicer Model | 30 | £1.24 | Wire Stripper and Cutter | 3A | 42p |
| Cassette Head Cleaner | 31 | 56p | Wire Stripper and Cutter | 8A | 70p |
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| Cassette Case Holds 12 | 34 | £1.60 | Wire Stripper and Cutter | 9 | 90p |
| Cassette Wallet Holds 6 | 39 | 76p | Hi-Fi Solder Dispenser | 27 | 32p |
| Cassette Tray Holds 10 | 52 | 49p | Hi-Fi Stereo Hints and Tips | 56 | 38p |
| Hi-Fi Stereo Test Cassette | 53 | £2.20 | Inspection Mirror | 68 | 24p |
| | | | Anti-Static Liquid | 69 | 24p |
| | | | Hi-Fi Label Kit | 72 | 40p |
| | | | Prices shown are recommended retail excluding VAT. | | |

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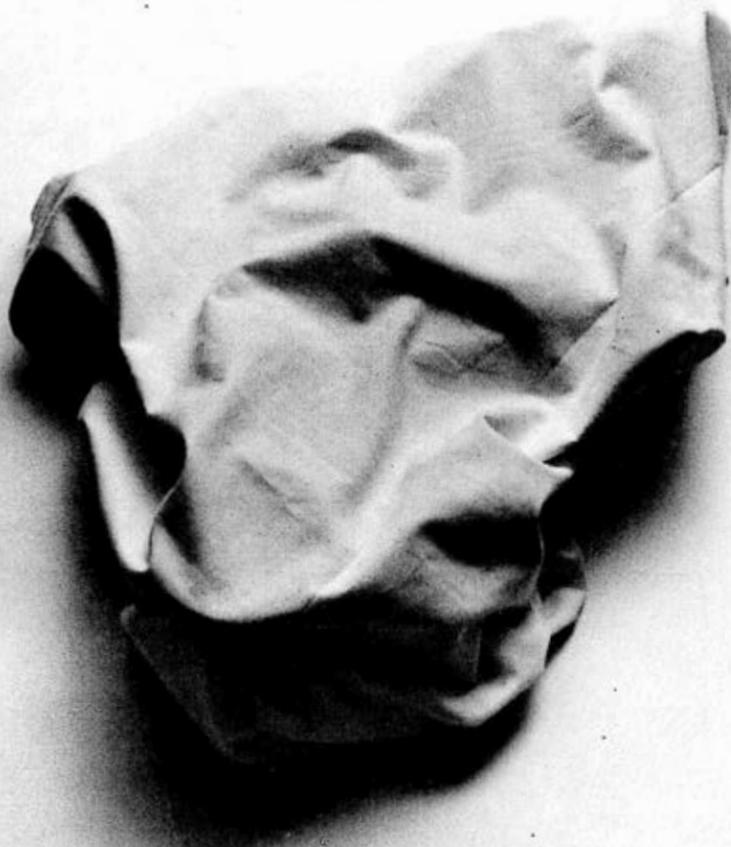
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Power output: 14 watts per channel into 8 ohms, with total harmonic distortion only 0.8%. Signal-to-noise ratios: 75 dB on auxiliary, 65 dB on Phono. Tuner's AM section carries LW, as well as MW, band – for sports broadcasts on 1500 metres only and Radio 2 after 10 pm. Excellent FM stereo performance, too: separation better than 35 dB. Suggested retail price**£117.35**

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Total suggested retail price.....**£239.05.**

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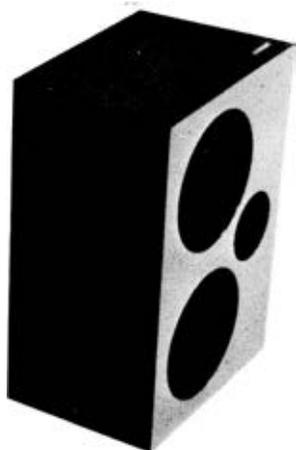


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of good music

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Decca on stand D9

You can always depend on Decca to put on a show with a difference. And our show at this year's Audio Fair is no exception.

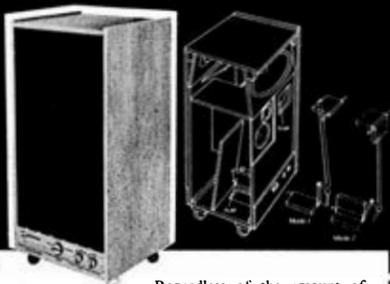
You'll find a complete range of our current audio equipment on the Decca stand – with some very impressive new products among them. There's the new Deccasound 10 stereo system, a new cassette system with CRO₂ and Dolby facilities, and the latest additions to our In-Car Entertainment range – to take just a few examples.

And that's not all. When you visit the Decca stand, you'll have a chance to enter our entertaining, easy Competition. It's free, and there are lots of prizes for the audio enthusiast. Come and try your luck. Come anyway. We look forward to welcoming you.

Decca Radio & Television,
Neachells Lane, Willenhall,
Wolverhampton, Staffs.

DECCA

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Regardless of the amount of money spent on a high-quality reproducing system, the final result is dependent on the reaction between the loudspeaker and the listening room. *The Omal TL6 Ambionic Monitor Loudspeaker is the first in the world to offer acoustic adjustability to match most rooms. It can also be used in the direct or omnidirectional modes without loss of stereo image. Yet another plus factor is the ambiophonic effect!*

To achieve this remarkable result, we have mounted the treble units on both sides of the cabinet and the bass unit on one side, this being coupled to a four-section transmission line with mechanically variable ports and damping. The transmission line is unique in that it varies in cross-section to prevent unwanted harmonics and standing waves and has two internal and two external ports. The sound emission from each external port and through the internal ports is controlled by adjustable flaps, mechanically interlinked to provide simultaneous operation from a single control. The ports can be completely or partially closed, giving an increase or reduction of bass depending on the type of sound required. The high frequency units can be electronically attenuated or boosted individually.

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For comprehensive details, contact:

Ambionic Sound Reproducers Ltd.
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Ferrograph's new 10 $\frac{1}{2}$ " reel recorder

From Ferrograph comes the Super Seven, a new model to replace the Series Seven. One of its important features is that it can take up to 10 $\frac{1}{2}$ " professional spools.

The Super Seven is offered with a set of options that give you the choice of sixteen different specifications: half-track or quarter-track; 15, 7 $\frac{1}{2}$, and 3 $\frac{3}{4}$, or 7 $\frac{1}{2}$, 3 $\frac{3}{4}$, and 1 $\frac{7}{8}$ in/sec; with or without power amplifiers and double loudspeakers; with or without Dolby.

Large illuminated VU meters read input, output and bias. A-B comparison switch for each channel separately. Switchable track transfer. Mic and line mixing on both channels. Low level, 600 ohm and headphone outlets. 0.1 second start; can be remote controlled. Electrical tape tensioning. Continuously variable spooling speed. Maximum output per channel: 10 Watts RMS into 8-16 ohm loudspeaker. Continuously-variable base and treble control. Colour folder available on request.

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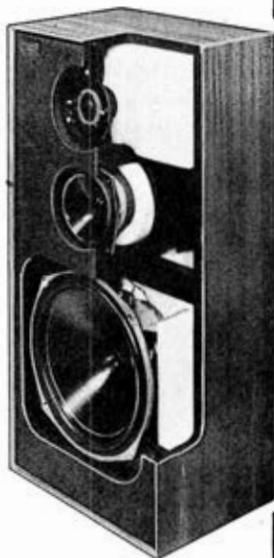
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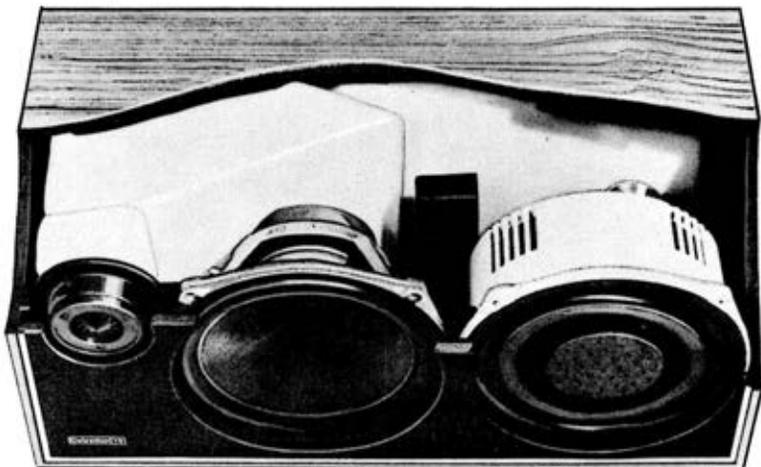
TELEFI

Rola Celestion Ltd. Ditton Works, Foxhall Road, Ipswich, Suffolk.

Celestion



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Celestion High Fidelity Loudspeakers are justly famous for their superb musical performance . . . the illustration shows the interior of the remarkable Ditton 15 of which many thousands are enjoyed by musically aware enthusiasts throughout the world.

Since the conception of the Ditton 15 and the unique ABR principle, Celestion have developed a whole family of these superb reproducers.

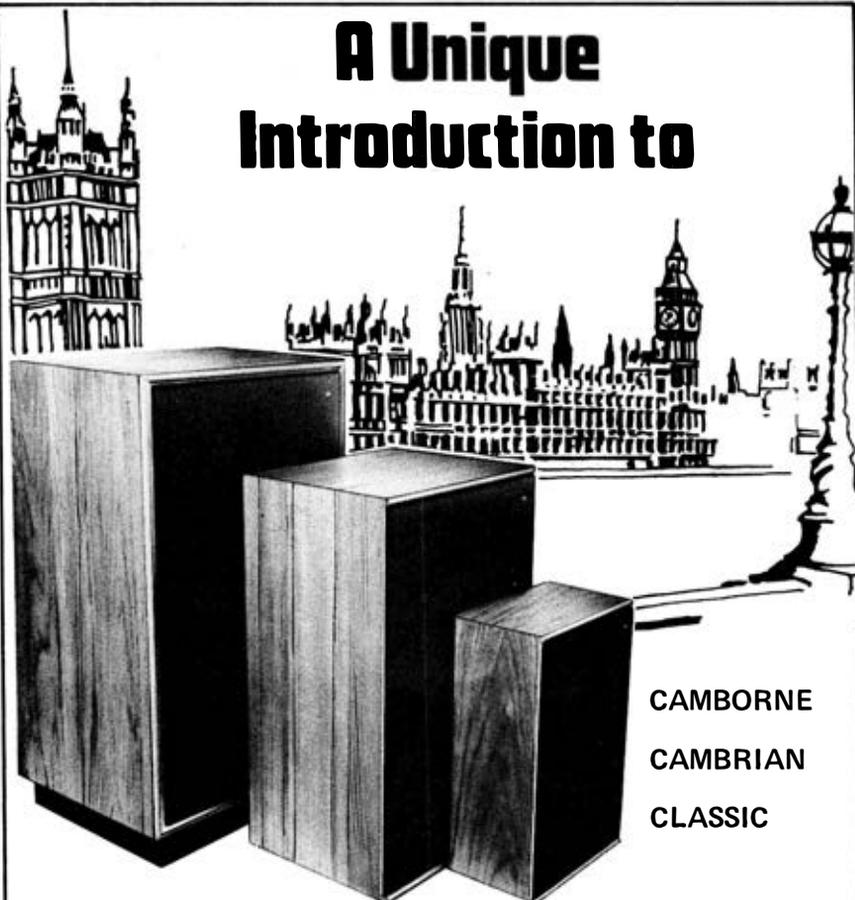
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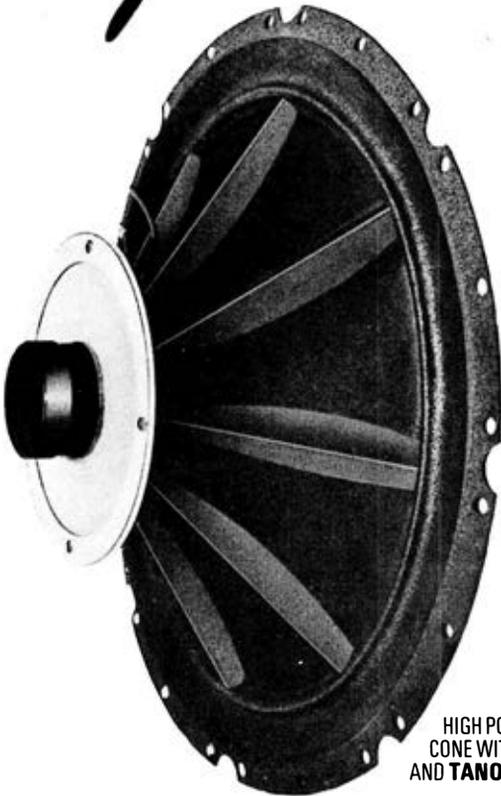
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* **GIRDACOUSTIC** CONE FOR SMOOTHER RESPONSE (310 mm and 410 mm models only)

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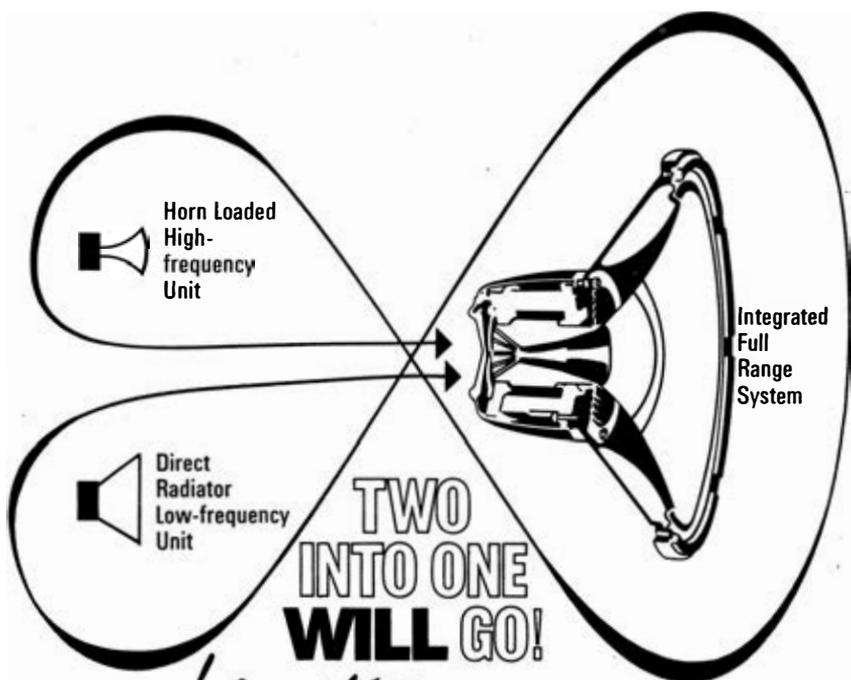
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*TANNOY HPD MONITORS HAVE BEEN SELECTED FOR USE BY—
CANADIAN BROADCASTING CO., SOUTH AFRICAN BROADCASTING CO.,
SUPRAPHON RECORDS — PRAGUE*

TANNOY



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THE *Monitor*

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Negligible coloration, very low distortion products, combined with these new features produce a loudspeaker **system** which will continue to set the **standard** by which others are **judged**.

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*The Bang & Olufsen Beosystem 6000 is ready to meet the challenge
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*It is an integrated totally compatible music system which will accurately reproduce
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*Beosystem 6000 will be demonstrated on Stand D12
where free reservation tickets may be obtained in advance.*

*For further information contact Bang & Olufsen U.K. Limited,
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STAND G 25

for products under the

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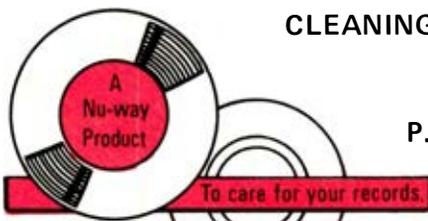
— STYLI — (Sapphire & Diamond Replacements)

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45 R.P.M. ADAPTORS



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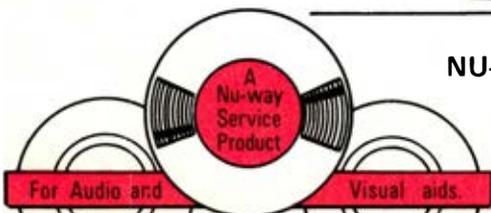
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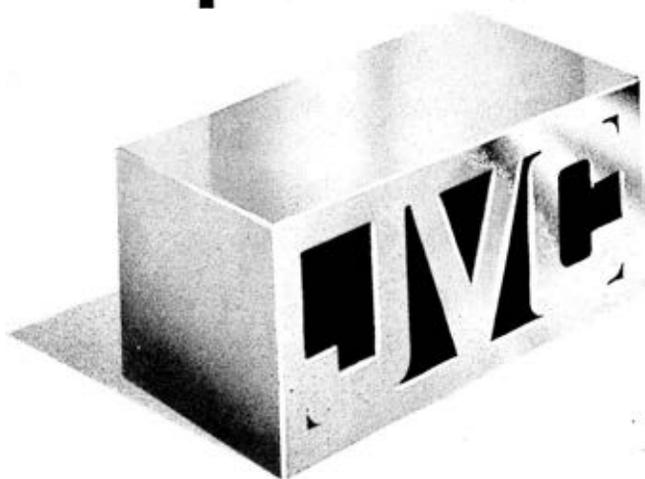
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that give perfect sound
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20th
INTERNATIONAL
AUDIO
FESTIVAL AND FAIR

Sponsored by the Sunday Mirror

GRAND HALL, OLYMPIA, 1974

Organised by :

INDUSTRIAL and TRADE FAIRS LTD
RADCLIFFE HOUSE, BLENHEIM COURT, SOLIHULL
WARWICKSHIRE BN1 2BG

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Again and again and again

Given the time, the patience, and the money, one can connect* fifty 303 amplifiers nose to tail so that the programme goes through one after the other gradually deteriorating along the way.

Deteriorating? The fact is, that apart from a very slight background hiss – akin to a good tape recording – the programme will sound exactly

the same at the end as when it started.

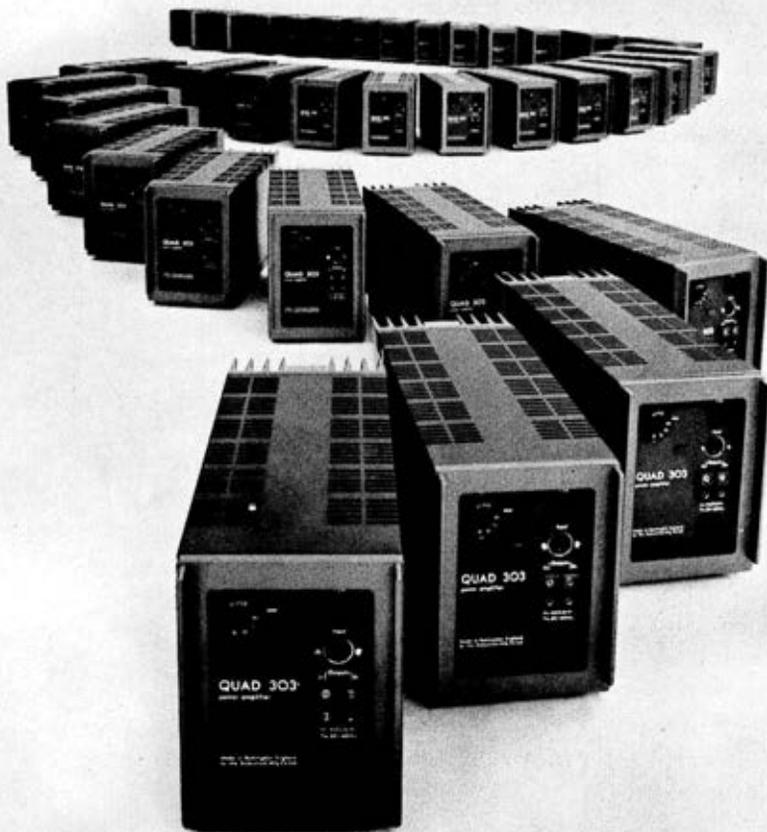
*Of course one must fit an attenuator to reduce the signal back to its original level between each amplifier.

Send postcard for illustrated leaflet to Dept. 1A Acoustical Manufacturing Co. Ltd., Huntingdon PE18 7DB. Telephone (0480) 62561.

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Products of The Acoustical Manufacturing Co. Ltd.
for the closest approach to the original sound

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Information for Visitors

This Catalogue gives a complete guide to the Fair. There is an alphabetical list of Exhibitors showing stand numbers and a section giving a description of Exhibits and Products arranged alphabetically under trade names. There is also a floor plan with all stands clearly numbered, and on the reverse, exhibiting companies or agencies and/or manufacturers listed under their company names.

THE EXHIBITION

Well over 100 manufacturers from many different countries showing the latest Hi-Fi equipment; unit audio; tape recorders, cassette, cartridge and reel-to-reel; loudspeakers; AM/FM tuners, receivers; amplifiers, radios, tapes and discs, etc., along with a multitude of accessories.

Most stands have specially constructed Audio Studios in which continuous demonstrations of the latest and most sophisticated equipment will take place.

OPENING TIMES

The Exhibition is open on Monday, 28th October, from 12 noon to 9 p.m., and 10 a.m. to 9 p.m. daily from Tuesday, 29th to Saturday, 2nd November, and from 11 a.m. to 7 p.m. on Sunday, 3rd November. Admission is 50p including VAT. Children under fourteen 25p.

THE HI-FI THEATRE

The theatre is on the ground floor between Stands A1 and B1 and clearly indicated by directional signs. A wide-ranging programme of presentations, demonstrations, lectures and discussions will be presented continuously throughout the Fair by distinguished experts in every field of music and Hi-Fi. There are three or four sessions daily and full details are given on pages 29-32. Admission is free to visitors.

ENQUIRIES — The Information Desk is directly in the Entrance.
ORGANISER'S OFFICES — Room 25 on the first floor approached from the foyer in the main entrance, telephone 01-603 2141. Please enquire at the Information Desk.

OVERSEAS VISITORS — The overseas reception desk is on the right hand side of the entrance foyer. Visitors will be directed to the Overseas Lounge where they will be registered. The lounge will have an interpreter service and bar and rest area.

International Audio Festival and Fair

RESTAURANTS — A table d'hôte luncheon service is provided in the Olympia Restaurant and à la carte in the Olympia Grill Room, both at the east end of the ground floor. Buffets and bars are also available throughout the hall.

POST OFFICE — Situated in the left hand corner of the hall from the main entrance.

TELEPHONES — There are public telephones in the south-east corner of the hall immediately left on entering the hall.

BANKING — Full banking facilities are available through the National Westminster Bank, Stand D2, immediately left at the entrance.

FIRST AID — There is a first aid post with qualified nurses in attendance in Hospital Avenue which is to the rear of the hall.

PRESS OFFICE — Situated in between Stands G38-39 on the first floor. Please enquire at the Information Desk.

CLOAKROOM — Situated in the right hand corner of the hall from the main entrance.

LOST PROPERTY — Situated on the first floor. Please enquire at the Information Desk.

TRAVELLING & ACCOMMODATION — Full details of travel services and accommodation may be obtained from the travel information desk conducted by Louis DuForest Travel Service Ltd., in the foyer of the main entrance. Theatre bookings and sight-seeing tours will also be arranged.

Train Service — By arrangement with London Transport a special train service for the Fair will run between High Street, Kensington and Olympia via Earls Court and Earls Court-Olympia.

Buses serving Olympia — 9, 9A, 27, 28, 33, 73, 91.

Green Line Coaches — 701, 702, 704, 705, 714, 716, 716A.

PATENTS and REGISTERED DESIGNS — The International Audio Festival and Fair is an exhibition certified by the Department of Trade and Industry for the purposes of Section 51(2) of the Patents Act, 1949 and of Section 6(2) of the Registered Designs Act, 1949.

HI-FI THEATRE

PILLAR HALL, OLYMPIA

The Exhibition Director

presents

"GOOD SOUND"

Directed by Roger Driscoll

Here in the Hi-Fi Theatre on the ground floor is a host of varied items, talks, demonstrations and competitions, to interest and entertain you. The programme includes many musical demonstrations; items for the newcomer to Audio and for the amateur enthusiast.

These presentations are held throughout the week from Tuesday, 29th October to Sunday, 3rd November.

The Hi-Fi Theatre is on the Ground Floor directly to the right of the Main Entrance. Admission is free to visitors, who may wait in the Foyer which adjoins the Hall.

TUESDAY, 29th OCTOBER

2.30 p.m. Practical Electronics presentation : Sound Synthesis for the Amateur

by Douglas Shaw

Mr. Shaw continues his discussion, for the third successive year, on current trends in the field of sound synthesis, with particular attention to equipment designed specially for the home constructor. This year he will include a comparatively simple miniature sound synthesiser and a more advanced digital music system which is under development.

5.00 p.m. Wireless World presentation :

Jack Dinsdale speaks on "Horn Loudspeakers" and offers some demonstrations of quality design.

7.30 p.m. How to Get The Best from Your Tape Recorder

by Angus McKenzie (Audio Consultant)

This well known speaker describes and demonstrates some helpful ways to get the best results when tape recording. His talk will include advice on the type of tape or cassette to choose, routine maintenance, simple bias and equalisation techniques and typical recording problems. Connection of the recorder to other equipment will also be discussed.

WEDNESDAY, 30th OCTOBER

2.30 p.m. Enhanced Stereo

by M. Ishikawa (Sansui Audio Europe S.A.)

Better presence, separation and definition can be obtained in making records for stereo use by in fact making them by a four-channel method. The technique to be described should interest artists and could save record companies the need for a double inventory.

The talk will explain how the QS encoder in record making can achieve these two objectives—better stereo records and more quadraphonic software. Interesting thoughts for those following the four-channel issue.

5.00 p.m. Low Frequency Loudspeakers

by Rex Baldock (Audio Consultant)

Numerous methods of air loading loudspeaker units for bass reproduction have been devised over a long period, and a selection of these will be discussed. Relevant aspects, including the relationship between driver size, enclosure volume, efficiency and acoustic output will be considered and demonstrated using both musical and test programme material.

7.30 p.m. Wireless World presentation :

"Valves versus Transistors" a talk presented by Dr. A. Bailey.

THURSDAY, 31st OCTOBER

2.00 p.m. Wireless World presentation :

Kenny Everett presents examples of creative tape recording for broadcasting and answers your questions.

4.00 p.m. Something Old, Something New

by Donald Aldous (Technical Editor, Hi-Fi News and Record Review)

This well known speaker plays records and tells stories to entertain the tired Audiophile.

6.00 p.m. Multi-channel Sound Recording Systems

by Dr. Keith Barker (University of Sheffield)

This lecture will introduce the subject of quadraphonics through the historical development of sound recording and will be illustrated extensively by both visual and audio demonstrations. All presently available quadraphonic systems will be covered including some newer aspects of multi-channel broadcasting.

8.00 p.m. Multi-channel Sound Recording Systems

by Dr. Keith Barker

A repeat of the programme given at 6 p.m. today.

FRIDAY, 1st NOVEMBER

2.00 p.m. Ears and Not Meters

by John Borwick (Audio Editor, Gramophone)

This presentation shows us how we can assess the qualities of modern audio equipment by listening to suitable record and tape programmes.

4.00 p.m. Wireless World presentation :

A discussion on an aspect of commercial radio by Gerry O'Reilly chief engineer of Capital Radio.

6.00 p.m. Do's and Don'ts in Listening Rooms

by Roger Driscoll (The Polytechnic of North London)

Our lecturer explains, with some simple demonstrations of sound recorded in small and large rooms, how we can get the most neutral and smooth results in our listening rooms.

8.00 p.m. Live or Recorded ? Spot the Difference Competition

by Adrian Hope

The best definition of Hi-Fi is still 'the closest approach to the original sound'. To find out just how easy it is to tell the difference, we are having a competition with about a dozen examples of live and recorded music and speech which will be played on stage. The form in this programme will let you put down which is which, and the first two correct lists from the audience will receive prizes of LP records or recording tape.

Live or Recorded Competition Sheet. Please put a tick in the box for each segment of the demonstration and fill in your name and address below.

| | | |
|-----------------------------------------------------------------------|-------------|-----------------|
| Name and Address | | |
| | | |
| segment | LIVE | RECORDED |
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| Was the voice reading out the segment numbers live or recorded? | | |

SATURDAY, 2nd NOVEMBER

2.30 p.m. Wireless World presentation :

A surprise programme of wide musical and Audio interest for your enjoyment.

5.00 p.m. Loudspeakers and Listening

by Roger Driscoll (The Polytechnic of North London)

There are now hundreds of different loudspeakers on the market today. Why is it that there are so many different opinions about how loudspeakers sound? Our lecturer will show simply how we listen, especially to subtle transient sounds, and explain a way by which we can see how a loudspeaker responds to music and speech programmes.

7.30 p.m. Special Presentation :

David Simmons (Producer and Disc Jockey, BBC Radio)

David will be telling us about his work with BBC Radio as a broadcaster, and will play some of his own music. He will be interviewing you in the audience, and ask you to join him on stage as disc jockey. The best attempt will win a prize of LP records or recording tape.

SUNDAY, 3rd NOVEMBER

**2.30 p.m. Practical Electronics presentation :
Sound Synthesis for the Amateur**

by Douglas Shaw

Mr. Shaw continues his discussion, for the third successive year, on current trends in the field of sound synthesis, with particular attention to equipment designed specially for the home constructor. This year he will include a comparatively simple miniature sound synthesiser and a more advanced digital music system which is under development.

5.00 p.m. Beginner's Guide to Hi-Fi

by Clement Brown (Executive Editor, Haymarket Publishing)

Our well known speaker will take us through the steps; what we are trying to achieve with hi-fi in the home, the form it takes and a comparison of current systems in wide use. He will explain how stereo enhances an enjoyment of music in the home, and give important pointers to quality and advice on how to choose equipment. Finally we shall hear about high quality programme material from disc, radio and tape and possible future developments. A variety of audio equipment will be shown and demonstrated.

SPECIAL EVENT

On Saturday, November 2nd, at 11 a.m., the Annual Prizegiving, Presentation of Trophies and playback of winning tapes in the 16th British Amateur Tape Recording Contest will be staged in the Hi-Fi Theatre.

The 23rd International Amateur Recording Contest was judged in Broadcasting House on 21st October, and British winners of that Contest also will be announced. All are welcome —particularly Tape enthusiasts.

Alphabetical List of Exhibitors

Exhibitors are listed here by their brand or trade names only. They are listed by their company names on the stand plan inserted later in the catalogue. In some instances exhibitors have display stands only and are not themselves demonstrating, sometimes their goods may be heard in conjunction with the demonstrations of other exhibitors.

Following this is a Where to Find feature and then the Description of Exhibits feature which again is in alphabetical order keyed by brand or trade names.

| BRAND OR TRADE NAME | STAND No. |
|--------------------------------|-----------|
| ACCESS | D26 |
| ADC | B10 |
| AGFA-GEVAERT | D18 |
| AKAI | C10/11 |
| ALPHA BY HIGHGATE | A2 |
| A & M RECORDS | C24 |
| AMSTRAD | E6 |
| ANTIFERENCE | G39 |
| ATEKA | F11 |
| AUDIO & HI-FI LISTENING | D3 |
| AUDIO MAGAZINE | B12 |
| AUDIO PACKS | E9 |
| BANG & OLUFSEN | D12 |
| B.A.S.F. | C5 |
| BBC | C50 |
| BIB | C15 |
| BILLBOARD | B2 |
| BOSE | D7 |
| BRAHMS | C14 |
| BRITISH INDUSTRIAL GRAPHICS | G40 |
| B & O | D12 |
| CAMBRIDGE AUDIO | C6 |
| CASSETTES & CARTRIDGES | C1 |
| CELESTION | E2 |
| COLTON | F13 |
| COMSAR | C23 |
| DECCA | D9 |
| DIAMOND STYLUS | E11 |
| DSC AUDIO | D20 |
| DYNACO | E1 |
| EDWARDUS. | F7 |
| ELECTRICAL & ELECTRONIC TRADER | D3 |

International Audio Festival and Fair

| <i>BRAND OR TRADE NAME</i> | <i>STAND No.</i> |
|---------------------------------------|------------------|
| <i>ELECTRICAL & RADIO TRADING</i> | D3 |
| EMPIRE | C10/11 |
| ENCORE | E11 |
| ERA | C7 |
| E.S.S. | E1 |
| EVERYDAY ELECTRONICS | B12 |
| F.B.T.R.C. | D14 |
| FERRANTI | G42 |
| FERROGRAPH | D13 |
| FISHER | F3 |
| FUBA AERIALS | A3a |
| GABRAPHONE | G52 |
| GALE | G6/7/8/9 |
| GARRARD | B8 |
| GOLDING AUDIO | G59 |
| GOLDRING | E4 |
| GOODMANS | C16 |
| GRAMOPHONE | C1 |
| HARMON KARDON | A2 |
| HERVIC | G7 |
| HI-FI AIDS | G18 |
| <i>HI-FI DESIGNS</i> | D3 |
| <i>HI-FI FOR PLEASURE</i> | B3 |
| <i>HI-FI NEWS & RECORD REVIEW</i> | F6 |
| <i>HI-FI SOUND</i> | A8 |
| <i>HI-FI YEAR BOOK</i> | D3 |
| <i>HOW TO LISTEN TO THE WORLD</i> | B2 |
| HOWLAND-WEST | A7 |
| IMPO | E1 |
| J.B.L. | A3 |
| J.V.C. | C13 |
| J. BEAM AERIALS | G43 |
| JOSTY ELECTRONIC KITS | G24 |
| KEF | B10 |
| KIRSTEN | B7 |
| KLINGER | F4 |
| KOSS | D10 |
| LENCO | E4 |
| LLOYTRON | G34 |
| LUX | A7 |
| MAGNAT | F1 |
| MAJOR | E1 |
| MARANTZ | D8 |
| MARKOVITS | B1 |
| MEDWAY | C14 |

International Audio Festival and Fair

| <i>BRAND OR TRADE NAME</i> | <i>STAND No.</i> |
|------------------------------|------------------|
| <i>MERCHANDISING WEEK</i> | B2 |
| METRO SOUND | B9 |
| MICRO | A7 |
| <i>MUSIC WEEK</i> | B2 |
| MUSONIC | F13 |
| NAKAMICHI . | G5 |
| NATIONAL PANASONIC | D15 |
| NATIONAL WESTMINSTER BANK | D1 |
| NEAL | G41 |
| NIKKO | A7 |
| NU-WAY STYLI | G25 |
| OMEX | C4 |
| ORTOFON | B9 |
| PHILIPS | D16 |
| PHOTAX | B6 |
| PICKERING | A2 |
| PIONEER | D11 & E5 |
| <i>POPULAR HI-FI</i> | A8 |
| <i>PRACTICAL ELECTRONICS</i> | B12 |
| <i>PRACTICAL TELEVISION</i> | B12 |
| <i>PRACTICAL WIRELESS</i> | B12 |
| PRECISION TAPES | E3 |
| Q.A.S. | F10 |
| QUAD | F2 |
| QUADRASONICS | E20 |
| <i>QUADROPHONY NOW</i> | C1 |
| RANK DOMUS | C10/11 |
| RAY-O-VAC | F10 |
| RCA | B15 |
| <i>RECORD REVIEW</i> | C1 |
| RELIANCE | D22 |
| REVOX . | C8 |
| ROTEL | C10 & D11 |
| SAE | G8 |
| SANSUI | A10 |
| SANYO | D5 |
| SCAN-DYNA | D6 |
| SCANSONIC | A7 |
| SCINTREX | E1 |
| SENNHEISER | F3 |
| SERVO-SOUND | G10 |
| SHAFTESBURY FURNITURE | G33 |
| SHARP | C17 |
| SHURE | B11 |
| SME | E7 |
| SONAB | C18 |
| SONOTONE . | A10 |
| SONY | C12 |

International Audio Festival and Fair

| <i>BRAND OR TRADE NAME</i> | <i>STAND No.</i> |
|--------------------------------------|------------------|
| SPIRELLE | F1 |
| STAX | C7 |
| STEEPLETONE | F9 |
| STUDIOCRAFT | D7 |
| STUDIO SOUND | F6 |
| TANDBERG | E8 |
| TANNOY | A1 |
| TAPE & HI-FI TEST | F15 |
| <i>TAPE & RECORD GUIDE</i> | B2 |
| TAPE MAGAZINE | F15 |
| TDK | B4 |
| TEAC | D7 |
| TELEFUNKEN | F12 |
| THORENS | B9 |
| 3M (THREE M) | A6 |
| TOSHIBA | B7 |
| TRIO | C9 |
| UHER | G16 |
| UNITRA | E10 |
| VAN DER MOLEN | G37 |
| VERNITRON | A10 |
| VIDEOSONIC | G16 |
| VOXSON | D20 |
| <i>WIRELESS WORLD</i> | F7 |
| <i>WORLD RADIO & TV HANDBOOK</i> | B2 |
| YAMAHA | G5 |

Where to find...

Main product categories are listed on these pages to help visitors wishing to see particular items. Companies who have indicated that they will be showing such equipment are named using for convenience their brand name.

ACCESSORIES—Accessories—Zubehör—Accessori—Accessorios

Agfa Geveart, Antiference, Ateka, Audio Packs, BIB, Comsar (Lighting effect equipment), Diamond Stylus, Ferranti (components & circuits etc.), Goldring, Hi-Fi Aids, Howland-West, Markovits, Metrosound, Musitapes, Musonic (Colton), Nu-Way, Philips, Precision Tapes, Quality Audio Supplies, Scan-Dyna, Sonotone, TDK, Uher.

AERIALS—Antennes—Antennen—Antenne—Antenas

Antiference, Fuba, J. Beams Aerials.

AMPLIFIERS—Amplificateurs—Verstärker—Amplificatori—Amplificadores

AEG-Telefunken, Akai, Alpha by Highgate, Amstrad, B & O, Brahms, Cambridge Audio, Celestion, De Banks-Era, DSC, Dynaco, ESS, Ferranti, Ferrograph, Fisher, Gabraphone, Goodmans, Howland-West, JVC, Marantz, Metrosound, Nakamichi, National Panasonic, Omex, Philips, Photax, Pioneer, Quad, Revox, Rotel, S.A.E., Sansui, Scott, Sonab, Sony, Soundcraftsmen, Steepletone, Teac, Toshiba, Trio, Unitra, Van der Molen, Yamaha.

CABINETS (equipment, tape and record storage)—Placards (de rangement de l'équipement, des bandes magnetiques et des disques)—Schränke (zur Aufbewahrung von Ausrüstungen, Bandern und Platten)—Mobili (per apparecchi, nastri e dischi)—Armarios/Cajas (para almacenaje de equipos, cintas y discos)

Ateka, B.I.G. (panels & trims), Encore, Kirsten (name plates & badges), Markovits (name plates and badges) Musonic (Colton), Nu-Way, Reliance (name plates and trims), Shaftesbury Furniture, SME.

HEADPHONES—Casque d'écoute—Kopfhörer—Cuffie—Auriculares

Amstrad, Diamond Stylus, ERA-Stax, Fisher, Goldring, Howland-West, JVC, Koss, Marantz, Micro, Pioneer, Rotel, Scandyna, Scintrex, Sonab, Trio, Uher, Unitra, Yamaha.

KITS (CONSTRUCTIONAL)—Jeux (de montage)—Bausätze—Scatole

di montaggio—Juegos de piezas para montar uno mismo
Josty, KEF.

MICROPHONES—Microphones—Mikrophone—Microfoni—Microfonos

Musitapes, Nu-Way, QAS, Shure, Teac, Uher.

MIXERS—Melangeurs—Mischpulte, Miscelatori—Mezcladores

Shure, Teac, Uher.

PICK-UP ARMS—Bras de pick-up—Tonarme—Bracci per pick-up (fonorivelatori)—Brazos tonales

ERA/Stax, Goldring, Howland-West, Musonic (Colton), SME, Stanton.

**PICK-UP CARTRIDGES—Tetes de pick-up—Tonabnehmereinsatze—
Cartucce per giradischi—Cartuchos de fonocaptor**

ADC, Alpha by Highgate, Amstrad, Diamond Stylus, Empire, ERA, Goldring, Howland-West, JVC, Metrosound, Micro-Acoustics, Nu-Way, Philips, Pickering, Sharp, Shure, Sonotone, Stax, Toshiba, Yamaha.

**PRE-RECORDED TAPES—Bandes magnetiques pre-enregistrees—
Vorbesspielte Bänder—Nastri incisi—Cintas pregrabadas**

A & M Records, BASF, BBC (Records), Musitapes, Nu-Way, Precision Tapes, RCA.

**PUBLICATIONS—Publications—Publikationen—Publicazioni—
Publicaciones**

Audio, Audio & Hi-Fi Listening, B.B.C., Billboard, Cassettes & Cartridges, Everyday Electronics, Gramophone, Hi-Fi Answers, Hi-Fi Dealer, Hi-Fi for Pleasure, Hi-Fi News & Record Review, Hi-Fi Sound, Hi-Fi Yearbook, Melody Maker, Merchandising Week, Music Week, Popular Hi-Fi, Practical Electronics, Practical Television, Practical Wireless, Stereo International, Studio Sound, Tape & Hi-Fi Test, Tape & Record Guide, Wireless World.

**QUADRAPHONICS—Quadrphonie—Quadro-Raumklang-Systeme—
Unita doppio stereo—Cuadrofonia**

Alpha, Amstrad, B & O, JVC, Koss, Major, Musitapes, National Panasonic, Neal, Philips, Pioneer, Quadrasonics, Q.A.S., R.C.A., Sansui, Sanyo, Scandyna, Sharp, Sherwood, Sony, Tate, Toshiba, Trio, Van der Molen.

**SPEAKER DRIVE UNITS—Pre-amplificateurs de haut-parleurs—
Lautsprecher-Steuergerate—Amplificatori per altoparlanti—Impulsores
de altavoz**

Altec, Bose, KEF, Rola Celestion.

**SPEAKER SYSTEMS—Systemes de haut-parleurs—Lautsprecher-
Systeme—Sistemi di altoparlanti—Sistemas de altavoces**

AEG, Alpha by Highgate, Amstrad, Bang & Olufsen, Brahms, B & O, Bose, Cambridge Audio, Celestion, Diamond Stylus, Decca, Dynaco, Edwardus, ERA, ESS, Ferrograph, Fisher, Gabraphone, Gale, Goodmans, Hisonic, Howland-West, J.B.L., JVC, KEF, Magnat, Marantz, Metrosound, Philips, Pioneer, Quad, Quadrasonics, Rank Domus, Sansui, Sonab, Sony, Studiocrfts, Tannoy, Toshiba, Trio, Van der Molen, Yamaha.

TAPES—Bandes magnetiques—Tonbänder—Nastri magnetici—Cintas

Agfa-Gevaert, Alpha by Highgate, A & M Records, BASF, Decca, Diamond Stylus, Howland-West, Musitapes, Neal, Philips, Sony, TDK, 3M.

**TAPE CARTRIDGE PLAYERS—Magnetophones a cartouches (sans
enregistrement)—Cassetten-Abspielgerate—Riproduttori a cassette—
Reproductores de cinta en cartucho**

Bang & Olufsen, Decca, Golding, JVC, Musitapes, Sharp, Sonotone, 3M.

**TAPE CASSETTE RECORDERS—Magnetophones a cassette—Cassetten-
Gerate (Tonband-Gerate)—Registratori a cassetta—Magnetofonos de
cassette**

AEG, Akai, Amstrad, BASF, Bang & Olufsen, Decca, Golding, Goodmans, JVC, Musitapes, NEAL, Omex, Philips, Sansui, Sharp, Sonab, Sony, Tandberg, Teac, 3M, Uher.

TAPE DECKS—Tetes d'enregistrement sur bande magnetique—Chassis (Tonbandgerate)—Piastrre per registratori—Chasis magnetofonicos

Akai, Alpha by Highgate, Amstrad, Decca, Harmon Kardon, JVC, Major, Musitapes, National Panasonic, Philips, Pioneer, Sansui, Sanyo, Sharp, Sonab, Steepletone, Tandberg, Teac, Technics, Toshiba, Trio, Van der Molen, Yamaha.

TAPE REEL-TO-REEL RECORDERS—Magnetophones a enregistrement de bande a bande—Tonband-Aufnahmegerate (mit zwei Rollen)—Registratori a nastro—Magnetofonos de bobinas

AEG, Akai, B & O, Decca, Ferrograph, Hisonic, JVC, Loytron, Philips, Revox, Sansui, Sharp, Sherwood, Sony, Tandberg, Teac, Uher, Unitra.

TUNERS—Dispositifs d'accord (Tuners)—Tuner (Abstimmgerate)—Sintonizzatori—Sintonizadores

Akai, Alpha by Highgate, Amstrad, B & O, Cambridge Audio, Celestion, Ferrograph, Harmon-Kardon, Howland-West, JVC, Klinger, Lux, Major, Metrosound, National Panasonic, Philips, Photax, Quad, Revox, Rotel, S.A.E., Sansui, Scott, Sharp, Sherwood, Sonab, Sony, Soundcraftsmen, Steepletone, Tandberg, Teac, Toshiba, Trio.

TUNER/AMPLIFIERS (RECEIVERS)—Dispositifs d'accord/amplificateurs (recepteurs)—Tuner/Verstarker (Empfanger)—Sintonizzatori—Amplificatori (Ricevitori radio)—Sintonizadores/Amplificadores (Receptores)

AEG, Akai, Alpha by Highgate, Amstrad, B & O, Brahms, Decca, Ferranti, Fisher, Hervic, Howland-West, JVC, Klinger, Major, Marantz, Metrosound, Omex, Philips, Protax, Pioneer, Quad, Revox, Rotel, Sansui, Sanyo, Scandyna, Sharp, Sherwood, Sonab, Steepletone, Teac, Toshiba, Trio, Van der Molen, Yamaha.

TURNTABLES/TRANSCRIPTION UNITS—Tourne-disques/ensembles d'enregistrement—Wiedergabe/Ubertragungsgerate—Piastrre per giradischi—Giradischi—Platos giradiscosf Unidades de Transcripcion

B & O, ERA-STAX, Gale, Garrard, Goldring, Howland-West, JVC, Metrosound, Micro, National Panasonic, Nakamichi, Philips, Photax, Pioneer, Rank Domus, Sansui, Sanyo, Scandyna, Sherwood, Sonab, Sony, Steepletone, Tandberg, Thorens, Toshiba, Trio.

UNIT AUDIO—Ensembles basse-frequence—Phonoanlagen—Amplificatori di uscita

AEG, Amstrad, B & O, D.S.C., Decca, Gabraphone, Goldring, Golding, Klinger, JVC, Marantz, Metrosound, Omex, Philips, Pioneer, Quadrasonics, Sanyo, Sharp, Sherwood, Sony, Steepletone, Teac, Toshiba, Trio, Van der Molen, Yamaha.

Hi-Fi Year Book **1975**

PUBLISHED OCTOBER 1974

a 'must' for everyone interested in high quality audio

- ★ SPECIFICATIONS AND PRICES OF AUDIO AND HI-FI EQUIPMENT
- ★ ADDRESSES AND TELEPHONE NUMBERS OF MANUFACTURERS AND DISTRIBUTORS
- ★ LAVISHLY ILLUSTRATED
- ★ SEPARATE DIRECTORY SECTIONS
- ★ INFORMATIVE TECHNICAL ARTICLES
- ★ DIRECTORY OF HI-FI RETAILERS

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Order from:

IPC ELECTRICAL-ELECTRONIC PRESS LTD

**General Sales Dept., Room 11, Dorset House
Stamford Street, London SE1 9LU**

Description of Exhibits and Products

ACCESS

STAND D26

The Joint Credit Card Co. Ltd.,
Priory Crescent, Southend-on-Sea, Essex.
Tel: 6702 (Southend) 352211

Credit Card Facilities

Since its launch in October, 1972, Access has established itself as Britain's leading credit card scheme. More than 3 million people hold Access cards, and they can use them at 84,000 retail outlets of all kinds throughout Britain and at a further 60,000 outlets overseas.

Access was launched jointly by Lloyds, Midland and National Westminster Banks and then joined by other banks including Williams & Glyn's and the Royal Bank of Scotland.

The banks are responsible for issuing cards, and the Access scheme is operated on their behalf by The Joint Credit Card Company Limited, which handles computer accounting, the recruitment and servicing of retail outlets, and advertising and promotion.

Administrative headquarters of Access are at Priory Crescent, Southend-on-Sea, where is housed one of Europe's largest and most sophisticated data processing complexes.

The Southend centre services all cardholders' and retailers' accounts. The participating banks each have their own Access departments in the centre, and detailed information about cardholders' accounts is available only to the banks which issued the cards. Thus the rule of confidentiality between the banks and their customers is strictly maintained.

Access turnover has increased steadily in the two years since launch and continues to do so despite the difficult general economic climate. Cardholders are making ever greater use of Access, and the range goods and services which they can purchase with Access has expanded to cover virtually the whole spectrum of the retail trade.

For the cardholder Access is a versatile scheme which enables him/her to shop without carrying large sums of cash or writing out cheques at each shop. However many purchases are made, he/she can settle the Access account each month with just one payment—in which case the service costs nothing.

For the retailer, belonging to the Access scheme means easier book-keeping, the elimination of bad debts, the avoidance of the cost and administrative difficulties of setting up his own credit scheme—and above all a boost to his turnover.

NAT WEST

STAND D1

National Westminster Bank Limited,
41 Lothbury, London, EC2P 2BP
Tel: 01-606 6060

Banking Facilities

National Westminster Bank offers banking services to all exhibitors and visitors, whether or not they are customers of the Bank. The staff in attendance welcome enquiries regarding the many specialised services provided by the Bank.

ADC

STAND B10

Audio Dynamics Corporation,
Pickett District Road,
New Milford, Connecticut 06776,
U.S.A.

Pick-up Cartridges

The current range of ADC cartridges, XLM, VLM, Q36, Q32, Q30 will be displayed and technical staff will be available to answer any queries.

ADC XLM stands for extremely low mass. Not only is the overall weight of the ADC XLM very low, the tip mass of the stylus is so incredibly low that when the XLM is used, in a low mass pick-up arm, low distortion groove tracing is possible at 0.6 grammes.

No matter how low the moving mass, every cartridge requires damping to eliminate unwanted high frequency resonances. Damping has traditionally been achieved mechanically with a viscous damping material causing loss of sensitivity, impairment of tracking, and frequently, loss of gain in the critical middle frequencies. ADC have now perfected and incorporated Controlled Electro-Dynamic Damping.

This new CED system of damping consists of shrouding the pole pieces with a tiny aluminium casting. When the magnetic field is disturbed by movements of the armature, eddy currents are generated in the shroud, act on the armature to dissipate unwanted mechanical energy.

VLM has an identical body to the XLM but with a stylus capable of tracking at $\frac{3}{4}$ -1½ grammes.

The ADC 'Q' series evolved from the laboratory research and experience gained in the design of the highly acclaimed XLM cartridge. It was created to provide a level of performance that closely approaches that of the XLM, but with a mechanical specification offering a wider variety of turntable/arm combinations.

U.K. Distributors: Hisonic Ltd., Tovil, Maidstone, Kent, ME15 6QP. Tel: 0622-57258. Associated with KEF Electronics Ltd. q.v.

AGFA-GEVAERT

STAND D18

Agfa-Gevaert Ltd.,
Great West Road,
Brentford,
Middx.
Tel: 01-560 2131

Cassette and Reel-to-Reel Magnetic Tape

A bigger stand than ever before has been taken by Agfa-Gevaert to present the latest in their range of cassette and reel-to-reel magnetic tape.

The highly popular Agfa-Gevaert **Colour Cassettes** will be demonstrated at regular intervals to a lively dance routine from the Colour Cassette Girls. Agfa-Gevaert's technical representatives will be on hand to discuss and advise on visitors' particular HI-FI questions, and will be especially pleased to give demonstrations of the new PEM Tape—described as being the 'professional tape for amateurs'—in the special audio room. Additional headphones will be available outside the audio room.

As well as tape demos, Agfa-Gevaert offer an interesting series of booklets dealing with the many facets of tape recording. These booklets retail in the price range of 41p-65p per book—very good value!

Agfa-Gevaert will be pleased to see you at their stand and hope your visit will be both enjoyable and informative.

For more information contact Ted Bowden at our Brentford address.

AKAI

**STAND C10
C11**

Rank Audio Visual Ltd.,
P.O. Box 70,
Great West Road,
Brentford, Middx. TW8 9HR.
Tel: 01-568 9222

Tape Systems, Amplifiers, Tuners and Receivers

Akai with its traditional strength in tape will, this year, be concentrating most of its energies in this direction. Attention will be focused on the use of the cassette as the basis of a hi-fi system offering a real alternative to disc reproduction in systems of sound quality, and availability of pre-recorded material. Akai offers the very latest ideas in tape reproduction and sound quality and this will be prominently featured at the Audio Fair. The already impressive 1974 range of 10 cassettes, 7 reel to reel and 4 cartridge machines has now been extended to offer probably the widest choice within a single range. On show there will also be the distinctive amplifiers, tuners and receivers which have brought Akai quality to hi-fi electronics.

ALPHA by Highgate, Harman Kardon, Pickering

STAND A2

Highgate Acoustics,
38 Jamestown Road,
London, N.W.1.
Tel: 01-267 4936

Amplifiers, Tuners, Tuner-Amplifiers, Cartridges, Styli, Speakers

A comprehensive Harman Kardon range of goods covering amplifiers, tuners, tuner/amplifiers and a Dolby professional cassette deck.

New models on show are: 800 + 4 × 22 watts RMS. multichannel tuner/amp. 2 × 50 watts RMS; 900 + 4 × 32 watts RMS. multichannel tuner/amp. 2 × 90 watts RMS; 330B Stereo tuner/amplifier; HK20 Bookshelf speakers.

The comprehensive ALPHA range consists of:— Amplifiers, tuners, tuner/amplifiers, stereo cassette tape decks, combination units, stereo cartridge tape deck, Dolby noise reduction unit + a wide range of loudspeakers.

New models on show are: FT650 AM/FM Stereo tuner; T × 500 AM/FM Stereo tuner with MPX decoder; FA600 Tuner/amplifier; FR8000 Tuner/amplifier; AX500 Amplifier; CD2000 Stereo cassette deck; HT12 Omnidirectional speaker; HT60 Loudspeaker; HT90 Loudspeaker.

The Pickering range of both cartridges and styli is divided into four distinct groupings covering a wide range of prices and functions. Of notable interest is the Pickering discrete 4-channel cartridge UV-15/2400Q, which not only faithfully reproduces stereo material but also 30KHz FM modulated signals (Quad.).

There is also a range of slim line weather-proof Poly Planar speakers, ideal for use where conventional speakers would not be suitable, e.g. kitchens, bathrooms, patios etc. Notable characteristics are:

(1) Extremely slim e.g. $\frac{3}{4}$ inch. (2) Waterproof. (3) Functions perfectly within a wide range of temperatures. As yet no prices available.

A & M RECORDS

STAND C24

A & M Records Ltd.,

136-140 New Kings Road, London, SW6 4LZ.

Tel: 01-736 3311

Records

A & M Records is the company founded by Herb Alpert, his famed Tijuana Brass trumpet sound, and the "The Lonely Bull" hit of a dozen years ago.

Today, with offices in Hollywood, New York, Toronto, London and Paris, and diverse talents like the Carpenters, Cat Stevens, Billy Preston and Rick Wakeman on its books, A & M is one of the most important independent labels in America; indeed the world.

The company also distributes the Ode label (Carole King) and the recently-announced Dark Horse Records, with ex-Beatle George Harrison signed as a producer. Leon Russell's own Shelter label is also handled in the UK by A & M.

Herb Alpert, whose comeback plans after five years off the scene included a British tour last autumn, formed A & M Records with Jerry Moss, then a record business promotion man, in a converted garage in California.

Together, they were ultimately responsible for signing acts such as Sergio Mendes, Liza Minelli, The Sandpipers and Burt Bacharach. While, on the rock front, there were forces like The Flying Burrito Brothers, jazz giants Wes Montgomery and Quincy Jones, plus the re-emergence of producer/writer Phil Spector via records by the Checkmates ("Black Pearl") and the Ike & Tina Turner classic "River Deep, Mountain High".

Among the British names who found the A & M label a vehicle for commercial acceptance both here and in the States have been Humble Pie, Joe Cocker, The Strawbs, Stealers Wheel and Peter Frampton.

★ SEE ADVERTISEMENT ON PAGE 127.

AMSTRAD

STAND E6

A.M.S. Trading (Amstrad) Ltd.,

89 Ridley Road, Dalston, London, E8.

Tel: 01-249 5237-9

Amplifiers, Tuner Amplifiers, Cassette Decks, Speakers

The **IC 2000 Mk II** high fidelity amplifier gives an output power of 100 watts (25 watts RMS per channel into 8 ohms). Distortion is better than 0.1%. Frequency response 20 Hz to 20 kHz \pm 2dB. There are additional speaker sockets for extension speakers and a headphone socket. Inputs for ceramic, and magnetic pickups, radio and tape recorder.

In **Model 5000 Tuner-Amplifier**, the audio section is identical to the IC 2000 Mk II amplifier, the radio section has three colour illuminated dial, FM, Medium and Long waves. An l.e.d. stereo beacon is incorporated.

The **Integra 4000 Mk II amplifier** gives a power output of 60 watts (15 watts RMS per channel into 8 ohms), distortion 0.5%. Frequency response 20-30 kHz. Ext. l.s and L/set sockets and four input sockets are provided.

The **8000 Mk II amplifier** gives a total output of 40 watts (10 watts RMS per channel into 8 ohms), distortion 0.5%. Frequency response 20-30 kHz. Slider controls for Bass, Treble and two separate volume controls are provided.

The **6000 stereo cassette recorder** features automatic stop, twin record/vu meters, and record level and playback slider controls. It has two inputs for stereo microphone, a pause key and safety tab interlock on the record key.

The display also includes a Multiplex 3000 FM Tuner and Acoustra 1500/2500 speaker systems.

ANTIFERRENCE

STAND G39

Antiferrence Ltd.,
Aylesbury,
Bucks. HP19 3BJ.
Tel: 0296 (Aylesbury) 82511

Aerial Installations and Equipment

The Antiferrence exhibit once again features and demonstrates the importance of the aerial in providing good FM-Stereo reception.

This famous **Mushkiller** range of FM Stereo Aerials has been expanded by the addition of **two new models**:—

FM235T 3 element array for the DIY enthusiast complete with loft and outdoor mountings

FM284T 8 element 'DX' array with a triple reflector unit—the most powerful FM array to date from Antiferrence.

All multi-element types incorporate patented 'Trumatch' dipoles which give flatter response and more accurate matching than conventional dipoles. The complete range includes 2, 3, 4, 6 as well as simple dipole types.

Two superb new Rotenna aerial rotators with transistorised control units provide accurate, reliable, and silent operation with a single control knob are models:

RTA175 Standard model for single aerial installations.

RTA200 Standard model for larger or multiple arrays.

A completely **new FM Masthead high-gain single-stage amplifier** employing a low-noise silicon device provides a gain of approx. 15 dB. Robustly made and weatherproofed the amplifier is designed for mast, bracket or surface mounting—**MA102/FM**. Its associated power unit (**PU102**) is housed in an attractive white plastic case for surface mounting.

Stereopacks are a range of aerial accessories in self select packs, including a 75/300 ohm receiver transformer (**TRR/V**) for matching 75 ohm coaxial downleads into 240/300 ohm aerial inputs which are often provided on imported FM Tuners.

★ SEE ADVERTISEMENT ON PAGE 105.

AUDIO

STAND B12

IPC Magazines Ltd.,
Fleetway House,
Farringdon Street,
London, E.C.4.
Tel: 01-634 4444

Magazine for the Enthusiast

Audio, the hi-fi and record magazine features the most authoritative writers and provides readers with an informative and entertaining insight into every aspect of the sound scene. On this year's stand is the new Philips video cassette recorder and camera which will be awarded to the winner of the November issue competition. Visitors to the stand are invited to enter special listening booths where they can listen to audible faults in a hi-fi system. There is also a problem desk manned by a resident expert who will offer advice on all manner of hi-fi problems.

ATEKA DISPLAYS

STAND F11

Ateka & Company,
23 Station Road Industrial Estate,
Hailsham, Sussex, BN27 2ER.
Tel: 0323 (Hailsham) 843191

Pilferproof Display Racks for Musicassettes and Cartridges

This company produces and markets a patented range of racks for wall-mounting, free-standing and counter-standing systems. The basic unit is a wood-framed board with a bottom locking device (patented) taking 10 strong plastic-coated metal cages which swivel 90 degrees from left to right so that on *all* systems the full front and full back of each cassette or cartridge can be read by the customer. Cartridge racks take up a wall space 23½in (597mm) wide and 33in (838mm) high, on which either 50 or 100 or 150 cartridges can be mounted. Musicassette racks take up a wall space 19in (483mm) wide and 33in (838mm) high, on which either 60 or 120 or 180 or 240 cassettes can be mounted. Free-standing units have a maximum capacity of 300 cartridges or 480 musicassettes or 150 cartridges plus 240 musicassettes. *Mix any* musicassette cages and cartridge cages on one rack if you want!

Castors can be fitted to free-standing units if required. Counter standing racks are also available.

The makers know of no other system more intensive in terms of wall space and more versatile in its use. Customers can start with a less intensive cage system, and on increase of turnover leave the racks on the wall and merely replace more intensive cages which will either double, or treble or quadruple the display capacity on the same wall space!

Ask for leaflet with further details.

★ SEE ADVERTISEMENT ON PAGE 122.

AUDIO PACKS

STAND E9

Tape Recorder Spares Ltd.,
206-210 Ilderton Road,
London, SE15 1NS.
Tel: 01-639 7844-7

Pre-packed Audio Spares and Accessories

Once again it is our pleasure to exhibit in full the very popular 'Audio Pack' range of pre-packed Audio spares and accessories.

Both the Trade and the Public use these packs extensively and due to the ever increasing demand we have now over 650 different items. They comprise plugs, sockets, more than 150 different connecting leads, adapters, mains units, Garrard spares, switches, fuses, drive belts, sound selector units and many miscellaneous packs. Audio Packs are distributed to retailers throughout the U.K., by specially appointed wholesalers, and we will be pleased to give full details upon request.

In addition to the Audio Pack staff, the following executive personnel from our Industrial and Export Divisions will be in regular attendance and both trade and public visitors will be very welcome.

Export Division—D. E. S. Smith; Industrial Division—A. E. Plume; Audio Pack Division—C. A. Ford.

BASF

STAND C5

BASF (UK) Ltd.,

197 Knightsbridge, London, SW7.

Tel: 01-584 5080

Recording tapes, cassettes etc.

Forty years ago in 1934 BASF delivered the first 50,000 metres of a newly developed recording tape to AEG who were producing a machine, called the 'Magnetophon', which would record and replay the new recording medium. This momentous occasion marked the beginning of magnetic recording tape as we know it today, and exceeded all expectations by becoming the basis of all recording for audio, video and electronic data (computers).

The BASF stand at the 1974 International Audio Fair and Festival reflects the achievements the company has made in tape technology. Exhibits include:

BASF 8200 CrO₂—a new high fidelity stereo cassette deck which accepts both ferric oxide and chromium dioxide cassettes with automatic switching to the correct bias for each tape. It incorporates Dolby B and DNL noise reduction systems.

BASF 1800 CrO₂—a smaller version of the 8200 but without Dolby B.

BASF CC9110 CrO₂—another new product, this portable cassette recorder gives a full one watt output and completes a range of three portable cassette machines with automatic switching to chromium dioxide bias.

BASF will be demonstrating the complete range of chromium dioxide and ferric oxide cassettes, the former with Special Mechanics (SM)—the revolutionary internal tape guidance system—and the latter with and without Special Mechanics.

Catering for the increasing demand for blank cartridges BASF has added two new cartridges to make a range of three comprising 45, 64 and 90 minute cartridges.

The BASF reel-to-reel tape is considered by independent sources to be the best consumer buy, BASF's new matt-black back LPR 35LH and DPR 26LH are no exceptions. Both of these truly outstanding tapes will be on show.

B.I.G.

STAND G40

British Industrial Graphics Ltd.,

St. Margarets Works, Winchester Road,

Twickenham, Middx. TW1 1JZ.

Tel: 01-892 3636

Panels and trim

For many years we at British Metal Engraving have been producing all types of nameplates and data plates and are well known throughout industry for our service in this line.

Several years ago we decided to put our knowledge gained in this field into increasing our range of manufacture to include fine quality trim and decorative panels in aluminium.

To cater for the demands of the new products we have built a new specially designed factory which has been equipped with up-to-date plant and machinery to ensure that a high standard of quality is produced constantly, promptly and economically.

We have our own studio which contains the latest type setting and photographic equipment required for the exacting standards demanded by our customers.

Our large litho printing department enables us to produce intricate and multi-coloured finishes fast and accurately. We also have a screen printing department to cater for the printing of plastic and larger items of trim. Also included in our graphic section is anodising.

In the new factory we have our own graining shop producing a whole range of grained aluminium finishes which can be specified by the customer.

BIB

STAND C15

Bib Hi-fi Accessories Ltd.,

P.O. Box 78, Hemel Hempstead, Herts.

Tel: 0442 (Hemel Hempstead) 3636

Accessories for Tape and Audio Equipment

The BIB range of Hi-Fi accessories now exceeds 70, covering requirements for record care, tape care and Hi-Fi maintenance. **Several new lines have been added to the range** within the last few months, all of which will be exhibited on the BIB Stand.

Groov-Kleen, Modern Automatic Record Cleaner. Deluxe Model 42. £1-76; Auto-Changer Groov-Kleen. Model 45. 98p; Compact Tape Head Cleaning Kit. Ref: J. 56p; Tape Editing Kit ($\frac{1}{4}$ " 6.3mm). Ref: 23. £1-52; Recording Tape Splicer ($\frac{1}{4}$ " 6.3mm). Model 20. £1-24; 8 Track Stereo Test Cartridge. Ref: 58. £1-93; 8 Track Cartridge Tape Head Cleaner. Ref: 41. 88p; 8 Track Cartridge Case, holds 8. Ref: 35. £1-80; Cassette Head Cleaners Ref: 31 (with library case) 52p, Ref: 31a 42p; Hi-Fi Stereo Test Cassette. Ref: 53. £1-93; Cassette Care Kit. Ref: 51. £2-80; Cassette Tape Editing & Joining Kit. Ref: 24. £1-64; Cassette Case, holds 12. Ref: 34. £1-60; Cassette Salvage Kit. Ref: 29. 46p; Cassette Tape Recorder Care Kit. Ref: 26A. £1-96; Record Care Kits Ref: 43. £2-20, Ref: 59. £1-17; Stylus Balance. Ref: 32A. £1-24; Spirit Level. Ref: 46. 56p; Indexa Record, filing and index system. Ref: A. £1-70; Stylus & Turntable Cleaning Kit. Ref: B. 34p; Record Dust-Off. Ref: 48. 22p; Hi-Fi Cable & Flex Tidies. Ref: D/2. 21p; Hi-Fi Stereo Hints & Tips book. Ref: 56. 38p.

Recently introduced lines:

Cassette Splicer. Model 30. £1-24; Cartridge Care Pack, comprising Head Cleaner, Demonstration Tape and two dust covers. Ref: 67. £1-38; Tape Head and Stylus Inspection Mirror. Ref: 68. 20p; Anti-Static Liquid, Ref: 69. 27p.

★ SEE ADVERTISEMENT ON PAGE Cover II.

BILLBOARD/MUSIC WEEK

STAND B2

Billboard Ltd.,

7 Carnaby Street, London, W1V 1PG.

Tel: 01-437 8090

Publications

The Billboard publications display, at the International Audio Festival and Fair, features their publications that evolve round a national approach to the latest music and equipment. Billboard titles on show, will include:

BILLBOARD—the international music business weekly newspaper, covering the multi-million music record tape industry.

An acknowledged leader in its field, Billboard acts as a communication media between the performers, retailers, manufacturers, distributors, music publishers and broadcasters throughout the world.

MUSIC WEEK—Leading European music business paper published weekly for retail and industry news. Containing the B.N.R.B. Top 50 Chart.

TAPE AND RECORD GUIDE—comprehensive guide in the U.K. that lists pre-recorded tapes and records. Now in both popular and classical editions.

WORLD RADIO & T.V. HANDBOOK—Published every December. Annual directory of radio and T.V. stations world-wide, containing complete information on broadcasting and television stations.

HOW TO LISTEN TO THE WORLD—Published annually; November. A companion publication to the World Radio T.V. Handbook, contains articles on all wave listening, plus intercontinental T.V. reception, and short wave bands.

MERCHANDISING WEEK—a U.S. weekly trade publication on consumer electronics serving the U.S. retailer.

★ SEE ADVERTISEMENT ON PAGE 104.

EBC RADIO

STAND G50

British Broadcasting Corporation,

Broadcasting House, London, W1A 1AA.

Tel: 01-580 4468

Radio Programmes, Facilities, Publications and Engineering Information

Visitors to the BBC stand will be able to sample, on high quality headphones, the wide range of choice offered by the four national programmes, and by BBC Radio London. They will be able to see in action the stereo studio suite, from which a number of programmes will be broadcast each day. The stand will also offer BBC Records and BBC Publications, a section devoted to Radio London, and an Engineering Information unit.

The BBC is steadily increasing its stereophony output, which now includes some Radio 1 programmes (when transmitted on VHF), much of Radio 2 and Radio 3, and some items of Radio 4.

Six years of BBC research and development have resulted in a new method of sound programme distribution from studio centres to transmitters. The system, now being put into operation and on which the extension of stereo coverage depends, utilises pulse code modulation (PCM) already successfully developed and applied by the BBC in the 'Sound in Syncs' system for television sound.

PCM uses a process of sampling and coding using digital techniques. The outputs of microphones and other programme sources are 'analogue' signals and the transmission of signals in this form over long distances results in progressive degradation due to 'noise' and other forms of distortion. The digital signal transmissions used in the new BBC system overcome this.

The BBC's PCM system can handle 13 full bandwidth audio programmes in a single stream. Each mono programme occupies a single channel and a stereo programme two single channels; the digital-to-analogue conversion and the stereo encoding is carried out at the main VHF radio transmitters. The transmitters will therefore continue to radiate the same pilot-tone stereo system as previously.

Please see also pages 94 - 96
for stop press unclassified
late entries

**BRAHMS
Medway**

STAND C14

Brahms Manufacturing & Development Company,

Unit E, Airport Works,

Maidstone Road, Rochester, Kent, ME1 3QJ.

Tel: 0634 (Medway) 48816

Loudspeakers

This year we are able to tell you of three improvements in the **Brahms** range.

Firstly, the performance has been improved drastically by the use of more expensive, top quality drive units, which combine to afford high power handling with a remarkable transparency of sound. The extra cost of the drive units has been kept down by increased efficiency in the manufacture of the cabinets and assembly operations.

Secondly, the appearance has benefited from our increased efficiency with even better cabinet construction and finish, coupled with brown, reticulated foam fronts this achieves a high degree of aesthetic appeal.

Thirdly, we feel that the substantial increase in our exports over the past year can only help to prove that it has all been worthwhile.

The **Medway** range units hardly need an introduction as we have always been well known for being able to supply an excellent range of budget loudspeakers, only this year they are even better. The appearance is vastly improved by a new cloth specially woven for us, and an aluminium trim. The speakers are now front loaded and the fronts are removable.

B & O

STAND D12

Bang & Olufsen U.K. Ltd.,

Eastbrook Road, Gloucester GL4 7DE.

Tel: 0452 (Gloucester) 21591

Audio Systems, Quadrophonics, Tuners, Amplifiers, Turntables, Loudspeakers

Bang and Olufsen U.K. are introducing two new systems at the 1974 Audio Fair.

The **Beosystem 6000**, which has been designed to accommodate **SQ-matrix** and **CD-4 discrete recordings** in addition to mono, stereo, and ambio sound-sources, is comprised of the **Beomaster FM tuner/amplifier**, the **Beogram 6000 turntable deck**, four **P-50 sound panels**, and a **Beomaster 6000 'Commander' ultrasonic cordless remote-control unit**.

The **Beomaster 6000** has an output of 4×40 Watts RMS, and distortion at full power is less than 0.1 per cent. At 50 mW per channel, distortion is less than 0.06 per cent, the amplifier can handle all audio frequencies without modifying the input signal waveform. Frequency response is 20 Hz-30 kHz, and the FM section has five presettable stations.

The **Beogram 6000** is a tangential tracking player with logic circuits to control all functions. Also it incorporates a C.D.4 decoder for playing quadradiscs. It is fitted with an MMC 6000 pick-up cartridge, featuring the low mass Pramanic (R) diamond stylus tip, and capable of playing all current types of disc recordings.

The **Beosystem 2000** consists of the **Beomaster 2000 tuner/amplifier**, the **Beogram 2000 record deck**, and two **Beovox 3702 speakers**. The tuner/amplifier covers long, medium, and FM bands, with the AM and FM sections completely separated to allow optimum design for each without compromise. There are five pre-settable stations on FM, and the unit also incorporates a new type of phase lock loop decoder to improve channel separation. The output of the amplifier is 2×40 watts into 4 ohms, and the frequency response (± 1.5 dB) is 20 Hz-30 kHz. Distortion is less than 0.1 per cent at full power, 0.06 per cent at 50 mW.

The **Beogram 2000** has a single master control for all playing functions. Features include anti-microphonic suspension for the turntable and tone-arm.

★ SEE ADVERTISEMENT ON PAGE 20.

CAMBRIDGE AUDIO

STAND C6

Cambridge Audio Ltd.,

The River Mill, St. Ives, Huntingdon PE17 4EP.

Loudspeakers, Amplifiers, Tuners

We manufacture high quality audio equipment and enjoy a reputation for innovation in design and technical performance indicated by the results achieved when Cambridge products are used in a high fidelity system.

P60 Amplifier is a revolutionary new integrated circuit amplifier, the outcome of radical rethinking of conventional CNEE concepts. Features include:

30+30 watts per channel into 8 ohms. Total harmonic distortion less than 0.05 PC at 1 kHz (and typically 0.025 PC) at any level up to rated output (pre+power amplifiers). Frequency response 25 kHz±0.5 dB. The distinctive appearance created by the low profile is obtained by using a toroidal mains transformer. Size 16½ in. × 9¾ in. × 2 in. Finished silver with teak sides or black with rosewood sides.

P50 Amplifier—25+25 watts into 8 ohms. Size and finishes as per P60.

P110 Amplifier—50+50 watt version, same size and optional finishes.

R50 Loudspeaker—a monitor system with transmission line loading of the bass driver. KEF B139, B110 and T27 are used as bass, mid-range and HF units respectively. In addition STC 4001G super tweeters are used above 10 kHz to produce an extended response.

R40 Loudspeaker—A three-way system based on the above design, omitting the super tweeter, with the constraints imposed by the smaller enclosure (31 in. × 13 in. × 12¾ in.).

T55 Tuner—An FM stereo tuner covering the frequency range of 88-108 MHz. Identical in size to the amplifiers it is produced in silver and black to match them. **U.K. Distributors: C. E. Hammond & Co. Ltd., Lamb House, Church Street, London, W4 2PB. Tel: 01-995 4537.**

CELESTION

STAND E2

Rola Celestion Ltd.,

Ditton Works, Foxhall Road,

Ipswich, Suffolk, IP3 8JP.

Tel: 0473 (Ipswich) 73131

Loudspeaker, Television Sound Converter Equipment

The Celestion reputation for building the finest quality loudspeakers is world-wide and is founded on half a century of specialisation in the science of electro-acoustics. All the component units used in Celestion loudspeakers are specially designed in our research development laboratories to fulfil the precise function for which they will be used. Great care is taken to ensure that all individual component parts are checked for quality and accuracy throughout production.

At last you can enjoy TV entertainment with the added pleasure of true Hi-fi sound. 'Telefi' is a unique electronic invention which picks up vhf from the TV and relays this through your own Hi-fi equipment. 'Telefi' ensures crisp, full range, distortion free reproduction of music and speech, providing an improvement over ordinary TV sound which will amaze you. 'Telefi' is safe and requires no permanent connection to the TV set.

| RECOMMENDED RETAIL PRICE LIST SEPTEMBER 1974 PLUS V.A.T. | | | | EACH |
|----------------------------------------------------------|----|----|----------------------------------|---------|
| HADLEIGH | .. | .. | Compact Loudspeaker System | £26-35 |
| COUNTY | .. | .. | Compact Loudspeaker System | £30-75 |
| DITTON 10 Mk II | .. | .. | Ultra Compact Loudspeaker System | £28-55 |
| DITTON 120 | .. | .. | Compact Loudspeaker System | £32-95 |
| DITTON 15 | .. | .. | Compact Loudspeaker System | £43-95 |
| DITTON 44 | .. | .. | Loudspeaker System | £72-55 |
| DITTON 25 | .. | .. | Loudspeaker System | £87-95 |
| DITTON 66 | .. | .. | Studio Loudspeaker System | £133-10 |
| TELEFI | .. | .. | Television Sound Converter | £27-27 |

★ SEE ADVERTISEMENT ON PAGES 12, 13 and Cover IV.

COMSAR

STAND C23

Comsar Ltd.,

261 Beckenham Road,

Beckenham, Kent, BR3 4RP.

Tel: 01-659 0737/0830

Audio Triggered Lighting Effect Units and Projectors

With the swing towards the complete environment, the connection between the fields of Audio and Environmental Lighting grow stronger with every technical advance.

Comsar Ltd. have taken the idea of audio triggered lighting and produced two excellent units, namely their Sound-to-Light Converter and Four Channel Lighting Sequencer.

Both of these units have enormous potential within their respective fields, this being attributed to the high standard to which they are manufactured and includes a full year's guarantee against parts and labour.

In addition to their lighting control devices, Comsar produce a projector which caters for the 6in. effects wheel plus cassette and will offer the operator a complete range of motorised effects which include Liquisplode, Kaleidoscope Lens, Prism Rotator and colour change devices.

To complete the range of effects lighting, there is the Comsar Strobe, with its Rainbow Sequencer and a flip-flop controller which has the additional feature of being able to operate fluorescent lighting.

Looking to the future and in particular to the audio side, a comprehensive mixer and power amplifier are expected additions to the range and will include many new refinements.

D.S.C.

STAND D20

D.S.C. (Audio Products) Ltd.,

Colwyn Bay, North Wales, LL28 5HD.

Tel: 0492 (Colwyn Bay) 49272

Audio Systems, Amplifiers, Furniture

Voxson Sound Systems are professional Hi-Fi units created for use in the home. With Sound Systems, Voxson is offering technically advanced Hi-Fi equipment which renders ineffective the unharmonious 'compositions' of other units.

The most powerful unit in the Sound Systems line is the **H305 stereo amplifier** which is particularly suitable for use in large rooms, concert halls etc.

The front dimensions are equal to those of the other Sound Systems units and the styling is designed to match them.

The cabinet is a very elegant, all-metal structure in black anodised aluminium with an excellent finish that harmonises with any type of furnishing. It also guarantees complete screening from outside electrical interference. Technically, the H305 Amplifier is very advanced, built with selected components and special devices that ensure its performance never varies. All-silicon circuit with 23 transistors plus 2 FET transistors and 10 diodes. The audio output power is 2×50 watts (RMS) with a distortion level of less than 0.2%. It has anti-rumble and anti-hiss filters with high selectivity characteristics to eliminate or attenuate background noise.

Voxson Sound Systems have been united aesthetically to the Elco 'Linear System' of furniture created by the Italian designer Radolfo Bonetto.

The first of three pieces houses the transcription deck beneath a protective plate glass cover and also provides space for additional units such as amplifier, tuner, tape deck etc. Other pieces accommodate the loud speakers and give further storage space.

★ SEE ADVERTISEMENT ON PAGES 6 & 7.

DECCA

STAND D9

Decca Radio & Television,

Neachells Lane, Willenhall,

Wolverhampton, Staffs.

Tel: 0902 (Wolverhampton) 67367

Audio Systems, Music Centres, Stereograms, Tape Recorders, Loudspeakers

The complete range of Decca sound equipment is on display on Stand D9 where there are lots of new products with something for everyone, from in-car tape players to complete home music centres.

The Decca range of **stereo systems** has this year been broadened by the addition of **two entirely new products**: the **Compact 10** features coverage of **FM stereo plus Long and Medium waves** as well as a **record playing deck**, offers 10 watts RMS per channel with full **ambiophonic facility**. The unit comes complete with a pair of matching speakers. Another new product is the stylish **Audio 10 Deccasound System with integrated deck and tuner/amplifier**. The unit feeds 10 watts per channel into the system's pair of loudspeaker enclosures or a further two speakers can be added for 'surround sound'.

Particular emphasis is placed on another new model, the DS 8100 stereo cassette record/playback system complete with speakers. The unit has CrO₂ facility, twin VU meters, digital counter plus all the usual controls. This unit is available also as a slave unit without speakers or output circuitry for building into existing systems (DC 1100). The DC 2000 is also a cassette deck which in addition to CrO₂ offers switchable Dolby circuitry and Memory Rewind which simplifies recording by automatically returning the tape to the position where the recording started. All are supplied with microphones and free blank cassette.

Tuners and a cartridge slave unit complete the audio range plus traditional stereograms. Decca are also displaying their full range of in-car cassette and cartridge players including a new radio/cassette player.

Decca Special Products will be showing their London Cartridge and London Loudspeaker enclosures. Portable radios and cassette/radios complete Decca's home entertainment range.

There are continuous demonstrations of many products and, to make a visit to the Decca stand even more worthwhile, an exciting free Decca Audio Competition with lots of prizes for the audiophile.

★ SEE ADVERTISEMENT ON PAGE 9.

EMPIRE

STAND C10 C11

Rank Audio Visual Ltd.,

P.O. Box 70, Great West Road,

Brentford, Middx. TW8 9HR.

Tel: 01-568 9222

Magnetic cartridges

Empire bring the very latest American sound technology to the U.K. with their range of magnetic hi-fi cartridges.

Each model is designed to track at minimal forces to ensure outstanding record wear and each incorporates the unique Empire design to ensure better balance and hum rejection.

Models range from the top value QE/X and XE/X to the superb 999VE/X and finally the 100 ZE/X, one of the very best cartridges available in the world today.

There will be some surprises in the Empire display this year. Call in at the Rank Audio Products stand and hear Empire equipment incorporated in the sound demonstrations.

DIAMOND STYLUS

STAND E11

The Diamond Stylus Co., Ltd.,

Colwyn Bay,

North Wales, LL28 5HD.

Tel: 0492-49272

Styli, Stylus Cleaner and Accessories

The Diamond Stylus Company Limited claims to be the world's largest manufacturer of diamond styli and is a major supplier to many of the world's leading manufacturers and distributors. In 1975 the company will be celebrating its 25th Anniversary in the manufacture of diamond styli.

Micro-Diamond Styli

A range of styli varying from unmounted diamond points for original equipment manufacturers to a variety exceeding 600 types of cantilevers mounted with diamonds/sapphires and individually packaged ready for the replacement market.

The rapid increasing development of hi-fi in the field of gramophone record reproduction, implies great care in choosing components for reproducing equipment.

To qualify any reproducing equipment as high quality, the stylus must be diamond. There are three very definite reasons for this. The order in which we give them would, of course, vary according to taste but the facts remain true.

- (a) Micro-Diamond will wear fifty times longer than sapphire, extending by fifty times the period of distortion-free playing.
- (b) It is virtually unbreakable and is, in fact, guaranteed against this.
- (c) Record wear is reduced by at least one half as compared with sapphire points.

If your equipment includes a Micro-Diamond Stylus you can be absolutely certain in that part of your equipment you are as near perfection as it is possible to get.

Micro-Diamond Stylus Cleaner—A laboratory perfected fluid which when applied with a small brush not only cleans the stylus perfectly but acts as a deterrent to further accumulation of deposit, also as an anti-static.

Accessories—A large range of accessories is distributed throughout the U.K. by D.S.C. (Consumer Products) Limited, a wholly owned subsidiary of the Diamond Stylus Company Limited. A representative of this subsidiary will be in attendance at our stand and enquiries will be welcome.

★ SEE ADVERTISEMENT ON PAGE 8.

ENCORE

STAND E14

Artifact Designs Ltd.,

35 Queen Street,

Henley on Thames, Oxon. RG9 1AR.

Tel: 04912 (Henley) 6037/8

Record storage systems

Artifact Designs are again exhibiting Encore—their popular record storage system.

Encore is injection moulded in smoke grey and white styrene and is particularly compatible with the appearance of today's hi-fi equipment.

Because of increases in the price of plastics during the past 12 months, the Company is offering a choice of Encore models of different capacities and price—all of them for sale to the public from the stand or to order by the trade.

EDWARDUS

STAND F7

J. R. Edwards Electronics,

783 Romford Road, Manor Park, London, E12 5AJ.

Tel: 01-553 4349

Loudspeakers

With sound matching their looks, these new 100% British made Edwardus loudspeakers bring you a new concept in design and performance. Enclosures are of the Acoustic Suspension type, the speaker units are front mounted to reduce tunnelling effects. All models employ a crossover unit consisting of highly accurate wound coils and electrolytic capacitors. Ideal for vertical and horizontal floor or shelf mounting. Now take a long, cool look at the specifications of each Edwardus loudspeaker—then the low, low prices!

LS150
Power handling capacity:
20 watts rms
Frequency response:
40-17,000 Hz
Goodmans 8" long-throw
bass unit
Goodmans 3 $\frac{3}{8}$ " mid-range
treble unit
Impedance:
8 ohms
Cabinet size:
14" (H) x 10" (W) x 8 $\frac{3}{8}$ " (D)
Recommended retail price:
£32.30 inc. VAT per pair

LS200
Power handling capacity:
20 watts rms
Frequency response:
35-17,000 Hz
Units:
Goodmans 8" long-throw
bass unit
Goodmans 3 $\frac{3}{8}$ " mid-range
treble units
Impedance:
8 ohms
Cabinet size:
19" (H) x 10" (W) x 9 $\frac{1}{2}$ " (D)
Recommended retail price:
£46.20 inc. VAT per pair

LS300
Power handling capacity:
30 watts RMS
Frequency response:
30-17,000 Hz
Units:
Goodmans 10" long-throw
bass unit
Two Goodmans 3 $\frac{3}{8}$ " mid-
range treble units
Impedance:
8 ohms
Cabinet size:
22" (H) x 12" (W) x 10 $\frac{1}{2}$ " (D)
Recommended retail price:
£71.50 inc VAT per pair

★ SEE ADVERTISEMENT ON PAGE 119.

ERA/STAX Stanton

STAND C7

Wilmex Ltd.,

Compton House, New Malden, Surrey KT3 4DE.

Tel: 01-949 2545

Wilmex imports and distributes the following branded goods in the United Kingdom: ERA Mk 6 turntable, Stanton magnetic cartridges, Stax electrostatic headphones, pick-up arms, electrostatic cartridge system.

ERA Mk 6

The ERA Mk 6 turntable shows no change for this year's exhibition and is being demonstrated in conjunction with the SME 3009 series 2 pick-up arm with fixed headshell which is manufactured in a special version to suit the mounting of the ERA Mk 6 turntable.

STANTON

The range of Stanton **cartridges** is augmented this year by the production of a **new model in the Calibration series the 681EEE**. This model has higher compliance than the 681EE and a more extended and flatter frequency response. In common with the 681EE each unit is supplied with individual test result.

STAX

The SR3/SRD6 and SRX Mk 2/SRD7 electrostatic headset systems will be demonstrated and an introduction will be made of **Stax direct electrostatic pick-up system**. This system comprises the Stax UA7 tone arm, electrostatic cartridge, oscillator/demodulator and power supply.

FERRANTI

STAND G42

Ferranti Ltd.,

Electronic Components Division,

Gem Mill, Chadderton, Oldham, Lancs. OL9 8NP.

Tel: 061-624 0515

Semi-conductors, Diodes, Transistors, Integrated Circuits

E-Line Plastic Transistors

Moulded plastic general purpose transistors designed as low cost items are now being extensively used in consumer orientated products. Also approved to the BS9300 Category P Standard for high quality military usage.

Planar Power Transistors

These offer excellent high current performance and power handling capability, low leakage and high thermal stability.

Based on the now well known CDI technology several I.C. products are available for use in consumer equipment, these include:—

ZN402E Low Noise Gated Preamplifier can be used in a variety of amplification devices where its class A output ensures complete absence of crossover distortion. The gating facility can be used to isolate the output and thus for example entirely remove preamplifier noise between record tracks.

ZN414 Single Chip AM Radio Receiver has created tremendous interest since its introduction two years ago. As well as being used to produce a complete MW receiver it can also be used as an inexpensive add-on MW tuner to an existing FM receiver or for a high quality earpiece radio etc.

ZNA103E TV Synchronising Pulse Generator will produce horizontal and vertical drive, video and cathode blanking, synch output and clamping pulses necessary for Raster generation in 625 line commercial, industrial and military TV systems. There is also the **ZN417E Triple Op-amp and Regulator** for processing all types of low level audio signals for domestic and professional uses.

FERROGRAPH

STAND D13

The Ferrograph Co., Ltd.,

Auriema House, Bath Road, Cippenham, Bucks. SL1 6BB.

Tel: 062 86 (Burnham) 62511

The **Super Seven, Ferrograph's new ten and half inch Reel Stereo Recorder** is shown for the first time. It comes in 16 versions. Half-track or quarter-track, two speed ranges fifteen/seven and a half/three and three quarters or seven and a half/three and three quarters/one and seven eights, with or without power amplifiers and speakers, with or without Dolby. Features include large illuminated vu meters, switchable track transfer, M/C and line mixing on both channels, individual track selection, continuously variable spooling speed and electrical tape tensioning.

There are also Series Y and P Recorders specially designed for scientific, industrial and heavy duty sound recording.

The **Ferrograph SFM1 Tuner** is of very advanced design with a novel feature of stereo separation control giving exceptional station separation capability. Two amplifiers, the F208 and F608 with respectively 20+20 and 60+60 watts sine wave outputs peaking up to considerably higher figures under normal conditions. They have comprehensive facilities for all types of pick-up, tuner, recorder and speaker.

The Ferrograph low coloration loud speaker and the RS2 and ATU1 audio test instruments complete a display of sophisticated and soundly engineered Hi-fi equipment.

★ SEE ADVERTISEMENT ON PAGE 11.

FISHER Sennheiser

STAND F3

Fisher Radio,

11-40, 45 Rd, Long Island City, New York 11101, U.S.A.

Fisher exhibits include:—

The **Stereo Amplifier Type TX 55** which has a wide frequency response and negligible distortion and among the many features of this versatile amplifier is the built-in 4 channel matrix circuit. The continuous power rating (RMS) is 20+20 W, both channels driven at 8 ohms.

The **Stereo Receiver Type 122** which is the lowest priced unit in the Fisher Studio-Standard receiver range. It incorporates many features and offers a continuous power rating (RMS) of 15+15 W, both channels driven at 8 ohms.

The **Stereo Receiver Type 222**. This unit has two tuning meters—centre of channel and signal strength for precise tuning of AM and FM signals. The continuous power rating (RMS) for this model is 20+20 W.

The **4 Channel/Stereo Receiver Type 234**. On this model Fisher offer a joystick balance control as a standard feature. It has an attractive and well laid out front panel for easy operation. 4 channel (RMS) power is 4×12.5 W.

The **'14' Series 4 channel/Stereo receivers**. Models shown are the 304X, 404X and 504X. Each receiver is wired ready for a plug-in module which can be easily fitted when the CD-4 system is required. Many attractive features are incorporated including joystick control and strapped amplifiers for double the power in the stereo mode. The continuous power rating (RMS) at 8 ohms is: 304X—4×15 W; 404X—4×22 W; 504X—4×32 W.

Fisher offer two ranges of **loudspeakers**; one, the XP Series and the other the Studio-Standard speakers. From the XP Series two models will be shown, both with 3 way speaker systems, the XP-65-S (30 watts) and the XP-7-S (40 W). The model ST 445 represents the Fisher '400' Series of Studio-Standard speakers.

We will also be showing **Sennheiser stereo headphones**, the ever popular HD 414, together with the de-luxe model HD 424 and the ultra lightweight HD 44.
U.K. Distributors: **Hayden Laboratories Ltd., Hayden House, 17 Chesham Road, Amersham, Bucks. HP6 5AG. Tel: 0240-3 (Amersham) 5511.**

FUBA/TELDIS

STAND A3a

Audio Workshops Ltd.,

29 High Street,

Robertsbridge, Sussex.

Tel: 058088 (Robertsbridge) 880 580

Aerials and Aerial Amplifiers

All aerials and aerial system equipment marketed by Audio Workshops Ltd. are manufactured by Hans Kolbe & Co. of Germany.

The range includes:—

- (a) Table top aerials in the quality Swing range including the Fuba Swing S FM aerial—designed for those people who are restricted to the use of a top quality indoor FM aerial.
- (b) A wide range of quality TV aerials including the brilliant XC 391 range which provide excellent reception through the inbuilt AKV 450 amplifier.
- (c) The range of UKA stereo aerials, including the star model, the UKA stereo 8 which is designed for FM stereo reception under the most difficult fringe conditions.
- (d) The EXA stereo aerial is a high performance five element aerial suitable for budget systems.
- (e) The Fuba range of car aerials including the brilliant new wing mirror aerial—a high gain aerial built into a styled wing mirror.
- (e) The full range of Fuba amplification equipment and cable TV equipment marketed under the name of Teldis will be on display.

GALE

STAND G6

Gale Electronics & Design Ltd.,

39 Upper Brook Street,

London W1Y 1PE

Tel: 01-499 9966

Loudspeakers, Turntables

Gale Electronics will unveil its revolutionary direct drive turntable which has been under development for over two years. Apart from its startling appearance, the GALE GT2101 turntable incorporates many technical innovations which have more in common with inertial guidance systems than high fidelity record players.

The turntable is continuously adjustable in speed from 10.0 rpm to 99.0 rpm. The long-term speed stability is better than 0.001%. Unlike almost all the turntables currently on the market which rely on the mains frequency to measure the turntable speed, the speed indication of the GT2101 is entirely independent of the mains frequency or voltage stability.

The speed is indicated digitally by three LED seven-segment displays. The three phase, brushless DC Servo Motor turntable drive system is unique in its incorporation of an optical shaft encoder both to measure the turntable speed and provide the error and control signals necessary for the servo system. This coupled with a critically balanced high inertia rotating mass results in a short-term speed stability which is an order of magnitude better than any other turntable currently on the market.

The main thrust bearing utilizes a new rare-earth magnetic material which enables the GT2101 to obtain a rumble figure which is lower than anything that was previously possible.

Also being exhibited is the GALE GS401A loudspeaker which was introduced at last year's Audio Fair. The GS401A has a frequency response of 30-25,000 Hz with the ability to generate very high acoustic levels coupled with very low harmonic and intermodulation distortion. An important feature is its unequalled transient performance when compared with other moving coil loudspeakers, which results in its very noticeable clarity. This is particularly noticeable in percussion passages. There are two balance controls for the mid-band and treble so that the speaker can be readily adjusted to fit any listening environment, and an easily replaceable fuse protects the speaker from severe misuse. The GS401A carries a seven year warranty covering both parts and labour.

★ SEE ADVERTISEMENT ON PAGE 1.

GOLDING

STAND G59

Golding Audio Ltd.,

37 London Road,

Marks Tey,

Colchester, Essex.

Tel: 0206 (Colchester) 210433

Cartridge and Cassette Tape Recorders and Players

At this stand will be shown a comprehensive range of Cassette and Cartridge Players for the car and home together with a Cassette Music Centre, 8 track Recorders and 8 track Recorder Players with AM/FM MPX Radio.

Golding Audio handle some 18 models of Cartridge Player and 5 models of Cassette Player.

GARRARD

STAND B8

Garrard Engineering Ltd.,

Newcastle Street, Swindon, Wiltshire, SN1 2LH.

Tel: 0793 (Swindon) 5381

Record Player Modules and Turntables

This year Garrard is showing a range of turntable units which includes the recently introduced **Zero 100 SB** and **86 SB** automatic single play belt drive modules, the new **SP 25 Mk IV** automatic single play three-speed module, and the world famous 401 transcription turntable unit.

The Zero 100 SB two-speed transcription unit incorporates the Garrard tangential tracking pick-up arm, which has reduced the tracking error and consequent harmonic distortion, virtually to zero. The arm has an adjustable counterbalance weight, accurate stylus force adjustment, and magnetic bias compensation calibrated for both elliptical and conical styli.

Drive is by a synthetic rubber belt from the quick starting 4-pole synchronous motor to the machined die-cast turntable. The turntable mat is contoured to support the record correctly at its periphery. The low resonance base has an aluminium trim, and tinted cover, which can be closed while playing.

The 86 SB single player is another belt drive machine, broadly similar to the Zero 100 SB in most features and performance factors, but incorporating a pick-up arm of the more conventional type. The unit is supplied in a simulated teak base with a tinted hinged lift-off cover.

In the field of medium priced 3-speed single record playing units the Garrard SP 25 Mk IV, has been developed from the internationally famous SP 25 Mk III. The new four-pole synchronous motor has improved the turntable speed characteristic. The turntable journal bearing and spindle have been upgraded, the cueing mechanism has been improved and the autotrip mechanism has had detailed modifications. Stylus force adjustment and bias compensation are provided. The SP 25 Mk IV, has a performance to DIN 45,500 standard.

The 401 three-speed turntable is designed for studio and semi-professional users, and for Hi-Fi connoisseurs wishing to specify a particular pick-up arm. Features include a fully screened 4-pole induction motor, accurately spaced stroboscopic markings illuminated by a high-intensity neon lamp, variable speed control, and heavy precision balanced 305 mm aluminium turntable.

★ SEE ADVERTISEMENT ON PAGE 15.

GOLDRING/LENCO

STAND E4

Goldring Manufacturing Co., Ltd.,

10 Bayford Street, London, E8 3SE.

Tel: 01-985 1152

Stereo Systems, Turntables, Cartridges, Accessories

Most important exhibit on this stand will be:—

The Goldring Lenco ST 8000 Compact Stereo System, incorporating the GL78 Transcription unit, with G800 E Cartridge. The F.M. Tuner with Stereo Decoder has the additional facility for the pre-setting of 3 F.M. Stations.

The ST 8000 has an output Power of 2×40 watts Sine Wave at 4 OHMS or 2×60 watts Music Power, Sliding Controls for balance, Bass, Treble, and Volume, with Push Button for loudness, rumble and noise filter.

Among the famous range of Lenco turntable units will be the GL78 Transcription Turntable, fitted with Automatic shut-off mechanism and lift-off device, this unit is based on the famous GL75.

A range of high quality Stereo Magnetic Cartridges by Goldring, will be on display. Also shown will be Goldring's own belt driven turntable unit Model G101.

★ SEE ADVERTISEMENT ON PAGE 121.

GOODMANS

STAND C16

Goodmans Loudspeakers Ltd.,

Downley Road, Havant, Hants. PO9 2NL.

Tel: 07012 (Havant) 126344

Loudspeakers, Tape Recorders, Amplifiers

With an increasing product range, this year's Goodmans Stand is one of their most interesting and exciting yet.

For the first time a **High Fidelity Cassette Tape Recorder, the SCD 100**, joins the electronic products on view. These include the One Twenty Series amplifiers, which are no longer exclusive to the export market, the well known Module 90 and the One Ten amplifiers and compacts.

New amongst the loudspeakers and featuring low coloration throughout the sound range is the **Achromat 400**. Also displayed is a new version of the **Dimension 8**. Both of these together with the SL Speaker Systems are demonstrated in the sound theatre.

Goodmans **Galactron professional range of versatile amplifiers and preamplifiers are seen for the first time**. The facilities and functions of these are extended by plug-in modular circuits.

Added to the comprehensive range of loudspeakers for home construction is the **Mezzo Twin Kit** which makes up into a pair of 50 watt high fidelity systems.

★ SEE ADVERTISEMENT ON PAGE 101.

GRAMOPHONE CASSETTES & CARTRIDGES

STAND C1

General Gramophone Publications Ltd.,

177-179 Kenton Road, Harrow, Middlesex, HA3 0HA.

Tel: 01-907 2010

Publications

Gramophone is Europe's most respected and widely-read gramophone record magazine, with a circulation now over 77,000 copies. Every month *Gramophone* presents detailed and authoritative reviews of the latest record releases—classical, popular, jazz and documentary—by a team of writers that includes some of the most noted music critics in Britain, as well as feature articles on records and recording artists. The comprehensive audio section is edited by John Borwick, with John Gilbert as Audio Consultant, and contains test reports, news and surveys.

Cassettes & Cartridges is now well established as foremost European pre-recorded tape monthly. With news, reviews, new release lists, special features and equipment test reports, it is indispensable for all tape enthusiasts.

A new *Gramophone* title is to be launched at the Fair. Written by John Borwick, extensively illustrated, and called *Quadraphony Now*, this booklet explains what quadraphonic sound is all about and attempts to remove the confusion which currently surrounds this controversial concept.

Other Gramophone publications available at the Fair include the quarterly *Classical and Popular Record Catalogues*, essential works of reference for record retailers and collectors alike, and *Recommended Recordings*, a selection of worthwhile records which will serve as a guide to a basic classical collection.

★ SEE ADVERTISEMENT ON PAGE 112.

HERVIC/MICRO-ACOUSTICS

STAND G7

Sole UK Distributor:

Gale Electronics & Design Ltd.,

39 Upper Brook Street, London, W1Y 1PE.

Tel: 01-499 9966

Tuner/amplifiers, cartridges

The Hervic HR150 receiver, made in Los Angeles, was unveiled for the first time in June 1974 at the Consumer Electronic Show in Chicago. The Audio Fair marks its first public appearance in Europe.

The power amplifier section is direct coupled which assures the faithful reproduction of all audio frequencies at all power levels up to the rated output. It is unconditionally stable with any type of load, or no load, including full range electrostatic speakers.

The FM section features four Nixie long-life readout tubes to digitally indicate the frequency of the selected station. The IF section contains a nine pole Butterworth-type toroidal phase linear filter which never needs realignment.

People in the record business have known for a long time that a well recorded stereo disc potentially is virtually indistinguishable from its master tape.

Until the development of the Micro-Acoustics QDC-1 (Patents Pending) there was, we claim, not a cartridge on the market that could make a stereo record sound as good as its master tape. Therefore cartridge manufacturers did not have an absolute standard of measurement for their product.

The QDC-1 electret transducer puts out a perfectly linear signal from 5 Hz to 50 kHz, without the phase shift normally associated with inductive transducers. Its reproduction of complex wave forms is equal to the best direct coupled amplifiers. The stylus bar is directly attached to the electret transducer, eliminating the losses inherent in standard flux field couplings. This method of lossless coupling provides a faster rise time than any other known system.

As a result of its unique construction, the new QDC-1 neither adds nor detracts from the music you hear. And because of this, it will change the way all cartridges are judged. Now a cartridge's performance can be measured against a completely reliable objective standard.

★ SEE ADVERTISEMENT ON PAGE 1.

HI-FI AIDS

STAND G18

Hi-Fi Aids Ltd.,

Unit 1B, B.R.S., Cardiff Road, Reading, Berks. RG1 8HW.

Tel: 0734 599166

Speaker Support Mountings, Floor Stands for Audio Compacts and Television

Loudspeaker manufacturers and recognised authorities on sound reproduction have consistently recommended elevated positioning of speaker enclosures.

Hi-Fi Aids have come up with the answer—a comprehensive range of multi-positionable wall mounting units that will bring out the best in your equipment. Directionally adjustable at a touch so introducing 'audio focus' to suit your seating arrangements, and out of reach of prying fingers and over enthusiastic carpet sweepers!

Superbly engineered in cast aluminium and steel with a durable black finish to blend with modern decor these units are available in nine types to suit speakers to a weight limit of 50 lbs.

For those for whom wall mounting is impracticable a range of floor stands giving sufficient elevation to avoid 'acoustic obstruction' yet improve the aesthetic quality of an otherwise floor standing speaker. Our stands for audio compacts and television are an ideal match.

★ SEE ADVERTISEMENT ON PAGE 117.

HI-FI FOR PLEASURE

STAND B3

Blakeham Publications Ltd.,

The Adelphi,

John Adam Street,

London, WC2N 6AP.

Tel: 01-930 0982

Listeners, buyers, constructors and everyone who aspires to a hi-fi system will find something of value to him in *Hi-Fi for Pleasure* magazine, monthly price 25p. Over 50 pages of articles cater for the beginner right through to the professional reader.

Every month, for instance, we publish an up-to-date list of virtually every item of hi-fi equipment on the market, with its price and brief technical specification. In the current issue there is an extensive review of several cassette recorders, the second part in a series on in-car-entertainment, a high power Pioneer tuner-amplifier under test, and the start of a new series on dealers and their service. This is in addition to the features on records, cassettes, news, tape, VHF radio and letters which always appear.

Copies of current and back issues can be purchased at our stand next to the main entrance on the ground floor.

HI-FI SOUND/POPULAR HI-FI/ HI-FI ANSWERS

STAND A8

Haymarket Publishing Ltd.,

5 Winsley Street,

London, W.1.

Magazines for enthusiasts and academics

Leading in the field of hi-fi publications, this exhibitor's three magazines cater for beginners and advanced enthusiasts, academics and those who prefer direct answers to specific questions.

Longest established of this group of magazines, *Hi-Fi Sound* explores the technical background to new developments and reports critically on products and techniques. Its test reports on hi-fi equipment are among the most searching to be found in any audio journal, and the editorial attitude in this area, as elsewhere, reflects a strong feeling for the interests of the consumer. Recent highlights have included critical comment on magnetic recording, especially tapes in cassette format, and reports on the latest disc equipment. Big features in 1974 were a laboratory report on high quality loudspeakers and a report on problems posed by high sound levels in public entertainment.

Popular Hi-Fi. In this widely read magazine emphasis shifts to the popular appeal of hi-fi equipment, and especially to the demand for information on basics, easy to assimilate and apply in everyday practice. The whole field of audio and radio is explored and much attention given to choice and installation of hi-fi. Test-bench features investigate the merits of popular products, and readers find a sense of involvement in the presentation of facts and advice concerning the use of hi-fi in the home.

In contrast to the two other journals produced by this publisher, *Hi-Fi Answers* focuses on the problems and requests for information that stem from a large and widespread readership. Its stock-in-trade is the pertinent question and the considered answer.

Associated with the magazines is a Technical Consultants Service, available to magazine readers who require personal replies to technical problems and queries.

HI-FI NEWS & RECORD REVIEW STAND F6 and STUDIO SOUND

Link House Publications,

Link House, Dingwall Avenue, Croydon, CR9 2TA.

Tel: 01-686 2599

Technical Publications

As its title suggests, *Hi-Fi News & Record Review* is a magazine covering both the technical and musical aspects of sound recording and reproduction. Record Review started as The Gramophone Record over 40 years ago, and Hi-Fi News was founded in 1956, the two merging in 1970.

The magazine's circulation has risen steadily and is now over 60,000 monthly, the highest audited figure for any British audio publication.

Each issue includes at least one constructional article for the technically inclined or DIY man, with three or four other major features covering audio or musical topics. There are independent technical reports on Hi-fi equipment, always at least 24 pages of record reviews dealing with current releases, and a considerable number of regular columns by well known writers.

Studio Sound is aimed specifically at the sound recording and communications industry. It approaches its subject at the technical level expected by audio engineers. Studio Sound does not muddle facts with opinions, nor does it play down to a domestic consumer market.

HOWLAND-WEST (Lux, Micro, Nikko, Scansonic)

STAND A7

Howland-West Ltd.,

3-5 Eden Grove, London, N7 8EQ.

Tel: 01-609 0293-5

Amplifiers, Tuners, Receivers, Loudspeakers, Headphones, Turntables, Arms, Cartridges

Nikko: 9 models will be on show. These include the new 200 series recently introduced and fast gaining popularity.

Lux: Several models on show include the new L.308 and 309 amplifiers and the outstanding matching tuner the T.300, but probably unique amongst all the Audio Fair exhibits is the new two-piece valve amplifier being introduced. This consists of the model CL.35 Mk 2 pre-amplifier and the MQ.80 main amplifier giving around 40 watts rms per channel.

Micro: The full range of Micro turntables and accessories will be on show, including 4 complete turntable assemblies, 2 transcription units, 2 tone arms and, of course, the popular MX.1 electrostatic headphone. Top of the range is the MR.711 direct drive turntable, designed in a unique way for home use.

Scansonic (formerly Scan-Sound): These 9 models from Denmark are on show for the first time at the Audio Fair. With their unique symmetric drive system (SD) these units are a significant advance in loudspeaker technology. Models range from the S.2 at £40 to the P.55 at £130.

Howland-West Audio Products: These include the whole range of units and accessories. New this year is the R.100 receiver, giving 30 watts rms per channel and retailing at around £100. The range of stereo headphones between approximately £4 and £22 is as popular as ever and the many interesting accessories include, of course, the HFS Test Record and Alignment Protractor, essential tools for setting up Hi-Fidelity equipment.

**IMPO
Dynaco, Scintrex
E.S.S. and Major**

STAND E1

Impo Hi-Fi Ltd.,

Thames Road, Crayford, Kent, DA1 4SA.

Tel: 032 25 (Crayford) 29258/9

Amplifiers, Tuners, Tuner Amplifiers, Speakers, Headphones, Record Decks, Cassettes Decks

Impo Hi-Fi, a new company formed earlier this year, has been appointed the sole distributors in the United Kingdom and the Irish Republic for the four quality Hi-Fi product ranges listed under:

A new **MAJOR exclusive range of amplifiers, tuners and tuner amplifiers** including 4 channel equipment, designed specifically for the European Market by the Belgian firm of Boursimi Wehry and made in Japan. It is planned to extend the range to include a record deck, a non-Dolby—and a Dolby—cassette deck and it is hoped to show these new models for the first time at the Audio Fair.

With the new **AMT-4** (Recommended retail price £125.00+VAT each) **there are now four speakers from E.S.S.**, featuring the exciting accuracy and clarity of the Heil Air-Motion Transformer, designed by Dr. Osker Heil, the man who invented the field-effect transistor (the FET patented 1934) and the high convergence electron gun used in colour T.V. transmission (patented in 1947).

Also included in the range is a stereo preamplifier, a 200 watt and a 500 watt power amplifier.

Scintrex have specialized in the manufacture of **headphones**, previously marketed under the Sharpe name in America and Canada, since 1958. The current range of Hi-Fi headphones consists of 6 models including a 4-channel pair and the slim lightweight 'Supra' with aural on-the-ear cups.

Now under the Impo Hi-Fi flag this long established **Dynaco** prestige product range includes the famous A25 speaker, reintroduced into the U.K. at a new low price and capable of holding its own in the company of speakers costing considerably more. Also in the range are three other speakers, preamplifiers, power amplifiers and the SCA 80Q 4-Dimensional integrated amplifier.

J.B.L.

STAND A3

Feldon Audio Ltd.,

126 Great Portland Street, London, W.1.

Tel: 01-580 4314

Loudspeaker equipment

Excellence is an elusive quality. It's so easy to recognise yet so difficult to attain.

J.B.L. craftsmen have been involved in the art of sound for more than a generation—signal and source, wood and fabric, transducers and acoustics—all of it. After all these years they seem to have developed a knack for excellence.

Today these craftsmen continue to perform to the most rigid standards any craftsmen can submit to: i.e. 'Those they impose upon themselves'.

And it is with these high standards that J.B.L. have designed **exciting new Hi-Fidelity loudspeakers** which will be on show during the exhibition. They are two new decades, the **L16 and L36**, plus the exciting new loudspeaker the **Jubal L65**. An innovative design that promises, and delivers, studio quality sound from a home entertainment system. The Jubal features an entirely new 3-way system utilising a unique ultra-high frequency transducer, a new 12" low frequency driver and a 5" direct radiator mid-range unit.

The new **Aquarius QL120** is a unique system capable of **radiating sound equally in all directions** in much the same way that a musical instrument does. Critically engineered dispersive elements are built into the system which radiates sound a full 360°, so that any place in a room can be considered an optimum listening area. The Aquarius Q is a free-standing columnar enclosure.

J. BEAM

STAND G43

J. Beam Aerials Ltd.,

Rothersthorpe Trading Estate, Northampton, NN4 9JD.

Tel: 0604 (Northampton) 63531

Aerials and aerial equipment

To meet the growing demand from Hi-Fi enthusiasts, Jaybeam will be displaying their recently launched **eight element high gain VHF/FM Stereo aerial, the Stereobeam 8 (Model SBM8).**

This new model has been developed from the very successful Stereobeam range of aerials launched last year, but has a number of different features. Over nine feet in length with a two element reflector unit, folded dipole incorporating the inverse balun and five director elements, it is supported by a strong 1½" trombone. The gain is a 'genuine' 9 dB over a half wave dipole and a front to back ratio averaging 24 dB.

The full range of Stereobeam aerials, models SBM1, SBM2, SBM3, SBM4 and the very popular 6 element SBM6 will also be featured together with a new three element loft fitting aerial, Model SBL3.

For Stereo enthusiasts unable to erect a loft or an outside aerial and who live in strong signal areas, the Stereobeam Room Aerial (Model SRA1) is available. The aerial is a dipole reduced in length by the use of loading coils to facilitate use in a domestic environment. It is finished with gold anodised rods and an ivory coloured base.

A new Multimatic aerial rotator will be shown for the first time. One of the main differences between the Multimatic and the Automatic (still available), is that it has direction indication shown by a travelling red light.

★ SEE ADVERTISEMENT ON PAGE 100.

JVC

STAND C13

JVC (UK) Ltd.,

453 Caledonian Road, London N.7.

Tel: 01-607 6568

Amplifiers, Tuner-Amplifiers, Quadraphonics, Tuners, Turntables, Loudspeakers, Styli, Tape Recorders

The 1974 International Audio Festival and Fair will feature the most spectacular display of JVC equipment ever mounted in Europe.

On display will be the complete range of JVC 4-channel and conventional 2-channel stereo equipment including amplifiers, tuner/amplifiers, tuners, turntables, 4/2-channel audio systems, loudspeakers and tape equipment for cassette and 8-track reel to reel.

The large demonstration room will feature a continuous programme of music using the JVC CD4 discrete four channel disc system as well as 2-channel stereo on record and cassette. All demonstrations will take place on systems made up completely of JVC products, from stylus to loudspeakers.

Main feature of the stand will be firstly, a special sound studio in which the visitor will be able to prove for himself the effectiveness of the JVC SEA (Sound Effect Amplifier) system.

Secondly, there will be a special ANRS demonstration bar at which the visitor will be given the opportunity to record a free cassette using the JVC Automatic Noise Reduction System (ANRS).

Main features of the static display will be the many items of new equipment including a special 'State of the Art' display showing some of the world's most advanced 4-channel equipment straight from JVC's research laboratories.

★ SEE ADVERTISEMENT ON PAGE 22.

JOSTY KIT

STAND G24

Josty Kit (U.K.) Ltd.,

16 Borough Road,
Middlesbrough,
Cleveland TS1 5DQ.

Tel: 0642 (Middlesbrough) 44542

Electronic Constructional Kits for the enthusiast

Josty Kit ranks among Europe's leading electronic kits. The experienced engineers at our laboratories are constantly working to improve existing kits and also on new developments. Only the very best materials and components are used. This is why we can offer a one year guarantee on any Josty Kit.

The Josty Kit range consists of many varied and exciting Kits developed by Josty Kit in Denmark for your pleasure and entertainment. For example:—tuners, amplifiers, power supplies, stereo decoders, aerial amplifiers, dimmers, pre-amplifiers, photo-cell amplifiers and psychedelic light controls. Also included in the Josty range is the book *Amateur Electronics* which was written by the Josty Kit designer, Jan Soelberg. *Amateur Electronics* is your introduction to the fascinating world of electronics, from the basic theories through the split-second technology of tomorrow. You can apply theory to practise as you read by building any of 10 different constructions. With the book comes a circuit board for no less than 10 examples from the Josty Kit range of AE Kits.

Josty Kits are obtainable from most leading electronic component retailers throughout the British Isles and the Channel Isles.

KLINGER

STAND F4

Klinger Controls Ltd.,

7 Chalcot Road,
London, NW1 8LO.

Tel: 01-586 2922

Audio systems, Tuners, Tuner-Amplifiers, Record Reproducers

Model 800 Stereo HiFi Music Centre: 5 wavebands including FM with Stereo Decoder; Internal aerials plus external aerial facility; 20 watt RMS per channel, SP25 IV Turntable with SHURE Pick-up. High and low filters, contour control, wide range tone controls and Quadrasound balance. High quality cassette recorder with twin record meters and CrO₂ tape switch. Hinged transparent cover.

Model 500 Stereo HiFi Record Reproducer. 20 watt RMS per channel, Garrard belt driven transcription turntable 86SB. High and low filters, contour control, Quadrasound with balance control. Hinged cover.

Model 400 High Quality Stereo Record Reproducer. 12 watt RMS per channel, Garrard 6300 Record Changer with magnetic pick-up. Quadrasound, radio and tape facilities. Hinged cover.

Model 360 High Fidelity Stereo Record Reproducer. Garrard SP25/IV Single Player with SHURE Pick-up, 12 watt RMS per channel stabilised power supply, contour control, Quadrasound facility. Transparent cover.

Model 200 Stereo AM/FM High Fidelity Tuner. FM with Stereo Decoder and Indicator Beacon. Long, Medium, Luxemburg and SW bands. Tuning Meter, switchable Ferrite Ant. Aerial. Adjustable output on each channel.

Model KC 96 High Fidelity Stereo FM Tuner-Amplifier. Five preset stations, Stereo Beacon and Decoder, 25 watt RMS per channel, stabilised supply. Tape in—out and monitor facilities, Magnetic and ceramic Pick-up and microphone channel. Loudness control. High and low filters, Quadrasound connections.

Loudspeakers: Full range to match all models: Budget priced Stereo Systems, choice of 5 Models. All goods manufactured in the U.K.

KEF

STAND B10

KEF Electronics Ltd.,
Maidstone, Kent, ME15 6QP.
Tel: 0622 (Maidstone) 57258

Loudspeakers

KEF products incorporate the most advanced techniques ever developed for loudspeaker production. Conventional paper cones are not used by KEF.

Special KEF diaphragm constructions obviate the wide variations in performance associated with ordinary loudspeakers and give considerably reduced coloration due to the absence of unwanted resonances within the diaphragm itself. Every KEF diaphragm is manufactured from plastics, or in the case of the larger KEF units, from metal and plastics.

KEF design and build all their own drive units. Every vital component is made in KEF factories under stringent quality control. The units are fitted with large super-power magnet systems built to close mechanical tolerances and fabricated in KEF workshops.

Every completed speaker system is acoustically compared with a laboratory maintained system to ensure strict control of production, consistency, reliability and sound quality.

Leading press reviewers have consistently praised KEF speakers for their high technical quality and sound and the fact that KEF units have been specified by many competitive manufacturers for use in their own speaker systems is additional evidence of the unique consistency and reliability of KEF products.

In spite of so many accolades, research goes on at the KEF laboratories in an effort to improve on the already high standards. Using the most modern technical facilities and sophisticated instrumentation to investigate the properties of new materials, KEF's aim is simply to make more natural sounding reproducers with ever increasing ruggedness and reliability.

KEF offer you an excellent choice of loudspeakers whatever your requirements. No matter whether you select the largest or smallest system all KEF's products have the same high standard of engineering and attention to detail which earned them the title—KEF THE SPEAKER ENGINEERS.

A range of precision engineered drive units, loudspeaker kits and a professional monitoring loudspeaker will be displayed. There will also be technical displays showing the working of both the Reference and 'C' Series range of loudspeaker systems and technical staff will be available to answer queries.

Two demonstration theatres will provide visitors to the KEF stand with the opportunity to evaluate both the Reference and 'C' Series.

KIRSTEN

STAND B17

G. & A. Kirsten Ltd.,
41 Silver Street, Edmonton,
London, N.18.
Tel: 01-803 9673

Metal or Plastics Nameplates

We specialise in the manufacture of nameplates, also scripts in metal or plastic.

As our tool costs are comparatively low, due to specially applied methods, we are able to execute large as well as small orders economically.

Colours are supplied to requirements and there is a variety of fixing methods.

Designs are supplied free of charge and without obligation. Just let us have your ideas and we will do the rest.

KOSS

STAND D10

Tape Music Distributors Ltd.,

114 Ashley Road, St. Albans, Herts. AL1 5TR.

Stereo Headphones

Continuous music demonstrations will be held on the Koss Stand, located on the main centre gangway in the middle of the ground floor, where 110 stereophones will be laid out for personal listening. The range will include the famous Koss Electrostatic models, no less than four different Quadraphones reproducing 4-channel sound, together with three **new models** since last year's show.

The **HV-1LC** is the first Velocity-type, hear-through, lightweight headphone with volume controls. The volume/balance controls are located on each earcup, enabling the wearer to make adjustments while seated remotely from his amplifier.

HV-1A (Decilite): This new, lightweight, hear-through headphone is fitted with the new Koss Decilite driver element. The unique, electro-acoustical design named 'Decilite' (Koss trade mark) gives a dramatic 10-octave performance from light-weight, Velocity headphones. Be sure to hear the new startling realism that the Decilite driver element provides.

Phase 2 Stereophones: The world's first stereophone with Panoramic Source Controls and Comparator Switch, known as the Phase 2 Stereophone, will be on demonstration. Koss engineers have developed a second phase to stereophone listening and the phone is provided with a Comparator Switch so that after adjusting the controls to give the panoramic effect, the switch can be operated to compare with the normal stereophone sound. The Phase 2 introduces a whole new phase in personal listening.

Expert advice will be available on the Stand as to the compatibility of any Koss model with all types of equipment. Numerous accessories will be shown making it simple to connect stereophones, even where no headphone jack socket is provided. You are invited to collect a full colour brochure.

LLOYTRON

STAND G34

Lloytron Electronics Ltd.

Audio House, Albert Place, Bourges Boulevard, Peterborough.

Tel: 0733 (Peterborough) 61244/62935/652431-2

Music Centres, Stereophonic Equipment, Recording Equipment

Thorpe Grenville of Peterborough have launched a new range for '75 based on their well established 'value-for-money' approach that has proved so successful over the years. A wholly new development is their association with **Lloyds of America**, whereby a **new company 'Lloytron'** has been formed to produce and market the Lloyds range in this country.

The Lloytron range includes remarkable new products in the **music centre concept**, and advanced **digital clocks**, one of which provides **stereo entertainment**. **One of the music centres is virtually a home recording studio**—the first, they believe, of its type in the world and originally intended for 1977.

The new company Lloytron, and Thorpe Grenville, are now housed in new premises with more than 35,000 sq. ft. of space with further room for expansion.

Apart from laying down up-to-date production lines capable of considerable throughput, great care and consideration has been given to the provision of a first class service capability, and a warehouse distribution service second to none.

Lloytron's **new model M859/762** will be unique at this fair and sets the tone for their future marketing policy of being one step ahead of other companies anywhere in the world.

Thorpe Grenville have introduced new styling which accentuates the remarkable value for '75.

★ SEE ADVERTISEMENT ON PAGE 107.

MARANTZ

STAND D8

Pyser Ltd.,

Fircroft Way, Edenbridge, Kent.

Amplifiers, Receivers, Speakers, Headphones

The Electronics Division of Pyser Ltd. is exhibiting a full range of the sophisticated Marantz High Fidelity electronics (stereo and four-channel) and speaker systems. Amplifiers range from the 1030 (delivering over 30 RMS watts per channel) to the giant 500 Power Amplifier (typically over 300 RMS watts per channel).

Among the exhibits are Dolbyised **four-channel receivers** equipped to accept the optional Marantz SQ decoder or any future advance in matrix decoding, and the top model in this range—the **4400**—is being shown for the first time in this country. This is the most powerful receiver in the world, delivering over 125 RMS watts per channel stereo and over 50 per channel quad.—its features include a built-in oscilloscope, a four channel synthesiser, Dolby noise reduction circuitry, two tape monitors with provision for two four-channel tape recorders and FM Muting and Muting Threshold controls.

The Marantz range of very high efficiency **speakers** is on display, and for the first time in this country the **new white finish** is being shown. The **new Imperial 8 speakers** with a power handling capacity of 125 watts are also being exhibited here for the first time.

There are continuous demonstrations of Marantz equipment, including the **newly-introduced headphone systems**, throughout the Fair in the Pyser Limited Audio Studio.

MARKOVITS

STAND B1

I. Markovits Ltd.,

32-34 Stronsa Road, Shepherds Bush,

London, W12 9LB.

Tel: 01-743 1131/2

Labels, Escutcheons, Nameplates, Badges, Advertising Promotion Novelties

We are one of the leading nameplate manufacturers for the industry and produce injection moulded nameplates, fascia and control panels for high fidelity equipment. The injection moulded nameplates are two-tone, most of them fitted into the speaker, but also we supply them for the top of the turntable. We produce millions each year and supply 80 per cent of the industry with nameplates. We also produce Exhibition Badges and trade promotion give-away articles.

Nearly every type of nameplate, badge, label, escutcheon, can be injection moulded in polystyrene, cast in metal, screen printed on aluminium, sheet plastics, vinyl and other suitable materials. These can be supplied self-adhesive, with studs, holes or plain. A hollow stud fitting has been produced which is particularly useful for speakers as it can be turned in all directions and is affixed by means of a self-tapping screw.

The moulded polystyrene nameplates are not only very attractive, but durable and the highlights in gold and silver give a sparkling appearance. Some of the latest aluminium finishes are being used in gold, copper and silver. The 'brushed' matt surface is a very good imitation of stainless steel, and is especially popular for front panels and facias.

The two-piece escutcheon is a combination of the polystyrene and aluminium processes; the insert is aluminium and adhered into position. This allows many different titles to be used, without extra cost and trouble.

★ SEE ADVERTISEMENT ON PAGE 10.

MAGNAT

STAND F1

Boyd & Haas KG.,

5039 Suerth-Bez., Cologne, W. Germany.

Loudspeakers

Built with typical German thoroughness, Magnat loudspeakers are currently enjoying enormous success in Germany, due to their attractive styling, small physical size and phenomenal power capability. Now they are available in Britain for the first time.

Magnat present a total of six loudspeakers, ranging from the Twin—a conventional system with 45 W power handling—to the Turbo—which has built-in power amplifiers to drive the bass units and the mid-range and high-frequency dome radiators. A staggering one horsepower of drive power is available (equivalent to approx. 750 W peak) and sound pressure levels of 115 dB can be produced by one pair. A massive die-cast heatsink cools the amplifiers and a light emitting-diode display gives an indication of power output in four steps, with a fifth clip indicator.

Magnat loudspeakers have been created to satisfy the ever-increasing need for compact loudspeakers capable of extracting the full benefits of modern recording techniques, at realistic volume, whilst not imposing, either physically or aesthetically, on the environment in which they are placed.

All Magnat loudspeakers have been developed under 'live' rather than 'anechoic' conditions and the realism which they impart to modern, dynamic, recordings has to be heard to be believed.

UK Distributors: Spirelle Electronics Ltd., 51 Thames Street, Sunbury-on-Thames, Middlesex TW16 599.

★ SEE ADVERTISEMENT ON PAGE 125.

METROSOUND

STAND B9

Metrosound Audio Products Ltd.,

Cartersfield Road, Waltham Abbey, Essex.

Tel: Waltham Cross 31933

Audio Equipment, Amplifiers, Tuners, Turntables, Cartridges, Accessories

On display will be the Metrosound range of High Fidelity equipment alongside the renowned Thorens turntables and Ortofon pick-up cartridges. Also featured will be the ever increasing selection of Metrocare audio accessories.

Featured with the Metrosound ST20 and ST40 amplifiers will be the matching FMS20 and FMS40 stereo tuners. Also displayed will be the distinctive 30 watts RMS per channel ST60 amplifier.

The world famous range of Thorens turntables will include the TD165, TD160C and the electronic TD125, the latter two turntables employing the TP16 high compliance tone arm.

Within the comprehensive selection of Ortofon pickup cartridges the elliptical and spherical 'F' Series may be seen along with the SL15 Mk 2, M15E Super and the new **SL15Q for use with CD-4 discrete 4 channel systems.**

The range of Metrocare accessories feature comprehensive products to ensure maximum performance from tape and disc. The Metrosound Ioniser and Super Groovemaster disc cleaning devices are now available with a hi-fi stylus cleaning kit housed in a permanent storage case. For the cassette enthusiast an Azimuth alignment tape is available adding to the existing Dolby Test, Music Sampler and Head Cleaner Cassettes.

A combination of Metrosound, Thorens and Ortofon equipment will be on constant open demonstration during the show, and the staff will be only too pleased to assist with any query or problem.

★ SEE ADVERTISEMENT ON PAGE 118.

MUSONIC and Colton

STAND F13

Musonic Ltd.,

34-38, Verulam Road, St. Albans, Herts. AL3 4DE.

Tel: 0727 (St. Albans) 50611/2

Record and Tape Accessories

Again this year the Musonic Stand will feature their large range of record and tape accessories now so popular with enthusiasts. The Design Award winning record cassette and cartridge cases are in a variety of attractive colours. In addition to the cassettes, cartridges, cassette head cleaners and cartridge head and capstan cleaners, you will see the revolving Carousel and the Add 'N Stac units, all designed to store your cassettes and cartridges.

Also on display will be the complete range of Colton audio products including the 'Electroduster' electric static record cleaner.

This 'Electroduster' Cleaner literally lifts dirt right out of the record groove and deposits it on a separate disposable pad whilst the record is playing. It eliminates airborne dust before it can get into a groove, thus preventing those 'clicks' and 'pops' that so often spoil the enjoyment of a record.

Each item of the now well-known Colton range is a precision accessory designed to improve your record playing equipment and help you to achieve faultless production.

All our products will be on display at the Fair and company staff will be pleased to demonstrate the merits of these products.

NATIONAL PANASONIC/ TECHNICS

STAND D15

National Panasonic (UK) Ltd.,

107/109 Whitby Road, Slough, Bucks, SL1 3RD.

Tel: 0753 (Slough) 34522

Quadrasonics, Audio Systems, Cassette Tape Decks, Amplifiers, Tuners, Tuner Amplifiers (Receivers), Music Centres, Cassette Recorders

Due to increased popularity and a larger range of audio and high fidelity equipment, National Panasonic (UK) Ltd. has moved out to the two thousand square foot stand D15 at this year's Fair. The company will be showing stereo and CD-4 quadrasonics hi-fi separates, stereo and four channel audio systems and a variety of high performance portables. The hi-fi equipment which is sold under the 'Technics' brandname, will be exhibited both outside the sound-proof studio on static display and with half hour lectures within the studio. Tickets for lectures will be available from Technics staff on the stand.

New 'Technics' hi-fi products on show will include the **RS676US front loading front control Dolby cassette deck**. This item with wow and flutter of 0.063% will head the six strong Dolby deck range which also includes the **new RS610US front control cassette deck**. These new decks have been produced to match **new amplifiers and tuners available—the SU3500 and SU3200 amplifiers and their matching tuners ST3500 and ST3200**. Finally two new D.C. direct drive turntables, **SL120 and SL1300**, will be on show with one new CD-4 receiver having B.T.L. circuitry, decoder and demodulator built in.

The National Panasonic portable and audio system ranges are well worth a visit too with two new **3-in-1 music centres, SG1070 and SG2050LD plus some novel portable radios, cassette recorders and radio/cassettes**.

You are assured of a warm welcome and an interesting visit to stand D.15.

★ SEE ADVERTISEMENT ON PAGES 18 & 19.

N.E.A.L.

STAND G41

North Eastern Audio Ltd.

5 Charlotte Square,

Newcastle upon Tyne, NE1 4XF.

Tel: 0632 (Newcastle) 26660

Transcription Cassette Recorder, Quadraphonic Resolver

The main feature on the stand is the N.E.A.L. Transcription Cassette Recorder. This high quality recorder incorporates in the cassette format, many of the design precepts of reel-to-reel machines. Designed to meet the exacting requirements of the professional user, its superb recording quality gives to the discerning audio enthusiast a new source of high quality sound.

It combines the world famous 3M Wollensak transport mechanism, renowned for its ability to maintain its high performance throughout years of use, with no compromise electronics designed and manufactured in Britain.

In many recording studios and broadcast companies throughout the world it has become the standard cassette recorder.

Our technical staff will be on hand to answer any queries.

On display also is the popular N.E.A.L. four-channel Resolver designed to give, in conjunction with two additional loudspeakers, four channel sound from the user's existing stereo equipment. The Resolver has separate networks to give optimum results from mono, stereo, and quadraphonic matrixed inputs.

NU-WAY

STAND G25

Nu-Way Styli Components Ltd.,

22-23, Masshouse Lane,

Birmingham, B5 5JS.

Tel: 021-236 6366.

Styli, Cartridges, Accessories, Tape Cassettes, Cases, Microphones

Nu-Way Styli Components Limited, exhibit again this year their ever increasing range of products under the adopted Symbols of Sound Success Banner.

Each Symbols slogan indicates the products covered by that heading, i.e. *To Care For Your Records*—Styli—in both Sapphire and Diamond of three different qualities—Record Cleaning Cloths—Record Racks—Anti-Static Fluid—in both Aerosol and Dropper Bottle—Stylus Cleaning Brushes—45 RPM Adaptors—and exhibited is the Storage Display material available for all these products.

For Better Reproduction, covering products established and recently introduced: The S.A.U. 74 Audio Unit—Nu-Way/Acos Replacement Cartridges—Dust-Jockey and Groove Kleen Cleaning Arms—Cassette and 8 Track Head Cleaners—and the Nu-Way and Agfa range of Cassettes—Cartridges—Tapes and accessories.

For Record Pleasure. Covering the Johnny Morris Children's Stories on Cassettes and Cartridges, which have proved entertaining in both the car and the home.

For Storage and Housing, are the recently introduced Carrying Cases and Home Dispensers for Records, Cassettes and 8 Track Cartridges, which have been styled and designed for those seeking quality and something different, and are proving very successful.

For Audio & Visual Aids, completes the range of products Nu-Way make available. Introduced under this Symbol are Microphones and Leads but it is intended eventually to cover many items under this heading.

★ SEE ADVERTISEMENT ON PAGE 21.

OMEX

STAND C4

Omex Products Ltd.,

Churchill House,
33 Dingwall Road.
East Croydon, Surrey, CR0 9XG.
Tel: 01-688 9233

Audio Systems, Amplifiers, Tuner Amplifiers, Cassette Radio

MC 008 Music Centre incorporating 8-track play-back, AM/FM radio and auto changer.

MC 015 Music Centre incorporating cassette, long, medium and FM radio and record player.

MC 020 Music Centre incorporating 8-track record and play-back. Long, medium and FM radio, and record player.

RC 009 AM/FM cassette radio, mains/battery.

Stereo tuner-amplifier and stereo amplifier.

★ SEE ADVERTISEMENT ON PAGE 107.

PHILIPS

STAND D16

Philips Electrical Ltd.,

Century House,
Shaftesbury Avenue,
London, WC2H 8AS.
Tel: 01-437 7777

Audio Equipment, Quadraphonics, Speakers, Record Decks

Philips are showing a comprehensive range of audio equipment highlighting new developments in quadraphonics, speakers and record decks.

Philips first four-channel equipment is introduced at the show, and consists of a combined record deck/tuner/control pre-amplifier (the RH832) designed for use with their RH532 Motional Feedback speakers. As each Motional Feedback speaker contains its own power amplifiers, the quadraphonic deck can be connected direct without the need for a separate four-channel amplifier. Philips RH832 uses the SQ quadraphonic system, but has the facility for a 'plug-in' CD4 decoder.

Maintaining Philips recent series of high technology record decks, the latest (GA209) features completely automatic operation. Sensors read the record diameter automatically selecting speed, and placing the specially developed playing arm on the record with a feather-light touch. Once played, the arm is returned to rest and the motor switched off. Philips GA209 record deck is fitted with their GP412 cartridge as standard and has 3 motors and belt drive.

The full range of decks, amplifiers, tuner/amplifiers and speakers is on show, together with a comprehensive selection of cassette and open reel recorders. These range from the new N2223 mains/battery ultra-portable recorder with built-in electret microphone to the N2510 hi-fi cassette deck with Philips DNL noise suppression system and automatic switching for chromium dioxide tapes. The N2507, a new stereo cassette deck suitable for use with chromium dioxide or conventional cassettes is launched at the show.

Heading the open-reel recorder display is the Philips N4450 which incorporates a 2 x 20 watts amplifier, three motors, automatic reverse, built-in time clock and takes 10½" reels.

A full-range of microphones and accessories is on the stand.

★ SEE ADVERTISEMENT ON PAGE 123.

PHOTAX/Scott

STAND B6

Photax (London) Ltd.,
Hampden Park,
Eastbourne, BN22 9BG.
Tel: 0323 (Eastbourne) 51197

Tuners, Tuner-Amplifiers, Amplifiers, Speakers, Transcription Decks

Scott have been first in the world with many of the major advancements—some of which we now take for granted. So it is not surprising that the re-introduction of SCOTT into the U.K. will mean the unveiling of many new and advanced units.

The most notable of these is the Scott T33S **digital read-out FM stereo tuner**. Operated automatically by punched card or tab push button it has clean lines—there is not a conventional 'knob' in sight. More important—it has unique sensitivity and accuracy.

There are also amplifiers, tuner-amps and speaker-units in the Scott range for people who want the most advanced and best hi-fi.

Scott is of U.S.A. origin and is imported into this country by Photax of Eastbourne, a company that has a high reputation for quality and service in the photographic field. It is not surprising that their Eastbourne factory has been equipped to handle, test and service the most advanced *audio* electronics.

Photax will also display on their stand the **Photax-Concertone** range—tuners—amps—tuner amps—transcription decks—speakers. The Photax-Concertone range is varied. Varied in output specification but consistent in quality.

★ SEE ADVERTISEMENT ON PAGE 120.

PRACTICAL ELECTRONICS EVERYDAY ELECTRONICS

STAND B12

IPC Magazines Ltd.,
Fleetway House, Farrington Street,
London, E.C.4.
Tel: 01-634 4444

Magazines for the Enthusiast

Musical instruments and amplifiers designed especially for the home constructor are featured on the stand occupied jointly by *Practical Electronics* and *Everyday Electronics*.

Practical Electronics presents a new Electronic Piano. This is a 5 octave instrument eminently suitable for light classical performance. A very close imitation of the characteristic attack and sound of the piano is achieved. Other attractive and novel features are incorporated, including harpsichord and honky-tonk effects.

Other P.E. exhibits include: A High Quality Stereo Integrated Amplifier ideal for the average home and something quite different in Sound Synthesisers—projects that will entice many audio enthusiasts to *do it themselves!*

Everyday Electronics has on display an Electric Guitar of unique design. Full construction details are provided in the October issue, which includes a Free Blueprint with full size diagrams of the guitar. Also a Stereo Amplifier using modules for easy construction.

PIONEER

**STAND D11
E5**

Shiro (U.K.) Ltd.,

Shiro House, The Ridgeway, Iver, Bucks. SL0 9JL.

Tel: 07538 (Cedarwood) 2222/7

Audio Systems, Receivers, Amplifiers, Cassette Decks, Turntables, Speakers, Headphones

The Pioneer stereo and quadraphonic systems, namely Opus 1, 2, 3 & 4 are among the best money can buy. Opus 1, 2 & 3 include the world famous Pioneer PL12D turntable, linked with our CSE420 speakers. Opus 3 handles all the present known kinds of quadraphonic.

Yet again Pioneer have launched a **new and exciting range of 8, SX300, 434, 535, 636, 737, 838, 939, 1010 receivers**. Looking years ahead this advance in electronics offers more power output for your money. Improved circuitry, better styling and appearance.

We offer a **new and improved range of cassette decks, CT3131A, CT4141A, CT5151, CTF7171**, with features such as Dolby circuitry, tape selector switch (BIAS EQ), tape running pilot lights and memory rewind.

Subject to availability we will for the **first time in public be demonstrating the new PL71 and PL51A turntables**, further details available at our stand. The Pioneer PL12D, the well established turntable will of course, be on display.

The **New Exclusive Pre-Amplifier and Power Amplifier C3 & M3** guarantees an output of no less than **150 watts RMS** into 8 ohms, truly a masterful piece of engineering for the Professional.

The **Pioneer SE700** is yet a **further advance in the electrostatic range of headphones**. The **SEQ404**, new to the range of headphones, offers you the ultimate in **quadraphonic personal reproduction**.

The CS313 is a bass reflex 8 ohm two-way speaker system with a power input of 20 watts. The CSF51 speaker assembly includes bass reflex 8 ohm two-way system with a 10in. carbon fibre woofer and power input of 50 watts. The CST8 is a three-way system accepting no less than 80 watts input power, incorporating a 12in. blended carbon fibre woofer.

PRACTICAL WIRELESS/ PRACTICAL TELEVISION

STAND B12

IPC Magazines Ltd.,

Fleetway House,

Farringdon Street, London, EC4A 4AD.

Tel: 01-634 4444

Magazines for the Enthusiast

A new design stereo cassette player for the car, and a stereo cassette recorder, both for the do-it-yourself enthusiast, are among the major attractions on the Practical Wireless and Television magazines stand. These are the first cassette tape units to be published in full constructional articles in this country, and are part of the collection of high quality home entertainment units called the P.W. 'Super Separates'. Also on show will be the new highly rated f.m. tuner—P.W. 'Sandown'.

We also expect to demonstrate our famous television games project, 'Tele-Tennis'. Current issues and a limited number of past issues are available from the stand.

PRECISION TAPES

STAND E3

Precision Tapes Ltd.,
ATV House,
17 Great Cumberland Place,
London, W1A 1AG.
Tel: 01-262 5502

Pre-Recorded Tapes and Accessories

Precision Tapes are Europe's specialists in the New Shapes of Sound.

We've been in business for over four years and we have grown to be Britain's biggest producers of eight-track stereo and quadraphonic cartridges and mono/stereo compatible cassettes.

We have our own London factory, equipped with the latest and most sophisticated facilities, including Dolby noise reduction systems, all geared to offer you quality recordings such as, Sir John Barbirolli conducting the Halle Orchestra through a 'Golden Hour' of Overtures, the series which gives you a full sixty minutes' playing time at a mid-price, or Tchaikovsky's 1812 Overture in discreet quadraphonic sound with The Band of The Coldstream Guards.

Motoring Melodies, Fill Your Car With Rock, High Flying Hits, The Box Tops, Kinks, Monkees, Black Gold and Country Capital, to mention only a few of our tape only releases.

Elton John, Gary Glitter, Alvin Stardust, Barry White, Des O'Connor, Max Bygraves, or Joshua Rifkin playing the Piano Rags of Scott Joplin, not to mention our 'Damont' series, a budget tape range of pre-recorded tapes, and for the motoring tourist—our Shellsound Guide tapes.

If you are looking for a combination of top artists, including all their latest releases available on cassette and cartridge, quality recordings, a comprehensive range of repertoire and accessories and a helping hand to choose them, come along and see—Precision Tapes Ltd.—The New Shapes of Sound.

★ SEE ADVERTISEMENT ON PAGE 108.

QUAD

STAND F2

Acoustical Mfg. Co. Ltd.,
St. Peter's Road,
Huntingdon,
Cambridgeshire, PE18 7DB.

Electrostatic loudspeaker, Amplifier and Tuner

The QUAD range of mono-stereo units for high quality reproduction in the home comprises: Quad 33 control unit, Quad 303 power amplifier, Quad FM3 stereo tuner, Quad electrostatic loudspeaker.

These units are exhibited on Stand F2, where our staff are pleased to provide technical information and answer questions on any aspect of this equipment.

Closed demonstrations of about 20 minutes duration are conducted throughout the exhibition in two studios. Admission is by ticket, available free of charge from the stand.

QUAD units are now available from appointed retailers only and the names of nearest retailers can be provided on request. QUAD retailers are appointed for their demonstration and service facilities and are able to offer reliable advice on any hi-fi problems you may encounter.

★ SEE ADVERTISEMENT ON PAGE 26.

QUADRASONICS

STAND C20

Quadrasonics Ltd.,

Spencer House, Brettenham Road, Edmonton, London, N.18.

Tel: 01-807 5999

Quadraphonic Unit Audio Systems. Quadraline Loudspeaker Systems.

This slim elegant one-piece quadraphonic audio centre is, we claim, the first European comprehensive four-channel system which enables the user, not only to play any quadraphonic record made by matrix techniques—SQ or QS—or the carrier technique—CD4, but also stereo and mono records.

Additionally, the system will receive VHF, FM stereo and mono radio transmissions and will reproduce quadraphonically any SQ or QS recordings transmitted over conventional stereo radio. The FM receiver also has sufficient band-width to enable adaptation to reception of quadraphonic transmissions.

No less than 13 of the most advanced integrated micro circuits and eight massive 90 watt output transistors are packed into the basic model.

The Goldring G1C1 belt drive transcription turntable and four sensibly sized top quality Quadraline loudspeakers (each fitted with one bass, one bass and mid-range, and two tweeters) complete the system.

These loudspeaker systems are housed in sensibly sized cabinets in a choice of two finishes—natural teak veneer or white vinyl.

Each cabinet contains four loudspeakers: one bass, one bass and mid-range, and two tweeters. The first two are identical units with bass frequencies only being passed to one in addition to the bass and mid-range to the other. This permits the bass response to be well maintained at low frequencies and affords smooth transition between bass and lower mid-ranges. Additionally, two tweeters are used. This combination provides tonal balance over the entire audio spectrum.

The systems are capable of handling 20 watts continuous.

Q.A.S. RAY-O-VAC

STAND F10

Ray-O-Vac/Q.A.S.,

(E.S.B. Industrials Ltd.), Clayfield Close,

Moulton Park Industrial Estate, Northampton.

Tel: (0604) 46646

Audio Connectors, Speakers, Audio Control Units, Accessories and Dry Cell Batteries

The Q.A.S. range of high quality audio connectors has now been extended to over 300 various types, all attractively blister packed for impact at the point of sale.

Included in the range are many varieties of DIN, phono and jack connectors with leads to suit all types of audio and ancillary equipment.

The range of speakers are of the high quality associated with the Q.A.S. name. Special attention should be given to the most recent addition, the **Hi-Ball speaker**, for both its acoustic design and versatility.

The range of audio control units, provide for every domestic, professional and studio requirements. These units are built to high specification for multiple speakers and amplifier systems.

The newest item to this range is the **4 Channel Quad Adaptor**, which reproduces a synthetic quadraphonic sound from a normal stereo system.

Other accessories and aids to audio include disc cleaners, AC/DC converters, car adaptors, Dynamic Microphones and small comparators.

A new feature on the stand will be the comprehensive range of high quality dry cell Ray-O-Vac batteries. These are colour coded, blue for torches, red for transistors and green for hi-charge, to ensure the right battery is selected—for the right job.

Both Q.A.S. and Ray-O-Vac are part of E.S.B. Industrials Ltd.

RANK DOMUS

**STAND C10
C11**

Rank Audio Visual Ltd.,

P.O. Box 70, Great West Road,

Brentford, Middx., TW8 9HR.

Tel: 01-568 9222

Turntables, Loudspeakers

Rank Domus is a new name in hi-fi but is distributed by a company with years of experience in quality sound products. Rank Domus offers turntables and loudspeakers for real quality hi-fi.

The Rank Domus turntables offer the opportunity to buy a ready to use, integrated unit, pick-up arm complete with Empire cartridge, beautiful teak-finish plinth and dust cover. All Rank Domus turntables feature a hydraulic damping device which gently and precisely lowers the stylus to the groove. Your records last longer with Rank Domus turntables. The dust cover hinge is specially spring loaded to make the unit close gently and quietly. Rank Domus turntables include the BD2000 model, the automatic BA4000 and the magnificent BD6000 which has a spare headshell and a stylus cleaner which you can work with one finger.

The Rank Domus loudspeakers cater for almost any hi-fi requirement in the 5-model range. For example, you could choose the 150, combining bookshelf size and price with a full 15 watts RMS power handling capacity provided by the two drive units. Three units provide the 250 model speakers with 30 watts of power capacity and the top-of-the-line model 450 loudspeakers can be driven with an awesome 60 watts to the three units. The teak-finished cabinet with luxurious brown cloth for the front grille will blend beautifully with your furniture.

RCA

STAND B15

R.C.A. Ltd.,

Lincoln Way, Windmill Road,

Sunbury on Thames, Middx.

Tel: 09327 (Sunbury) 85511

Quadraphonics, Tape and Disc Systems

You may know about the new revolution in sound called quadraphonics, some of you may have heard that there are a number of quadraphonic reproduction and disc systems available. The one you will hear on this stand is, in our opinion, the best quadraphonic system in relation to hardware and software available on the market.

The stand is of an information nature to explain to you the benefits of this system which is a new and exciting venture in the world of sound. From the hardware manufacturers of the CD4 quadraphonic systems we have JVC and National Panasonic, two of the major manufacturers in the world. To back up the hardware manufacturers of CD4 systems are two major software companies and they are RCA and WEA. From RCA such world famous artists as Perry Como, Henry Mancini, Hugo Montenegro, Eugene Ormandy and the Philadelphia Orchestra and Arthur Rubinstein.

From WEA we have such renowned artists as Aretha Franklin, the Doobie Brothers, Carly Simon, The Spinners and Arlo Guthrie.

This stand is also going to present a CD4 audio demonstration. This demonstration is to be presented by the well known broadcaster and journalist and quadraphonic expert, Paul Barry. The demonstration will not only be of an audio nature, but will also be supported by a visual slide presentation that will explain the basic nature of quadraphonic and especially CD4. You are very welcome to come to the CD4 stand to experience 'a revolution in sound'.

RELIANCE

STAND D22

Reliance Nameplates Co. Ltd.,

Cambridge Road,

Twickenham,

Middx.

Tel: 01-892 2282

Aluminium and Plastic Trims, Nameplates, etc.

Reliance Nameplates will be exhibiting at the Audio Fair for the first time this year. A full range of their products will be on show including decorative trims in both aluminium and plastic. This will include examples of the full range of Plasmet materials which have been so successful in their application to audio equipment and which due to their versatility, have considerable potential.

This company is continuing to expand capacity in all of its many aspects and has an impressive programme of research and development into new materials and applications. Technical staff will be available throughout the exhibition and opportunities to discuss specific requirements will be welcome.

The company's range of finishing techniques in aluminium will be well known to audio manufacturers and includes all types of mechanical and chemical process. This now includes the conversion of aluminium extrusions for a variety of purposes and in total represents an impressive versatility.

REVOX

STAND C8

Revox International,

8105 Regensdorf,

Zurich,

Switzerland.

Tape Recorders, Amplifiers and Tuners

The incredible new Revox 'Series 700' high-fidelity system, consisting of the A700 three-speed tape recorder, A722 stereo POEEE power amplifier and A720 digital FM tuner/pre-amplifier.

The Revox A77 Mk 3 range of recorders continues unchanged except in appearance, which has been improved, and still CNEE continues to include the optional Dolby B system modification.

A large proportion of A77's are supplied to the industrial world, to recording studios, broadcast and TV authorities, audio visual, scientific, theatre, music publishing etc., for whom Revox are able to produce many special types including full track, sel-synch, high speed, plus control modules for automatic repeat, endless loop, speed variance, remote control etc.

A high speed series (7½ and 15 ips) is also available—add prefix 'H' to appropriate code number.

See also the Revox A78 40+40 watt amplifier and the A76 FM tuner which provide a superb set of matching units.

U.K. Distributors: C. E. Hammond & Co. Ltd., Lamb House, Church Street, London, W4 2PB. Tel: 01-995 4551.

ROTEL

**STAND C10
C11**

Rank Audio Visual Ltd.,
P.O. Box 70, Great West Road,
Brentford, Middx., TW8 9HR.
Tel: 01-568 9222

Amplifiers, Tuners, Tuner-Amplifiers, Headphones

Rotel is now established as an important name for those who want quality hi-fi products with high performance and impressive style. Rotel provides a wide variety of models to suit all tastes, from the discerning beginner to the experienced enthusiast.

On the Rotel stand this year will be the series of amplifiers, tuners, tuner/amplifiers and headphones. In fact any new products that Rotel may introduce this year will be on display.

Rotel amplifiers cover a wide spectrum of needs including the compact RA211 model, the popular RA611 and the formidable RA1210, three models from the range which show the sort of variety the Rotel customer can enjoy.

The Rotel tuner range provides a similar opportunity to find a model to fit your taste at the right price—not only this but each Rotel tuner has a matching amplifier in the Rotel range.

A full range of receivers (tuner/amplifiers) is featured this year. For example, the RX150A provides an exciting introduction to quality sound and for those who need the ultimate listening pleasure there is RX454, providing 25 watts of power through four channels presenting the clearest type of sound available today.

Rotel offers all this—and at reasonable prices which ensures you the best value in hi-fi today.

SANSUI

STAND A10

Sansui Electric Co.,
14-1, 2 Chome, Izumi,
Suginami-Ku, Tokyo, Japan.

Amplifiers, Tuners, Tuner/Amplifiers, Cassette Decks, Tape Decks, Turntables, Speakers, Four Channel Equipment

The Sansui Electric Company of Tokyo was formed in 1947 and is now recognised as one of the leaders of the high fidelity industry. Worldwide sales of Sansui professional and consumer hi-fi products now total approx. \$100 million and the distribution network covers over 90 countries. Five manufacturing plants and factories are strategically situated throughout Japan employing a total workforce exceeding 3,000 people.

Vernitron Ltd., the sole UK importers and distributors, will be demonstrating the full range of Sansui high fidelity equipment covering tuners, amplifiers, receivers, turntables, headsets, tape recorders, cassette recorders, speaker systems and 4 channel equipment.

The following new products will be on show for the first time in the UK.

Model 441—16W, 2·5V Receiver; **Model 551**—20W, 2·5V Receiver; **SR717**—Direct Drive Turntable; **SC636**—Dolbyized Cassette Deck; **QRX7500**—4 Channel Receiver.

The Speakers used throughout the demonstrations will be the newly introduced range of European Speakers consisting of: ES30—35 watt max. power 2 speaker system; ES50—35 watt max. power 2 speaker system; ES100—45 watt max. power 2 speaker system; ES200—50 watt max. power 3 speaker system.

Sole U.K. Distributors: Vernitron Ltd., Thornhill, Southampton SO9 5QF.
Tel: 0703 (Southampton) 444811.

SAE

STAND G8

Sole UK Distributor:

Gale Electronics & Design Ltd.,

39 Upper Brook Street,

London, W1Y 1PE.

Tel: 01-499 9966

Amplifiers, Pre-amplifiers, Equalizers, Tuners

Scientific Audio Electronics of Los Angeles (SAE) is already established throughout the world as one of the top manufacturers of high fidelity equipment, and is showing publicly for the first time in Great Britain. Nine units will be on show.

The SAE Mark IB and Mark IM are stereo preamplifiers. Both units feature a unique three-way tape monitor/copy made and a precise five-position range switch. The Mark IB has a built-in seven band equalizer. The Mark IM, designed for use with an external equalizer, has no tone control circuitry, instead meters read the exact output voltage.

The Mark IIICM and Mark IIIC stereo amplifiers deliver full power over an extended bandwidth. They both can produce in excess of 200 watts per channel from 1 Hz to 100 kHz with a rise time of less than 2.5 micro-second into an 8 ohm load. There are three fail-safe protection circuits to prevent damage to both the amplifier and the loudspeakers. Twelve Darlington output transistors in a unique series configuration assure maximum stability and ultra low distortion. The IIIC and the IIICM are identical except that the IIICM incorporates two dual scale (watts and dB) input meters.

The SAE VIB FM Tuner sets the industry standard. The IF section contains a fourteen pole Butterworth type toroidal phase linear filter which is followed by an eight stage integrated-circuit limiter. The exact station frequency is displayed digitally by four Nixie long-life readout tubes. A built-in three inch oscilloscope monitors stereo separation or external functions. The Mark VIII is almost identical in performance to the Mark VIB except that Numitrons are used in place of the Nixies and a dual meter system is used for indication of signal strength and centre of channel tuning of the oscilloscope of the VIB.

The Mark IVDM power amplifier is similar in performance and specification to the Mark IIICM except that the IVDM is rated at 100 watts per channel.

★ SEE ADVERTISEMENT ON PAGE 1.

SME

STAND E7

SME Ltd.,

Mill Road,

Steyning, Sussex, BN4 3GY.

Tel: 0903 (Steyning) 814321

Precision Gramophone Equipment

A cordial invitation is extended to the stand where SME are pleased to deal with technical and commercial enquiries regarding their products.

The Improved Series II Precision Pick-up Arms are exhibited in use with leading cartridges and turntables.

Model 3009 Series II Improved Precision Pick-up Arm (fixed shell).

Model 3009/S2 Improved Precision Pick-up Arm (interchangeable shell).

★ SEE ADVERTISEMENT ON PAGE 24.

SANYO

STAND D5

Sanyo Marubeni (UK) Ltd.,
Bushey Mill Lane, Watford, Herts.
Tel: 0923 (Watford) 30421

Unit Audio, Tuner Amplifiers, Cassette Decks, Record Decks

At the International Audio Festival and Fair '74 Sanyo will be showing a range of audio and Hi-Fi equipment.

They will also be showing some new additions to their Hi-Fi range—including cassette decks, tuner amplifiers and record decks. Among these will be the Dolby cassette deck model No. RD4600 which has a solenoid operated transport system and direct drive servo control motors. Other facilities include auto repeat, auto rewind and memory controls and counter. With long life grain ferrite head and CrO₂ tape switch and incorporating variable angle V/U meters. Price is around £255.22 including VAT.

The alternative tape deck model No. RD4250 stereo Dolby cassette with ferrite head, variable input record level, tape counter, V/U meters and chrome or normal tape select switch. Recommended retail around £127.59 including VAT.

New tuner amplifiers include model Nos. DCX 8000 and DCX 2000. The DCX 2000K is stereo FM plus AM radio with tuning meter. The output of the amplifier is 13 watts per channel RMS. Other facilities include tape monitor, audio muting controls and base and treble controls. Recommended retail about £112.86 including VAT.

These and other new items come together to make Sanyo's Hi-Fi and audio range one of the most comprehensive on the market.

★ SEE ADVERTISEMENT ON PAGE 116.

SCANDYNA

STAND D6

Scan Promotions (Glasgow) Ltd.,
42 Robertson Street, Glasgow, C.2.

Audio Systems, Tuner-Amplifiers, Turntables, Loudspeakers, Headphones

Roughly translated the Danish for smile is Scandyna. Funnily enough that's what it means in English too. Ever since our Danish friends introduced us to their remarkable top quality precision hi-fi and audio equipment—we've been smiling all over our faces. And no wonder.

Scandyna is a superb combination of beautiful styling and technical expertise second to none. Throughout Europe the name Scandyna is already well-respected—and a continued programme of research and development keeps it that way. But you can experience it only by listening for yourself. The reproduction is exquisite—the features, captivating.

There's tuner/amplifiers with precision fine-tuning and full bodied control power. The record deck is the only one in the world to have the Ortofon AS212 arm and F150 Cartridge as standard.

But who is better qualified to give an honest assessment of Scandyna's remarkable performance than John Gardner, an audio consultant and corporate member of the British Kinematograph, Sound and Television Society. Here is what he said in his review of the Scandyna 2400 tuner/amplifier.

'The Scandyna 2400 met or exceeded its specification on every parameter tested. There is no doubt in my mind that this is one of the finest tuner/amplifiers I've ever tested and is probably one of the top half dozen in current production.'

And equal praises have been sung about the whole Scandyna range including tuner amps, turntables, speakers and headphones—hardly surprising the Danes are so happy—they've got plenty to smile about.

Now, so have we. Scandyna--For sound and design. Something to smile about.

★ SEE ADVERTISEMENT ON PAGE 115.

SHAFTESBURY

STAND G33

Shaftesbury Furniture Ltd.,

Flempton Road, Leyton, London, E10 7NH.

Tel: 01-539 1041

Furniture and storage equipment for audio and tape systems

With the experience of many years of furniture making the Shaftesbury Furniture design team bring to you up-to-the-minute ideas for hi-fi storage. A wide range of units is available in two finishes, i.e. Teak finish or White Melamine and the units have been designed specifically for the storage of complete audio and hi-fi systems or individual audio units. Some of the units incorporate drawers which are ideal for the storage of cassettes, cartridges or reels and other units will accommodate speakers.

The range of models available is so comprehensive that most of the leading makes of audio and hi-fi equipment can be readily accommodated.

SHARP

STAND C17

Sharp Electronics (UK) Ltd.,

Sharp House, 107 Hulme Hall Lane,

Manchester, M10 8HL.

Tel: 061-205 7321

Tuner/Amplifiers, Tape Decks, Unit Audio and Quadraphonic Equipment

SHARP will be showing once again a full range of Hi-Fidelity equipment at this year's Exhibition. Key models in the various categories are:

Tuners/Amplifiers

In this display the recently launched SA-507H is featured—a 4-channel stereo tuner-amplifier with built-in balancer unit and many other features, and incorporating Quad selector for 2-channel stereo or 4-channel matrix, precision ITL and OTL circuitry and powerful 72W peak output.

Tape Decks

Highlight of this display will be the RT-480H 4-track 2-channel stereo cassette tape deck with built-in DOLBY Noise Reduction System and specially developed Automatic Programme Finder (APF).

Unit Audio

Sharp's two AM/FM/FM-stereo tuner-amplifiers with 4-track 2-channel stereo *Cassette* tape players/recorders, the SC-103H/CP-108H and the SC-153H, both of which come complete with matching pair of speakers, pre-recorded cassette, twin microphones and stands, and an FM indoor aerial.

The SR-102E—a solid state AM/FM/FM-stereo system with 8-track tape player has advanced OTL and ITL circuitry and FET front-end, wide 20-30,000Hz frequency response and pushbutton mode selection, and stable drift-free reception with AGC and AFC circuits are among the features of this model; and another AM/FM/FM-stereo tuner-amplifier, the SR-156E, is combined with 8-track 2-channel stereo cartridge tape recorder/player, horizontal style.

Also in this category is the Music Centre, SG-155H—an AM/FM/FM MPX stereo tuner-amplifier with 4-track 2-channel stereo cassette tape recorder/player and 2-speed semi-automatic record player.

Quadraphony

Finally, Sharp's most expensive unit, the GS-5730E at £368.99 (including VAT) incorporates a MW/VHF/FM-stereo tuner into a main control console from which its total RMS power of 40 watts is fed through four loudspeaker cabinets. A 2-speed record turntable, magnetic cartridge and diamond stylus enable mono, stereo or matrix quadraphonic records to be played.

SHURE

STAND B11

Shure Electronics Ltd.,
Eccleston Road, Maidstone,
Kent, ME15 6AU.
Tel: 0622 (Maidstone) 59881

Cartridges, Microphones and associated control circuitry

Shure Electronics Limited will exhibit the comprehensive range of Shure Stereo-dynetic pick-up cartridges: models are available to suit the characteristics of practically any arm, unit or changer and the input of the majority of modern amplifiers.

The **V-15 Type III cartridge** is the successor to the widely acclaimed V-15 Type II (Improved). It has a truly flat, unaccented frequency response and an extended dynamic range, offering a memorable listening experience. Used in a suitable arm, it will play the majority of modern recordings at a tracking force of $\frac{3}{4}$ gramme.

M75 Type 2 Series continues to provide a standard of performance second only to that of the V-15 Type III, while Model M55E and the M44 Series provide excellent performance for more restricted budgets. Model M3D, the original Shure stereo dynetic cartridge, continues to be popular and is an excellent choice for record changers.

Shure microphones include models for every application, recording, broadcasting, communications, sound reinforcement, paging and entertainment. Shown for the first time is the **new Shure Unidyne C, Model 589S, a unidirectional (cardioid) dynamic microphone** offering dual impedance and a frequency response that compensates for proximity effect.

The Shure range of microphone circuitry includes professional mixers, stereo mixers, a gated compressor/mixer, audio master control centre, broadcast production master, feedback controller, 'Voice Gate', audio level controller and a pre-amplifier, together with a comprehensive range of relevant accessories.

★ SEE ADVERTISEMENT ON PAGE Cover III.

SONAB

STAND C18

Sonab Ltd.,
P.O. Box 4, Oldfield Road,
Hampton, Middx.
Tel: 01-979 0134

Tuners, Amplifiers, Receivers, Cassette Tape Decks, Headphones, Loudspeakers

Sonab is exhibiting two new products at Audio Fair '74, the new C500 cassette deck and R3000 tuner-amplifier. They are on show for the first time in this country. The full range of hi-fi equipment is designed in Sweden.

The **C500 is Sonab's first ever stereo cassette deck**, and is available this autumn. The **new R3000 tuner amplifier** has outlets for two pairs of speakers and an ambiophonic control to simulate quadraphonic sound through four speakers.

The **new range of Sonab ortho-acoustic speakers** is also on show. This includes the OD11, which is also suitable for wall mounting or bookshelf use. The remainder of the new generation of Sonab loudspeakers, OA12, OA14, and OA6 will be on show. They all use the new SC165 bass and mid-range element designed by Stig Carlsson for Sonab.

Sonab is also exhibiting its existing range of hi-fi equipment, including the R7000, type 3 tuner-amplifier; the R4000, type 2 receiver; and the P4000 amplifier.

The H10 and H20 dynamic headphones are also on display, and the two Sonab turntables, the 55S and 85S.

SONOTONE

STAND A10

Vernitron Ltd.,
Thornhill,
Southampton, SO9 5QF.
Tel: 0703 (Southampton) 444811

Vernitron of Southampton will be exhibiting their range of V Series magnetic cartridges together with the EC907 Record Cleaner. These products are a recent addition to the well established Sonotone range of ceramic and rochelle pick-up cartridges used by most audio-equipment manufacturers in the U.K.

SOUNDCRAFTSMEN

STAND G9

Sole UK Distributor:
Gale Electronics & Design Ltd.,
39, Upper Brook Street, London, W1Y 1PE.
Tel: 01-499 9966

Model 20-12 Frequency Equalizer

The conventional tone controls, with bass and treble boost and cut, has served for many years as a means of correcting the kinds of signal shortcomings that occur in recordings. The Soundcraftsmen 20-12 divides the audio spectrum in each channel into 10 octave-wide bands, with a slider-type control for each band. This allows adjustment of one narrow segment of the audio spectrum independently of another. With all controls at zero (middle setting), the device passes a flat frequency response and has no gain; it also has no audible effect on the sound.

With the 20-12 in circuit any, control or combination thereof may then be raised above or lowered below the Zero point to provide anything up to 12dB of boost or cut in the indicated octaves. Thus, the device can add a smidgeon of boost below 40 Hz to bring up the extreme bottom of a speaker or a recording. It can make old recordings, cut to pre-RIAA equalization curves, play back with proper balance. It can help to correct for mild frequency response variations due to loudspeaker colourations and or/room acoustics.

Recording studios take note that, whether they are interested in better sound or in making a saleable mess of whatever they record, the 20-12 is considerably more flexible than anything they are likely to be using now, and has much lower distortion than most professional active equalizers.

The 20-12 carries a two year warranty covering both parts and labour. Finally comes the best news, the Soundcraftsmen 20-12 Frequency Equalizer, made in Santa Ana, California, sells at an unbelievably low price, because of the large number of units being manufactured. In fact there is no other unit of comparable specifications made anywhere in the world which is priced so reasonably.

Model PE2217 Preamp-Equalizer

The new Soundcraftsmen PE2217 Preamp-Equalizer combines the features of the 20-12 Frequency Equalizer with an extremely versatile preamplifier. It features pushbutton-patching plus tape dubbing between two machines, with optional simultaneous equalizing and monitoring, double-dubbing into two recorders simultaneously, separate system selection enabling full use of all other functions during the tape dubbing operation, line or input-output jacks for easy second and third recorder hook-up access, tape monitoring of either tape at any time, two stereo headphone jacks, mono selector for left or right or both channels to both outputs, reverse-stereo mode, two low-level phono inputs, four independent phono preamps, six A/C outlets, electro-plated ferrous chassis (eight sections) providing optimum shielding to minimise magnetic field coupling, single-point earth connection minimising earth-loops, two regulated power supplies, and two year warranty covering both parts and labour.

★ SEE ADVERTISEMENT ON PAGE 1.

SONY

STAND C12

Sony U.K. Ltd.,
Pyrene House,
Sunbury Cross, Sunbury-on-Thames,
Middlesex.
Tel: 09327 (Sunbury) 87644

Audio Systems, Turntables, Radio, Tape Recorders, Speakers

There's a wide world of music waiting for you at the Sony stand: from budget audio systems right through to the sweetness and light of state-of-the-art electronics the; whole range is here, including many models on show to the public for the first time.

Whether you are simply looking for a good stereo, or whether you are a magazine-eating boffin, you'll find somebody at the Sony stand happy to talk your language.

Established models are here of course, products of Sony research and development, and new models including radios, cassette recorders and speakers, a turntable, unit audio system, an open spool recorder, and several new tapes including **a brand new kind of tape for cassette recorders.**

Come along to the Sony stand, and give your ears a rest—you'll be glad you did.

★ SEE ADVERTISEMENT ON PAGE 99.

STEEPLETONE

STAND F9

Steepletone Products Ltd.,
Station Approach,
Bicester, Oxen.
Tel: 08692 (Bicester) 42031

Audio Systems, Tuners, Amplifiers, Speakers

It is anticipated that two **new music centres** will be on exhibition. One based on model S 600 which will be selling for approximately £260·00 and one in an entirely new concept, with an output of 10 watts RMS per channel, at approximately £100.

The Tempo-Two and Stereo One are two stereo systems which have remained unchanged for several years and represent excellent value at £38·44 and £33·11 respectively.

One of the best selling models at £66·90 is the Tempo-Two+ Eight Stereo playback system for records and cartridges. With an output of 4 RMS per channel and finished in teak veneers its appeal is easy to understand.

Model S250-74 has been added to the very popular S110 Deluxe S250 stereo systems and includes the same high quality 'plug-in' amplifier modules but it also has the facility to play through two pairs of speakers to provide simulated 4 channel reproduction.

Slimmer styling is also a new feature and the Garrard SP 25—Mk 4 playing deck, with new synchronous motor, has been chosen because of its excellent all round performance. Model 'S' 600 completes the range and is truly a high quality British built Hi-Fi Compact stereo system, second to none, with an output of 20 watts per channel. Playing through superb loud speakers it incorporates every worthwhile feature, including an FM stereo decoded radio tuner with pre-select station tuning.

TANDBERG

STAND E8

Farnell Tandberg Ltd.,
Farnell House, 81 Kirkstall Road,
Leeds, LS3 1HR
Tel: 0532 (Leeds) 35111

Receivers, Tape Decks, Loudspeakers

You are invited to visit the Tandberg stand and operate the many fine high quality units on display. The complete range of Tandberg hi-fi audio products will be available.

Tape enthusiasts will be impressed by the excellent features of the new **Tandberg tape deck, 10XD**. The 10XD is a top of the range model incorporating the Dolby 'B' noise reduction system; 10½" spools; three speeds (including 15 i.p.s.); Tandberg crossfield recording technique; three motors; computer type logic touch control operation; full mixing facilities and all the many other special features included in all models in the present Tandberg reel-to-reel range. In a lower price range, we introduce the Series 3600XD. This is another new Tandberg Dolby deck based on the refined 3300X model.

Sennheiser headphones will be connected to the Tandberg receivers TR-1055; TR-1010; TR-1000; Huldra 10 and TR-200. The **TR-1055 is a newly introduced top of the range receiver** offering 55 watts RMS per channel into 8 ohms and incorporating a host of sophisticated features to satisfy the most discerning music lover, tape enthusiast and stereo radio listener.

The superb Tandberg TCD-310 stereo cassette deck will prove to you why it is the most sought-after deck by the quality minded user.

See the completely **new range of Tandberg loudspeakers**, the vital final link in your quest for the right sound.

Technical personnel will be in attendance and lists of carefully selected Tandberg United Kingdom authorised dealers will be available. From these dealers you may obtain the Tandberg speaker models of your choice and try them in your home, the only true way to prove that you have selected the correct loudspeaker system for your listening room.

TAPE and HI-FI TEST Hi-Fi Dealer

STAND F15

Northgate Publications,
1 Wardour Mews, London W.1.
Tel: 01-734 4559

Trade and Enthusiast Publications

Northgate Publications are to be found on Stand F15.

Already, many visitors to the Exhibition will have seen and read '*Tape and Hi-Fi Test*'. The magazine now publishes a comprehensive comparative test bench equipment survey every month. The November issue features ten tuners, running to some sixteen pages of editorial, which has been written by Gordon J. King. It is believed to be the first comparative survey of tuners ever published by a British publication. In addition to up-to-date product information, news and reviews, there is also a detailed music software section, as well as articles and general features of interest to both the tape and hi-fi enthusiast.

'Hi-Fi Dealer' is a controlled circulation publication, available, free of charge, to all those with a specifying influence over the purchase of audio equipment into retail outlets in this country.

The staff of Northgate Publications will be delighted to welcome both readers and advertisers alike.

TANNOY

STAND A1

Tannoy Group

Norwood Road, West Norwood,

London, SE27 9AB.

Tel: 01-670 1131

Loudspeaker Systems

The new range of Tannoy high performance dual concentric units not only represent very significant advances in performance and reliability with respect to earlier models, but incorporate new concepts of transducer design while retaining all of the advantages of the dual concentric construction i.e. wide range single source radiation for a stable stereo image, high efficiency etc.

The introduction of the Girdacoustic Cone construction on the 12in (310mm) and 15in (410mm) models improves the power handling capacity frequency response and transient response, as well as providing a much higher degree of mechanical reliability and stability.

The Girdacoustic Cone for the first time enables the prime considerations of a freely suspended, very stiff cone assembly to be obtained which at the same time possesses inherently high damping qualities. The power handling capacities of the 10in (260mm), 12in (310mm), 15in (410mm) have been increased to 50 watts, 60 watts and 85 watts respectively, and to accompany this much improved loudspeaker, an entirely new crossover network has been designed which has a power handling capacity enabling it to sustain continuous operation for long periods, together with excellent stability and reliability since only solid di-electric condensers are used throughout.

The range of cabinets has been modified to include a wider choice of finishes.

★ SEE ADVERTISEMENT ON PAGE 16 & 17.

TDK

STAND B4

TDK Tape Distributors (UK) Ltd.

341 Brighton Road,

South Croydon, Surrey.

Tel: 01-688 7372

Tape in Cassettes and Reels

Recently, TDK formed a UK company in order to ensure better distribution and back-up service for their new range of hi-fi cassette tapes.

The new range consists of **Extra Dynamic**—claimed to be the world's best cassette, and to give consistently better performance over a wider range of bias settings; **Super Dynamic**—'The tape that turned cassettes into a hi-fi medium'; **Dynamic**—the most economical way of getting 'a better sound' more reliably; and **KROM**—designed to give a cleaner, crisper sound on decks biased for chromium dioxide tape.

Already the tapes have raised a chorus of approval from the specialist press—the general opinion is that the new range puts TDK even further ahead of the field.

But the surest—and most pleasurable way of discovering the outstanding quality of TDK cassettes is to hear them. So come along to Stand No. B4 where we'll be demonstrating the full range of TDK cassettes and the brand new successor to **Super Dynamic Open Reel range**—AUDUA, which we consider to be probably the finest tape available in the world today. You can hear how they sound on different cassette decks, through earphones or speakers. Look in—it could really change your standard of listening.

TEAC/Bose/Studiocraft

STAND D7

Acoustico Enterprises Ltd.,

Unit 7, Space Waye, North Feltham Trading Estate,

Feltham, Middx. TW14 0TZ.

Tel: 01-751 0141/4

Tape Decks, Loudspeaker Systems

Of special interest will be the new **A-850 cassette deck**, equipped with all the usual TEAC facilities plus the following features:—

Three heads with tape source monitor. Three motors. Pitch control. Cue facilities. Built-in Dolby calibration tone and alignment beacons with azimuth adjustments. The price likely to be around £450.00 plus V.A.T.

Other new items on display will be the **A-3300S tape deck** and the **A-3340S 4-channel tape deck**. Both these machines have touch button control with logic circuitry and total remote control capability by using the RC-120 control unit.

The professional user would delight in the operation and the facilities of the **A-7300, three head, three motor stereo tape deck**, with direct drive capstan servo control motor and a built-in mixer accepting up to four mic., or line inputs. In addition there are separate bias and e.q. switches, separate cue and edit switches and pause control with indicator lights; available in two versions, A-7300, 4-track, 2 channel, $7\frac{1}{2}/3\frac{3}{4}$ i.p.s. speeds and the A-7300-2T, 2-track, 2 channel with $15/7\frac{1}{2}$ i.p.s. speeds. Prices expected to be about £525.00 plus V.A.T.

Visitors are reminded not to miss the demonstrations of the acclaimed Bose 901/501 direct reflecting speaker systems used in conjunction with the Bose 1801 power amplifier, rated at 250 RMS watts per channel into 8 ohms. Price £498.00 and the new Bose 4401 4-channel pre-amplifier £298.00 both plus V.A.T.

This year we are showing for the first time the new **Type II** version of these superb **direct radiating loudspeakers**, now with 6dB more efficiency. All Studiocraft speakers carry a five year guarantee. Prices per pair plus V.A.T.:— Studiocraft 440 II—£156.00; Studiocraft 330 II—£115.00; Studiocraft 220 II—£89.00; Studiocraft 110 II—£56.00.

TELEFUNKEN

STAND F12

AEG-Telefunken Ltd.,

217 Bath Road, Slough, Bucks.

Tel: 0753 (Slough) 33311

Tuner-amplifiers, Unit Audio, Record Decks, Tape Recorders, Loudspeakers

AEG-Telefunken's famous touch of quality is ably illustrated by the wide range of equipment on their stand, which will certainly be of interest to enthusiast and dealer alike. This is a wonderful opportunity to see some of the finest equipment in the world.

The range on display includes; stereo record players for use alone or as part of a comprehensive stereo system; high quality loud speakers to complete an existing outfit or as part of a stereo package; tape recorders satisfying even the most exacting standards; cassette recorders of every type; tuner amplifiers, the heart of every great system; and radios in all styles and hues.

Of particular interest are some of the latest models, which have already received great acclaim. These include the **Quadro Hi-fi 1000**, a quadrophonic tuner/amplifier; the **Hi-fi Center 4040**, a combined tuner/amplifier and record player; the **MC2100 Hi-fi Cassette Recorder** for mono and stereo playback; the **M3000 Hi-fi Tape Recorder** which can be connected to any hi-fi stereo outfit; the **MC3002 Hi-fi Tape Recorder with its own hi-fi stereo amplifier**; and the **Partner Compact 101**, a new radio and cassette with mains or battery operation.

★ SEE ADVERTISEMENT ON PAGE 128.

3M

STAND A6

3M United Kingdom Ltd.,

3M House, Wigmore Street, London W1A 1ET.

Tel: 01-486 5522

3M enters the hardware field with two exciting recorders from the established American Wollensak range.

The first is the **Model 4766 Stereo Cassette Deck** featuring the proven Wollensak dual direct drive and large diameter bi-peripheral flywheel—as used in the top-quality Advent and Neal machines. Other features are Dolby noise reduction, a wow and flutter figure of 0.07 per cent WTD RMS, twin VU meters and peak overload indicators, and an exclusive protection mechanism that senses a cassette jam and immediately stops recorder operation.

The second machine is the **first Dolbyised 8-track cartridge recorder to be seen in the UK—the Wollensak 8075**. This is the deck that lifts cartridge recording into the true hi-fi bracket.

Both machines will be demonstrated in 3M's hi-fi theatre in conjunction with the world's most advanced recording tapes—the Scotch Classic range. Scotch Classic cassettes feature 3M's revolutionary ferrichrome technology—coating a skin of chromium dioxide over a layer of ferric oxide to give unrivalled performance over the whole audible frequency range.

Also on the stand will be the complete range of Scotch recording tapes designed for compatibility with every type of cassette, cartridge and open-reel recorder. Incidentally, the BBC selected Scotch to use exclusively for all their stereo transmissions.

★ SEE ADVERTISEMENT ON PAGE 97.

TOSHIBA

STAND B7

Toshiba (U.K.) Ltd.,

Toshiba House, Great West Road, Feltham, Middx.

Tel: 01-751 1281

Unit Audio, Pick-up Cartridges, Tape Decks, Amplifiers, Tuners, Tuner-Amplifiers

A year ago when Toshiba (UK) made its debut appearance at Olympia's Audio Fair, the company was very much a newcomer to the British audio scene. This year it is a different story—in the past 12 months the quality and performance of the Feltham-based firm's products has made a big impact with enthusiasts.

Toshiba's second Audio Fair line-up—on Stand B7—is a focal point of interest with a full range of hi-fi separates and unit audio—among new season models, for instance, is a unit audio system featuring an electret condenser cartridge—proof that this Toshiba innovation can cover the whole range of record reproduction up to the most exacting hi-fi requirements: a condenser cartridge with frequency response of 20-50,000 Hz and extended stylus for CD-4 reproduction is already a feature of the firm's top-of-the-line direct drive stereo deck, the SR-510C priced at £215.50 inclusive of VAT.

Hi-fi equipment on show also includes stereo and four-channel reel-to-reel tape decks, amplifiers and tuner-amplifiers—including the 1974 introduction, the SA-300L tuner, a 2 × 12W unit covering long, medium and FM bands priced at £117.35, inc. VAT. Stereo cassette decks, loudspeakers and headphones are also displayed—including the latest HR-700 headphones, priced at £34.30 inc. VAT, which feature separate volume, bass and treble controls on each earpiece.

Underlining the company's "in touch with tomorrow" slogan, Toshiba also features a preview model of the most advanced stereo FM tuner to come from its laboratories—the ST-910 digital synthesizer tuner. It incorporates an LED digital frequency counter and a computer style memory using over 80 integrated circuits. Some seven stations can be pre-set and stored in the unit's memory.

★ SEE ADVERTISEMENTS ON PAGES 2 & 3.

TRIO

STAND C9

B. H. Morris & Co. (Radio) Ltd.,

Trio House, The Hyde, London NW9 6JP.

Tel: 01-205 6441

Audio Systems, Receivers, Turntables, Cassette Decks, Speakers

Twelve new products recently launched by Trio include 6 receivers, a cassette deck, turntable and 4 speakers. These will be displayed along with the existing Trio range.

Months of research have culminated in the development of the **TS 100 Studio Monitor**, **TS 200 Monitor**, **TS 300 Compact Monitor** and **TS 400 Bookshelf Monitor**. All the new speakers have been especially designed to produce totally natural sound with no colouration or distortion.

Trio are introducing **6 new receivers** to their range, all with new styling and uprated power outputs ranging from 16 to 63 watts per channel. Models **KR 2400**, **KR 3400** and **KR 4400** feature OCL type main amplifiers with sure action protection circuit and current detectors for protecting speakers and, even on the smallest model, a noise filter, loudness control and FM muting. The **KR 5400**, **KR 6400** and **KR 7400** have additional facilities for 3 speaker system capability and dual tape monitor circuit.

Trio are adding the **KP 5022**, a **brand new direct drive turntable**, to their range. Utilising an 8 pole brushless DC servo motor controlled by a voltage servo amplifier, the KP 5022 claims a wow and flutter figure of less than 0.05 per cent RMS. The turntable incorporates a double floating suspension system to eliminate acoustic feedback. Trio are also replacing the **KX 700** stereo cassette deck with the **KX 710** which offers the kind of dynamic range sound previously possible only with the best open-reel machine.

Featured on the new **KX 710 stereo cassette deck** is the world famous Dolby noise reduction system and Trio super ferrite heads. Automatic tape switching circuit senses the type of tape inserted and corrects bias and equalisation. Dolby FM/Copy allows direct dubbing of Dolby encoded tapes and future FM broadcasts.

HER/Videosonic

STAND G16

Uher (UK) Ltd.,

P.O. Box 30, Braintree, Essex, CM7 7RG.

Tel: Braintree 23192

Cassette Recorders, Reel to Reel Recorders, Mixers, Microphones, Headsets

The Uher range of reel-reel and cassette recorders is well established in the field of professional recording: as a highly developed series, Uher is becoming more readily available to the serious amateur, and on Stand G16, Uher will be displaying their current models.

A major display will be the **CG360** Cassette Recorder, a high-performance unit, incorporating digital drive control, noise reduction (Dolby system) pre-selected playing modes and remote control facilities for all functions.

Uher will also exhibit their restyled reel-reel range of top-class hi-fi recorders, the exciting **CR210** cassette machine, the versatile **5000** and the full **4000** series. There will be the current range of Videosonic noise reduction units, and a display of Uher accessories—mixers, microphones, remote controls and headsets.

Uher (UK) Ltd. extend a warm invitation to all audio enthusiasts to visit Stand G16. We are particularly keen to meet hi-fi dealers from all over Britain and, within the limited studio facilities available at the Fair, to demonstrate Uher quality to them.

Hi-fi enthusiasts, amateur or professional, who are unable to visit Olympia, can obtain full details of the latest Uher range by contacting the company.

★ SEE ADVERTISEMENT ON PAGE 113.

UNITRA

STAND E10

Foreign Trade Enterprise,
Warsawa, Al. Jerozolimskie 44,
Poland.

Amplifiers, Speakers, Headphones, Tape Recorders, Radio Receivers

All transistor mains radio sets with long, medium, short and FM wavebands
modern stereo table model with output power 2×12 watts
popular stereo model with output power 2×1.5 watts
popular mono table models with output power 1.5 watts
All transistors tape recorders four tracks, two speeds $3\frac{3}{4}$ and $7\frac{1}{2}$ ips, frequency
range 40-18000 Hz.
stereo table models with 2×10 watts output for music
mono table model with 5 watt output
Dynamic stereo headphones
impedance 400 ohm, frequency response 20-20000 Hz
Compact speaker systems
rated power output 10-30 VA, frequency response 40-20000 Hz
Stereo amplifiers.

U.K. Agent: Daltrade Ltd., 181-183 Warwick Road, London, W14 8PU. Tel: 01-370 6181

VAN DER MOLEN

STAND G37

Van der Molen Ltd.,
101 Hainault Road,
Romford,
Essex, RM7 7NU.

Audio Systems, Speakers, Cassette Units

Quality audio systems in both Period and Modern style are offered by Van der Molen.

The Lambourne and Havering systems will be in Queen Anne style with cabinets in quartered walnut veneers. Both units will use a 20 watt RMS per channel low distortion tuner amplifier with long, medium and VHF multiplex and the record player is a Garrard 86 SB transcription unit with a Shure M75-6 II magnetic cartridge. A unique feature of the Havering is the space incorporated for 200 LP's in the equipment cabinet. Lambourne system with speakers £269.00 R.R.P., and the Havering system with speakers £283.00 R.R.P.

In modern style there is the Sonic T.20 D/L. This is a high performance stereo tuner amplifier, an integrated playing deck presented in a slim, teak veneered cabinet with a hinged, acrylic dust cover. The turntable is the Garrard 86 SB belt drive and the cartridge is the Shure M75-6 II. The amplifier will deliver 20 watts RMS per channel into 8 ohms. THD is better than 0.18%. The tuner section covers long, medium and VHF bands with an I/C decoder. With the S.45 speakers the R.R.P. of the system is £183.00.

The T.20 has a similar specification but with a BSR HT70 turntable and the system is priced at £162.00 R.R.P. The RP.20 D/L is the same specification as the T.20 D/L without the tuner section, R.R.P. £152.00. RP.20 is the same specification as the RP.20 D/L but with a BSR HT70 turntable, R.R.P. £131.00.

We also hope to release the Lambourne system with stereo cassette later this year, R.R.P. £324.00, and the T.20 s.c. with stereo cassette to retail at £220.00.

★ SEE ADVERTISEMENT ON PAGE 103.

WIRELESS WORLD/ HI-FI YEARBOOK

STAND D3

IPC Electrical-Electronic Press Ltd.,

Dorset House,

Stamford Street,

London, SE1 9LU.

Tel: 01-261 8425/8043

Publications for the professional and for the non-professional enthusiast

Wireless World is a monthly comprehensive electronics journal covering radio, television, audio, electronic circuit design, measuring instruments, navigational aids, industrial and medical electronics, logic systems, education and training, and amateur radio interests. It has an average monthly circulation of 65,000.

The technical articles can be grouped into constructional projects, theoretical articles, circuit design techniques, 'state-of-the-art' surveys, and reports on topical events such as exhibitions and conferences. The journal caters for the individual, regardless of whether he is a professional or an enthusiast in electronics.

Hi-Fi Year Book 1975. 'The comprehensive illustrated guide to hi-fi equipment—its performance, its cost and where to buy it! Plus articles covering the latest developments in hi-fi.' On sale at the special pre-publication price of £1.50 only. Also available—copies of *Wireless World Annual*; *Wall Chart*; and *High Fidelity Designs*.

Audio and Hi-Fi Listening, an explanatory guide to the Audio Fair from *Electrical & Electronic Trader* is available free to all visitors.

★ SEE ADVERTISEMENTS ON PAGES 129 & 131.

YAMAHA NAKAMICHI

STAND G5

Natural Sound Systems Ltd.,

Strathcona Road,

North Wembley, Middx. HA9 8QL.

Tel: 01-904 0141

Tuners, Amplifiers, Audio Systems, Turntables

Natural Sound Systems look forward to meeting the Trade at this year's Show and are providing a stand that gets away from the crush, heat and noise of the rest. We hope you will take relief in our haven on the first floor and look at the new additions to our range that you might not have seen before, including the world's first FET power amplifier and the YB-800 direct drive turntable retailing at £149.50 plus VAT.

NSS have always felt that Olympia was unsuitable for demonstrating hi-fi equipment of the quality reached by Yamaha and Nakamichi and therefore suggest a list, obtainable on the stand, of main dealers who will have the equipment, facilities and peace and quiet to demonstrate our equipment effectively. Equipment they will be showing includes the low price YP-400 turntable, three new tuners and, of course, Yamaha's CA-400 amplifier—20 watts per channel, between 20 Hz and 20 kHz and just £89.95 plus VAT.

STOP PRESS ENTRIES

Received too late for alphabetical classification

ARISTON AUDIO

STAND C22

Ariston Audio c/o Dunlop Westayr Ltd., Block A, 1 Edison Place, Nethermains Industrial Estate, Kilwinning, Ayrshire.
Tel: 0294 85 (Kilwinning) 4511

Turntables, Pick-up Arms, Headphones

Ariston Audio take pride in presenting the now well established RD11 transcription turntable which is designed and manufactured to give top quality sound reproduction and is the main attraction of the Ariston exhibit on Stand No. C22 at the Olympia fair.

The quality is immediately obvious but the main evidence of this two-speed, precision engineered, instrument lies within its sleek exterior. A 24 pole high torque synchronous motor powers the belt driven 9½ lbs. turntable through a slip clutch ensuring smooth, swift achievement of play speed. At the heart of the RD11, a precision ground, mirror finish, shaft, poised on a single point, gives a rumble figure of around minus 80 dB.

The Ariston AT 1007 tone arm achieves a performance and sensitivity that amply rewards its selection and is a perfect match for the RD11, giving outstanding service for years to come.

Ariston HS100 superb stereo headphones, selected to the same stringent requirements which govern the rest of the Ariston range, combine lightweight and low distortion to give sheer comfort with an amazing depth of sound.

ARNOLD

STAND F13A

Arnold Electronics (Hitchin) Ltd., 40c Queen Street, Hitchin, Herts.
Tel: 0462 (Hitchin) 3387

Audio Accessories

Arnold Electronics is quickly becoming one of Britain's best known audio accessory manufacturers and will be exhibiting some novel products.

On sale at a special show price will be the Multi-Function Tape Switch (reviewed in September issue of *Tape Magazine*) which allows any two tape recorders to be connected to any one amplifier. Another product shown will be a Quadrasound Unit for giving quadraphonic effect from normal stereo.

Of particular interest to dealers will be the well established 6-6-11 Comparator and Speaker Indicator designed for Hi-Fi showrooms.

A must for visitors is to see the Fibre Optic Lamp which changes colour with the sound from your speakers.

CAMBRA

STAND C21

Cambra Cases Ltd., Capital Works, Peto St. South, London E16 1AJ.
Tel: 01-476 6411/2

Storage Cases and Systems for Records and Tapes

Cambra Cases Ltd., are proud to be able to offer a full range of Vinyl storage cases to hold L.P. and E.P. Records, Cassettes and 8 Track Cartridges. These sturdy Library cases, mostly lockable, come in a range of 10 attractive colours including a "With It" blue denim.

For the true enthusiast, we also offer attractive Cassette and Cartridge craftsman-made cabinets in vinyl teak with smoked "See-Thru" removable lids made to harmonise with the latest in Hi-Fi equipment.

Finally Cambra can now offer the perfect Library System for Cassette and 8 Track Cartridges and which can be free-standing or wall-mounted. The consumer now has the chance of increasing his storage system as he increases his collection. Attractively merchandised and available in three colours.

STOP PRESS ENTRIES

Received too late for alphabetical classification

CAPITAL RADIO

STANDS B16 & F17

Capital Radio Ltd., Euston Tower, London NW1 3DR.

Tel: 01-388 1288

Local independent radio broadcasting

Capital Radio, London's music and entertainment station, broadcast 24 hours a day, seven days a week, on 539 metres medium wave (557 KHz) and 95.8 MHz V.H.F. It is also the only British station broadcasting throughout the day and night in stereo.

Capital will provide coverage of highlights of 1974 International Audio Festival and Fair, including interviews and the daily presentation of the Dave Cash midday programme "CASH ON DELIVERY". Members of the public visiting the Fair will be encouraged to participate in this programme to win prizes.

Capital's programme presenters include a large number of celebrated disc jockeys, among them Dave Cash, Kenny Everett, Nicky Horne, Tony Myatt, Roger Scott, Davy Symons and Tommy Vance.

FITTALL

STAND D21

Fittall Products Ltd., Coastguard Road, Larne, Northern Ireland.

Tel: 0574 3245

Tape storage and display equipment

Fittall are introducing a range of new products on their stand. They are showing their new Security Tape Dispenser range for shops. These represent a new concept in tape racks for retail outlets and have the following features. They:—

- (1) Are economical
- (2) Have high density storing a lot of tapes in a small area
- (3) Enable large numbers of customers to select tapes at any one time
- (4) Can fit on the floor, wall, and counter
- (5) Encourage customers to buy due to the superb display of tape
- (6) Are available in cassette cartridge or combination units.

Also on the stand, Fittall have their well known range of Carousel tape security racks for shops.

For the home the Carola tape wheel at £3.95 is unbeatable value holding 38 cassettes. A cartridge model is also available.

GABRAPHONE

STAND G52

Modern Engineering & Technology Ltd., 4 Station Road West, Canterbury, Kent. Tel: 0227 60431.

Amplifiers, Tape Systems, Loudspeakers, Turntables

The multi-channel '2001' series incorporates a high fidelity sound reproduction system claimed to be unique in concept, character and performance. Integrated circuits, modular construction, electronic switching, electronic filters, equalisation of signal sources and many other patented processes are featured. Five models finished in attractive acrylic panelled cabinets will be shown.

The Saida series are more conventional high fidelity amplifiers plus eight-track player combination. Much of the technical knowhow and advanced processes of the '2001' series have been incorporated and each unit maintains the duo-tone acrylic panel finish.

The Alouette record player unit and Canterbury Audio low to medium priced speakers, complete the range being presented.

STOP PRESS ENTRIES

Received too late for alphabetical classification

JAMO

STAND F8

Jamo Audio Ltd., Rock House, 3 Grenfell Road, Maidenhead, Berks.
Tel: 0628 (Maidenhead) 37575

Loudspeakers

Jamo Audio Limited, the result of an Anglo-Danish partnership, are able to offer six styles of quality hi-fi speakers, manufactured in Denmark. They are available in a choice of five finishes—teak, oak, rosewood, walnut or white-wood.

The smallest in the range, the Jamo 10 consists of one elliptical speaker in an enclosure measuring 380 mm × 220 mm × 200 mm. At the other end of the scale is the Jamo 70 speaker (650 mm × 400 mm × 240 mm). Rated at 70 W sinewave this unit contains two 260 mm woofers, a 130 mm dia. middle frequency speaker and a 25 mm dome-tweeter.

The company will also be exhibiting an exciting new range of Record Players, Amplifiers, Tuner Amplifiers—in fact a complete music centre.

LANSDOWNE

STAND A5

Lansdowne Recruitment Ltd., Design House, The Mall, London, W5 5LS. Tel: 01-579 6585

Specialised Staff Recruitment

To cope with the rising need, over the last twelve months, for better middle and senior management personnel in industry generally, Lansdowne have introduced a new concept, that of using trade exhibitions for the recruitment of specialised staff. After all, where else would one find such a gathering of qualified people, than at an exhibition related to their own particular field, whether it be micro-electrical, civil engineering or audio and Hi-Fi?

Our experience at last year's Audio Fair clearly indicated the need for a further exercise in this field as soon as the opportunity next arose. Our stand will primarily be of interest to those attending the exhibition who are seeking alternative employment in the audio industry. Our consultants will be on hand to discuss their career requirements and how our many clients can help them. We shall also welcome approaches by those employers who have current staffing problems, and an office will be provided on the stand for the purpose of discussing how such problems may be surmounted.

LBC

STAND G54

London Broadcasting Co. Ltd., Communications House, Gough Square, London EC4. Tel: 01-353 1010

Independent local radio broadcasting

London Broadcasting Company this month celebrates its first birthday on 417 metres as the 24-hour radio news station.

This independent radio station has concentrated on establishing its identity as "where news comes first", however in the past 12 months, it has broadened its programming to include interviews, reviews of the arts and entertainment, sports, advice for the family, traffic reports from its own helicopter and Scotland Yard, advice for the family, recipes, music, holiday counselling, motoring features and phone-ins.

With both adults and "juniors" having "open lines" to dial in their opinions to the station, LBC has found a handy gauge to the increasing numbers of its audiences.

"LBC is growing in Gough Square", another of the station's slogans, seems to be borne out by the letters and listener response to appeals for charity such as the campaign to help victims of the Tower of London bombing.

Stand A6

The WollensakTM Hearings

The evidence – this is your first opportunity to hear for yourself 3M's new sound systems – the Wollensak 4766 stereo cassette player and the Wollensak 8075 stereo Dolbyised 8-track player/recorder.

The tapes – 3M present their unique new generation of tapes in cassette, cartridge and reel to reel. Scotch Classic tape is the name and they deserve your very closest examination.

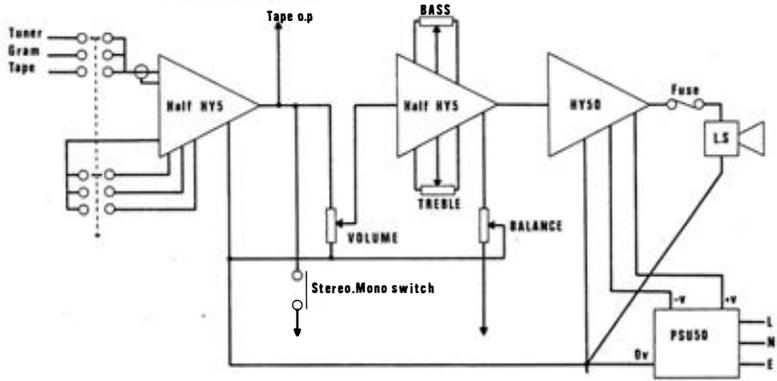
The verdict – we believe hearing is believing and that when you've heard the evidence of both the Wollensak systems and the Scotch Classic tapes your verdict will be for rather than against.



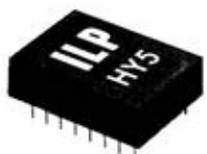


I.L.P. (Electronics) Ltd

SHEER SIMPLICITY!



Mono electrical circuit diagram with interconnections for stereo shown



The HYS is a complete mono hybrid preamplifier, ideally suited for both mono and stereo applications. Internally the device consists of two high quality amplifiers—the first contains frequency equalisation and gain correction, while the second caters for tone control and balance.

TECHNICAL SPECIFICATION

- Inputs**
 Magnetic Pick-up 3mV, RIAA
 Ceramic Pick-up 30mV
 Microphone 10mV
 Tuner 100mV
 Auxiliary 3-100mV
 Input impedance 47Ω at 1kHz.
- Outputs**
 Tape 100mV
 Main output 0db (0.775 volts RMS)
- Active Tone Controls**
 Treble : 12db at 10kHz
 Bass : 12db at 100Hz
- Distortion** 0.05% at 1kHz
Signal/Noise Ratio 68db
Overload Capability 40db on most sensitive input
Supply Voltage ±15-25 volts.
PRICE £4.50 + 0.45 V.A.T. P & P free.



The HYSO is a complete solid state hybrid Hi-Fi amplifier incorporating its own high conductivity heatsink hermetically sealed in black epoxy resin. Only five connections are provided: Input, output, power lines and earth.

TECHNICAL SPECIFICATION

- Output Power** 25 watts RMS into 8Ω
Load Impedance 4-16Ω
Input Sensitivity 0db (0.775 volts RMS)
Input Impedance 47Ω
Distortion Less than 0.1% at 25 watts typically 0.05%
Signal/Noise Ratio Better than 75db
Frequency Response 10Hz-50kHz ± 3db
Supply Voltage ± 25 volts
 Size 105 x 50 x 25 mm.
PRICE £5.98 + 0.59 V.A.T. P & P free.



The PSU50 can be used for either mono or stereo systems.

TECHNICAL SPECIFICATIONS

- Output voltage** 25 volts
Input voltage 210-240 volts
Size L. 70, D. 90, H. 60mm.
PRICE £5.00 x 0.50 V.A.T. P & P free.

TWO YEARS GUARANTEE ON ALL OUR PRODUCTS

CROSSLAND HOUSE · NACKINGTON · CANTERBURY · KENT

CANTERBURY (0227) 63218



IT'S A GOOD THING PEOPLE DON'T BUY CARS THE WAY THEY BUY HI-FI.

If the average motorist put together his 'perfect' car, he'd wind up with a joke.

Because one car maker doesn't design his parts to match other makers' parts.

For the same reason, the average music lover isn't equipped to put together hi-fi.

And he gets little help from leaflets and ads so technical as to need a glossary to explain themselves.

So, for those of you without electronic engineering degrees, Sony makes what we call the 88 Family.

It's made up of a constant speed auto/manual stereo turntable. Two faithful speakers. A stereo cassette deck. An AM/FM stereo tuner.

And at the heart of all this a fully integrated amplifier giving a solid 10 watts per channel output RMS.

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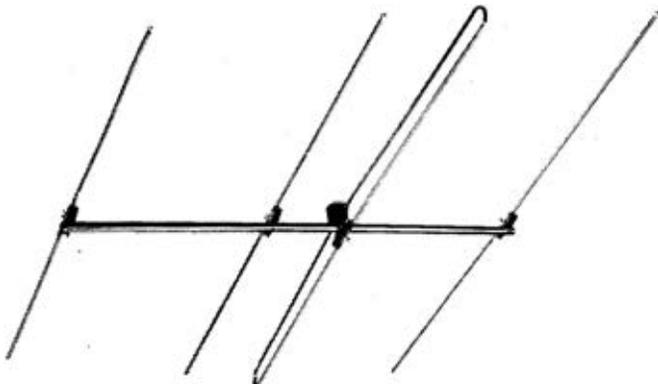
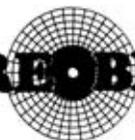
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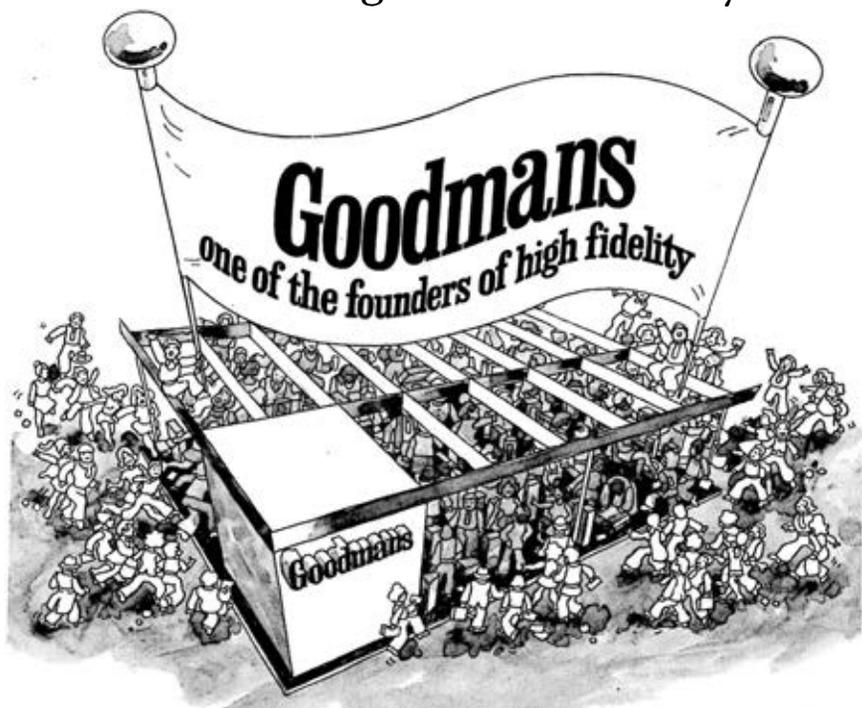
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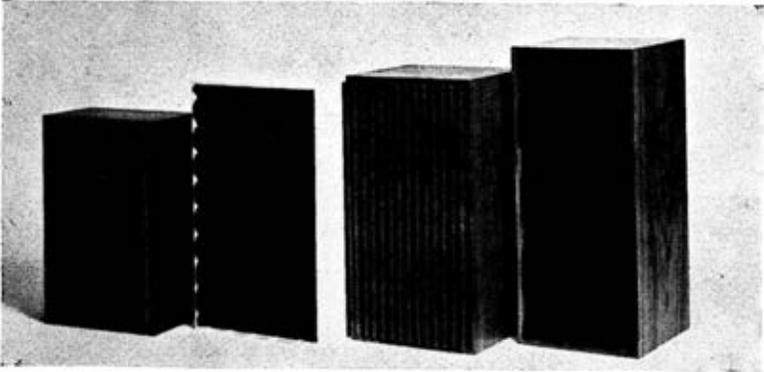


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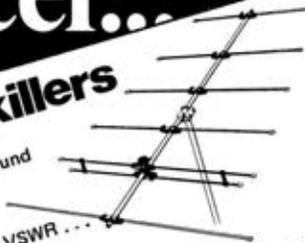
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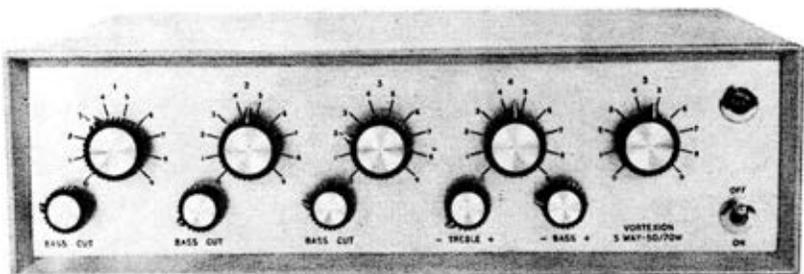
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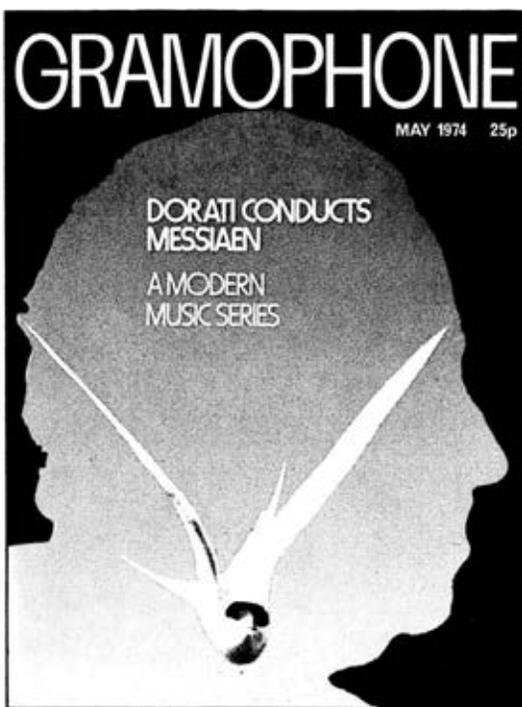
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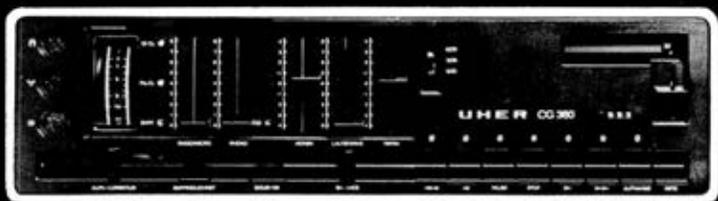
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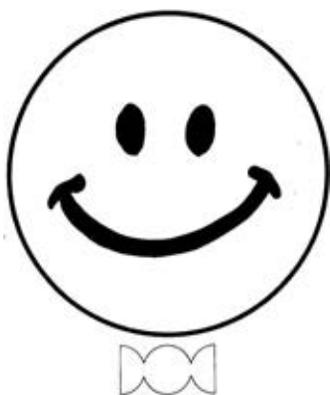
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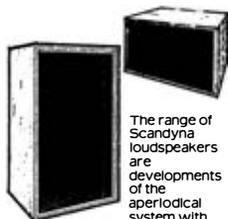
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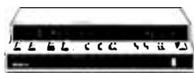
Scandyna. Something to smile about.

Scandyna, the remarkable range of Danish precision hi fi and audio equipment is relatively new to Britain but already it has a formidable reputation in the rest of Europe. It's a reputation Scandyna strive to keep and their continuous programme of research and development goes a long way to maintain it. Each item of equipment is superbly styled in smooth futuristic lines and the resulting sound produced by years of technical expertise has to be experienced to be believed.

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The range of Scandyna loudspeakers are developments of the aperiodical system with improved overall sensitivity and particularly good separation in the lower frequencies.



The 2400 tuner/amplifier provides 40 Watts RMS per channel and has FM medium and long wave tuning. There are seven pre-selected FM stations which are provided with muting. The 2400 can also serve as a home discotheque, since there is a mixer control with two deck/tape recorder inputs with separate regulators.



The Scandyna 1400 record deck is the only deck which contains the world famous Ortofon AS212 arm with F150 cartridge as original equipment. The arm has hydraulic lift and magnetic antiskate device. With wow and flutter better than 0.08% and rumble better than 65 dB it is an excellent piece of equipment.



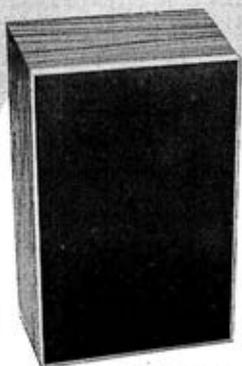
The Scandyna K72 headphones are competitively priced and include 5 metres of spiral cable. In which is set a small unit containing balance and twin-tone controls.

Scandyna for sound and design

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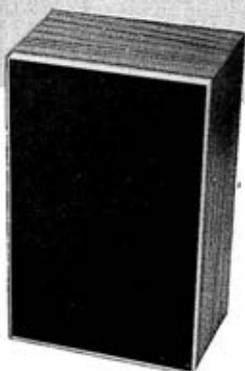
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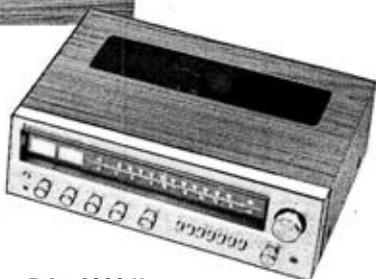
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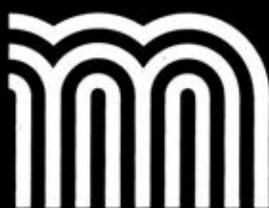
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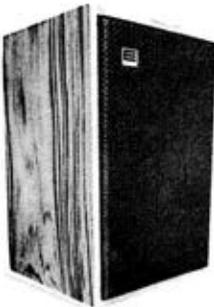
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Frequency response:

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Goodmans 8" long-throw bass unit

Goodmans 3 3/8" mid-range treble unit

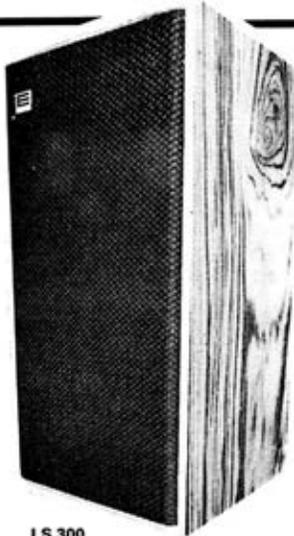
Impedance: 8 ohms

Cabinet size:

14"(H) x 10"(W) x 8 3/8"(D)

Recommended retail price:

£32.30 inc. VAT per pair



LS 300

Power handling capacity:

30 watts RMS

Frequency response: 30-17,000 Hz

Units:

Goodmans 10" long-throw bass unit

Two Goodmans 3 3/8" mid-range

treble units

Impedance: 8 ohms

Cabinet size:

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Recommended retail price:

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LS 200

Power handling capacity:

20 watts RMS

Frequency response:

35-17,000 Hz

Units:

Goodmans 8" long-throw bass unit

Goodmans 3 3/8" mid-range treble unit

Impedance: 8 ohms

Cabinet size:

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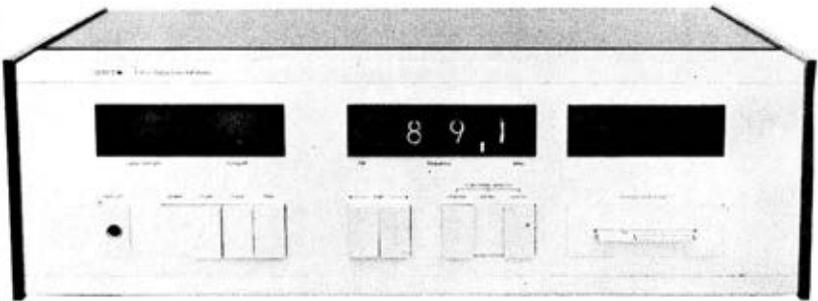
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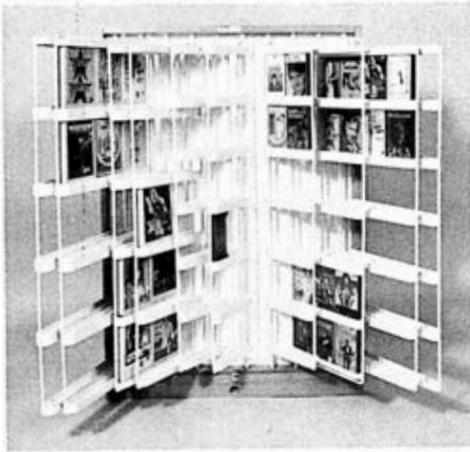
Goldring 

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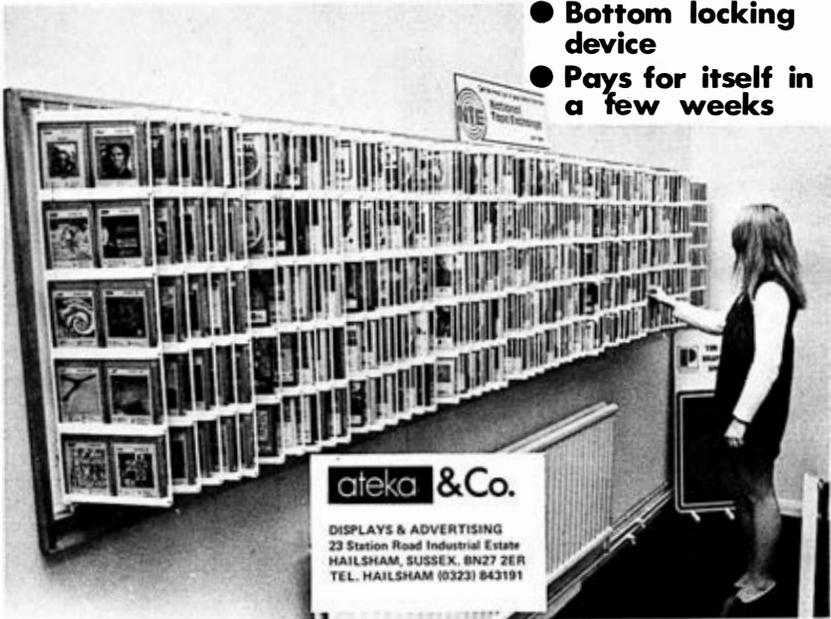
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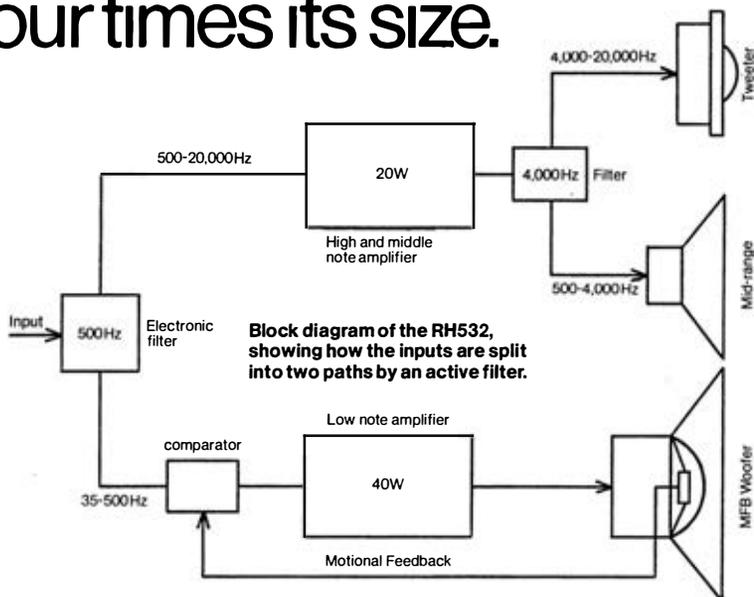


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In the RH 532 enclosure, you get not only a Motional Feedback woofer for virtually distortion-free bass response, but also excellent transient response from tweeter and mid-range units.

Result: Astonishingly faithful reproduction of all frequencies from 35Hz to 20,000Hz, with bass response in true proportion to the rest of the tonal range. Yet the enclosure measures only 15" x 11 1/4" x 8 7/8" (378 x 283 x 220 mm) - and total volume is only 15 litres.

Power amplifiers built-in

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A separate amplifier is therefore unnecessary. All you really need is a pre-amp and control unit! And you can even link speakers together - for mono, stereo or quad in 15 different rooms!

The RH532, at £122.73 (suggested selling price), gives Philips a world lead in Hi-Fi sound. For full details, write to Philips Electrical Limited, Dept. SP, Century House, Shaftesbury Avenue, London WC2H 8AS.

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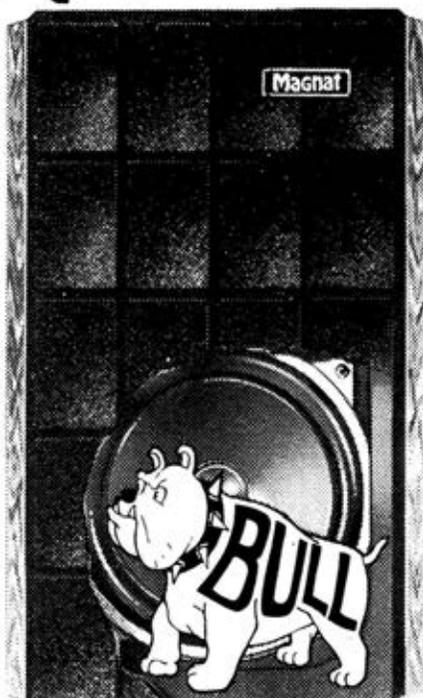


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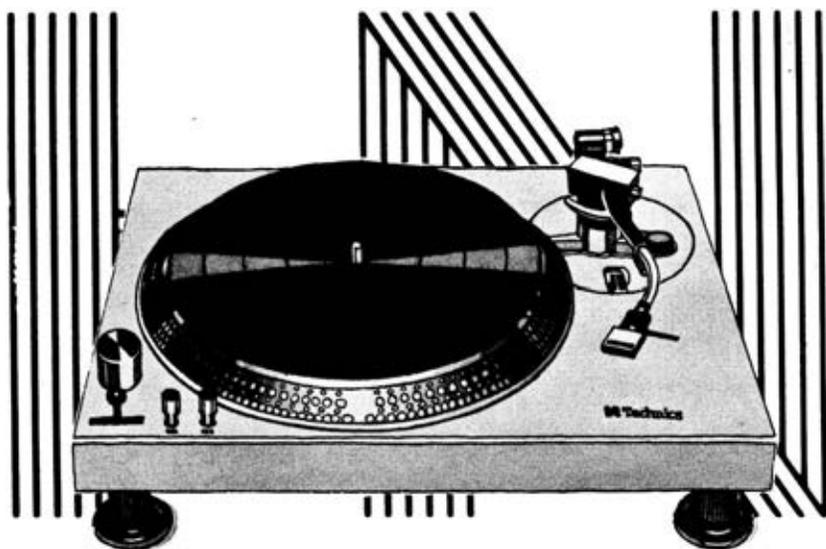


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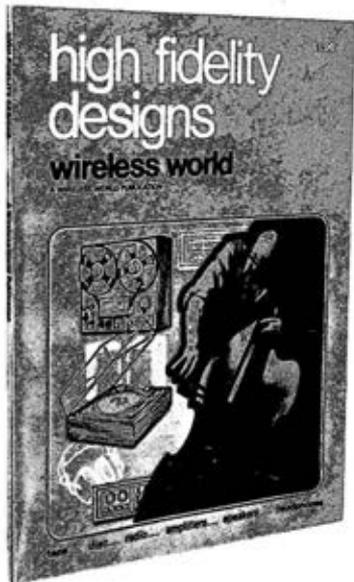
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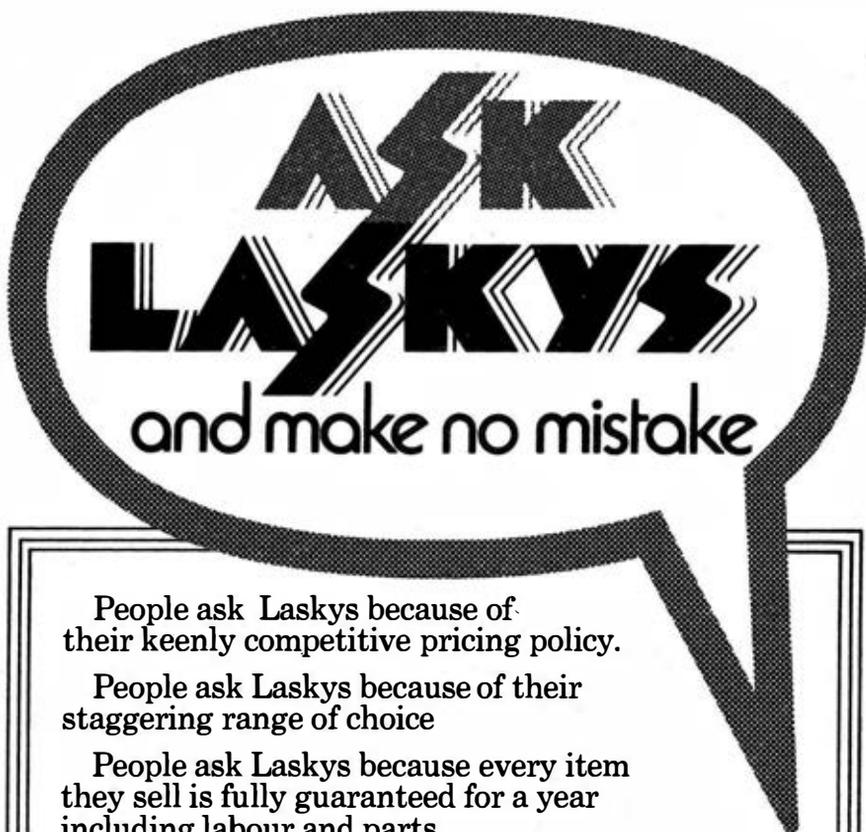
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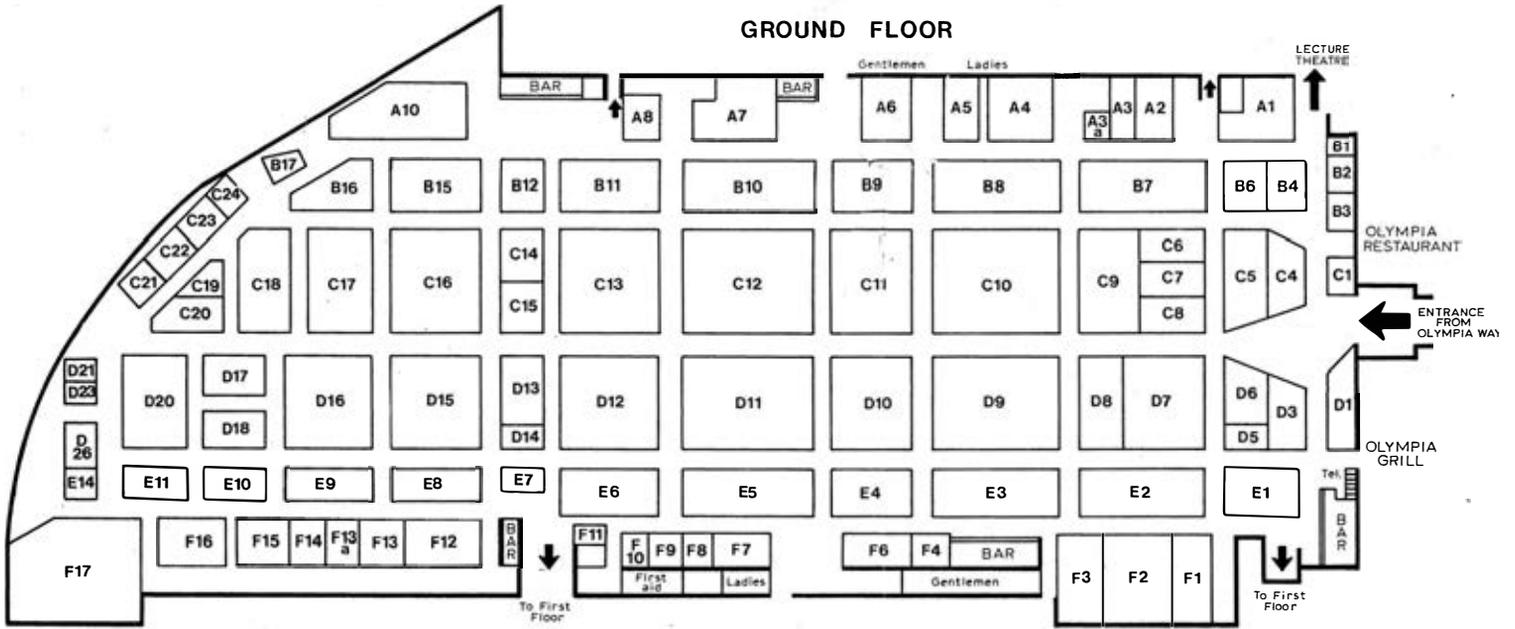
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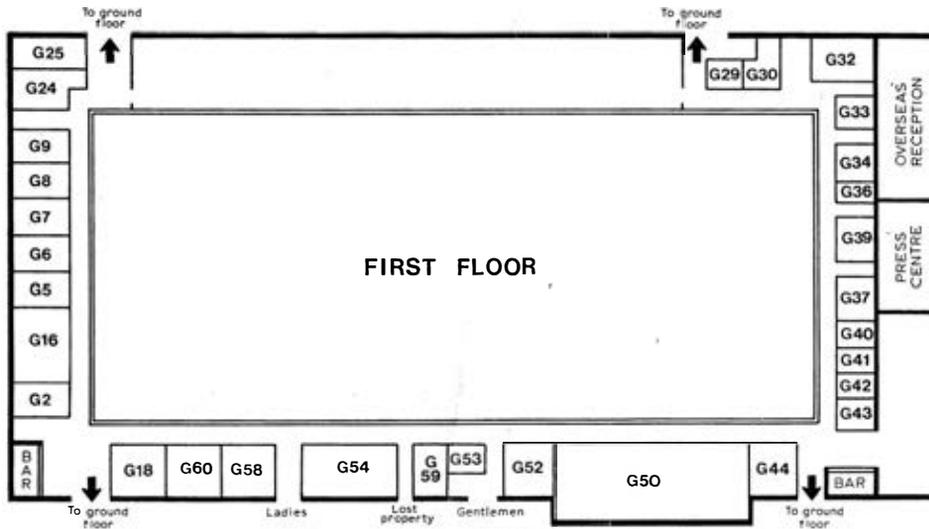
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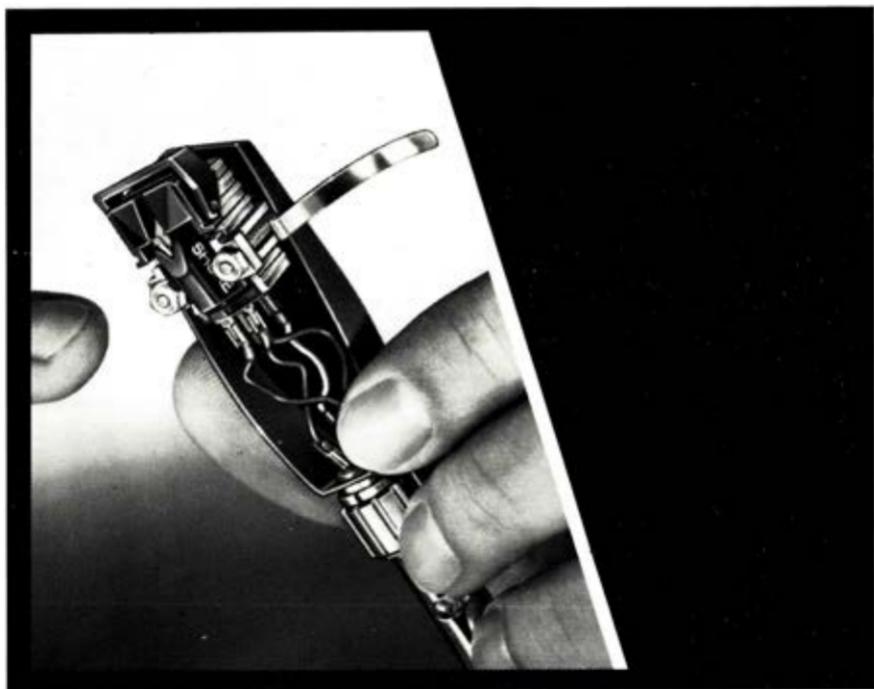
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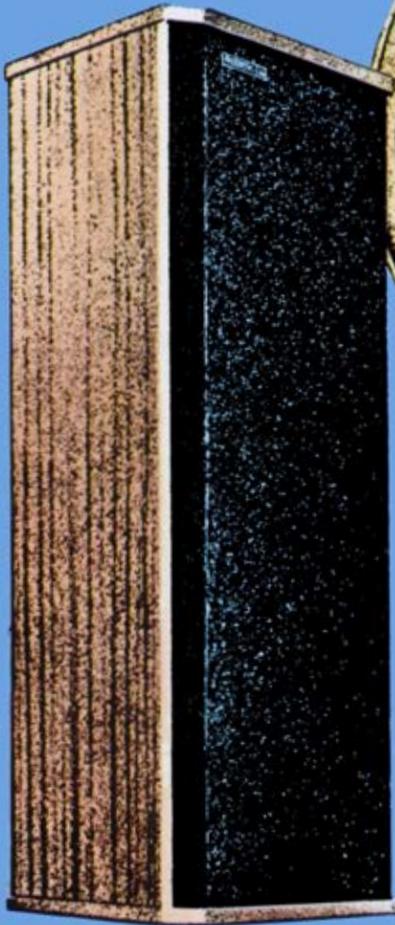
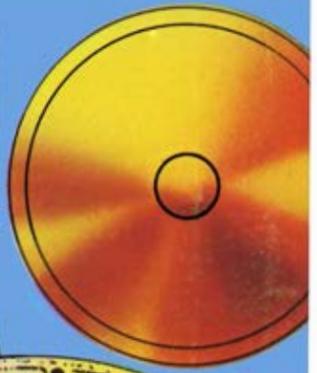
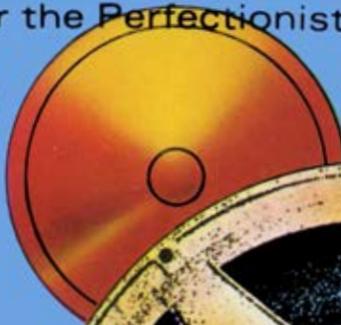
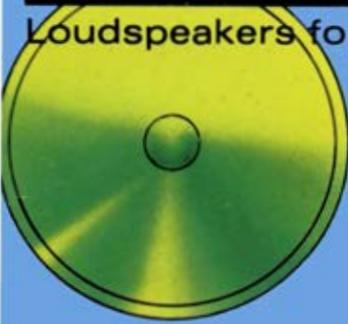


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