

# hi-fi news

March  
1979 45p

## & record review

Choosing the Best Cassette  
Build a Brick Block Baffle

3 Speakers  
Reviewed:

Acoustic Research AR9  
Mission 770  
SMC AL50 Studio

*Haitink at Fifty*

**Music & Records**  
24 pages of Reviews, News & Comment  
Larry Adler & Morton Gould Interviewed

# 9 out of 10 people who read this ad shouldn't buy this speaker

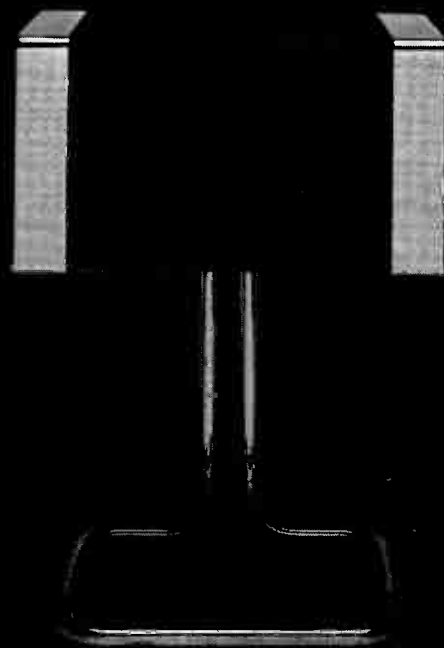
If you own a receiver or amplifier of less than 40 watts per channel the Gale 401 loudspeaker is not for you!

If your system is just for background music to create a pleasant atmosphere, not for serious listening, the Gale 401 loudspeaker is not for you!

However, if you demand the best from your audio equipment

- ... insist on hearing everything that's on the record or tape you're playing
- ... insist on having your sound without distortion when it's very loud or very soft
- ... insist on a speaker system capable of safely handling 200 watts . . .

Then consider the Gale 401 loudspeaker.



## Gale

Gale Electronics 23 Bruton Place London W1X 7AB

# CONTENTS

Hi-Fi News & Record Review March 1979

Volume 24 No.3

## REGULARS

- 57 EDITORIAL COMMENT
- 59 NEWS & VIEWS from the world of sound
- 77 CROSSWORD PUZZLE devised by Maurice Taggart
- 69 READERS' PROBLEMS examined by 'Crossover'
- 95 READERS' LETTERS
- 67 POSITIVE FEEDBACK—technical correspondence
- 71 SOUNDINGS by Donald Aldous
- 79 SUBJECTIVE SOUNDS by Paul Messenger
- 89 FM RADIO by Angus McKenzie
- 115 BOOK REVIEWS by John Freestone, Geoff Jeanes, John Crabbe, Peter Gammond
- 69 AUDIO PATENTS by Adrian Hope
- 107 TAPE MATTERS by Douglas Brown
- 109 GRAMOPHILE the record and music scene
- 107 LOOKING BACK by Peter Gammond
- 97 THE THINGS I HEAR by Arthur Jacobs
- 103 MUSIC ON RECORD: Bernard Haitink
- 57 SUBSCRIPTION DETAILS
- 187 CLASSIFIED ADVERTISEMENTS
- 150 DEALER PANEL ADVERTISEMENTS
- 190 ADVERTISERS' INDEX



'Mouth-organ' player-extraordinary Larry Adler is interviewed in this issue, and by a happy coincidence composer/conductor Morton Gould (also interviewed) joins Adler on a recording of some lively and lovely music for harmonica and orchestra reviewed in our Deja Vu section.

## FEATURES

- 64 HI-FI IN MANCHESTER  
John Atkinson and Ivor Humphreys report from Hardman Radio's third annual show
- 73 BRICK SPEAKERS FOR RELAXED LISTENING  
John Withey offers an idea to suit the searcher for bottom-budget hi-fi
- 81 THE BATTLE FOR FM RADIO  
Adrian Hope concludes his survey of the work of Edwin Howard Armstrong
- 87 A PRESSING NEED  
Some reflections from Geoff Jeanes on disc surface problems
- 91 CHOOSING THE BEST CASSETTE  
R. H. Wallace describes a simple subjective method to find the cassette best suited to your machine
- 99 BERNARD HAITINK AT FIFTY  
Andrew Keener interviews the Dutch conductor (p. 99) and Peter Gammond considers his recordings (p. 103)
- 109 LARRY ADLER, MORTON GOULD & WALTER KLIEN  
Interviewed by John Atkinson (p. 109), Ivor Humphreys (p. 110) and Andrew Keener (p. 111)

## EQUIPMENT REVIEWS

### *Three High-Quality Loudspeakers*

Examined by Trevor Attewell

- 147 ACOUSTIC RESEARCH AR9
- 149 SMC AL50 STUDIO
- 152 MISSION 770

## RECORD REVIEWS

- 117 CLASSICAL ISSUES (full index overleaf)
- 119 RECORDS OF THE MONTH
- 137 DEJA VU—classical reissues
- 139 CLASSICAL CASSETTES by Peter Gammond
- 141 ROCK by Fred Dellar
- 143 JAZZ by Ken Hyder
- 145 LIGHT by Peter Gammond
- 45 FOLK by Paul Oliver

## COVER PICTURE

Bernard Haitink, the 'young conductor' from Holland who has given us so much fine music on record and in the concert hall, looks rather grimly serious here. But he is not so young as many imagine. Like André Previn (and our Editor!) he reaches his half-century this year. Andrew Keener interviewed Bernard recently and Peter Gammond has studied his work and recordings. They both report their findings in this issue.

Britain's largest circulation journal devoted equally to records and hi-fi, with an audited average net sale of 50,164 copies per issue at the last count (January-December 1978).

Technical articles of full page length or over appearing in *Hi-Fi News & Record Review* are details in the British Technology Index.



MEMBER OF THE AUDIT BUREAU OF CIRCULATIONS

# CLASSICAL RECORD INDEX

John Atkinson, Trevor Attewell, Peter Branscombe, Christopher Breunig, John Crabbe, Stephen Daw, Kenneth Dommett, Colin Evans, Iain Fenlon, John Freestone, Peter Gammond, Ivor Humphreys, Peter le Huray, Arthur Jacobs, Geoff Jeanes, Andrew Keener, Victor McAloon, Hugh Ottaway, Benedict Sarnaker, Humphrey Searle, Peter Turner

- ALWYN**  
119 Orchestral music (Alwyn)
- ARNOLD**  
119 British Dances (Arnold)
- J. S. BACH**  
119 Cantatas (Richter)  
119 French Suites (Gilbert)
- BARTOK**  
119 Bluebeard's Castle (Ferencsik)
- BEETHOVEN**  
119 Missa Solemnis (Gönnenwein)  
119 Symphonies 1/2 (Dorati)  
121 Piano Sonatas (Ashkenazy)  
121 'Magic Flute' vars (Bex/Krust)
- BERKELEY**  
121 Chamber Music (ensemble)
- BRAHMS**  
121 Symphony 4 (Levine)
- BRITTEN**  
117 Peter Grimes (Davis)
- CHAUSSON**  
121 Poème de l'Amour (Elms/Pikler)
- CHOPIN**  
121 Piano Concerto 2 etc (Ax/Ormnyd)  
121 Piano works (van Barthold)  
121 Piano sonata 2 (Klansky)
- CLEMENTI**  
123 Symphonies 1-4 (Scimone)
- CORELLI**  
123 Concerti Grossi Op. 6 (Kuijken)
- DEBUSSY**  
123 Pelleas excerpts (Truc)
- DONIZETTI**  
123 Lucrezia Borgia (Bonyngé)
- DVORAK**  
123 New World Symphony (Davis)

- ELGAR**  
121 Sea Pictures (Elms/Hopkins)
- FIBICH**  
123 Symphony 2 (Waldhans)
- FINZI**  
123 Cello Concerto (Ma/Handley)
- FRANCK**  
123 Symphony in d (Danon)
- GESUALDO**  
124 Holy Week (Deller)
- GLAZUNOV**  
124 Piano vol 2 (Howard)
- GOUNOD**  
124 Faust excerpts (Lukacs)
- HADLEY**  
124 The Trees so High etc (Boult)
- HANDEL**  
124 Water Music (Harnoncourt)
- HAYDN**  
124 Lo Speciale (Lehel)  
124 Symphonies 100/104 (Davis)
- HINDEMITH**  
124 7 Kammermusiken (Reichert)
- HOLBROOKE**  
125 Birds of Rhiannon (Handley)
- HOLST**  
125 The Planets (Soliti)
- IRELAND**  
125 Piano Trios 1-3 (Parkin etc)
- KODALY**  
125 Piano music (Zempleni)
- LISZT**  
125 Piano Concertos (Kamenikova/Belohlavek)
- MARTINU**  
125 Concertino etc (Neumann/Kosler)
- MASEK**  
125 Partitas etc (Vajnar)
- MENDELSSOHN**  
125 Symphony 1 etc (Schneider)
- MOZART**  
125 La Betulia Liberata (Hager)  
127 Kleine Nachtmusik (Aureum)  
127 Piano Concertos 3/9 (Engel/Hager)  
127 Piano Concertos in A/C (Demus)  
127 Flute Concerto etc (Galway/Robles/Mata)  
127 Dutch Song vars etc (Ward)

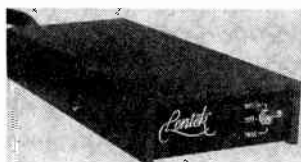
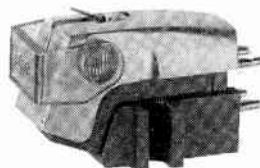
- 127 Quartets in d/C (Fine Arts)  
127 Quartets vol 3 (Dimov)
- PAGANINI**  
127 Recital (Oistrakh/Zertsalova)
- PROKOFIEV**  
121 Piano Sonatas 1/4 (Klansky)  
127 Symphonies 1/7 (Previn)
- RAVEL**  
127 Piano music (Ax/Nozaki)
- RAWSTHORNE**  
129 Piano Concertos 1/2 (Binns/Braithwaite)
- RODRIGO**  
129 Concerto Pastoral etc (Galway/Mata)
- ROOTHAM**  
125 Symphony 1 (Handley)
- EL SABIO**  
129 Santa Maria (Clemencic)
- SAINT-SAENS**  
129 Carnival etc (Entremont)
- SATIE**  
129 An Entertainment (Dickinsons)
- SCHUBERT**  
121 Arpeggione (Bex/Krust)  
129 Mass in A<sub>1</sub> (Gönnenwein)  
129 Trout Quintet (Brendel etc)  
131 Sonatas vol 3 (Klien)

- SCHUMANN**  
131 Symphony 2 etc (Muti)
- SHOSTAKOVICH**  
131 Quartets 1/2 (Fitzwilliam)
- SIBELIUS**  
131 Symphony 3 etc (Berglund)
- STEPAN**  
131 Piano Sonatas (Bernatik)
- TCHAIKOVSKY**  
131 Symphony 5 (Celibidache)  
131 Violin Concerto etc (Stern/Rostropovich)
- TELEMANN**  
131 Wassermusik (Björln)  
131 Music for Wind (ensemble)  
133 Recorder suite in a (Rampal etc)
- VILLA-LOBOS**  
133 12 Etudes etc (Breame)
- VIVALDI**  
133 Concerti 12/100 (Stern etc)  
133 Sacred Music (Negri)  
133 Violin Concertos (Kogans/Gilels etc)
- WAGNER**  
133 Wesendonk Lieder etc (Sass/Korodi)
- WUORINEN**  
133 Percussion Symphony (Wuorinen)

## COLLECTIONS

- Vocal*
- 133 AMERICAN COLLECTION (Pittman)  
135 HUNGARIAN PSALMS (Berkesi)  
135 IN QUIRES & PLACES 28 (Belfast)  
135 THE TALLIS SINGERS (Tallis Singers)  
135 MAGGIE TEYTE RECITAL (Teyte)  
135 THANKSGIVING AT LIVERPOOL CATHEDRAL
- Instrumental*
- 135 BASSOON SERENADE (Perkins/Hancock)  
135 CELLISTS OF THE BERLIN PHILHARMONIC  
135 FULL STOPS (Wills)  
135 RENAISSANCE ITALIAN RECORDER (Hottettere)  
137 MUSICA PRAECLASSICA (Wangenheim)  
137 CZECH VIOLIN MUSIC (Luca/Schoenfeld)
- Orchestral*
- 137 SPANISH COLLECTION (Semkow)  
137 RUSSIAN COLLECTION (Danon)

# LET YOUR DEALER GUIDE, LET YOUR EARS DECIDE



The requirement: superb performance from a speaker of modest proportions at a price also of modest proportions.

The answer: Lentek 5.4. 19.5x9.75x10 ins. Power handling capability, 25 to 74 watts sinewave. Suitable for stand or shelf mounting. Cost, not cheap, but not that expensive by today's standards.

This speaker is not going to blow your mind by reproducing bass notes beyond the range of audibility, but it is going to knock you out with its accurate reproduction of not just the frequencies that go to make up sound, but also the depth, clarity, and spatial imagery that add up to the truthful reproduction of music. (It's a little difficult to put into words, why not come along and hear what we mean for yourselves, they are on demonstration at both Reading and Brighton).

Our friends at Lentek can help you on your trek towards beautiful sounds in other areas too, the Lentek moving coil cartridge pre-amplifier is a universal head amp that can be partnered very successfully by most moving coil cartridges, especially the Entr-1, which, since its introduction has been held in very high regard in most quarters.

"Gold-ens", "Zerostat" Pistols and "Discwasher" record cleaning kits are all distributed by the Lentek group and are all brand leaders in their respective fields.

We like Lentek!

*Reading Cassette  
and Hi-Fi Centre*



5-6 HARRIS ARCADE, FRIAR STREET,  
READING, BERKS. Tel. (0734) 585463.

MAIL ORDER-PERSONAL EXPORT-PART EXCHANGE-CREDIT FACILITIES-B/CARD-ACCESS

Accessories are playing an ever important role in helping the enthusiast to improve his system and we like to think that we carry most of the worthwhile items. For example:

TRISTAN 22C Speaker stands (pair)	£20.00
APOLLO Mk IV Speaker stands (pair)	£17.50
SOUND FOCUS Telescopic Speaker stands (pair)	£22.50
FIDELITY Fastening FFI wall brackets	£5.50
APOLLO Wall brackets	£9.50
MICROSORBERS (Set of four)	£9.25
PERMOSTAT Kits	£4.40
PERMOSTAT Refills	£2.75
NAGOAKA Rolling record cleaner	£4.99
SOUNDGUARD Kits	£7.25
SOUNDGUARD Refills	£3.50
MICHELL Record clamp	£1.65
SPECTRA Turntable mat	£17.50
TDK Tape head demagnetiser	£9.75
EAGLE Tape head demagnetiser	£3.25
BIB "Groov Kleen"	£1.90
GOLDRING "Ex-static" record brush	£6.00
KEITH MONKS Sweep arm	£8.45
KEITH MONKS Spirit level	£1.65
"NION" Record cleaner	£18.25
KEITH MONKS Damped turntable level kit	£5.45
SHURE SFG-2 Stylus gauge	£4.50

All prices include V.A.T. and are correct at 12.1.79. Please add 35p for postage on all items except speaker stands, please add £1.00. E. & O.E.

N.B. MARANTZ, REGA and SPENDOR are available at Reading only. YAMAHA available at Brighton only.

Both shops open TUESDAY-SATURDAY, 9.30 a.m.-5.30 p.m.

Entrance to the Brighton shop in Trafalgar Street.

*Brighton Cassette  
and Hi-Fi Centre*

1 YORK PLACE, LONDON ROAD,  
BRIGHTON, SUSSEX. (0273) 695776



# A NEW COMPACT BOOKSHELF LOUDSPEAKER

for under £100

## MA 'MINI MONITOR'

50watt loudspeaker

'Mini Monitor' is a new accurate loudspeaker from Monitor Audio, economical in size and price but not short on performance.

Advanced technology and materials have been used in development and manufacture of 'Mini Monitor'. Even the drive unit baffle is 18 mm thick plywood.

### SPECIAL FEATURES

- High frequency unit with protected acoustic grille.
- Accurate reproduction of musical detail and ambience.
- Low colouration.
- Modest power handling 50 watts.
- Advanced 12-element crossover network utilizing close tolerance components.
- High value engineering including 18 mm plywood baffle.
- 'Mini Monitor' means it is compact and therefore fits ideally into any room setting.

For under £100 the 'Mini Monitor' spells real value for money. 'Mini Monitors' are now on demonstration at your local Monitor Audio Dealer, why not go and hear them for yourself.



MA 'MINI MONITOR'

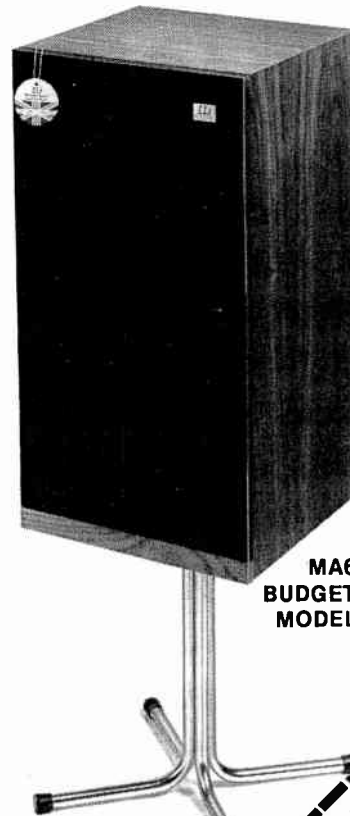
## MA6 BUDGET MODEL

60watt loudspeaker for under £150

Like the smaller 'Mini Monitor' the MA6 is a budget model retaining all Monitor Audio's high standards of manufacture at a price to suit everyone's pocket.

### MA6 BUDGET MODEL SPECIFICATION

Frequency response 45 Hz to 19 kHz  $\pm$ 3.5 dB  
 Sensitivity 10 watts for 96 dB linear at 1 metre  
 Rec amplifier rating 10 watts to 50 watts per channel  
 Size 580 mm (high) x 300 mm (wide) x 285 mm (deep)  
 Weight 13 kg  
 Stand Matching chrome stand recommended as illustrated, available from Monitor Audio



MA6 BUDGET MODEL

**NOTE** We strongly recommend low loss 'Sound Cable' with all Monitor Audio loudspeakers.

All Monitor Audio products can be obtained from specially appointed dealers. However, if you are unable to acquire further information or satisfaction, please call Monitor Audio Customer Service line (0223) 46344 or write to Monitor Audio, 347 Cherry Hinton Road, Cambridge CB1 4DJ.



347 Cherry Hinton Road Cambridge CB1 4DJ England  
 Telephone 0223 46344 & 42898 Telex 817343 Blue CAM/G

Please send me further information on your New Products

Name \_\_\_\_\_

Address \_\_\_\_\_

No SAE necessary

# Hi-Fi 80. The that makes IIT one of the



You may be surprised to learn that all the equipment featured above is from IIT's Hi-Fi 80 range.

If so, you'll be even more surprised when you hear it.

When we designed our Hi-Fi 80 series, we knew our world-wide reputation for excellence in technology, communications, TV and radio wouldn't mean a thing. We wanted the equipment to be judged by its performance – not by the name on the front.

## HiFi 80

# equipment big names in quality Hi-Fi.



That's all we're asking you to do. Hear the Hi-Fi 80 range for yourself. It's given IIT a reputation for serious hi-fi that we could rest on for years to come.

But we won't.

See your IIT Hi-Fi 80 dealer for full details or write now for a fully illustrated brochure to Hi-Fi 80, IIT, Basildon, Essex.

# IIT

World-wide Technology

# BLOW UP AMPLIFIER WITH



E70's (above) 100 watts DIN, 1 watt produces 94 dB at 1 metre, 100 watts produces 114 dB at 1 metre. E50's 70 watts DIN, 1 watt produces 94 dB at 1 metre, 70 watts produces 112 dB at 1 metre.



# YOUR REMARKABLE E's.

New Wharfedale E's will amplify your amplifier. They make 20 watts sound like 200. Because they're up to 30 times more efficient than ordinary speakers. Yet their fidelity's a feat. It's as high as your music can take you.



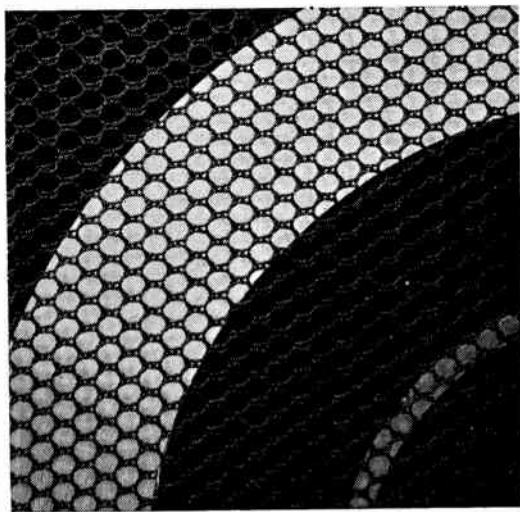
Upper (2kHz to 20kHz) and Lower (200Hz to 2kHz) Contour Controls; 5 positions up to maximum 5 dB attenuation.

Even when the sound pressure's on, there's always power in reserve. They're a revolutionary development from Wharfedale, the only UK manufacturer to use computer optimisation techniques. So only Wharfedale is together enough to give it together: realistic volume levels that really sound on the level.

Wharfedale E's need so little power, they let your old amp get on top of any peak.

They'll never clip you round the ears. Even though they'll hit you between the eyes.

Wharfedale E's look loud in their see-through fishnet grilles. Which expose their brushed aluminium rings. And their controls. The controls accommodate the speakers to your accommodation.



Specially developed grille; insertion loss substantially zero.

If you'd like to hear them turn the page and there you'll find the list of selected E dealers.

Finally, a couple of quiet words of warning: You've heard nothing like them.



Cones in unique lightweight fibrous material driven by a massive 135,000 maxwell magnet system.

They'll fill your head, but they'll empty your pocket. And they'll blow your mind through your ears. WHARFEDALE

**FROM THE BIGGEST NOISE IN SPEAKERS,  
THE BIGGEST NOISE IN SPEAKERS.**

Rank Hi Fi, P.O. Box 70, Great West Road, Brentford, Middlesex TW8 9HR.



# 4 Good Listeners

**RE-238  
HIGH VELOCITY**



Professional performance from a new design: specially curved diaphragms allied to powerful magnets. Padded leather headband with specially designed yokes that hold the slim, nylon padded earcups firmly but comfortably against any headshape. Open back. FR: 16-22,000 Hz. Sens: 100 dB. SPL at 1 mW. Matching Imp: 8 to 1000 Ohms. Weight: 160 gm.

Around  
£15.00 inc.

**RE-248  
ORTHODYNAMIC**



The new concept (until now featured in much more expensive headphones) that provides performance equal to Electrostatics and low linear distortion even at high sound levels. Leather grain headband and earmuffs. Open back. FR: 18-20,000 Hz. Sens: 90 dB. SPL at 1 mW. Imp: 8 Ohms. Weight: 240 gm.

Around  
£14.50 inc.

**RE-258  
RARE-EARTH  
SUPERMAGNET**



Slip on your earcups with ultimate performance from drive units employing the most powerful rare-earth magnets obtainable and specially curved diaphragms only 12.5 micrometers thick. Leather grain headband, nylon padded earcups on yokes that tailor to any headshape. Open back. FR: 10-25,000 Hz. Sens: 125 dB. SPL at 1 mW. Matching Imp: 8 to 1000 Ohms. Weight: 150 gm.

Around  
£21.00 inc.

**RE-268  
SLIMLITE**



Superlight—120 grams, super-slim—only 10 mm thick, but fitted with advanced technology drive units that outperform bulkier, more expensive headphones. Padded, adjustable twirl headband and supra-aural earmuffs provide exceptionally comfortable listening. Open back. FR: 18-22,000 Hz. Sens: 100 dB. SPL at 1 mW. Matching Imp: 4 to 150 Ohms.

Around  
£30.00 inc.



Quality HI-FI from beginning to end.  
32 Rathbone Place, London W1P 1AD. TEL 01-580 7112/3

## S.W., S.E. WILTSHIRE AND HAMPSHIRE

Blackmore Vale, The Square, Gillingham, Dorset Tel: 074 76 2474  
Blackmore Vale, 17 Butchers Row, Salisbury. Tel: 0722 22746  
Burridges, 22 River Street, Truro, Cornwall. Tel: 0872 6993  
Comet, All branches  
R.L. Cook, 2 The Broadway, Andover, Hants. Tel: 0264 3573  
Paul Green Hi Fi, London Road, Bath, Avon. Tel: 0225 316197  
Guildford Hi Fi Centre, 270 High Street, Guildford, Surrey. Tel: 0483 71534  
Hydrovolt Ltd., 32 Meneage Street, Helston. Tel: 032 65 2545  
Hydrovolt Ltd., 91 Market Jew Street, Penzance. Tel: 0736 5075  
John King Films, 71 East Street, Brighton, Sussex. Tel: 0273 25918  
Laskys, Larger branches  
Alan Laurenson, 9 Bell Street, Reigate, Surrey. Tel: 073 72 46494  
Modern Home Elec., 343 Gloucester Road, Bristol, Avon. Tel: 0272 44035  
R.J. Parker & Sons Ltd., 11 West End Road, Bitterne, Southampton. Tel: 0703 445926  
Rediffusion, 40 Fenn Street, Bristol 1, Avon. Tel: 0272 24658  
Rediffusion, 8 Guildhall Shopping Centre, Exeter, Devon  
Runnymede Hi Fi, 172 High Street, Egham, Surrey. Tel: 07843 5036  
Peter Scott, 76 South Street, Exeter, Devon. Tel: 0392 566 33  
Sevenoaks Hi Fi, 118 London Road, Sevenoaks, Kent. Tel: 0732 58556  
Vixens, 34 Carfax, Horsham, Sussex. Tel: 0403 2230  
Weybridge Audio, 5 High Street, Weybridge, Surrey. Tel: 0932 51121

## EAST ANGLIA, LINCOLNSHIRE AND NOTTINGHAMSHIRE

B. & G. Radio, Hatter Street, Bury St. Edmunds  
Cantefec Hi Fi Centre, 190 Moulshaw Street, Chelmsford. Tel: 0245 84444  
K.A. Chesseman, Sherwell Road, Colchester. Tel: 0206 73792  
Comet, All branches  
Co-op, Fifth Road, Lincoln  
Co-op, Ascot Road, Aspey, Nottingham  
Co-op, Market Place, Gainsborough  
Edwards, Norwich Road, Dereham, Norfolk  
Forum Hi Fi, 600 Mansfield Road, Sherwood, Nottingham. Tel: 0602 601150  
Kellys, D25 London Road, Lea-on-Sea, Ilford, Essex. Tel: 0702 75004  
Laskys, Larger branches  
Martin, Ber Street, Norwich. Tel: 0603 61683  
Andrew McCulloch, 24 King Street, Cambridge. Tel: 0223 64420  
Nu Sound, 87 Pioneer Market, Ilford. Tel: 01 478 2291  
Pank Rentals, 4 Davey Place, Norwich. Tel: 0603 22942  
J.V. Robinson & Co., 89 High Street, Huntingdon, Cambridge  
Sleaford Hi Fi, Unit 3, Southgate Precinct, Sleaford, Lincs. Tel: 05293 3270  
Stevens, Grimsby Road, Cleethorpes  
Super-fi, 15 Market Street, Nottingham  
Tower Radio, 125 Furtherwick Road, Canvey Island, Essex. Tel: 037 43 2211  
Wally for Wireless, 281-283 Whitechapel Road, London, E.1. Tel: 01 247 8501  
Peter Watts, 6 Dereham Road, Watton, Norfolk. Tel: 0953 881440  
D.T. Wicks, North Station Road, Colchester. Tel: 0206 78807  
Les Wright, 101 Mary Street, Scunthorpe, Lincs. Tel: 0724 67738

## WALES, THE MIDLANDS, MERSEYSIDE, OXON AND BERKSHIRE

Ace Audio, 156 St. Johns Precinct, Liverpool  
Armstrong Smith, 65 King Street, Wallasey. Tel: 051 639 9257  
Audiocraft, 23-25 Derngate, Northampton. Tel: 0604 36291  
B & B Hi Fi, 16 Gun Street, Reading. Tel: 0734 583730  
B & B Hi Fi, 4 Priory Road, High Wycombe, Bucks. Tel: 0494 35910  
Berkshire Hi Fi, 8 Meadow Precinct, Tilehurst, Reading  
Berkshire Hi Fi, 125 Bridge Road, Maidenhead  
C.B.C. Developments, 128 St. Johns Precinct, Liverpool. Tel: 051 709 0388  
Cherwell Valley, The Old Twyford Mill, Kings Sutton Road, Banbury. Tel: 0295 81644  
Comet, All branches  
Forum Hi Fi, Unit 26-27, Tivoli Centre, Coventry Road, Birmingham. Tel: 021 707 3640  
Forum Hi Fi, Unit 3 & 9, Longfellow Road, Coventry. Tel: 0203 451651  
Forum Hi Fi, 600 Mansfield Road, Sherwood, Nottingham. Tel: 0602 601150  
Forum Hi Fi, 238 Chesterfield Road South, Mansfield. Tel: 0623 23716  
Forum Hi Fi, 3-5 Watergate, Grantham. Tel: 0476 66969  
Gratispool, 10 Martineau Way, Birmingham. Tel: 021 236 1024  
Gratispool, 27 Queen Victoria Street, Reading. Tel: 0734 586650  
Gratispool, 14 Humberstone Mall, Haymarket Centre, Leics. Tel: 0533 536469  
Hardman Radio, 31 Dale Street, Liverpool. Tel: 051 236 2828  
Hardman Radio, The Forum Centre, Northgate Street, Chester. Tel: 0244 317667  
Hardman Radio, Corporation Street, Birmingham  
Herberts Ltd., 130 Butts Centre, Reading  
Herberts Ltd. branches also at Newbury and Basingstoke  
Hi Fi Studio, Londsale Street, Stoke on Trent. Tel: 0782 47125  
Hi Fi Studio, Market Arcade, Newcastle under Lyme. Tel: 0782 613902  
Hi Fi Western, Cumbrian Road, Newport, Gwent. Tel: 0633 62790  
Laskys, Larger branches  
Leicester Hi Fi, 214-219 Melton Road, Leicester. Tel: 0533 666653  
J.C.V. Music, 44 Emscote Road, Warwick. Tel: 0962 43796  
J.C.V. Music, 8-9 Sheep Street, Stratford on Avon. Tel: 0789 68874  
Oxford Electrical Rentals, 256 Banbury Road, Oxford  
Regency Radio, 40 Park Green, Macclesfield. Tel: 0625 24493  
Robbs of Gloucester, 15 Worcester Street, Glos. Tel: 0452 23051  
T.E. Roberts, 26 King Street, Wrexham. Tel: 0978 4404  
Sewards Ltd., 130 Friar Street, Reading. Tel: 86 1044  
Sewards Ltd., 54 The Broadway, Bracknell  
Sounds, Avon Centre, Wolverhampton. Tel: 0902 21 126  
Vallances, 10 Four Seasons Centre, Mansfield. Tel: 0623 26936  
Stuart Westmorland, 33 Cattle Market, Loughborough. Tel: 0509 30465  
Stuart Westmorland, 9-10 Cheapside, Melton Mowbray. Tel: 0664 4741  
Stuart Westmorland, 2 High Street, Oakham. Tel: 0572 55600  
Stuart Westmorland, 67 St. Peters Street, Derby. Tel: 0332 367546

## SCOTLAND AND THE NORTH OF ENGLAND AND NORTHERN IRELAND

E. Ashcroft & Sons, Beaconsfield Corner, Ormskirk, Lancs. Tel: 73456  
Comet, All branches  
Electronic Services, Berkely Precinct, Ecclesall Road, Sheffield. Tel: 0742 668767  
Fosters of Castlereagh Ltd., Newtonards Shopping Centre, Northern Ireland. Tel: 0232 812833  
Kenneth Gardner Ltd., 28 New Street, Lancaster. Tel: 0524 64328  
Gratispool Co. Ltd., 38 Lands Lane, Leeds. Tel: 0532 35714  
Gratispool Co. Ltd., 94-96 South Bridge, Edinburgh. Tel: 031 225 9250  
Gratispool Co. Ltd., 66 Queen Street, Glasgow. Tel: 041 221 8290  
Gilson Audio, 234 Linthorpe Road, Middlesbrough. Tel: 0325 61922  
Goff Jackson Gramophones, 14 Hyde Park Corner, Leeds. Tel: 0532 781513  
Eric M. Hamilton, 136-138 Queen Margaret Drive, Glasgow. Tel: 041 946 9213  
Hardman Radio, 12-14 St. Mary's Gate, Manchester. Tel: 061 832 6087  
Hardman Radio, Guildhall Arcade, Lancaster Road, Preston. Tel: 0772 59264  
Hi Fi Opportunities, 33 Handyside Arcade, Newcastle upon Tyne. Tel: 0632 27791  
Holburn Hi Fi, 445 Holburn Street, Aberdeen. Tel: 0224 25713  
House of Clydesdale, 103-109 Trongate, Glasgow. Tel: 041 552 0623  
House of Clydesdale, 2-4 York Arcade, Grangemouth. Tel: 42313  
J.L.T.V., 441 Thornton Road, Bradford. Tel: 0274 492190  
Larg's Group, 16-24 Whitehall Street, Dundee. Tel: 0382 26061  
Laskys, Larger branches  
Kenneth Levell Ltd., 13-15 Market Street, Huddersfield. Tel: 0484 32294  
John McLachlan TV, 56 Old Sneddon Street, Paisley, Strathclyde. Tel: 041 889 3026  
Miller Bros Ltd., 103 Kirkgate, Bradford. Tel: 0274 307777  
Miller Bros Ltd., Hunt Lane, Bentley, Doncaster. Tel: 0302 2022  
Multisound Hi Fi Ltd., Davygate Arcade, York. Tel: 0904 51712  
Quadruphenia, 10 Nursery Street, Sheffield. Tel: 0742 77824  
Tates Radio, 68 High Street, Wallsend. Tel: 623577  
Andrew Thompson, 6-9 Bonner Street, Dunfermline. Tel: 0383 24541  
Tom Dickson Cameras (Wishaw) Ltd., 36 Calodonian Road, Wishaw. Tel: 069 83 73876  
Tom Dickson Cameras Ltd., 8 Cadzow Street, Hamilton. Tel: 23193  
Vallances, The Headrow, Leeds. Tel: 0532 33213  
Vallances, 19-21 Cambridge Street, Harrogate. Tel: 0423 64351  
Vallances, Arndale House, Market Street, Bradford. Tel: 0274 31596  
Vallances, Chapel Walk, Fargate, Sheffield. Tel: 0742 29225  
Vallances, 37-39 Queensway, Keighley. Tel: 0535 606125  
Vallances, 41 Hall Gate, Doncaster. Tel: 0302 23424  
Vallances, 12 Broadway, Ashby, Scunthorpe. Tel: 0724 2564  
Vennal Audio, 49 The Foregate, Kilmarnock. Tel: 34826  
Vennal Audio, 115 High Street, Central Arcade, Ayr. Tel: 64124  
J.G. Windows, 1-7 Central Arcade, Newcastle upon Tyne. Tel: 0632 21356

## GREATER LONDON, HERTFORDSHIRE AND BEDFORDSHIRE

Acion Camera, 86 High Street, London, W.3. Tel: 01 992 4788  
Atkins Radio, 210 Brixton Hill, London, S.W.2. Tel: 01 674 4433  
Atlantic Elec., 39 High Road, Willesden, London, N.W.10. Tel: 01 451 0302  
Azat, 61 Charlotte Street, London, W.1. Tel: 01 580 4632  
Bevans Radio, 311 Greenford Road, Greenford, Middlesex. Tel: 01 578 9699  
Centre of Sound, 120 Nottingham Gate, London, W.11. Tel: 01 727 0511  
T.W. Cherry, 115 Bruce Grove, London, N.17. Tel: 01 808 5582  
Comet, All branches  
Davis & Kays (Soundcentres), 38 Edgware Road, London, W.2. Tel: 01 802 4131  
Davis & Kays (Soundcentres), 857 High Road, London, N.12. Tel: 01 445 3319  
Ealing TV. & Hi Fi, 3 The Paddock, Popes Lane, London, W.5. Tel: 01 579 3718  
Ellis Marketing, 5 Arlington Parade, Brixton Hill, London, S.W.2. Tel: 01 733 6708  
Ellis Marketing, 79 High Street, Norwood, London, S.E.25. Tel: 01 653 4224  
Francis of Streatham, 169-175 High Road, London, S.W.16. Tel: 01 769 0912  
G.E.M., 313-319 High Road, London, E.11  
Gratispool, 7 Church Street, Kingston, Surrey. Tel: 01 546 6196  
Hampton Audio Visual, 96 Station Road, Hampton, Middlesex. Tel: 01 979 3198  
Harrow Sound Systems, 54 St. Anns Road, Harrow. Tel: 01 863 3400  
Jatala Audio, 490 Chiswick High Road, London, W.4. Tel: 01 574 1894  
Jupiter Audio, 76 Tooting High Street, London, S.W.1. Tel: 01 767 2810  
Laskys, Larger branches  
Leader, 2B Commercial Street, London, E.1. Tel: 01 247 4565  
Lockford Marketing, 10 Fulham Broadway, London, S.W.6. Tel: 01 385 0814  
Martins, 125 Stoke Newington High Street, London, N.16. Tel: 01 254 5053  
Mason Radio, 384 Uxbridge Road, London, W.12  
Mason Radio, 255 Seven Sisters Road, London, N.4  
Morden Photographic, 78 London Road, Morden, Surrey. Tel: 01 543 0252  
M.R. & S. Electronics, 10 High Road, London, N.15. Tel: 01 802 5452  
Naz Electronics, 82 Kingsley Road, Hounslow East, Middlesex. Tel: 01 572 2535  
Nu Sound, 82 High Holborn Road, London, W.C.1. Tel: 01 242 8354  
Nu Sound, 36 Lewisham High Street, London, S.E.13. Tel: 01 852 2399  
Nu Sound, 242 Pentonville Road, London, N.1. Tel: 01 837 8200  
Nu Sound, 376 Edgware Road, London, W.1. Tel: 01 724 0454  
Nu Sound, 252 Hoe Street, Walthamstow, London, E.17. Tel: 01 520 1906  
Panasonic, 436 Garratt Lane, London, S.W.18. Tel: 01 946 9916  
Russells, 318 St. Albans Road, Walford. Tel: 92 32717  
Sarays, 223 Tottenham Court Road, London, W.1. Tel: 01 637 1619  
Sarays, 43 Church Street, Croydon. Tel: 01 681 3344  
Sarays, 272 Edgware Road, London, W.2. Tel: 01 723 5304  
Sarays, 131 King Street, Hammersmith, London, W.6. Tel: 01 748 4747  
Sarays, 207 Baker Street, London, N.W.1. Tel: 01 935 5451  
Sarays, 92 Stoke Newington High Street, London, N.16. Tel: 01 254 1739  
Sebha Elec., 146 West Ealing Broadway, London, W.13. Tel: 01 567 8550  
Signal Processing Systems, 16 Vivian Avenue, London, N.W.4. Tel: 01 202 5551  
Sona Electronics, 34 Pembroke Road, London, W.11. Tel: 01 229 6411  
Spectrum, 106 Bancroft, Hitchin. Tel: 0462 52248  
Target Electrical, 45 Katherine Drive, Dunstable. Tel: 0582 67750  
Thorne & Howell, 15 Woodcote Road, Wallington, Surrey. Tel: 01 647 5478  
Tune-in, 70 Battersea Rise, London, S.W.11. Tel: 01 223 5881  
Woodbury Teleservices, 514 Kingsland Road, London, E.8. Tel: 01 254 8667  
Woodbury Teleservice, 97 Kingsland High Street, London, E.8. Tel: 01 254 9381

**FROM THE ABOVE LIST OF DEALERS,  
THE BIGGEST NOISE IN SPEAKERS.**



# THE PYE HI-FI SOUND PROJECT



## AND WE CAN

The Pye Hi-Fi Sound Project is a comprehensive range of high performance, high fidelity equipment. The range covers amplifiers, tuners, receivers, speakers, turntables, cassette deck and a music centre.

Pye has commissioned each separate model in the range from the best, most experienced source in the world. Receivers from Japan, turntables from West Germany. And in each area Pye has selected a manufacturer of unrivalled excellence.

The benefits are numerous.

Firstly, the equipment is designed to the most exacting of specifications, laid down by Pye, with the aim of bringing you performance of such a degree that other manufacturers will not be able to better it at the price. Compare the specifications and price of the receiver shown above and you'll see what we mean - 65 Watts per channel at 0.3% total harmonic distortion (0.05% harmonic distortion at 60 Watts) makes it a formidable piece of equipment.

ALSO AVAILABLE: 65W AMP £199.00. 45W AMP £169.00. TUNER £169.00. 20W TUNER/AMP £159.00. 34W TUNER/AMP £219.00. 45W TUNER/AMP £279.00. 30W MUSIC CENTRE (with Spkrs) £475.00. 65W TUNER/AMP £339.00.

### CAMBRIDGESHIRE

Cambridge Co-op Society,  
Coldhams Lane, Cambridge.  
Cotton Audio & Television, High Street, March.  
Cotton Audio & Television,  
Oundle Road, Peterborough.  
Renbro Ltd., 30 Mill Road, Cambridge.

### CHESHIRE

Hi-Fi Centre, Green Lane, Wilmslow.  
Yeoman & Russell Ltd., 33 George St., Altrincham.

### DEVON

K. J. B. Electronics, 32 South Street, Exeter.  
Ford & Son, High Street, Sidmouth.

### DORSET

K. W. Hurford, 2 Church Street, Beaminster.  
Jarvis Radio Ltd., 55 High Street, Christchurch.

### ESSEX

Colchester & East Essex Co-op,  
High Street, Colchester.  
Chelmsford Star Co-operative, 220 Moulsham Street.  
Fordhams Electrical Ltd., 9 Crouch Street, Colchester.  
Fordhams Electrical Ltd., 141 High Street, Dovercourt.

### GLAMORGAN

Western Radio, 102 Everley Road, Sketty, Swansea.

### HAMPSHIRE

Rawlings, 19 St James Road, Shirley, Southampton.

### HERTFORDSHIRE

Hitchin Radio Service (Spectrum), Bancroft, Hitchin.

### KENT

Chesmans, New Road, Gravesend.

### LANCASHIRE

E. Ashcroft & Son, Beaconsfield Corner,  
Ormskirk.  
Brooke Electrical, 234 Fog Lane, Didsbury,  
Manchester.

Gerald Carter, Stone Cross, Market Square,  
Garstang.

Cleveys TV Ltd., 2d Bispham Rd., Cleveys.

H. L. Elton Ltd., 1278/1282 Ashton Old Road,  
Higher Openshaw, Manchester.

Kenneth Gardner Ltd., 28 New Street, Lancaster.

Industrial Domestic Services, Whitegate Drive,  
Blackpool.

T. Procter & Son Ltd.,  
14-16 Ainsworth Street, Blackburn.

Record Centre Ltd., 126 Poulton Road, Fleetwood.  
Record Centre Ltd., 18 Brek Road, Poulton le Fyde.

### LINCOLNSHIRE

Eastern Tapes Ltd., Corporation Street, Lincoln.

### LONDON & GREATER LONDON

Atkins Radio, 210 Brixton Hill, SW2.  
Ardotime, 35 High Road, Chadwell Heath.  
Chesmans, Lewisham High Street, SE13.  
Royal Arsenal Co-op, 65 Lewisham High St., SE13.  
Harolds, Knightsbridge, SW1.  
Hi-Way Hi-Fi Ltd., 315 Edgware Road, W2 1BN.  
Olympic Radio, 81 Hammersmith Road, W14.

### MERSEYSIDE

Rimmer and Barlow Ltd.,  
114 Manchester Road, Southport.

### NORFOLK

Adams & Dack Ltd., Guildhall Hill, Norwich.

### NORTHAMPTONSHIRE

Timms, Corporation Street, Corby.  
Timms, Newborough Centre, Gold Street,  
Kettering.

Timms, Cambridge Street, Wellingborough.  
TV Vision Services, Market Place, Brackley.

### NOTTINGHAMSHIRE

Edgar Welchman & Son,  
8-11 Grove Street, Retford.

### OXFORDSHIRE

M. A. Buzzard, 16 Parsons Street, Banbury.

### SOMERSET

B. Woodmancy Ltd., 18 Market Place, Frome.

### SOUTH HUMBERSIDE

David Bury Ltd., 70 Pasture Street, Grimsby.

### STAFFORDSHIRE

W. T. Parker (Retail) Ltd.,  
131 Station Road, Burton-on-Trent.  
Rugeley R. & T. Ltd., 33 Horse Fair, Rugeley.  
Woods Radio & TV Services, George Buildings,  
Upper High Street, Wednesbury.

### SUFFOLK

Fordhams Electrical Ltd., Buttermarket, Ipswich.  
A. E. L. Tyler & Son Ltd., Felixstowe Road, Ipswich.

# OBJECT RANGE IS UNIQUE



## PROVE IT.

Independent authorities such as the Swedish Hi-Fi Institute have confirmed even better performances.

Hand in hand with this has gone a single-minded insistence on quality. Over the years, Pye has gained an enviable reputation for the above average reliability we build into our products - reliability that stems from painstaking initial design allied to stringent selection of materials and components, and strict quality control. And since this equipment will be sold throughout the world, we

TURNABLES £67.50 and £147.05. CASSETTE DECK £152.50. ALL SUGGESTED RETAIL PRICES.

**SURREY**  
Colhart Ltd, 49 Farnborough Road, Heath End, Farnham.  
E. H. Maxwell & Sons Ltd, Guildford Road, Woking.  
W. H. Wadham, The Square, Grayshott, Nr Hindhead.

**SUSSEX**  
T. F. W. Brya, Bedford Street, Bognor Regis.  
Smythe & Barrie Ltd, 31 Langney Road, Eastbourne.  
Clear View Rentals & Relay Ltd, 34-40 High Street Seaford.  
R. Barker Ltd, 32 South Street, Tarring, Worthing.  
The Tracing Post 7 Castle Street Hastings.

**TYNE & WEAR**  
A. B. Culler Ltd, Northumberland Street, Newcastle-on-Tyne.

**WARWICKSHIRE**  
Wright Rentals Ltd, 35 Abbey End, Kenilworth.  
G. Shaw, 212 Alton Rock Road, Galsley, Birmingham.  
JCV Organisation Ltd, 41 Emmscott Rd, Warwick.  
JCV Organisation Ltd, 8-9 Sheep Street, Stratford upon Avon.

**WEST MIDLANDS**  
Sam Riley (Blackheath) Ltd, Kings Theatre Buildings, Rowley Regis.

**WILTSHIRE**  
Peter Day, Victoria Road, Swindon.  
Philip Harris, 42 Roundstone Street, Trowbridge.

**WORCESTERSHIRE**  
Dilworth's Ltd, 47 Port Street, Evesham.

**YORKSHIRE**  
J. W. Gray, 41 St. Thomas Street, Scarborough.  
Walter Crane, 75 Westgate, Wakefield.

**NORTHERN IRELAND**  
To obtain details of your nearest stockist Tel: Electrical & Hardware Marketing Ltd, 10 King Street Mews, Belfast. Tel: Belfast 43699

**SCOTLAND**  
To obtain details of your nearest stockist Tel: Clyde Factors Ltd, 76 Washington Street, Glasgow. Tel: 041-221 9844.

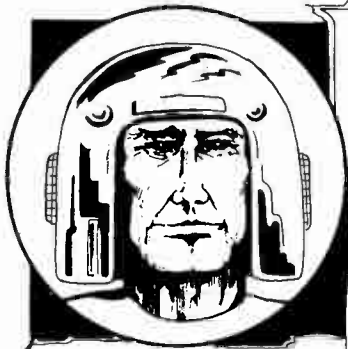
regard built-in reliability as more important than ever.

And finally, since Pye are making the Hi-Fi Sound Project range available only through selected local retailers throughout the country, you'll get the advice, and the service, you should be entitled to when purchasing a piece of equipment of this calibre.

So, the Pye Hi-Fi Sound Project isn't simply a new range of hi-fi equipment. It represents a unique approach to high fidelity: one in which the outstanding performance, quality and reliability of the equipment itself is combined with a highly competitive price and the back up of an integrated, nationwide dealer and service network.

If you need any more proof, there's a dealer near you where you can listen to the equipment for yourself.

**THE PYE HI-FI SOUND PROJECT**  
A UNIQUE APPROACH TO HIGH FIDELITY



# UK STAR-CENTRE

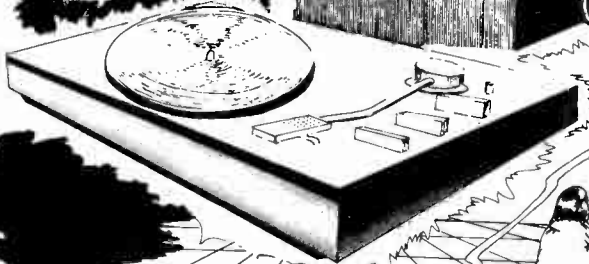
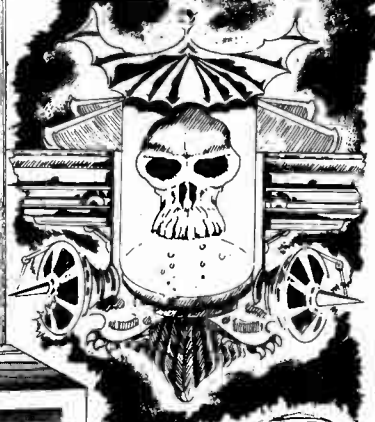
KAY JAY CONTINUES HIS EXPLORATORY MISSION ACROSS UNCHARTED FRONTIERS BEYOND THE ACROMEDA.

COMMANDER KAY JAY ZOOMS THROUGH THE PRICE BARRIER WITH THREE OUT OF THIS WORLD SYSTEMS. NEW TECHNOLOGY FROM THE ACROMEDA PLUS SAVINGS EFFECTED FROM BUYING KEENLY AROUND THE GALAXY MEANS A BETTER DEAL FOR THOSE LEFT ON EARTH. COMMANDER KAY JAY WINS AGAIN ON THE PLANET OF THE TAPES.



**ACROMEDA 1 SYSTEM**  
SAVE NEARLY £200 ON LIST PRICE OF £557  
YAMAHA CR 420 25 WATT RECEIVER VHF/AM  
JVC JLA 20 AUTO RETURN TURNTABLE WITH  
ORTOFON FF15E II BOLIVAR 64 SPEAKERS.  
BIG, PUNCHY, EXCITING PERFORMANCE  
FOR ONLY £359.00

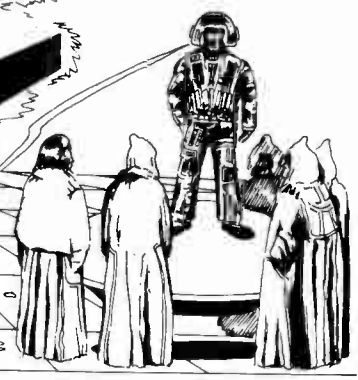
**ACROMEDA 2 SYSTEM**  
SAVE NEARLY £150 ON LIST PRICE  
YAMAHA CA 410 25 WATT AMPLIFIER  
JVC JLA 20+ ORTOFON FF15E II  
BOLIVAR 64 SPEAKERS.  
SAME EXCITING PERFORMANCE BUT WITHOUT  
RADIO. JUST £299.00



BEST PRICE IN THE UNIVERSE-IF YOUR INVESTIGATIONS CAN UN-EARTH A LOWER PRICE FOR THESE ACROMEDA SYSTEMS THEN COMMANDER KAY JAY WILL BEAT IT- THATS AFFIRMATIVE!

**ACROMEDA 3 SYSTEM**  
SAVE OVER £100 ON LIST PRICE  
HARMAN KARON 330 20 WATT RECEIVER VHF/AM  
JVC JLA 20 + CARTRIDGE AUDIOMASTER ML51  
SPEAKERS.  
A COMPACT, HIGH PERFORMANCE SYSTEM OF  
UNBEATABLE VALUE FOR ONLY £259.00

DELIVERIES TO UNCHARTED COLONIES BEYOND THE ACROMEDA SUBJECT TO QUOTATION. UK DELIVERY FREE.





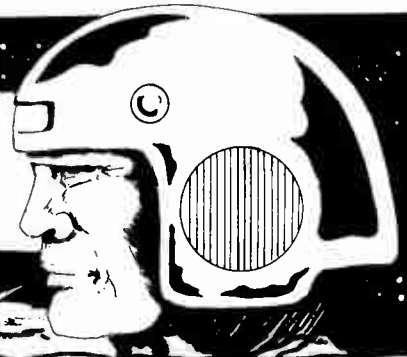
# entré

## MOVING-COIL CARTRIDGE

PURCHASE A SYSTEM ON THE KJ4 STAR PLAN WITH A MINIMUM SELLING PRICE OF £500 AND WE WILL GIVE YOU ABSOLUTELY FREE THE SUPERB ENTRE MOVING COIL CARTRIDGE (LIST PRICE £98.44). JUST ABOUT THE BEST SOUNDING CARTRIDGE AVAILABLE.

### LOW LOSS SPEAKER CABLES

5 METRE LENGTH £6.50  
10 METRE LENGTH £11.95



COMMANDER KAY JAY HAS SEARCHED THE ACROMEDA TO FIND THESE NEW LOW PRICED ELECTRONIC MARVELS.

HARMAN KARPON  
330C 20 WATT FM/AM RECEIVER  
LIST PRICE £175.00  
KJ PRICE £99.95

BOLIVAR 64 SPEAKERS - 3 WAY SYSTEMS,  
26 1/2" HIGH x 14" WIDE x 12 1/2" DEEP  
LIST PRICE £249 PER PAIR  
KJ PRICE £169 PER PAIR

ARISTON RD11E 3 SPEED BELT DRIVE TURNTABLE  
LIST PRICE £123.75  
KJ PRICE £89.95

DUAL CS 704 SEMI-AUTO DIRECT DRIVE TURNTABLE  
LESS CARTRIDGE  
KJ PRICE £146

DUAL CS 721 FULLY-AUTO DIRECT DRIVE TURNTABLE  
LESS CARTRIDGE  
KJ PRICE £199

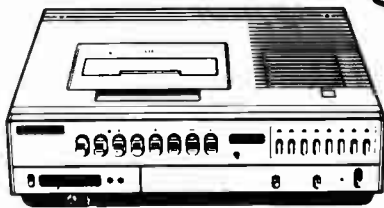
NOTE: YOU CAN CLAIM 20% DISCOUNT OFF OUR CATALOGUE PRICE FOR THE CARTRIDGE OF YOUR CHOICE WHEN PURCHASING EITHER OF THE ABOVE DUAL TURNTABLES.

## audiomaster

LAUNCHING INTO THE ACROMEDA COMES THE MLS4 ROCKET BOOSTED HIGH PERFORMANCE FLOOR STANDING SPEAKER. AUDIOMASTER OFFERS THE ZENITH IN ACCURACY AND VALUE WITH THIS MODEL SUPERBLY PRICED AT £179.90 A PAIR OTHER AUDIOMASTER PRICES (PER PAIR).

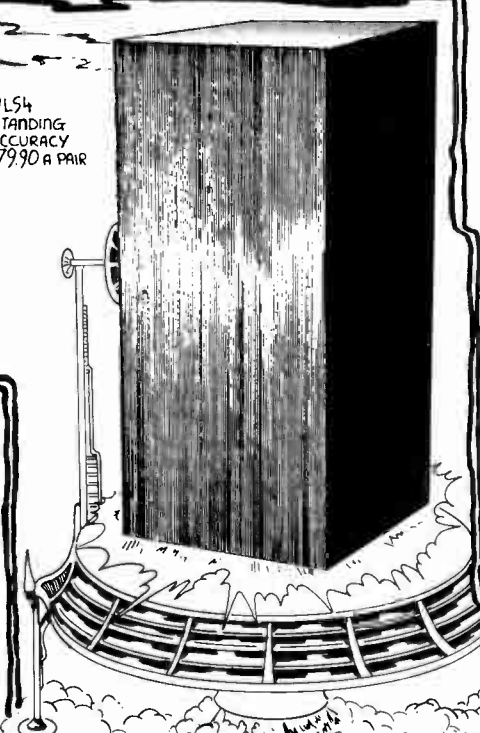
MLS £109.00  
MLS £139.50  
MLS £219.90  
LS3/5A £168.50

FREE DELIVERY.



Betamax VHS Video

A WIDE RANGE OF MODELS ON DEMONSTRATION FROM £649. ALL CASSETTES AT HIGHLY COMPETITIVE PRICES.



Mmmm

## A GALAXY OF GREAT NAMES AT KJ STAR CENTRES

CROYDON BRANCH - OPENS MARCH '79 AT 89 LONDON ROAD

A & R, Acolustat, ADC, Amcron, Audiomaster, Ariston, BAS, B & W, Bolivar, Celef, Dahlquist, Denon, Dual, Entre, Ferrograph, Gale, Grace, Grado, Griffin, Hadcock, Harbeth, IMF, JR, JVC, Keesonic, KEF, Lentek, Lecson, Linn Sondek, Lux, Mayware, Meridian, Monitor Audio, Michell, Mission, Mordaunt-Short, Nakamichi, National, Neal, Ortofon, Quad, Radford, Rappaport, RAM, Revox, SME, Sony, Soundlease, Spondor, Stanton, Stax, STD, J.E. Sugden, Supex, Tandberg, Tangent, Tannoy, Thorens, Trio, Ultimo Videotone, Yamaha.

MAIL-ORDERS - To Watford please. Telephone orders by credit card only - ring Watford 45248. All goods sent carriage FREE.  
CATALOGUES - FREE from any branch or send to our Watford address enclosing 10p for postage.  
CREDIT - Flexible instalment credit facilities instantly available.

HARROW	340, Station Road.	Tel: 01-863 8690.
UXBRIDGE	278, High Street.	Tel: Uxbridge 33474.
WATFORD	101, St. Albans Road.	Tel: Watford 45250.
LONDON W1	48, Wigmore Street.	Tel: 01-486 8263.
LONDON EC4	53, Fleet Street.	Tel: 01-353 7935.
CROYDON	89, London Road.	Tel: 01-686 1343.

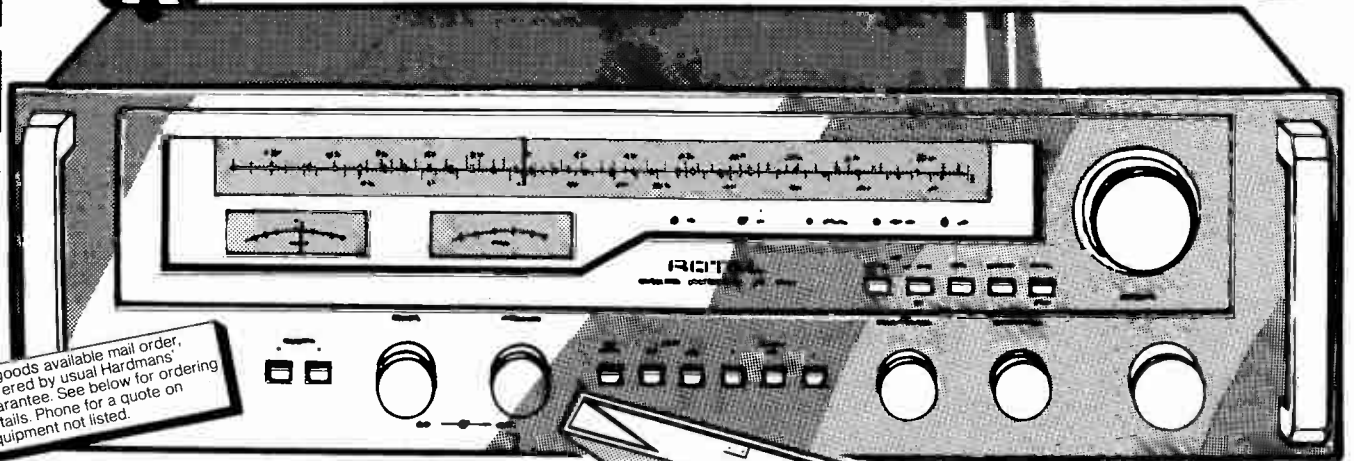
# KJ Leisure Sound

AN AUDIBLE DIFFERENCE

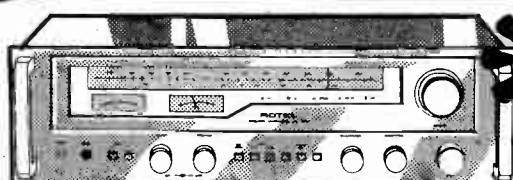
Open Monday-Saturday 9.30am-5.30pm.  
Thursday Late Night until 8pm.  
(Fleet Street closed Saturday).



# Only we can offer \* Hi-Fi for £199



All goods available mail order, covered by usual Hardmans' guarantee. See below for ordering details. Phone for a quote on equipment not listed.

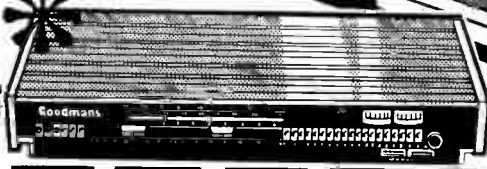


**ROTEL RX603**  
2 x 50 watts RMS  
RRP. £347.90.  
**SPECIAL PRICE £179.00.**



▲ **ROTEL RX803** 2 x 75 watts RMS.  
RRP. £417.86. **SPECIAL PRICE £199.00.** Both the Rotel 803 and Rotel 603 Stereo Receivers cover MW/FM Stereo. The Amplifier sections have full tape dubbing facilities, Filters and Loudness controls. J.V.C. JLF50 Fully Automatic Direct Drive Turntable. Speed control via DC Servo motor keeps Wow and Flutter to within 0.05%. Die Cast platter, statically balanced tone-arm. RRP. £159.00. **SPECIAL PRICE £99.00.**

**GOODMANS MODULE 90 RECEIVER**  
Covering MW/FM Stereo wavebands, with 4 pre-sets on F.M. Amplifier section 2 x 30 watts RMS with Scratch and Rumble filters etc. Unbeatable value at the **SPECIAL PRICE £98.00.**



**LEAK 3050 LOUDSPEAKERS.**  
3 units, Stepped Baffle board for time delay compensation. Handling capacity 50 watts. Teak Finish. **SPECIAL PRICE £119.00.**



**MAIL ORDER FORM to:** Hardman Radio, Mail Order Dept. HN379  
26 Exchange Street East, Liverpool L2 3PH

Mail Order Action Line 051-236 2828.

Description of goods required: \_\_\_\_\_  
I enclose a total remittance of £ \_\_\_\_\_ (Payable to Hardman Radio)  
\* Please add £3 per item, packaging and insurance. All goods delivered by Securcor. (UK Mainland only).  
Or debit my Access / Barclaycard No. \_\_\_\_\_

Name \_\_\_\_\_  
Address \_\_\_\_\_

Signature \_\_\_\_\_  
Full refund should we be out of stock of item required.



**Talk to the helpful Hi-Fi people**

# HARDMANS



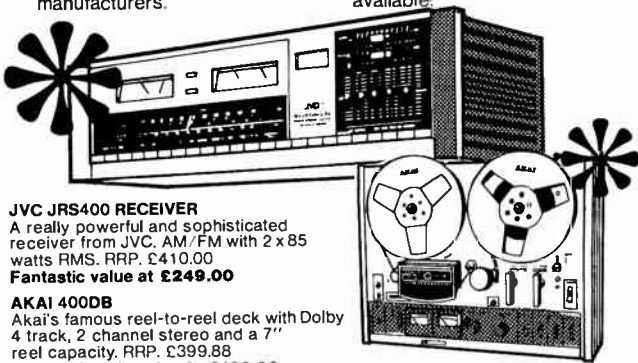
# £417 of

The maker's list price of the fabulous Rotel RX803 receiver is £417.86. The fact that we can sell at just £199 is a vivid example of Hardmans' massive buying power.

Bargains like this are commonplace in every Hardmans store. But low prices aren't the only thing that have made Hardmans the North West and Midlands largest Hi-Fi specialists:

\* A huge choice of equipment from well-known, quality manufacturers.

- \* All equipment pre-checked by our own service engineers before sale. All necessary plugs and leads attached.
- \* Demonstration facilities instantly available for all items.
- \* Knowledgeable, enthusiastic sales staff.
- \* All Hi-Fi carries a 2-year guarantee on labour and parts. One year on portable equipment.
- \* Large selection of accessories, records and tapes always available.



### JVC JRS400 RECEIVER

A really powerful and sophisticated receiver from JVC. AM/FM with 2 x 85 watts RMS. RRP. £410.00

Fantastic value at **£249.00**

### AKAI 400DB

Akai's famous reel-to-reel deck with Dolby 4 track, 2 channel stereo and a 7" reel capacity. RRP. £399.88

Incredible value at only **£199.90**

## CARTRIDGES

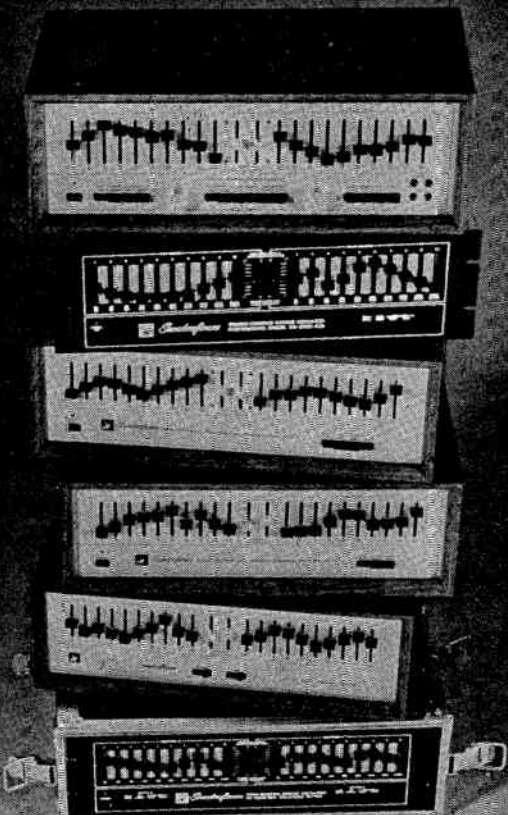
	RRP.	SPECIAL PRICE		Cartridge Stylus	
SONY PSX7 Quartz Drive Turntable	£199.00	<b>£149.00</b>	EMPIRE 2000E1	<b>£11.90</b>	<b>£8.90</b>
LEAK 3020 Loudspeakers		<b>£69.90</b>	EMPIRE 2000EIII	<b>£14.90</b>	<b>£11.90</b>
LEAK 3030 Loudspeakers		<b>£98.00</b>	EMPIRE 2000T	<b>£26.90</b>	<b>£19.80</b>
LEAK 3080 Loudspeakers		<b>£194.00</b>	MICRO ACOUSTICS QCD1E	<b>£44.00</b>	<b>£18.90</b>
AIWA AD6550 Dolby Cassette Deck	£285.33	<b>£209.00</b>	MICRO-ACOUSTICS 2002	<b>£59.00</b>	<b>£25.90</b>
J.V.C. KDS200 II Dolby Cassette Deck	£225.00	<b>£149.00</b>	ORTOFON FF10E	<b>£8.90</b>	<b>£6.90</b>
YAMAHA CA510 Amplifier		<b>£134.50</b>	ORTOFON FF15EII	<b>£12.50</b>	<b>£8.90</b>
YAMAHA CA710 Amplifier		<b>£239.97</b>	ORTOFON F15EII	<b>£17.90</b>	<b>£10.90</b>
YAMAHA CT510 AM FM Tuner	£139.98	<b>£109.00</b>	ORTOFON VMS20E	<b>£25.90</b>	<b>£19.90</b>
YAMAHA CT710 AM FM Tuner	£179.97	<b>£144.00</b>	ORTOFON MC10 / STM72	<b>£47.90</b>	
YAMAHA TC520 Dolby Cassette Deck	£239.97	<b>£189.00</b>	STANTON 500E	<b>£15.90</b>	<b>£10.90</b>
YAMAHA CR420 AM FM Receiver	£219.78	<b>£159.00</b>	STANTON 680EE	<b>£27.90</b>	<b>£17.90</b>
YAMAHA CR820 AM FM Receiver	£399.60	<b>£289.00</b>	STANTON 681EEE	<b>£42.90</b>	<b>£23.90</b>
YAMAHA CR1020 AM FM Receiver	£499.50	<b>£379.00</b>			

All cartridges sent by post. Please add 30p.

Hours of business: Monday 9-6 pm, Tuesday 10.30-6 pm, Wednesday 9-6 pm, Thursday 9-8 pm, Friday 9-6 pm, Saturday 9-6 pm. Prices include VAT and correct at the time of going to press.

33 Dale Street, Liverpool Tel: 051-236 2828  
 St. Mary's Gate, Market Street, Manchester Tel: 061-832 6087  
 Guild Hall Arcade, Preston Tel: (0772) 59264  
 The Forum, Northgate St., Chester Tel: (0244) 317667  
 19-21 Corporation Street, Birmingham Tel: 021-632 6303

## Soundcraftsmen



## Graphic Equalizers

A range of equalizers by the largest specialist manufacturers in this field. All models feature octave equalization independently on two channel,  $\pm 12$ db each octave, and zero gain controls. They may be conveniently connected via a tape monitor circuit, or alternatively between a pre and power amplifier.

### SOUNDCRAFTSMEN 2204

The most popular model, fitted with a walnut cabinet, front panel finished in satin gold. Now with front panel tape E.Q. £199

### SOUNDCRAFTSMEN 2205-600

Features 600 ohm output for studio or PA use; plus LED's for visual indication of channel balance. Supplied in black, 19" rack mounting format. Also features front panel switching for tape equalization. £226

### SOUNDCRAFTSMEN 2209-600

Similar format to 2205, but features balanced input and output with XLR connectors. £319

### SOUNDCRAFTSMEN 2217

The ultimate pre-amp equalizer featuring full octave equalization together with one of the most highly rated pre-amps available. £337

### SOUNDCRAFTSMEN MA5002

New Class H vari-portionial power amplifier. 250 watts RMS per channel. Power meters. £399

ABOVE PRICES EXCLUSIVE OF VAT

## Rew Audio Visual Co.

114-116 Charing Cross Road, London WC2.

Tel: 01-240 3386/7

230 Tottenham Court Road, London W1.

Tel: 01-637 2624/5.

Mail Orders and literature from: REW House, (Dept HFN)

10-12 High Street, Colliers Wood, London SW19.

Tel: 01-540 9684/5/6.

# Koss Technician / VFR.

## The first stereophone you fine tune yourself.

If you've been missing the brilliant highs and rich lows you think are in your favourite music, the new Koss Technician / VFR Stereophone is for you. Because unlike any other, it's the world's first stereophone to let you fine tune the frequency response range to suit your own listening preference. So instead of hearing somebody else's idea of what your music should sound like, you'll be able to shape the acoustic contour of your favourite music to the way you want to hear it.

By adjusting the VFR controls at the base of each earcup, you'll be able to discover a shimmering new brilliance in the highest notes of a piccolo. Or by reshaping the curve for more bass, you'll be able to feel a new breathtaking fullness in the deepest bass notes of an organ passage. But no matter how you set the VFR controls, you'll be shaping your own response curve. And that's a lot more exciting than listening to a frequency response curve preset at the factory.



**KOSS stereophones**

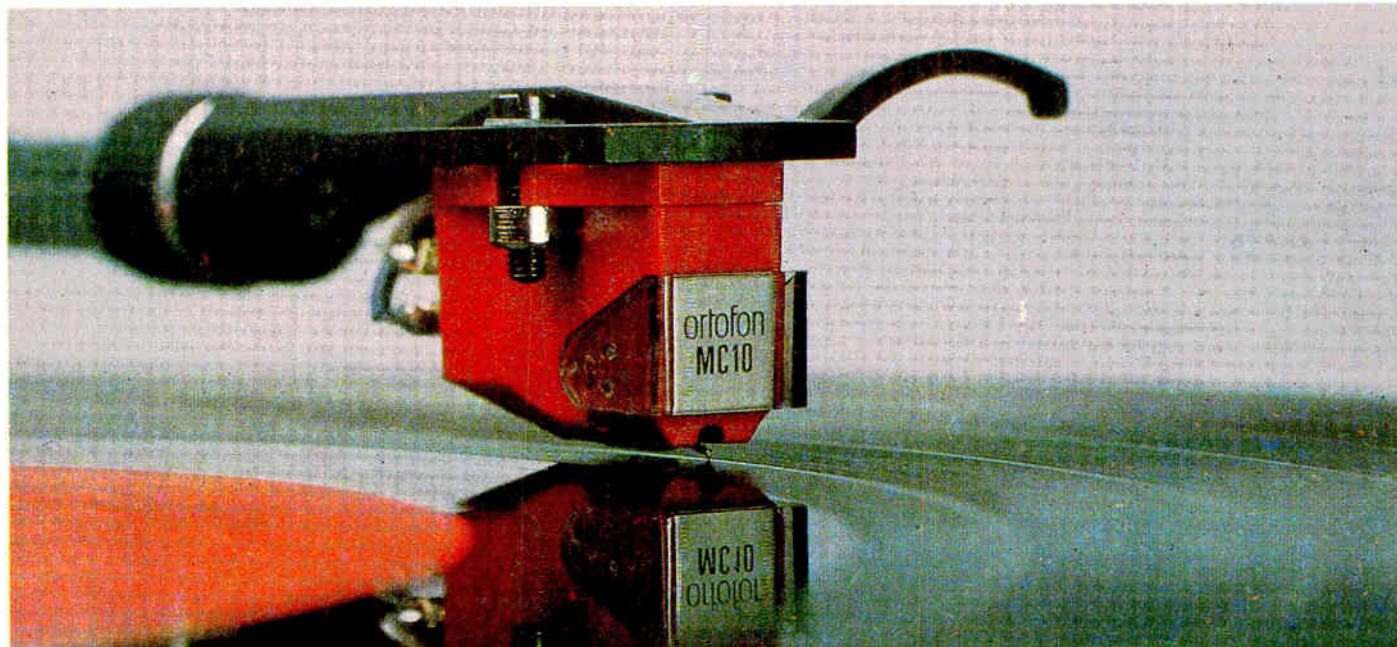
from the people who invented Stereophones.



Please send me full details of the Technician/VFR and all other Koss stereophones & accessories.  
 Post to: Tape-Music Distributors Ltd, 114 Ashley Road,  
 St. Albans, Herts. AL1 5JR. Tel: St. Albans 64337

Name \_\_\_\_\_  
 Address \_\_\_\_\_

# MC 10 MOVING COIL REALISM AT A REALISTIC PRICE



There are as many expert opinions on HiFi as there are experts. With all the variables, an incredible range of systems can be produced and all have their different advantages but almost all experts agree that moving coil is superior to magnetic construction for cartridges.

Moving coil's detailed reproduction of spaciousness, three dimensional imagery and startling transient response surpasses that of even the best magnetic cartridge.

There is really only one choice if you wish to take full advantage of the capabilities of your HiFi system. Until now the high cost of the hand built moving coil cartridge has kept peak performance beyond the reach of all but the most wealthy.

Now Ortofon who have continuously developed moving coil technology since 1948, are able to produce a moving coil cartridge at a price which compares to the cost of medium quality magnetic cartridges.

Ortofon's long experience of cartridge design and manufacture make the finest reproduction available to all discriminating listeners with the MC 10 moving coil cartridge.

The MC 10's cantilever has been designed on new principles, making it easier and faster to produce. It is as light and as rigid as possible, utilizing a new aluminium alloy. The new cantilever design, together with a tiny, specially polished diamond, gives a very low stylus tip mass, excellent tracking ability, easy handling of transients and minimal record wear.

Owing to their small output voltage and low inner resistance, moving coil cartridges cannot be connected directly to a conventional phono input and it is therefore necessary to boost the signal.

MC 10 Cartridges are available separately or in a cost saving pack complete with the specially developed STM 72 step-up transformer for perfect matching to your amplifier.

Ask your dealer for a demonstration or write to:-

**ortofon**  
accuracy in sound

**harman UK**  
St. Johns Road, Tylers Green,  
High Wycombe, Bucks. HP10 8HR  
Telephone: Penn (049 481) 5331

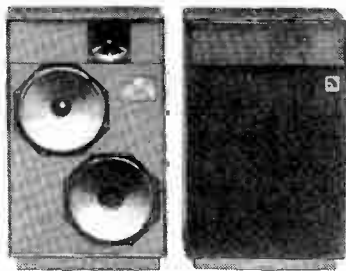


# Swap your soft speaker for our loudspeaker

Most loudspeakers are soft: they swallow most of the sound from your amplifier so you need more volume, with the risk of more distortion.

The Audio-Pro 3-25 speaker is so sensitive, it gives a sound pressure level of 90dB just 1 metre from the front of the speaker for just 1 watt of power output. So the loudest climaxes are taken with an ease you've probably never experienced before. Yet it combines efficiency with sensitivity and extreme delicacy. And beauty: You've a choice of Black Ash or rich Walnut. There's one more outstanding feature of the 3-25: The price of £152.10 including VAT, remarkable for such efficiency.

Bring your ears along to a demonstration or send for a brochure and the name of your nearest stockist.



One 8" active and one 8" passive driver balanced by a hornloaded piezo electric tweeter. Size 12 3/4" x 21 1/4" x 9". Frequency range 40-20,000 Hz.

To: Audio Pro (Hi-Fi) Ltd., Sandy Lane, Moston Road, Sandbach, Cheshire.

Please send me full technical details of the 3-25 and name of my nearest stockist.

NAME .....

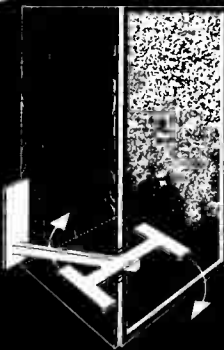
ADDRESS .....

Saves valuable floor space • Uncluttered 'floating' appearance • Adjustable viewing/listening angle • Complete with all necessary fixings • Engineered in solid, high grade steel • Beautifully finished in matt black or gloss white durable nylon

# Pivotelli®

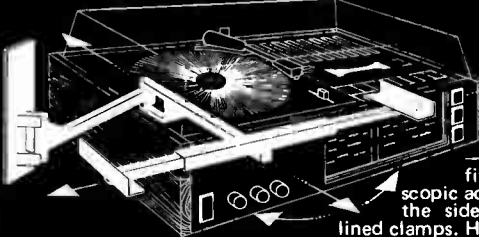
MULTI-DIRECTIONAL AUDIO/VISUAL BRACKETS

As it is the aim of Broadaker to provide a range of models to support any piece of equipment in a variety of ways, the number of permutations is large. Please check details carefully before ordering and use appropriate code.



This is the basic Pivotelli bracket which can be used for mounting Speakers, TV's, Music Centres and VCR's. Incorporating a swivelling lockable baseplate with screw-in mounting available in the following sizes:—  
6" arm, 6" x 3" baseplate, Code P, £13.64 per pair  
9" arm, 6" x 3" baseplate, Code P9, £14.14 per pair  
12" arm, 8" x 4" baseplate, Code M, £11.73 each  
18" arm, 12" x 4" baseplate, Code S, £12.46 each

This is the Double Pivotelli with a 24" elbow-action arm and 12" x 4" baseplate. Allows you to "tuck" your TV or Music Centre against a wall, into an alcove or wall unit. Supports up to 250lbs. Code D. £30.30 each.



**new** THE LIMPET®

This illustration shows our alternative mounting system — The Limpet. It is available to fit all the above models. The telescopic action of the Limpet actually grips the sides of the cabinet with rubber lined clamps. Holds equipment securely but gently with no marking of your cabinetry.

For even greater listening comfort and pleasure, you may wish to tilt your stereo speakers. This universal joint is a simple attachment which fits between the bracket and baseplate, allowing your speakers to be swivelled in two extra directions. It also gives you a much wider choice of mounting methods. Using this device the brackets can be completely concealed behind the speakers.

Code UP fits P or P9; £9.55 per pair.  
Code UL fits M, S or D; £5.97 each.



**new**

Finally, our triple Pivotelli range gives you the ultimate luxury of watching TV in bed without eyestrain or a crick in the neck. Also ideal for people who are bedridden. This wall swivel allows your set to be tucked away when not in use and the set be tilted to any angle in absolute safety.

suspension device lets your

Code TM fits cabinet heights 11" - 17 1/2" + widths 11" - 17 1/2"; £45.45 each.  
Code TS fits cabinet heights 11" - 17 1/2" + widths 17 1/2" - 33 1/2"; £46.24 each.  
Code TL fits cabinet heights 17 1/2" - 30" + widths 17 1/2" - 33 1/2"; £51.60 each.

Please send me Free brochure/ Model(s) Ref./colour:—

HFN3

I enclose Cheque/P.O. value \_\_\_\_\_

POST TO DEPT.

NAME \_\_\_\_\_ Sig \_\_\_\_\_

**BROADAKER**

ADDRESS \_\_\_\_\_

Guernsey, Channel Islands. Telephone: Guernsey (0481) 46818



## Artistic licence?

We at QUAD go to a very great deal of trouble to ensure that with a QUAD 33 in the Cancel position, the voltage delivered to your loudspeakers is a virtually exact RIAA transfer of the voltage the pickup will produce into a stated passive load. Nothing added – nothing taken away.

A visiting journalist recently suggested that we should not do this. Final adjustment should be done by ear, he said.

### What an opportunity!

After all we know that if we add a little warmth with a subtle boost in the lower middle and balance this with an ever so gentle hump in the quack region (2-3kHz), we can make most programmes sound superficially more impressive. Come to that, why not change the 3180 $\mu$ S to 5000 $\mu$ S adding a little more 'heft' that most people will fall for. We could even make a special model for the boom and tizz brigade.

### Been to any live concerts recently ?

For further details on the full range of QUAD products write to :  
 The Acoustical Manufacturing Co. Ltd.,  
 Huntingdon, Cambs. PE18 7DB  
 Telephone : (0480) 52561

**QUAD** 

**for the closest approach to the original sound**  
 QUAD is a Registered Trade Mark

# SENNHEISER

## HD 430



### ... reaching new heights in performance

Sennheiser's new 'top of the line' dynamic headphones utilise the latest designed drive units, to raise dynamic headphone performance to new heights. In true Sennheiser tradition, the HD 430's are extremely comfortable and are built on the modular principle ensuring a long and reliable life.

To learn more about this new model or any Sennheiser headphones, complete the coupon or consult your local Sennheiser dealer.

## Hayden Laboratories Ltd



Hayden House, Churchfield Road  
Chalfont St. Peter, Bucks. SL9 9EW  
Telephone Gerrards Cross 88447

World Radio History

Please send me more details on Sennheiser headphones

Name .....

Address .....

Code 3 HFV/79

# L110. NEW FROM JBL

The L110 gives you back all the sound that was there in the studio. Not just the left and right hand image like most loudspeakers but front to back perspective as well, for the full rounded sound.

Behind the acoustically and visually transparent grille are professional quality components and advanced cross-over network developed by JBL from their studio speaker experience.

The new 10 inch low frequency driver joins its massive 3 inch voice coil and 7 1/2 lb magnet assembly in a tight vertical array with a hard hemispherical high frequency radiator and 5 inch mid-range driver, to give you the power handling and performance you expect from JBL plus detailed three dimensional imaging.

JBL's attention to every detail of engineering and manufacture is there too — you will hear it in the smooth accurate bass, the outstanding power handling, exceptionally low harmonic distortion characteristics and the excellent transient response and you will see it reflected in the superb finish of the cabinet.

L110, new from JBL, gives you back each sound and all the sound, the same sound that was heard in the top recording studios around the world.

For full information on the L110 and other JBL products, write to:

**harman u.k.**

St. Johns Road, Tylers Green,  
High Wycombe, Bucks. HP10 8HR  
Telephone: Penn (049 481) 5221



One of the 400 leading recording studios using JBL loudspeakers in recording and mixing. Last year 30 of the 50 best selling albums in the world were recorded or mixed using JBL loudspeakers.

**JBL**  
GET IT ALL.



# Music lovers listen to the master... **ALEXANDER SHACKMAN**

## Crystal Clear Electrostatic Sound

"The superb Shackman electrostatic mid range/high frequency unit."  
PRACTICAL HI-FI MAGAZINE, MARCH 1977.

An electrostatic unit of high sensitivity is an essential requirement for an ideal marriage between a moving coil woofer and an electrostatic mid range/high frequency unit. But attenuating a moving coil woofer to accommodate mid range units and tweeters of low sensitivity is extremely undesirable and can only result in a decoupling of the bass unit from the low output impedance of the amplifier, thereby losing control of diaphragm resonances due to the elimination of the beneficial effects of damping and causing poor performance at very low frequencies in consequence. It is our claim that in the design of electrostatic units of high sensitivity, Alex Shackman has succeeded where others have failed. Although it has taken almost twenty years, he always had the conviction that electrostatics had a potential towards perfection which m/c squawkers and tweeters will never have, due entirely to the weight and inertia of their moving parts. **YOU ARE STRONGLY URGED THEREFORE, TO INVESTIGATE A VITALLY IMPORTANT DEVELOPMENT IN THE STATE OF THE ART.**

### THE DYNASTATIC LOUDSPEAKER

Dynastatic loudspeakers incorporate the Shackman electrostatic unit ideally balanced with a special m/c bextrene coned woofer of high quality. These loudspeakers reproduce music with crystal clear clarity and detail with absence of delayed resonances to an extent which is almost unbelievable. Dynastatic loudspeakers are not expensive and we urge everyone who is interested in high quality sound reproduction to attend demonstrations which are completely free of obligation. You may if you wish bring your own difficult records. Dynastatics come in two models, the Mk. III at £189 the pair, and the model AS7, possibly the world's finest loudspeaker at £345 the pair. (Prices excl. V.A.T.)

### HOME CONSTRUCTORS

The Shackman E/S unit is available to incorporate in your own loudspeaker system. The units come complete in an attractive cabinet together with instructions. A variable control is fitted to the base of the cabinet to enable you to balance the highly sensitive E/S unit with your woofer regardless of its efficiency. The units are ready to connect to your amplifier but require a woofer crossing over at 500 Hz. A recommended bextrene coned unit can be supplied on request. The E/S units are priced at £100 the pair (excl. V.A.T.) which means that a fantastic pair of speakers can be built for around £150 the pair. **WE GLADLY DEMONSTRATE AND OFFER FREE ADVICE AND GUIDANCE.**



**Leaflets**  
- send SAE  
for full details.

**Agents**  
for "Crystal Clear Direct Cut  
Records" - new from USA.

# AUDIO

SERVICES LIMITED  
Proprietor Alex Shackman

82 East Barnet Road, New Barnet, Herts. Tel: 01-449 6605

Shop hours 09-30 - 18-00 Monday to Saturday. Closed all day Thursday.

We offer credit facilities and accept Access and Barclaycard.



**NB** Shackman speakers are also available from Wilmslow Audio, Wilmslow, Cheshire. Tel: Wilmslow 29599, who also deal with all export enquiries.

# monitor sound

- All Prices inclusive of VAT at 12½%
- Two Year Guarantee
- Comparator Demonstrations

AMPLIFIERS		TUNERS	
Pioneer SA506	£87-00	Pioneer TXSS00 Mk II	£74-00
Pioneer SA606	£118-00	Pioneer TX606	£95-00
Pioneer SA706	£149-00	Rotel RT226	£59-90
Rotel RA214	£59-90	Rotel RT426	£84-90
Rotel RA314	£74-90	Rotel RT726	£99-90
Rotel RA414	£94-90	Armstrong 624	£89-90
Rotel RA714	£119-90	Sony	P.O.A.
Armstrong 621	£105-00	Trio-Quad-JVC	P.O.A.
Trio KA3700	£82-00	Yamaha	P.O.A.
Quad-Trio-JVC	P.O.A.	Hitachi	P.O.A.
Yamaha-Technics-Hitachi	P.O.A.	Technics	P.O.A.
Sony	P.O.A.		

RECEIVERS		CASSETTE/TAPE	
Armstrong 625	£165-00	Pioneer CTF500	£102-00
Armstrong 626	£189-90	Pioneer CTF4040	£119-00
Rotel RX203	£89-90	Pioneer CTF700	£203-00
Rotel RX303	£109-90	Akai CS34D	£85-00
Rotel RX403	£119-90	Akai CS702D	£97-00
Rotel RX503	P.O.A.	Akai GXC706D	£165-90
Akai AA1135	£155-00	Akai GXC709D	£172-00
Pioneer SX450	£99-90	Akai 4000DS	£219-90
Pioneer SX590	£139-00	Akai 4000DB	£229-00
Pioneer SX690	£174-00	Aiwa AD1250	P.O.A.
Pioneer SX790	£219-00	Aiwa AD6400	P.O.A.
Sony	P.O.A.	Aiwa Range	P.O.A.
Hitachi-Aiwa-Technics	P.O.A.	Tandberg	P.O.A.
Trio-Tandberg	P.O.A.	Sony-Yamaha	P.O.A.
Yamaha-JVC	P.O.A.	Technics	P.O.A.
Bang and Olufsen	P.O.A.	Bang and Olufsen	P.O.A.
Akai-Goodmans	P.O.A.	Hitachi-JVC	P.O.A.

TURNTABLES		SPEAKERS (pair)	
Garrard GT20 c/w cart.	£63-00	Leak 3020	£74-90
Garrard GT25 c/w cart.	£70-00	Leak 3030	£109-90
Garrard GT35 c/w cart.	£84-00	Leak 3050	£149-90
Pioneer PLS12	£54-00	Leak 3080	£219-90
Pioneer PLS14	£63-50	Celestion Ditton 15XR	P.O.A.
Pioneer PLS16	£83-00	Celestion Ditton 22	P.O.A.
Pioneer PLS18	£113-00	Celestion Ditton 33	P.O.A.
Dual Range	P.O.A.	Celestion UL range	P.O.A.
Sony Range	P.O.A.	Celestion 442-551 in stock	
SME 3009ND Arm	£58-90	Wharfedale Linton XP2	£78-00
SME 3009ND III Arm	£97-00	Wharfedale Gledale XP2	£103-00
Shure V15 Mk 3 cart.	£42-00	Wharfedale Teesdale SP2	
Ortofon VMS20 Mk II cart.	£29-00	—low price	
S.T.D. Yamaha, B & O,		Wharfedale Dovedale SP2	
JVC, Technics, Thorens,	P.O.A.	—low price	
etc.		Wharfedale E50—low price	
		Wharfedale E70—low price	
		B & W	P.O.A.
		Quad-KEF	P.O.A.
		Monitor Audio	P.O.A.
		Castle-JR-AR	P.O.A.
		Videotone-Spendor	P.O.A.
		Mordaunt-Short	P.O.A.
		Bang and Olufsen	P.O.A.
		Tangent-Mission—in stock	

CASSETTES (price each)	5 rate	10 rate	20 rate
BASF LH C90	£0-82	£0-78	£0-77
BASF Super C90 (SM)	£1-34	£1-29	£1-26
TDK AD C90	£1-18	£1-13	£1-11
TDK SA C90	£1-58	£1-51	£1-48
Maxell UD C90	£1-33	£1-28	£1-25
Memorex C90 (twin pack)	£0-92	£0-88	£0-86

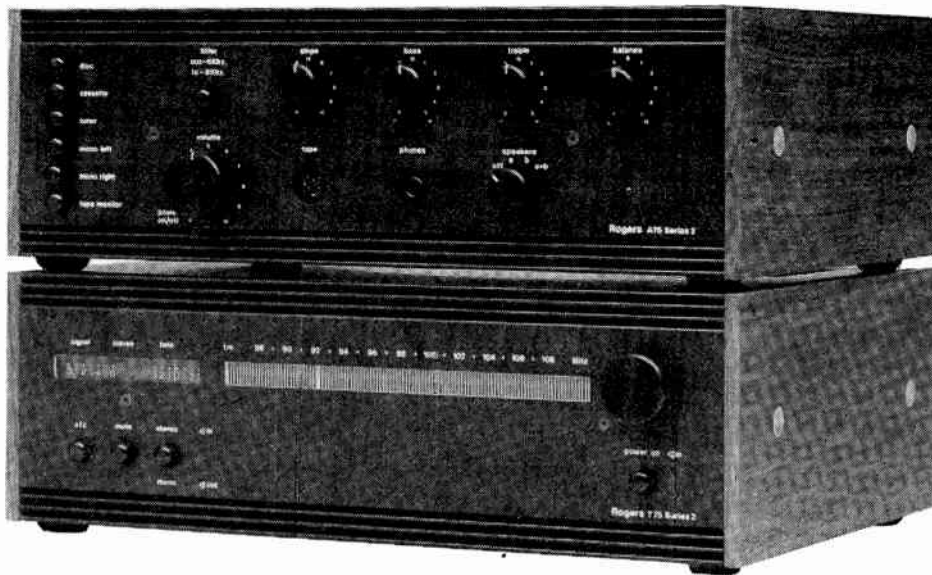
POSTAGE: 30p per five; 60p per ten; 86p per twenty.  
S.A.E. FOR CASSETTES AND TAPE PRICES  
PRICES CORRECT AT TIME OF GOING TO PRESS

# monitor sound

TEL 71935  
64 chapel st. chorley, lancashire.



# Most people would offer you a range. But then most people are prepared to compromise.



All we offer you is one tuner and one amplifier. Both superb.

We could increase your choice by building down to a price or adding expensive gimmickry.

But the people who choose Rogers want, and get, no-compromise hi-fi equipment.

Our T75 Series 2 FM Stereo Tuner combines proven sophisticated circuitry with a sensitivity of 1.0  $\mu$ V.

The result is reception and sound of the highest quality.

Our matching A75 Series 2 Stereo Amplifier gives you the power you need (45Wr.m.s. per channel) and the controls you're likely to want.

Indeed, you may have seen the glowing, but none the less exacting, report of the A75 in the January issue of Popular Hi-Fi. To quote, "It is difficult to describe in words how far ahead the A75 was of all other amps tested."

The robustness and reliability of our

equipment is legendary and our service second to none.

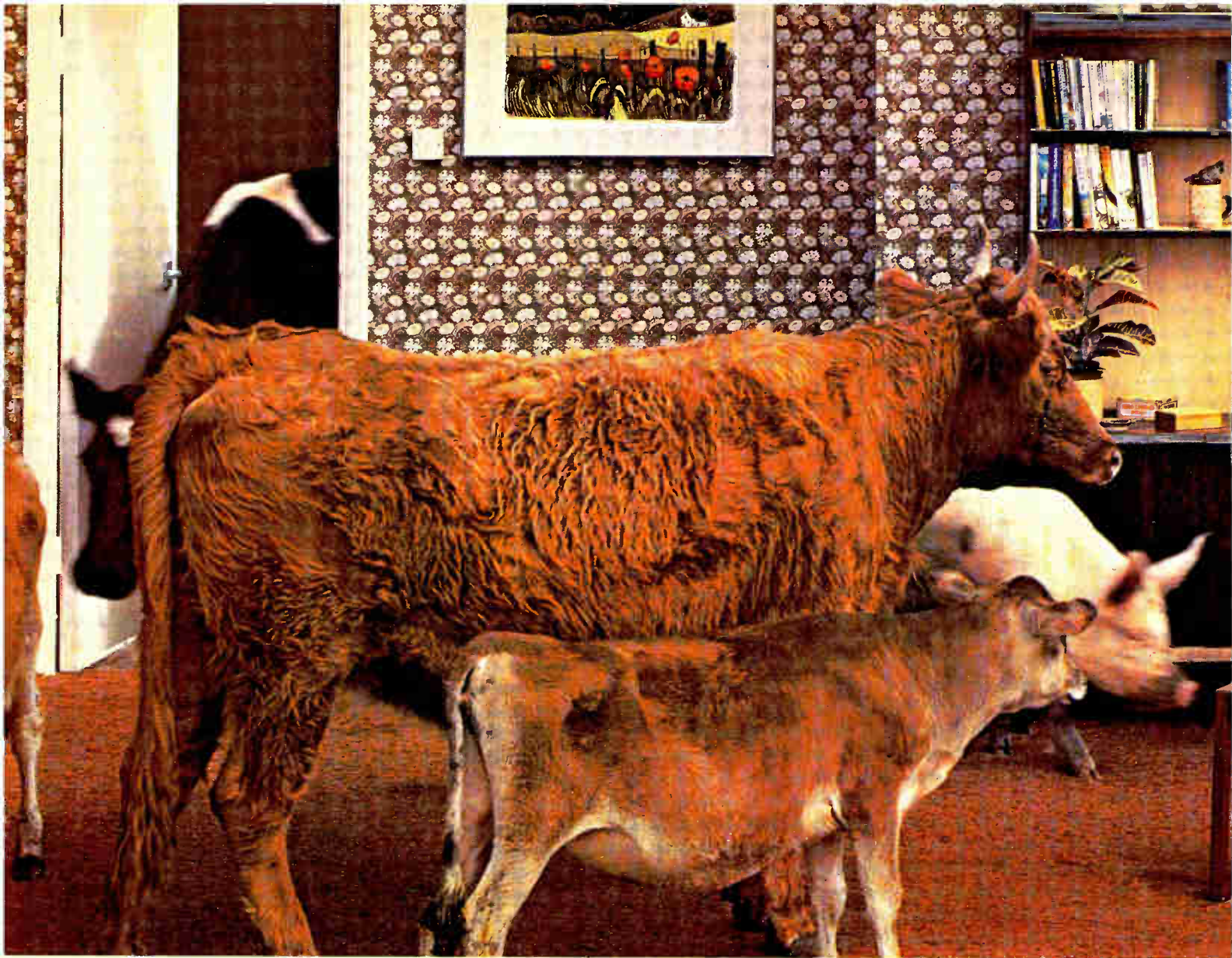
What's more, we are as careful in selecting our dealers as we are in making our equipment.

So your nearest Rogers dealer may not be as close as your local high street. But a demonstration from him makes the visit well worthwhile.

It certainly saves you making an unnecessary compromise.

We'll gladly supply technical literature and review reprints. Just send a large, self-addressed, stamped envelope to Swisstone Electronics Ltd., 4/14 Barmeston Road, London SE6 3BN. Telephone: 01-697 8511. Cables: Swissec London SE6

**Rogers**  
BRITISH  HIGH-FIDELITY



# We advise you not 'Down on the Farm' on your

At Sansui our aim has always been to reproduce sound as close to the original as possible.

So, for the past 30 years, we have concentrated all our expertise on researching, designing and building only the very best Hi-Fi equipment. No TV's. No Toasters. No Trannies.

And we have perfected some

prêtty amazing amplifiers, tuners, record decks, a new racking system (illustrated) and now a cassette deck with some outstanding innovations. Like a Tape Lead-in device which ensures that you don't record on the tape leader. Easily and simply.

So you don't get an "A WHAM BAM BOOM" without a "WOP BOI



# to play Sansui Hi-Fi.

“A LOO BOP”

One word of warning. If you happen to have recorded the mating call of a gorilla, we suggest you keep the volume way down low.

Unless, of course, you just happen to be a 7th Dan Karate expert!



**Only Hi-Fi, everything Hi-Fi.**



SANSUI AUDIO EUROPE N.V.  
UNIT 10A LYON INDUSTRIAL ESTATE,  
ROCKWARE AVENUE, GREENFORD, MIDDLESEX UB6 0AA.



**Don't Forget!**

**Hi-Fidelity '79**

**AT THE  
CUNARD INTERNATIONAL  
HOTEL HAMMERSMITH  
See & Hear over 150  
Hi-Fi Product Ranges**

**EXHIBITION DATES AND TIMES**

FRI	APRIL 27	10am~8pm
SAT	APRIL 28	10am~8pm
SUN	APRIL 29	10am~4pm



**CENTRALLY LOCATED**

*Well served by Public Transport*

**UNDERGROUND** District, Metropolitan and Piccadilly Lines.

**BUSES** The following buses stop on Hammersmith Broadway: 9, 30, 72, 73, 74, 226, 290, 714 and 716.

**FREE ENTRY  
FREE CATALOGUE  
MAKE IT A DATE  
NOW!**

CUT OUT AS A REMINDER



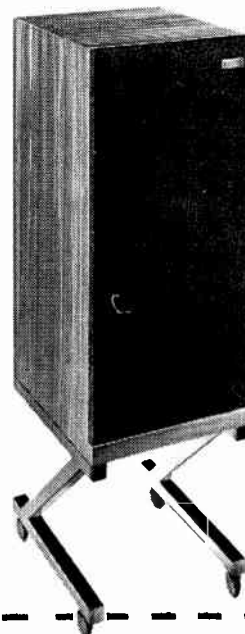
# After a night at the Royal Opera House you can re-live the experience, with the loudspeaker they use.

The Royal Opera House chose the Celef PEI because of its accuracy, high output and compact size; in situations where size is a major consideration they have found it possible to achieve satisfactory results using our Domestic II.

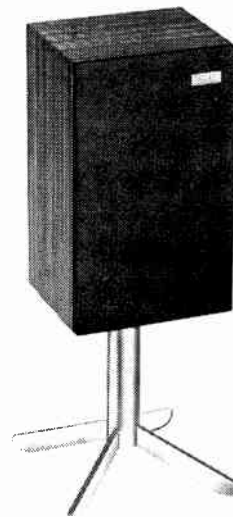
Accuracy is something that Celef has always been enthusiastic about and terms such as 'musical', 'boring' or 'full of life' have meant little to us. (After all no one goes to Covent Garden to listen to loudspeakers.) But we are of course extremely pleased that professional people who work with live music appreciate Celef.

Reviews on loudspeakers can be very helpful, but unfortunately there are so many unqualified reviewers nowadays that we prefer to hear comments from professional people on our loudspeakers, and regard reviews purely as a guideline.

*For further details of all the Celef range, please fill in the coupon below.*



Celef PEI (left)



Celef Domestic II (right)

# CELEF

DESIGNERS AND MANUFACTURERS OF  
HIGH QUALITY LOUDSPEAKERS

130-132 Thirsk Road, Borehamwood, Herts.  
Telephone: 01-207 1150

Please send me further details of CELEF speakers plus address of nearest stockist.

NAME.....

ADDRESS .....

(HFN/3)

BRING THIS ADVERT WITH YOU

THE LEADERS IN

# CUT PRICE TAPES

Attach this advertisement to your order or fetch it with you to claim these ULTRA SPECIAL DISCOUNTS

All offers subject to stocks at time of going to press (1.1.79), being unsold. VAT @ 8%.

5 YEAR REPLACEMENT GUARANTEE

THIS MONTHS FREE OFFER

FREE C120 Audio Magnetics XHE to the first 500 mail order customers this month. Please claim when ordering.



## MEMOREX Recording Tape

Is it live or is it Memorex?

Memorex?  
C45 ... 97p  
C60 ... 98p  
C90 ... £1.40

MEMOREX REELS  
QUANTUM  
C90 (in bags) £1.05 7" 1800' LP £4.20  
C120 ... £1.52 7" 2400' DP £5.65

New MRX3  
C60 ... 88p  
C90 (in bags) £1.05 7" 1800' LP £4.20  
C120 ... £1.52 7" 2400' DP £5.65

**FREE ONE C90 AGFA Studio**  
Quality with every 3 Fuji you buy at these prices. Please ask when ordering.



## BONUS!

BUY 10 AGFA STUDIO QUALITY AT THESE PRICES & ASK FOR 3 C90 TAPE 7" SUPER SOUND CASSETTES Absolutely Free

EXTRA SPECIAL BONUS  
BUY 20 AGFA STUDIO QUALITY AT THESE PRICES & ASK FOR 10 SPECIAL C90 TAPE 7" SUPER SOUND CASSETTES

	C48	C60	C90	C120
AGFA Studio Quality	—	59p	79p	99p
Agfa SFD I	—	84p	£1.12	£1.49
Agfa Carat	81p	£1.21	£1.51	—
Agfa Ferro Colour	—	53p	73p	£1.10
Agfa SFD (original)	—	72p	98p	£1.30
Agfa C <sub>7</sub> O <sub>2</sub>	—	£1.01	£1.26	£1.74

## REEL-TO-REEL Agfa PEM (matt)

5" 900' LP	PE36	£1.79	5" 900' LP	£2.44
5 1/2" 1200' LP	PE36	£2.06	7" 1800' LP	£3.59
7" 1800' LP	PE36	£2.93	10 1/2" 3600' Cine	£8.23
5" 1200' DP	PE46	£2.13	10 1/2" 3600' NAB	£9.54
5 1/2" 1800' DP	PE46	£2.94	5" 1200' DP	£3.33
7" 2400' DP	PE46	£3.59	7" 2400' DP	£5.60
5" 1800' TP	PE66	£3.36	10 1/2" 4200' Cine	£9.95
5 1/2" 2400' TP	PE66	£4.50	10 1/2" 4200' NAB	£11.95
7" 3600' TP	PE66	£4.59		
10 1/2" 4200' Cine	PE36	£7.89		
10 1/2" 4200' NAB	PE36	£8.70		

**ALL ORDERS POST FREE**

## TDK SCOTCH SONY BASF

	C45	C60	C90	C120
Audio XHE	—	55p	78p	—
BASF LH	£1.35	£1.55	£2.05	£2.70
BASF Super	—	87p	£1.16	£1.55
BASF Ferro Super I	—	96p	£1.29	£1.70
BASF C <sub>7</sub> O <sub>2</sub>	—	£1.14	£1.45	£2.09
BASF FeC	—	£1.37	£1.79	—
Hitachi LN	—	56p	80p	£1.13
Hitachi UD	—	93p	£1.14	—
Hitachi UD ER (UD XL I)	—	£1.19	£1.49	—
Hitachi UD EX (UD XL II)	—	£1.19	£1.49*	—
Pyral Optima	—	83p	£1.05	—
Pyral Superferrite	—	£1.40	£1.85	—
ASK FOR ONE C60 SUPERFERRITE FREE WITH EVERY PYRAL*				
Scotch Master I	—	£1.14	£1.31	—
Scotch Master II	—	£1.40	£1.64	—
Scotch Master III	—	£1.44	£1.74	—
Sony LN	—	55p	79p	£1.11
Sony HF	—	78p	95p	£1.19
Sony C <sub>7</sub>	—	£1.17	£1.54	—
Sony FeC	—	£1.23	£1.75	—
TDK Dynamic	53p	61p	78p*	£1.11
TDK AD	79p	86p	£1.01	£1.63
TDK SA	—	£1.10	£1.55	—

## REEL-TO-REEL

	7" LP 1800'	7" DP 2400'	10 1/2" LP 3600'
BASF LH	£4.36	£5.53	—
BASF LH Super	£4.38	£5.89	—
'Black Box' Studio	£1.99	—	—
TDK Audua	£3.49	—	£10.25
TDK Audua (matt)	£4.24	—	£11.49
Sony	£4.45	£6.70	£10.90
Black Box	£1.99	—	—

\* While stocks last  
AGFA VC30/60 £8.62; VC45/90 £9.57; VC60/130 £12.70  
TDK VHS 60 £7.18; VHS 120 £9.20; VHS 180 £11.08

## FUJI FILM

Recommended by Awa - Akai - Alpha - Audiomatic - Beltek - Henimex - JVC - Marantz - NAD - Pioneer - Rotel - Sansui - Teac - Toshiba - Trio

	C46	C60	C90	C120
FL SUPER	71p	79p	£1.10	£1.51
FX-I Pure Ferrix (normal position)	C46 99p	C60 £1.11	C90* £1.53	
FX-II Beridox (chrome position)	C46 £1.10	C60 £1.22	C90 £1.66	

## maxell

Meet the Maxell Team

Maxell Super Low Noise	Maxell UD/XL/I (normal position)	
SLN C60 87p	C60 £1.35	
SLN C90 89p	C90 £1.69	
SLN C120 £1.13	Maxell UD/XL/II (chrome position)	
Maxell Ultra Dynamic	C60 £1.35	
UD C46 99p	C90 £1.69	
UD C60 £1.05	Maxell UD/XL Reels	
UD C90 £1.19	7" 1800' LP £5.03	
UD C120 £1.52	10 1/2" 3600' LP £11.75	

All orders POST FREE - mail to: ESTUARY AUDIO, Dept. HF, 1a HIGHBURY STN., HIGHBURY CORNER, LONDON N5 (Callers welcome)

LONDON EC2	LONDON N5	LONDON WC2	BIRMINGHAM	LEEDS	MANCHESTER 3	BRISTOL	ESSEX
MASONS AVENUE 30 COLEMAN ST. (01-606 4102)	HIGHBURY STATION HIGHBURY CORNER (01-607 0644)	LEICESTER SQUARE STATION Ticket Hall (Cranbourn St. Exit) (01-439 9210)	BULL RING SUBWAY (Moor St. Station exit - off Open Market) (021-643 1766)	62 WELLINGTON ST. (off City Square) (0532-444 692)	1 VICTORIA STATION APPROACH (061-832 4592)	29 DENMARK ST. (Behind Hippodrome) (0272-290900)	113 RECTORY GROVE LEIGH-DN-SEA (0702-712861)

# MICHAELSON & AUSTIN TVA-1 THE FINEST AMP IN THE WORLD

<b>LONDON</b> Gramhams 837 4412 Audio T 794 7848 Subjective Audio 886 7289 Flying Video 697 7534 Hi Fi Fo Fum 589 2586	<b>WALSALL</b> Ray Charles Audio 0922 612382
<b>NEW MALDEN</b> UPL Ltd. 942 9567	<b>DUBLIN</b> Neol Cloney Audio Consultants 0001 762 904
<b>SURREY</b> Guildford Hi-Fi 0483 71534	<b>BELFAST</b> J. S. Martin 0265 52843
<b>EASTBOURNE</b> Jeffries Hi-Fi 0323 31336	<b>GERMANY</b> Audio Trade GmbH, Koloniestrasse, 4100 Duisburg, West Germany Benelux I
<b>HAMPSHIRE</b> Hampshire Audio 04215 2827	<b>BELGIUM</b> Audio Import Co Vermerr René Beukenlaan 17 2153 Zoersel
<b>READING</b> Reading Hi-Fi & Cassette 0734 585463	<b>FRANCE</b> Audionic A5RL 41 Rue D'Ybry, 92523 Nevilly, Sur Seine
<b>EXETER</b> Jeffries 5/W Ltd 0626 863604	<b>DENMARK</b> Quortup Electronic Dk 4733, Tappernoje
<b>OXFORD</b> Westwood & Mason 0865 47783	<b>ITALY</b> Giuseppe Licciardello, Viale Piave 13, Milan
<b>PETERBOROUGH</b> Hi-Fi Consultants 0733 51007	<b>SWITZERLAND</b> Mr. Bischofberger, Werkstrasse 27, 8630 Ruti
<b>LOUGHBOROUGH</b> Sound Advice 0509 218254	
<b>SHEFFIELD</b> Audio Centre 0742 737893	
<b>MANCHESTER</b> Eulipion/Audio 061-225 4448	
<b>LIVERPOOL</b> W. A. Brady 051-733 6859	

MICHAELSON & AUSTIN  
140 New Bond Street, London W1 01 - 499 3510

## SOUND THINKING!

AT 35 MOSCOW ROAD, where thoroughgoing knowledge and unequalled experience of Audio merges with a deep understanding of music, you will invariably encounter sound thinking about every aspect of Hi-Fi. After 35 years as specialists in this field ("The Doyen of hi-fi music" - Penguin's *London Shopping Guide*), we are not overly impressed by technical jargon or statistics: what we care about are musical results, reliability, domestic convenience and, by no means least, value for money. Musical performance must be paramount, and we aim for sound of the utmost naturalness, not 'technicolor' thrills. Reliability, too, rates a high priority, since it is our policy, wherever geographically possible, to install and to maintain all equipment purchased from us, and we no less than our clients would suffer if insufficient attention were paid to this factor. Domestic convenience means not only helping you choose the right equipment for the surroundings, but providing any necessary fittings—ready-made or custom-built—to blend whatever you require into your home (and, where necessary, arranging extensions into other rooms), while our advice is invariably directed at making the very most of whatever sum you are prepared to lay out.

Although, in general, we favour 'separates' for a variety of reasons, we also stock some selected Music Centres, provided the latter do not include speakers as part of the 'package'. Speakers are, without question, the dominant audio components, and our hand-picked range—from the Videotone D100 at around £45 per pair to the new Rogers 'state of the art' system costing over £800—may well surprise you since it contains few of the most widely advertised names. Come and hear the magnificent Harbeth HL Monitors (today's outstanding domestic loudspeakers), the astonishing BBC-designed LS/5A Monitors (marvellous sound from tiny enclosures) and the new Audiomatic MLS-1, in our view the finest speaker yet produced for those not prepared to spend over £100 per pair. Other recent arrivals which we warmly recommend include the JVC KD720 and KD10 Dolby cassette decks, the splendid JVC-QLF4 direct-drive auto-turntable (especially if fitted with the top AKG cartridge) and, for budget systems, the belt-driven Garrard SP25 Mk VI module plus the JVC JAS10 amplifier.

### LIVE RECORD REVIEW

Every Saturday afternoon for over 20 years music-lovers have been flocking to our studio for *LIVE RECORD REVIEW*, our weekly record release (2 o'clock to 4.30). Why not join this happy throng when next you have some time to spare? You can come and go as you please and, while there, listen at ease to the finest new recordings on a range of superb equipment. Afterwards there is plenty of time to discuss musical and audio topics.

## Thomas Heinitz Ltd.

MUSIC IN THE HOME  
35 MOSCOW ROAD QUEENSWAY LONDON W2 TEL: 01-229 2077  
Basic opening hours:  
Mon. Tues. Wed. Sat. 9.30-5.30; Thurs. 9.30-1; Fri. 9.30-7



## Progress is simply a matter of never leaving well alone

TDK Super Avilyn cassette tapes were first launched in 1975 and consistent reviews have acclaimed SA as one of the world's leading high performance tapes on the high bias position.

Extreme clarity without distortion at the top end, matched by dramatic and un-muddled bass response, plus minimum headwear have been features of constant comment.

Typically, the TDK Product Development department has never

been prepared to leave well alone, and continuous research has been carried out since SA was first introduced.

Now the latest SA brings even higher standards, even better performance; 1.5 to 2dB higher output in the low to mid range, 2.5 to 3dB better at the critical high end.

Proving that progress is simply a matter of never leaving well alone.

**TDK.**

### The great name in tape cassettes

For more details write to TDK Tape Distributor (UK) Ltd., Pembroke House, Wellesley Road, Croydon, CRO 9XW. Eire: Peat Wholesale Limited, Chapel Lane, Parnell Street, Dublin 1.

World Radio History

# Just for the record, ADC also make cartridges.

Once, we were just highly respected manufacturers of some of the world's best cartridges. (Patenting, while we were at it, the Induced Magnet system.)

Now, we're still highly respected manufacturers of some of the world's best cartridges.

Along with our revolutionary low-mass carbon fibre tonearms, LMF-1 and LMF-2.

The ADC magnesium headshell, LMG-1, noted for its rigidity and unusual freedom from resonances.

The Sound Shapers, SS-1 and SS-2, multi-band frequency equalisers

that can make even the best systems sound better still.

And, most recently, three remarkable new state-of-the-art turntables, the 1500FG, 1600DD and 1700DD Quartz, full of innovations from their unique non-resonant bases upwards.

You can find them all at your local dealer, along with the full range of ADC cartridges. Or, write to us for further information.

We'd hate you to lose track of what's happening at ADC.

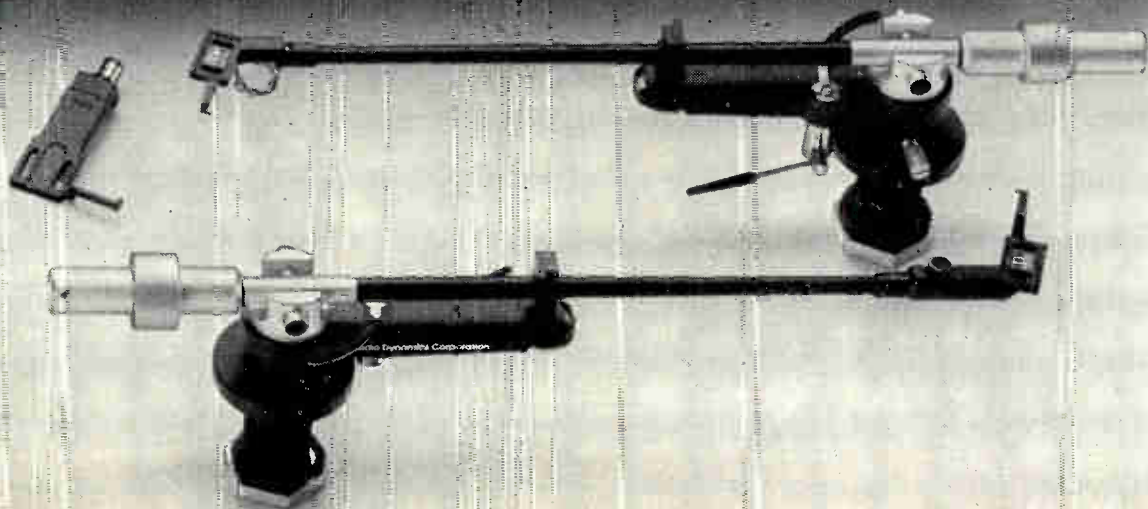


Audio Dynamics Corporation.  
A division of BSR Limited,  
Powke Lane, Cradley Heath, Warley,  
W. Midlands B64 5QH.

**We make everything  
very compatible.**







# BD101~The Connoisseur's Latest Choice

The BD101 turntable is a precision engineered product, designed to provide top quality performance at a modest cost. Performance and reliability being the main criterion, complex mechanisms have been avoided, and the emphasis is on simplicity of design. This turntable is designed for use with any standard length tone arm, and three versions of the BD101 are available fitted with the SAU4 arm, less pick-up arm fitted with interchangeable pick-up mounting discs, or fitted with the SAU2 arm.

**PRICES FROM  
£56.00  
plus V.A.T.**



## SPECIFICATION

**DUAL VOLTAGE OPERATION** Range 200/250 volts AC or 100/125 volts AC adjustable by user.

**DRIVE MOTOR** Synchronous constant speed. Self aligning bronze bearings. Speed 375rpm at 50Hz or 450rpm at 60Hz. Drive pulleys for 50Hz or 60Hz operation supplied as specified to order.

**TURNTABLE** 12" diameter aluminium platter mounted on 6" diameter precision turned zinc alloy flywheel casting with precision ground spindle and bronze bearing.

**DRIVE** Precision ground round section rubber belt.

**POWER CONSUMPTION** Less than 5 watts.

**OPERATING SPEEDS** 33 $\frac{1}{3}$ rpm and 45rpm. Positive action speed change.

**PERFORMANCE** Considerably exceeds broadcast specifications for turntables in respect of hum, rumble, wow and flutter.

**RUMBLE** -65dB when measured in accordance with DIN 45539 using weighting network, referred to 7cm/sec. at 330Hz.

**HUM LEVEL** -80dB.

**WOW AND FLUTTER** Less than 0.1%.

**PLINTH** Simulated Walnut, fitted with sprung and damped anti-vibration suspension system, adjustable feet. Totally enclosed base.

**COVER** Acrylic, tinted hinged with friction lid stays.

**DIMENSIONS** 18in x 15in x 6 $\frac{1}{2}$ in - 45.7cm x 38cm x 16.5cm. Minimum shelf depth required 17 $\frac{1}{2}$ in - 44.5cm.

# Connoisseur

Write for further details to:

A. R. Sugden & Co. (Engineers) Ltd.

Manufacturers of Connoisseur Sound Equipment, Connoisseur Works, Atlas Mill Road, Brighouse, West Yorkshire HD6 1ES

Telephone: Brighouse (0484) 712 142, Telex: 517144 Sugden G,

Telegrams & Cables: Connoisseur Brighouse.

# The only answer....

Hi-Fi equipment, however far up the quality scale, involves expenditure. So, before deciding *what* to choose, think carefully about *how* to choose. If the choice was to have been principally determined by any of the following: friends' advice, brochures, specifications, manufacturers' good names, or discount prices, and yet you might be prepared to travel to see us, then send a s.a.e. for our brochure. *The only safe way to choose hi-fi is first to choose your dealer.*

Choose a specialist "hi-fi only" dealer of integrity who has carefully selected an extensive and comprehensive range, and is able to demonstrate effectively equipment at all price levels. Come and see us....

## ....at Hampshire Audio Ltd

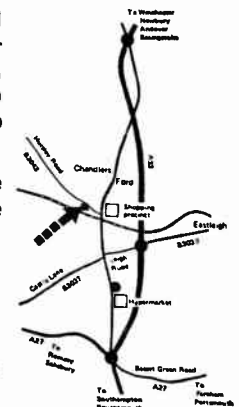
8 & 12 HURSLEY ROAD, CHANDLERS FORD, HANTS TEL (04215) 2827 & 65232

We stock selected items from the range of:-

ADC, Aiwa, AKG, A & R, AR, Armstrong, B & W, Beyer, Celef, Celestion, Chartwell, Coral, DBX, Dahlquist, Denon, Entre, Eumig, Fidelity Research, Fuji, Gale, Grace, Hadcock, Harbeth, Harman Kardon, IAS, IMF, JBL, JR, JVC, KEF, Lentek, Linn-Sondek, Maxell, Meridian, Micro-Seiki, Mission, Monitor Audio, Nakamichi, Neal, Ortofon, Pioneer, QED, QUAD, RAM, Reference, Revox B, Rogers, Sansui, Satin, Sennheiser, SMC, SME, Sony, Spendor, Stanton, Stax, STD, Sugden, Supex, Tandberg, Tangent, Tannoy, TDK, TEAC, Technics, Trio, TVA-1, UAD, Yamaha and others.

Comparator demonstrations in three studios.

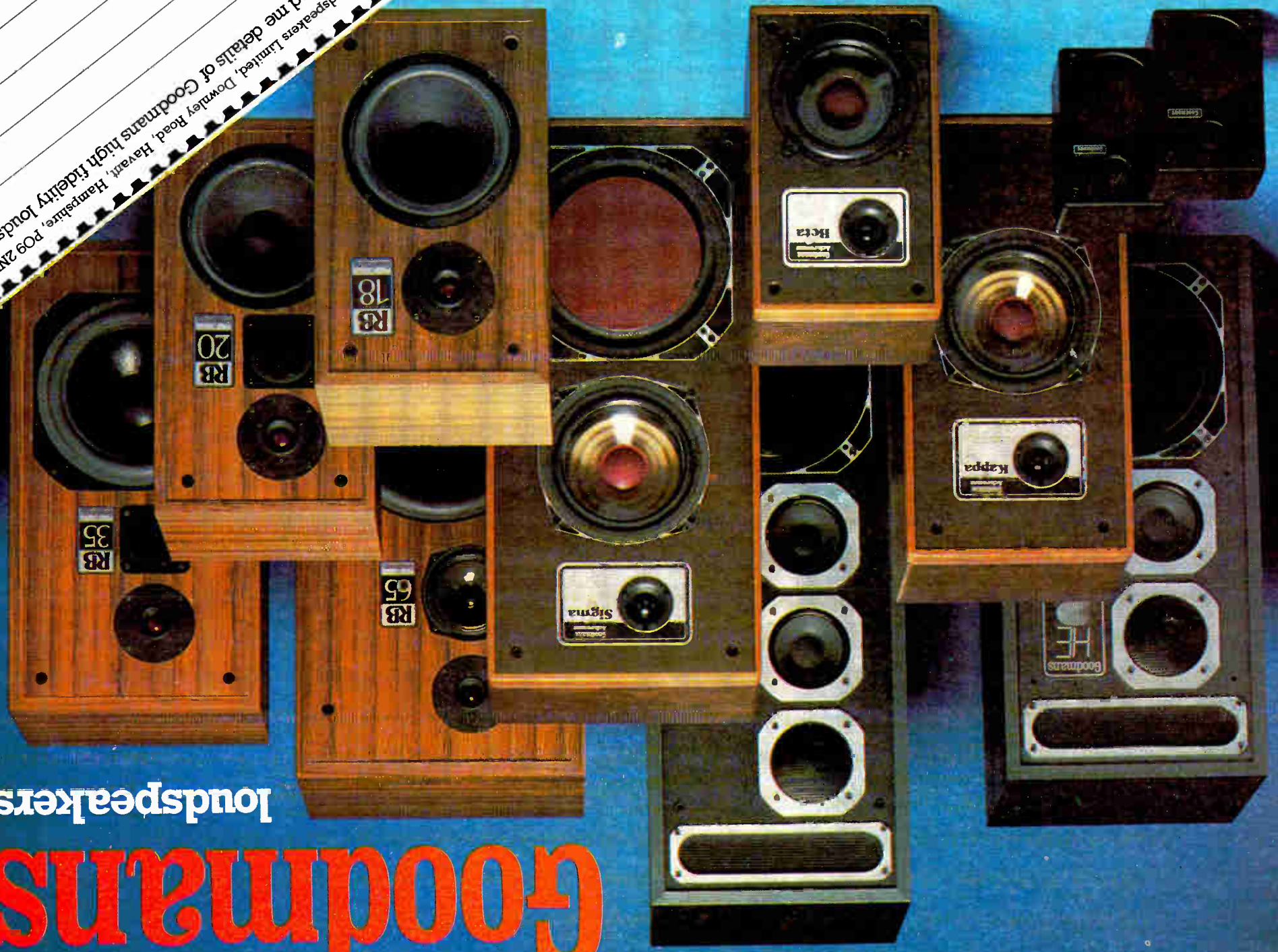
ALL ENQUIRIES WITH SAE



- Open Thursday until 8 pm
- Over-the-Counter and Personal Export
- Extensive free parking on our forecourt
- Access and Barclaycard accepted by telephone
- Direct cut discs stocked
- Tape by Fuji, Maxell, Sony and TDK at special discount prices
- All equipment checked before sale... no sealed boxes supplied
- All equipment covered by our two-year labour and parts guarantee

# Goodmans

loudspeakers

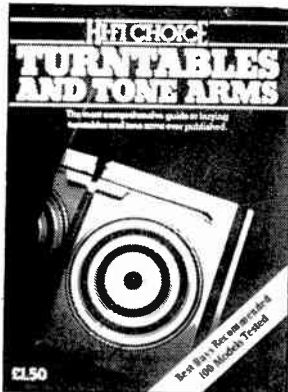


NFN

Goodmans Loudspeakers Limited, Downley Road, Havant, Hampshire, PO9 2NL, England.  
Please send me details of Goodmans high fidelity loudspeakers.  
Name \_\_\_\_\_  
Address \_\_\_\_\_

# Never Forget You Have A Choice

Not that it's easy. Trying to choose the hi-fi that's right for you can be very confusing.



Take turntables, for example. A recent issue of 'What Hi-Fi' listed a total of 115 different models costing more than £100. Some good and some, regrettably, not so good.

Sadly, the choice is not even that simple. Because not every turn-

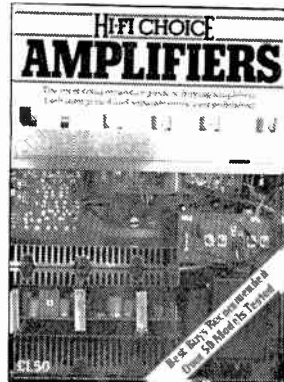
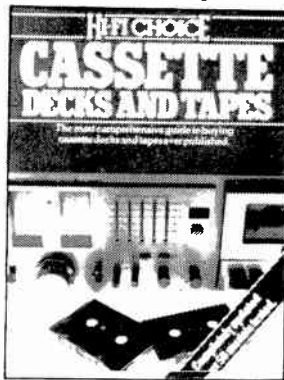


table is supplied complete with a tone arm. So sometimes you not only have to choose a deck, you have also to



select a tone arm. And to ensure anything approaching a half reasonable combination, the two must be compatible.

The problem is where to begin.

Fortunately, there is a choice HI-FI CHOICE.

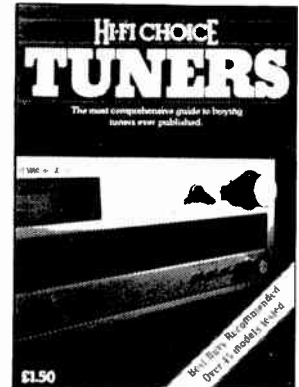
The latest in the series, 'Turntables & Tone Arms', exhaustively reviews and compares over 100 products. Written in a simple, easy to understand format, HI-FI CHOICE takes the chance out of choosing hi-fi. Removing doubts about compatibility, and ensuring that you can be certain of selecting



the equipment best suited to your needs in the price range best suited to your pocket.

There are seven issues of HI-FI CHOICE in the series, comprehensively covering every component in the hi-fi chain.

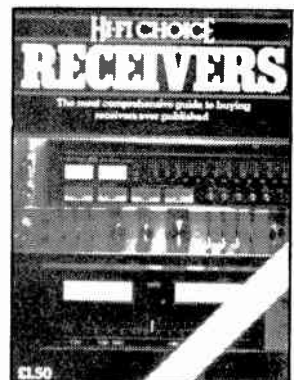
So, whether you are thinking of buying a cassette deck or a complete system, one or



all of them will help you get it right.

And of course for those with a technical interest in hi-fi, HI-FI CHOICE is an unparalleled source of information and reference.

HI-FI CHOICE is available today from many good newsagents and hi-fi dealers, or direct from the publishers using the coupon below.



Please send me the following copies of Hi-Fi Choice. Each issue costs £1.50 + 35p p&p (overseas postage 50p)

- copies of Turntables & Tone Arms
- copies of Amplifiers
- copies of Receivers
- copies of Music Centres
- copies of Tuners
- copies of Loudspeakers
- copies of Cassette Decks & Tapes
- Hi-Fi Choice Binders (holds a complete set) @ £1.95 each including p&p.

NAME \_\_\_\_\_ ADDRESS \_\_\_\_\_

I enclose a cheque/P.O. for £ \_\_\_\_\_ payable to SportsScene Publishers Ltd. Allow 3 weeks for delivery. Mail coupon to: Hi-Fi Choice Offer, 14 Rathbone Place, London W1P 1DE

## HI-FI CHOICE

"The most comprehensive guide to buying hi-fi ever published"

# Your life in our hands



## Hi-Fi Made Painless

No it's not the operating theatre at Guy's although by our picture you may be forgiven for thinking so. Being in the locality of Harley Street our picture scene is more in keeping with that famous area although the patient is a trifle different! It is in fact the staff at the Wigmore Street showrooms of KJ Leisuresound, London's foremost Hi-Fi consultants, carrying out an in depth investigation on a new product which illustrates the care with which we choose our products. Such inside knowledge enables us to offer the expert guidance necessary to choose wisely from the wide choice of equipment available today be it a modest receiver or a 'state of the art' system costing several thousand pounds.

Incidentally, you can't buy your equipment on the National Health but we do take Access, Visa and can offer up to £500 on instant hire purchase if you possess a current credit or cheque card. For overseas visitors a fast and efficient export service is available.

Don't let buying Hi-Fi give you a cardiac arrest, come to KJ, we may save your Hi-Fi life!

We stock:- Acoustat, Aiwa, A & R, Audiomaster, B & W, Celef, Dahlquist, Denon, Dual, Gale, Grado, Harbeth, Hadcock, IMF, JR, JVC, Keesonic, KEF, Lentek, Linn Sondek, Lux, Meridian, Michell, Mission, Monitor Audio, Nakamichi, Quad, Radford, RAM, Rappaport, Revox, Spondor, Sony, Strathclyde, Stax, Sugden, Supex, Tandberg, Thorens, Tangent, Technics, Yamaha and many others.

# KJ Leisuresound

AN AUDIBLE DIFFERENCE

World Radio History

48, Wigmore Street, London W.1.  
Telephone: 01-486 8263

Opening Hours Monday - Saturday 9.30 am - 5.30 pm  
Thursday late night until 8 pm

# BASF ANNOUN PERFORMANCE F

BASF have rolled back the boundaries of the compact cassette system.

New BASF Chromdioxid Super finally enables the cassette owner to achieve a quality of recording as high as that of reel-to-reel sound.

## The irrefutable case for chrome

Needles of  $\text{CrO}_2$ —minute, polished single domain crystals—are ideal for optimising magnetic parameters, like coercivity and remanence, so important in sound recording. But to realise its full potential, the manufacture of  $\text{CrO}_2$  has to be carefully controlled. BASF are the only tape manufacturer licensed to produce chrome dioxide. They alone control every stage in the creation of chrome tapes. BASF's ability to optimise the physical properties of chrome explains why BASF Chromdioxid, and, more especially, Chromdioxid Super cassettes perform better than chrome substitutes in five important ways.

### i) Background noise

Virtually all non-chrome formulations made for  $\text{CrO}_2$  bias suffer from noise. The homogeneous shape and minimal size of BASF's polished  $\text{CrO}_2$  particles reduce background noise to the lowest point possible today.

### ii) Dynamic range

Thanks to its extremely low noise the dynamic range of BASF Chromdioxid tapes is unsurpassed.

### iii) Output in relation to sensitivity and distortion

BASF Chromdioxid tapes are superior to the cobalt-doped chrome substitutes in this area because of the interdependence of MOL, sensitivity and distortion. Pure measurements of MOL are meaningless because recorders are universally adjusted to the pure chrome dioxide reference tape. So there's no scope for the differential usage of a tape's incidental MOL.

This means that unless any change in MOL is accompanied by an equal or lesser change in sensitivity, unacceptable distortion may result. Unfortunately for cobalt doped cassettes any increase in pure MOL tends to be accompanied by a relatively higher increase in sensitivity, thus causing higher distortion on normal hi-fi stereodecks adjusted to the pure chrome dioxide reference.

### iv) Balanced MOL

BASF's new Chromdioxid Super is the first cassette to achieve a breakthrough in the balance between low frequency MOL and high frequency MOL.

As you see from the bottom chart, the dynamic range of Chromdioxid Super at 315 Hz is no better than cobalt doped substitutes. But the weakness of the cassette system does not lie in its LF response.

The factor which—until now—has kept the cassette lagging behind professional or semi-professional reel-to-reel systems is lack of output at the HF end, causing intermodulation distortion when recording music with a lot of top. Chromdioxid Super breaks this particular sound barrier by greatly improving MOL in the 10KHz to 20 KHz range.

This new cassette enables you to capture the many harmonics of critical instruments without which your recordings will lack the reality and presence of a live performance. With the introduction of Chromdioxid Super, the recording capability of cassettes exceeds that of 9½ cms reel-to-reel.



### v) Modulation Noise

The characteristically clean and clear sound of BASF Chromdioxid cassettes results from the ideal and regular shape of their magnetic particles of  $\text{CrO}_2$ . No other cassette can surpass the modulation noise properties of Chromdioxid Super.

### The least headwear

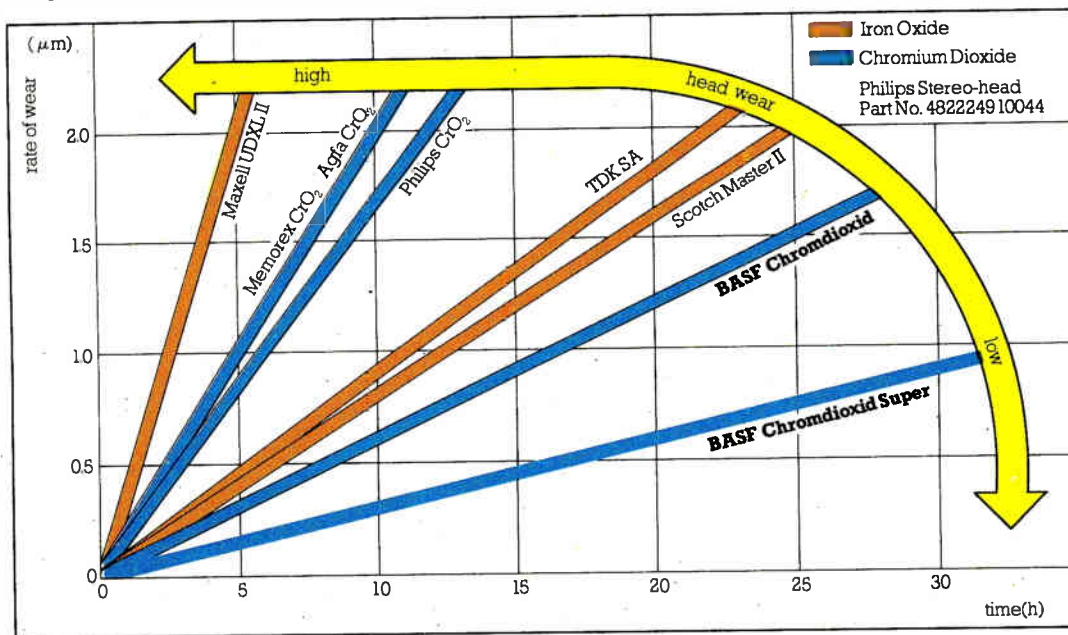
Our top graph also tells a very important story. It proves that both BASF Chromdioxid and the sensational new Chromdioxid Super are considerably less abrasive than competitive chrome substitutes. Any abrasion associated with chrome results from a lack of knowledge of dispersion and coating techniques rather than any inherent weakness in the material. BASF's unrivalled expertise with chrome explains why their chromium dioxide cassettes not only wear less than chrome substitutes, but also give 3 to 5 times more head life than the average cassette.

BASF Chromdioxid Super is available now. It's expensive but then the best always is.

# CE REEL-TO-REEL FROM A CASSETTE.

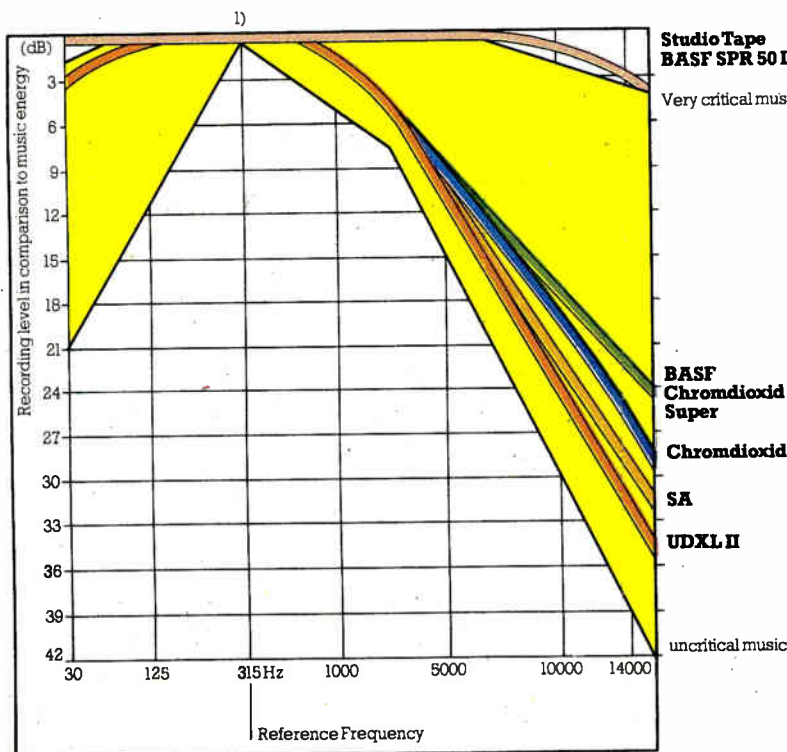
## Head Wear of Cassettes

CrO<sub>2</sub> and other tapes recommended for CrO<sub>2</sub> bias setting and 70 μs equalisation.



## The truth about the recording capability of cassettes

CrO<sub>2</sub> and other tapes recommended for CrO<sub>2</sub> bias setting and 70 μs equalisation.



Dynamic Range per track in dB2)

	315Hz		14000Hz	
	with Dolby B	with Dolby B	with Dolby B	with Dolby B
Chromdioxid Super	55	64	32.5	41.5
Chromdioxid	52	61	28	35
SA	53.5	62.5	22.5	31.5
UDXL II	53.5	62.5	24	33

1) MOL at 3% distortion for all tapes has been set 0 dB.  
 2) Measured according to DIN 45405.  
 All figures according to IEC ("A" curve) 10 dB better.  
 Dynamic range at low frequencies relative to the MOL of each tape individually.



BASF United Kingdom Limited  
 Haddon House, 2-4 Fitzroy Street,  
 London W1P 5AD. Tel: 01-637 8971.

# TOP TAPE

EUROPE'S TAPE SPECIALIST

**MAIL ORDER  
PRICE PLEDGE**  
If you find a lower price elsewhere  
we will match it

## CASSETTES

### THIS MONTH'S EXTRA SPECIAL C90 OFFERS

EMI Hi-Fidelity	99p
MEMOREX MRX3	£1.19
Chrome	£1.20
PYRAL Super Optima	89p
SONY High Frequency	96p
TDK Acoustic Dynamic	£1.08

### NO TOP TAPE BRANCH IN YOUR AREA?

Please be patient—we are always seeking established retailers to be included in our advertisements.

Also wide range of Reel to Reel Tapes including AGFA, MAXELL, SONY and TDK

### TDK

<b>DYNAMIC</b>	
C45	55p
C60	63p
C90	85p
C120	£1.15
C180	£2.79
<b>ACOUSTIC DYNAMIC</b>	
C60	89p
C90	£1.08
C120	£1.69

<b>SUPER AVILYN</b>	
C60	£1.12
C90	£1.59

### Philips

New product—recommended for most modern machines particularly Japanese

<b>SUPER FERRO I</b>	
C60	79p
C90	99p

### Maxell

<b>ULTRA DYNAMIC</b>	
C60	£1.13
C90	£1.19
C120	£1.72
<b>UDXL-I</b>	
C60	£1.37
C90	£1.72
<b>UDXL-II</b>	
C60	£1.37
C90	£1.72

### Video

<b>PHILIPS—VCR</b>	
LVC 120 120 mins.	£12.27
LVC 150 150 mins.	£14.49
<b>SONY—Betamax</b>	
L125 30 mins.	£5.86
L250 64 mins.	£6.62
L500 130 mins.	£9.07
L750 195 mins.	£11.34
<b>TDK—VHS</b>	
E60 60 mins.	£7.99
E120 120 mins.	£10.25
E180 180 mins.	£12.35

All prices include 8% VAT and correct at 31.1.79

### Fuji

FX C60	76p
FX-I } In Store	
FX-II }	Special offers

### Hitachi

<b>LOW NOISE</b>	
C60	57p
C90	81p
<b>ULTRA DYNAMIC</b>	
C60	94p
C90	£1.15
<b>UDER (XL-I)</b>	
C60	£1.27
C90	Check Availability
<b>UDEX (XL-II)</b>	
C60	£1.27
C90	Check Availability

### Export

#### EUROPEAN POSTAGE RATES FOR CASSETTES (Including Insurance)

Number of Cassettes	KILOS	COST
1-10	1	£2.38
11-20	2	£3.43
21-30	3	£4.00
31-50	5	£5.00
51-100	10	£6.50
101-150	15	£9.00
151-200	20	£11.00

Cassettes are supplied free of UK tax, currently at 8%. An additional amount to cover postage and insurance is required, varying according to weight.

Quotations can be given for specific requirements, the most economical Post Office rates being obtained by purchasing a total of 50, 100, 150 or 200 cassettes which are 5, 10, 15 and 20 kilos (packed weight) respectively.

Note: To calculate TAX FREE price at 8% VAT divide UK price by 1.08

Hinckley Sound Centre  
Unit 3 Castle Street  
Hinckley  
Leicestershire  
Hinckley G11541

Quadraphenia  
10 Nursery Street  
Sheffield S3  
Sheffield 77824

MAIL-ORDER POST FREE (UK) to:  
TOP TAPE, Bridle Path,  
Watford, Herts. Tel: Watford 33011

Aerco  
27 Chobham Road  
Woking Surrey  
Woking 4667

Paul Green Hi-Fi  
At Harpers Furn.  
Kensington Showrooms  
London Road, Bath  
Bath 316197

KJ Leisuresound  
48 Wigmore Street  
London W1  
01-486 8262

Radford Hi-Fi  
52 Gloucester Road  
Bristol  
Bristol 422709

KJ Leisuresound  
340 Station Road  
Harrow Middx.  
01-863 8690

Speechley Hi-Fi  
1 Hawthorn Way  
Chesterton Cambs.  
Cambridge 312120

Hi-Fi Consultants  
42 Cowgate  
Peterborough  
Peterborough 41755

Eastern Audio  
87 Norwich Road  
Ipswich  
Ipswich 217217

KJ Leisuresound  
53 Fleet Street  
London EC4  
01-353 7935

KJ Leisuresound  
101 St. Albans Road  
Watford Herts.  
Watford 45250

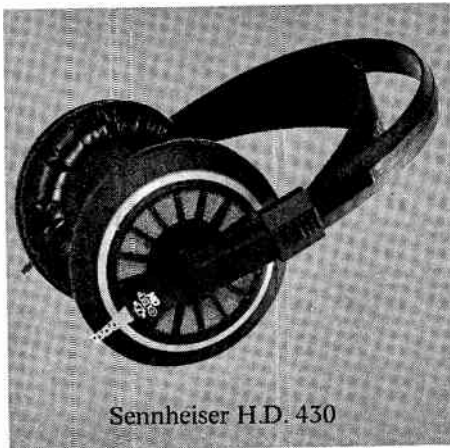
Runnymede Hi-Fi  
172 High Street  
Egham Surrey  
Egham 5036

KJ Leisuresound  
278 High Street  
Uxbridge Middx.  
Uxbridge 33474

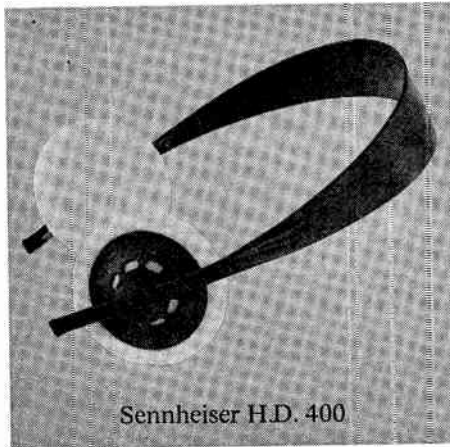
Jeffries Hi-Fi  
4 Albert Parade  
Green Street  
Eastbourne Sussex  
Eastbourne 31336

Oxford Electrical  
Rentals  
256 Banbury Road  
Oxford  
Oxford 53072

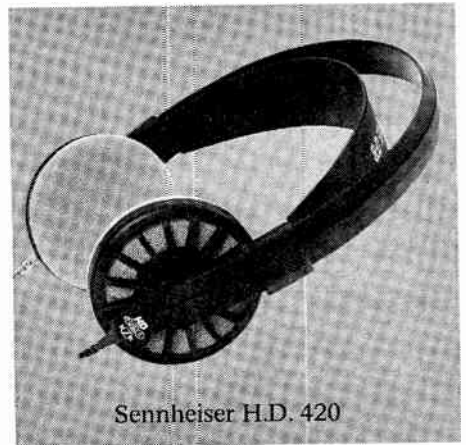




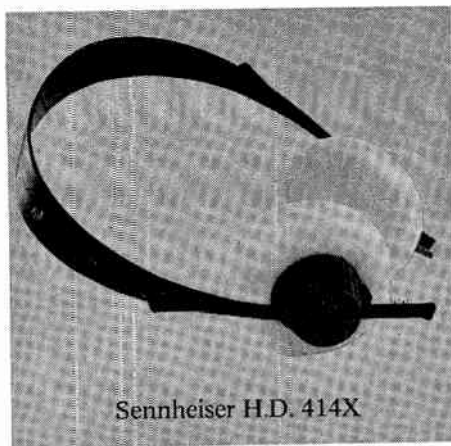
Sennheiser H.D. 430



Sennheiser H.D. 400



Sennheiser H.D. 420



Sennheiser H.D. 414X



**DUAL CS504**  
Turntable  
Auto switch off.  
4 fold strobe.  
Pitch control.  
Tone arm lift off.  
DMS20E  
Cartridge.

# Win this superb Dual turntable in our headphone competition

Everyone. Yes everyone who purchases a set of Sennheiser headphones can enter our 'win a Dual turntable competition'. The CS504 turntable worth £100. And there's even more to win such as Agfa cameras as runner-up prizes

Just think, by buying the best name in headphones today you could win one of the best turntables in its market. And all you have to do is complete the entry form, which will be given to you when you buy any one set of Sennheiser headphones from the Scottish Hi-Fi Dealers. That's all. And the CS504 turntable could be yours.

**Sennheiser the world's leading headphones.**

Sennheiser's extensive range are second to none

for quality, reliability, reproduction as well as good looks. What's more they offer the finest value for money, the range starts from as little as £16.45 rising to around the £120 mark. And we fully guarantee any model for a full 2 years.

## Competition Entry Dates

So make sure to look in, any time from now till April 14th. That's the day our fantastic easy to enter competition closes.

**THE SCOTTISH HI-FI DEALERS**

INCORPORATING NORTHERN IRELAND

### Aberdeen

Holburn Hi-Fi,  
445 Holburn St.  
Tel: Aberdeen 25713.

### Ayr/Kilmarnock

Vennal Audio Visual,  
115 High St., Ayr.  
Tel: Ayr 64124.

49 The Foregate,  
Kilmarnock.  
Tel: Kilmarnock 34826.

### Edinburgh

Audio Aids,  
52 George St.  
Tel: 031-226 3979.

43 South Clerk St.  
Tel: 031-667 2877.

### Edinburgh

The Gramophone,  
Television & Wireless Co.,  
Pedestrian Precinct,  
Rose St. Tel: 031-225 9535.

Hi-Fi Corner,  
1 Haddington Place,  
Leith Walk.  
Tel: 031-556 7901.

### Falkirk

Russell Hi-Fi  
44 Cow Wynd.  
Tel: Falkirk 29011.

### Glasgow

Neil McCormack Ltd.  
1050 Pollokshaws Rd.,  
Shawlands, Glasgow.  
Tel: 041-649 4164.

### Glasgow

Victor Morris,  
Audio Visual,  
340 Argyle St.  
Tel: 041-221 8958.

8-10 Glassford St.  
Tel: 041-552 2483.

### Northern Ireland

The Hi-Fi Shop,  
21 Railway Rd.,  
Coleraine, Co. Londonderry.  
Tel: Coleraine 52843.

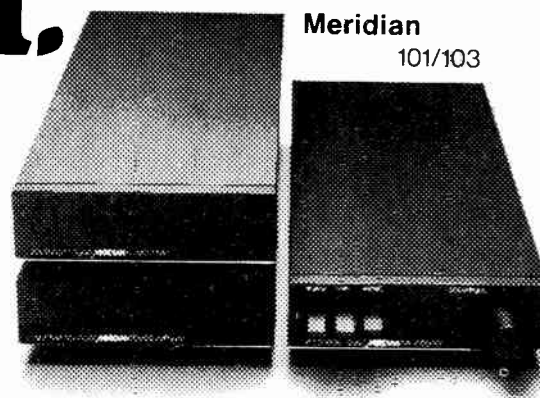
23 Shaftsbury Sq.,  
Belfast.  
Tel: Belfast 40644.

# We'll take the credit for your hi-fi.

When you buy from Radfords' you know you're buying the best equipment at the best possible price and paying with your Access or Barclay card makes life so much easier.

If you're in the area, drop in and see our three floors of displays, and the best retail demonstration facilities in the U.K.

Our professional sales team of Hi-Fi enthusiasts will be on hand to give you all the advice you need. By calling personally, you can get up to £500 instant credit with your ordinary Bankers' Card.



If you're buying direct by post it's just £4.00 per package, anywhere in the U.K. – within 48 hours – **SAFELY!**

<b>record decks</b>	<b>PIONEER</b> CTF4040 £125 CTF700 £199	<b>RAM</b> 100 £149 150 £188 200 £241	<b>amps and tuners</b>	<b>JVC</b> JAS11G £89 JAS22 £112	103D £270	<b>FM3</b> £126
<b>ARISTON</b> RD11E £81 (with arm) RD11S £169 (without arm)	<b>SONY</b> TCK6B £265 TCK8B £469	<b>ROGERS</b> L53/5A £176 Monitor System £759	<b>A &amp; R</b> A60 £157	<b>LECSO</b> AC1 £245 AP3 Mk 2 £279	<b>PIONEER</b> SA606 £114 SA706 £154 TX606 £94	<b>RADFORD</b> ZD22 £213 ZD100 £393 HD250 £281 TT100 £646
<b>LINN</b> LP12 £249 (without arm)	<b>TANDBERG</b> TCD320 £295 TCD340 £549	<b>RADFORD</b> T9J £303	<b>HITACHI</b> HCA7500 £249 HMA7500 £419	<b>MERIDIAN</b> 101 £162 103 £181	<b>QUAD</b> 33 £132 303 £126 405 £196	<b>SUGDEN</b> A48 £216 TVA Export £649
<b>MICHELL</b> Focus One £109 (without arm) Hydraulic £169 Electronic £181	<b>TECHNICS</b> RS616 £157 RS673 £344 RS-M75 £409 RS-M85 £474 RS1500 £1099	<b>SPENDOR</b> BCI £316	<b>52-54 Gloucester Road, Bristol.</b> Tel: (0272) 422709/44593 Telex: 449315			

<b>speakers</b>	<b>AR</b> AR-9 £854 AR-17 £119 AR-18 £81	<b>LUX</b> 1030 £250 1040 £355 1050 £460	<b>receivers</b>
<b>SONY</b> PST1 £89 PST20 £99 TTS8000 £240	<b>BOSE</b> 901 £680 601 £404 301 £183	<b>PIONEER</b> SX590 £139 SX690 £174 SX980 £389	<b>RAM</b> 200 £241
<b>STD</b> 305D £258 305M £195	<b>B&amp;W</b> DM4 £178 DM2II £298 DM7 £399	<b>SONY</b> STR313L £149 STRV3L £193 STV5 £369 STV6 £439	<b>ROGERS</b> L53/5A £176
<b>TECHNICS</b> SL150 mk II £249 SL220 £94 SL230 £113	<b>CELESTION</b> 15XR £99 442 £275 551 £325 662 £475	<b>TANDBERG</b> TR2080 £589 TR2045 £336 TR2030L £299	<b>SPENDOR</b> BCI £316
<b>THORENS</b> TD160BC £90 TD110 £125	<b>GALE</b> GS401A £395	<b>TRIO</b> KR2090L £124	<b>YAMAHA</b> NS100DM £679
<b>tape decks</b>	<b>IMF</b> Super Compacts £178 TLS50II £414 TLS80II £630	<b>TECHNICS</b> SA100L £129	<b>amps and tuners</b>
<b>AWA</b> AD6350 £149 AD6550 £219 AD6900 £384	<b>KEF</b> Corelli £149 Calinda £229 104AB £275 105 £279 Celeste £99	<b>YAMAHA</b> SA200L £179 SA300L £239 SA400 £279 SA500 £349 SA700 £524	<b>JVC</b> JAS11G £89 JAS22 £112

Before you fill in the coupon, ring and check our latest prices - they could be even cheaper

**BARCLAYCARD** th Access  
**VISA**

We have Credit Card facilities.

**Sounds a great deal better.**

Please send me  
 Make/Model \_\_\_\_\_  
 Make/Model \_\_\_\_\_  
 Name \_\_\_\_\_  
 Address \_\_\_\_\_

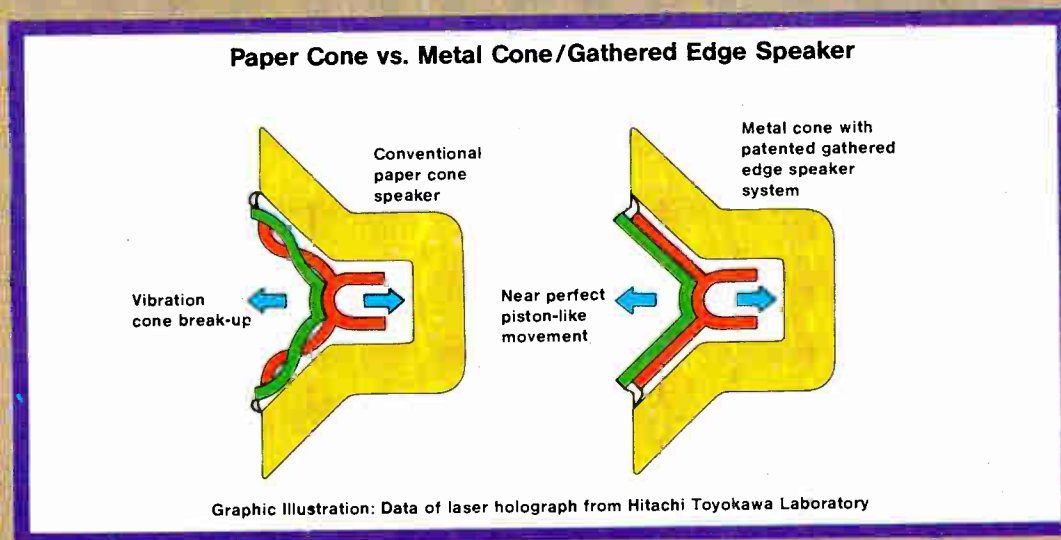
\* I enclose cheque/postal order No. \_\_\_\_\_  
 Amount £ \_\_\_\_\_

\* Please debit Barclaycard/Access No. \_\_\_\_\_  
 Amount £ \_\_\_\_\_

\* Delete as applicable

**MAJOR SOUTH WEST AREA DEALER FOR** ACOUSTIC RESEARCH ADC AKG ARISTON A&R AUDIOMASTER AUDIO TECHNICA AIWA BASF BEYER BGW BOSE BOWERS & WILKINS CALREC CELESTION CHARTWELL CONNOISSEUR DAHLQUIST DBX DECCA DENON DUAL ENIGMA EMPIRE FERROGRAPH FIDELITY RESEARCH FORS FUJI GALE GOLDRING CARTRIDGES GRACE GRIFFIN HADCOCK HAFLER HARMON KARDON HITACHI HOWLAND WEST IMF JBL JR PRODUCTS JVC KEF KEITH MONKS KLH LEAK LECSO LENTEK LINN PRODUCTS LUX MARANTZ MAYCARE MERIDIAN MICHELL MICRO SEIKI MICRO ACOUSTICS MISSION MONITOR AUDIO MXR NAKAMICHI NATIONAL PANASONIC NEAL NIGHTINGALE OMAR OPTONICA ORTOFON PIONEER QED QUAD RADFORD RAM ROGERS SANSUI SENNHEISER SHEFFIELD LABS SIGNET SME SONY SPENDOR STANTON STAX STD STUDIOCHAFT SHURE SUGDEN SUPLEX TANDBERG TANGENT TANNoy TASCAM TEAC TECHNICS TOSHIBA TRANSCRIPTORS TRIO TVA ULTIMO UHER VIDEOTONE WAR WHARFDALE YAMAHA ZEROSTAT

# $\pm 19\text{mm}$ . As close as you can get to perfect linear response.



## Metal Cone/Gathered Edge

A new diaphragm material and a patented suspension design assure the incredible linear response of Hitachi's HS-330 Speaker System.

Hitachi's 25cm metal cone means the whole cone body responds to the audio signal. The metal is unaffected by changes in temperature and humidity, and offers a degree of fidelity that's impossible with paper.

Gathered edge suspension further enhances performance and greatly contributes to axial compliance. The cone practically floats! Its unimpeded piston excursion of  $\pm 19\text{mm}$  means it achieves precise linear response to the most dynamic surges. And on the radial plane the edge is stiff to prevent lateral vibrations and distortion.

The Hitachi HS-330, or the step-up model HS-530 with dome tweeter and gathered edge mid range unit, is designed and engineered for the kind of audio excellence you can hear.



# HITACHI

Hitachi Sales (U.K.) Ltd., Hitachi House, Station Road,  
Hayes, Middlesex UB3 4DR. Telephone 01-848 8787.



***Audiomaster Speakers? They're ever so clean, dear!***

**audiomaster**  
*...listen*

Send today for full details and a list of appointed retailers

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

HFN

**Audiomaster Limited Bridle Path Watford WD2 4BZ**

## Amid the confusion . . .

So much is stated, contradicted and re-stated, but in the end it is not a matter of opinion.

Other things being equal, 'goodness' can be expressed in simple terms. A pick-up arm should have the lowest possible effective mass, coupled with the highest possible rigidity.

A cartridge should have the lowest possible effective tip mass, coupled with a correctly related compliance and tare (cartridge weight).

These are the rules of physics and engineering. They can be denied for various reasons but the penalty is then paid each time you play a record.

Immediately available.

In case of difficulty write to Dept 0350, SME Limited, Steyning, Sussex, BN4 3GY

# SME

*The best pick-up arm in the world*

**Design Council  
Award 1978**

*The Series III precision pick-up arm  
and Shure V15 Type IV cartridge.  
Designed and built by the rules for  
faithful, uncoloured musical  
reproduction.*

"Stereo Sound is Japan's principal hi-fi magazine. The Summer '78 issue carries an article compiled by seven leading critics. Of forty-three arms they recommend the SME Series III as the best and the Series II Improved as good".





"The original A77 had set a standard by which I have judged other domestic and semi-professional recorders for many years. It is now clear that the new B77 sets a new standard not easily surpassed at its price"

Angus McKenzie (March 1978)

# REVOX

For the full story contact F.W.O. Bauch Ltd., 49 Theobald St., Boreham Wood, Herts. WD6 4RZ



KEF CONCORD III

KEF CELESTE III

Two compact and efficient  
loudspeaker systems giving superb  
sound reproduction.

optional stand ULS2

optional stand ULS1

Both systems have been designed to work with amplifiers as small as 10Watts per channel, but can safely be used with larger amplifiers to give surprisingly loud volume, without any sacrifice of the tonal quality which has made KEF famous.

Visit your local KEF dealer for a demonstration  
or contact KEF for more details.

KEF Electronics Ltd, Tovil, Maidstone, Kent ME15 6QP, England.  
Telephone 0622 672261. Telex 96140.



# Listen to this...



## ...one of the finest sounding turntables around

The new Dual CS 604 explodes the myth that Direct Drive turntables sound inferior in comparison to Belt Drive models. Engineering design and quality are what count! Extensive listening tests have convinced reviewers such as Mike Ballance of Popular HiFi, see September 1978 issue, dealers and customers alike that the CS 604 sounds as good as anything in its price range. What's more, it offers the bonus of: auto return, two speeds, variable pitch and is readily available. The pick-up arm is of extremely high quality and will accept most modern cartridges including moving coils.

If you consider our claims contentious, please visit your Dual dealer and listen for yourself. We think you will be surprised and converted!

A fully automatic version CS 621 is also available.

**The new  
CS 504**

Available now, our new belt drive semi-automatic turntable complete with cartridge.  
SUGGESTED SELLING PRICE only £88.80  
(excluding VAT)

**DUAL CS 604** (illustrated)  
A direct drive, semi-automatic turntable that comes complete with cartridge.  
SUGGESTED SELLING PRICE only £136.00  
(excluding VAT)

**Dual**

**For the  
finest  
in sound**

..... ✂ .....  
For further information about Dual products please mail this coupon to Hayden Laboratories Ltd., Hayden House, Churchfield Road, Chalfont St. Peter, Bucks. SL9 9EW  
Tel: Gerrards Cross (02813) 88447

Name \_\_\_\_\_

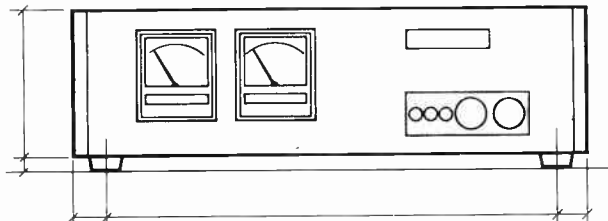
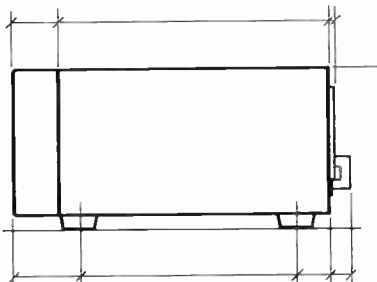
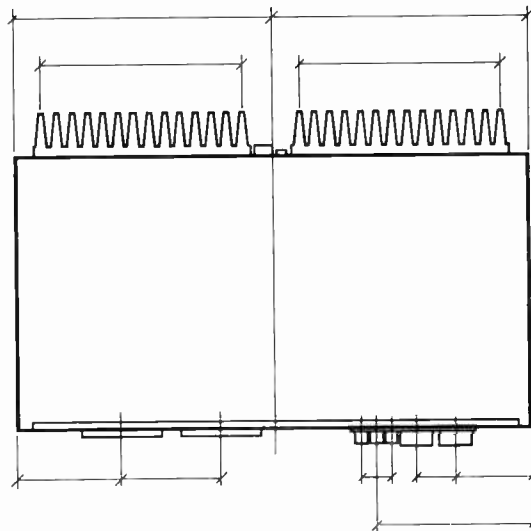
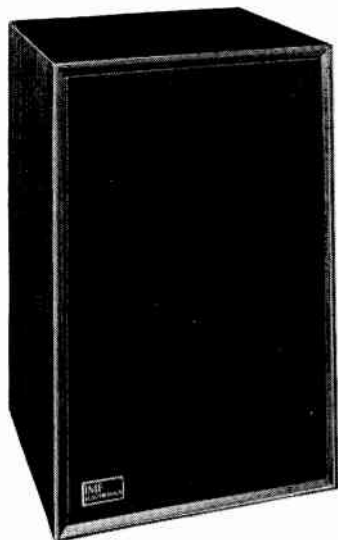
Address \_\_\_\_\_

**HAYDEN**

Code 3 HFN/79



# choosing an amplifier . . . .



Contrary to popular belief, even small loudspeakers benefit from a sophisticated amplifier.

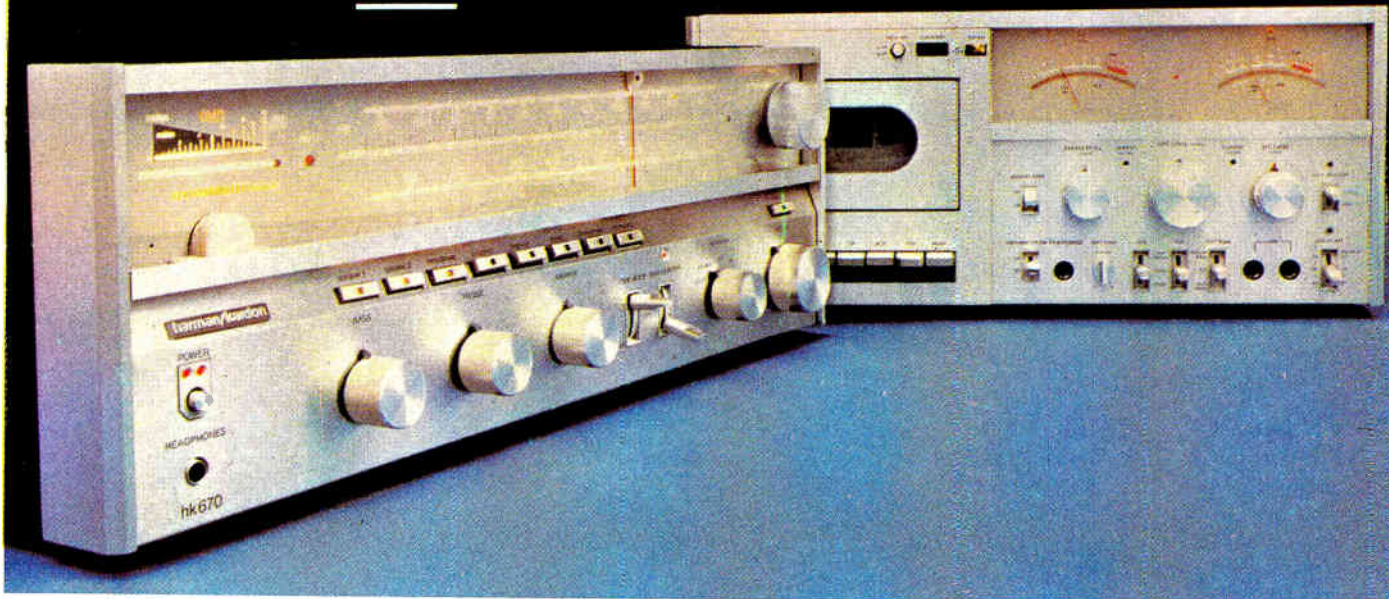
Having chosen speakers as fine as ours, you are sure to appreciate the difference . . . .

## compact loudspeakers



Westbourne Street High Wycombe Buckinghamshire Tel High Wycombe 35576

# We want you to hear all of the music.



The ear knows how to deal with gross distortion. It simply stops listening. But what happens when the distortion is so subtle that it is barely perceived? Usually this kind of distortion is accepted by the ear as part of the musical information. It's not until you've listened for a while that you start to sense something isn't quite right, that there's something between you and the music. To some, it's like listening through closed curtains; for others, it's an uneasy, fatigued feeling. What happens, in effect, is that your ears and brain try to listen through the distortion and end up working too hard to hear all of the music.

Harman Kardon's new generation of stereo components are designed, built and tested with new understandings about distortion and what makes one component sound better than another. All Harman Kardon receivers, separates and tape decks are of ultrawideband design for excellent phase linearity and superb transient response (transients are crisp, textures remain clear, open and transparent). The electronics are engineered for low distortion with minimum feedback. Negative feedback is in universal use to reduce conventional forms of distortion. But too much feedback causes TIM (transient intermodulation distortion). At Harman Kardon, distortion is kept down to the lowest possible levels before feedback is applied. Then, we add just the slightest bit of feedback to reduce those levels even further while keeping TIM at almost a nonexistent level. You hear all of the music, free from dynamic, as well as static, forms of distortion.

Harman Kardon engineers also use new dynamic list procedures for their cassette decks including critical listening to every sub-component to eliminate or reduce distortion that can be heard but not as yet quantified. Tape drives are designed to eliminate all audible speed variations. Even when they fall outside the scope of conventional measurements. Each of the decks feature ultrawideband response, phase linearity, rugged and precise tape transports, permalloy heads, low noise electronics, Dolby<sup>®</sup>, and an array of other outstanding features. Whether you use a Harman Kardon stereo cassette deck in combination with Harman Kardon separates or a Harman Kardon receiver, we think you will agree the combination is subtly different and immeasurably better-designed, engineered and tested to let you hear all the music.

Pictured here:

hk670 Twin Powered 60/60 Watts  
DC Coupled Ultrawideband AM/FM Stereo Receiver  
hk3500 Front Loading Dual Motor  
Three Head Stereo Cassette Deck with Dolby<sup>®</sup>

For complete technical information,  
write to the following address:

**harman/kardon**

St. Johns Road, Tylers Green,  
High Wycombe, Bucks. HP10 8HR  
Telephone: Penn (049 481) 5331.

# AKG

## ACOUSTICS

These headphones are a further contribution to the high-grade studio line of the AKG product range. The K 141 "cardan" de luxe is naturally also a result of intensive development work based on the latest AKG technologies. As usual, special attention has been paid to great wearing comfort and very light-

weight construction, which features will now allow you to wear the headphones over even considerable periods of time while feeling hardly any contact pressure. A broad headband with elastic automatic adjustment at both ends will guarantee firm seat. Just put on your K 141 and you'll have them firmly and

comfortably adapted without any additional adjustment of the earpieces!

The earphones as such are suspended in the proven "cardan" technique, i.e. they are freely pivotable in all directions. This will allow the earpieces to softly adapt themselves to the ear. Novel ear pads serve for optimum physical and acoustical contact. The ear pads are easy to replace if this should become necessary for some reason or other.

The electro-acoustical part of the K 141 headphones is characterized by particularly large diaphragms, the proven AKG "large diaphragm systems", which also contribute to an optimum reproduction.

The openings disposed in the rear of the earpieces will guarantee spatial hearing and allow you to escape that "headphone feeling" you might have with some other equipment.



AKG Acoustics Ltd. 191 The Vale, London W3 7QS, Telephone 01-749 2042 (5 lines), Telex 289 38 (akgmic g)

World Radio History

# THE BIG NAMES AT THE BEST PRICES ARE AT GRATISPOOL NOW

If you're looking for something in the audio field you'll find it at Gratispool. More than that, you'll find it at Gratispool at a price that's almost impossible to beat.

Look around. See for yourself. You'll discover that you can buy the best for less at Gratispool NOW.

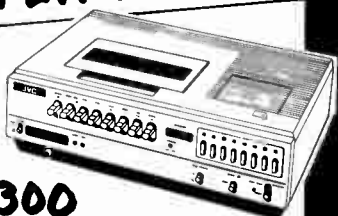
## J.V.C. SUPER VALUE

### JVC HR3300

3 hour colour video cassette recorder

#### Features

- Full 3-hour record/playback time — 2-hour, 1-hour and 1/2-hour videocassettes also available (E-180, E-120, E-60 and E-30)
- Electronic TV tuner — permits pre-selection of any broadcast channel to correspond with any one of the eight programme selectors
- Records TV programmes while viewing them
- Records TV programmes while viewing a different programme
- Records TV programmes when absent with built-in automatic timer



## SUPER SONY STEREO

### SONY PST-1

Direct drive stereo turntable.

- Magnedisc servo system for accurate speed sensing
- Direct drive turntable with linear BSL (brushless and slotless) motor for stable speed, low wow and flutter, and a high S/N ratio
- Easy to use semi-automatic system: the reject button can be used with the dust cover closed
- Aluminium die-cast platter with illuminated stroboscope
- Cartridge Supplied



## SAVINGS POINT TO PANASONIC

### PANASONIC RS612US

Front-loading Stereo Cassette Deck with Dolby NR System and Timer Recording/Playback Facility.

Separate bias and equalisation selectors for optimum recording with any type of tape. Dolby noise reduction system for noise-free recording and playback. Super permalloy head for greater recording and playback performance. Timer recording/playback facility. Oil-Damping system eliminates the ear jarring noises formerly associated with cassette ejection. Record indicator lamp, 3-digit tape counter, 2 VU meters. Mechanical pause control.

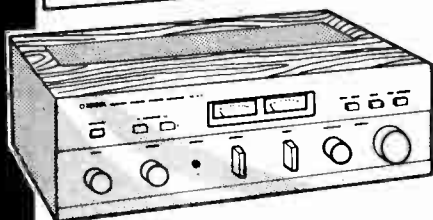


## MAKE MORE OF YAMAHA

### YAMAHA CA-510

The CA510 amplifier sets new standards for its class. For starters, the phone pre-amp has a new Yamaha-designed NF type circuit, resulting in an exceptionally high S/N ratio of 85 dB.

Low noise, low distortion tone controls ensure accurate reproduction and the fast response meters provide output level indication from 0.01 watt to 50 watt (8 ohm speakers).



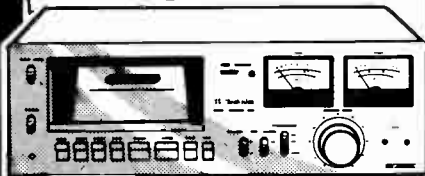
## TERRIFIC TECHNICS

### TECHNICS RS-615US

Front Loading Cassette Deck with Dolby NR System.

Features built-in timer stand-by system for convenient use with external timer to record or playback at any pre-selected time. Dolby NR system results in S/N ratio of 65 dB. Super-Permalloy head for added clarity, extended range, longer wear. Large VU meters calibrated up to +5 dB 3-position tape selector for Cro2 Fe-Cr, or Normal tapes.

Line/Microphone input selector. Oil-damped cassette door, illuminated compartment.



## SPEAKING OF SAVINGS

There are lots of speakers to choose from, and at Gratispool you will find the world's best speakers at what must surely be the world's best prices.

Shop around and compare value. You'll come back to Gratispool every time. So try us first and save yourself time and money.

### WHARFEDALE LINTON XP2

With separate specially designed drive units for bass, mid-range and treble, the Linton XP2 has a high power handling capacity and a smoothness of response unusual in so modestly-priced a speaker.

The mid-range unit is especially interesting; it is perforated with four lines of minute holes, to absorb unwanted sound waves which would otherwise cause distortion.



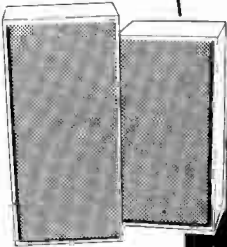
## SOUNDS MORE FOR LESS

### RAM Care, expertise and craftsmanship

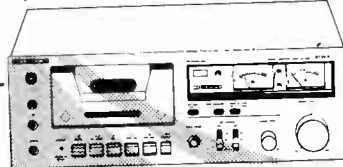
They go into the construction of every RAM loudspeaker. And it means we can afford to fully guarantee every one for three years.

All our cabinets are veneered both inside and out. To prevent unwanted flexing of the walls at low frequencies. The interiors are damped with layers of bitumen and slabs of BBC specified anechoic grade foam.

Allowing you to hear the music as it was meant to be. With a clarity and lack of colouration that is common to all our models.



## TURN ON TO VALUE



### AIWA A06350 Stereo cassette deck.

The most common and widely used tapes currently available are of the LH (Low noise, High output) variety. Until fairly recently the owner of a cassette deck was compelled to use the brand of tape recommended by the particular manufacturer in order to obtain optimum performance from his machine. The main feature of Aiwa's new Ad 6350 is a user-adjustable fine bias control which ensures the best possible recording results with different brands of LH normal tape.

## SWITCH ON TO SAVINGS

### TRIO KA-3700



Stereo integrated amplifier.

- 25 watts per channel at 8 ohms from 20 Hz to 20,000 Hz with no more than 0.08% total harmonic distortion
- Direct-coupled low noise phono equalizer provides precise R1AA playback response accurate to within  $\pm 0.4$  dB to reproduce faithfully the wider dynamic range of records today
- High S/N ratio of 72 dB with a 2.5 mV input ensures there's no distortion, even with heavy musical passages

## TUNE INTO BARGAINS

### KEF model 104aB.

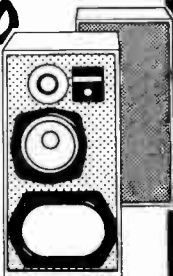
A reflexed system of only 36 litres (1.25 cu. ft.) fitted with two drive units and an acoustically coupled bass radiator.

Designed for vertical use on a stand the HF unit is fuse protected and fitted with an acoustic contour control.

Dimensions: 600 x 300 x 260mm  
 24.8 x 13 x 10.2  
 Weight: net 16.3kg 36lb  
 gross 19kg 42lb  
 Nominal impedance: 8 ohms  
 Rated max power: 100 watts

programme  
 Frequency response: 50-20,000 Hz  $\pm 2$  dB  
 System resonance: 35 Hz  
 mechanical reflex  
 Damping frequencies: 45 Hz and 3,000 Hz

Sensitivity: 12.5 watts for 96 dB at 1m and 400 Hz in anechoic conditions  
 Amplifier requirements: 15-100 watts into 8 ohms  
 Finishes: walnut or teak  
 Grille: black foam



## LATE EXTRA BARGAINS

Technics RS 615  
 Cassette deck .. £109.95  
 Sony CF 900S  
 Cassette radio ... £114.95  
 Shure M95ED  
 Cartridge ... £18.95  
 Nakamichi  
 N610 pre amp ... £328.95  
 Nakamichi  
 N620 power amp .. £363.95  
 Sony STR 4800  
 tuner/amp ... £187.95

## THE MEASURE OF A GOOD TAPE

Cassette tape	Price each	Cassette tape	Price each	Cassette tape	Price each
TDK		Sony		Fuji	
D C60 .....	£0.69	LN C60 .....	£0.62	FX 1 C46 .....	£0.99
D C90 .....	£0.94	LN C90 .....	£0.90	FX 1 C60 .....	£1.10
D C120 .....	£1.27	LN C120 .....	£1.26	FX 1 C90 .....	£1.55
AD C60 .....	£0.98	HF C60 .....	£0.88	FX 11 C46 .....	£1.06
AD C90 .....	£1.37	HF C90 .....	£1.08	FX 11 C60 .....	£1.16
AD C120 .....	£1.87	HF C120 .....	£1.34	FX 11 C90 .....	£1.63
SA C60 .....	£1.77	FE CR C60 .....	£1.33		
SA C90 .....	£1.77	FE CR C90 .....	£1.89		

Video tape — phone for best price  
 \*TDK \*JVC \*SONY

## PART EXCHANGE WELCOME

Let's face it — audio equipment is not cheap, but the listening pleasure makes it a more than worthwhile investment.

Techniques are constantly changing and keeping up to date with the latest in sound technology can be a costly hobby.

That's where Gratispool can be of enormous help.

As you move on to more sophisticated equipment, there's always somebody else who's just starting so we'll offer you the best part exchange prices you could get.

Bring to us what you want to offer in part exchange and we'll advise you of its value. Your old equipment could be worth a lot more than you think, so now's the time to update your audio collection... at Gratispool.

## WOULD YOU CREDIT IT!

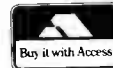
Certainly! We have a choice of payment methods, one of which will be ideal for you.

There's 20% deposit and up to 3 years to pay.

You can use your Access or Barclaycard.

And you could get up to £500 instant credit on presentation of any current credit card.

Come on in and see how easy it is to shop at Gratispool.



# GRATISPOOL

## LOOKS AND SOUNDS TERRIFIC

GIVE US A RING TODAY

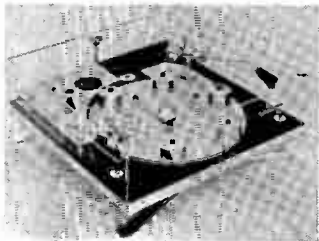
66 Queen Street, Glasgow G1 3DS.  
 Telephone 041-221 3740  
 94/96 South Bridge, Edinburgh.  
 Telephone 031-225 9250  
 38 Lands Lane, Leeds LS1 6LB.  
 Telephone 0532 35714

27 Queen Victoria Street, Reading.  
 Telephone 0734 586650  
 83 The Horsefair, Bristol.  
 Telephone 0272 20633  
 82 King Street, Maidenhead.  
 Telephone 0628 25483

7 Church Street, Kingston-upon-Thames.  
 Telephone 01-546 6196  
 10 Martineau Way, Birmingham B2 4UN.  
 Telephone 021-236 1024  
 14 Humberstone Mall, Haymarket Shopping Centre,  
 Leicester. Telephone 0533 536469

# London now boasts Europe's

## Michell Engineering



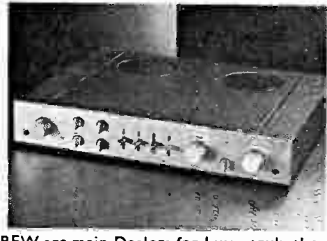
Just arrived, the new turntable from J. A. Michell, the Focus One. Featuring a new flat platter and very modest price, this is surely a turntable to consider when upgrading. Of course the classic Hydraulic Reference is still available.

## Quad



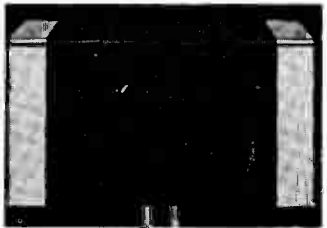
Quad have been making quality equipment for over 20 years, and as one of their original stockists, we have been recommending it for as long. British audiophiles will however appreciate the news that we can now supply all models for immediate delivery.

## Lux



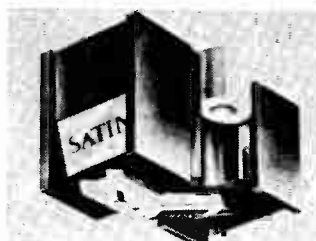
REW are main Dealers for Lux—truly the ultimate in high fidelity equipment. Most models are held in stock including the new Laboratory Standard Series.

## Gale



The speaker that must be heard. Used in conjunction with high quality ancillary equipment, the Gale GS401 is capable of phenomenal performance with remarkable dynamic range.

## Moving Coil P.U.'s



Moving coil pickups offer advantages in terms of transient response and overall quality. We stock models by Denton, Satin, Nakamichi, Ortofon, Ultimo and Fidelity Research.

## Technics



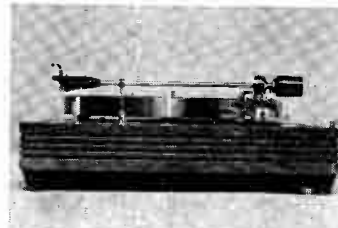
The name of Technics means excellent value for money and outstanding quality. We now have the new range of Technics turntables including the SL1400 Mk II quartz lock on full demonstration.

## Lecson



Disproving the growing belief that the British cannot compete with the Japanese in terms of styling and performance, Lecson produce some of the world's best amplifiers. On demonstration at REW.

## Linn



To hear what a difference a turntable can make, come and listen to the Linn Sondek LP12 at REW's new showroom at 114-116 Charing Cross Road.

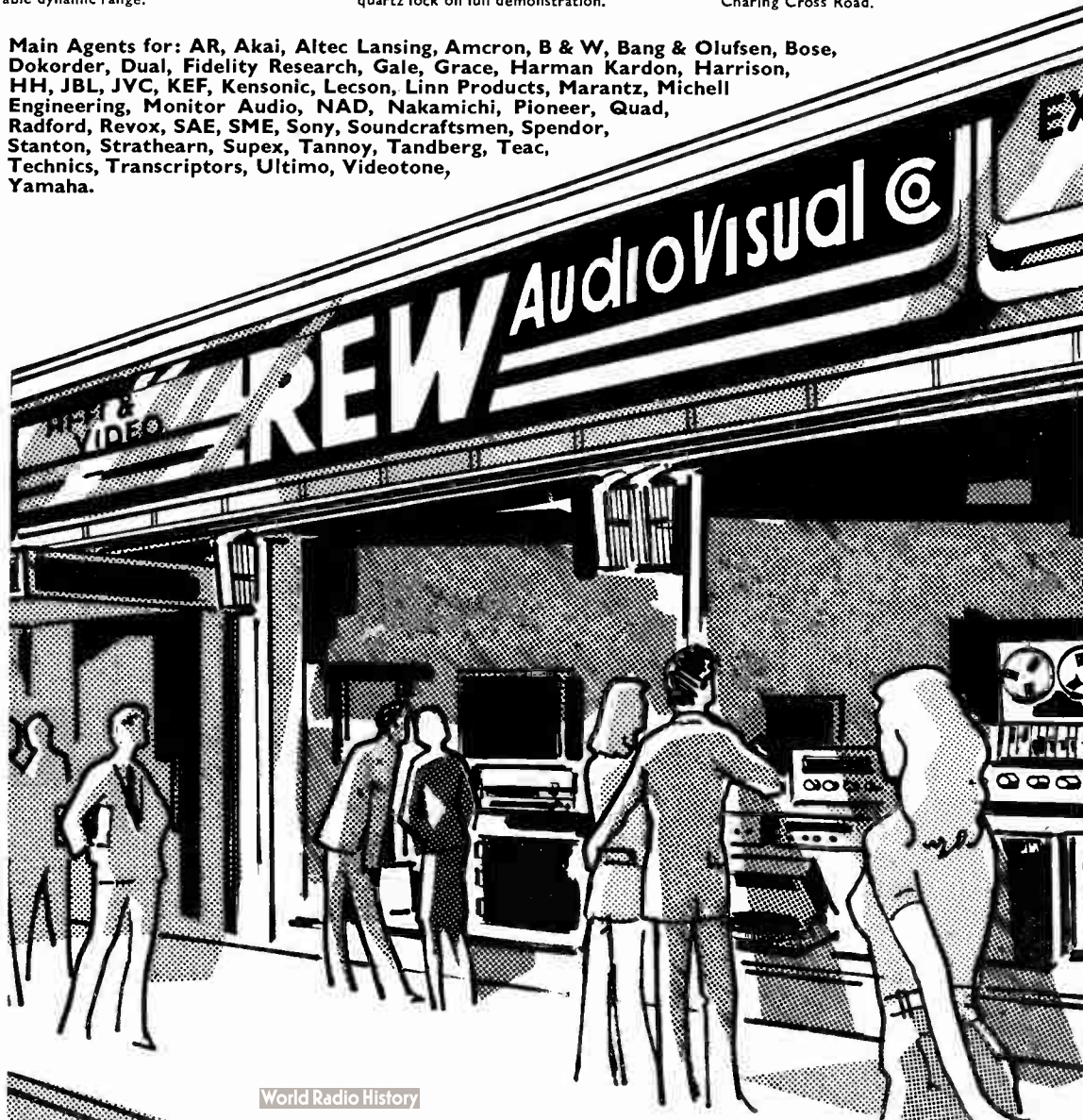
## Definite Improvements

Most people are sceptical when we tell them that we can give their system a £200-£300 upgrade for under £50 expenditure. They are, however, pleasantly surprised when we demonstrate this to be true by giving an A-B comparison of the Monitor Audio Sound Cable against normal speaker leads. The sound cable gives a convincing improvement in all areas. Used in conjunction with Gold-Ens High Definition Phono Leads, another veil is removed between the listener and the sound stage. We also now carry a full range of accessories from Discwasher and QED, designed to extract more pleasure from your existing equipment.

## LONDON VCR CENTRE

An entire floor covering 2000 sq. ft. where all the latest video recorders, cameras, CCTV systems, projection TC systems, etc., are on display. Come and compare the Sony 3-hour Betamax, National Panasonic 3 hour VHS, Philips 2½ hour VCR. Discuss your requirements with our experienced staff who will be pleased to give you expert, unbiased advice.

Main Agents for: AR, Akai, Altec Lansing, Amcron, B & W, Bang & Olufsen, Bose, Dokorder, Dual, Fidelity Research, Gale, Grace, Harman Kardon, Harrison, HH, JBL, JVC, KEF, Kensoic, Lecson, Linn Products, Marantz, Michell Engineering, Monitor Audio, NAD, Nakamichi, Pioneer, Quad, Radford, Revox, SAE, SME, Sony, Soundcraftsmen, Spendor, Stanton, Strathearn, Supex, Tannoy, Tandberg, Teac, Technics, Transcriptors, Ultimo, Videotone, Yamaha.



# finest Hi-Fi and Video Centre

REW is one of the few firms in the audio and video fields that can truly claim to have years and years of experience behind them. Established in 1948, REW is still a family business yet is numbered amongst the leading hi-fi and video retailers in the land. And it is with great pride that we introduce our new Hi-Fi & Video Showrooms, covering 4000 sq. ft. in the heart of London's West End at 114-116 Charing Cross Road. No detail has been overlooked nor any expense spared in our efforts to make this the finest hi-fi store in Europe. The widest range of exclusive equipment is on display with superb demonstration facilities. You'll receive VIP treatment from our expert staff and our own van delivery and installation service is available throughout Greater London. If you want to choose the very best equipment under the very best conditions come along to REW now.

# REW

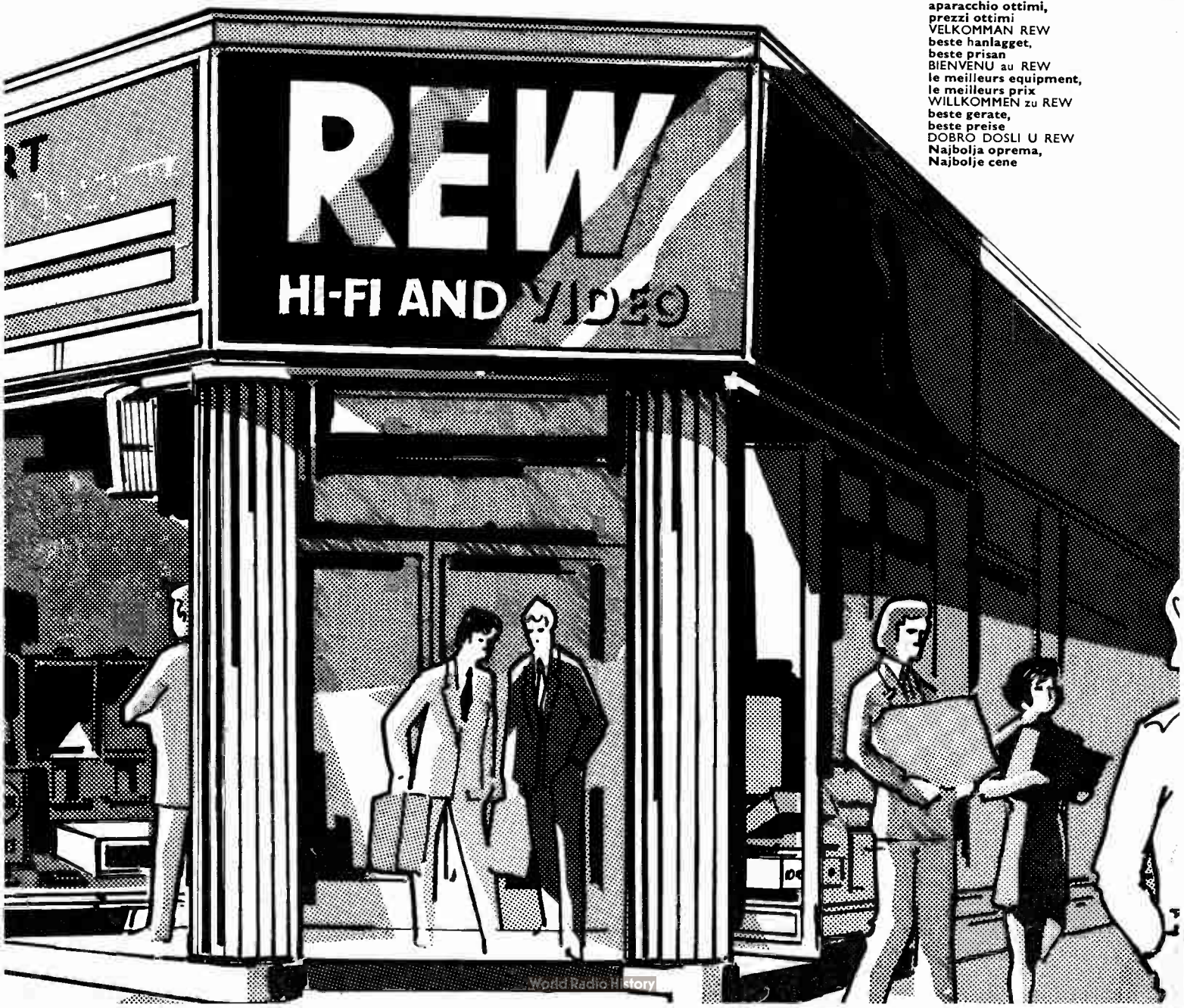
**Audio Visual**  
Established 1948  
114-116 Charing Cross Road,  
London WC2.  
Tel: 01-240 3386/7



- Also at:
- 230 Tottenham Court Road, London W1. Tel: 01-637 2624/5.
  - Mail Orders to: REW House, (Dept. HFN), 10-12 High Street, Colliers Wood, London SW19. Tel: 01-540 9684/5/6.

WE ARE PERSONAL  
EXPORT SPECIALISTS  
EXPRESS EXPORT SERVICE  
ANYWHERE IN THE WORLD

WELCOME TO REW  
best equipment  
best prices  
BENVENUTO a REW  
aparacchio ottimi,  
prezzi ottimi  
VELKOMMAN REW  
beste hanlagget,  
beste prisar  
BIENVENU au REW  
le meilleurs equipment,  
le meilleurs prix  
WILLKOMMEN zu REW  
beste gerate,  
beste preise  
DOBRO DOSLI U REW  
Najbolja oprema,  
Najbolje cene



# INTRODUCING MITSUBISHI AUDIO. HEAR WHAT YOU'VE BEEN MISSING!



## DP 210 RECORD DECK

**Turntable Motor:**  
4-pole synchronous belt drive  
**Wow and flutter:** 0.15% (DIN)  
**Signal to noise ratio:** 65dB (DIN)  
**Tone arm:**  
S-type universal static balance  
**Effective length:** 215mm  
**Possible cartridge weight:** 4g to 10g

**Tracking force adjustment:**  
0 to 3g (0.1 g step)  
**Cartridge:** Moving Magnet  
**Recommended tracking force:** 2g  
**Frequency response:** 20Hz to 20kHz  
**Output level:**  
(at 1kHz 5cm/sec. mono) 3mV  
**Channel separation (at 1kHz):** 30dB

## DA-F210 TUNER

**FM Section (Din)**  
**Sensitivity:** 1.3 $\mu$ V (mono) 32 $\mu$ V (stereo)  
**Image frequency rejection:** 60dB  
**IF rejection:** 80dB  
**Spurious rejection:** 70dB  
**AM rejection:** 50dB  
**Selectivity:** 50dB  
**S/N ratio:** 70dB (mono) 68dB (stereo)  
**THD:** 0.2% (mono) 0.5% (stereo)

**Stereo separation:** 40dB  
**Frequency response:** 30Hz-15kHz  $\pm$   
**AM Section (DIN)**  
**Sensitivity:** 300 $\mu$ V/m  
**S/N ratio:** 50dB  
**Selectivity:** 30dB  
**Image frequency rejection:** 50dB  
**THD:** 0.8%  
**Output level/impedance:** 200mV/5k

## DA-U310 INTEGRATED AMPLIFIER

**Continuous power output**  
(20Hz-20kHz) 50W + 50W (8 ohms)  
55W + 55W (4 ohms)  
**THD (20Hz-20kHz):**  
0.03% (25W + 25W)  
**Intermodulation distortion:**  
0.15% (50W + 50W)  
**Power bandwidth:** 10Hz-40kHz (IHF)  
**Input level/impedance:**  
MIC 1mV/10k ohms  
PHONO 1.2; 2.5mV/50k ohms  
TUNER, AUX, PLAY 1.2  
150mV/35k ohms

**Output level/impedance:**  
REC 1.2 (LINE): 150mV/600 ohms  
REC 1.2 (DIN): 50mV/100k ohms  
**Frequency response:**  
10Hz-60kHz  $\pm$  1dB (AUX)  
20Hz-20kHz  $\pm$  0.5dB (PHONO)  
**Tone controls:**  
BASS  $\pm$  10dB (100Hz)  
TREBLE  $\pm$  10dB (10kHz)  
**Loudness contour:**  
+ 7dB (100Hz) + 5dB (10kHz)  
**Hum and noise:**  
90dB (AUX) 74dB (PHONO)

## DT 4500 STEREO CASSETTE DECK

**Dolby noise reduction system**  
**Input level impedance:**  
MIC: 0.3mV/2.2k ohms  
LINE: 80mV/90k ohms  
DIN: 5mV/10k ohms  
**Output level impedance:**  
LINE: 0.44V/22k ohms  
HEADPHONE: 0.8mV/8 ohms  
DIN: 0.44V/22k ohms

**Wow and flutter:**  
0.07% (WRMS) 0.15% (DIN)  
**Signal to noise ratio:**  
Weighted Dolby NR out:  
56dB (RMS) 49dB (DIN)  
Weighted Dolby NR in: 64dB (RMS)  
**Frequency response:**  
Normal position: 40Hz-12.5kHz  
Special position: 40Hz-14kHz

Impressive specifications are all very well. But it's going to take a whole lot more than that to convince you to buy Mitsubishi.

Like the superb sound quality. The smooth feeling controls. The amazing value for money. Or Mitsubishi's incredible

reputation for reliability and performance - built in the UK around their highly respected range of colour televisions.

Not that we expect a bit of glossy sales talk to convince you either.

Mitsubishi's new range of

hi-fidelity audio equipment is something you'll just have to hear for yourself.

THESE ARE JUST A FEW MODELS FROM THE EXTENSIVE RANGE OF AUDIO & TV EQUIPMENT MANUFACTURED BY MITSUBISHI IN JAPAN. MITSUBISHI ELECTRIC (UK) LIMITED, OTTERSPOOL WAY, WATFORD, HERTS WD2 8LD.

 **MITSUBISHI  
ELECTRIC**



# hi-fi news & record review

ALSO INCORPORATES: TAPE & TAPE RECORDERS,  
AUDIO NEWS, RECORD NEWS, AUDIO RECORD REVIEW,  
THE GRAMOPHONE RECORD.

EDITOR  
JOHN CRABBE

DEPUTY EDITOR  
JOHN ATKINSON

MUSIC EDITOR  
PETER GAMMOND

TECHNICAL EDITOR  
DONALD ALDOUS

RECORDS EDITOR  
GEOFF JEANES

NEWS EDITOR  
IVOR HUMPHREYS

ART EDITOR  
MARK STEVENS

MUSICAL ADVISERS  
ARTHUR JACOBS & CHRISTOPHER BREUNIG (Classical)  
PETER CLAYTON (Jazz)

TECHNICAL ADVISERS  
STANLEY KELLY, REX BALDOCK, JAMES MOIR,  
RALPH WEST

PUBLISHER  
DOUGLAS G. SHUARD

ADVERTISEMENT MANAGER  
ROGER DENNY

ASSISTANT ADVERTISEMENT MANAGER  
STEPHEN LEVETT

## SUBSCRIPTION RATES

Annual UK subscription rate for *HFN/RR* is £8.30, overseas £9.30 (\$25.00 USA & Canada). The rate for each of our associated journals *Studio Sound* and *Sound International* is £8.20, overseas £8.20 (\$25.00). Obtainable from Subscription Dept, Link House Publications Ltd., Link House, 25 West Street, Poole, Dorset BH15 1LL (tel. 02013 71171). *Hi-Fi News & Record Review* is normally published on the last day of the preceding month, unless that date falls on a Sunday, when it appears on the Saturday.

## BINDERS

Loose-leaf binders for annual volumes of *HFN/RR* are available from: *Modern Bookbinders*, Chadwick Street, Blackburn, Lancs. The years 1971 to 1979 are each covered by two binders (January-June and July-December), costing £1.50 each (post paid). For earlier years, please ask for a quotation.

Editorial and Advertising Offices:

LINK HOUSE, DINGWALL AVENUE, CROYDON CR92TA.  
Telephone: 01-686 2599.

We regret that technical and editorial queries cannot be answered by telephone.

© Link House Publications Ltd, 1979. All rights reserved.



THE LINK HOUSE GROUP

THE vital hi-fi importance of geography and architecture was brought home to us recently when 'home' was transplanted a distance of three miles from a house on a high hill facing south-east to a bungalow on a low hill facing north. At 18 miles, the BBC's Wrotham transmitter could actually be seen on a clear day from the earlier residence, where a simple loft dipole gave an excellent FM signal and the sitting-room offered only one obvious listening/speaker layout. In the new abode, stereo reception is hopeless with the make-shift aerial which we had hoped to employ, while the lounge-cum-dining-room demands that on occasion the family relaxes near the fireplace in an area very close to the only viable site for the main loudspeakers.

The FM reception problem will probably be solved by installation of a suitable external aerial—although we are worried to note the many quite complex Band II arrays dotted around the new locality, which is actually two miles nearer to Wrotham. In any event, we do now realise just how much noise and distortion there can be when receiving a stereo transmission, and why the local terrain can cause even self-respecting hi-fi enthusiasts to give up and switch to mono.

Of the very limited listening options dictated by the bungalow's architecture, we decided in favour of a dual-function scheme: (a) for serious occasions demanding close aural attention and tip-top sound, to sit back from the main speakers in conventional hi-fi fashion—with optional benefit of a pair of rear speakers for Hafler or similar effects; (b) for family gatherings needing good but not perfectly reproduced background music, to sit by the fire and hear sound coming from the far end of the room via the rear speakers. Provided the latter could be of sufficient size and quality not to seem too weak in the bass (although the necessary corner mounting might help here—albeit somewhat bumpily), it seemed an obvious ploy to use them as alternative 'main' speakers.

A simple and happy solution? Not quite. Firstly, how does one reliably switch the two pairs of speakers between their two functions? Do you know of an 8-pole 2-way switch with self-cleaning wipers which will carry a current range of 1mA to 3A and maintain a resistance of less than 0.25Ω on all 16 contacts for years on end—and is of domestic proportions? Eight poles? Why not common the neutral returns and do all the switching on the four live feeds? Well, one ought really to have separate returns for the main speakers, while the Hafler pair may or may not need a neutral connection, depending on possible blending arrangements. Also, any variable resistors used for controlling the difference-signal loudness must be switchable if one wants a truly reversible system. However, by accepting a degree of compromise the task can be performed with only four 2-way switches, the snag then being that the stereo image on the rear speakers will be reversed when one turns round to face them. But perhaps we can use swivel chairs adapted to operate the amplifier's channel-reverse switch via remote radio control!

Let's start again. Why not simply connect both left LS 'lives' to the left amplifier and both rights to the right, common the two front returns and (separately) the two rear returns, then simply throw a single switch to earth one or the other? This would reverse the speaker functions without any fuss, but offers no control over Hafler loudness and is therefore of limited application. It certainly wouldn't suit us or solve our particular problem, and the wretched image is still reversed when using the rear speakers for direct stereo. All right, let's put up with the reversed image, and by foregoing ambience enhancement from the front we could get away with a mere 2-pole switch. Well, perhaps not—as we said, geography and architecture are very important. We must order a multi-element array and some special 8-pole switches.



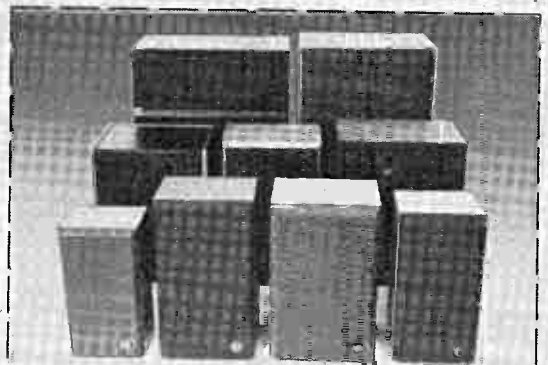
# UP TO £1,154 A PAIR. AND BEAUTIFUL ON THE EARS.

For forty years, we've been famous in the States for our speakers. Perfecting sound reproduction to a fine art. Which is why professional recording studios and musicians there have made us the No.1 choice.

We've progressed far beyond the basics of audio engineering into the realm of psycho-acoustics, to study how people perceive what they hear. Resulting in speakers that make listening easier.

Now, in Great Britain, our range of speakers is available for your Hi-Fi system at home. Priced from £128 to £1,154 a pair. Beautiful on the ears and on the eyes, too.

Post the coupon for a list of Altec Lansing dealers and for our detailed brochure.



I'd like to hear all about Altec Lansing.

Name

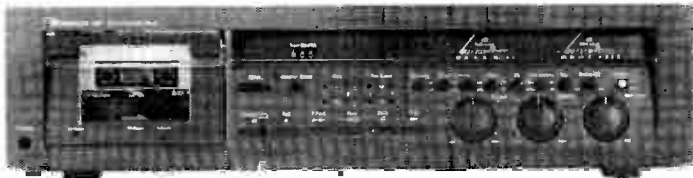
Address

HFN3

To: Highgate Acoustical, 38 Jamestown Road, London NW1 7EJ.



## Heads it's Nakamichi



Progress in cassette recorders has always been won at a considerable cost to the buyer, although the technical innovations of some years ago are not regular features on modestly priced machines of today. A recorder that not only contains technical innovations, bringing an audibly better performance, but also does this at a lower cost, is unusual.

This is the commercial profile of the latest cassette recorder to emerge from Nakamichi. Called the Model 580, it features a new mechanism comprising a diecast aluminium chassis, damped against the transmission of vibration by 40 special plastic inserts; three motors, one for wind, another for capstan drive, and a third to replace the solenoid formerly used to engage the tape heads and pinch wheels. Dual capstan drive is used, but even this is unusual in that the capstans, pinch wheels and flywheels are of different diameters.

These features and the damping of the sub chassis have considerably reduced wow and flutter effects by spreading the individual component resonances over a broader band. Although the overall weighted measurement shows little change from earlier mechanisms, the changes do show up on narrow-band spectrum analysis and in the audibly reduced modulation with recorded signals.

Although the Model 580 is not designed for use with the new metal powder tapes, it has benefited from the development work already in progress for a new model having this facility. Surprising improvements in sound quality have been obtained from a new design of erase head. During early experiments to test erase heads on metal tape, it was noticed that the sound of tapes which had been recorded on, fresh from a bulk eraser, and with the erase head disconnected, was considerably better than when a previously recorded tape was re-recorded after being passed over the test erase head. Checks on the erase efficiency, using weighted noise measurement instruments, revealed that there was little difference between the noise level from a new tape and

that of a previously recorded and machine-erased one. However, spectral analysis revealed that the noise energy at lower frequencies was considerably greater on the machine-erased tape, even though all trace of the original signal had disappeared. Nakamichi concluded that this noise, intermodulating with the signal, was responsible for the audible differences.

Further tests with conventional tapes showed that the same effect could be observed and that it was worth designing new erase heads for all cassette recorders in the new range. Efforts to improve the erase efficiency of conventional heads, using improved core materials and by raising the current in the head winding, simply resulted in a dangerous increase in temperature. The solution was to design the new head as a transformer in which the primary consisted of a toroid wound around a plate-like single turn of conducting material.

The large turns ratio obtained produces currents of up to 10 amps in the secondary, but its low resistance and comparatively large radiating area keep the temperature down. Most magnetic materials will saturate under these conditions, so no conventional magnetic core is provided. Instead, the secondary winding is led down across the tape and in contact with it so that the directly generated flux passes into the tape. Magnetic shielding is provided around the tip of the head and saturation is avoided by two small gaps either side of the conductor.

The efficiency of the head is such that it will erase all tapes to bulk erase levels, but external adjustment has to be provided for the positioning of the head over the width of the tape to avoid partial erasure of adjacent tracks on the other half of the tape!

Due to computerisation of the production line, and a tightening-up of component tolerances, the new machine can be made at a lower cost than any other Nakamichi product: the Model 580 will retail at approximately £400. More expensive machines having even better performances are to be expected in due course.

Basil Lane

## Leeds Exhibition

Superfi are sponsoring the Leeds Spring hi-fi show on 30, 31 March and 1 April. The exhibition is showing ranges of equipment by, among others, Aiwa, JVC, Pioneer and Yamaha as well as smaller companies like Celef, Mission, RAM and STD. The venue is the Metropole Hotel, King Street, and the opening hours: 5-8 p.m. on the Friday; 11 a.m.-6 p.m. on the weekend days. Admission free.

## Infinite wisdom

California-based Infinity Systems is one of the largest and most successful manufacturers of hi-fi equipment in the States. Well, we all know that. What we may not know, though, is that they recently established UK headquarters and a distribution company, Infinity Systems (UK) Ltd, as well as a speaker assembly plant 'within the EEC'. New products are on the way too, and some of these are scheduled to be shown at Cunard in April. It's looking good. Infinity Systems (UK) Ltd., PO Box 14, 17 St. Martin's Street, Wallingford, Oxon. OX10 0EB. Tel: (0491) 37353.

## Dynavector Diamonds

Paying the UK a fleeting visit in January was Dr. Tominari, designer of the Ultimo range of moving-coil cartridges, some of which, particularly the budget high output 10X model (which has recently had its compliance reduced to make it more compatible with high-mass arms) have gained wide acceptance as reliable high quality 'workhorse' cartridges. At a seminar hosted by Condor Electronics, UK Ultimo distributors, Dr. Tominari outlined his design ideas and philosophy, most interesting of which were his ideas on signal propagation via the cantilever to the generator. Whereas it has been widely believed that propagation is via longitudinal waves, ie, along the major cantilever axis, he believes that it is via transverse waves. The major difference is that the velocity of transmission for longitudinal waves is proportional to the square root of the ratio of Young's Modulus (ie, stiffness) to density. However, with transverse waves, this velocity is also proportional to the root of the cross-sectional area and inversely proportional to wavelength. Hence differing frequencies travel up the cantilever with differing velocities, leading to an inability to preserve pulse and transient information particularly. (Some evidence in

support of this idea came at last year's Shure seminar where the cantilever appeared to be more flexible with increasing frequency).

To minimise this 'divergence' effect, to draw an analogy with optics, Tominari puts forward a number of design aims and some of these, increased stiffness and cross-sectional area and decreased length, were incorporated into an experimental prototype he demonstrated at the seminar. Using a 20C body, the cantilever is constructed from a 2.5 mm long diamond rod bonded to the stylus at one end and to a 0.8 mm square armature, 1/7 mass of the 30 series armature, at the other. Single crystal cantilevers are not new; Ultimo and Signet have used Boron and Beryllium, Technics Titanium Boride and the new B & O uses a single sapphire crystal; but this is the first, we believe, with a diamond rod. We were treated to a lengthy listening session with the experimental model, a 10X and a 30C mounted in the mammoth biaxial Dynavector DV505 arm on a Rega deck feeding the Dynavector valve amps and Klipschorns that Condor normally use at exhibitions. Impromptu listening sessions are not the place to form definitive opinions, but what we heard certainly went some way to convince us of the efficacy of Dr. Tominari's ideas. Incidentally, with some authorities in the States getting very worked up about the audible effects of lateral and vertical tracking errors, it was interesting to hear that Tominari doesn't believe that these errors are that important; while they do exist, they are minor compared to the other aberrations present in the cartridge/disc interface. An interesting point we omitted from our 'News' item on the Ultimo 30 range (January, p. 55) is that in contrast to some European manufacturers who buy stylus/cantilever assemblies from Japan, the Japanese-made 30C uses a German 'Paroc' parabolic-profile stylus.

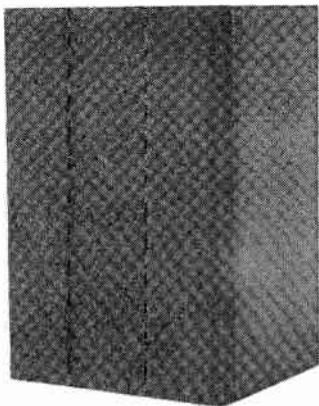
## Naffs & Gaffes

CBS 76638, Brahms 'Deutsche Volkslieder' (reviewed January, p. 115) does in fact have a trilingual text sheet, despite our information at the time of review. And on p. 91 of our February issue, Arthur Jacobs referred to Haydn's *La Fedelta Premiata* (Dorati) as 'DG 6707 028'. You may have spotted (Philips did: thanks, Philips) that this is not a DG number. The set is in fact Philips 6707 028.



## Ceol Speakers

New from across the Irish sea are a loudspeaker range from a company, Ceol Products, who intend that their products will complement a small number of respected hi-fi components—they quote Linn Sondek, Naim, A & R, Edinburgh Wireless Co. and Nytech. The first speaker to appear, the PSL 5:15, follows the latest Japanese practice in having an aluminium enclosure. Measuring only 22.2×14.6 cm, they use a treated 110 mm woofer and a 10 mm HF unit, and are intended to stand at least 18 in. from walls despite their small size. Aimed at the top end of the market, the PSL 5:15 will be available from selected retailers and the RRP of



£288 (inc. VAT) includes stands and XLR-type connectors. Further details from Ceol Products Ltd, Swanville Place, Rathmines, Dublin 6, Ireland.

## Audio Pro Subwoofer

The dust has settled somewhat since Harrogate '77 when it seemed that everyone and his uncle introduced a common subwoofer into their product ranges. For various reasons, all but a few are now keeping a very low profile, but the fact remains that a common bass unit, operating below a sensible crossover frequency, is the cheapest and perhaps most domestically suitable way of obtaining those lowest two or so octaves, as well as minimising any LF vertical-cut signals—pressing rumble. Arousing some interest at the Manchester show (see report p. 64) was a new active subwoofer, the B2-50, from Swedish firm Audio Pro. Designed by Harl Erik Stahl and the subject of a paper presented at the New York AES convention in November, the new unit uses an amplifier having a specially tailored output impedance characteristic to control cone motion. This, of course, is reminiscent of the motional feedback principle, but whereas that would compensate for a falling LF response but applying extra amplification with an inherent increase in mechanical distortion, the new principle—ACE-Bass (Amplifier Controlled Euphonic Bass)—varies, electrically, cone and coil parameters such as inertia and damping, in order to optimise frequency response and distortion. Somewhere we have a faint memory of a very old RCA valve amp which could have a negative output impedance, but ACE-Bass seems to be a very interesting advance. (The electrically-synthesised parameters, by the way, act as though they are real, only disap-

pearing when the amp is off.)

Only one ACE-Bass is required and it can be used in two modes: either summing the output from left and right speaker outputs, in which case the bass unit has a falling response of 12 dB/octave above a variable cut-off frequency which is adjusted from 40–200 Hz to be the –3 dB point of the ancillary speakers which still act full-range; or taking the preamp signal and then feeding the power amp with a signal falling off at 6 dB/octave below the crossover point, the bass unit again rolling off at 12 dB above it. The B2-50 can be left on or it can be switched to turn itself on upon reception of a music signal. We hope to be reporting on the B2-50 in a future *HFN/RR* but the provisional spec. is pretty impressive: response 20–200 Hz +0–3 dB; maximum spl of 100 dB at 1 m in  $\frac{1}{2}$  space; distortion of 2% at 96 dB from 20 Hz to upper cut-off point. Second harmonic distortion, in particular, is minimised by the use of two drivers operating in push-pull, an idea advocated many years ago, we believe, by Hugh Brittain. Further details can be obtained from Audio Pro (Hi-Fi) Ltd, Brook House, Crewe Road, Wheelock, Sandbach, Cheshire.

## Going Round in Circles

We have previously reported (April '78, July '78) on the long-running legal dispute set between the late Hamish Robertson, Fergus Fons Ltd (in liquidation) and Jack Tiefenbrun, which has centred around the grant of British patent no. 1 395 611 to Tiefenbrun. This patent claims monopoly on a point-contact spindle bearing as used in the Linn turntable.

Grant of the Tiefenbrun patent was opposed by Fons and Robertson on several legal grounds, and in a Patent Office decision issued in early 1978, grant of the patent was refused. Tiefenbrun then appealed to the Patents Appeal Tribunal and the original Patent Office Hearing Officer's decision was reversed so that BP 1 394 611 was, after all, granted. During the course of both the hearings, harsh words were uttered concerning the reliability of some of the crucial witnesses. There was particularly strong criticism in the second hearing of the evidence given by Hamish Robertson, who was by then dead and thus unable to reply to any such criticism. Doubtless largely as a result of this situation, an attempt was made to air the matter further by lodging an appeal to a higher court. This presented two problems. Firstly, a further appeal could only be lodged if there could be shown to be grounds for contesting the previous decision on a point of law; secondly, with Fons in liquidation and Robertson dead there were no funds to pay for the appeal.

On the point of law, special arguments in favour of a further appeal were entered direct to the High Court which then granted special leave for appeal. Subsequently, and in what may well be the first ever case of its kind, the representatives of the late Hamish Robertson succeeded in securing legal aid to pursue the appeal for which leave was granted. The appeal case went to court in late October 1978 and was heard by three judges, Lord Justice Buckley, Lord Justice Goff and Lord Justice Eveleigh. For two days the ashes of the past two decisions were raked over and subsequently there was equally lengthy discussion on who should pay the legal costs involved. The outcome was that the previous appeal decision, by Mr. Justice Whitford, was upheld. This means that the Tiefenbrun patent remains granted. It was also decided that Tiefenbrun should receive an award of costs to be paid for out of the legal aid fund, provided that the Law Society did not exercise its option to lodge an objection against this award.

In the context of past misunderstandings over what has transpired in and emerged from the lengthy and complicated court proceedings on this dispute, it is important to place firmly on record the fact that the most recent appeal was *not* a re-investigation and/or reappraisal of the rights and wrongs of the matter. It was simply confirmation that the PAT judge Mr. Justice Whitford (who

reversed the original decision and allowed grant of the Tiefenbrun patent) was acting within the law when he reached his conclusion on the basis of written transcripts of evidence previously given, and without seeing and hearing the witnesses for himself.

For anyone interested in the whole laborious and tedious proceedings, they are available in a written transcript (Court of Appeal Nos. 9 and 11 of 1978) but essentially the points at issue and resolved were as follows: In the original Patent Office Hearing there was 'an acute conflict of evidence' which led to a decision against the Tiefenbrun patent. In the first appeal the judge (Mr. Justice Whitford) re-appraised the evidence previously given and came to a different conclusion solely on the strength of the written transcripts of that evidence. The point raised by Robertson's representatives for the second appeal was that there can be a different interpretation put on evidence as given orally from a witness box and that same evidence when reduced to a written transcript. Few people would argue that the spoken word can lose impact, or change meaning, value and innuendo, when transcribed to print. Hence, it was argued, Mr. Justice Whitford had been wrong in law to come to a different conclusion based only on written transcripts of spoken evidence. Notwithstanding such arguments, the three appeal judges agreed, and held, that the previous judge had acted in a perfectly proper manner according to law; was entitled to reconsider the evidence in written form only; and to make up his own mind and draw, as he did, a different conclusion from the Hearing Officer who had physically heard the evidence and seen the witnesses. There was thus unanimous agreement by the three appeal judges to uphold the decision and allow the Tiefenbrun patent to proceed to grant. In the light of this decision, and the fact that Tiefenbrun had been obliged to defend his case in court, it was clearly equitable for an award of costs to be made to Tiefenbrun out of the legal aid fund. Unless an appeal is now lodged at the House of Lords (which surely would be a waste of time and money for all concerned) the matter, hopefully, will now be allowed to rest in peace. *Adrian Hope*

**Headphone amp:** An important point about the Linsley-Hood design is that the power transistors are heatsink-mounted (mica washers, etc) and connected to the pcb via flying leads.

# After much internal introduce our two



For many years the name Akai has been synonymous with hi-fi tape recorders and cassette decks.

Justly so.

We invented a synchronous motor that keeps to a constant speed, despite fluctuations in the power supply.

We designed bearings for our motors that retain oil in the metal and don't need constant servicing.

We built a three motor cassette deck to cut down complex switchgear.

We even developed a material for tape heads with more than a hundred times the normal life.

Yet still the argument raged within our factory.

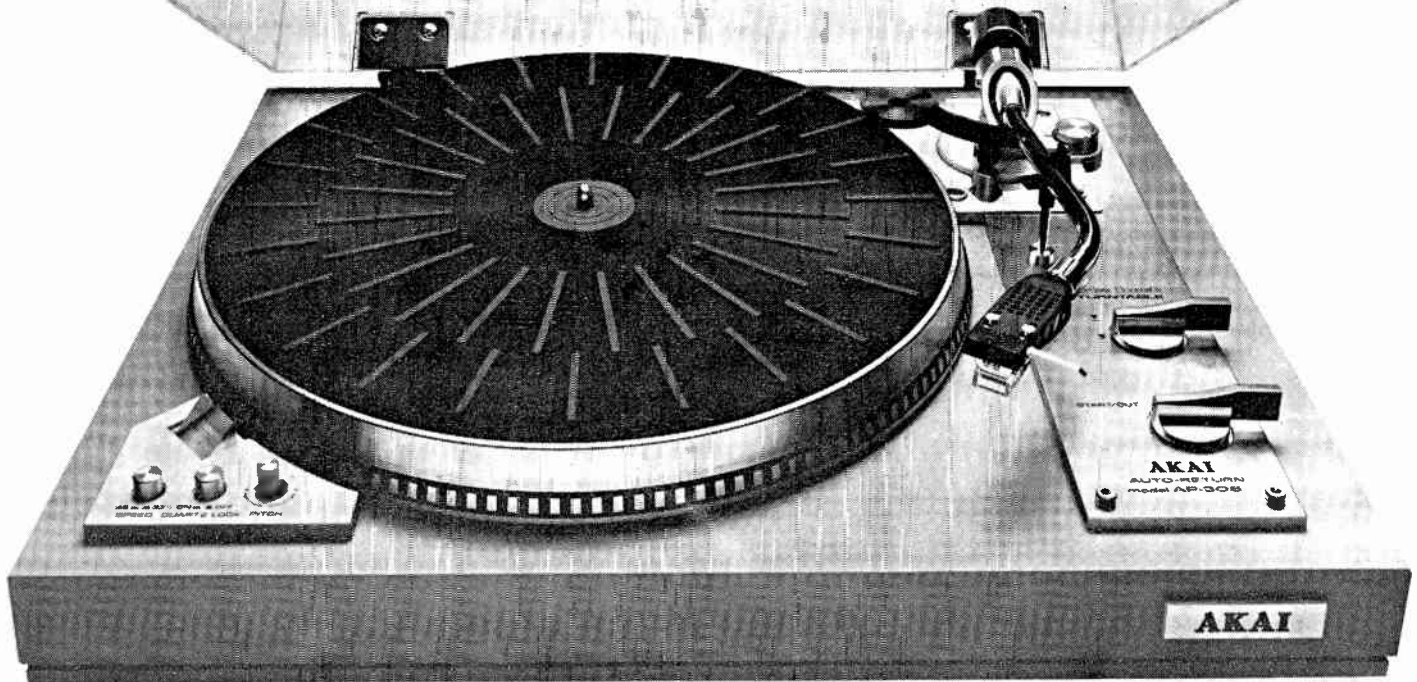
On the one hand we had a total commitment to tape, firmly believing it to be the superior method of reproducing sound.

On the other, we made nothing for Akai enthusiasts who could obtain their favourite music only on record.

Finally we arrived at a typically Japanese compromise.

We took everything we had learned in twenty five years of tape recorder development, and we applied it to the task of developing a pair of turntables.

# argument, we proudly new Hi-Fi turntables.



We incorporated our synchronous motors with their oil-retaining bearings.

To design the tone arms we used all we knew about springs, balance weights and dampers.

We applied our precise die-casting techniques to achieve a perfectly balanced platter.

And only when the sound thus reproduced came within a hair's breadth of that of our tape decks did we introduce our first pair of turntables.

Even then we were not completely satisfied. And so to ensure our next turntables ran at exactly the correct speed we adopted a direct drive synchronous motor with precise strobe-pitch speed controls.


As a result our new semi-automatic AP206 and quartz-locked AP306 don't just benefit from our twenty five years experience of tape decks.

They also benefit from our four years experience of turntables.

**AKAI**

**'Have responsibility for and pride in what you make.'**

FOR FURTHER INFORMATION WRITE TO: RANK HI-FI, P.O. BOX 70, GREAT WEST ROAD, BRENTFORD, MIDDLESEX TW8 9HR.

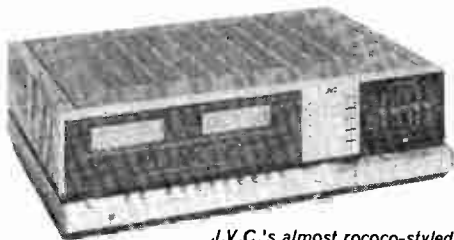
Turntables shown fitted with available Akai PC100 cartridge. 

# Hi-Fi in Manchester

Ivor Humphreys & John Atkinson brave the blizzards & report back from an important regional show

Not only its third year, the Hardman Radio sponsored North West show has surely become one of *the* audio events in the UK calendar. The success of the show this year could be gauged from the many comments heard to the effect that it is now considered at least the equal of the Cunard spring show and second only to Harrogate.

It was certainly hectic during our brief stay on the two weekdays, so Heaven knows what it would have been like if the weather had been anything less than foul. Of course the show was swollen by the inclusion of this new-fangled video thing—fascinating, and yet even the most casual observation of that arena was enough to convey the clear impression of a cut-throat race between the various, totally incompatible (naturally!) systems—a familiar story, that. The nitty-gritty for us, though, is audio of course, and there was a bewildering amount of that about. Most of the big Japanese heavies were out in force again, their rooms (and most of them had several) literally bulging with the inevitable over-kill of brushed aluminium, anodised black, fancy meters and countless knobs (although perhaps nothing can differ so much from this philosophy as the new JVC receiver range);



*J.V.C.'s almost rococo-styled JR-S501 receiver—125 wpc and a graphic equaliser.*

vast arrays of the new and the newer (often much the same as the new, only wearing tomorrow's cosmetics). There was also a smattering of the smaller, specialist firms, though not as many as at Cunard last autumn.

The strongest British representation was, not surprisingly, from speaker manufacturers. Goodmans were showing their nicely finished Achromat, HE and RB ranges, while Celestion's new Dittons were also creating a good deal of interest. Very much a family, as the demonstration revealed, all three speakers use the same tweeter and have at least one other driver in common with one of the other two designs (if you follow!) The Wharfedale and Leak ranges were very much in evidence too, with the former's XP2 series on comparator. Their Teesdale, Dovedale and E series designs, together with the Leak 3000 series, were all there for the listening.

Castle Acoustics are from the same neck of the woods as Wharfedale (the North) and we were struck by the superb finish of their loud-speaker cabinets, made, as are the drivers, by

themselves. On show were their new competitively priced reflex Kendal II 2-way and Conway II 3-way models which are available in real wood veneers, including a very nice oak. The KEF rooms attracted the crowds wanting to hear the new 'budget' Celeste III and Concord III models. Both covered in a wraparound fabric, they use, unusually, a Son-Audax soft dome tweeter with one (Celeste) or two (Concord) 200 mm bass units. The Concord was very impressive for its £165 per pair and has an unusual crossover in that the bass units operate in parallel at LF but the lower unit is progressively rolled off so that only the upper one is operating at the tweeter crossover frequency. Stands for the new speakers are available for £18.50 per pair.

Among the nicer sounds at the show were the Mordaunt Short Signifiers; the legendary electrostatic KLH9s having what seems to be their annual airing and being driven by two TVA 1s; the Mission range; and the Gales, virtually unchanged now after nearly 6 years. There were rumours, though, of a new small Gale speaker to appear sometime in the future. Monitor Audio had their prototype MA2 on dem; a 3-way design using a SEAS hard-dome tweeter and a very JBL-ish woofer, which will retail for around £299 plus VAT. The cabinet sides continue down to the floor, forming an integral stand, and it is certainly a handsome device. They were also showing their new Mini-monitor bookshelf design. While on the subject of home-produced audio, there is now a nice-looking and sounding integrated amp from Sussex firm Enigma Audio. Rated at 45 wpc, the Variation 4 represents good value for £191 inc. There is also now an Enigma 100 wpc power amp which has the amp section and psu in two separated boxes to avoid hum and noise problems.

The Enigma amps were driving the idiosyncratic Allison speakers in the Audio Pro room. Audio Pro are making a determined effort to dent the hi-fi market; their micro-processor-controlled TA150 receiver attracted a great deal of public interest as did the ACE-Bass module (see 'News' p. 61). Another receiver attracting the punters was the splendid-looking Nakamichi 730 in the Natural Sound Systems room. Very much state-of-the-art and distinctly European in styling, it features 105 wpc at 0.02% THD and has four FM station presets as well as continuous tuning. Most fascinating is the remote control device to control all functions, including tuning which is carried out by an electric motor driving the variable capacitor. Price will be around £1000 with the remote control costing another £120 and we hope to be examining both it and the Audio Pro in more detail in a future issue. Other new Nakamichi products include the £400 580



*The stylish new KEF Concord III which should be a best-seller.*

cassette deck (see 'News' p. 59) and the 530, a more conventional receiver at around £500.

Although there were no really startling innovations on the turntable/arm front (apart from the one-off Michell 'double' turntable with a free-standing arm mount—lummocks!—in the Webland/KLH room), a large number of recent designs were on show.

Akai's AP206 and 306, the Garrard DD130 and models by Micro Seiki, Denon, ADC, National Panasonic and Technics typified the direct-drive approach, while Dual, Pioneer and Philips were also showing some interesting belt-driven contenders. The new 4-, 6-, 8- and 977 Philips designs seem to offer a lot of good-sense engineering for modest prices. Electronic feedback from the platter controlling the motor instead of the former tachogenerator on the motor itself has improved the performance, while the simple platter/arm suspension comprises three quasi-leaf springs. Trade visitors to Philips' inner sanctum were given a preview of new models due to be launched in the spring: impressive-looking separates, similarly styled to the AH range (eg, a preamp with a sort of illuminated 'flow chart' of its functions) and the modestly priced 20 wpc rack-mounted 590 system. Thorens had their new TD104 and 105 belt-drive turntables in the Metrosound room. These make extensive use of ABS in their plinths and depart from the Thorens tradition of using a suspended sub-chassis, although we are assured that acoustic isolation is up to the standards set by past designs. The mains transformer is housed in the mains plug which, if you think about it, must be the most sensible place.

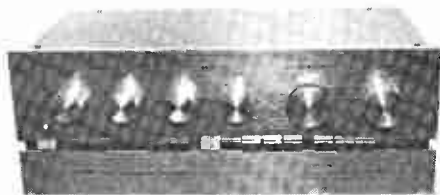
It was good to see Eumig there and for many this must have been their first encounter with the elegant Metropolitan Concert Centre. Eumig are now importing Denon, of course, and the room devoted to that equipment was producing some particularly rewarding sounds via their PCM discs and KEF 105s (several pairs of these in evidence around the show). In addition to their latest turntables and music centres, Garrard were again demonstrating the MRM-101 Music Recovery



Module, and displaying its effects on a dual trace storage 'scope. The 900 series of cartridges from the revitalised Goldring company, including their latest—G900/E—were on show and their demonstration was via Quad equipment.

Sansui had several new products, the E-401 and E-301 receivers (the latter replacing the E-300), the AU-919 100 watt amp, TU-517 tuner (now being imported to match the AU-517 amp), the ES-P301, ES-P303 and ES-P305 European manufactured speaker and the J-11 aluminium-boxed two-unit design. Particularly inviting is the TA300 40 watt receiver with its large illuminated scale and clean, functional look. This is expected to be available here by April. Neal/Ferrograph were proudly demonstrating the now familiar open-reel and cassette recorders, the Logic 7 and 302 attracting a justifiable amount of interested attention (well, the 302 does represent the first time they've actually let the aesthetics chaps have a say). Tandberg, soldiering on despite the recent difficulties in Norway, had their complete range on show, including the splendid 20A open-reel recorder and the new TCD 320 cassette deck which replaces the 310 Mk II. From Sharp there is a new separates system, the 2200 series comprising a belt-drive record deck, front-loading cassette deck, MW/LW/FM tuner and 20 wpc amp with an optional racking system to match. New from Pioneer were receivers (well, fairly new), a new belt-drive turntable, the PL 512 which offers 'direct-drive performance' (how the pendulum swings!), amplifiers and tuners. Their CTF 900 microprocessor-controlled cassette deck is an extremely elegant piece of (over-) functional design.

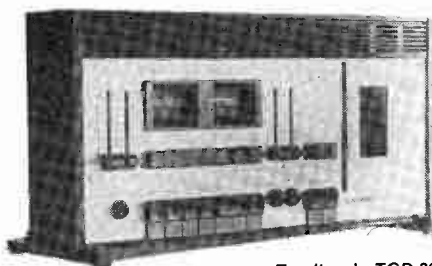
Toshiba seem to be cornering the market in electret technology and, at long last, had the Aurex electrostatic cartridge on show, which should be reaching the shops this Spring. It produces an output of around 30 mV with a response of around 14 Hz–100 kHz and has to be used with a matching equaliser/preamp which gives an output of 150 mV. The combination will sell in the region of £200. Their Aurex microsystem, the smallest set of components yet to hit these shores, was somewhat anomalously driving a large pair of JBL-ish monitors. Toshiba speakers are apparently starting to be used by studios in the States in preference to the home-grown article and Toshiba are investigating the possibility of bringing them into the UK. They also have a range of British-made speakers ranging from the SS-45GB at £109.50 per pair, to the SS-100GB at £189.50. While on the subject of electronics, the JVC graphic equaliser is one of the most useful to appear. While ostensibly an octave model, each band has a choice of three centre frequencies so that you have, in effect, a  $\frac{1}{3}$ -octave equaliser, much more useful for dealing with room effects.



The tasty Denon PRA-1001 control amp.

Audio Technica also had electret-based equipment on show; in their case, some very tasty-looking headphones. They also had what must be the ultimate in hi-fi pernicketyness—Litz wire cartridge-to-headshell straps. These have been available from a number of manufacturers in Japan but we never thought we'd see the day that the level-headed British consumer would succumb to such gadgetry. We are sure that the improvement noted by people using these straps must be due to the incidental cleaning of contacts that takes place when you change any lead—we are waiting to be convinced.

The Manchester show seems to be the place where Hitachi introduce the fruits of their designers' recent labours. Two years ago, they had Uitorque decks and Dynaharmony amps; last year the power MOSFET; and this year we heard news of a class-G, ie, Dynaharmony MOSFET amp. There will also be a MOSFET integrated amp which will have a very competitive price. The Hitachi



Tandberg's TCD 320.

metal-cone speakers were attracting interest, and are apparently starting to sell after a slow start. Interesting to note that their patented pleated surround idea has been used under license by Goodmans, who are applying it to their new Achromat range. Hitachi also are active in the cassette market and will soon be introducing a 3-head deck, again competitively priced, which uses their 'siamesed' head with a much smaller record/replay gap separation than previously and 'unitorque' reel motors. Other new Hitachi decks feature fluorescent metering, with the inherent improvement in ballistics, and variable bias. Harman UK are now very actively involved in cassette units since the acquisition of the TEAC distributorship, and of course they handle the new Harman Kardon decks as well. Rumours reached us of a soon-to-be-introduced TEAC cassette deck with *simul-sync*, a boon to the home recordist who can't afford a Revox, and there is a new version of the best-selling TEAC 4 channel open-reel machine. The sounds in the H-K room were certainly to a very high order, and we listened to the superbly produced and engineered 'Dire Straits' album (which must have been the most played record at the show) via Ortofon MC30/T30/Micro Seiki DDX 1000 into the low negative feedback H-K 670 receiver and JBL 110s with some enjoyment. We found the new Tannoy range very impressive and they are very well finished. Aiwa are also best known for their cassette technology and this was reflected in the fact that their latest amplifier, the 75 wpc AA8700, which matches the AT9700 tuner reviewed by Gordon King last month, has inputs and dubbing facilities for

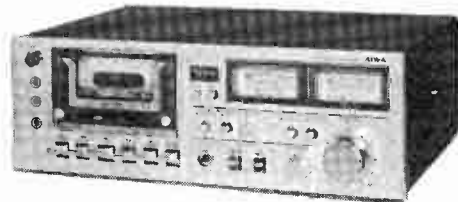
no less than *three* tape machines.

Rotel had four new amplifiers, five new tuners, racking systems and their 2000 series of matched separates. AR were there with their 'stack' and the AR9s which had a room to themselves and were providing enough bass to satisfy even the most ardent freaks. Grundig were there; Trio had the latest version of their 'high-speed' amps; and, of course, National Panasonic and Technics, Sanyo and Sony, all showing their huge ranges, all with their special merits and all geared up to cater for their own particular devotees.

Where *does* it all go, though, one wonders? The big manufacturers race ahead in an (apparently worthwhile) attempt to outdate each other—it's a pity they're all such good



The ADC 1700 DD deck which must be one of the best-value combinations around offering, as it does, an XLM cartridge and an aluminium armed version of the ADC arm for only £129.00.



The new Aiwa AD 6600 2-head deck with an impressive spec.

runners. If only one would win we could all slow down a bit and, keeping both feet on the ground, elaborate on the few really genuine innovations without being bogged down by endless shopping lists of the barely newsworthy. Enough of this journalistic self-pity, though. Sound and Video '79 itself must be counted as a big success. It was well organised, well supported and very well attended despite the weather. It all bodes very well for the future and Hardman Radio must be very pleased. ●





**STAX**  
We Speak The Truth

# Top of our pops

## The Stax SR-5.

For a long time now, the SR5 has been the top selling electrostatic earspeaker from Stax.

The latest version comes complete with the new SRD 6SB self-energiser, kept separate so that the earspeaker sits lightly over your ears.

The headband is individually adjustable so that even after prolonged listening, you are almost unaware of wearing a headphone.

Reproduction, is of course, everything you expect from Stax.

Listen. You just *have* to listen.

The Stax range of earspeakers include the Sigma (£259), the SRX Mk 3 (£174) the SR5 (£112)

and the SR44 (£76).\* Also available are the Stax UA7 pick-up arms. For free leaflet and list of stockists please write to:

\*Prices are suggested and include supply of appropriate energising unit and VAT @ 12½%.

Please send me the latest literature on the Stax range of earspeakers and the UA7 pick-up arms.

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

Wilmex Ltd., Stax Division, Compton House,  
New Malden, Surrey KT3 4DE Tel: 01-949 2545

HFN 379



# Positive Feedback

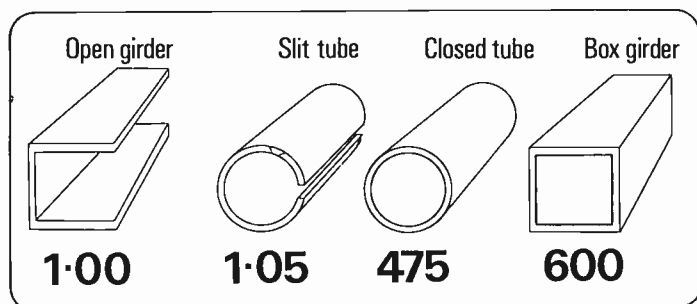
## Pickup Arm Rigidity

I HAVE been very interested in all the talk of the sound of pickup/tone-arm/turntable combinations, and a little diagram I have had pinned up in my lab/workshop for many years seems to be very relevant to these discussions. I wonder if you would like to publish it, as I am sure it will be useful to designers (of all sorts of things, incidentally) and reviewers alike. It is, of course, only standard engineering knowledge, but we can all benefit from timely reminders (or reassurance) now and then.

Incidentally, the figures always amaze me. I've had this cutting so long I'm not sure where it came from, but it may well have been from a motoring magazine around the late forties and concerned car chassis torsional

stiffness. Paul Messenger recently mentioned the separate plug-in headshell—he's right, as that is an open girder. Why can't one terminate the back end of the pickup cartridge with a standard plug-in pin arrangement (instead of the awkward little tags and fiddly wires we now have) to go direct into the arm, with a locking ring if desired? Then you've got a rigid closed box structure all the way. It will mean a big enough arm manufacturer and ditto PU concern to get together and start a new standard. But then think of the other advantages: less weight, fewer piece parts and fewer fiddly processes.

Ralph West,  
Columbié,  
Dévillac,  
47210 Villeréal,  
France



Relative torsional stiffness of various girder sections

## Dummy-Head Stereo

MENTION of a new patent on dummy-head stereo in your December issue (p. 101), reinforced by the brief article on a dummy-head system in January (p. 61), reminded me of a visit made to the Heinrich Herz Institute in Berlin in 1975, where the work on dummy-head stereo that was demonstrated awakened a feeling that I should become more involved. It was also at this time that I was responsible for the acoustics group at the Hirst Research Centre of the G.E.C, which gave me a very good opportunity to clean up the microphone end of my system.

My first impression of dummy-head stereo was that loudspeakers had had their day, especially since it was becoming possible to use cordless headphones. Anyone putting on headphones for the first time with a dummy-head signal is struck by the impression that he is entering the place in which the original sound was recorded. The results can be very very impressive indeed.

However, after the initial surprise one gets down to the problems that one must encounter as a normal music lover. That is that one cannot collect *only* dummy-head records since there are very few available; and those that you do collect you will want to play over loudspeakers on some occasions, for social reasons. The problem here is that dummy-head records played on loudspeakers are little better than mono over two speakers. This is because the microphones are both close-spaced and near to omni-directional,

resulting in near-equal signal levels regardless of direction, nearly all the spatial information being carried by the small *time* differences between the two microphones.

It was therefore with great interest that I noted your December report of a Dutch patent using *two* dummy-heads in order to overcome this, and which prompts me to offer those interested the benefit of my own work in this field, since it can easily be used by most people interested enough to try it. I would also not like to think that someone else might try to patent my method of dummy-head recording.

If one uses dummy-head microphones to record sound sources that are equally spaced all round the microphones, when played back the listener will usually have a bias towards placing sounds behind him. This is because hearing is very complex and can be demonstrated to rely to some extent on reinforcement by the visual image. It is this fact that makes it very difficult to produce completely convincing recordings, although the extra information required by the brain is small and can be given in the form of a picture shown for only a few seconds.

To offset this effect I use a third microphone placed between the other two pressure-operated microphones normally used for dummy-head recording. My third microphone is a velocity-operated type and hence changes phase between front and rear. By adding the signal from the third microphone to that of the other two in equal proportion, I can enhance

signals from the front of the dummy-head and reduce signals from behind. It must be emphasised that microphones with very level frequency responses are required for this to work well. My next move was to move the third microphone a small amount forward. This has the effect of rearranging the directional properties to produce a result more like a pair of angled cardioids. The result is a recording that plays well on both loudspeakers and headphones.

If one considers the interference pattern produced when adding the signals in the way described, it can be seen that only signals from one particular direction for each microphone pair will add in the correct phase relationship at all frequencies. This results in an uneven frequency response for other directions of signal. I believe it is this that enhances the stereo impression heard on loudspeakers with this arrangement. Although I have not made the experiment, I see no reason why two velocity and one pressure operated types of microphone should not be used to obtain similar results.

Whilst the method described does sacrifice a little in the ability to give exact placement when played over loudspeakers, the resultant sound is generally agreed to be as pleasing as normal stereo. Another point of interest is that I have found with this method that an actual dummy-head is not necessary, but, to compensate, the pressure operated microphones should be moved further apart. I use a spacing of 14 in. between the pressure-operated microphones, with the velocity microphone in the centre but moved forward by 2 in.

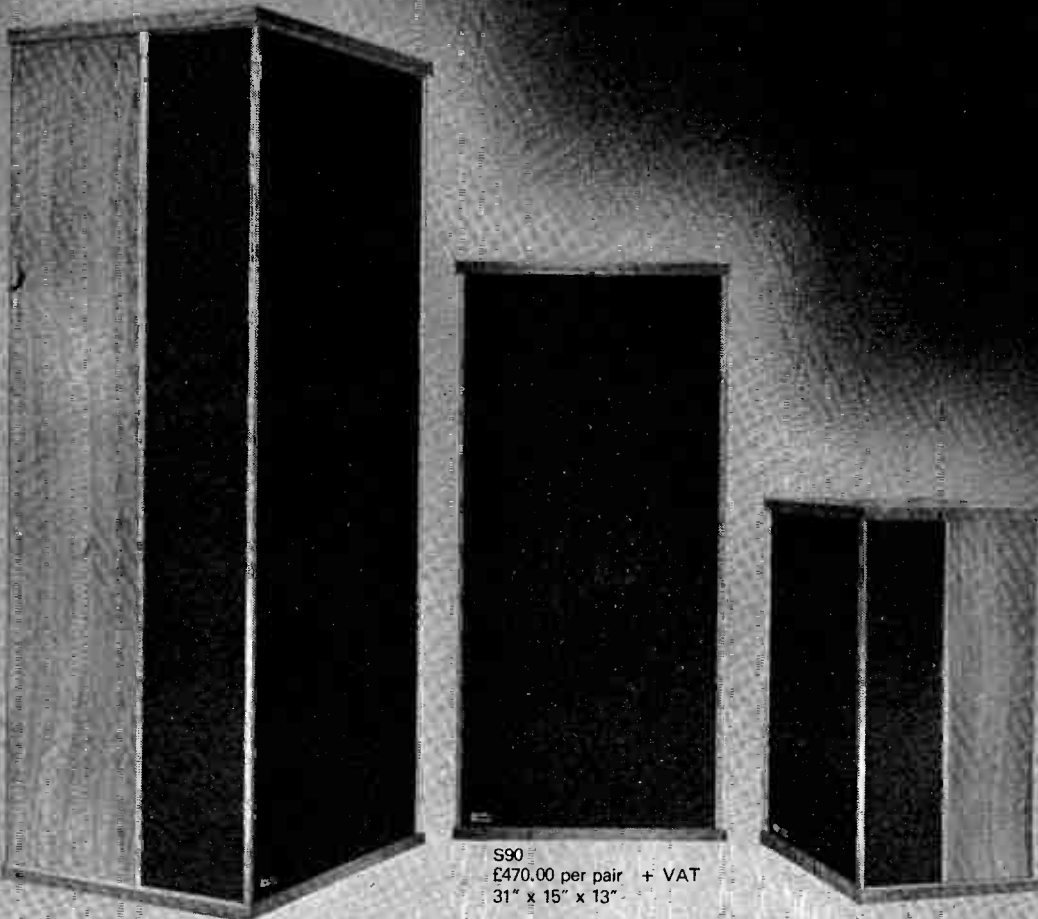
I have used this method of recording for two years, with the result that I now seldom spend my hard-earned money on mass-produced lumps of slate, as I find my own records to be of very much superior quality! (In making this rather general castigation of disc records I would like to give credit to the few companies that do do a good job, one name that springs to mind being Gale records, to whom I wish the best of fortune.)

Finally, I can hear you asking yourself, 'but where can I make my own recordings?' To this there must be many answers. In my own case I asked a local group of amateur musicians, The Modi Gaudio Consort of my home town, to whom I am greatly indebted. The result is that we now work together to our mutual benefit. Of course the result in my case tends to lead to one type of music, fortunately a type that I am learning to like more and more. But we now have regular music festivals which include a greater variety, all of which give me the greatest pleasure. These activities have been the biggest contribution to my hi-fi since I enlarged our listening/living room.

I would like to leave the Editor with the plea that we get more about sound sources, microphones, etc, in the hope that more people will be encouraged to try their hand and that *HFN/RR* will become a more balanced hi-fi magazine.

B. S. Barnaby,  
139 Musley Hill,  
Ware,  
Herts SG12 7NL

# The Radford Family...



-M180  
£550.00 per pair  
+ VAT  
43" x 17" x 15"

S90  
£470.00 per pair + VAT  
31" x 15" x 13"

Tristar 90  
£270.00 per pair  
+ VAT  
21" x 12" x 9"

## ... probably the only loudspeakers you will never hear.

Audio Corner  
Southport, Merseyside  
Lancs.  
0704 37332

Audio T.  
London NW6 1SQ  
01 794 7848

Eulipion Audio  
Manchester 14  
061 225 4448

Exon Audio  
Exeter, Devon  
0392 50802

Graham Nalty Hi-Fi  
Derby  
0332 674929

Guildford Hi-Fi  
Guildford, Surrey  
0483 71534

Gulliford House Ltd.  
Kenton, Nr. Exeter,  
Devon  
0626 863604

Hampshire Audio  
Chandlers Ford, Hants.  
04215 2827

Hi-Fi Consultants  
Peterborough  
0733 51007

K. J. Leisuresound  
London W1.  
01 486 8263

Knightsbridge Audio  
London SW1  
01 589 9300

Lloyd Paton Ltd.  
Manchester  
061 747 9949

Mays Hi-Fi Ltd.  
Churchgate, Leics.  
0533 5662

New Dawn Hi-Fi  
Chester  
0244 24179

Norwich Hi-Fi Centre  
Maddermarket  
0603 22796

Nottingham Hi-Fi Centre  
0602 76919

Paul Holden Hi-Fi  
Cardiff  
0222 44011

Radford Hi-Fi Ltd.  
Bristol  
44593/422709

R.E.W. Audio Visual Co.  
London WC2  
01 240 3386

Sound 70's Ltd.  
Sheffield  
0742 79291

Superfi  
Nottingham  
0908 75764  
also Leeds

W. J. Taylor Hi-Fi  
Kingstanding, Birmingham  
021 382 1313

Campagne Francaise  
d'equipements  
120 Champs-Elysees,  
75008 Paris

FA Metronics  
Sarphati Straat 183  
Amsterdam, Holland

International Sound S.P.L.  
Corso di Porta, Vittoria, 47  
Milano  
(02) 78. 44. 05.

Ljudproduckter KB  
Foreningsgatan 37  
Box 23012  
200 45 Malmoe  
Sweden

Manchester & Midland  
Electrical (N.I.) Ltd.  
Lisburn, Co. Antrim,  
Northern Ireland  
Lisburn 4242

### RADFORD HIGH-FIDELITY INTERNATIONAL LIMITED

4 Sommerville Road, Bristol BS7 9AA, England  
Telephone (0272) 40878 / 46403 Telex: 449315

European Distributors of Radford Electronics Equipment. UK Distributors of Decca Special Products and Hadcock Tone Arm (SW)

# Audio Patents Adrian Hope

IT isn't so much the invention covered by patent BP1500 055 from the Vienna firm of AKG that is interesting, but the premise from which AKG kicks off. This is that, whereas vibrato (that is to say, fluctuations in pitch of a few Hz as from an electronic organ) can be heard if the sound is replayed through loudspeakers, it is practically inaudible over headphones. Is this really true? Is vibrato really inaudible on cans? Let's assume for the moment that AKG, a company which after all should know what it is talking about in such areas, is correct. Why then should this be so? According to AKG, vibrato is easily audible over loudspeakers because the speakers convert the frequency fluctuations into amplitude fluctuations. This, they go on to say, is because the frequency response of the loudspeaker, when examined very closely, turns out to have a large number of small, closely adjacent resonant peaks. The closely adjacent peaks and troughs serve as a sort of comb-filter which effects vibrato-to-tremolo conversion. But, continue AKG, the dome-shaped diaphragms found in cans have a much smoother response, so there is no comb-filter effect and vibrato is less audible.

The solution, especially logical for AKG who are already in the echo business, is to introduce a comb-filter effect into a can diaphragm deliberately by incorporating a delay element. This can be either electronic or mechanical, for instance a spring anchored by one end to the headphone diaphragm and by the other to the headphone casing. The spring is driven by the diaphragm and the reflected sound mixes with the original to produce peaks and dips. AKG are at pains to explain that delay must be very brief, less than 20 milliseconds. Which brings us back to the original question: are AKG really right in saying that vibrato is inaudible over cans? It is certainly fairly well-known that wow and flutter should not be judged via headphones, but always assessed as heard in a room from loudspeakers. This is because a reverberant environment gives a listener some 'reference' to what has just happened, enabling his sense of pitch to operate more effectively. This may well apply also to musical vibrato, which is after all a species of flutter; but if so, AKG's explanation in terms of comb-filter effects would seem to be rather doubtful. [See also below—Ed.]

AKG have also patented (BP 1505 329) an interesting approach to the derivation of pseudo-stereo from mono. Again the approach is more widely interesting than the specific aim of the invention, namely to enable a TV viewer to hear the mono TV sound in pseudo-stereo through headphones.

AKG simply take advantage of the fact that two legally permissible cordless link techniques, infra-red transmission and ultra-sound transmission, propagate at considerably different speeds. The TV set is equipped with an infra-red transmitter and an ultra-sound transmitter. Both are modulated by the TV's mono sound and thus both beam out an equivalent signal into the room. The listener wears a pair of headphones with an ultra-sound receiver and an infra-red receiver. Due to the propagation speed difference between infra-red and sound, the infra-red signal will always lead the sound signal. AKG note that if the viewer is watching TV from a distance of two metres, a reasonable viewing distance, the delay between infra-red and ultra-sound signal arrival will be six milliseconds. According to AKG this is ideal for producing a pseudo-stereo effect and will move the headphone image out of the listener's head.

## Readers' Problems Examined by Crossover

### Pickup Loading

Dear Sir, The technical hi-fi magazines have been investigating recently the fallibility of measurements (both objective and subjective), of pickup cartridge tests, and the doubtful results obtained and published by some reviewers. The question of cartridge matching to the amplifier input seems to be the main bone of contention. Have you any comments on this problem?

**F. M. P., Taunton, Somerset**

Certainly checking and measuring the performance of links in the hi-fi chain is a difficult task, particularly the problems of pickup matching, with the differences of moving-magnet and moving-coil cartridges, and the load resistance/capacitance involved, including the pickup arm and cable capacitance.

Our contributor Gordon King has pointed out the unreliability of PU tests on an 'absolute' basis, especially when RIAA preamplification is adopted. This is extremely important, as the PU response can be affected by the changing input impedance of the preamplifier with frequency as the result of the equalising negative feedback. When making such measurements, Mr. King does not employ preamplification but measures direct from the output of the PU, which is passively loaded correctly on both channels. Incorrect results are obtained when only the channel being measured is loaded.

Refer to p. 180 onwards of Gordon King's excellent *Audio Handbook*, first published in 1975 by Newnes-Butterworth. This deals with 'cartridge loading' and associated factors.

### Headphones and Wow

Dear Sir, A throw-away remark by Messrs. Moir and Stevens in the introduction to their headphone review in your January issue absolutely staggered me. They stated that 'a given percentage of wow and flutter in the program is that much less obvious than when loudspeakers are used to reproduce the same signal'. Is this a new discovery? And why on earth should it be so anyway?

**M. A. C., Penrith**

No, it is by no means a new discovery; and it is true for a quite simple reason. When listening to music via loudspeakers in a reverberant environment, the ear has some sort of reference to the immediately preceding sound, and is thus better able to judge (or to notice) on-going changes of pitch. With headphones, of course, there is no delayed contribution added by the listening room, so that each note or piece of a note is heard at that moment only. It is for this reason that we seem to sing more tunefully in the bath, since the rather more reverberant situation enables us to adjust the pitch of our voices to achieve more nearly correct musical intervals. So, if you suspect that your turntable

or tape deck is guilty of wow or flutter, judge the sound via loudspeakers in your most lively room—never when wearing headphones. Anyway, hi-fi in the bathroom is quite an experience.

[Incidentally, Adrian Hope deals with a related problem in one of his 'Patents' items on this page, and suggests that musical vibrato may be subject to the same rules—Ed.]

### IBA Surround-Sound

Dear Sir, I know that the BBC is pursuing its experiments in 'quadraphonic' broadcasts, with 'H' matrix now replaced by a modified 'HJ' format, which means the early 'H' type decoders perform less well than optimum. But I'm interested in the IBA's projected 'surround-sound' tests and would appreciate more details.

**R. S., Newton Abbot, Devon**

The IBA has recently conducted a 'surround-sound' series of tests on London's Capital Radio. This IBA system encodes all the necessary information for correct 'surround-sound', which is fully recoverable using a linear decoder with three channels instead of two. The third channel is obtained by quadrature modulation of the 38 kHz sub-carrier already present as part of the normal stereo transmission. This channel is restricted in bandwidth, producing the so-called '2½ channel transmission'.

IBA engineers, we understand, believe that three-channel receivers fitted with the linear decoder could be manufactured more cheaply than the two-channel sets and their variable matrix decoders. Such receivers could also handle recordings using the 3-channel system. A technical leaflet for dealers and enthusiasts interested in this form of decoder required for the IBA system will be available soon.

Amid the wealth of accomplishment of audio technology throughout the world, the design of loudspeaker systems conferring accurate, natural, truly musical sound reproduction remains uniquely a sphere of British eminence.

In idyllic rural surroundings in Southern England, in premises dating from 1756, the year of the birth of Wolfgang Amadeus Mozart, the small private Company of music-lovers and craftsmen that created the outstanding CARNIVAL, FESTIVAL and PAGEANT has perfected a further model of surpassing excellence, aptly to be named

SIGNIFER (Latin: 'Standard-Bearer'). The product of all that is best in Britain, the SIGNIFER represents the best of British products amongst products of which British are still acknowledged best.

Wherever sound reproduction must attain the highest standard, **SIGNIFER...**

**...the Standard-Bearer.**



**SIGNIFER**      **STAND**  
£480.00      £35.00  
Recommended Retail Price (U.K.) per pair (excl.VAT.)



**Mordaunt-Short Ltd**  
High-Fidelity Loudspeaker Systems

Durford Mill, Petersfield, Hampshire, GU31 5AZ  
Telephone: Rogate (S.T.D. 073 080) 721/2  
Telex: 86443 MSHIF1

I am interested in loudspeakers of the highest standard. Please send me details.

Name \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# Soundings

## Donald Aldous

AT THE risk of being accused of penning platitudes, this month I'd like to concentrate on several 'sound' men whose lives and work have made them 'legends in their own lifetime'.

Paul Gustavus Adolphus Helmuth Voigt, now 76, soldiers on at his Brighton home; but this is Brighton, Ontario, in Canada, where—with his wife Ida—Paul has made his base now for some years. Devoting as much time as he can to his many projects, his main interest now seems to be the propagation of his gravitational theory. But his pioneer work on high quality microphones and loudspeakers will never be forgotten: the remarkable Voigt corner horn loudspeaker was developed as far back as 1934.

Paul is especially pleased that the No. 1 production model of this corner horn has been unearthed recently by another early LS worker, Donald Chave, and has been accepted by Keith Geddes for display at the Science Museum, London. This may well be a working system, too.

My second personality is Anthony Griffiths, a long-familiar figure in the world of sound recording from early films to the gramophone industry where, latterly in the International Division of EMI, he has made a special niche in the art and science of transferring old records to the LP medium. In February Tony gave one of the current season of British Institute of Recorded Sound lectures on the artistic and technical problems involved in copying and reissuing ancient 78s on LP discs.

Tony has been preparing for release in April what may prove to be one of his last 'new discs for old' exercises for EMI. This could be a crowning effort to his distinguished career, as Tony retires at the end of March at 64. Admirers of Sir Thomas Beecham's art will be thrilled to learn that World Records are issuing an 8-record set of all his recordings from 1910 to his last session. The material will include the 'Jupiter' extract recorded by Alan Blumlein, and the pioneer BASF tape recording made in 1936. A paperback by Alan Jefferson covering this material will be published at the same time.

To any veteran audiophile the name Stanley Kelly must evoke a picture of an ebullient Yorkshireman, whose interest in sound reproduction began—like so many of us, including myself—with the building of and playing around with crystal radio sets back in the 1920s, as schoolboys. The Stan Kelly saga is a story which, if told in full, would take much more space than I have here, but let's look at a few highspots. In 1929, with a retired GPO engineer friend, Stan started to construct 'real' valve amplifiers. The first one used three B12s in parallel (400 volts, 30 mA per valve) driven by a preamp consisting of a PM 1 HF and two PM 1LF valves with filaments connected in series in the negative HT return line. This design, with two moving-coil drive units and 15ft. horns, filled the

local skating rink as an alternative to the noise of the resident organist.

As Stan has said in his biographical notes in Gilbert Briggs' *Audio Biographies*, the coming of the indirectly heated Mazda 'Red Spot' and 'Green Spot' valves producing about 1.5 watts output enabled smaller amplifiers to be assembled. The really big amplifiers employed DA 60 valves, giving 35 to 40 watts as well as a lot of heat! One of these giant designs had a one kilowatt spec, driving an electrodynamic Blatthaller loudspeaker. This had a range of about a mile and was used at rallies on local aerodromes. Although these were early days for 'quality' specifications, this amplifier had limits of  $\pm 2$  dB over the spectrum 50 to 10,000 Hz and harmonic distortion of less than 5% at the rated output.

Jumping ahead, we find Stan at STC, then at the RAE, Farnborough, the RAF Delegation at Washington, the Pacific and the Bahamas during the war years, then back to TRE at Malvern. In 1948 he became Chief Engineer at Cosmocord and his group created their lightweight crystal pickups (the GP 20 series) and several other electro-acoustic devices, including the Medresco Hearing Aid microphones.

Coming a little more up-to-date: in 1956, with his wife Betty, he formed Romagna Reproducers, and a year or so later Stan resurrected the Blatthaller unit in miniature form with a Melinex diaphragm. This was dropped in favour of the famous Kelly Ribbon HF speaker, RLS/1, with its diecast catenoidal horn. This sold for 12 guineas in 1957.

Today, under the Kelly Acoustics umbrella, Stan has concentrated on manufacturing heavy-duty loudspeaker units, 12 in. and 15 in. models handling 100 and 150 watts. Sadly, I have to close this story on an unhappy note, as Stan (now 66) is coping with serious illness with his customary panache and fortitude, but it does mean that Betty has to run the plant. We all wish him better health during 1979.

My last personality for the moment is not an engineer or someone involved in the technical side of recording, but a rare, if not unique, businessman engaged in creative record retailing for some 40 years in the USA. I refer to Sam Goody, now 75, and still active in his discount record chain of stores sited in New York City, Long Island, New Jersey, and other centres in North America.

Any record collector who has had a copy of *The New York Times*, particularly the Sunday entertainment section, will have seen the Goody approach to record advertising. Goody was the first person to take regular advertising for records and audio in that prestigious paper, and his pioneer efforts have paid off handsomely. Always willing to experiment, Goody runs annually around Christmas in the *NY Times* a big supplement including articles on audio systems, hardware, disc records and tapes, the best-selling

albums of the year, and so on. TV record advertising of a special kind is another venture.

These stories have triggered off nostalgic memories of other prominent audio figures, all of whom, to a greater or lesser extent, have contributed to high fidelity sound reproduction as we know it. For the present feature, I shall keep to British engineers, now deceased. Dr. Norman McLachlan, Capt A. G. D. West, H. J. Round, Adrian Sykes, P. K. Turner, H. A. Hartley, Percy Wilson, Gilbert Briggs, and my old mentor, Dr. L. E. C. Hughes.

I have recently seen a copy of a paper on 'Loudspeakers and their Development' presented to the Royal Society of Arts in May 1929 by R. P. G. Denman (Science Museum, South Kensington). Denman was responsible for fitting the long pagoda-type horn whose working area was the ceiling of the room in his house adjacent to the Science Museum—a true audiophile.

Here's a verbatim quote from Denman's closing remarks: 'Bearing in mind the remarkable improvements that have been made during the six years under review (1923 to 1929), it would obviously be unwise at this stage to assume the mantle of prophecy. Science in general appears to have reached a stage at which, given the necessary funds, means can be provided to deal with almost any problem that is not fundamentally insoluble. It may be that the absence of a true binaural effect constitutes one such limitation, but the imperfections of present-day materials in regard to strength, stiffness, permeability and so forth are probably more important.

'With the huge resources of the gramophone and motion picture industries to foot the bill, it is probable that the most striking developments of the future will be made in the large auditorium instruments, and that the small domestic loudspeaker will either remain in its present form or else will gradually give place to small-scale examples of these types. When one considers the size and cost of a pianoforte in relation to its average domestic usefulness, fifty pounds or so will not seem much to pay in the future for an instrument which, I dare say, will be more capable than it is at present of sustaining the many roles that are demanded of it'. If only Mr. Denman were with us today to see and hear some of the LS designs now on the market and in the research laboratories.

Which leads to some names of engineers and experimenters, happily still alive, who have left their marks on the hi-fi scene: Ralph West (now in France), Hugh Brittain (in Wales), Harold Leak (living in Jersey), James Moir (as active as ever as a sound consultant), and finally, the one and only Peter Walker (Quad = Acoustical), plus of course development engineers in the BBC's Research Labs.

Peter's work is too important to be thrown away in a line or two, and he will outline some new concepts on electrostatic LSs in his lecture to the AES in June. No, I've not forgotten Raymond Cooke (KEF), but he is one of the younger generation. To fill the gaps in this survey, if any of our readers with long memories have stories of notable pioneers, do write to me.

# Admit it. Hi-fi is a dirty business.

Most methods generally used for cleaning records don't bear thinking about. That's why we're introducing the Zerostat range of record cleaning equipment. It's dedicated to keeping your records in pristine condition. When you consider the financial investment your collection represents, a little further expense on caring for it makes a lot of sense.

## THE ZEROSTAT ANTI-STATIC PISTOL

This piezoelectric pistol is the ultimate anti-static device. A slow squeeze and release of the trigger eliminates virtually all dust-attracting static from records and dustcovers. The Zerostat achieves this by emitting positive and negative ions which neutralise the electrostatic charges that build up on record and dustcover surfaces. It's very simple to use, without any wires to plug in or batteries to replace. With average use, say 15 times a day, it will last more than ten years, and together with record cleaners such as the D3 Discwasher\* System, will greatly prolong the life of your records and stylus. £6.99 inc VAT

## THE NEW D3 DISCWASHER\* SYSTEM

It takes a very special brush to remove micro-dust that could become welded to groove walls by stylus pressure. The Discwasher\* brush with its unique angled micro-fibre fabric is the most efficient way to pick up and absorb micro-dust.

The fabric, on its absorbent pad, is mounted on a walnut handle which stores a bottle of D3 cleaning fluid. The D3 fluid has several important functions: To pull dirt from the micro-grooves, remove finger prints and other surface contaminations and to protect the vinyl additives necessary for long term record wear. £6.99 inc VAT

coating of dust and dirt. A stylus cleaner has to be strong enough to remove this waxy coating, yet gentle enough to protect the delicate cartridge cantilever assembly.

## THE NEW SC-1 STYLUS CLEANER

Record life, stylus life and quality of sound are all dramatically reduced when the diamond accumulates a

The SC-1 achieves this by providing the perfect combination of bristle density and stiffness. Two drops of D3 cleaning fluid add to its highly efficient cleaning action. It comes in a walnut case, complete with a built-in magnifying inspection mirror. £3.99 inc VAT

# ZEROSTAT COMPONENTS

For further information, write to Dept. 50, Zerostat Components Ltd., Edison Road, Industrial Estate, St. Ives, Huntingdon, Cambs. PE17 4LF. Telephone: St. Ives (0480) 62225

## We aim to clean up hi-fi.

\*Trademarks of Discwasher Inc. of USA/Exclusive European distributors Zerostat Components Ltd.



# Brick Speakers for Relaxed Listening

**John Withey describes some 'brick block baffles' to provide inexpensive loudspeaker loading.**

THE speakers described here are presented because they seem to offer better results than expenditure of time and money on them would warrant. They may be particularly useful as extensions to existing audio systems, or as 'sound-now' expedients in the course of a budgetary approach to Better Things—in which latter case, by the way, they won't much impede your accumulation of savings.

The design derives from an older one I'd set about to follow in making up some units for casual study-bedroom radio listening, remote from my living-room hi-fi setup. The earlier design called for the equivalent of Eagle FR4 full-range 4 in. loudspeakers front-mounted into a 280 cu. in. stuffed infinite-baffle enclosure. This design stemmed from an earlier one yet, of the miniature full-range speakers used by KLH for their Model 8 FM radio 'receptor' and Model 11 portable stereo gramophone. The KLH people compensated for bass deficiency and mid-range forwardness in their small, high-compliance drivers with equalization in-board of their amplifiers, while the derivative, more universal, design prescribed the insertion of

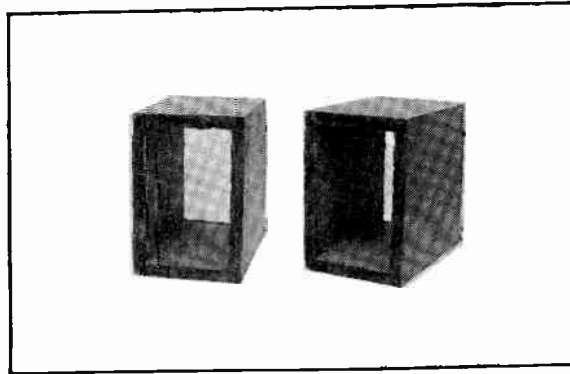


Fig. 2: A pair of brick tiles —'in the Beginning'.

Anyway, returning to the basic design: while looking over some materials in a builder's yard I ran across some hollow rectangular brick-red tiles (see fig. 2) which, when end-capped, afforded the enclosure volume requisite for the FR4-type drivers. So I decided to build a couple. For the end-caps (see fig. 3) I used some 3/4 in. plywood I had on hand. Chipboard also serves perfectly well, with the caveat that if the carriage-bolt heads are countersunk they may pull

are also given in the sketches in fig. 3; but please note that all dimensions are approximate, as these hollow tiles vary considerably in size.

Trouble was, on a shopping trip to Glasgow I couldn't find any FR4s—which I'd still recommend to readers who'd like to set up a pair of these speakers in the conventional way, with the drivers mounted open-face. So, impatiently, I accepted a substitute in the form of an even smaller high-compliance 'no-name' driver that seems to kick around ubiquitously in electronic surplus-and-hobby shops. Its cylindrical pot clasps about five ounces of ceramic magnet, on the flat back surface of which is stamped the legend:

**F.C.F.-77-03**  
**8**  
**MADE IN JAPAN.**

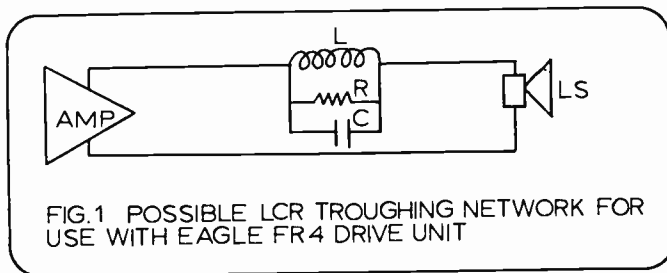


FIG. 1 POSSIBLE LCR TROUGHING NETWORK FOR USE WITH EAGLE FR 4 DRIVE UNIT

an LCR troughing network in the speaker line to curb relative mid-range output and leave the bass more prominent. I believe a diagram for this troughing network is still packaged with FR4s, where they are available, and I show a similar one in fig. 1 for those who want to use it. The capacitor C would be 2-5µF, resistor R 10-15Ω (non-inductive) 10W, and inductor L 125-330 turns of .016 in. enamelled copper wire wound on a 1 1/2 in. x 1 in. diameter wooden dowel former. I recommend experiment rather than fixed values, while R could of course be a suitable potentiometer. However, I've always preferred to do without such circuits when I've used these little Eagle drivers, as they've got a nicely detailed mid-range which I don't like to interfere with, whereas tonal imbalance is the sort of thing you sometimes have to put up with in live listening, and doesn't bother me all that much.

through if over-tightened. So, go tight enough to make sure that the whole enclosure sounds like a stone if you rap it with your knuckles, but no tighter. To fix the end-caps on, and incidentally to suppress any ringing tendencies in the tiles, I borrowed a leaf from Mr. Jim Rogers' book and ran the fixing bolts through the inner hollow of the enclosure, from front to back, much as he uses bolts from top to bottom to torque on the end-caps of his marvellous little cylindrical JR-149s. To seal the end-caps to the not-too-even edges of the tile—after I'd labouriously tried to file them flat (watch out, they chip!)—I finally hit upon Hermetite Liquid Gasket, a clay-like rubbery substance capable of substituting for solid cylinder-head gaskets against great duress of gaseous pressure. For enclosure lining I used ordinary brown felt carpet padding, in the configurations shown in the diagram. Most of the other essential details

The cone is of black pulp, suspended on a blackened cambric surround. A 3/8 in. aluminium dome caps the voice-coil.

Mounted up open-face, a pair of them screech like banshees. I suspect that the aluminium dust caps constitute better visual than aural decoration. I tried an improvisational dispersion slot in front of them, formed of old *Hi-Fi Newses*. That helped a lot, so I decided to experiment with incorporation of a slot- or small-hole load in the front cap.

The results of these experiments—un-instrumented cut-and-try affairs, directed by whim and instinct—are shown in fig. 4. The disposition of the five 3/8 in. holes may appear to be quaintly ecclesiastical, but is not intended to foist upon the reader any burden of mystery; any arrangement of this-here mystical quincunx will do. Retention of a 3/8 in. thickness for the front panel is a surprise, for I fancied that a thinner firm substance, like a tarred 9mm iron plate I tried, would do better. It didn't. The Q of the air columns formed seems to be just about right for

# small is beautiful

Simon Hedges and Chris Hunt of What Hi-Fi? put their ears together to check out four British loudspeakers in the £100-£150 price bracket. Smallest of the units, the TANGENT RS2 came out best – they had this to say:-



“Listening to the RS2s it became obvious that the designer had gone all out for spaciousness of sound – and had achieved it in no uncertain terms. Imagery in terms of left-to-right spread, depth and space around the instruments was quite stunning.

For the first time in our listening tests we became unaware of the existence of two boxes pumping out sound and conscious instead of a coherent and stable sound stage spread between them.”

## from the superb range of *Tangent*



**TANGENT  
SPL1**

Guaranteed five years with amplifiers rated up to 50 watts per channel into 8 ohms. 179(w) x 275(h) x 19.7(d).



**TANGENT  
REFERENCE  
RS4**

Guaranteed five years with amplifiers rated up to 80 watts per channel into 8 ohms. 305(w) x 630(h) x 315(d).



**TANGENT  
REFERENCE  
RS6**

Guaranteed five years with amplifiers rated up to 100 watts per channel into 8 ohms. 305(w) x 810(h) x 315(d).



**TANGENT  
MONITOR  
TM3**

Guaranteed five years with amplifiers rated up to 45 watts per channel into 8 ohms. 255(w) x 370(h) x 285(d).

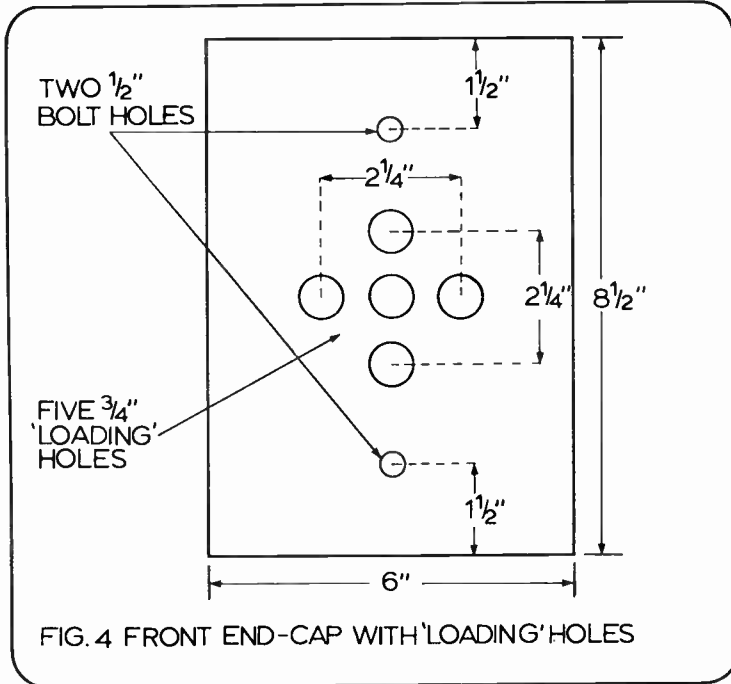
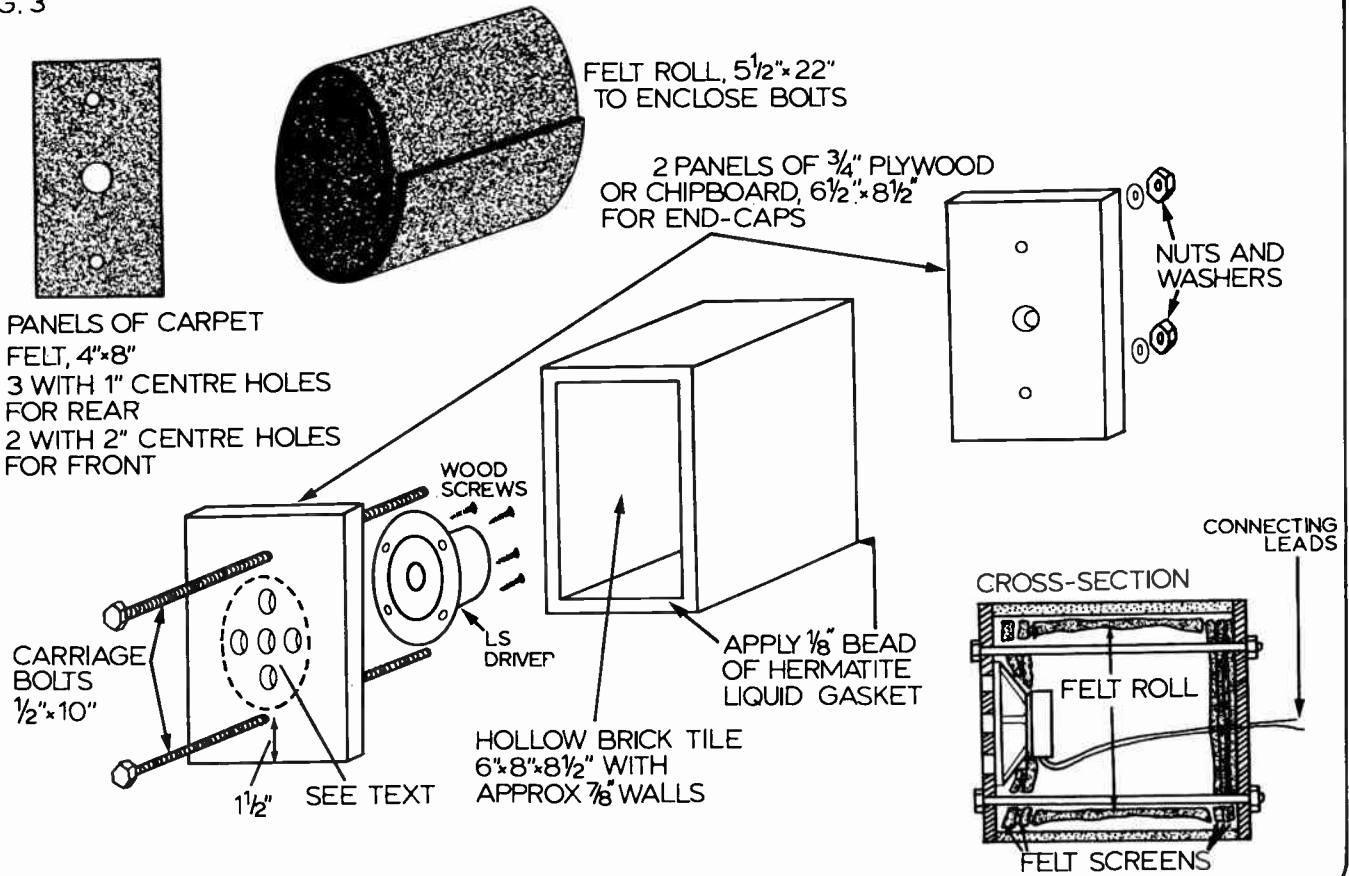


**TANGENT  
MONITOR  
TM1**

Guaranteed five years with amplifiers rated up to 50 watts per channel into 8 ohms. 305(w) x 630(h) x 315(d).

Tangent Acoustics Limited, Viking Way, Bar Hill, Cambridge CB3 8EL. Tel: (0954) 81377.

FIG. 3



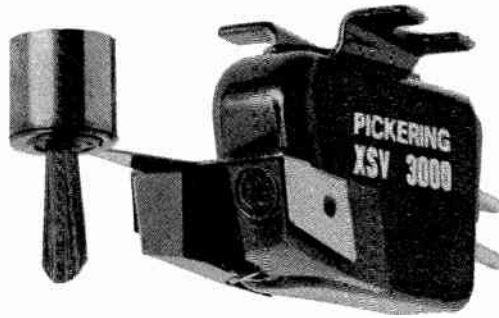
cancellation of the drivers' main inherent ills, which it might otherwise require an electrical input network to negate—whereas the holes are free! As a cautionary note, I'd suggest that holes this deep would only work for the good cause when there is coloration from the drivers to cancel; other-

wise they'll just impose their own resonant character, unnegated, upon the passing air waves. The driver is screwed directly to the end-cap's inner surface, 'focused' evenly over the holes. The LS gasket is adequately thick, even when compressed, to stand the cone off from end-cap contact at any power

level short of burnout. Great exactitude in these matters is of no great moment, but you don't want leaks around the drivers, which can if necessary be sealed with some Hermetite.

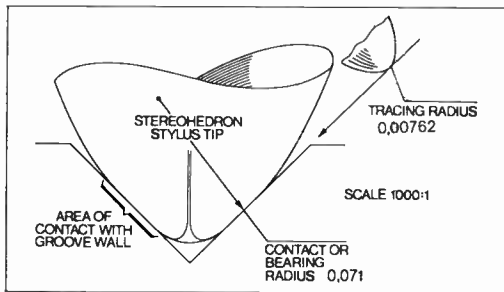
An odd dividend of this frontal constriction seems to be enhanced bass performance, which I can't account for, frankly, except to suggest that restriction tends to equalize the air pressure on both sides of the cones in their dynamic operating state, so that they tend more to move as true pistons. Be that as it may, the bass richness and tonal accuracy of these little speakers, in some locations, is quite astonishing—albeit, overall balance generally needs the help of the 1in. round reflex hole let into the middle of the rear end cap, which is also convenient to take wiring out.

Notwithstanding the above, with a radiating area of only 9 sq. ins. each these speakers naturally expect bass-supportive placement close to a wall, not far from a juncture of wall and floor, or not far from a corner. Cleanliness of bass is thus sacrificed for balance—but positional experimentation with the trade-off is worth the trouble. A listening position from 10–90° off-axis of both speakers is fine. Dead ahead, some of the screech inherent in the drivers comes through; further than 90° off, the overtone structure begins to suffer, as does stereo imagery—except as you pick up both rather inexactly by virtue of room reflections. Tall stacking of several multiple pairs might obviate this—if you have room



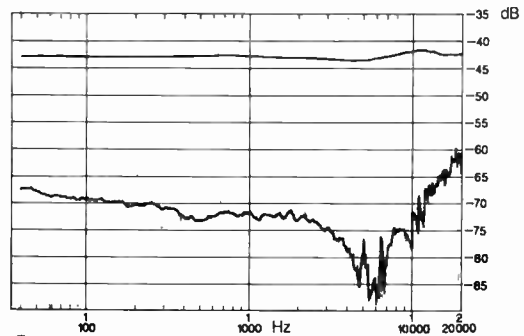
# The XSV/3000 is the source of perfection in stereo sound!

Four big features...all Pickering innovations over the past years...have made it happen.



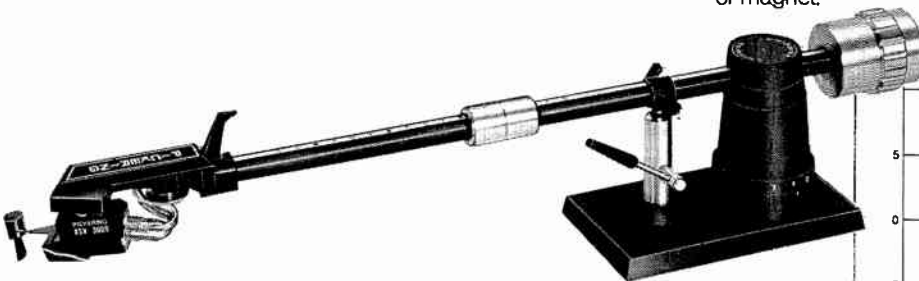
1. Technical drawing of the Stereohedron shape.

**1976: Stereohedron®.** This patented stylus tip assures super traceAbility™, and its larger bearing radius offers the least record wear and longest stylus life so far achievable.



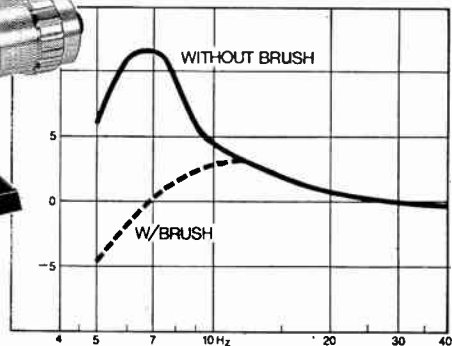
2. Typical frequency response and channel separation curves of the XSV/3000.

**1975: High Energy Rare Earth Magnet.** Another Pickering innovation, enabling complete miniaturization of the stylus assembly and tip mass through utilization of this type of magnet.

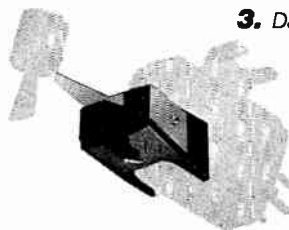


**1968: Dustamatic® Brush.** This Pickering patented invention dynamically stabilizes the cartridge-arm system by damping low frequency resonance. It improves low frequency tracking while playing irregular or warped records. Best of all, it provides record protection by cleaning in front of the stylus.

**1959: Record Static Neutralizer.** The patented V-Guard Record Static Neutralizer has been a feature of Pickering cartridges since 1959. It eliminates electrostatic dust attraction at the stylus and discharges record static harmlessly into the grounded playback system.



3. Damping effect on tonearm resonance.



4. V-Guard Static Neutralizer: "Where the Stylus meets the groove".

PICKERING & CO., INC., P.O. Box 82, 1096 Cully, Switzerland

**PICKERING**

"for those who can hear the difference"

Austria Boyd & Haas, Rupertusplatz 3 - 1170 Wien - Tel. 4627015  
 Belgium-Luxembourg Ets. N. Blomhof, rue Brogniez 172a - 1070 Bruxelles - Tel. 5221813  
 Denmark Audioscan, Øster Farimagsgade 28 - 2100 Copenhagen Ø - Tel. (01) 42 80 00  
 Finland Oy Sound Center Inc., Museokatu 8 - Helsinki 10 - Tel. 44 03 01  
 France Mageco Electronic, 117, rue d'Aguesseau - 92100 Boulogne - Tel. 604 8190  
 Germany Pioneer-Melchers GmbH, Schlachte 39-40 - 2800 Bremen - Tel. 0421/316 93 23  
 Greece Eilina S.A., 59-59a Tritis Septemvriou Str. - Athens 103 - Tel. 820 037  
 Iceland E. Farestveit & Co. H.S., Bergstadastreti 10 - Reykjavik - Tel. 21 565

Israel Electron Csillag Ltd. - 107, Hachashmonaim Str. - Tel Aviv - Tel. 240533  
 Italy Audio s.n.c., Strada di Caselle 63 - 10040 Leini/Torino - Tel. (011) 99 88 841  
 Netherlands Inelco Nederland b.v. - Turfsteckerstraat 57 - 1431 GD-Aalsmeer - Tel. (02977) 28 201.  
 Norway Skandinavisk Elektronikk A/S Østre Aker Vei 99 - Oslo 5 - Tel. 15 00 90  
 Spain Audio S.A., La Granada 34 - Barcelona 6 - Tel. 217 15 54  
 Sweden Eden-Ljud, Skattungsvägen 19 - 12170 Johanneshov - Tel. (04) 91 58 97  
 Switzerland Dynavox Electronics, route de Villars 105 - 1700 Fribourg - Tel. (037) 24 55 30  
 United Kingdom

# Crossword devised by Maurice Taggart

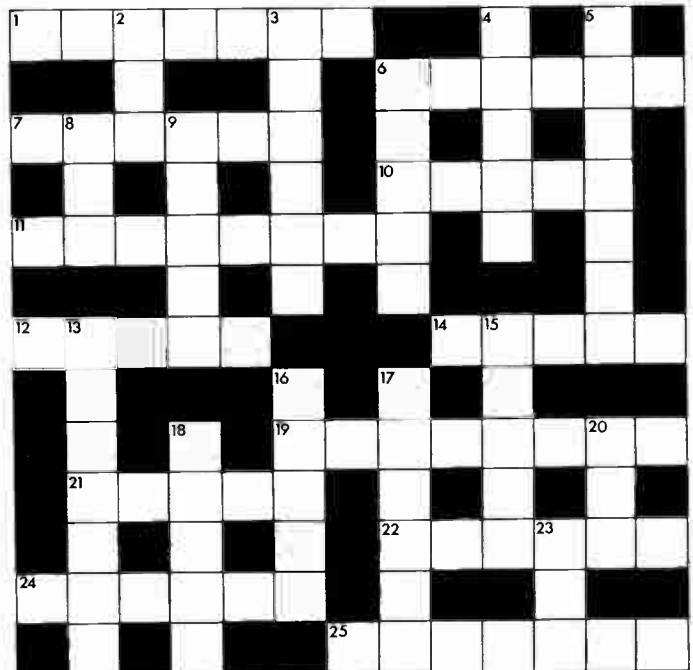
## CLUES ACROSS

- 1 Jolly wizard pseudonym for one Philip Heseltine, what? (7)
- 6 Confused melee follows a point for Handelian oratorio. (6)
- 7 Two keys with the crazy auto for a musical device. (6)
- 10 A trendy start for Mr. Shaw, we hear. (5)
- 11 Mr. Gilbert's 'thing of shreds and patches'. (8)
- 12 (and 21) Re-organise Sid to steal the transistorised circuitry. (5-5)
- 14 15th-16th cent. English composer buried in a stone sepulchre. (5)
- 19 Long risk heavily involved otherwise in *Parsifal*. (8)
- 21 (See 12).
- 22 An Arizona lady came at the end of this Hungarian composer's life. (6)
- 24 A start for Miss Anderson, vocal at heart. (6)
- 25 What the composer wrote when he was two over the eight (4-3)

## CLUES DOWN

- 2 Syncopated piece making a comeback in Sutherland's moving aria. (3)
- 3 So rich somehow, those massed voices. (6)
- 4 English composer of *The Wreckers*. (5)
- 5 (and 9) Full speed ahead. (7-5)
- 6 Musical progression from Sullivan's 'Caledonian' symphony. (5)
- 8 (and 15) Is Gail sure about this conductor (3-5)
- 9 (See 5).
- 13 Electrical rule obscured by low sham. (4-3)
- 15 (See 8).
- 16 Some yarn Ken is mixed up in—from *Omphale's Spinning Wheel*, possibly? (5)
- 17 Soho street-walker, for the record (4-2)
- 18 French composer, one day for instance, shortly. (5)
- 20 Miss Slobodskaya returns in *Much Ado About Nothing*. (3)
- 23 Encountered at the opera (3)

A £3 record token will be awarded for each of the first five correct solutions picked from those which arrive by March 15th.



**LAST MONTH'S WINNERS:** Mr. S. F. Cooke, 57 Little Green Rd., Woodthorpe, Nottingham; Mr. J. Hone, 130 Old Oak Road, London W3 7HF; Mr. D. N. Rossington, 11 Hollytrees, Crookham, Aldershot, Hants. GU13 0NL; Mr. P. R. H. Soper, Ingram's Close, Felsted, Dunmow, Essex; Dr. J. M. Sutcliffe, 8 Claypotts Terrace, Broughty Ferry, Dundee DD5 1LE.

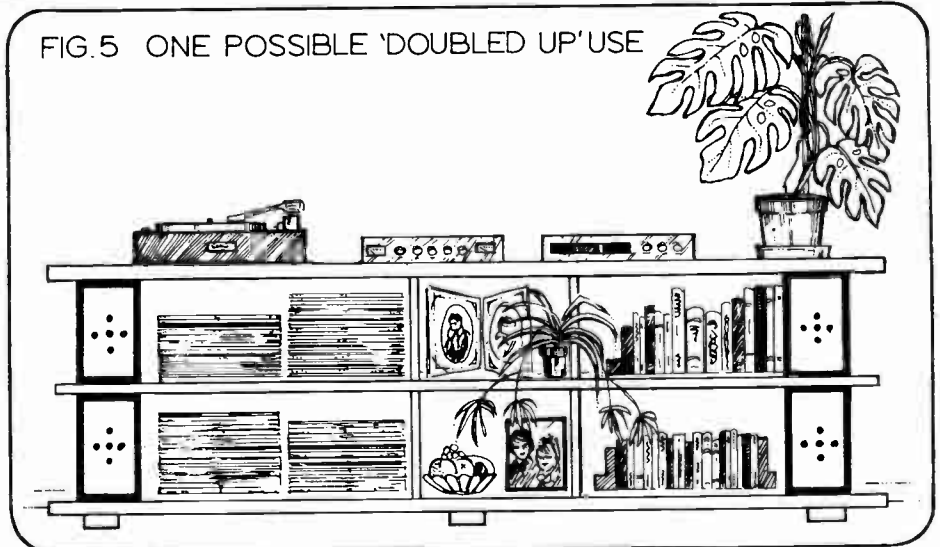
## Brick Speakers continued

space to tolerate two piles of bricks more than a metre out from any wall.

The overall sound of these speakers has a smooth, seamless integrity about it—there are of course no phase problems—and is very well dispersed. Stacking of multiple pairs doesn't seem to affect the latter much, but firms and uplifts the bass a bit in average situations, which is all to the good. An acquaintance of mine who heard a single pair at my house went home and built up two bookcase arrays of them, using the speakers as supporting bricks in brick-and-board arrangements (see fig. 5 for an 'artist's impression'). His speakers are covered overall with glued-on dull gold hessian, and have half-inch ebony framing along all twelve edges which looks really luxurious with the dark teak shelves. The sound of his outfit is quite majestic, and rather belies the fact that he has all of forty pounds' worth of speakers (eight of them) working in a Hafler hook-up off his Quad 303.

Particularly stacked, I frankly like these speakers about as well as any I've heard. On piano, where the slightest panel resonance or hangover can be hurtful, they seem to me to be simply peerless, and they're very kind also to close-miked vocal and small-ensemble material, particularly woodwinds and horn, where they don't neglect the fundamentals while giving a good account of the overtones. I should hasten to confess, however, that while I'm fairly lavish in indulging my musical tastes I'm rather niggardly when it comes to

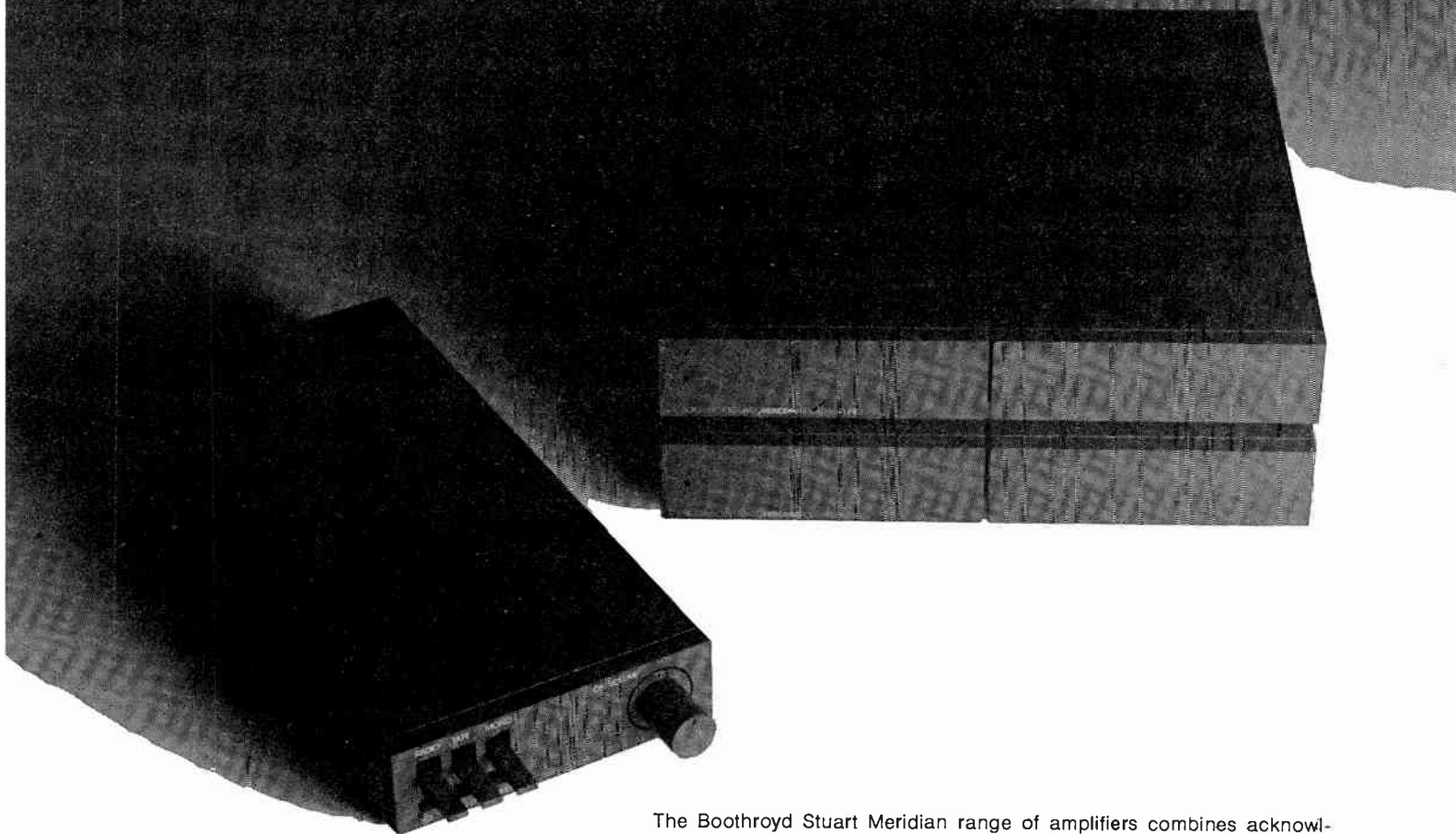
FIG. 5 ONE POSSIBLE 'DOUBLED UP' USE



hi-fi equipment, and thus have not possessed, or had an extended listen to, anything really grand in that line for a long time. Auditors who *have*, register mixed reactions to these little speakers. One, for example, took to them—first suspiciously, then with wild intemperance—for the kind of big-band-cum-vocal stuff he favours. Another more authoritative listener finds them bass-shy, 'honky' in the lower middle, somewhat shrill at top, and imposing of a 'course sameness' upon many kinds of signal—a sure sign that the colorations are higher than usual.' So you

pays your money (not much, if you build these speakers) and takes your choice. Fortunately the enclosures are quite suitable for the FR4s mentioned, or Dalesford D20/105s, front-mounted, if you don't like the wee 'no-name' drivers with the frontal cavity. Opening a proper inset for the Eagles or Dalesfords will neatly sweep the five holes out of existence, clearing the way for a pleasant conventional extension speaker or for a fine mid-range unit for your contemplated 'tower of power' on the lines of the magnificent KEF 105 model. ●

# BOOTHROYD STUART MERIDIAN



The Boothroyd Stuart Meridian range of amplifiers combines acknowledged state of the art performance with award winning appearance design. Modular construction allows flexibility which, backed by our commitment to produce the finest equipment, offers the unique possibility of periodic up grading or extension with perfectly matched products. For example, the 101 Control Unit has plug-in electronic modules, allowing you to change the type of pick-up at any time – our standard range at present includes seven types of conventional or moving coil and will increase as new developments occur. Our newest power amplifier, the 105, gives 100W of smooth clear power. This very flexible component is constructed in a mono format (two are shown in the photograph). If our technology interests you, or if just the music is enough, write to us for a brochure or visit any of the selected dealers listed below for a demonstration. We promise you the best sound and hope for the start of a long friendship.

LONDON  
Hampstead Hi-Fi  
(01) 435 6377

Grahams Electrical  
(01) 837 4412

Subjective Audio  
(01) 886 7289

K J Leisure Sound  
(01) 486 8263

Studio 99 Limited  
(01) 624 8855/6

ASHFORD (KENT)  
Photocraft Hi-Fi  
(0233) 24441

BATH  
Paul Green Hi-Fi Ltd  
(0225) 316197

COLERAINE  
The Hi-Fi Shop  
(0265) 52843

BRISTOL  
Radford Hi-Fi  
(0272) 44593

CASTLEFORD  
Eric Wiley  
(0977) 553066

CAMBRIDGE  
University Audio  
(0223) 54237

CARLISLE  
G Bowman  
(0228) 28144/5

CHANDLERS FORD  
Hampshire Audio  
(04215) 65232

CROYDON  
Spaldings Electrical  
(01) 654 1231

DUBLIN  
Noel Cloney Audio  
(0001) 762904

DUNDEE  
Elena Mae  
(0382) 27592

EASTBOURNE  
Jeffries Hi-Fi  
(0323) 31336

EDINBURGH  
Russ Andrews Hi-Fi  
(031) 557 1672

EXETER  
Gullford House  
(0626) 863604

FALKIRK  
Russell Hi-Fidelity  
(0324) 29011

GLASGOW  
James Kerr  
(041) 332 0988

GUILDFORD  
Guildford Hi-Fi  
(0483) 71534

LIVERPOOL  
W A Brady & Son  
(051) 7336859

LOUGHBOROUGH  
Sound Advice  
(0509) 218254

MANCHESTER  
Eulipion Audio  
(061) 2254448

OSSETT  
Philip Cooley Hi-Fi Ltd  
(0924) 272545

OXFORD  
Westwood & Mason  
(0865) 47783

PETERBOROUGH  
Hi-Fi Consultants  
(0733) 51007

RAYLEIGH  
Rayleigh Hi-Fi  
(0268) 779762

READING  
Reacing Cassette  
(0734) 585463

SHEFFIELD  
Audio Centre  
(0742) 730064

TYNE & WEAR  
Lintore Audio  
(0632) 774167

WALSALL  
Ray Charles Audio  
(0922) 612382

CARDIFF  
Houlden Hi-Fi  
(0222) 44011

LYMM CHESHIRE  
Chris Brooks  
(092) 575 4480

AUSTRALIA  
Audio 2000  
(02) 9392159

CANADA  
Edon Acoustics Ltd  
(613) 2320561

DENMARK  
A T Audio Aps  
(1) 137627

FRANCE  
Technology  
Resources SA  
7477051 or 7474717.

HOLLAND  
Holland Electronics  
(071) 144988

ITALY  
Belli Elettronica  
(0161) 54944

JAPAN  
Imai & Co Limited  
(03) 3570401

SWITZERLAND  
N Bischofberger  
(65) 315181

USA  
Zephyr Electronics Inc  
(805) 4979096

# Subjective Sounds

Paul Messenger

THIS month I have at last space to turn my attentions downmarket and give some well-deserved publicity to a couple of products that lurk right at the bottom of the hi-fi league in price, but I suspect pretty near the top in volume sales. Back last summer I wrote an article as part of the 'Reviewers' Choice' supplement to a brief that I should recommend a good balanced system at the very lowest limit of hi-fi. The sneaky trick was in leaving me to decide where the line was to be drawn. And the trickiest part of the assignment was that I was left only a few short weeks to get to grips with the section of the market that carries the most products, the quickest model changes, and of which I had the least experience. With no time to obtain samples from manufacturers, some of the recommendations were necessarily heavily qualified; but happily, in retrospect, I don't think they were very far from the mark. Now that I have had a chance to try a couple of the products I mentioned in passing, I feel (nearly) confident enough to endorse them wholeheartedly as redefining the starting point for 'real' hi-fi, at least as I perceive it.

I say 'nearly' confident because if there is one performance parameter which is beyond the scope of the reviewer, and one that is most likely to be compromised at low prices, it is quality control. I'm not implying that either of these products suffers from poor QC, merely that all cheap equipment produced with tight margins for the mass market must order its priorities. And the first QC priority must be service reliability rather than consistency in sound quality, because there is no quicker way to go to the wall than to have it all coming back after a couple of months. So, if you're looking for equipment at this end of the market, it is almost mandatory to have a short listen to the actual example you intend to purchase, preferably against something of known high quality, just to make sure your samples do not sound 'peculiar'.

I was first introduced to the Wharfedale *Shelton XP2* on a visit to Bradford last summer, when we had the opportunity to sample the new *XP2* series and some of their immediate competitors. Now the room was a little weird, and I wouldn't have cared to stake even my reputation on the ancillaries used. But even so the Wharfedales in general stood out, while the *Shelton* struck me as the nicest of the lot irrespective of price. A new insertion in the *XP* range, the *Shelton* fills a gap between the diminutive *Denton* and the three-unit *Linton* with a two-unit simple sealed box of sensible bookshelf dimensions (approx. 10 x 9½ x 16 in.).

At various stages over the last couple of years I sampled all the earlier *XP*s, and in fact preferred the *Denton* to the *Linton*, probably because it was a simpler two-way system. In fact I found the *Linton 3XP* a bit of a lemon, and could see little point in the extra mid-range unit. The *Shelton* is fortunately a development from the *Denton* in many ways,

its larger cabinet giving a very worthwhile extension in bass, and a brand-new tweeter is fitted that stands comparison with most of the designs currently available from specialist drive-unit manufacturers. When the *Shelton*s first arrived I put them up against the old *3XP Lintons* for comparison; when I had recovered my composure and decided that we didn't really need any more firewood, I quietly packed the *Lintons* away, RIP. (This doesn't mean the new *Linton XP2* is going to be a disappointment—after all it uses the same new tweeter—but both my prejudices and Bradford experiences suggest the *Shelton* is the one to go for.)



At this price level (typically £65-£75), one is normally deciding which particular combination of gross limitations can best be tolerated; yet the only real criticism I would level at the *Shelton* is that the response is a bit too bright in the upper HF, and this tends to exaggerate disc distortions to which the ear might prefer to remain oblivious. There is no particular area where the *Shelton* excels, yet at the same time there is nothing that I would rate as unacceptable (except perhaps the aforementioned 'fizz' with the wrong record player combination.) Other areas of slighter weakness include a little 'plumminess', giving the upper bass a slightly 'wooden' quality, some 'honkiness' in the mid-range, plus a slightly recessed upper mid. The stereo imagery is reasonably precise, if rather lacking in depth on appropriate programme material. Bass extension is fair enough for the cabinet volume, and is commendably well-balanced and controlled.

The overall sound is typical of a good quality paper-coned design, slightly coarse but pleasantly lively and 'open', with the added bonus that the sensitivity is marginally above average for a bookshelf model. All-in-all, a very well-balanced system that comfortably out-performs its immediate competition,

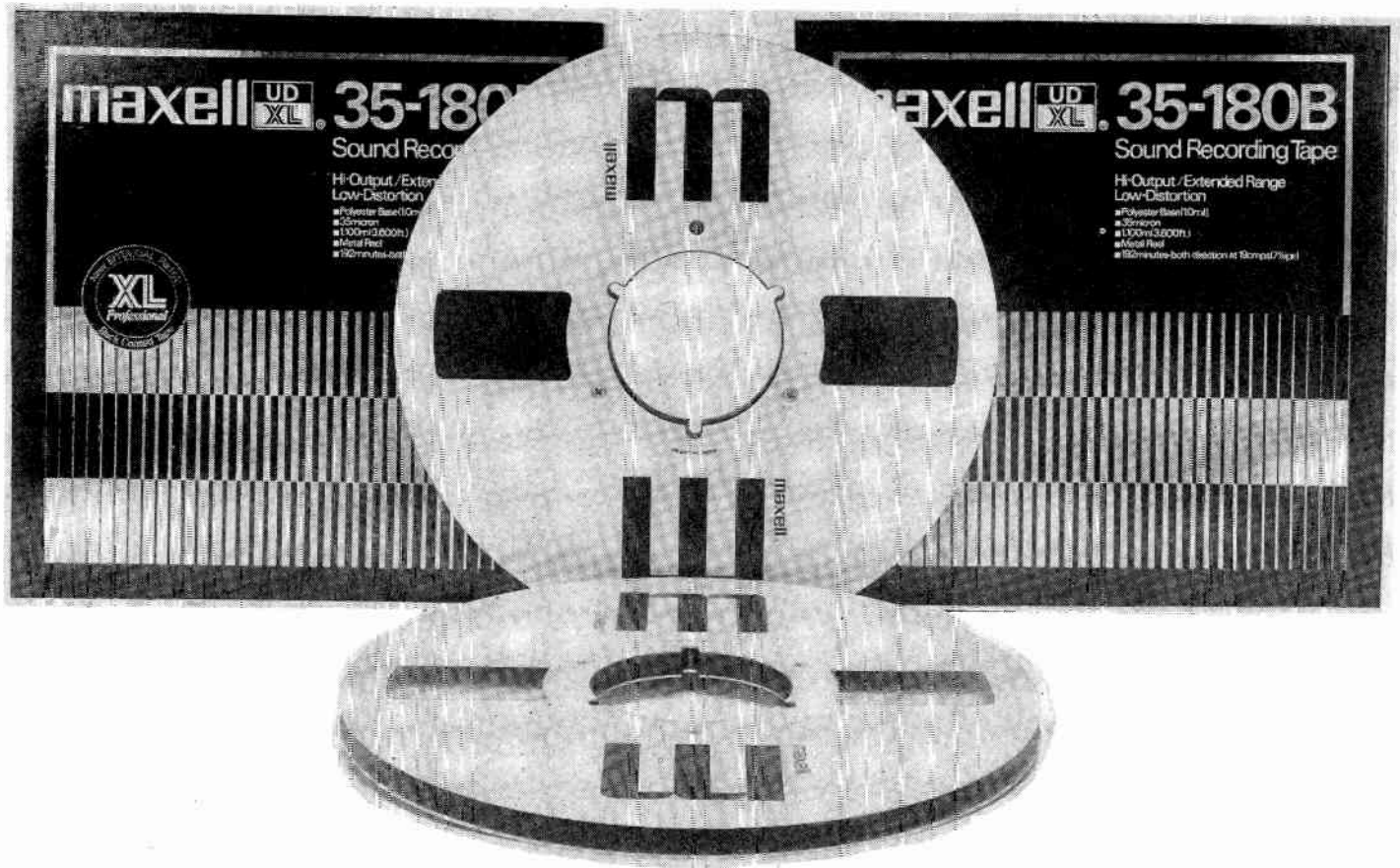
and which I personally would prefer to a lot of designs costing twice the price.

The other item to receive some well-deserved praise is Amstrad's top amplifier, the *EX330*. I was vastly amused when I first saw this model, because it really represents the first serious attempt by any British manufacturer to meet the far Eastern products head-on in the market-place since Rank pulled the plug on Leak electronics. This is not to suggest that the others aren't competitive, far from it, but rather that by sheer volume the Far Eastern goods have defined the style that represents a hi-fi amp in the public mind, and that all the UK designs before the Amstrad (except perhaps the Rogers) were to a greater or lesser extent unconventional in physical appearance, though the latest ranges from Alba and Ferguson perhaps suggest the beginning of a trend.

Displaying all the features that Joe Public appears to hold in high esteem, the *EX330* has a large 'silver' front with chunky 'click-stop' volume control and similar smaller controls for bass, middle, treble and balance, plus a pair of rudimentary power meters, two filters, stereo/mono, and (of course) loudness. Rated at 30 W (30/35 watts into 8/4 ohms) it has a surprisingly lusty output for such a low-priced amp (£67 typical). It lacks speaker switching, which can only help the sound quality, but unfortunately there is no tone defeat function. In all honesty, the finish and control 'feel' is not quite in the Japanese class, but provided you keep the neighbours at arm's length I don't think they will be any the wiser!

I have no idea how the *EX330* measures, but on listening it gives a perfectly respectable sound which can be considered very good for the price. I suppose if one applies 'audiophile' standards to regular commercial amps, the majority are going to fall into three categories: reasonable, mediocre, and pretty awful. Despite being one of the cheapest models around, undercutting equivalent power competitors by a large percentage, the Amstrad also sounds at least reasonable. Its weaknesses to my ears were a 'wrong' sounding extreme treble, which was happily not aggressive, and somewhat vague imaging which tended to wander a little. But generally speaking, the sound, particularly in the mid-range, was quite clean and tidy, and the amp is clearly something of a snip at the price.

So now we have two thirds of a disc-playing hi-fi system of some potential for about £140, which leaves plenty of money for a really good turntable and arm! Alternatively, a quick listen to the new £60 Sansui *SR 222 II*, under unfamiliar conditions, made me wonder whether the elusive Rega *Planar 2* may not have got itself a rival at last (a further report will follow in due course). At any rate, it looks as if a disc-only system of real hi-fi quality can be put together for around £200, which is less than the average price of a music centre, and I would still regard the amp and speakers as viable components in systems up to £500. While I will continue to try to ferret out alternatives among the many budget products, I think it is unlikely that anything more acceptable will appear at these price levels.



# Empty promise. Worth £5

At Maxell, we keep our promises. Like this one; buy our special pack of three 7- or 10½-inch open reel tapes\* and we'll give you a matching precision metal take-up reel – worth around £5 – absolutely free.

We keep our promises. You keep the reel.

# maxell®

\*Offer applicable to: UDXL 35/90B, UDXL 35/180B and UD35/90. Offer subject to availability.

Natural Sound Systems Ltd., 10 Byron Road, Wealdstone, Harrow, Middlesex HA3 7TL. Telephone 01-863 8622



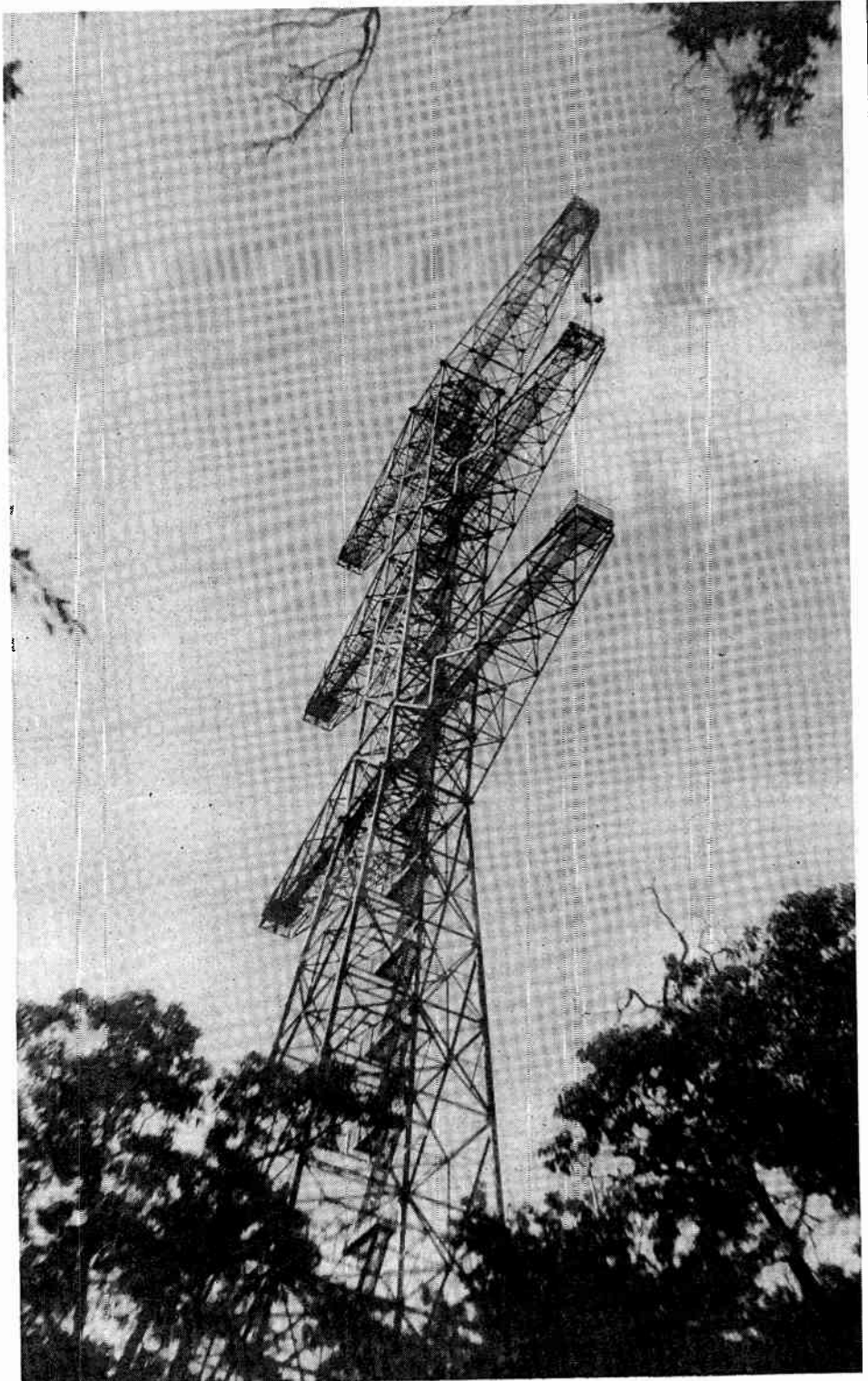
# The Battle for FM Radio

Adrian Hope completes his survey of Armstrong's career,  
25 years after his tragic death

IN a fascinating testimony to a US Senate Inter-state Commerce Committee in December 1943, Armstrong related how he came to invent frequency modulation radio. It was way back in 1914, soon after his invention of the regenerative or feedback circuit, he told the Committee, that the problem of static interference started to fascinate him, and by 1924 he had decided that the problem was insoluble. 'Static, like the poor, will always be with us,' was the cryptic consensus of twenties engineering opinion. But soon after deciding that the problem was insoluble Armstrong started to wonder whether the solution might not be a reappraisal of the basic method of transmission. He wondered especially about FM. The idea of modulating a carrier wave in frequency rather than in amplitude was not new, but there was a wealth of mathematical theory to prove that frequency modulation was a dead duck. 'This type of modulation inherently distorts without any compensating advantages whatever' J. R. Carson told the IRE in 1922. Fifteen years later, in 1937 and long after Armstrong had demonstrated the efficacy of FM broadcasting, Carson was still decrying Armstrong's efforts as 'essentially non-mathematical in character'. Even the 1937 edition of the textbook *Radio Engineering* by Terman declared that 'frequency modulation is not particularly satisfactory as a means of transmitting intelligence'.

Fortunately for us, as we would not otherwise today have FM radio or video recording which relies on FM, Armstrong was not a man to be diverted from empirical research by mathematical proof. 'It isn't ignorance that causes the trouble in this world: it's the things that folks know that ain't so' Armstrong told the senators. He also told them how FM worked, which it seems safe to assume that readers of *Hi-Fi News* already well know. But what will not be so well known is the train of thought that led Armstrong to the development of FM as we know it today, in spite of mathematical 'proof' that he was on the wrong track.

The sound of static noise encroaching upon the transmitted wave was traditionally minimized by keeping the bandwidth of the receiver's RF circuits as narrow as possible, with the intention of passing only the minimum information necessary to convey the program signal and thus admitting the minimum possible noise. Armstrong first hoped that transmission by FM, rather than AM, would minimize static noise because it was assumed that static would be predominantly AM in character. But experiments proved otherwise: a receiver with an AM limiter was still noisy, so the noise had FM characteristics. Mathematics proved that to transmit a healthy signal by FM required a wider bandwidth than transmission by AM. So it followed that to



View from the ground of 400ft. antenna tower of Frequency Modulation Station W2XMN at Alpine, New Jersey.

transmit by FM would simply open the window to even more noise. Or did it? Armstrong noted that although the incoming noise was frequency modulated, the frequency changes were of limited extent. So why not, he thought, modulate the transmitted programme very *widely* in frequency and make the receiver only *feebly* responsive to small changes in frequency and *fully* responsive to wide frequency swings. In other words, open the window wider but make the receiver insensitive to small disturbances.

What Armstrong proposed was exactly the opposite of previously accepted practice: heretically, he was suggesting a wide transmission band instead of the traditional narrow band. But it worked! It worked even better when he incorporated pre- and de-emphasis along with a limiter to eradicate the effect of AM noise. Armstrong built test equipment at Columbia and during the Winter of 1933/34 demonstrated it to executives and engineers of RCA over a period of several months. Amongst those present at the demonstrations was David Sarnoff, a man by now close to Armstrong both in business and friendship. Further development of Armstrong's FM prototypes continued, one estimate being that over a period of ten years some 50,000 measurements were taken. Despite initial suspicion, Sarnoff and the RCA team were impressed by the 'static eliminator' which Armstrong showed them. In 1934 Armstrong's equipment was removed from the laboratory at Columbia University and installed at the National Broadcasting Company's radio station at the top of the Empire State Building in New York. The NBC station had a 2 kilowatt 44 MHz transmitter which had originally been designed for television use (then of course in its infancy). Armstrong first built a receiving station at Westhampton Beach, Long Island, seventy miles from New York City, but to test the system harder he shifted the receiver in July 1934 to Haddonfield, near Camden, New Jersey, a distance of 85 miles from New York City. Armstrong described as a 'pleasant surprise' his discovery of the fact that, contrary to accepted belief, reception did *not* stop abruptly at the horizon, which was about 45 miles from the Empire State tower.

Despite the continuing torment of litigation with de Forest, over the feedback patent rights, Armstrong had every reason to be optimistic. It was arranged that he would lecture the IRE in November 1935 on the new invention. But then everything started to turn sour. In October 1935 Armstrong and RCA fell out. The corporation refused to put FM into public use and Armstrong was denied further access to the Empire State transmitter. It is perhaps worthwhile to pause here and recall that those fragile twelve-inch discs that I found lying loose in a folder at the Columbia Library a few months ago contained transcriptions of those original 1935 broadcasts between the Empire State and Haddonfield with (if the labelling is to be believed) A/B switching tests between AM and FM transmission over the 85 mile route from New York.

The Empire State Building is of course still used to house a transmitter aerial and radiates no less than 17 separate FM stations from 32 dipoles, each tilted at 45 degrees to give

good reception on both vertical and horizontal aerials. The Empire State claim that they are probably the only transmitter tower in the world to transmit so many different FM carriers simultaneously from a single mast. In predictable fashion, when RCA snubbed him, Armstrong, a proud man committed to his invention, sold off a block of his RCA shares. Next he applied to the Federal Communications Commission for permission to build his very own transmitter on the 40 MHz band. In 1936 permission was granted and in the Spring of 1937 Armstrong started construction work on a massive transmitter aerial to be built on the Palisades, a bank of cliffs 500 ft above the Hudson River in the village of Alpine, 17 miles from New York. The height of the aerial tower was itself 400 ft and the length of the three cross arms 150 ft each. The radiators took the form of seven pairs of crossed rods 11 ft long. Water-cooled valves generated a transmitter power of 40 kilowatts and the efficiency of transmission was rated by Armstrong as 90%.

The building cost alone to Armstrong was 300,000 dollars and he helped construct the aerial tower with his own hands. The station went on the air on July 18th, 1939. There were at the time only around 25 FM receivers in existence, built by General Electric for Armstrong, paid for by Armstrong at the cost of around 10,000 dollars and distributed free to his friends. The first programme broadcast by Alpine, under the station call sign W2XMN, began with recordings of popular vocal and orchestral music, the first identified item being a recording of Haydn's Symphony No. 100 at 4.30 p.m. Interestingly, the station log shows that at 9.50 p.m. Alpine went briefly off the air. The safety relays tripped when an insect crawled into the transformer spark gaps and caused a short circuit. 'Dead bug found under spark gaps' reads the duty engineer's entry.

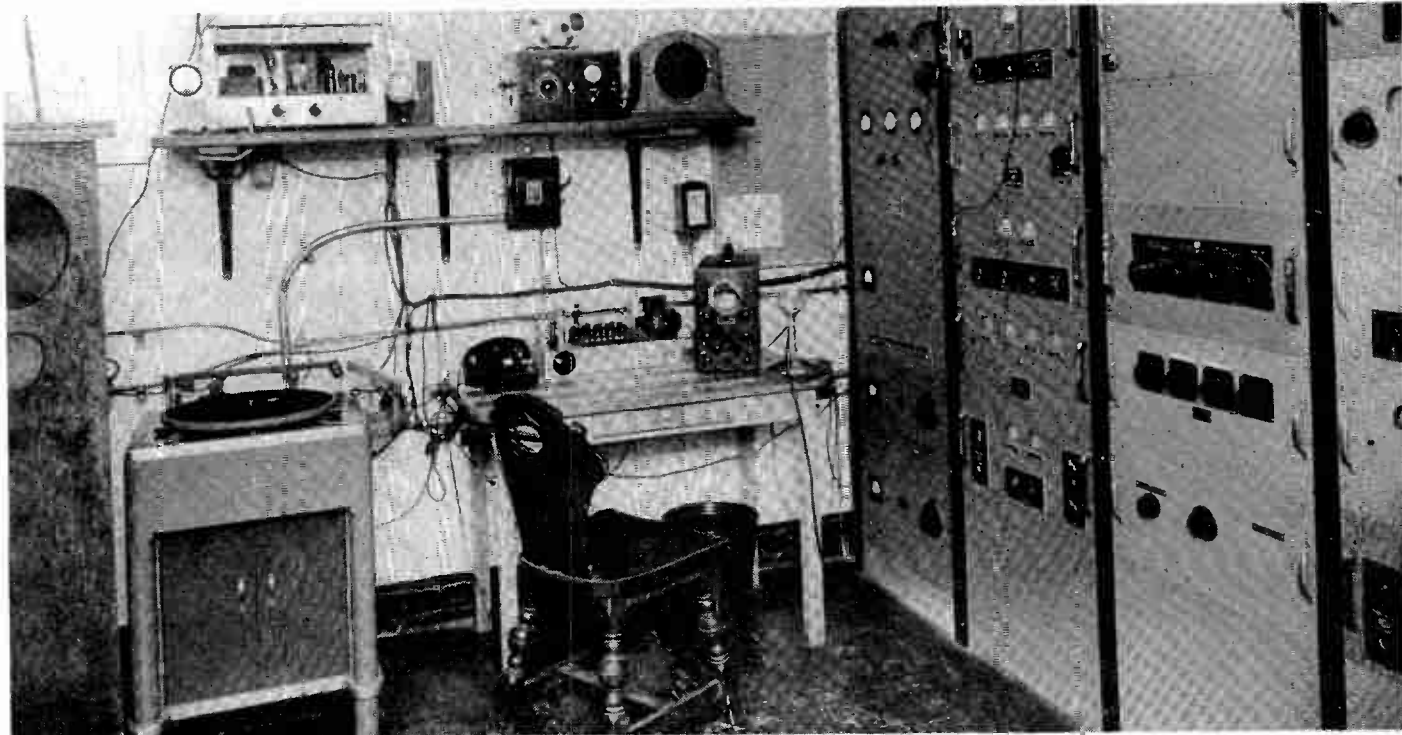
Inside RCA there was dissent. Some engineers and executives saw the future in FM radio—others saw the future in television. For RCA, television won. But the public and the radio trade were impressed by what was happening out on the air. As Alpine and a couple more transmitters were completed and started to operate a regular broadcasting schedule, constructional work on a dozen more stations started and by the autumn of 1939 there were over 150 applications on file at the FCC. Some firms, including GE, Westinghouse and Zenith took licences on the Armstrong patents. Others, including RCA, did not. Although officially RCA had no interest in FM, involvement was inescapable. Even RCA's interest in TV relied on FM for the sound channel transmission. Sarnoff was no fool. In 1940 he offered Armstrong a million dollars outright payment for an FM licence. Armstrong refused, insisting on a royalty as he was receiving from the other licensees.

Head-on confrontation was avoided only by the onset of war. In March 1941 Armstrong waived royalty payments under all his patents for any apparatus manufactured for the duration of the war, whatever that turned out to be. In subsequent litigation, after his death, even this gesture was thrown back in Armstrong's face. During the war the

military waiver cost Armstrong royalties on a quarter billion (US) dollars worth of FM radio equipment used, for instance, by Patton's Third Army in Europe and the navy in the Pacific theatre. In other respects FM received a boost during the war with the massive military research machine dedicated both to improving and mass producing FM circuitry. But this was more than offset by a now steady stream of further set-backs. In 1936 the FCC had allocated two narrow bands of frequencies for FM broadcasting on an experimental basis, one just above 40 MHz and one at around 117 MHz. In 1940 the FCC, with an eye to the 150 applications for FM transmitters then on file, gave FM broadcasters a wide band at 42 to 50 MHz. But at the end of the war the FCC took a decision to shift FM radio up to the present 88 to 108 MHz band. In so doing they obsoleted nearly half a million FM receivers already in use. The damage to FM and the boost to TV was substantial. Armstrong bitterly resented the frequency shift and always argued vigorously in favour of the lower frequencies, stating that the 'natural habitat of a service such as television is in the higher frequencies'.

In this respect Armstrong may, probably for the first time in his life, have been wrong. The higher frequency band, where FM still remains, may well be the best place for radio reception free from long-range propagation interference. It would be interesting to hear now from radio engineers on whether they believe the FCC took the right or wrong decision and whether if Armstrong had succeeded in securing what he originally wanted, a band of around 42 to 56 MHz for FM radio, we would now revile or praise him for that fact. Armstrong certainly had no doubts on the matter. 'It is now clear for all the world to see that a former Federal Communications Commission made one of the colossal engineering blunders of the century' he wrote as late as 1951.

But despite television, despite frequency shifts and despite a brewing storm over patent litigation, FM radio took off in the USA in a very big way in those early post-war years. Once the public discovered that it really was possible to receive (for them) high fidelity sound, without the crackles of static, FM became a craze. And in the USA there is nothing quite like a craze. In 1948 there were 404 FM stations operating in the USA, 436 more authorized for construction, and 178 conditional grants were out for still more FM facilities. There were four local and regional FM networks operating across the country, and eight in the planning stage. The year previously (1947) 1.3 million FM sets had been produced and the cost was continually dropping. Adverts, aimed at penalising RCA and others who had not taken a licence, exhorted the public to insist on 'genuine frequency modulation as invented, perfected and patented by Dr. Edwin H. Armstrong'. There then followed a list of the companies operating under legal licence. In 1948 the list was 36 strong. Amongst the names were EMI and Philips, along with Zenith, Westinghouse, Fisher, GEC and Marconi. EMI of Hayes, Middlesex even took a full page advert in an American retail magazine proudly proclaiming that their world-wide operation was all under licence to Armstrong.



Control Room of Frequency Modulation Station W2XMN, Alpine, New Jersey.

Of course everything so far was in mono. But even by then the idea of multiplex transmission was old. Way back in 1934 Armstrong had transmitted a single carrier multiplex of both audio and facsimile data pages from the Empire State Building. He had also multiplexed several separate audio channels on a single carrier. The technique Armstrong used was to impose a sub-carrier, of the order of 30 kHz, on the carrier and then frequency modulate the carrier. This was fine for transmitting separate programmes, for instance facsimile sheets or background music for stores and restaurants, piggy-back on a normal radio transmission, but it was of little use for stereo or binaural signals. Contrary to a popular misconception, however, Armstrong was well aware of the advantage of transmitting stereo. The *New York Times* later carried reports of his proposal for transmitting stereo in binaural form from a concert hall. But the kind of multiplex transmissions Armstrong had in mind were not mono compatible: a listener receiving only the base-band received only one channel. It was Murray Crosby who proposed putting the left-plus-right or 'sum' on the base-band and the left-minus-right or 'difference' on the sub-carrier, to provide full mono on a mono receiver and stereo on a stereo receiver. Incidentally, the multiplex system finally adopted for broadcast use was developed by Zenith and GE and differed from Armstrong's proposals in that the sub-carrier is imposed by frequency modulation, but is itself amplitude modulated with the difference signal. To set the historical record straight, the New York FM station WBAI (subsequently several times a winner of the Armstrong annual award) was probably the first to transmit

stereo according to the Crosby mono-compatible matrix system. That was in 1957, and it was in 1961 that the FCC finally approved the GE-Zenith multiplex system with Crosby matrixing. This of course is the system now used hand-in-hand with FM around the world.

Papers in the Armstrong files, by the way, reveal that the BBC was conducting field-trials of FM mono transmissions on both 45 MHz and 90 MHz from Alexandra Palace and Oxford in the mid 1940s, before the end of the war. In 1950 the Corporation ran extensive comparative AM/FM listening tests from Wrotham, using a 91.4 MHz 25 kW transmitter for FM and a 93.8 MHz 18 kW transmitter for AM. The results were positively in favour of FM, even with crude aerial systems; the rest, as they say, is history. But the records show clearly how very slow we were at adopting a system that had long since proved itself in the USA and taken the country by storm. It was not until the 2nd May 1955 that Wrotham was brought into service as the first VHF radio broadcasting station in the UK. By then Armstrong had been dead for over a year and FM was more than twenty years old.

With the success of FM and the bad blood that had arisen between Armstrong and RCA, and the latter company's refusal to take a patent licence, it was inevitable that litigation would follow. Lawyer Dana Raymond stresses that it was not a personal battle between Armstrong and Sarnoff. But both men were stubborn, and when stubborn men confront there is often no way out but litigation. A string of other companies, doubtless reassured by RCA's stand, also refused to take out licences under the Armstrong patents. By the late 40s Armstrong had spent more than a million dollars (probably two million) of his own money on the continuing operation of his Alpine FM station and he decided to spend some more on defending his

patent rights. In July 1948 he started a legal action against the giant RCA.

After suing RCA, Armstrong followed up with suits against other giants, including Motorola. By January 1954 he had filed a total of 21 separate infringement actions to protect what he saw as his legal right. No-one, unless they have experienced what a single patent action involves, can possibly understand what it would mean to be involved in 21 similar actions all to be handled separately and all involving education of a different court in the mysteries and subtleties of FM techniques. To explain to a judge why a quasi-FM circuit infringes an FM patent, you need first to explain to a judge what FM is all about; but to explain about FM you need first to explain about AM, but to explain about AM you need first to explain about ... and so it goes on. Each case required meticulous pre-trial preparation. It was too much even for Armstrong, by then a man in his sixties. He could no longer support the mental and physical burden which was the product of his own pride and stubbornness. Neither could his wife. She cracked first.

The record here becomes hazy, and understandably. With Marion Armstrong still alive, the lips of those who know first-hand what happened in early 1954 are tactfully sealed. It could be regarded as intrusive even to consider the issue. But what happened in those final weeks is important to the historical record of a great man. Contemporary newspaper reports leave no doubt that Armstrong was increasingly obsessed by the unfairness of law. He spent five years on pre-trial work on the RCA law suit and in November 1953 made a grant of 50,000 dollars to Columbia University. This was specifically to set up a committee of legal experts to study the success (or doubtless in his eyes the failure) of the courts in deciding complex scientific questions. The twenty fresh patent suits that

# Watts ~ the first name in record care

New Formula Parostatik®  
Antistatic Fluid  
½ oz 26p. 1 oz 42p



Distilled  
Water  
Dispenser  
32p



Hi-Fi Parostatik® £4.55

Humid Mop Kit £1.39



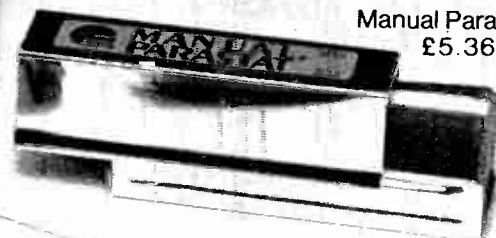
Xstatic® £6.48



Parostat Wash Brush (Replacement Brush  
for Manual Parostat) £1.41  
Packs containing replacement parts are  
readily available.



Manual Parostat®  
£5.36



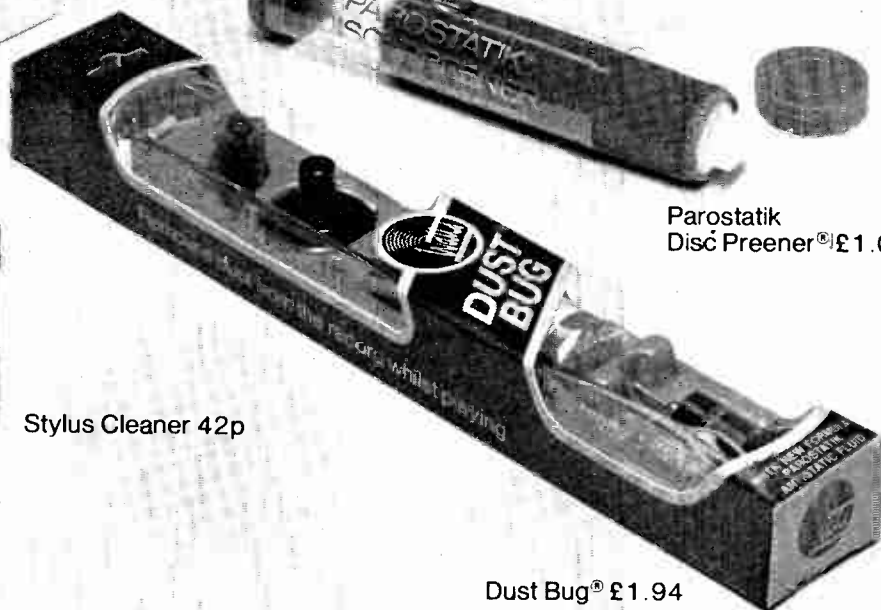
Parostatik  
Disc Preener® £1.07



Stylus Cleaner 42p



Dust Bug® £1.94



Cecil E. Watts Ltd., Darby House,  
Sunbury-on-Thames, Middlesex.  
Telephone: Sunbury-on-Thames 83252.  
Telex: 27750

All prices include 8% VAT. Available from all good hi-fi stores and record shops or in case of difficulty order direct adding 10% to cover postage and packing (minimum P&P 10p) UK only.

Please send me the following items:.....

Name .....

Address ..... HFN3

Illustrated leaflet and full price list

I enclose cheque/P. O. value £..... (please do not send postage stamps)

Armstrong filed against the firms who had followed RCA's lead and ignored his patents all required pre-trial work. Marion Armstrong clearly saw the folly of it all. The royalties were pouring in from firms that had taken an FM licence and it seemed clear that out-of-court settlements could be reached with the firms Armstrong had sued. He was rich beyond the wildest dreams of any inventor. Between 1940 and 1954 four and half million dollars had been voluntarily paid by FM licensees.

Marion Armstrong quit River House and went to live with her sister in Granby, Connecticut, ostensibly to discuss a joint venture in the antique business. Some time during the night of January 31st, after dinner, Armstrong wrote a two-page note to his wife. The contents of the note have never officially been disclosed. But New York porters and security men are not normally famed for their resistance to a reporter's bribe. Passages from the note leaked out. Most significant of the intensely personal content was Armstrong's bitter regret at what had happened, and his vain 'if only' dream that they could 'turn back the clock to the time when we were so happy and free'. There was only one way for Armstrong to turn back the clock. So he dressed for a night walk and walked out of the 13th storey window.

One imagines that the 21 companies in legal dispute breathed a concerted sigh of relief. If they did, then they did not take into account the nature of Marion Armstrong. She returned from Granby and discussed the outstanding litigation with a gaggle of lawyers. If she settled out of court, or even dropped the cases altogether, she would still have no financial worries. But if she pursued the cases it could take years of fighting with the possibility of loss and financial ruin from massive lawyer's fees. Marion Armstrong's friends and lawyers advised her to settle. Settle she did, but only with RCA and the man who had once employed her as a secretary, David Sarnoff. The settlement in 1954 was for a one million dollar outright fee, exactly what Sarnoff had offered Armstrong fourteen years earlier and exactly what Armstrong had refused to accept. For Marion Armstrong to accept that settlement so soon after her husband's death must have been a bitter decision to take, but it gave her the cash to carry on with the remaining actions. Almost certainly she continued those remaining actions in her late husband's name as much out of guilt at deserting him in his hour of need, as out of a desire to see the likes of Motorola brought to heel. Meanwhile, more than 150 people attended Armstrong's funeral service at the Presbyterian Church on 5th Avenue. The mourners included David Sarnoff, Chairman of RCA.

In deciding to pursue the actions that Armstrong had started, his wife was forced to shoulder the mental burden that had killed him. In this respect she was clearly strongly supported by the firmly quiet-spoken New York lawyer Dana Raymond. Raymond still practices patent law in New York. Recently, for instance, he handled some patent litigation on laser technology. Like Banquo's ghost, the RCA spectre still hovers: Dana Raymond's office is in the RCA building.

The clutch of patent suits that Marion

Armstrong inherited came one by one to court, or settlement, in an interminably slow procession. Arguably the most important of all actions, that against Motorola for FM infringement, reached a court in Chicago in 1961 and staggered through appeal procedures to a final decision in favour of Marion Armstrong in 1967—the year of flower power and thirteen years after Armstrong's death. With Motorola defeated, the remaining stragglers settled. In all, the Armstrong estate collected an extra ten million dollars worth of back royalties. The astonishing fact is that those royalties accrued on just three years of patent life. In the USA a patent lasts for 17 years, and this term cannot be extended. Unlike the British laws existing at that time (which enabled the life of a British patent to be extended to make up for opportunities and royalties lost because of a war), US law makes no provision for war loss. Thus when Armstrong voluntarily waived all royalties from his FM patents on military equipment during the war years, he was taking a considered decision to kiss an irrevocable goodbye to however many years out of his patent lives the war lasted. During litigation it was even suggested that by waiving royalties during the war on military FM equipment, Armstrong had somehow jeopardised his right to sue for royalties on domestic equipment after the war!

Armstrong's FM patents were all granted in the early 30s and died irrevocably on Boxing Day 1950. By the time FM had overcome the setbacks of commercial uninterest in the 30s, the war royalty waiver in the early 40s, and the FCC frequency shift in the mid 40s, the patents had only three more years of useful life left when FM started to become big commercial business (1948-50). All the litigation carried on by Armstrong and his widow was concerned with the collection of back royalties owing to those three years. The mind boggles at what the ten million dollar sum collected for those three years might have been if American law had followed UK law and provided for the extension of patent life to compensate the inventor for war year losses.

There is one mystery, never to the best of my knowledge previously investigated, which emerges from a study of the contemporary press cuttings. Armstrong, we learn, had been working for the military in the early 50s on radar defence systems. It was the time of the cold war and there were reds under every bed in the USA. It's thus hard to know whether the contemporary reports by Walter Winchell of Soviet agent penetration into Armstrong's radar defence research project were true or false. It is equally hard to know whether Winchell was correct in saying that Armstrong discovered that one radar defence system had been stolen by the Soviets and feared for the security of his new system under development. According to Winchell, Armstrong went to a member of the Eisenhower cabinet, who turned the matter over to the loathsome Senator McCarthy, then head of the Senate Sub-Committee investigating subversive activities. McCarthy sent one of his henchmen David Schine (a name which will be all too familiar to anyone conversant with this odious period of American politics) and Schine conferred in secret with

Armstrong. It is of course well established that many people saw their careers destroyed by McCarthy following investigation by his henchmen and a summons to appear at a public committee. 'Are you now, or have you ever been, a member of the Communist party?' was the crippling question, because a denial would require the naming of names. Some took suicide as the escape route from McCarthy's attention. I for one would dearly like to know whether McCarthy and Schine had started to put their talons into Armstrong during the last months of his life. They could well have proved the final straw.

Armstrong has now been dead for 25 years and is at risk of passing into history as a genius remembered only by those who take the trouble to find out about his work and achievements. In this respect he closely parallels Blumlein, a man whose name for many years meant nothing whatsoever to anyone other than a devoted few. Armstrong, again like Blumlein, laid the groundwork for modern high fidelity reproduction. Interestingly, when Armstrong's effects were unravelled after his death, there was discovered a massive bill outstanding for telephone cable charges. Armstrong, it emerged, had secretly been paying ten thousand dollars a month to the telephone company for the rental of a high quality cable link which enabled New York's municipal station WNYC (which incidentally still runs a hi-fi chatshow) to carry live broadcasts of the chamber music concerts held at the Library of Congress in Washington DC. Armstrong's own station, at Alpine, went off the air on March 6th, just five weeks after his death.

I suggested earlier (in last month's article) that the Armstrong Foundation, based at Columbia University and ostensibly devoted to preserving memories of the man and his work, is running out of steam, enthusiasm and cash. Until now, doubtless as an act of continuing contrition, Marion Armstrong has funded the Foundation. No-one knows what will happen if her funds run low—or when she dies. I cited also the appalling lack of interest shown in preservation of what are probably the only remaining audio records of Armstrong's early work. It remains to be seen whether the library keeps its word over dubbing and preserving those early tapes and discs. It also remains to be seen whether the Foundation continues even in its own somewhat half-hearted manner to seek wider awareness of Armstrong's contribution to high fidelity and radio. I can only judge from my own observations. It is, for instance, an inescapable fact that when I visited New York towards the end of 1978 with the specific intention of researching articles to commemorate Armstrong's death 25 years ago, no-one with whom I spoke seemed aware of or concerned about the forthcoming anniversary date. Certainly no steps had been taken to remind the hi-fi and national press of the significance of January 31st, 1979. Perhaps that situation has now been rectified. Perhaps not. But whatever happens, some British readers will now know what happened a quarter of a century ago. ●

# The new Conway II. Soundly built for quality.



## Conway II

The three way,  
three speaker  
system from Castle  
Acoustics of Great Britain.  
Built for quality. Built for efficiency.

The new Conway II is a convincing choice in every way.

Convincing in terms of faithful hi-fi performance—with an “efficient design”—producing smooth, detailed response, full volume with rich and natural tonal accuracy.

The Conway II satisfies the need for superior sound quality from even modest amplification. Castle's own specially designed efficient drive units offer responses of 4-22 kHz in the treble-range, 750-4000 Hz in the mid-range and 35-750 Hz in the bass-range. Output integration is controlled by a sophisticated thirteen-element crossover network, specially designed to make the system easy to drive.

The new Conway II is also a convincing

example of the craftsman art. The scientifically braced cabinet is constructed of 18mm, high density particle board, hand finished with a choice of selected real wood veneers and protected with a final coat of tough polyurethane lacquer. The walls are internally damped with bitumin and are lined with acoustic foam. The discreetly sculptured grille maximises the advantages of acoustic foam.

The Conway II represents a new peak in Castle achievement. Its design and manufacture will convince those who take quality to heart. To convince yourself of this new speaker sound quality enjoy a listening test at your local Castle appointed dealer. For details of Castle distribution in your area, and other speakers in the range please use the Coupon Service.

Speakers for connoisseurs—built on 65 years of high fidelity engineering experience.

### coupon service

Please provide me with the full facts on the speaker systems in the Castle Range.  
Together with the address of your local dealer.

Name \_\_\_\_\_

Address \_\_\_\_\_

Conway II

HFNC II



Castle  
Acoustics  
Limited

Post to:  
Castle Acoustics  
Shortbank Road,  
Skipton,  
North Yorkshire  
Tel: Skipton (0756) 5333

# A Pressing Need

A survey of record quality ('Discontent', Lehmann/McQuillan, *HFN/RR* September 1978) and the ensuing letters, whether to the Editor for publication or to the office in varying degrees of despair, prompt postscriptural musings by the Records Editor: **Geoff Jeanes**, a beleaguered discophile, joins in.

PAUL MESSENGER gave us something to chew on last month, didn't he? The problems we have with surface noise may be 'at least partly due to the system as well as the discs'. Some balanced-sounding and careful suggestions followed, giving me at least a little more faith in this viewpoint than: 'If you can hear surface noise you're using the wrong preamp' (An Amplifier Manufacturer), or 'When your arm's set up properly you don't get surface noise' (A Leading Subjectivist). Nevertheless, doubts remain.

Some years ago Cecil Watts tended to find that those frequently troubled by record faults often used a particular and rather peaky tweeter which accentuated things in the 'scratch area' of frequencies; and likewise (though both cases are less likely nowadays owing to progress in design) some pickups may have uneven response and be prone to more problems than others. But Paul wasn't speaking of remedies as clear-cut as these, and in the connexion of the considerably more rarefied levels of (and from) which he spoke, two important points are offered for consideration. One is that many of us are fairly well stuck with the equipment we have already—and in inflationary Britain are increasingly likely to remain so; the other is that there are, and seem similarly likely to remain, big differences in pressing quality between the best and the worst of the major record companies. Some pressings are a blissful dream of silent background from start to finish, music heard purely from empty space, while others are a nightmare of clicks, scrapes, scratches, crackle, rustle and other naffs that make one want to give up.

No subjectivist or amplifier manufacturer has yet suggested that these differences do not exist, or that by any stretch of a fevered imagination (or a technical parameter) they can be reduced to insignificance. The pressing problem remains, and the problem remains pressing, for those whose playing equipment—due to whatever neglect of technical advice or of further financial outlay—does detect such differences, and whose ears report them to a degree incompatible with musical enjoyment. Such listeners are not helped by the mind-boggling assertion: 'If you find all these problems with our records your equipment is probably too hi-fi' (A Major Record Company). The inconsistency here is profound. The products of that Company are among the best recordings of the industry, and my £2000 system renders a much higher degree of this recording quality than a system costing 'only' half as much. But a system costing a tenth of that is perfectly adequate to pick up

most of the faults occurring so often on poor pressings. Why does a recording company bother, when its pressing factory (obviously) doesn't?

Part of the answer was suggested by Lehmann and McQuillan, and part may relate to the brute facts of the marketplace. The recording process can involve people of the highest artistic integrity and aesthetic purpose, attempting to transcribe the great artists of our time into a medium of musical communication; the pressing process may involve Fred Sniggets on the factory floor (no disrespect to Fred Sniggets, he's a fine bloke) doing a job of plastics-moulding between clocking-on and knocking-off, excluding tea breaks, before going home to a well-deserved 'feet up in front of the telly' evening. And then, there is no doubt that those with equipment good enough to be severely troubled by record faults, and with sufficient stamina to pester the companies for better results, are a tiny minority of the buying market as a whole. Why should 'they' bother? Taking the trouble to produce better discs probably doesn't yield much financial return, on an overall view.

The answer on 'our' side, that of boycotting the companies making the worst pressings, despite its inconvenience (especially when the worst pressing companies may make the best recordings—or the only version of something one wants), may be the 'last straw' solution; but it assists the 'bad' company's faulty returns personnel, who may then believe that the reduced volume of complaints indicates that hit-or-miss replacement techniques are paying off in increased consumer satisfaction. The real situation may be easier to see from our side of the fence. On the other hand, the same returns department will be getting a lower returns rate than would be appropriate for the percentage of bad pressings its company produces compared with other companies, if the buyer (after some experience) comes to tolerate a lower standard from a 'bad' company than from one generally better; so, quite unfairly, they get away with it again.

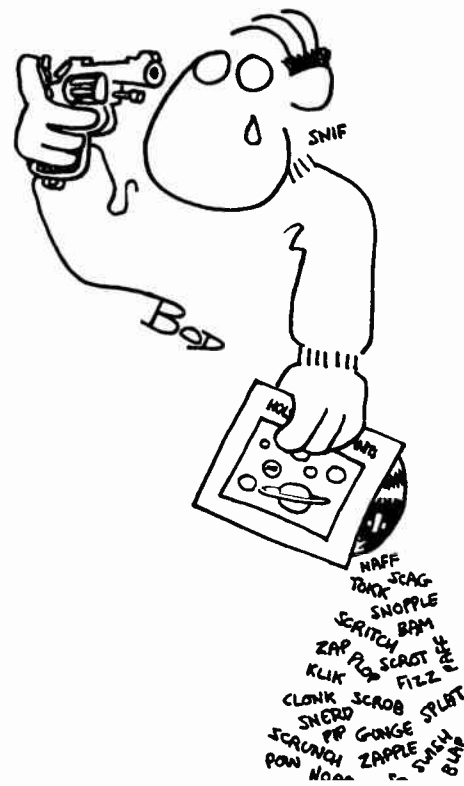
The question is not so much: why does one company do it right more often than another?, but: how can we end up with one company able to do perfect pressings almost every time and another, by comparison, hardly ever? (And even when the latter company do produce unusually acceptable records, perhaps the only good discs are the first few hundred off the presses.) If you have any real doubt that this is the situation, ask at the counter of any conscientious classical record shop or

department (keeping in mind in any case the above-mentioned two imbalances in the situation) which companies account for what proportions of faulty returns.

Is all this a bit exaggerated? Or, granted that the quality situation is as bad as I have outlined, does it really matter? Am I over-reacting? Surely it's possible to ignore all the naffs and just enjoy the music? Well, I'm told that a Tibetan yogi may find it perfectly possible to sit naked in the snow and keep warm by concentrating on 'inner fires'; but such a high degree of single-mindedness is, I fear, beyond me.

Some of its advertisers would have you believe that hi-fi can convey the impression of hearing music 'live', as in a concert-hall. Imagine, then, a concert-hall in which, while you listen from the front row to some sublime piece of the highest artistic endeavour known to man, the irrepressible Fred Sniggets is permitted by the Management to stroll about in front of you rubbing sandpaper together, thumping on the floor, snapping matchsticks under your nose and firing off at regular or irregular intervals anything from a popgun to a starter's pistol. Would one fail to notice the difference between this and the hall of which the Management refuses to let Fred in? Those who don't really notice such faults when they are present are either mentally-adjusted very happily (for them) or are, surely, not really concerned about the music at all; just as those who inform us that 'emotion quotient' is directly related to equipment quality cannot actually be listening to the music itself. But some of us do, or anyway try to, and for them the situation is most unfunny.

It's sad to have a record of superwide dynamic range when the quiet bits are *not* quiet bits; it's wretched to get a 'specially inspected and tested' replacement for a faulty record with all the original faults in just the same places; it's bitter to be quite unable to enjoy the first hearing of a record for the tension involved in waiting to see whether it's worth keeping. Never mind, it's *sometimes* worth waiting. ●



# REW

Invite you to  
**IMPROVE YOUR SYSTEM  
 THE PROFESSIONAL WAY**

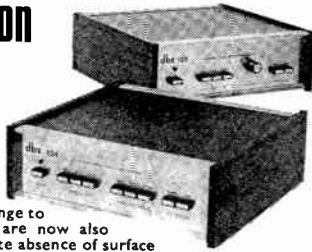


## dynamic range dbx enhancers

The DBX 117 and 119 are units that can be added to any system to re-expand the dynamic range that has been lost during the recording process when used with disc, cassette, open reel and FM. They can also be used to compress signals for various purposes including recording constant level background music.  
**Send for full literature**

## noise reduction dbx units

The DBX II models 122 and 124 give improvements in noise reduction of up to 30 dB across the whole frequency range when used with tape or cassette (compared with 10 dB for Dolby B). They also enable a far wider dynamic range to be recorded. DBX encoded records are now also becoming available possessing a complete absence of surface noise when decoded with these units.  
**Send for full literature**



**DBX PROFESSIONAL 150 SERIES ALSO AVAILABLE**

- 114-116 Charing Cross Rd, London WC2. Tel.: 01-240 3386/7.
- 230 Tottenham Court Rd, London W1. Tel.: 01-637 2624/5.
- Mail Order & Trade Enquiries: REW House, 10-12 High St, Colliers Wood, London SW19. Tel.: 01-540 9684/5/6.

## MAKE YOUR STEREO RADIO GO WITH A SWING

FROM FABULOUS FUBA (WHO ELSE?) comes the unique, eye-catching Swing 'S' amplified set top aerial for VHF/FM radio. Unable to have a loft or roof FM aerial? Within 20 miles of a transmitter (often further) **THIS IS YOUR ANSWER.**

Retail & Trade Suppliers. Send for fully illustrated brochure of this beautifully made, highly effective unit. *We are sole U.K. distributors.*

To obtain this unit please write for nearest stockist. Enclosing S. A. E.



Swing 'S'  
 (Also Swing 'E' for TV)  
 A new concept in set-top aerials.

## ASTRA (QUALITY D.I.Y.) AERIALS

Backed by 24 years practical aerial rigging experience  
**GENUINE D.I.Y. SPECIALISTS IN FM AND TV AERIAL WORK**  
 10% off ALL AERIALS

For new glossy, highly graphic lists and brochures, send 35p and 9" x 4" sae. 35p credit on 1st order.

Stockists of fine aerials:  
 Fuba TV/FM aerials (W. Germany)  
 Plemi TV aerials (Holland)  
 UKW FM aerials (E. Germany)  
 Stolle FM aerials (W. Germany)  
 Antiference FM/TV aerials (U.K.)



Golden anodised Fuba Stereo 8. We are DX and rotator specialists

Over 3000 aerials (all bands) stocked: probably the most diverse stock of aerials and parts available in the U.K. All continental aerials (guaranteed for five years) are golden anodised.

## 53 WHITEHORSE ROAD, CROYDON, SURREY

Open 9-5.30, Mon.-Sat. Closed  
 lunch 12.30-1.30, Mon.-Fri.  
**OPEN ALL DAY SATURDAY**  
 Nr. Gloster Pub and Garage.

Tel.:  
 01-684 4300/5262  
 24 hr. answering service

## gentle on your records.

Use a Bib Record Valet  
 for up-to-the-minute record care.

The new Bib Record Valet is the most technically advanced manual record cleaner on the market.

Too much cleaning fluid can actually **damage** records, so the Bib Record Valet is designed to humidify the liquid for thorough cleaning without sticky deposits.

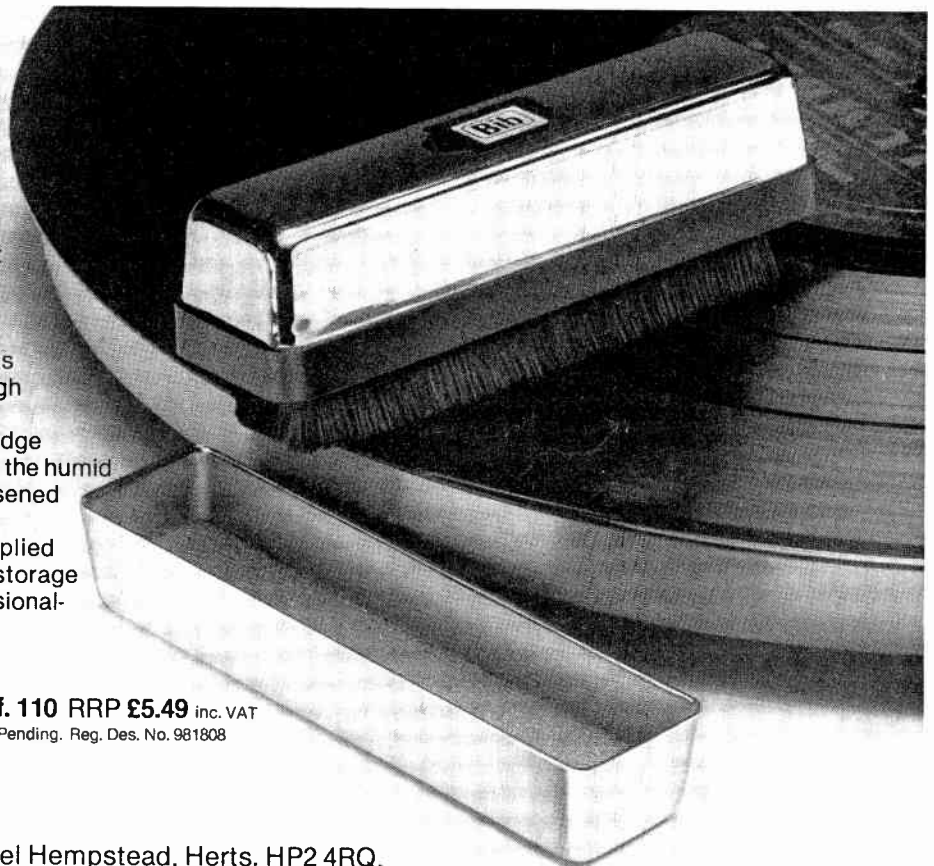
A row of soft bristles on the leading edge searches right down into the grooves, and the humid velvet pad collects and removes the loosened particles.

Engineered in chromed steel and supplied complete with dust cover in permanent storage box, the Bib Record Valet provides professional-standard record cleaning.

## **Bib** helps the music go round

Bib Hi-Fi Accessories Limited,  
 Kelsey House, Wood Lane End, Hemel Hempstead, Herts. HP2 4RQ.

Ref. 110 RRP £5.49 inc. VAT  
 Pat. Pending. Reg. Des. No. 981808





# FM Radio

## Angus McKenzie

SOME months ago I mentioned that the Revox B760 tuner would be capable of interconnection with the Stolle Progromatic Rotator when the Revox interface became available, and, at last, this interface arrived during December. My system now includes the Fuba 8 antenna with a Band 4 television aerial above it, rotated by the Stolle installed at the top of a scaffold pole above one of the chimneys, and interconnected with the Progromatic unit via a 5-core lead of approximately 30 metres. The control unit includes a large knob for manual control of aerial direction, and seven pre-set knobs which are used to set the seven different available directions which can be programmed into the tuner with the use of the Revox accessory B760/antenna direction programmer.

The tuner itself has to be fitted with an additional memory card, and for initial programming the Progromatic lead is plugged into the accessory unit plug, which is then plugged into the tuner, the unit plug having pins one end and sockets the other, with interconnection wires to the unit coming out of the side. To programme the tuner, it is only necessary to press the required station button, programme its frequency in the normal way on the tuner, then turn the external programming unit to the required aerial direction number and rotate the pre-set on the Stolle Progromatic for the required direction. When the store button is again depressed, the B760 'remembers' the coding for this required direction. When another station in a different direction is to be programmed, another Stolle pre-set can be switched in with the auxiliary programmer and its direction pre-set, this procedure being repeated for up to seven directions. When the Revox tuner is switched to manual, the manual potentiometer on the Stolle rotates the aerial to the required direction completely independent of the memory stores.

The entire system has been very reliable over Christmas and the New Year, up to the time of writing, and has allowed me to point my aeriels automatically south-west for Radio Solent and Thames Valley, west for Oxford, north-north-east for Anglia Television, east-south-east for Wrotham, and South for Crystal Palace Television and Croydon IBA Capital/LBC. A maximum of one minute is taken for the rotator to turn completely from south through north to south again, and the difference in reception is quite staggering as the aerial is moving. Radio Solent, for example, is almost unreceivable in many aerial directions, yet when the aerial is south-west it gives a completely acceptable signal, as do the other stations. This direction also serves for Southern Television.

I will admit that I have been somewhat impatient while waiting for the unit, but it has been well worth waiting for, and should be regarded not as a luxury but as a means to an end, in allowing a user to receive so many

stations excellently, and without problems, thus transforming listening habits. Incidentally, when all the stations have been direction-programmed the programming unit can be taken out of circuit and the Stolle Rotator lead plugged directly into the Revox, the auxiliary programming unit being stored until it is required again.

'HI-FI THEATRE' has now been established for a while, pre-recorded plays receiving three playings during the period of a week. This policy might be annoying to some, but at least it does allow almost anyone to pick a time to hear the programme; thus the series is clearly intended for hearing by a large audience. I always look out for science fiction plays and I listened most carefully to two separate broadcasts of *Tor Sands Experience* by Bruce Stewart, transmitted on 8th and 11th January.

With the series title of 'Hi-Fi' one must expect perfection, but this time I am sorry to report that I was very dissatisfied with much of the technical quality. I taped the two broadcasts, and noticed on the first occasion what I can only describe as Dolby-A pumping, and continuous response anomalies. Even the announcement of 'Hi-Fi Theatre' was very bad, with spiky, slightly clipped consonants on the left, and an amazingly muffled sound on the right. The music also sounded dull, and yet the first scene of a lecturer talking to the Press was much better, although some distortion was noted. This was followed by a scene on the Moors in which the characters first notice an apparition with a garbled voice from 'A-space'. The apparition sound was very well done, but the normal voices would seem to have been recorded without Dolby, and yet reproduced in the mix-down with Dolby noise reduction operative. This was clearly a bad oversight. It is probable that the major errors were in the original studio speech recordings, and I can only guess that the balance engineers and director were not able to monitor off-tape during the proceedings, since insufficient equipment was available to them to allow for this. If the Dolbys in use were in fact not switched to process, it is certain that the production team would not have noticed this anyway, apart from any additional noise that would have been evident.

While the drama studios are well equipped with props, and many different types of acoustic and reverberation are available, it would seem to me that the drama complex has a totally inadequate supply of electronic aids, such as Dolbys and multi-track recorders, and my reaction to *Tor Sands Experience* was that such a production was severely hindered by insufficient monitoring facilities. I was left with the impression that the whole play was almost done on a shoe-string, when judging by the highest possible standards. I know for a fact that the BBC often have to use portable recording equipment, and that the studios are so noisy during the day that they frequently have to work well into the night to avoid the all-too-evident plumbing and distant banging noises, as well as the inevitable 'tube train passing under the studio' syndrome.

I must praise the production team for their obvious enthusiasm, but no matter how

skilled they are it is clearly very difficult for them if they are not given the proper tools for the job. The play itself chose to put over the sound of 'A-space' which might be described as a form of hyperspace, by adding considerable treble cut to the voices when they were in the 'constant'. Here I feel that the producer might have shown more originality by introducing some electronic effects, for the muffled quality of the voices often made it difficult to follow the dialogue. At its best, then, the play was very exciting, the plot intermingling science fiction with the introduction of love between beings from hyperspace with normal humans. Some strong criticism was offered to the BBC after the second broadcast, and the final playback was much better, although faults still abounded, I do not want to discourage the BBC from attempting science fiction, since most of us rather enjoy being taken away into the future; but much more care must be taken, especially if the broadcast is to be termed 'hi-fi'.

I WAS RATHER perturbed recently when reviewing a tuner to find that many of my measurements of the particular sample were very much worse than measurements taken of another one reviewed by Gordon King. Eventually, and after prolonged and considerable pressure a second sample arrived, but too late to alter the original review. However, in a subsequent brief report I was able to state that measurements were very much better, coming virtually up to those of Mr King's sample. Most of the problems were in the alignment of the front-end and discriminator sections. I cannot believe that the manufacturers' quality control was as lax as it might appear to have been, and the thought strikes me that the travel from Japan to the UK, together with the bouncing about that the product probably received in transit within the UK, might well have been responsible for the misalignment. Such misalignment has frequently occurred to equipment received by me, and realignment has usually been relatively simple once the problem area has been found. If a product is subject to misalignment in transit, the manufacturer must take the consequences.

I shall shortly be looking at a number of samples of the same product, and will be reporting how variable the alignment was. I cannot help but feel guilty if I give a very good review or mention to a product, and yet readers inform me that their sample is disappointing. It is, of course, quite impossible normally to look at more than one sample, and herein lies a serious problem, with equipment incorporating so many pre-set adjustments.

ON THURSDAY January 11th I was appalled at the crackling and serious studio faults on the 'World at One' programme. Robin Day managed fairly well, but the problem was so serious that most listeners probably gave up bothering to concentrate on a most important programme. Surely it is time for the BBC to replace the very old valve equipment used in some of the news studios. Perhaps Aubrey Singer, the BBC's new Managing Director of radio, heard the broadcast and was equally horrified.

# We'd like you to meet our fan club.



Not long ago, the Japanese wife of a Japanese executive of an enormously large Japanese hi-fi company remarked that she much preferred the Armstrong Receiver (then being 'evaluated' in their home) to the somewhat bulkier, knob-encrusted equipment provided by her husband's firm.

Ask who that lady is and we must, of course, remain inscrutable.

But she has world-wide support for her opinion.

And not simply because Armstrong Series 600 is sleeker, more compact – and altogether more handsome than most other equipment.

The terrific news (and here's hope

for England) is that it also sounds better:

Turn for instance to the leading and largest hi-fi specialist magazine in America and this is what you read:

"I can only judge by what I hear – and what I heard in the case of the Armstrong 625 was very good indeed. Reproduction in phono is absolutely superb" Leonard Feldman, Audio, March 1978.

Series 600 is available in five models:

The amplifier (or amplifier section) has an output of more than 40 watts per channel – both driven. The FM tuner, or section, has a specification very close to the theoretical performance limits of the

FM broadcasting system. And the AM section covers both medium and long-wave bands, making it ideally suitable for the BBC's new wavelength changes.

Latest addition: the new 602 loudspeakers. "Congratulations to Armstrong for their entry into the market with a model that does them credit" Angus McKenzie.

(Please return the coupon for full information, including a free Series 600 colour brochure.)



621 Stereo Amplifier £150.00  
623 AM-FM Stereo Tuner £168.00  
624 FM Stereo Tuner £130.00

625 FM Stereo Receiver £237.00  
626 AM-FM Stereo Receiver £273.00  
602 Loudspeaker £220.00 per pair

Prices are RRP, include VAT @ 12½% and are correct at time of going to press.

Name \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

3 HFN/79

Post to: Armstrong Audio Ltd.,  
Warlters Rd., London N7 0RZ.  
Tel: 01-607 3213.

**Armstrong**

# Choosing the Best Cassette

R. H. Wallace outlines a non-technical method to achieve a good match with your particular deck

I SHOULD make clear at the start that this article is *not* for the technical reader with oscillator, oscilloscope, meters and the ability to put them to meaningful use. Such individuals should not need any help in their choice of cassettes, since they can plot the record-replay response curves for different cassettes and make their own choice.

This piece is written for those who have no test equipment or technical expertise, yet have a keen interest in the quality of reproduction of their music and wish to find out for themselves the best tape for their needs. Advertisers' claims usually conflict, while monumental surveys may not relate to one particular make or type of deck, let alone take into account individual variations between machines due to manufacturing tolerances and quality control. Nothing beats trying out a variety of cassettes on your own equipment in your home conditions. All that is needed is some help in making such a trial rapid and effective. This is better than trying a dozen different cassettes, recording say ten different types of music on each and then replaying each excerpt.

I shall therefore show how to do the job quickly with the aid of only one test record (useful anyway for setting up the best conditions for disc replay), with the advantage that such a trial could well show that you *may* not gain any advantage from some of the most costly cassettes. All that is needed besides the test record is an elementary knowledge of the basics of recording, to avoid the pitfalls which might otherwise lead to incorrect conclusions. Such snags I shall indicate briefly before describing the method of test. It is not enough simply to tape the test record onto all the cassettes involved and replay them, without some idea of what is happening in the deck.

Even though you are not able to plot response curves for yourself, you should be aware of their meaning and of what they reveal. I shall therefore give examples of such curves taken on my own deck, so as to illustrate what sort of effects can arise with varying types of cassette and so, by inference, what to listen for when using my suggested method. Since in the final analysis we are only concerned with those differences which are audible with our own equipment and ears, the procedure I suggest is perfectly valid technically, and in some ways more effective than instrumented tests alone.

Firstly I must make one important point, which applies equally to instrumented tests; this is the care needed when selecting a suitable depth of modulation. The critical nature of this arises from the recording compensation (pre-emphasis) which is applied in the electronics before the signal reaches the recording head. This is necessary because of the complex relationship of the magnetic properties of the tape, and its interaction

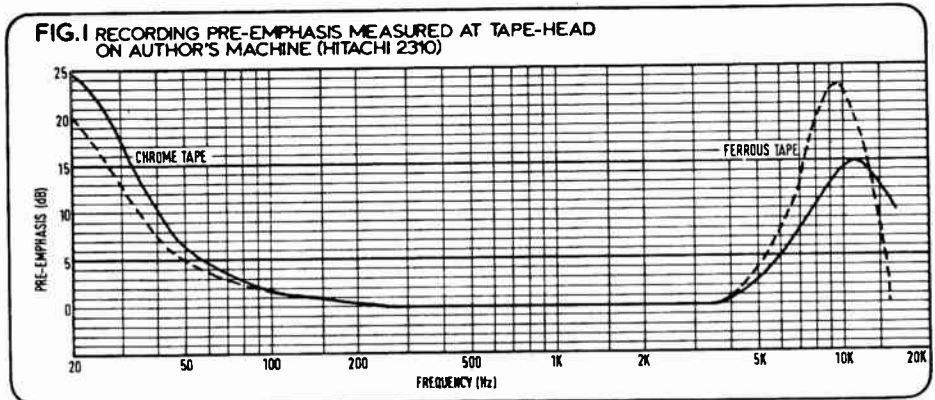
with bias, tape gap width and other factors.

Fig. 1 plots the pre-emphasis curves applied by the electronics of my particular deck, which does not have Dolby as I use my own simple compander.\* You will see that both the low and high frequencies are boosted before the signal reaches the recording head, while there are two curves because the compensation has to be different for ferrous and chrome tapes. Because of this increased drive at the frequency extremes it is necessary to use much less than full modulation at middle frequencies, otherwise the electronics, tape-head or tape may be overloaded by treble or bass. The record level meters should normally be connected in the circuit to *include* this pre-emphasis in their readings.

When doing instrumented tests—or using

decks have a third position for doped or mixed varieties of tape coating, and many now give the user control over the bias, or switch this separately from the compensation. The setting of such a variable bias control can lead to worse results unless instruments are available. I do not favour this parameter being adjustable by the normal user, who has more to gain simply by finding the tape which best suits his deck.

From fig. 2 you will see what happens with my own deck. I have selected, from many more tests, four examples of curves taken with currently available cassettes. You will notice that Maxell UDXL is no better on my deck than Maxell UD, for the reasons given above in relation to bias and compensation. The differences were so minute that I could



my present method—it is necessary to find the highest modulation which will arise. As you will see from fig. 1, in the case of my deck this occurs in the treble for ferrous and in the bass for chrome tape. In the application of my method, and using the test record specified, I have allowed for this in the setting-up sequence—without any use of instruments.

In common with many others, my deck does not have a position for the newest types of tape, *ie*, ferrichrome or ferricobalt (and certainly not for the latest 'pure iron' types!), hence for me these do not realise their full potential. This follows from the pre-emphasis curves of fig. 1, since the 10 kHz roll-off on the ferrous setting was determined by the top response possible with the best ferric tapes available at the time of manufacture. Any attempt to avoid this rather low roll-off by using the chrome setting will result in even poorer quality, because this also brings in the higher bias used for chrome tapes and more than defeats the object of the change. Most of the more expensive present-day

not show them on the scale adopted; hence the dearer tape is not worth the extra *for me*. Chromium types on my deck are clearly superior in rendering the extreme treble, both as to the extent of top response and smoothness above 8 kHz. Although the difference looks small, the Memorex chrome gives a  $-3$  dB point at 12 kHz (referred to the 'horizontal' upper mid band), while the Maxell UD roll-off is at 10.8 kHz; but the latter tape gives improved response in the extreme bass.

I have included an example of the awful results secured from one of the 'cheap' cassettes so widely displayed, the response from which is scarcely better than would be accepted for speech telephony! Remember that when recording from BBC stereo transmissions there is no virtue in any response above about 15 kHz, owing to the limitations imposed by the need to filter the pilot-tone.

The method I have worked out requires a suitable test record, and I assume that any reader interested in the problem will have a record deck with a cartridge compatible in quality with the rest of his equipment. While there are numerous test discs available, the one I consider most useful for the present case is Decca's *How to give yourself a stereo checkout* (SKL 4861). This has the advantage of being produced especially for use with the

\* See *HFN/RR* October and November 1976.

# TRY THIS SIMPLE TEST ON A MACHINE COSTING TWICE THE PRICE.

Take your favourite cassette into a Hi-Fi shop and play it on some of our competitors' cassette decks. Then listen to it on the £115, Alpha CD-601.

You'll hear for yourself why the Alpha CD-601 is remarkable in relation to cost. With sound reproduction of a higher standard than many cassette machines costing two or three times the price.

On the Alpha CD-601, you'll find features you'd expect from far more expensive decks. Like the Dolby noise reduction system,

automatic shut-off, revue-cue system, and independent tape-bias and equalization switches. Even at twice the price, it would still stand the test.

I'd like to take the Alpha test. Please send me a list of dealers and your brochure.

Name \_\_\_\_\_

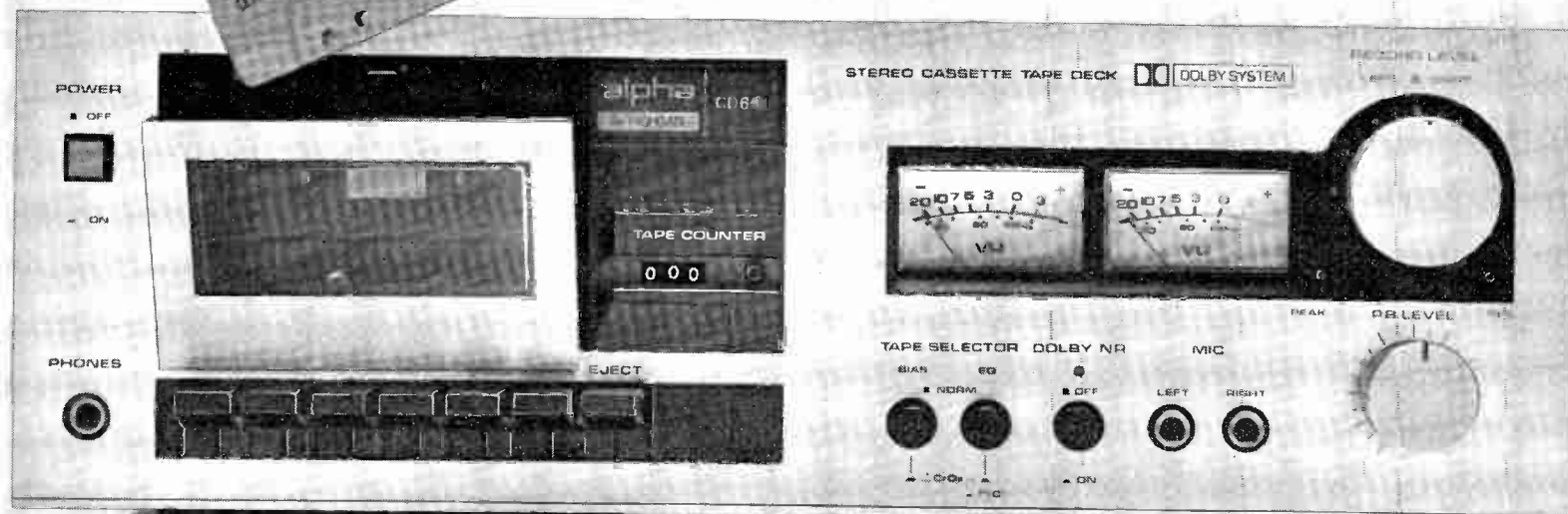
Address \_\_\_\_\_

HFNA3

**alpha**

by HIGHGATE

Post to: Highgate Acoustics,  
38 Jamestown Road, London NW1 7EJ.



ear as arbiter. It also gains by having a spoken commentary which makes it easy to recognise just where you are throughout the test, without any need to count the bands as often happens with those records which consist of a number of tracks at different frequencies. There is also a very good selection of specially chosen music, ideally suited to the purpose we have in mind, *ie*, that of securing the best musical reproduction.\*

A point I must emphasise for readers new to tape recording (those with experience will have discovered this for themselves) arises because a few amplifiers take the signal output for feeding to a tape recorder from a point in the circuit after the tone controls—though generally before the volume control. This means that if you normally use some bass and/or treble boost or cut when listening, and you tape with the controls in such condition, unless you replay with the tone controls set to 'flat' you will get *double* boost or cut. Therefore it is best to do all your tape recording with the controls in the neutral position *if* your amplifier is one of those with a tape feed point subject to the influence of tone controls. Cassettes can then be replayed with your normal listening settings.

the deck meters. Now record the Bands suggested, keeping the gain controls the same throughout. You may find that the meters go slightly 'into the red' on the treble and/or bass of Band 4, but this is of little consequence as I have only included this section to get a clear run-through to the end of the side. Band 5 gives a better check of frequency response.

Having now produced your test cassette, set the tone controls on the amplifier to their normal positions and use either your speakers or, preferably, some high quality 'phones. The replay part of the test is much easier if the cassette and turntable are synchronised and both running during the test. By this means you can make an instant A-B comparison, rather than trying to remember what the record sounded like originally.

Almost all amplifiers of quality have a tape monitor switch, which permits the selection of PU to remain, but changes the connections to tape while the latter is activated. Although this is really provided for decks which have three heads for continuous monitoring of recorded signal, it is ideal for our present purpose, as by operating the monitor switch alone we can avoid changing from tape to PU

**Side 1 Band 5.** Response over the full frequency range

**Side 1 Band 6.** Overall musical balance and quality

**Side 1 Band 7.** Freedom from distortion at peak levels—as long as your cartridge permits

**Side 2 Band 1.** Transient reproduction

**Side 2 Band 2.** This will check if the cassette worsens wow or flutter

**Side 2 Band 5.** Varied instrumental reproduction, also freedom from intermodulation

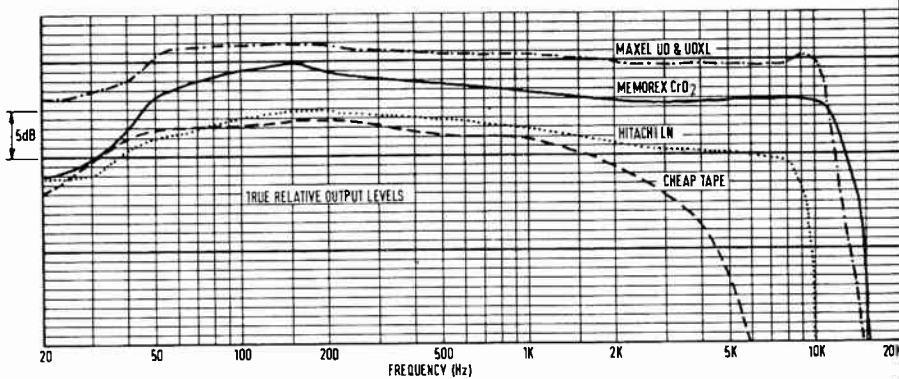
Switch back and forth fairly frequently between disc and tape, and if there has been a significant time gap between making and playing the cassette, remember that many pickup cartridges are temperature-sensitive. Yours may have a slightly different response when used for taping and then again for comparison with the tape, unless you choose a similar ambient temperature for the two operations. However, assuming that this variable has been eliminated, the perfect recording would be indistinguishable from the disc on an A-B switchover. The cassette playback will *not* be perfect, of course, but by careful listening and note-taking on the above parameters it should be possible to decide which cassette brand or type introduces the least overall change. One should be able to pick out modest changes of tonal balance of the sort represented by the three top curves in fig. 2—while the bottom curve should scream at you! But listen also particularly for freedom from overload or 'hardening' on loud passages rich in high frequencies, and take careful note of the level of hiss during silences.

After carrying out the above tests on as many types of cassette as you can buy, beg or borrow, you should come up with at least one which is a best buy from the point of view of your own requirements. Of course, if you find that you cannot hear any difference between several cassettes then for you there is none. This is one advantage of the method I have described, as compared with instrumented tests alone. While the latter may show a significant measurable difference between, say, cassette A and cassette B, there may be no *audible* advantage for a particular reader because of limitations in his equipment or ears. If this is so, then there would be no advantage in paying more for one than the other. Mind you, no self-respecting technically minded enthusiast would rely on instrument tests alone, although these can shorten the time taken in the preliminary stages, and rapidly eliminate those cassettes which are quite out of the running.

I should make it quite clear that the curves given for the sample cassettes may have no relation to their performance in any equipment other than my own, and the fact that one make and type may show to better advantage than another is no indication that the order of merit will not be reversed on other decks, or with other ancillary equipment. ●

\* Decca replaced SKL 4861 with *A Guide to Better Listening* (PFFS 1) just after this article was written, but copies of the earlier disc are still available in some shops. PFFS 1 is a better recording but lacks specific frequency bands. To use this, set the maximum tape modulation with Band 5, Side 1, disregard the Table, and rely entirely on A-B checks of tape against disc.

FIG. 2 RECORD/REPLAY RESPONSE OF AUTHOR'S MACHINE WITH VARIOUS TAPES



There are three main non-mechanical variables involved in the action of a tape recorder: pre-emphasis, bias, and replay compensation, while the gap width of the head or heads is also important. Another point is that, apart from the magnetic characteristics of the tape, the mechanical design and construction of cassettes can itself increase the wow or flutter on certain decks. My test programme will reveal if this is the case with your deck.

Well now, to get down to my *modus operandi*. First of all, get your copy of the test record. Then, naturally, you will use this for the purpose for which it was made, *ie* to set up the best conditions for your *disc* equipment and note the control settings. You should then return all tone controls to the neutral position, as noted above, before making the tests.

I recommend that you record only Bands 3 to 7 on Side 1, and Bands 1, 2 and 5 on Side 2. Before actual taping starts, put the deck in 'record' mode and depress the pause control, set the tape select switch to the appropriate position for the cassette you are going to test and run through Band 3 from the disc (mono music) adjusting gain controls so that on peaks each channel just reaches 0 dB on

repeatedly. This monitor switch works, even on decks with only one record/replay head, as long as the tape deck is in the replay mode. Thus you can listen to the cassette with both PU and tape monitor selected, and whenever you want to recall what the record sounded like just cancel the monitor. For this method of comparison you should naturally set the replay gain controls on the tape deck to secure equal loudness from tape and disc.

To synchronise tape and disc, set the cassette deck to replay and depress the pause control; then set the amplifier to PU and start the turntable, with the test record on it. Operate the tape monitor switch, release the pause and listen to the vocal caption from the cassette, at the start of the Band you wish to synchronise. Depress pause at the end of some chosen word, then lower the pickup on to the disc and cancel the monitor option, thus listening to the same caption from the disc. When you hear the end of the same chosen word, release the pause control and both sources will be accurately synchronised. You can now listen to either source—to tape with monitor and disc without.

It may help if I indicate some of the most vital things to listen for, as follows:

# E.P.S.

SAVE  
£££'s

at  
**120**  
Shops  
near you!



## PYRAL THE FINEST BRITISH CASSETTES

Superferrite	List Price	E.P.S. Price
SPRINT 81p	45p	60p
SPRINT 1.12p	64p	80p
SPRINT 1.54p	89p	1.09p
HI FI	77p	46p
OPTIMA	1.40p	87p
OPTIMA	1.84p	1.14p

## MEMOREX

Is it live, or is it Memorex?

**NEW MRX3 Cr02**

List Price	EPS Price	List Price	EPS Price
£1.85	£1.27	£2.01	£1.30
£2.46	£1.69	£2.16	£1.39
£3.22	£2.20	£3.08	£1.97

Now Agfa List Price	EPS Price
SD1	£1.60
C60	£1.17
C90	£1.57
C120	£2.84

AudioMagnetics

For people who only believe their ears

New Improved

### XHE

List Price	EPS Price
£2.35	£1.55*
£3.10	£2.05*

\*BUY TWO, ASK FOR ONE FREE!

TDK

The great name in Cassettes

Dynamic	List Price	EPS Price
C45	72p	1.04
C60	83p	1.20
C90	1.14	1.56
C120	1.51	2.45
C180	3.70	

ACUSTIC DYNAMIC

SUPER AVILYN

C60 SA 1.56 C90 SA 2.09

**5 Year Guarantee**

**GREATER LONDON**

BARKING - Photomarkets, 89 East Street, (594 3676)

BROCKLEY - Stromleys, 177 Lewisham Way, S.E. 4 (692 2623)

BURY - Vibes 3 Princess Parade, Bury Precinct (061 764 3013)

CAMDEN - Play Back Records, 3 Buck Street, NW1 (485 1063)

CATFORD - Diamond Records, 125 Rushey Green (690 6423)

CHINGFORD - Chingford Cameras, 16 Station Road (529 1034)

CITY - James Asman, 63 Cannon Street (236 9274)

CRAWFORD - East London Electrical, 73 Front Lane (Uppminster 26131)

EAST HAM - Paul Cameras, 85 High Street North, E6 (472 8941)

FINGHLEY - Arcade Music, Grand Arcade, Talley Mo Corner (445 6369)

FOREST GATE - Punjab Records, 450 Romford Rd (552 2903)

HOLBORN - Collectors Record Shop, 219 Strand Road (690 7712)

GREENWICH - Hane's, 127 Greenwich St. St. (692 3590)

HENDON - Music Machine, 8 Parsons Street, London NW4 (203 5379)

HOLBORN - 26 Theobalds Rd, W.C. 1 (405 1555)

HORNCHURCH - Wavemill Ltd., 26 Romeo Corner (49 48182)

ISLEWORTH - Alltronc, 548 London Rd. (560 5755)

ISLINGTON - Derek Smith Studios, 124 Essex Rd (226 0204 & 359 1548)

FOREST HILL - Collectors Record Shop, 219 Strand Road (690 7712)

Lewisham - Chequers Records & Tapes, 35 Lee High Rd (852 3900)

LEYTON - Shenstones, 226 High Road, London, E10 (539 1362)

LOUGHTON - Photomarkets, 152 & 281 High Rd (508 4838)

PLAISTOW - George Bator, 774 Barking Road (472 2472)

PONDERS END - Pounds, 266 High St. (804 3000)

THORNTON HEATH - Tracks, 48 Brigstock Rd (684 4700)

TOTTENHAM - Gramings, 10 Ventnor Terrace Broad Lane (808 4212)

VICTORIA - Recordsville, 86 Wilton Rd (828 8252)

W. DRAYTON - Rainbow Records, 15 High St. Viewlays (464 478)

WALTHAM CROSS - K' Electrics, 55/57 High St. (Lee Valley 764 565)

WEIMBLEY - Green and Barnes, 234 Ealing Road (902 4024)

WEST HAM - A. S. Sounds Ltd., 23 Pilbriest Grove, E6 (562 0377)

WHETSTONE - D & S. Leggan, 1279 High Rd. N20 (446 3192)

WILLESDEN - Spin-It-Records, 152 & 281 High Rd (459 0761)

WOODFORD GREEN - Broadway Music, 4 Broadway (503 7500)

**AROUND BRITAIN**

AMERSHAM - Radio House, 84 Sycamore Rd. (3311)

AYLESBURY - Kiosk, The Square (532373)

AYLESBURY - Record House, 34 High Street (20770)

BARNSLY - Richards Cameras, 20 The Arcade (82013)

BARRROW-IN-FURNESS - Furness Electronics, Furness House (26169)

BATH - Flanck, 63a West Avenue, Oldfield Rd. (27718)

BEXHILL-ON-SEA - Dray's, 21 Western Road (215252)

BIGgleswade - H & H. Domestic, 87 High St. (312960)

BIRMINGHAM - Zentel T.V. & Radio, 175 High Gate Rd. (021 440 4913)

BIRMINGHAM - Mousleys, 309 Wilton Rd. (327 0582)

BIRMINGHAM 11 - Watts T.V., 169 Anderton Rd. (772 5429)

BIRMINGHAM 17 - Watts T.V., 277 High St. Harborne (427 3547)

BIRMINGHAM 20 - Top Ten, 544 Bristol Rd. (422 2463)

BIRMINGHAM 28 - Stringer, 1328 Stratford Rd (777 2646)

BISHOP STORTFORD - Photosound, 13 Devils Lane (55780)

BLACKBURN - Transonic Hi-Fi, 45 Victoria Street (53731)

BLACKPOOL - Chamings, 107 Central Drive (28350)

BLACKPOOL - Stewarts Radio, 2 Caunce St. (21163)

BLAYDON - Music Box, 34 The Arcade (425 2612)

BOGNOR REGIS - S. E. Smith, 47 Aitwick Rd (20108)

BOURNEMOUTH - Seitchields, 95 Old Christchurch Rd (26925)

BRIGHTON - D. G. Gunn, 108 Western Rd. (734227)

BRISTOL - T.V. Centre, 135 West St. Badminton (665691)

BUNGAY - Disc Inferno, 20 St. Mary's Street, Bungay, (Bungay 2615)

BURNHAM-ON-SEA - Simons Home Electronics, 23 Victoria St (2423)

BURNLEY - Record Exchange, 42 Standish St. (35394)

CAMBRIDGE - Western Service, 70 Treloar St. (712055)

CAMBRIDGE - H. Gee, 94a Mill oad (0223 58019)

CASTLEFORD - Kiosk, 75 Castle St. (552964)

**CHEESHAM - Record House, 9 Market Square (745459)**

CLACTON - Moody's, 130 Old North St (229331)

COLCHESTER - R. B. Bacon, 174 Bull Rd (73295)

CONWAY - Paul A. Roberts, 17 Castle St (2453)

COVENTRY - K. W. Leng, 245 Walsgrave Rd (456252)

CRAWLEY - Loughran's, 171a B. Road, Barton (35000)

DARWEN - Shree's, 287 Blackburn Rd (71440)

DAVENTRY - Spackman & McKenzie, 58 High St (2617)

GLASGOW - Angel Tapes, Grandlarc, 39 Cambridge St (041 332 8452)

GLASGOW - Music N. Ligh, 656 Cathcart Rd (041 429 5717)

GRIMSBY - Grimsby Hi-Fi Centre, 71 Catergate (0472 43339)

HARLOW - Photomarkets 2 Westgate, The High (26155)

Hemel Hempstead - Old Town Records, 83 High Street (55186)

HENDON - Paul's Music Machine, 120 Brent St. NW4 (202 5936)

IPSWICH - Groove, 35 Buttermarket (53181)

LAKESHIRE - Earle Records, 14 Market Ent (61400)

LEICESTER - D. Earl, 40 Hinckley Rd. (540302)

LEICESTER - S. F. Parker, 135 Belgrave Rd (62670 61914)

LEICESTER - W. L. Wilbourn, 43 Blaby Rd. South Wigston (785211)

LEIGHTON BUZZARD - D. J. Hollands, 7 North Street (66668)

LINCOLN - Lincoln Hi-Fi, 271 St. High St. (20265)

LOWESTOFT - John Wells, 44 London Road North (0502 3742)

MAIDSTONE - Ballocks, 58 Union Street (54558)

MANCHESTER - One Stop Records, 13 Gateway House, Piccadilly St. App. (236 8314)

MANCHESTER - Disc Shop, 10 King Edward Buildings, Cheetham Hill Road (740 0894)

NORTHAMPTON - Spin-a-Disc, 19 Abingdon St. (31144)

NORTHAMPTON - Richard Reeves, 174 Kettering Rd (33578)

NOTTINGHAM - Eddy's, 116 Aitron Rd (74015)

OLDHAM - Peake Chemists, 37 Manchester Rd. (061 624 5485)

PONTERFRACT - Kiosk, 1 The Horsefair (74500)

POOLE - Seitchields, 2125 High Street (3300)

PRESTON - George Seymour, 266 New Hall Lane (794249)

RAYLEIGH - Dacosystem, 43 Woodside Change (Rayleigh 772822)

REDUTH - John Diver, 30 Fore St. (Reidrup 216494)

RUGBY - H. Whalley, 7 Sheep St (2808)

SALISBURY - Hoggins & Son, 47 Market Place (27645)

SCARBOROUGH - Derwent, 20 Hillcrest Avenue (55996)

SHEFFIELD - Simons Home Electronics, Market Place (2153)

SHIPTON BURNE - Camera Hi-Fi Centre, 2 West St (72753)

SOUTHAMPTON - Squibb Electronics, 52 Bedford Place (23787)

SOUTHEND - Record World, 65 Southchurch Rd (0702 61692)

SOUTHPORT - Audio Corner, 117 Portland Rd (73232)

S. SHELDON - Northern T.V., 200 Stanhope Rd (4271)

ST. LEONARDS-ON-SEA - D. S. Douglas, 113 Saldescombe Rd North (Hastings 42065)

STOCKTON - Lamb & Fowler, 7 High St. Norton (553970)

SWINDON - Peter Gilbert Cameras, 31 Heald St (35396)

WAKEFIELD - Richard, 125 Margaret Westgate (73115)

WELLINGBOROUGH - Visual Sounds, 47 Midland Rd (22061)

WESTGATE - Coastal Elec, 5 Station Rd (Thanel 32253)

WESTON'S MARE - G. Stanton, T.V., 67 Orchard St (23872)

WESTON'S MARE - Simons Home Electronics, 121/13 The Centre (21468)

WYEMOUTH - Dorset Radio, 29 Walpole St (5729)

WICKFORD - Record World, 17 Broadway

WISBECH - Clark's Music Services, 5 Market Place (3363)

WORKSOP - F. J. Richardson, 104 Potter St (81968)

YORK - R. S. Cuckston, 412 Munnington Rd (23415)

**OFFERS SUBJECT TO AVAILABILITY. PLEASE PHONE FIRST.**

These prices correct 1.1.79 but subject to change. **ALL PRICES INCLUDE VAT AT 8%**

ALL TRADE ENQUIRIES TO  
EPS, Dept. A/W/F, 75 HOLLOWAY ROAD, LONDON N7 8JY. Tel: 01-607 6059.

# put a stop to static on your discs.

Use a Bib GROOV-STAT Electronic 3000.

Solve dust-attraction and associated sound-interference problems with this improved static reducer from Bib.

The Electronic 3000 is powered by one small battery, provides audio and visual signals during operation and neutralises record surface static in seconds. Supplied in permanent storage box with FREE Static Tester.

See what the experts say:

"In all cases it was like a miracle". John Borwick - 'Gramophone' June 1978.

"The Bib 3000 worked at least as well as other devices - but it is more convenient". Clement Brown - 'Hi-Fi for Pleasure' July 1978.



Ref. 3000 RRP £9.98 inc. VAT  
Pat. Pending.

# Bib helps the music go round

Bib Hi-Fi Accessories Limited,  
Kelsey House, Wood Lane End, Hemel Hempstead, Herts. HP2 4RQ

# Letters...

## ... about turntable fallacies

**From: Q. A. Rice, 132 Ashbourne Road, Mitcham, Surrey.**

Dear Sir, With the state-of-the-art quartz-lock, digital readout (to two decimal places), super low-wow, flutter and rumble high-cost turntables flooding onto the market, no matter how good the reproducing equipment is, the source material is usually lousy. Here are two performance parameters I wish to shoot down in flames. Firstly, running speed: this spec doesn't need to be that tight. Most mastering tape machines have a pretty poor speed tolerance; most have AC driven capstans and therefore rely on local mains frequencies.\* Also, when an orchestra or band tunes up the players invariably tune to the soloist, first violinist, or whatever instrument cannot be readily tuned, i.e. organs, pianos, harpsichords, etc. Being either sharp or flat, this represents a frequency variation of one quartertone, or  $\pm 3\%$ . Garrard knew this when they put the pitch variation on the 301. Tempo also seems to be at the discretion of the conductor or the playing time available.

Secondly, Wow specs: what people don't realise is that all records have a certain amount of runout on the grooves due to the master lacquer being off-centre. This was found to be as much as three millimetres. If we take our wow formula as the velocity difference:

$$\frac{V_1}{V_2} \text{ or } \frac{\text{Radius 1 offset}}{\text{Radius 1}}$$

since both  $\pi$  and the offset are constant, this provides us with some very disturbing figures. Obviously offset wow will increase as the radius decreases, so the inner grooves suffer most. The LP with the three millimetre runout (John Coltrane: *Kulu Se Mama*, Impulse A 9106) is slurred and unplayable. This shows how appallingly bad disc quality control is. Records aren't cheap, and I don't think it pays to have that good a turntable. As far as I can see the public are being deluded by specifications they don't understand, and we've all had wool pulled over our eyes with regard to record quality. So what are we going to do about it?

Yours faithfully

## ... about temperature effects

**From: S. D. Smith, 292 Whitton Avenue East, Greenford, Middlesex UB6 0JP**

Dear Sir, About ten years ago you published a letter from me remarking on the effect of temperature on pickups. I note that the matter has again been raised in another journal, *Wireless World*, but the suggestion there that reviewers should plot a graph 5°F

\* Within the UK the whole mains system is unavoidably locked to the one frequency, which is held within a tight tolerance, although Mr. Rice's 'local' variations might apply between countries. However, such synchronous capstan motors have now almost all been replaced by motors using variations on the direct drive, servo control principle—Ed.

down is I submit too generous. It has been my experience that some people who moan at the temperature at their place of work are quite happy with a lower temperature at home.

The turntable is often in an alcove or recess remote from the radiator and about two feet lower than the thermostat. These factors suggest to me that a more realistic test temperature would be 60°F. In every test the ambient temperature should be specified. Is it not possible that some subjective disagreements might be due to temperature effects on pickups, loudspeakers, and amplifiers too? After all, amplifiers are stuffed full of temperature sensing and temperature sensitive devices!

Let us have group curves from 50°F to 80°F (10°-27°C) for this country.

Yours faithfully

## ... about B.F., F.B. and Italian rude words

**From: R. H. Phillips, 89 Greencroft Gardens, London NW6 3LJ**

Dear Sir, Arthur Jacobs raises an interesting point in his review of Scott's *Butterfly* (December, p. 157). He complains (rather testily, I thought) that the vocal score gives Pinkerton's initials as 'F. B.'—and, presumably, this is what Scott sings—whereas everyone knows that the rotter's first names are in fact Benjamin Franklin.

Mr. Jacobs will probably be amazed to learn that, in addition to Scott, quite a number of other singers refer to 'F. B. Pinkerton' immediately after 'siam giunte'. I can name Tebaldi, Los Angeles, and Freni. Only dal Monte, on the Gigli recording, gets it the other way round.

Can anyone throw any light on this mystery?  
Yours faithfully

We asked CBS Records if they could throw any light on the above matter, and Janet Osborn of their Classical Dept. sent us the following note—Ed:

There is no 'mix-up' in the printed vocal score; it is simply that the initials 'B. F.' mean something rather rude in Italian and it is therefore general practice to reverse Pinkerton's initials when singing them in that language.

We are a little surprised that Mr. Jacobs is not aware of the practice at least, even if he does not know the reason, as there is plenty of other recorded evidence of it.

## ... about expensive packaging

**From: Peter Turner, Pike Cottage, Frampton Mansell, Stroud GL6 8JB**

Dear Sir, Recently I have received for review two issues by *Harmonia Mundi*, both at prices which are remarkably low by current standards. Each carries the assurance that 'this record is guaranteed to be of high technical and artistic quality: its price is explained solely by the absence of an illustrated sleeve'. Both records are of high technical and artistic quality. The sleeve is plain white, save for the titling, and is enclosed in a stout polythene outer sleeve, which is a great protection, not only for the sleeve but against the entry of dust.

It seems to me that if this expedient can reduce the price of a record by nearly two pounds, it should be universally adopted. Many illustrated sleeves are attractive, a few are beautiful, some are revolting; I have no wish to pay for any of them. One is told that it is the sleeve which sells the record, but we all know that a resplendent package does not guarantee a good record. *Harmonia Mundi* include notes on a printed page, which is quite adequate.

I am aware that record-prices are still low, even at £4.50 or so: less expensive than the equivalent in 78s used to be. Nevertheless, we could all buy more records if they were cheaper, and I feel that this move should be encouraged.  
Yours faithfully

## ... about copyright or copywrong?

**From: J. MacLauchlan, 19 Mill Close, East Coker, Yeovil BA22 9LF**

Dear Sir, In 1974, because I desired to make tape copies of friends' gramophone records and records broadcast by the BBC, I wrote to the BBC, who informed me that I could purchase an MCPS Amateur Recording Licence which would cover me to copy broadcast records. When I wrote to the MCPS asking if the new licence would cover



# AUDIO ACCESSORIES

There are now two shops in Tottenham Court Road specialising in Audio Accessories.

No more searching, ringing or writing to manufacturers wholesalers etc. Get it all over the counter, whether building your own or merely finding replacements

- Over 1200 Audio Accessory lines
- All merchandise fully guaranteed
- All prices include VAT and are correct at time of going to press. E. & O.E.
- Shop hours: Mon. to Sat. 9-6; Thurs. 9-7.
- Access/Barclay. Simply phone order and number for return delivery. quote card
- Fast mail order service.
- Callers welcome.



## ACCESS

### METERS/BATTERY PACK

Sinclair DM235	£53.78
AC Adaptor	£3.78
Carrying case	£9.18
Rechargeable Battery Pack	£8.64
Sinclair PDM35	£32.35
Sinclair Case	£3.24
Sinclair AC Adaptor	£3.24
AVO 8 Meter	£109.43
Sony BP16 Battery Pack	£16.95
Sony AC14 Battery Pack	£11.34
Sony AC15 Battery Pack	£11.98
Sony BP8 Battery Pack	£20.18
Sony BP23 Battery Pack	£14.00
Sony BP28 Battery Pack	£14.00
Postage & Packing 70p	

### RECORD CLEANERS

Watts Dust Bug	£1.94
Watts Manual Parastat	£5.36
Watts Hi Fi Parastat	£4.55
Pixall Record Cleaner	£3.30
Pixall Refill	£1.10
Groovac Record Cleaner	£19.50
Vac-o-Rec Record Cleaner Mk 2	£21.95
Zerostat Anti Static	£6.98
Zeepa Dust Lifter	£4.25
Decca Cleaning Arm	£5.94
Decca Record Brush	£6.95
Micro Seiki Shock Absorbers	£7.50
Bib 3-way care kit	£3.28
Nagoda Roller	£8.99
Postage & Packing 45p	

### KITS - ARMS

SME 3009 (Fixed)	£59.64
SME 3009 (Detachable)	£65.40
SME 3009/111	£107.52
SME FD200	£19.50
SME S2 Headshell	£5.49
8-Track Cassette Adaptor	£18.75
TV Game (Black & White)	£21.95
TV Game (Colour)	£29.95
Monitor Audio Stylift	£5.94
Connoisseur BDI Kit	£19.28
Connoisseur SAU2 Arm	£18.53
Connoisseur Base & Cover	£19.56
HFS75 Test Record	£3.24
Shure TTR110 Test Record	£4.73
Scotch Anti-Static Mat	£2.99
Glendale Speaker Kit (Pr)	£71.87
Denton 2 Speaker Kit (Pr)	£31.05
Linton 3 Speaker Kit (Pr)	£48.15

1979 HI-FI YEAR BOOK £3.00 + 35p

**SPECIAL OFFER PACK 3 EMI x 100 C90 CASSETTES + FREE PRE-RECORDED £2.50 + 30p P/P**

QTY.	PRICE-Add Post

NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_

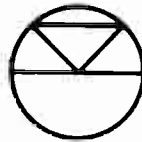
Dept HFN2

## HI-FI CARE (RETAIL) LTD

7 & 245 Tottenham Court Road, London W.1.  
Phone: 01-637 0371/8911 Mail Order Dept:  
01-580 7592/4534 Allow 7-14 days for delivery.  
Co. Reg. No. 1143194.

# SUBJECTIVE AUDIO

(Hi Fi Consultants)



LP12 LINN  
SONDEK

*simply better—together!!*



When you pay this price for your equipment, you have a right to expect not only a top quality reliable product, but also that it's supplied in such a manner as to ensure that it's full potential is realised. **SUBJECTIVE AUDIO** are convinced that it is *essential* that the LP12 is installed fully, in the customer's *own home*, with his existing arm/cartridge—or our own recommended combination.

Whilst it is apparent that an 'untuned' Linn can extract more information than ANY comparable unit, it has been demonstrated that a totally set up unit can extract **EVEN MORE** information. Surely an expert installation is preferable?

When in your home, we expertly install any purchased equipment not only to your satisfaction, but to our own highly professional standards and additionally, we concisely explain how to ensure that your **SONDEK** and anything else Hi Fi, can *continue* to perform at it's optimum. Uniquely **SUBJECTIVE AUDIO** are able to provide this *essential* service *free* within 100 miles of London and at a nominal charge at a greater distance.

We, and many of our past customers, feel that we are the most customer conscious dealers in Britain and whilst we don't claim to be the most competent or expert LINN retailers, we do go to extraordinary lengths to achieve total satisfaction for the customer. We never lose sight of the expense involved, or the potential for disappointment from anything less than perfect service—from product and dealer alike. Many people, quite ordinary music lovers in fact, have purchased their LP12's from **SUBJECTIVE AUDIO**—perhaps you should consider us for your LINN.

Apparently, we are considered good enough to attend to old and distressed LP12's to have an almost daily flow of enquiries from less old, but obviously distressed owners. Our "clinic" is now available and we keep a highly comprehensive stock of fresh new LINN components, ready for instant transplant.

### Our Suppliers

If it's worth buying—we probably sell it.

### Our Attitude

If it's worth stocking, then we offer **SERVICE** second to none, both at home and abroad.

### Our Reputation

You know that already.

### Our Facilities

Summed up in our fanatical willingness to help attitude.

### Additionally

We now accept Access, cash or cheque.

### SUBJECTIVE AUDIO.

(Hi Fi Consultants)

6 Windsor Road, Palmers Green,  
London N13, England.

**01-886/7289**



# Things I Hear

Arthur Jacobs

Arthur Jacobs' column 'The Things I Hear' makes its last regular appearance this month. He is leaving London to be Head of Music Department at the Huddersfield Polytechnic. He will, however, continue to contribute record reviews.

THE *Daily Express* recently made its big and decisive contribution to the world we live in. It dismissed its music critic. I do not mean merely that it dispensed with Mr. Noel Goodwin's services. It decided that it could best serve its readers by having no music critic at all.

My mind went back to 1947 when, in the aftermath of war, Fleet Street was re-establishing what it hoped would be a normal pattern. Concert notices at that time were being contributed to the *Daily Express* by someone who, in the late hostilities, had risen to the rank of brigadier. His other qualifications as a music critic were difficult to establish. The News Editor eased him out and engaged me, who had never soared higher than lieutenant but apparently showed a commitment in a different direction.

I lasted nearly five years in the Beaverbrook menagerie, at length resigning when it was obvious that I would otherwise be fired. Another critic succeeded me, then Mr. Goodwin succeeded him. And although my News Editor told me initially that 'We're not interested in music, we're interested in news', it remained at least clear that—until now—a 'proper' Fleet Street daily needed to have someone on the books who would take some responsibility for 'classical' music.

Moving to other newspapers and magazines, I went through an experience when opera

began to be one of my chief interests (as it still is) and when, in consequence of the advances of the LP record and then of stereo, recorded music occupied more and more of a critic's time and thoughts. Then, invited to teach the history of music at the Royal Academy of Music, I began to find that the experience of having to 'justify' one's arguments to a live audience of young people was a useful complement to the activity of communicating somewhat impersonally via the printed page or the radio broadcast.

All teaching at the Royal Academy, as at other London colleges, is part-time. Now moving to a full-time job as Head of Music at Huddersfield, where the Polytechnic offers a BA (Hons) in music and is pledged to introduce an MA also, I shall be leaving the London critic's regular beat. So, able to look more detachedly at criticism as such, I have been re-reading with renewed admiration Peter Gammond's article in the December issue.

His discussion was specifically about the role of the record reviewer, but his remarks about circumstantial pressures (the reviewer's mood, his other occupations, his private stresses, the short time available) apply also to the critic of concerts and opera. I think it entirely healthy that the reader should understand these things, and that the critic should use the first person to reveal his personal predilections and biases.

As to such biases: 'it should be his point of honour—as it certainly is his interest if he wishes to avoid being dull—not to attempt to conceal them or offer their product as the dispassionate dictum of infallible omniscience'. The quotation is from Bernard Shaw (*Music in London, 1890-4*, vol. 3), an author whom a

practising critic today has every reason to regard as a founding father of his craft.

Something of the same point is made by the author of a new article on Criticism in the revised *International Encyclopedia of Music and Musicians* (Dent, £19.50). Granting that a critic may be censured for inconsistency or sheer failure to hear what is there, the writer insists that in itself 'the verdict of a critic cannot properly be said to be right or wrong, valid or invalid, but only interesting or uninteresting—as any opinion may be, whether we (or our posterity) agree with it or not. Has the writer employed sufficient points of reference to rest his case on more than mere assertion? Has he observed keenly and argued logically, is his expression clear, are his metaphors fresh?'

I ask the reader's indulgence for that quotation since I am myself the author of the article quoted. I use it to reinforce a plea, which I have made before in these columns, that readers should be ready to criticize critics. Happily in *this* magazine they are very likely to do so.

And what, I sometimes wonder, is the social or historical consequence of music criticism? Has a good performer or good composer ever been in the long term kept back by critics, or a bad one pushed on? Is it true, as Janet Baker told students when she visited the Royal Academy of Music recently, that 'we' (the artists) have no need of newspaper criticism, since true and beneficial criticism is constantly offered by colleagues and one's own conscience?

A 'History of Music Criticism', seriously and even statistically trying to answer such questions, is a book I should like to see written. Meanwhile, a little (but not too far or too often) away from London, I am looking forward after 31 years of critical hurly-burly to taking a slightly different musical view.

## Letters continued

me to record broadcast commercial records, they replied: 'The new licence will cover all your requirements'. There have also been clear statements in the hi-fi press (particularly in *Cassettes and Cartridges and Hi-Fi Sound*) to the effect that the MCPS licence covers copying of broadcast and borrowed records. The wording of the MCPS licence itself stipulates that the recordings copied must have been purchased through normal commercial channels, but does not say that the licence-holder must *himself* have purchased the records.

Basing my actions on the above advice, I have over the past four years made a number of copies of commercial gramophone records, in addition to those I have purchased myself. But now the MCPS seems, in its advertising, to be taking a different line, and restricting copying to those records the licence-holder has himself purchased. I have taken the matter up with EMI and the manager of their Copyright Department has told me that the licence does not cover copying of borrowed records or broadcast records—advice directly contrary to that given me by the MCPS and the BBC. I have twice written to the MCPS

for clarification, but they have not replied to my letters.

I am therefore left in a difficult position. Acting in good faith on what I took to be sound advice, I have accumulated a number of recordings which the copyright holder apparently deems illegal. Perhaps you could advise me where to go from here. Possibly, you and your staff could even bring the different sides together in an attempt to resolve the confusion. At present it is impossible for an owner of recording equipment to know clearly what he may or may not record. If you see fit, I would be happy for this letter to be published in order to air this problem publicly.

Yours faithfully

## ... about many unanswered questions

From: I. B. Hall, Thane House, Acoe, Birdington, Kent

Dear Sir, Thank you for a thought-provoking magazine. What thoughts? Well, Class-A amplifiers don't have a distortion which rises with frequency, whereas some Class-B amps do (up to 50 times worse at 20 kHz). Although we can't hear the second harmonic of 15 kHz,

we might well hear intermodulation products between 15.0 kHz and 15.5 kHz (say). These could well be 20 dB above noise, and audible on a nulling set-up as outlined by Walker; especially in a quiet room on signal of high dynamic range.

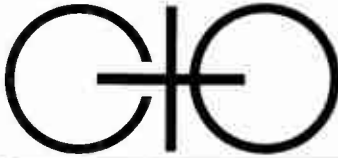
Do tone controls degrade the sound? Some say yes, but what about studio graphic equalisers, and the phase error in tape recording processes? For the same reason, why do 'linear phase' speakers work? Do they work at all? 741 op-amps can easily generate TID: these appear in some makes of mixing desk found in the best of studios. Why does one reviewer find the V15/IV 'open detailed and rounded' and another 'hard and tinny' (both from *HFN*)? How can you hear differences between the best of amps when the test signal (record) contains 100 times the distortion level of the device tested?

Absolute phase may be of importance, but does a drum blow or suck? How can one check this phasing at home (I do have a microphone and an oscilloscope)?

Ah well, excuse me for a mo, the grille on the tranny is rattling again!

Yours faithfully

# If you like our names you'll love our prices



AIWA • AKG • AKAI • ARMSTRONG • AUDIOMASTER • AUDIO TECHNICA • BANG & OLUFSEN • BEYER • BOLIVAR • BOSE • CELESTION • CORAL • DUAL • EMPIRE • ENTRE • FERROGRAPH • GRADO HACKER • HARBETH • HITACHI • IMF • JBE • JVC • KEESONIC • KEF • KOSS • LENTEK • MICRO SEIKI • MORDAUNT-SHORT • MONITOR AUDIO • NATIONAL PANASONIC • NEAL • ORTOFON • PIONEER • QUAD • RAM • REVOX • ROGERS • SENNHEISSER • SHARP • SHURE • SMC • SME • SONY • SPENDOR • STAX • SUGDEN • TEAC • TECHNICS • THORENS • TOSHIBA • TRIO • ULTIMO • VIDEOTONE • WHARFEDALE • YAMAHA

**This sign means a super discount-phone for our special price!**

AMPLIFIERS		CASSETTE RECEIVERS		RECEIVERS	
Armstrong 621 Teak	£118.00	TCK4A		F15E Mk 2	£18.90
621 Rosewood	£120.00	TCK5		FF15E Mk 2	£13.90
Hitachi HA330	£116.00	TCK36R		Quad	£95.00
JVC JAS11G		Technics RS616		FM3	
JAS22		RS631		Revox B760	
JAS44 with SEA		Yamaha TC520	£199.00	Sony ST313L	
JAS77		<b>CASSETTE RECEIVERS</b>		ST515L	
Pioneer SA506	£89.00	Aiwa AF3070	£312.00	STA3L	
SA606	£119.00	AF3090	£379.00	Technics ST7300	
SA706	£159.00	Bang & Olufsen		ST8080	
Quad 33		Beocentres in teak or rosewood		ST9031	
303		2600		ST9038	
405		4000		Trio KT5500	£92.00
Revox B750		<b>HEADPHONES</b>		Yamaha CT510	£116.00
Sony TA313		AKG K40	£14.90	CT710	£149.00
TA515		K80	£24.00	<b>TURNTABLES</b>	
TAF4A		K141	£32.00	Aiwa AP2200	£109.00
TAF5A		K240/4	£37.00	Bang & Olufsen	
Sugden A48		Beyer DT440	£24.00	Beograms in teak or rosewood	
Technics SU7100		Koss Pro 4AAA	£37.00	1500	
SU7300		Sennheiser HD400	£11.00	2200	
SU7700		HD414X	£18.00	4002	
SU8080		HD424X	£26.00	4004	
SU9011		HD224X	£34.00	Dual CS504	£89.00
SE9021		HD420	£23.00	CS521	£109.00
Trio KA3700	£82.00	HD430	£30.00	CS604	£139.00
KA5700	£136.00	<b>LOUDSPEAKERS</b>		Hitachi HT350	£92.00
Yamaha CA510	£139.00	Armstrong 602 Teak	£173.00	JBE Series 3 slate	£209.00
CA710	£200.00	602 Rosewood	£195.00	Series 3 clear	£189.00
CA810	£249.00	Audiomaster LS3/5A		JVC QLA2	
CA1010	£339.00	MLS1		QLF4	
<b>CASSETTE DECKS</b>		MLS2		QL70	
Aiwa AD1250	£139.00	MLS5		Mitchell Focus One excl. arm	£109.00
AD6350	£149.00	Bang & Olufsen Beovox S25	teak	Focus One inc. arm	£169.00
AD6400	£189.00	rosewood		Monitor Audio ET500	£129.00
AD6550	£219.00	Beovox S35	teak	Pioneer PL514	£63.00
AD6800	£275.00	rosewood		PL516	£85.00
AD6900	£379.00	Beovox S45/2	teak	PL518	£114.00
Bang & Olufsen Beocentres in teak or rosewood		rosewood		Revox B790 with VMS20E	
1900		Beovox S75	teak	B790 with M20E	
5000		rosewood		Sony PST1	
Hitachi D220	£96.00	C40 alum or black		PST20	
D550	£122.00	C75 alum or black		Strathairn SM2000 incl. VMS20E	£139.00
D555	£155.00	Bolivar 125H	£129.00	Technics SL220	
D900	£260.00	Bose 601	£385.00	SL230	
JVC KD720		301	£178.00	SL150	
KD10		HARBETH HL Pro monitors	£269.00	SL3200	
KD25		IMF Super Compact II	£159.00	SL3300	
KD55		Jim Rogers JR149		SL5200	
KD65		LPA System KEF Corelli		SL5300	
Pioneer CTF500	£105.00	Calinda Concord III		SL150 Mk 2	
CTF4040	£120.00	104AB		Thorens TD104	£86.00
CTF700	£204.00	105		TD105	£104.00
Sharp RT3151	£189.00	Celeste III		TD110	£113.00
Sony TCK1A				TD115	£129.00
				TD126 Mk 3C	£235.00
				TD160 Mk 2BC	£79.00

Please fill in and post the coupon with your cheque or postal order. Add carriage: Cartridges 35 pence; Headphones 75 pence—all other items £4.00. Or order by phone using your credit card number. All prices include VAT. Credit terms available. Personal callers welcome.

Open 9am to 5pm. Epping closed Wednesday — Saffron Walden closed Thursday  
Prices and stock shown are correct at the time of going to press.

## Chew & Osborne

148 & 156 High Street, Epping, Essex. Tel: (0378) 74242  
26 King Street, Saffron Walden, Essex. Tel (0799) 23728

Chew & Osborne, 148 High Street, Epping, Essex. Please supply

Make \_\_\_\_\_ Model \_\_\_\_\_

Cheque/PO enclosed for £ \_\_\_\_\_ or charge my credit card account \_\_\_\_\_ Signature \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_ (Phone) \_\_\_\_\_ HFNR3

By Andrew Keener

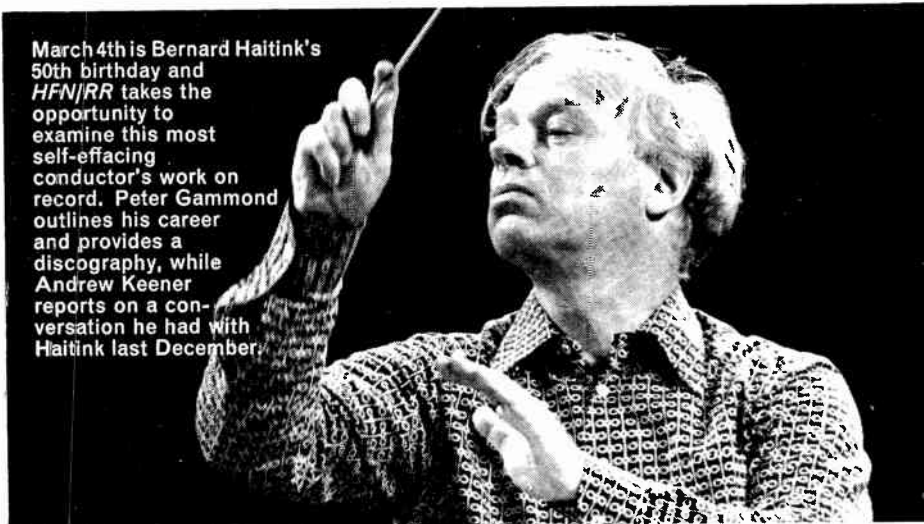
**A** TOUGH orchestra? No, I can't say that I found them so, in spite of their reputation... maybe the secret is to be polite to them, and then, while they're recovering from the surprise—you push home the point you want to make with no trouble at all! Not words to be taken at face value, of course, spoken as they were with a distinct twinkle in the eye, and in the quiet certainty that there's rather more to a conductor/orchestra relationship than that. If Bernard Haitink was not being entirely serious, however, there was an element of truth in what he said: no doubt the New York Philharmonic (the recipients of his 'politeness') realised that here was a conductor whose concern for the music itself holds no place for affectation or spurious philosophising. 'You must not make people too conscious of what you want to achieve with a score yourself. You must do everything with the hands and as little as possible with your mouth', he is reported to have said some time ago, and these words seemed especially appropriate as I watched him at a recording with the LPO last November. Long, uninterrupted takes there were to be sure, but most significant of all was the remarkable economy of words (any comments were despatched with a pleasant, brisk, incisiveness) allied to a gentle patience, a quiet humour, or perhaps the merest suggestion of a smile at some mistimed woodwind entry or some less than unanimous ensemble. 'You can drive people mad when you have good musicians and wait until they make a mistake', he pointed out during our conversation several days later. 'I always remember Tibor di Machula (the cellist on the recent *Don Quixote* recording) saying to me early on that so many conductors wait until you slip-up simply to be able to tell you so. After all, we are musicians—and human beings—and so we all make mistakes. And of course there are far more important things about music-making than that.

'And I've always been lucky with producers who realise this. I started with Jaap van Ginneken, who is sadly no longer with us, and now there's Volker Straus, who is a member of much the same school of thought. He produces such a good sound, don't you think? And he knows *exactly* when a tempo or a balance is not right—and he also knows that he can't work any magic. When an orchestra plays badly, no amount of trickery will really succeed in making it sound as if it's on top form. And when it plays well, then, of course, he knows he can help! He's a totally honest man'. Since Haitink's complete lack of conceit (both musical and personal) has become something of a journalistic cliché, I was interested to hear him refer to his producer's musical comments; here, it seemed, was a conductor who not only accepted musical advice, but welcomed it. 'Oh yes; I know him so well now, and I have complete faith in his judgement to the extent that I take his word... in eight out of ten cases at least... maybe even more than that...'

As I was starting to feel that the celebrated modesty stood us both in danger of missing

# Bernard Haitink

March 4th is Bernard Haitink's 50th birthday and *HFN/JRR* takes the opportunity to examine this most self-effacing conductor's work on record. Peter Gammond outlines his career and provides a discography, while Andrew Keener reports on a conversation he had with Haitink last December.

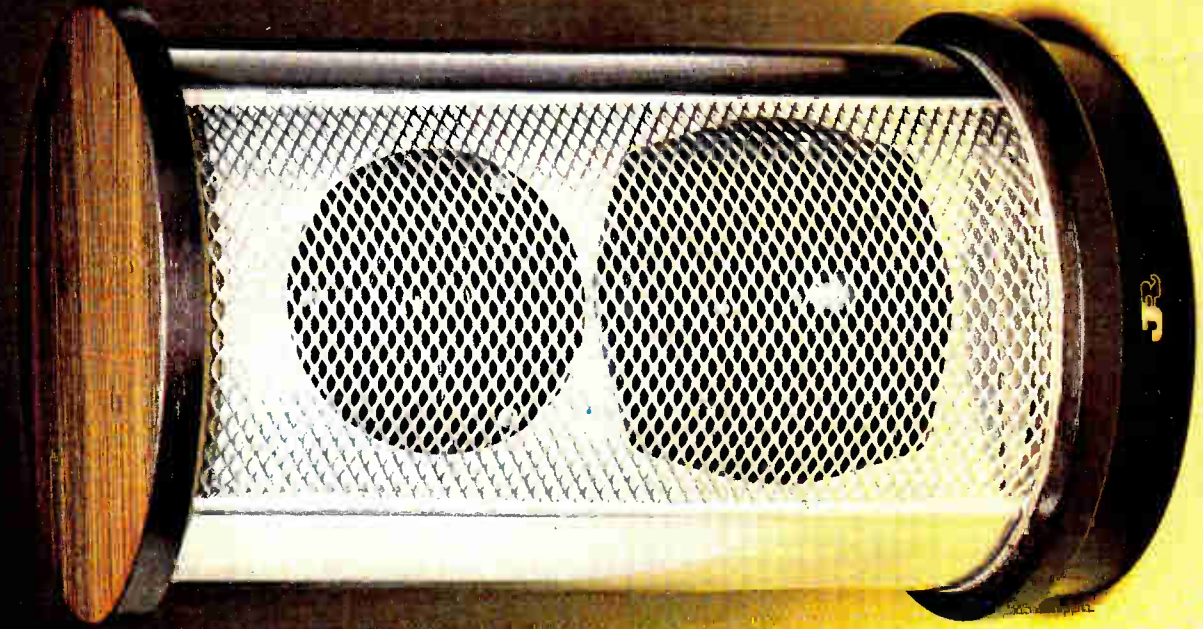


much that was important about Haitink himself, I steered things to his first experience of, and then his appointment with, the Concertgebouw Orchestra in 1964, a tradition with which Haitink now seems as synonymous as his predecessors Mengelberg and van Beinum. In character with much else in his career, this appointment now appears as the climax of a steady, patient inevitability rather than any more rapid, perhaps less thoroughly prepared rise to prominence. 'Well, my parents took me to concerts at a very early age, as we lived not too far from the Concertgebouw, and so it became a regular thing. My very first impressions of live concerts go back to hearing Mengelberg conducting the *St. Matthew Passion*, Tchaikovsky's Sixth, the Beethoven *Pastoral*... Brahms Symphonies. Even though at that age the predominant memories must be visual rather than musical (and what a tremendous personality Mengelberg was!), my musical addiction started from then on. And I still think that it was through *listening* that I got my first musical education, as there was not much music at school—especially at the time of the occupation during the war. No harmony and counterpoint till later when I went to the Academy (and I wasn't really a very attentive pupil!); until then I just had to sort it all out for myself, with all the disadvantages—and advantages—that this brings. When I started the violin at nine, my teacher, who was a violinist in the Concertgebouw Orchestra, would tell me all the gossip about conductors... in fact I think we talked more about this kind of thing than we actually played! You see, I always wanted to hear how Mengelberg was behaving, or how van Beinum was doing things. And all the time I studied scores in my own way, always doing the things I should not have done at that moment; I still cannot remember whether I have become a conductor *because* I studied these particular things... or because I

wanted to become a conductor and therefore got down to working on scores! You can never tell exactly; life is full of strange coincidences. I gained some of the most valuable experience later on when I played violin for a year in the Netherlands Philharmonic; not only on a musical level, but perhaps even more on a human one. It was very significant to see how schoolboyish an attitude orchestral players (and I include myself) could adopt when there was a conductor who couldn't conduct and had no authority. It's incredible how an orchestra can go downhill without really noticing and it was a terrible shock to me that one man could create such havoc. And so—dare I say it?—I decided that would not happen to me.'

If Haitink's early musical background nearly always lay in the shadow of the Concertgebouw, his immersion in its celebrated Mahlerian tradition must, amazingly, be counted a relatively recent development. Remarkable, indeed, for one who, within eight years of his appointment as principal conductor had recorded all nine symphonies (No. 1 twice, in fact, the second account appearing in conjunction with a BBC *Great Orchestras* programme). 'I found it extremely difficult to come to Mahler; now Bruckner was always one of my infatuations—also Schubert and the Viennese classics. But apart from anything else, there wasn't much Mahler to be heard during the occupation in the forties, so I already knew a lot of music before I heard my first Mahler symphony. In fact, historically speaking, the first Mahler recording I heard was very relevant, and terribly so. It was the *Song of the Earth* from Bruno Walter's Vienna performance in 1936, and at that age especially I was utterly struck, depressed, elevated, frightened by it—especially by *Der Abschied*...'.—Haitink's own recording with Janet Baker and James King (6500 831) is, by contrast, practically the most recent of his Mahler records—'... and so my

# The beauty of JR Loudspeakers is not just skin deep



The Declon foam cover has been removed from the JR149 on the left to illustrate some of the features which make this compact speaker a world beater.\*

The unique metal cylinder construction designed by leading hi-fi technologist Jim Rogers, eliminates many of the long-suffered problems inherent in conventional loudspeaker cabinets.

For sheer fidelity and realism JR Loudspeakers attain new standards. Impeccable design and specification have

led to a breakthrough in audio technology. The speaker tops and bases are available in a variety of finishes to blend with any room setting. You can choose from teak, walnut, rosewood, yew, black, white and aluminium, as well as red, green, or brown leather inlaid into rosewood. A wall bracket system is available as an accessory

\*Selected for an award for outstanding design and engineering by the Consumer Electronics Show, Chicago, June 1978.

# JR

## Loudspeakers

Please send me full colour leaflets and test reviews on JR products.  
JR Loudspeakers, 114 Ashley Road, St. Albans, Herts.  
AL1 5JR Tel: St. Albans 64337 Telex 28474.

Name \_\_\_\_\_

Address \_\_\_\_\_

acquaintance with Mahler progressed very slowly. And then all of a sudden there was this huge Mahler project in the sixties, and I was the last one to believe in it! Anyway, at that age it is difficult to say no, so every year I had to learn one or two Mahler symphonies, because I didn't know numbers six and seven at all, and the eighth was a closed book to me—the ninth also. So there you are! Of course, I'd do them differently now . . . one of the things that fascinates me in this profession is that you 'have the possibility to develop your talents all the time; whereas an instrumentalist has the drawback of age and stiffening fingers, as long as I can stand on my feet (and not sit down, just yet, at least!) it's not too bad.'

One of the few uncovered areas in Haitink's repertoire—or so it seems to record collectors—is that of the Second Viennese School. Before we talked, I was reminded of Bernstein's Harvard Lecture comments to the effect that, rather than the more cerebral utterances of Schoenberg, Webern and Berg, it was Mahler's darkly prophetic nature, his obsession with death and the future of humanity that struck such sympathetic vibrations in contemporary listeners. 'Well, I must admit to being a lot in sympathy with the English composer Bax when he said that you can't imagine sunny pastoral scenes, stormy skies or confessions of love when you listen to the Second Viennese composers. That is, I think, a very moving remark, as you're not allowed to say that sort of thing any more in this intellectual age—you can sing it, maybe, but . . . it's not said. And I don't think that the Second Viennese composers will ever be accepted by the general public; this is nothing to do with their importance as composers, of course. Talking of myself, I do try to come to terms with them (I'm doing Schoenberg's *Pelléas* in Amsterdam in '79, so perhaps that's a start), but I find it extremely difficult. I've often done Webern's *Five Orchestral Pieces*, and I've been fascinated, but even so, I find it all rather like a *cul-de-sac*. Where can you go from that? So I suppose I'm still an outsider in that respect. Berg is perhaps the most instinctive musician; with him you never feel that the tone row is being used as a duty as others sometimes do (even Britten, in *The Turn of the Screw*, for example).

'But at the same time I'm not that happy with the Mahler boom. At the moment I think there's a tremendous danger that it is the sheer length that captivates audiences, and in a way I don't trust that—almost as if one is saying "What an achievement that I've coped with such a huge structure!" Especially nowadays when there's a tendency to perform everything as loudly as possible. I know that sounds a little cynical, but there is a grain of truth in it. We're all guilty and I have my weak moments as much as anybody!'

The mention of a Britten opera brought us to Haitink's work at Glyndebourne—Britten belongs to Glyndebourne, and we hope to do *A Midsummer Night's Dream* there soon'. This started with *Die Entführung* in 1972, and one of his most prominent achievements there was the production of Stravinsky's *The Rake's Progress*, complete with David Hockney's superbly elegant drawings—you know,

I nearly didn't meet Hockney; I was reluctant, and maybe I'm rather strange in that way, as I don't want to interfere in other people's work. I'd seen him walking about the place once or twice with his straw hat and cigar, and then finally I met him briefly before the first night! It's amazing how casual he appears on the surface, yet you know that in one way or another, he's constantly thinking, working.'

It was also at around this time that a delightful photograph of Haitink appeared in the Sunday press; here, we were told, was how this very English-looking gentleman (he was cycling along one of Glyndebourne's furrowed lanes) wanted to sample the Festival atmosphere. He had also, we learned, *bought* a ticket to the evening performance in order to gain a better idea of the audience's side of things. Surely such behaviour ran contrary to the image of Glyndebourne as an elitist set-up, available only for those who could afford such expensive fare? 'Glyndebourne looks terribly snobbish, I know, but in reality the atmosphere is very informal. That it attracts the financial elite—well, it's not only Glyndebourne that does that; the cheapest seats at some other British opera houses aren't always terribly cheap either. What makes Glyndebourne so expensive is maybe the journey, the picnic, the supper, etc. But it's a small house without any subsidy, and I think it's such an amazing set-up that its disappearance would be a great loss. And we do bring productions to the Proms, of course, where you get 6000 seats sold. Also Glyndebourne is a small theatre, and performances are always sold out in advance, which is a pity for a lot of people . . . but we do 15 or 20 performances of an opera. Relatively that's a great number; what more can we do? But I must say that my real love for opera started with that production of *The Rake's Progress*, because you can only make an operatic performance when everything is all right on- and off-stage; there's no intrigue at Glyndebourne, which is pleasant and unusual in itself. And you can learn so much even from preparation and production sessions—that a producer, even as great a one as Peter Hall, can have his moments of indecision, and all this forces you to think and discuss. So one shouldn't dismiss even the so-called 'boring' aspects of operatic preparation.'

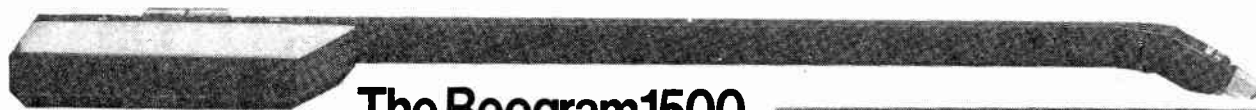
At fifty—admittedly no age at all, especially for a conductor—Haitink is coming round to re-recording some of the repertoire which he committed to disc as much as a decade ago. We are promised a new Bruckner 7 and a remake of Tchaikovsky 6, for example. When I suggested that in the case of the Tchaikovsky it was not so long since the appearance of his previous recording (6500 081) in 1971, his reply was illuminating, and perhaps a little unexpected. 'Well you see, now Philips want me to do it as a cycle, even if this means relatively early remakes, and not, as often happens, have a cycle built up falsely from different periods when my ideas have changed in between—an approach that also accompanied his Beethoven symphony cycle with the LPO, which was completed in a matter of months (6747 307)—and I only accepted to do that one on the

understanding that I could do another one in a few years' time; these works pose different problems each time you come to them. But as far as re-doing, say, Bruckner's Seventh is concerned, I have the problem that I started recording comparatively young with some important large-scale works, and so 15 years on is quite a long time. So as we had sessions left from some Tchaikovsky, we used them for Bruckner Seven—and we'd just done it at a concert. Also, the Concertgebouw is so changed in personnel. When I started conducting them I was maybe the youngest there. Now I'm the oldest! The average age is now about 35, whereas before it was 50 or so. And the style has changed; for example, the wind players are mainly from the Netherlands Wind Ensemble, and perhaps as it is a group the style is more homogeneous'.

Another work which Haitink has recently set down on disc for a second time is Mendelssohn's *Italian* Symphony, which will appear as part of the complete cycle, and in which, I was interested to note in the November sessions, he is now observing the exposition repeat. As this is an issue which seems to be receiving greater attention in symphonic repertoire nowadays, I wondered what had now decided him to do this. 'Well, the decision was, I must say, made on the spot, and of course the first-time bars where Mendelssohn wrote back to the beginning form such an elaborate piece that he must have meant it that way.' When I pointed out a parallel case in Brahms' Second Symphony, the reply came gently and without dogma. 'Yes, but there I've never dared; the structure and length of the movement make one afraid that people may become bored before you've finished. Now the Third Symphony (recorded with the Concertgebouw on 6500 155) is much more compact in that way, so I think that to do the exposition again there is a must. But repeats are such a funny issue, and we'll never really be sure; I suppose at least you're always on the safe side when you observe them!'

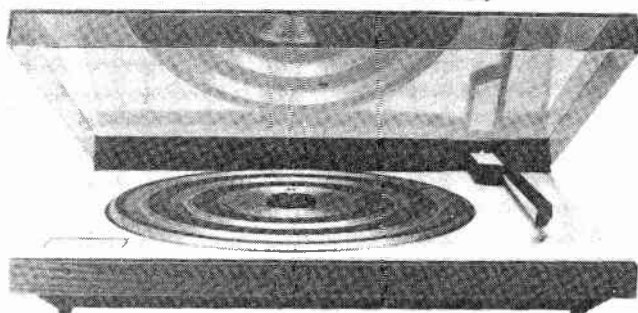
After three years as Artistic Director of the Concertgebouw Orchestra, Haitink took up the additional appointment of principal conductor of the LPO in 1967, a position which divides his time more or less equally with Amsterdam. 'Speaking financially, although it's a pity that whereas in Amsterdam you draw 20% from the box-office and 80% from subsidies, over here it's the other way around. And over there, with subscription concerts, lies the key to more adventurous programme-planning. I must say that I admire British orchestras for producing the results they do under such circumstances, but the circumstances are rather tough, to say the least, and they're not helpful to high artistic standards. That English orchestras can still achieve these standards is because the English have a very special mentality . . . no, really! It certainly wouldn't work that way in any other country. It's a pity, because then the step from a very good to a great orchestra could be made more often. You know how much I admire the LPO, but we all wished when we did the *Dumbarton Oaks* Concerto in London last November, for example, that conditions would allow us to do it four or five

# Front runners in the arms race



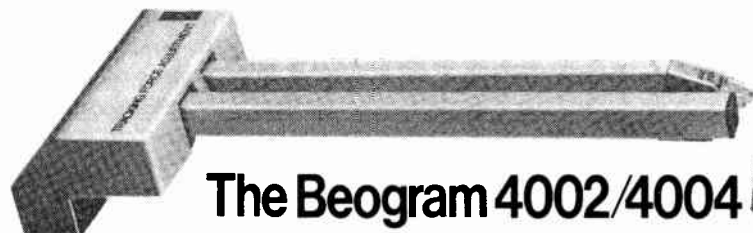
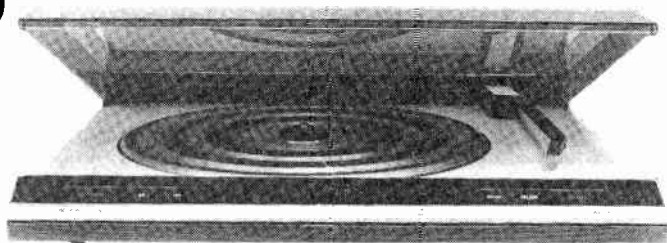
## The Beogram 1500

The ultra-lightweight magnesium tone arm was designed as an integral part of this quality record player. It tracks at just 1.5 grams allowing the diamond stylus an effective tipmass of 0.5 milligrams. The deck is servo-controlled, ensuring correct speed at all times with negligible wow and flutter. Operation is simple, with just one master control panel.



## The Beogram 2200

Tracking at 1.5 grams with an effective tipmass of just 0.5 milligrams, the 2200's tone-arm has built-in anti-skating and is so light that it can't scratch your records, even if accidentally bounced across. The record player is fully automatic. Simply press start and it does everything else for you, checking record size, selecting the correct speed and constantly monitoring it for minute fluctuations in the main supply. L.E.D.s (Light Emitting Diodes) keep you informed of which functions you're using. A manual control allows you to increase or decrease speed and, therefore, music pitch by up to 3%. You can thus tune the gram to, for example, your piano.

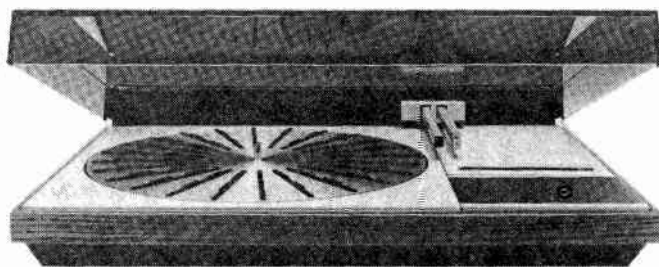


## The Beogram 4002/4004

The 4002's highly advanced tangential arm tracks records from edge to centre in a straight line, thus playing them the way they were cut. Bias problems are thus eliminated automatically and stylus pressure comes right down to 1.2 grams. The pick up is fitted with an elliptical naked diamond stylus which travels approximately 0.7 kilometres when playing an LP record. The deck is servo-controlled and fully automatic, with remote control facility available on the Beogram 4004 in conjunction with the Beomaster 2400 receiver.

All Bang & Olufsen record players are fully integrated. Which simply means that every part is designed with every other part in mind. Hence their superior performance, simple controls and elegant appearance.

In hi-fi, as in all high technology, you get what you pay for, Bang & Olufsen Beogram prices start at around £120 and extend to somewhere over £400.



# Bang & Olufsen Isn't technology beautiful.

FURTHER DETAILS FROM: BANG & OLUFSEN UK LIMITED, EASTBROOK ROAD, GLOUCESTER GL4 7DE. 0452 21591

times again. That could have happened in Amsterdam, where we have that beautiful hall all the time, and you achieve a certain depth of sound and interpretation. And, as it happens, all new players, however good, say they need time to adjust to that hall—they say it's like playing by yourself at first—so perhaps it's just as well we have the time to work at these things together!

Such conditions, Haitink admits, would be an essential pre-requisite for a Dutch performance of Elgar's Second Symphony, which he conducted some months ago with the LPO in the Festival Hall—a performance which, in its unusually meticulous approach to the hundreds of detailed expression marks in the score (perhaps 'tradition' has made us lax in such things) would surely require much rehearsal time from an orchestra unfamiliar with the music. 'In fact I would be extremely cautious in exporting this music; sometimes I think that like some wine, it would not travel well!' Haitink suggested, '... and anyway it's so much in the bloodstream of British orchestral musicians, who play it so wonderfully'. Would he like to record it as a supplement to his LPO recording of the *Enigma Variations* (6500 481)? The result, judging from the live performance, would be illuminating indeed. The reply, be it noted at Phonogram, was one of the most emphatic in our conversation. 'Oh, I *hope* so; there are no plans and I would love to. My love for Elgar started rather late, and I had a stupid continental attitude of "a nice composer, who was not really professional". Then all of a sudden, when I had to study the symphony myself, I was so moved by it. Underneath the grand Edwardian gesture, there is that private sadness, even misery. And it all exists within such sensitively crafted music, such fine structure and orchestration. That goes for both symphonies, but especially number two. Those final pages... one of the finest strokes in the symphonic repertoire... but of course the pressures to prepare this and that are so great. I really would like more time to relax and to read. At present I'm particularly taken with English literature, but you see there's so little time, so I've decided just to start with the letter A, and that's brought me to Jane Austen! No really, I'm fascinated!'

A glance round the elegant room in which we were sitting revealed a high quality record playing system, which, of course, prompted me to ask Haitink whether indeed he did a great deal of listening. 'Oh yes—and to all sorts of music. At the moment I'm fascinated by the Harnoncourt idea in things such as Monteverdi's *Poppea* and *Orfeo*; not only this, but also chamber music. Incidentally, I was so glad to be able to get a regular chamber music team, rather than three "big names" that don't fit together, to record Beethoven's Triple Concerto [with the Beaux Arts on 9500 382]. That work benefits so much from this approach.'

Our conversation had opened with American orchestras—and one in particular—and it closed with American audiences. Here Bernard Haitink confesses to some puzzlement, not only with the method of marketing music in the States, but with the audiences in general. 'I find when I go to the States, with its fascinating amalgamation of human

beings, that there's a tremendous hunger for the Arts, possibly because life in big cities is so claustrophobic that music is perhaps an escape route. But then, another thing that strikes me is the restlessness while the music is going on, so I sometimes wonder what the music really means to them. Perhaps this is arrogant, for I don't mean to imply that I'm a more receptive human being than any member of the audience—it's very dangerous to generalise... but there it is.'

We had talked for well over an hour, and I felt that I had taken enough advantage of a man who had twice brushed aside my suggestions that he'd given me enough of his time. Before I left, however, I had gleaned enough idea of future releases to be sure that Haitink's fiftieth birthday year is hardly likely to pass unnoticed. To come are the second Brahms Serenade (to complement the first on 9500 322), the first instalments of the Tchaikovsky cycle, and Debussy's *Jeux* and the *Nocturnes* to put beside Haitink's recordings of *La Mer*, the first Clarinet Rhapsody, *L'Après-midi d'un Faune* and *Images*. There are also operatic plans—a *Fidelio*, perhaps. A rich year indeed. ●

## BERNARD HAITINK

By Peter Gammond

HAITINK's conducting career really started in 1955 when he was appointed second conductor with the Netherlands Radio and was made responsible for their four radio orchestras. In 1957 he became principal conductor of the Radio Philharmonic and in January 1958 he first went to the United States to conduct the Los Angeles Symphony Orchestra. In the next few years he was guest conductor with the famous Amsterdam Concertgebouw, the Württemberg State, the Hague Philharmonic and other orchestras in Europe and America and then, on September 1 1961, the Concertgebouw announced that Haitink and Eugen Jochum had been appointed joint permanent conductors. In 1963 Haitink made his debut at the Edinburgh Festival, where his performances of Mahler, Stravinsky, Bartok and Brahms were highly acclaimed. In 1964 they toured America and soon he was appointed sole principal conductor of the orchestra. It was at this time that we began to be aware of Haitink through the first of a long and continuing series of recordings for Philips. In September 1967 he became Principal Conductor and Artistic Advisor to the London Philharmonic as well, a post he is relinquishing this summer, and his activities with the two orchestras have made an interesting comparison on record. His most recent role has been as Musical Director at Glyndebourne, but we have yet to sample any recorded fruits of his operatic work.

It was obvious from the start that Bernard Haitink was not cast in the mould of the old-fashioned individualist and often eccentric conductors like Beecham and Toscanini, whose personalities so often imposed themselves on the music—with very interesting

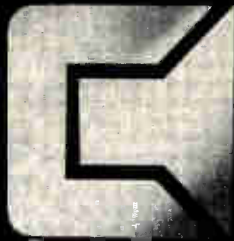
results, I might add. When we made him the subject of a 'Great Enterprisers' feature in August 1971, this 'least exhibitionist of men and conductors' was inevitably compared to Sir Adrian Boult—and I think this remains a fair and not unflattering comparison. Both men have little surface ostentation but great depth to their musical activities; both have a flair for bringing out the essential characteristics of the music they conduct and of the orchestras and soloists they work with.

Haitink himself has made a point of comparing his attitude toward, and his work with, the two great orchestras with which he is mainly connected. His old love, the Concertgebouw, with their fine concert hall where he so much likes to record, he regards as a particularly sensitive orchestra—perhaps even a little pampered by their ideal conditions, while the LPO he sees as a much tougher ensemble, eminently professional. Exciting things happen with each for different reasons. In London he has always liked to work with his regular record producer Volker Straus at Walthamstow Town Hall in preference to other venues.

There was always a danger—one which many people, myself included, fell into in the early days—of under-rating Haitink. Now that he is accepted as one of Europe's leading conductors it can be seen in retrospect that it is not Haitink who has had to grow in stature but our assessment of him. In fact, he has always been remarkably consistent and true to himself and his standards have always been high. Even Boult was not fully appreciated until the latter part of a distinguished career—for much the same reasons. The uncentric performance, however effective, takes longer to appreciate than the superficially exciting. A case I can quote against myself is with regard to Haitink's performance of the Schubert 9th. I can confess now that the more I listen to it, the better it becomes and I wish I had given it a more wholehearted welcome when it first appeared. What makes a Haitink performance last and improve is the sheer craftsmanship, the light and shade he achieves, the clear detail and texture, the way he lets the composer make his point.

The first Haitink recordings came along in the mid-sixties and several of them are still with us. One of the earliest still available is a poised performance of Mendelssohn's *Italian* symphony, now in the 'Universo' series; and two very old favourites that I have always recommended are still around to delight us—the Mendelssohn *Midsummer Night's Dream* music and Schubert's *Rosamunde*. Haitink's magical lightness of touch, coming rather unexpectedly from a rather phlegmatic character, is ideal for such music. His ability with a colourful score that needs light and air putting into it is similarly seen in the 1974 issue of *Scheherazade*, easily the top recommendation for this much-recorded work. The words 'unaffected', 'fresh', 'sensitive' have been much bandied around in talking of this recording.

The ability to tackle somewhat formidable music and make that seem sensitive and beautiful is another Haitink talent. He was particularly successful in this respect in helping to bring the various Liszt symphonic poems back into the repertoire. His performances of such standard trial pieces as the



# Celestion introduce three new Dittons

technologically superb...

precision engineered...

beautifully styled

With the introduction of these three new Ditton speakers, we have maintained the standard of excellence that is always expected from Celestion.

A completely different design concept has been used for each of the three systems to achieve a specific sound quality, and provide the overall performance that individual tastes require.

The Ditton 442 uses a sealed enclosure, the 551 a vented design,

and the 662 the now famous Celestion ABR system. In addition, each of the three models incorporates its own Celestion designed and manufactured drive units that have been developed specifically for each application.

As usual, the strict Celestion standards have applied at every stage of the development and manufacture of every unit, and our confidence in our quality is backed by your 5 year guarantee of satisfaction!



DITTON 551

DITTON 662

DITTON 442



Please send me details of the new Ditton range.

Name \_\_\_\_\_

Address \_\_\_\_\_

01.21.03

Rola Celestion Limited, Ditton Works, Foxhall Road,  
Ipswich, Suffolk IP2 8JF. Telephone: Ipswich (0473) 73131  
Cables: Voicecoil Ipswich. Telex: 98365



Beethoven and Brahms symphonies have quite simply struck a happy medium that has made them the kind of performances one safely recommends as exhibiting a nice mixture of flair and sensitivity.

We must consider next the two composers with whom Haitink possibly made his greatest mark in the early 1970s—Mahler and Bruckner. The almost ridiculous profusion of Mahler recordings over a few years prompted his own comment that there were dangers of 'over-indulgence' in this particular composer. Haitink's own set seems to remain yet again a clear, unaffected statement of the lyricism in this composer; tidy yet emphatic. There is always the danger that we might consider a lot of the conductor's work a safe compromise. But this is not what I mean. It is not a compromise at all; simply an unconfused statement of fact. Certainly Solti is likely to excite and inflame more in Mahler; Walter is still far more romantic; Klemperer more lofty; but Haitink is pleasantly refreshing in such matters—and that happens to be one of the most lasting qualities in music-making. Of the two sets, though, the Bruckner will probably rate the highest. Because Bruckner is far more in need of clarifying than Mahler, Haitink has been particularly successful here. It might have something to do with the Concertgebouw's particular sensibilities. The Bruckner set will certainly remain one of Haitink's monuments.

If we are in danger of giving the impression that Haitink eschews excitement, then turn immediately to what I have personally found some of the most exciting recordings he has ever made—the three Stravinsky ballets with the LPO. Detail, of course, which always helps in such complex scores, strength, brilliance, rhythm—they are all here; especially helped by one of Philips' most exciting recordings. Haitink has, of course, been lucky in having the Philips sound behind him as well as two superb orchestras; it is a sound that seems particularly suited to his qualities.

The final facet of Haitink's conducting that needs pointing out and praising is in the role of accompanist. We don't often consider this aspect when considering a conductor's abilities, but to lend ideal support to a soloist or singer needs a special talent. Haitink has been especially successful here and it is interesting to compare the different backing he gives to Arrau and Brendel in the Beethoven concertos (albeit with different orchestras). I should imagine that he is a conductor with whom most pianists and violinists would enjoy working. And one of his finest recordings in this respect was of Mahler's *Des Knaben Wunderhorn*, where the backing given to Jessye Norman is almost magically sensitive.

I suspect that Haitink has the sense and modesty to leave the most difficult conducting tasks to his maturity. Is this why there is no Mozart in our lists, little Haydn, not much Schubert? We know that these are amongst his favourites. Now that he is experienced in opera, we presume that recordings will follow. Certainly Bernard Haitink gives you the impression of having a finely balanced judgement—in what he has not done as well as in what he has; and when the time is ripe, he will follow the right course. ●

## SELECTED AVAILABLE RECORDINGS:

### with the THE CONCERTGEBOUW ORCHESTRA, AMSTERDAM (all Philips labels)

#### BEETHOVEN

*Piano Concertos*—Claudio Arrau (pno)—No. 1—6580 122, c. 7317 142; No. 2—6580 123; No. 3—6580 073; No. 4—6580 060; No. 5—6580 094, c. 7317 141 (65)  
*Romances 1 & 2*—Henryk Szeryng (vln)—6747 041 (78)  
*Violin Concerto*—Henryk Szeryng (vln)—6500 531, c. 7330 275 (74)  
Herman Krebbers (vln)—6580 115, c. 7317 139 (76)

#### BRAHMS

*Symphonies 1-4*—c. 7699 011; No. 1—6500 519 (73); No. 2—6500 375 (w. *Haydn Variations*) (75); No. 3—6500 155, c. 7300 139 (71); No. 4—6500 389 (73)  
*Piano Concerto No. 1*—Claudio Arrau (pno)—6580 302, c. 7317 201 (70)  
*Piano Concerto No. 2*—Claudio Arrau (pno)—6570 062 (70)  
*Violin Concerto*—Hermann Krebbers (vln)—6580 087 (75)  
*Serenade No. 1*—9500 322 (78)

#### BRITTEN

*Young Person's Guide to the Orchestra*—6599 436, c. 7317 093 (74)

#### BRUCH

*Violin Concerto No. 1*—Arthur Grumiaux (vln)—6580 022, c. 7317 104 (65)

#### BRUCKNER

*Symphonies 0-9*—6717 022 (65/72) (Nos. 2, 3, 4, 5, 6, 8, available separately)

#### DVORAK

*Symphony No. 8*—6580 126, c. 7317 157 (Dances) (64)

#### HAYDN

*Symphonies No. 96 & 99*—6580 151 (69)

#### MAHLER

*Symphonies*—No. 1—6500 342, c. 7300 397 (72); No. 2—6700 024 (68); No. 4—SAL3729, c. 7300 209 (68); No. 5—6700 048, c. 7505 069 (72); No. 6—6700 034 (70); No. 7—6700 036 (71); No. 8—6700 049 (71); No. 9—6700 021 (70)  
*Das Lied von der Erde*—Baker/King—6500 831, c. 7300 362 (76)  
*Kindertotenlieder/Lieder eines fahrenden Gesellen*—Prey—6500 100 (71)  
*Des Knaben Wunderhorn*—Norman/Shirley-Quirk—9500 317, c. 7300 572 (77)  
*Das klägliche Lied*—soloists/Netherlands Radio Choir—6500 587

#### MENDELSSOHN

*Violin Concerto*—Arthur Grumiaux (vln)—6580 022, c. 7317 104 (65); Henryk Szeryng (vln)—9500 321, c. 7300 583 (77)  
*A Midsummer Night's Dream*—6570 021, c. 7310 021 (66)  
*Symphony No. 4*—6747 057, c. 7317 140 (63)

#### PROKOFIEV

*Peter and the Wolf*—6599 436, c. 7317 093 (74)

#### RAVEL

*Daphnis et Chloe*—suites/Mère l'Oye—6500 311, c. 7300 166 (72)

#### SCHUBERT

*Symphonies*—No. 5 & 8—9500 099, c. 7300 512 (76); No. 9—9500 097, c. 7300 510 (77)  
*Rosamunde*—6570 053, c. 7310 053 (65)

#### R. STRAUSS

*Also sprach Zarathustra*—6500 624, c. 7300 280 (74)  
*Don Juan*—6500 481, c. 7300 344 (*Elgar: Enigma*) (75)

#### TCHAIKOVSKY

*Symphony No. 6*—6500 081, s. 7300 063 (71)  
*Violin Concerto*—Henryk Szeryng (vln)—9500 321, c. 7300 583 (Mendelssohn) (77)

### with THE LAMOUREUX ORCHESTRA

#### STRAVINSKY

*Violin Concerto/Rossignol*—David Oistrakh (vln)—6585 003 (72)

### with THE LONDON PHILHARMONIC ORCHESTRA

#### BEETHOVEN

*Symphonies 1-9*—6747 307, c. 7699 037 (77)  
*Piano Concertos 1-5*—Alfred Brendel (pno)—6767 002, c. 7699 061 (77)

#### DVORAK

*Cello Concerto*—Maurice Gendron (vlc)—6580 149, c. 7317 162 (68)

#### ELGAR

*Enigma Variations*—6500 481, c. 7300 344 (*Strauss; Don Juan*) (75)

#### HOLST

*The Planets*—6500 072, c. 7300 058 (71)

#### LISZT

*Les Préludes | Orpheus | Tasso*—6570 056, c. 7310 056 (69)  
*Hungaria | Mazeppa | Hamlet*—6500 046 (71)  
*Piano Concertos 1 & 2 | Totentanz*—Alfred Brendel (pno)—6500 374, c. 7300 229 (73)

#### RIMSKY-KORSAKOV

*Scheherazade*—6500 410, c. 7300 226 (74)

#### SHOSTAKOVICH

*Symphony No. 10*—Decca SXL6838, c. KSXC6838 (77)

#### STRAVINSKY

*Oiseau de Feu*—6500 483, c. 7300 278 (74)  
*Petrushka*—6500 458 (74)  
*Le Sacre du Printemps*—6500 482 (74)  
(3 ballets)—c. 7699 060 (74)

# *It's time for a few home truths about cassettes.*

The humble cassette has come a long way in the last decade.

What was once dismissed by the pundits as a mere gimmick has now proved itself capable of the highest standards of reproduction; of true high fidelity.

Hence the latest tape from EMI; called, appropriately enough, the Hi-Fidelity.

Using a specially developed formulation containing acicular particles of gamma ferric oxide, the Hi-Fidelity has been designed to be totally compatible with the higher-than-average bias settings of the finest Japanese decks.

And at the same time, it gives outstanding results at normal bias settings.

Laboratory tests bear out what your ears will tell you.

The EMI Hi-Fidelity is one of the finest tapes currently available.

And it's home-made.

## **Why EMI turned to DIY**

There's a lot more to a cassette than the tape itself.

The finest reproduction in the world is no good if the mechanics aren't up to scratch.

And to get the kind of consistent quality EMI demand for their housings, they had no alternative.

They had to do it themselves.

It meant investing £1½ million in new plant.

It meant that one person in ten, invariably the most knowledgeable and experienced, was engaged in quality control; continually checking for the minutest fault.

And it meant using only the finest materials available.

But it was well worth it.

By keeping the entire operation in our own factories in the UK, we can maintain the strictest supervision over every stage of the manufacturing process.

## **Solving the housing problem**

It needs watching.

There are 500 different critical measurements in every cassette, some of which have a tolerance of 0.001" from nominal.

And you can't always trust others to do that.

Nor is it a question of being unnecessarily fussy or pernickety.

Your EMI Hi-Fidelity needs those 500 critical measurements to obviate the need for the complicated internal guidance systems that some other cassettes find essential.

That's why there's only one thing special about EMI mechanics.

Just the very highest standards of design, extraordinarily precise manufacture in EMI's own factories, and intensive quality control at every stage.

Isn't home-made always best?



## **Home-made thoughts from abroad**

With all this, it will come as no surprise at all to learn that EMI's home-made tapes are in great demand.

Not just from the British public, but from all over the world. EMI tapes are used by the trade.

EMI are the largest suppliers of cassette tape to the European duplicating industry.

And it's invariably EMI Hi-Fidelity tape which is used in music cassettes for the reproduction of major European musical events; especially prestigious performances of classical music.

It's nice to know that British home-made tapes can match anything from abroad.

But not really surprising.

The care and attention to detail which characterises EMI Hi-Fidelity cassettes is unrivalled anywhere in the world.

And the home-made element is the key to it.

Few companies can boast such wide-ranging expertise and manufacturing capability as EMI.

It all adds up to a quite remarkable cassette, with high signal-to-noise ratio, an excellent print-through measurement and minimal distortion.

Plus the kind of reliability which comes from doing it yourself; that's the only way to guarantee the standards you expect.

## **EMI Hi-Fidelity**

**EMI** *the British home-made cassette.*

EMI Tape Limited. A member of the EMI group.  
International leaders in music, electronics and leisure.

# Looking Back

Peter Gammond

IT IS a treat for an avid Mozartian like myself just to gaze on the beautiful green boxes, with their gold lettering and tasteful artwork, that make up the Philips Mozart Edition. They are to be opened reverently. I have been reviewing the abridged cassette collections and recently Philips have kindly sent one of the record sets to hear—Vol. 15—Opera Buffa (6747 388). My old copy of *La Finta Semplice* was so ancient that I was glad to replace it, but it is a mouth-watering collection of Mozart rarities beyond that—*La Finta Gardiniera*, *Der Schauspieldirektor*, *Lo Sposo Deluso* and the ballet music to *Idomeneo* and *Les Petits Riens*. What a lovely performance of this last delightful score, full of a grace and lilt to lighten any winter's day.

If any opera could woo a Mozartian to the brinks of Wagnerism it is Humperdinck's *Hänsel und Gretel*. The music is said to be inspired by that of *Siegfried* and *Die Meistersinger* (and sounded, to our reviewer, like *Parsifal*) but it is not weighted by such influences. Tunes of blatant appeal are imposed on the romantic textures of the music. It is an opera that manages to be both impressive and amiable. Oddly enough, several people I have spoken to about it seem to be put off by memories of early performances and that very popular excerpt with all that 'tap, tap, tap' business. Hearing it afresh in the new Solti recording (Decca D131D2)—which is wellnigh perfect in every respect—I was newly enraptured by this lovely work. Isn't it strange how composers like Humperdinck who are virtually known by one work seem to put their whole being into

it? EMI rather slyly slipped out their oldish Karajan recording, electronically processed (HMV SLS5145 E), which does not compete in sound quality with the Decca, but it is also a fine performance and has the great Elisabeth Schwarzkopf in splendid form. I always swear that I will never tell the poor old record buyers that they ought to get both.

A batch of rather disconnected items that are worth looking at includes the only recording available at the moment of a Mozart rarity—the incidental music to *Thamos, König in Agypten* which gave Mozart his first contacts with the ideals of Freemasonry—later to be exploited with baffling results in *The Magic Flute*. It was dramatic and imaginative music attached to an unsuccessful play in this case. It is a boon to have the full music with vocal choruses in a worthy performance quite decently recorded on a reasonably priced label (Turnabout TV34679S). I feel, like many, that we are missing something of importance in our musical heritage when we neglect Elgar's contemporaries like Parry and Stanford and their predecessors. A record of Parry's *Songs of Farewell* and Stanford Part Songs (Argo ZK58) seemed to be something not to be missed in my search for neglected British monuments—and I was not disappointed. There is something very pure and movingly simple in such music that I once thought was cold but which now comes refreshingly to the ear. They both set some very ambitious texts with cool skill. The Louis Halsey Singers give meticulous and articulate performances—a lovely record! Such music leads one naturally to the sublime

tranquility of Fauré's *Requiem*—a work which has been very well dealt with on record in recent years. Those who share my love of this great work will get great satisfaction from the new recording under Andrew Davis (CBS 76734), who is proving himself a fine choral conductor and well able to step into the shoes of departed masters of this particularly English art. With superb playing from the Philharmonia, this seems to be a particularly rapt and cohesive performance that leaves one elevated.

The name of Stanford again caught my eye in an interesting disc called 'The Victorian Clarinettist' (Discourses ABM29) in which Colin Bradbury explores the sort of drawing-room repertoire that the virtuoso of the period might have played. In a programme of works by Lazarus, Stanford, Waterson, Kalliwoda, Lovreglio and Oberthür, patently exploring the unknown regions, I liked the typically mixed pathos and showing-off of a piece like Kalliwoda's *Morceau de Salon*—his Op. 229, you might note. There was a great industry in neglected music in those days. Sometimes when I want to convince myself again that there can be genius in writing light and frivolous music (and a complete lack of it in writing the eminently serious) I turn to a record like John Georgiadis' 'Viennese Champagne' (CBS 73782) and admire the sheer craftsmanship of music written by such as the Strausses and Josef Lanner. Without claiming any depths to such entertaining music, there is a constant sense of inspiration, melodic inspiration at least, a constant elevation of spirit in the writing that carries it above the ordinary. And there is certainly craftsmanship in the playing of it, as John Georgiadis proves as he goes around delighting people with his concerts and recordings.

# Tape Matters

Douglas Brown

A NUMBER of the principal local radio stations in Great Britain have decided to transmit regular programmes dealing with creative tape recording. This is a major breakthrough for the hobby, and the credit goes to EMI Tape Ltd and their PR consultants.

A few months ago EMI offered to make available all its resources to enable suitable programmes to be recorded and supplied to local radio stations which show an interest. There was an immediate response, with a good geographical distribution, and by the time these words appear in print your local radio may be about to transmit the first of the new programmes. Stations in the biggest British cities have shown particular interest.

I write before all the details have been finalised, but it seems likely that the first six or eight programmes will be closely linked with the British Amateur Tape Recording Contest, so that they will deal with making those different kinds of tapes which qualify for the various classes in that Contest: documentaries, music recordings, schools features, wildlife cameos, and so on.

In the course of doing this, there will be lots of basic guidance on technique, presented in the simplest possible way in order to attract newcomers to recording activity. If the initial

plans mature, the programmes will be presented by one of the best-known of radio-TV personalities.

The frequency with which programmes are transmitted may vary from station to station, in some cases weekly, in others possibly every fortnight. EMI will be sending out a whole batch of programmes so that local managements can make their own decisions. They will be able to transmit the package complete, as it comes, or they will be able to supplement it with locally-originated material.

It may be a good idea, therefore, to contact your local station now. Ask them if they will be broadcasting these tape recording programmes and, if you think you can contribute useful material, volunteer your services. Many times in this column I have declared that a local radio commitment would transform the hobby. Now we shall see if I was right.

INTEREST IN wildlife recording continues to grow—significant, perhaps, that this is the one kind of recording activity which has consistently and over a long period received radio and industry support.

Richard Margoschis, one of the best-known practitioners in this field, has now marketed two cassettes offering some of the finest of

the recordings he has made over the last twenty years. After experimenting with a first programme which covered a wide variety of habitats including woodlands, heaths, open country, inland and coastal waters, he is now getting down to a more specialised series.

Of the latest offerings, one gives 52 minutes of recordings of 'the natural sounds to be heard in woodland habitats, by day and night, throughout the year'. The other contains 44 minutes of fox calls over the course of a year. Each of these cassettes costs £2.25 direct from Richard Margoschis at 80 Mancetter Road, Mancetter, Atherstone, Warwickshire CV9 1NH. Add 25p for postage and packing—this amount covers one, two or three cassettes.

The recordings are superb. Those on the 'Woodlands' tape are in stereo, but all but one of the fox recordings are mono. All are immensely evocative of the countryside because they contain much that we have all heard and enjoyed at some time. More interestingly, they most definitely contain a great deal that most of us have never heard in reality. Two examples: 'Fox cubs eating and disputing possession of food at an earth ... short screaming fights and yapping' and 'A duncock sings from a perch above the entrance to a badger sett and a blue-tit sings as he passes over—from deep in the sett come the whimpering calls of very young badger cubs with the sow.'

# The Trio 600T tuner: The natural balance between high performance and pure subjective quality.

We've all heard of high fidelity tuners which boast "high sensitivity", "high cross modulation ratios", "excellent signal-to-noise ratios" and even "ultra low distortion"



Very convincing, you might think, but surely one or two outstanding specifications cannot determine overall performance on something as complex as a stereo tuner.

To our mind, the ultimate aim of any tuner must be to reproduce the sound monitored at the broadcasting studio itself.

That certainly was our objective when producing the Trio 600T Tuner.

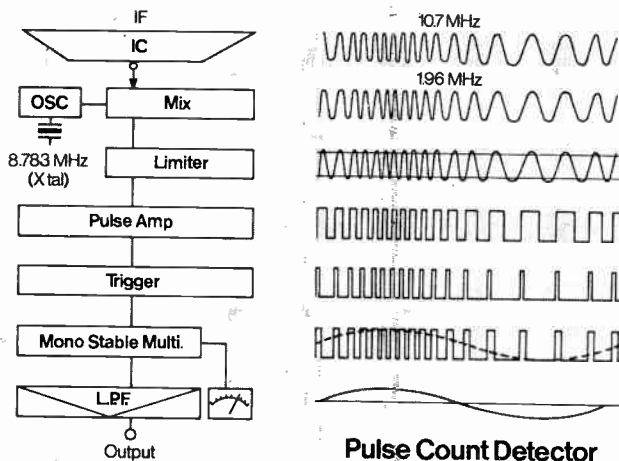
But before we could begin, our engineers had to develop an FM detector to match the performance level of the studio.

Their answer was the "Pulse Count Detector" consisting of a crystal oscillator, a

mixer, a low-pass filter and a pulse counter, which together give a perfect linear bandwidth of over 3.92 MHz, compared with the non-linear 2 MHz bandwidth found in ordinary FM tuner designs.

And that's not all, distortion components developed in this detector are so low, that even if modulation levels were to exceed a full Megahertz in bandwidth, total harmonic distortion would still be less than 0.05%.

Add to this the fact that the signal-to-noise ratio measures in excess of 84dB while the stereo separation is more than 45dB all the way from 50 to 10,000Hz, and we feel we've more than achieved our objective.



To receive further details of the 600T and other Trio products, send this coupon to: B. H. Morris & Co. (Radio) Ltd., Dept C, Precision Centre, Heather Park Drive, Wembley HA0 1SU.

Name \_\_\_\_\_ HFN3

Address \_\_\_\_\_

Agents in Eire: Peat Wholesale, Dublin. 

# Gramophile



Larry Adler

The harmonica is not the kind of instrument to attract many virtuosi. In fact, apart from a number of blues and folk artists, only two names spring to mind—Tommy Reilly and Larry Adler. Reilly, who plays the harmonica, was featured in 'Gramophile' a couple of years ago so it's about time Adler, who plays the mouth organ, had a look in. This month, RCA release on their Gold Seal label a selection of 'classical' pieces written for the instrument (and Adler) by Gershwin, Vaughan Williams, Arnold and Milhaud and I went along to RCA's offices to chat with Adler about himself, his work, the instrument and eventually a number of topics only vaguely connected with HFN/RR fields of interest. Adler ('I've told so many lies in interviews that I no longer remember the true facts...') is an extremely interesting and amusing raconteur and regrettably there is really only room to reproduce his thoughts relating to music.

Adler took up the mouth organ ('... not a harmonica, please') aged 14, in order to enter a harmonica competition in his home town of Baltimore, Maryland. 'I had no interest in the mouth organ, but when I won the

contest, it suddenly occurred to me that here was the passport to get away from Baltimore and go on the stage. I was stagestruck, I had seen Al Jolson, Eddie Cantor, I wanted to do what they did. I had also seen Rachmaninov and Heifitz and I wanted to do what they did. There was a very famous mouth organ band, Borrah Minevitch and his Harmonica Rascals, a very well-known act. I bought a ticket for New York, and a friend got me an audition with Minevitch. His words are absolutely engraved on my mind; he said "kid, you stink!". I cried like a baby; the other members of his band were in the dressing room and one of them, a midget who later became quite famous on his own, said "Borrah, why don't you let the kid come out on stage with us for one..." to which Borrah replied "Get him out of here, he stinks!". I was going to go back to Baltimore because if Minevitch didn't want me, what future had I? But on the way back to the station I saw Rudi Vallee's name—and I can assure you Rudi Vallee was just as big as the Beatles in those days—I crashed his dressing room, played for him and he put me on that night at his club—I flopped, nobody listened

to me, but at least he noticed me, he didn't say "kid, you stink". So, instead of going back home, I stayed around a few days and then I repeated the audition trick with a man called Paul Ash (who discovered Ginger Rogers, by the way). He just said "Follow me, kid" and we went up to the 10th floor of the Paramount building, he walked into the office of the man in charge and said "Give the kid a contract". They gave me a contract for 52 weeks at \$100 a week and I was put into what they called one of their travelling units. This would consist of about five acts and a line of girls and the order would be film-show-film-show... - if the film was very popular you might do six shows a day... I learned how to walk on and off the stage; I learned how to cope with an unfriendly audience, I learned to be a professional; in fact, as I've said many times, if I was starting in show business today, I wouldn't last six months. Where the hell would I learn my trade?'

Adler very soon got into making records. 'The first record I ever made was called *'Hitting the bottle'*, I forget the name of the band, I think it was on Brunswick. I did a chorus, and on the other side was *'I am only human after all'*. I did two sides with someone called Salesman Sam, who later became famous as the voice of Popeye the Sailor. Then I did 8 bars on a Ruth Etting record. I made, I think, two sides with her and we had side men like Eddie Lang and Joey Venuti. It was great, but I didn't make solo records until I came to England in 1934 when I made *'Smoke gets in your eyes'*, with the *'Continental'* on the other side, and that became *the best seller of the year!* Hadn't he recorded *Rhapsody in Blue* very early? 'Well, the *Rhapsody in Blue* was premiered, I think, in 1926; I started to play it as soon as I heard it, but I didn't record it until 1935 in England. The first time I ever played it start to finish was with Gershwin at the piano, at a party. I used to say to him "George, I wish you could do a little piece that would just be from you to me" and he'd say "What do you want a piece from me to you for? You've got the *Rhapsody*, nobody plays it better." And he really meant it. He gave permission for Robert Russell Bennett to score it for mouth organ and symphony; I recorded that for Pye [recently released in America on Audio Fidelity] and I think the orchestration is far far better than the one Ferde Grofé did for George.'

There's a Gershwin tune,

*Lullaby Time*, on the RCA album, and I wondered where that had come from. 'That was originally a string quartet that George wrote in 1921 as an exercise but never heard played. I happened to be in Hollywood in 1962; I was writing a film score and Ira Gershwin gave me a birthday party and handed me this thin envelope and said "That's your birthday present". I opened it up and there's the manuscript of this string quartet of Gershwin's. I couldn't believe it, he was giving it to me. So I played it first time at the 1963 Edinburgh Festival with the Edinburgh String Quartet... and RCA offered to make a whole album of unpublished music based around the quartet.' Larry was given pieces by Jerome Kern's widow, Richard Rodgers, Harold Arlen, Cole Porter and some more unpublished Gershwin. One of his best friends was Frank Loesser, but Frank wouldn't let Larry have anything. 'I said, Frank, you've got to be on this album, can you give me something that isn't published? He said "Larry, if I've got anything unpublished it's because I'm figuring to use it somewhere!" It's a shame that only the Gershwin piece is on the new album; Benny Green told me he thinks the Jerome Kern thing is one of *the best things Kern ever wrote—changes key five times in four bars!*'

Kern, of course, came from an age when songwriters were craftsmen. How does Larry feel about songwriters today? 'Kern was like an architect, he built the Taj Mahal every time he composed a song, but people now don't study. Adrian Love [of Capital Radio] asked me if I liked the score of *Evita*. *'Don't cry for me, Argentina'*—the first few bars is a song called *'Yours'* and it then goes into *'Rose Marie I love you'*—that isn't composing, that's listing. Even when I wrote *Genevieve* (I wrote that in 1953) I got the first 16 bars while being stuck in a traffic jam in New York. They came to me right away; I pulled over, wrote the 16 bars down; it then took me two months to write the bridge, because I would write it, it wouldn't fit, re-write it, it sti!; wouldn't fit. I took time and trouble over it and I don't think composers do that now. One thing that makes me mad is the things that pass for lyrics nowadays—Stephen Sondheim is good but no-one else of the younger generation. They make false rhymes; I reviewed a book of Bernie Taupin's lyrics for *Punch* and he'll rhyme 'virgin' with 'certain'—no rhyme at all.'

Doing a neat side-step, we got onto the subject of classical composers and the harmonica, sorry, mouth-organ. 'The only reason I prefer to call it mouth organ is that I hate the idea that the harmonica is more genteel when it's the same goddammed instrument. The generic term is mouth organ so I say mouth organ. I am waiting now to find out whether or not Khatchaturian has left a manuscript for me. I did commission him, I even paid him half the money.... If there is enough of a sketch, we can get it finished by one of his pupils and I will have the only posthumous Khatchaturian work. One of the great regrets of my life, however, is either the composers I met who I didn't have the nerve to approach, or the people who were alive who I didn't even get to. For example, I met Rachmaninov twice. Why couldn't I have at least said "Mr. Rachmaninov, I would like you to hear me play and see if you would be interested in writing for my instrument"? All he could have said was 'No', but I didn't have the nerve to do it. The same with Bela Bartok, Hindemith, I met them all, but I didn't have the guts to approach them. It was only later when I was more sure of myself that I could approach Vaughan Williams and Darius Milhaud and Malcolm Arnold, but then I knew more or less what I was doing. When I met Rachmaninov, I was in my early twenties and he had the most forbidding awesome personality; he scared the hell out of you. I'm told by people who knew him that he was very funny, had a great sense of humour, but faced with that gloomy Siberian face, I couldn't say a word.'

Larry did meet up with Ravel after recording *Bohero*. What was the story behind that? 'There used to be a Chicago restaurant called The Black Hawk and Hal Kemp and his orchestra played there. Kemp, incidentally, had one of the most subtle dance bands I have ever heard. They did things with harmonies and brass flutter and triple tonguing which were just so subtle. Anyway, every Thursday night they used to have celebrity night and if I had a girl friend, I wasn't making enough money to take her to expensive places, but if we went to the Black Hawk on a Thursday I would be called upon to do a number, therefore no check. So I used to go there every week! One week I think I played *St. Louis Blues* and a very famous violinist named Dave Rubinoff suddenly says (must have been drunk) "What do you play that popular crap for, why don't you play something

classical?" I was frozen, I didn't know what the hell to do, and Kemp bent down and said "Larry, you've heard us play *Bohero* haven't you?" I had. He said "I'm sure you can play it—do that". So I played it with Hal Kemp's orchestra, but what I didn't know at the time was that I was playing Kemp's *arrangement* of *Bohero*, which was in two-four foxtrot; I didn't know that that wasn't the way Ravel wrote it. So when I later got an engagement at Grauman's Chinese [in Hollywood], we sat down to the music, which I'd never even come across before, and I heard the band begin to rehearse it, and it was in *three*! Boy, my first night, I absolutely lost my nerve; I was perspiring but the audience thought it was great, they didn't notice the difference. However, now I had a great new number in my act, so in '35 I played in Paris, *Bohero* was the highlight of my act, and Jacques Nion, who ran a gramophone shop on the Champs Elysée, called me up and said he'd just had a call from Maurice Ravel. "He wants me to bring you to his house, he wants to hear you play the *Bohero*". I didn't feel I could stand in front of Ravel and *play* the *Bohero*, so I took my record. I had recorded it on one side of a 78, which is 3½ minutes long, and Ravel just snatched the record out of my hand, put it on, listened to it and said "You cut it". (He said it in French, of course, and it was translated for me). "Well, yes, I had to cut it. I do a vocal act lasting 15 minutes and the *Bohero* itself runs 12, so if I want to play the *Bohero*, I have to cut it." He said "Do you know Arturo Toscanini?" Yes, I'd met Toscanini. "He doesn't cut it". He had a point there too, he doesn't cut it. And he said "You play it too fast". I had no answer to that at all. Then he thought for a while and he said "You know it's interesting, it's the first time I've ever heard my *Bohero* played on a harmonica—I don't like it". Then there was this awful silence, he wasn't saying anything, I wasn't saying anything, so I took the record and said "Maestro, would you sign this for me?" I've never asked for an autograph in my life, but there was this embarrassed silence and he said "But I thought this record was for me". Well, after what he had said, I had no idea he wanted it. So I gave him the record, then Jacques Nion drove me back to town.

"Three days later he called me. "The Maestro is in my shop, he wants you to come at once". I sped over and there was Ravel—he'd brought his signature in for

me. Many years later, in 1943, I was soloist with the Philadelphia Symphony in their Robin Hood Del summer concerts, and they asked if I could prepare an encore. I said "What about Ravel's *Bohero*, that's a sure-fire encore?" But they pointed out that you have to pay \$75 copyright fee every time you use it, and for an encore it's not worth it. I said "Well, wait a minute; Ravel's publishers have their office in Philadelphia, let me go over and see them." So I went over and I was told that, in his Will, Ravel had told his executors that I was to have the absolute rights to play the *Bohero* free....'

I'm afraid that there isn't space to go in depth into Adler's views on England (his adopted country); McCarthyism—he was a victim of the infamous black list; harmonica transcriptions ('Neville Cardus... heard me play *L'Après-midi d'une Faune* at a Wigmore Hall recital and said that he thought that's the way Debussy meant it to sound'); what he enjoys most out of life ('I think the greatest kick in the world is to stand in front of a symphony orchestra—last October I did three concerts with Solti in Chicago—there's no other feeling like it'); his writing for *Punch* and *What's On in London* ('I feel like James Thurber, who once said that he puts a piece of paper in the typewriter and stares at it until tiny drops of blood begin to appear on his forehead'); his running battle with *Private Eye* in their Letters column; his marriages; or even his love affair with the folding bicycle. *HFN/RR* is supposed to be a music magazine, I suppose.

John Atkinson

## Morton Gould

American composer, conductor, pianist Morton Gould was here last October for direct-cut sessions with the LPO at Watford Town Hall with Crystal Clear (see 'News' in January) and for some PCM recordings with the newly formed Digital Sound Products company. In the midst of this crowded schedule of commitments he kindly found time for a chat.

He was born in 1913 and showed prodigious talent very early on, playing the piano by four and producing his first compositions at six. By his twenties he was running his own radio series on the WOR Mutual Radio Station 'as a conductor, sometimes as a pianist but basically as a conductor/arranger. These were the days of live radio in the States, when stations and networks had orchestras of various sizes. I had a long career there and then through that to recordings of all

kinds; from lighter music to the symphonic repertoire and some new things. Originally I recorded for Columbia 'Masterworks', then with RCA 'Red Seal' including a series with the Chicago Symphony where amongst other things I did two Charles Ives albums and some first recordings of Ives works'. More recently with RCA he made the first recording in the West of Shostakovich's second and third symphonies (RCA Victor 1968 RPO, still a fine recording).

Gould is one of the very few composers who have managed to combine a successful career writing serious, formal music with copious forays into the spheres of lighter, popular music (or, indeed, vice versa)—what Grove describes as 'a fusion of the Broadway idiom with the standards of craftsmanship of symphonic music'. His work for film has been relatively infrequent, yet conspicuously successful: an early Jane Powell movie, *Delightfully Dangerous*, 1945; *Windjammer* and *Cinerama Holiday*, 1958. On television it includes the huge 26-part CBS serial *World War One*, 1965. His most recent venture has been to supply the music for the four-part *Holocaust*—Marvin Chomsky's highly controversial television piece about the horrific Nazi solution to the Jewish 'problem' during the last war. 'What people must remember is that in the United States the fact that this kind of subject could be shown on commercial TV set a precedent. It was a breakthrough for all its faults and failings. But considered as a whole I think it was an important thing for people to see. My feeling in writing the music was that the very nature of what this picture was doing and projecting needed a very direct kind of musical expression with a symphonic feeling to it—but obviously different composers would approach it in other ways. It's interesting; we went through a period in the States when a great deal of film music suddenly went from one extreme to the other—from the gargantuan symphonic sound with 12 trumpets and a million strings to small, chamber-like scores—basically jazz scores, even for television. There seems to be a tendency to revert back now though, to the more romantic kind of sound. John Williams is a good example; tremendously successful, obviously, and beautifully done in terms of its objective. The problem with anything in music and in art is that everything rapidly becomes a cliché and a platitude, including the things one does oneself. However, within whatever confines one does it, one



has to juggle a fine balance of the aesthetic, of the practical and of the functional when dealing with anything other than a purely abstract work'. The RCA recording of Gould conducting a symphonic suite of his music for *Holocaust* is available on RCA Red Seal RL 12785. (See review last October '78, p. 125).

Why, I asked somewhat cautiously, were these recent sessions with small, specialist American recording companies held in London and not in the States? 'Well, as you know, a lot of recordings are done here. This is in a sense the international recording centre. Major orchestras—LSO, LPO, RPO, Philharmonia—(scratch) orchestras such as the "National Philharmonic" which we used for *Holocaust*. You have some great halls, great engineers.' Did this imply that, for example, straight performances of contemporary American music are also more frequent here, since direct relays of concerts are comparatively rare events in the States—what about composers like his eminent contemporary Elliot Carter? 'There are many more outlets for his music here than there would be in the States. In terms of large orchestral works, of course, Elliot can only get performed if the Philharmonic does it. The nature of what he does means its unlikely they're going to do it every year, or anything like that. Chamber music is another thing, of course, but none of that is heard on radio. Occasionally there's a pick-up of a symphony concert and then they will broadcast it at a certain time. There has been a recognition of the importance of the kind of art and the kind of music which does not have a large audience—never did—it is part of the vitality of expression and the minority listener is important. I think a lot of people forget that America is a young country—I'm not condoning the iniquities, but that is the point. In our country 150 years is old—200 is already antiquity.'

Is the impression of an even greater division between contemporary and established music in America than over here correct? 'Yes. You see, what is interesting is that many of your so-called serious composers have written a lot of functional music and have written things that have become popular. Elgar—in *Pomp and Circumstance*, for example, he wrote something that has become part of the life blood, the sound of Great Britain, along with some very distinguished works. Vaughan Williams, Walton, Benjamin Britten; here are people who have written works of stature and dimension who have also written charming works that are very accessible and which communicate. Well, we've had a problem getting to that, because people who have done it are looked down upon. People tend, when they hear a symphonic work, to say "Yes, that's typical—he should stick to the lighter things". It's not so much now, but when I was young there was a very definite barrier.'

The two works Gould recorded with the LPO for Crystal Clear are his *Spirituals for Orchestra* of 1940 and *Foster Gallery*, 'an enhancement and transformation into orchestral fabric and symphonic structure of Stephen Foster melodies'. (See review in our 'QM' on Direct Cut records in Jan. '79, p. 73). The digital sessions also included 'the *Latin American Symphonette* and some older works of mine that either are recorded for the first time or, like the *Philharmonic Waltzes*, haven't been done for many years. Then I did an album of orchestral chestnuts—showpieces like *Bohéro*, where you start off very soft and go to very loud. With the digital process, as with direct to disc, you can do it without having to make the softer parts louder in order to get above noise levels, tape hiss, etc, and you can go to the tremendous climax without pulling back. With conventional methods in a piece like that what

you often came out with was really something which started loud and got softer—literally, in effect!' Also recorded at these sessions were records of film music and Spanish favourites.

With years of experience in recording, and especially in view of his interest in the latest techniques, Gould's approach is sensibly realistic. 'The ideal is to try to capture the spontaneity with a minimum of flaws—there's no such thing as an unflawed performance. I think if you listen to a supposedly perfect recording, if you really put your ears on it, you can hear all kinds of things that you could what we call nit-pick. But I enjoy recording, I find it a challenge.' No bigger challenge, surely, than direct-cut recording? 'Yes, that's really tough, I must say. Every time you start from the beginning you realise "My God, I've got 18 minutes to go through this"—it's an expensive way to live dangerously.'

Ivor Humphreys

### Medtner Society

The London branch of the Medtner Society was founded back in August last year during their inaugural meeting at Trinity College of Music. The society was formed to bring attention to and promote the music of Nicholas Medtner, the third and largely forgotten of the three great Russian composer-pianists (the others are of course, Rachmaninov and Scriabin). Although he is often paid 'lip service' and, in fact, spent his last 15 years in England, Medtner and his music are still largely ignored. The society hope to rouse interest in the composer and help commemorate the centenary of his birth in 1980. Their Patron is Vladimir Horowitz and further details may be obtained from David Jones, 76A Alderman's Hill, Palmer's Green, London N13.

### Harriet Cohen Awards

Released November '78 by EMI in their 'Treasury' series was a record, compiled from 78s by Bryan Crimp, of works performed by Harriet Cohen, one of the most gifted pianists to appear between the wars, but whose performing career was prematurely cut short by an accident to one of her wrists in 1948. Very much an internationalist in outlook, despite her preoccupation with British music—that of Bax in particular—from 1952 to her death in 1967 she organised the Harriet Cohen International Music Awards which gave medals to promising young musi-

cians and composers. Among those so honoured have been John Ogdon, Tamas Vasary, Daniel Barenboim, William Mathias, and Malcolm Williamson. We reported in October (p. 115) on the setting up of the Harriet Cohen Memorial Music Award Trust which will award a purse to young British musicians, and at a recent reception at the Royal College of Music the trustees of the Award, led by Miss Cohen's sister, Myra Verney (who wrote the sleeve notes on the EMI disc), presented the first award to pianist Aydin Onac who had been nominated by the RCM. The runner-up was a young cellist, Corinne-Ann Frost, the RAM nominee, and in addition to their cheques, the musicians were presented with music from Miss Cohen's collection, Mr. Onac receiving Debussy's *Voiles* and Miss Frost the autograph of Bax's *Legende* which had been originally dedicated to her teacher, Florence Hooper.

All the royalties from the EMI record will be going to the Trust, a registered charity, but they will need more funds in order to make the Award an annual event: donations can be sent c/o Rubinstein, Callingham, 6 Raymond Buildings, Gray's Inn, London WC1R 5BZ.

### Walter Klien

To those who would equate an outsize personality with success in highly-charged Romantic repertoire, Walter Klien—an engaging, modest Austrian—may prove something of a disappointment. Such are the deceptions of a crowded market. Yet those who heard his Prom performance of the Strauss *Burlesque* some time ago were left in little doubt as to the breadth of Klien's musical sympathies, which seem to be more widely appreciated in the United States than over here. American audiences have heard him frequently in such repertoire as the Stravinsky Concertino, and the Schoenberg and Hindemith Concertos (a particular rarity, this), although next month he is to play the Berg Sonata in the Queen Elizabeth Hall. When I talked to him at his London hotel last October, he was full of enthusiasm for the work. 'You don't know it? . . . oh, you must! Well, he wrote it as a student; his Opus 1, in fact. It's a wonderful work in a single sonata movement. I'd like to record it, but it's short, you know, and therefore it's difficult to find other pieces to go with it. I've only been playing it for a month or two, and I've done it in America. It's a very Romantic

Optonica knows all about High Fidelity. That's the reason we've made our top quality equipment with the most modern technology and expertise behind it. Choose Optonica for a whole new system or to extend an existing one.



Optonica knows the importance of the specialist who can give you all the help you might need, so we've carefully built up a network of the experts who make it their business to offer the very best in hi-fi. They chose Optonica of course.

# HIGH FIDELITY Optonica of Course.

SM 3636 Stereo Amplifier & ST 3636 AM/FM Stereo Tuner \*



IN TUNE WITH THE FUTURE



# OPTONICA

\* Best Buy Hi Fi Choice.

Where isn't an OPTONICA specialist near you contact us at Sharp Electronics (UK) Ltd 107 Hulme Hall Lane, Manchester M10 8HL Tel: 061-205 7321.

**ABERDEEN**  
Holburn Hi Fi Ltd.,  
44/1/445 Holburn St.  
**ASHFORD**, Kent.  
Ashford Audio,  
34, Tufton Walk,  
Tufton Centre.  
**BARROW IN FURNESS**  
Hi Fi Video Centre,  
50, Dalton Road.  
**BEUFORD**,  
Tavistock Hi Fi,  
Tavistock Street.  
**BELFAST**,  
The Hi Fi Shop,  
11, Lisburn Road.  
**BIRMINGHAM**,  
Hockensound Ltd.,  
1195, Pershore Rd.,  
Stirchley  
Puresound 11,  
1130, Warwick Road,  
Acocks Green.  
**BOLTON**,  
Clearstone Hi Fi,  
166, Blackburn Rd.

**BOURNEMOUTH**,  
Direct Vision  
(Farendown) Ltd.,  
22, Gervis Place.  
**BRISTOL**,  
Radford Hi Fi,  
52/54, Gloucester Rd.  
**BROMSGROVE**,  
Downing & Davis,  
44, High Street.  
**CANTERBURY**,  
Canterbury  
Hi Fi Centre,  
1/2, The Friars.  
**CHELtenham**,  
Ray Electrical,  
287, High Street.  
**CHESTER**,  
New Dawn  
Hi Fi Centre,  
1 & 3, Castle Street,  
Lower Bridge Street.  
**CIRENCESTER**,  
Television &  
Hi Fi Centre,  
35, Castle Street.

**COLCHESTER**,  
Golding Audio,  
12a, Culver St. West.  
**COLERAINE**,  
The Hi Fi Shop,  
21, Railway Road.  
**COLWYN BAY**,  
Owen's Hi Fi Centre,  
38, Station Road.  
**DONCASTER**,  
Quadruphenia  
19 Bradford Row,  
Hallgate.  
**DOVER**,  
The Hi Fi Shop,  
43 High Street.  
**EASTBOURNE**,  
Martins  
Electronics Centre,  
2, Broad Row.  
**EDINBURGH**,  
Hi Fi Centre  
(Edinburgh) Ltd.,  
1, Haddington Place,  
The Gramophone Co.,  
Pedestrian Precinct,  
Rose Street.

**ENFIELD**,  
A.T. Labs,  
191, Chase Side.  
**EXETER**,  
Peter Scott (Exeter) Ltd.,  
76-78, South Street.  
**FLEET**,  
Ken Rose,  
283, Fleet Road.  
**GLASGOW**,  
McCormacks  
(Music) Ltd.,  
29/33, Bath Street.  
**GODALMING**,  
Jim Park Audio,  
46, High Street.  
**GT. YARMOUTH**,  
Martins  
Electronics Centre,  
2, Broad Row.  
**GUERNSEY**,  
Alpina,  
24, Smith Street.  
St. Peter Port,  
Soundtrack,  
Church Square,  
St. Peter Port.

**HIGH WYCOMBE**,  
B & B Hi Fi,  
4, Liverpool Victoria  
House, Priory Road.  
**HUDDERSFIELD**  
Huddersfield  
Hi Fi Centre,  
8 Byron Street.  
**JERSEY**,  
Sound Engineering Ltd.,  
69, King Street,  
St. Helier.  
**KING'S LYNN**,  
Martins  
Electronics Centre,  
5, High Street.  
**LEEDS**,  
Superfi,  
34/36 Queen  
Victoria Street.  
**LEICESTER**,  
May's Hi Fi,  
27/33, Churchgate.  
**LIVERPOOL**,  
Beaver Radio,  
20/22, Whitechapel.

**LONDON**,  
Audio T,  
190, West End Lane,  
NW6.  
Hi Fi Fo Fum,  
14, Bute Street, SW7.  
REW,  
230, Tottenham  
Court Road, W1.  
REW,  
114, Charing Cross Rd.,  
WC2.  
Billy Vee Sound  
Systems,  
68, Lee High Road,  
SE13.  
**LUTON**,  
B & B Hi Fi,  
49, Wellington St.  
**MANCHESTER**,  
Lloyd Paton LPM Ltd.,  
34, Moorfield Walk,  
The Shopping Centre,  
Urmston.  
**MANFIELD**,  
Siv Booth,  
9 & 11, Queen Street.

**NEW MALDEN**,  
Unier Products Ltd.,  
Compton House,  
35, High Street.  
**NEWARK**,  
Peter Ellis Audio,  
27, Kirkegate.  
**NEWCASTLE ON TYNE**,  
Hi Fi Opportunities Ltd.,  
Handyside Arcade,  
Percy Street.  
**NEWCASTLE UNDER LYME**,  
Hi Fi Studio,  
14B Market Arcade.  
**NORWICH**,  
Martins  
Electronics Centre,  
35/37, Ber Street.  
**NOTTINGHAM**,  
Superfi,  
15, Market Street.  
**PORTSMOUTH**,  
Hopkins Hi Fi,  
40, Fratton Road.

**READING**,  
B & B Hi Fi,  
16, Gun Street.  
**REDHILL**,  
Audio Centre Ltd,  
2 Cronwell Road  
Surrey.  
**ROCHDALE**,  
Clearstone Hi Fi,  
52, Drake Street.  
**SHEFFIELD**,  
Quadruphenia  
Hi Fi Centre,  
10, Nursew Street.  
**SHREWSBURY**,  
Avon Hi Fi Ltd.,  
13, Wyle Cop.  
**SOUTHAMPTON**,  
Hamilton Electronics  
(Southampton) Ltd.,  
35, London Road.  
**STOKE ON TRENT**,  
Hi Fi Studio,  
20, Lonsdale Street.  
**STOURBRIDGE**,  
Downing & Davis,  
31/33 Market Street

**STRATFORD ON AVON**  
JCV Music,  
B 9 Sheep Street.  
**SUTTON COLDFIELD**,  
Puresound 11,  
81, The Parade.  
**SWINDON**,  
Television &  
Hi Fi Centre,  
91/92, Commercial Rd.  
**TORQUAY**,  
Peter Scott  
(Torbay) Ltd.,  
2, Tor Hill House,  
Higher Union Street.  
**WALLASEY**,  
Armstrong Smith  
Electronics,  
65, King Street.  
**WARWICK**,  
JCV Hi Fi Market,  
44, Emscote Road.  
**WALLINGTON**  
Thorne Howell Ltd.,  
15 17 Woodcote Road,  
Surrey.  
**WILMSLOW**,  
Switts of Wilmslow,  
5, Swan Street





piece.' Any Wagner in it? 'Oh yes. *Tristan* is somehow always there . . . that chord: you can't escape it!'

Klien is anxious to temper his image as a Mozart specialist, admitting ruefully that he is often restricted to both Schubert and Mozart by concert managements who evidently have an eye for his recorded repertoire—one which includes three boxes of Schubert Sonatas (Turnabout TV 37096-8 and TV 37109-11, and the most recent, TV 37121-3, reviewed this month, made, like most of his latter recordings, in America) and seven discs of Mozart solo piano music: ' . . . also those records of some Mozart Concertos (K491 and K537) are getting a bit old now, and the sound isn't as good as it could be'. Does he ever listen to them? 'Only if I must. But not for fun! I listen to orchestral records, though, and especially opera, as I'm a Puccini fan from the days when I was a répétiteur in Vienna. I think that was good, as so many pianists can become so self-absorbed . . . I've just done some more Mozart, though—K453 and K595 with the Minnesota Orchestra under Skrowaczewski, and Beethoven's *Emperor* with the St. Louis Orchestra under Semkow—two very good orchestras.'

The sound of the piano on the older Mozart discs is, as recorded at any rate, surprisingly soft-grained, even plummy—a very different sound from that to be heard in Beethoven's Second Concerto which he played in London with the ECO towards the end of last year; heard live, his sound is vastly different. The Finale was more light-toned and rhythmically buoyant than I'd heard in this concerto for some time. 'Well, nowadays I use a Steinway like most other people; I'm not a purist (and I have no wish to conduct Mozart from the keyboard either! I did study conducting at one time, but today everybody tries to do it. Barenboim is one of the few who is really success-

ful, I think). Bach on the piano? Well, I don't play him, but if I did—most certainly, yes. I think we know too much today, with all the thick books about ornaments, etc. Let's face it, some of those old instruments are dreadful, aren't they? Have you ever tried to play one? Very nice . . . very interesting, but sometimes impossible! By all means, one can go into a museum, read how it was done, and try it out to see what was possible, but it's another thing to play them in public. I'm afraid I do so dislike these plangent, whining sounds with no vibrato. And one can so easily finish by allowing the head to rule the heart, which is not a balanced affair at all. All very well to think . . . but not too much! Many, I'm sure, do think too much. The possibility when recording to brood over a section and do it again and again can make an enemy of the studio. For spontaneity's sake, one hopes it's over quickly!'—this said with the air of one contemplating a dose of particularly nasty-tasting medicine.

Not exactly what we've been led to expect from a musician who, for some years, has borne the label of 'a thinking pianist'—even now, erstwhile fellow-Vox artist Alfred Brendel is sometimes heard to be similarly and glibly categorised. 'I would like very much to record, say, the Brahms number one, but always I am asked to do Mozart and Schubert! Of course I never get tired of them—it is impossible. But perhaps the balance will be a little corrected by the new *Emperor*. But better to be asked to play Mozart than, say, Szymanowski or Moszkowski!' You play these works, then? 'Oh no!'—the words tumbled out with an infectiously boisterous laugh—. . . but the Hindemith Concerto is a fine piece which I'd love to play in this country; a big, late work with a huge orchestra, written in 1945.' An enticing idea from one who studied with Hindemith himself (as well as Michelangeli) at the Vienna Academy of Music. His success at the Busoni Piano Competition in Bolzano also whets one's appetite to hear him in this composer's 'big' concerto.

Most recently, Klien has formed what promises to be a highly successful duo with violinist Edith Peinemann, who recorded a distinguished Dvorak Concerto for DG some years ago. I chanced to mention that this record was the one from which I grew to know the concerto, much to his delight. 'Really? I'm so glad. You know, she's been seriously underrated. We're going to record the Beeth-

oven Sonatas next year in London, and we've concerts planned in America, Switzerland, Austria, but sadly, not yet in London, and as I've known her for some years now, since we met at Marlboro (where I love playing) we think very similarly. I have great hopes for the duo; I love playing chamber music and a trio would be very nice. But let's wait and see—perhaps one day we will find a cellist!'

Andrew Keener

## Douglas Pudney

The whole of the record world has been greatly saddened to hear of the death of Doug Pudney in November, after a long illness which he bore with great fortitude. Those who knew him intimately will miss a wonderful friend, always loyal and helpful, a man of great humour and kindness, the very best of company. The countless gramophone enthusiasts in societies all over the country will also remember him for his courteous and friendly manner and for the enthusiasm with which he promoted the cause of classical music. We shall all remember him as a real enthusiast who lived for music and had an encyclopaedic knowledge of the subject. His abounding enthusiasm did not hide a deeply critical and appreciative mind which he applied to all music and all recordings whether they came from the company he served or elsewhere. His opinions were always highly valued by those of us who presumed to be critics and a straight answer was always to be expected from him. His opinions were deeply considered and honestly given.

In his early record industry career, Doug worked for the Philips organisation in Holland and with Decca in the late 1950s (where he was a valued colleague). I am much indebted to him for a great deal of work he did on the *Music on Record* volumes which had to remain anonymous. There was no doubt that he found his right niche when he joined EMI in the early 1960s where he was able to do so much, with like-thinking colleagues, for the cause of British music and Elgar. He moved through the Classical Promotion department and eventually became the Manager of Creative Services, a post which gave him enormous outlets for his unbounded energies and gave him an opportunity to travel all over Europe and elsewhere. Wherever you went you would find people who loved and admired him. In recent years he got great satisfaction from watching the career

of Riccardo Muti, whom he had helped to discover and promote to his present eminence. At his very well-attended funeral Peter Andry very adequately and movingly put all these things into words, and I would certainly like to mention that his wife Wendy, as a result of a well-aimed appeal, has been able to raise over £500 for Cancer Research. But mere words are inadequate to express the great sense of loss. Some of us have lost a very great friend. The record and musical world has lost an enthusiast and a fount of knowledge and wisdom that will be very hard to replace. Like so many people in the music world, he was small in stature but great in spirit, and we have all learned a great deal through knowing him.

Peter Gammond

## Nyos

The new National Youth Orchestra of Scotland will hold its first course in August. The project was set in motion in 1976 by the Scottish Arts Council and the Scottish Amateur Music Association to draw together the best young musical talent in Scotland and provide a high level of musical experience. The orchestra will meet for two residential courses each year in early August and over the New Year, each culminating in two or more public concerts. An assortment of trusts and foundations have been approached and the Carnegie UK Trust has made a grant of £20,000 to set things in motion. Sir Alexander Gibson is to be the honorary President. Further details from William Webb, Administrator, National Youth Orchestra of Scotland, 150 Hope Street, G2 2TH (tel. 041-332 7244).

## The SAGA record

The Saga classical label is one of a small handful of record companies which seem to survive, even to flourish, in these inflationary times, although with the recent large number of deletions some collectors may have begun to wonder. Well, these deletions are part of a reorganisation which bodes particularly well for the future, since all releases will now be issued in high quality pressings from the Teldec plant in Germany. Over the next year many of the best existing recordings will also become available again in new pressings. From the 1st March the 5000 series of classical records and tapes will be £2.75, but this is surely still something of a bargain, especially if the pressings are up to the standard we've come to expect from Teldec.

# How to save a fortune by buying expensive hi-fi

Sooner or later, people who buy cheap hi-fi get dissatisfied. They begin to upgrade their equipment piece by piece.

By the time they finish, they've paid out for two, maybe three complete systems. Yet by getting a hefty discount from us on the system they really wanted in the first place, they could have saved a small fortune.

How come?

Unlike most hi-fi specialists, we only discount the best. From A.R. to Zerostat, there's a fortune to be saved.

And having put this kind of quality well within your reach, we go on to make sure that the equipment you buy is the equipment you really want.

Elsa, our Swedish electronic comparator, lets you compare the performance of dozens of different turntable/tape deck/amplifier/tuner/speaker combinations.

You'll find that our staff are enthusiasts, not high pressure salesmen. They certainly won't bully you into buying anything but they will give you expert advice as and when you want it.

Alternatively if you know what you want and prefer to order by phone, we'll arrange delivery right to your door.

And now a word about our price list.

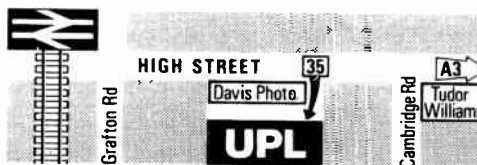
You can get a copy by filling in the coupon, or giving us a ring. It may not be the glossiest piece of literature you've ever seen because we're constantly updating it to keep our prices as keen as possible.

But when you read through it, we think you'll find it music to your ears.

#### MAJOR BRANDS STOCKED

Accuphase, Aiwa, AKG, AGI, A & R, Austin-Michaelson, B & O, Bose, Cambridge, Castle, Celef, Celestion, Cerwin-Vega, Chartwell, Dahlquist, D.B.X., Disk 22, Dual, Ferrograph, F.R., Gale, Grace, Harman Kardon, Harrison Chapman, I.M.F., J.B.L., J.R., J.V.C., K.E.F., K.L.H., Lentek, Linn, Luxman, Marantz, Maxell, Mayware, McIntosh, Monitor Audio, N.A.D., Nakamichi, Optonica, Ortofon, Pioneer, Quad, Revox, Sansui, Satin, Shure, S.M.E., Sonus, Sony, Soundcraftsmen, Spendor, Stanton, Stax, Sugden, Supex, Tandberg, Tangent, Tannoy, Teac, Technics, Thorens, Transcriptors, Trio, Uher, Ultimo, Videotone, Yamaha, Zerostat.

ACCESS, BARCLAYCARD, INSTANT CREDIT



# UNILET HI-FI - SOUND ADVICE AT A BETTER PRICE

Unilet Products Ltd., 35 High Street, New Malden, Surrey KT3 4BY. 01-942 9567/8.

Please send me your price catalogue (and list of special offers)

Name .....

Address .....

.....

.....

.....

UNILET HI-FI

HFN3/79

# Book Reviews

**THE OPERAS OF VERDI**, Volume 2 by Julian Budden. 520 pages plus index. Price £17.50. Published by Cassell & Company Ltd, 35 Red Lion Square, London WC1R 4SG.

JULIAN BUDDEN'S previous book *The Operas of Verdi, Volume 1* has already been hailed as a classic of its kind, and as a standard work of reference. Volume 2, which covers the operas from *Il Trovatore* to *La Forza del Destino*, is equally authoritative. The first two chapters entitled 'The Collapse of a Tradition' and 'Formation of the Mature Style' give a detailed account of the influences at work and the gradual changes which were taking place in the operatic world between 1840 and 1870, and provide the necessary background to the detailed and meticulous analysis of the operas composed in the period immediately following *Rigoletto*.

Each opera is discussed and all the factors which influenced Verdi and his librettists are considered in great detail. Where changes were made either before or immediately after the initial performances, these are evaluated and discussed by the author so that we are able to be in, as it were, at the very birth of the works concerned. There are over 400 music examples in this very comprehensive work, and it will prove invaluable to all those who are interested in the works of Verdi, either as performers or as opera enthusiasts. The very high price of £17.50 may well restrict its sale to the general public, but it is a work which must of necessity find its place on the shelves of all public libraries, music schools and colleges. It is in every way a magnificent achievement. *John Freestone*

**THE DEFINITIVE BIOGRAPHY OF P. D. Q. BACH** by Prof. Peter Schickele. 238 pages including dedication, 2 prefaces, foreword, introduction, author's note, acknowledgements, 8 appendices and Index. Lots of photos, engravings, line drawings. Price £3.95 (paperback). Published by Cassell & Co. Ltd, 35 Red Lion Square, London WC1R 4SG.

THIS long-awaited volume provides, at last, the results of Professor Schickele's researches into the last and least of J. S. Bach's sons. Professor Schickele (University of Southern North Dakota at Hoople) has shown a lifelong affection for, and affinity with, this composer, and in his book he sets forth a scholarly achievement comparable with the work of Robbins Landon on Haydn or Newman on Wagner. Baron von Swieten's famous letter to King Frederick is quoted at length in the course of the author's deeply penetrating essay on PDQ's background, where recent analytical analyses of major composers are put to shame by a critical approach at least as clear as either mud or as Boulez on Mahler. In his discussion of heredity versus environment, Professor Schickele asks: 'Is there, for instance, any connection between Brahms' orchestration and his mother's hatred of washing windows? Is the fact that both of Johann Sebastian Bach's parents died when he was a boy of ten the reason that the composer never wrote ten of anything, but always six or twelve or forty-

eight? And has any scholar explored the possibility that Beethoven, having had a grandfather who was a bass and a father who was a tenor, grew up with a subconscious urge to sing alto, so overpowering that his vocal mechanism was under a constant strain, leading eventually to headaches, colic, death, and possibly even syphilis?'

A long section, 'The World of PDQ Bach', consists of 52 well-chosen or carefully-invented illustrations with mostly single-paragraph descriptions, building up a fascinating visual record of PDQ's life and times. This is followed by the inconclusive section 'Man or Myth?', then an annotated catalogue ('Such a Horrid Clang') of the music. The more notorious of these works include the *Pervertimento*, the *Serenade* and *Sinfonia Concertante in D* for lute, balalaika, double-reed slide music stand, ocarina, left-handed sewer flute, bagpipes and strings. Then there's the cantata *Iphigenia in Brooklyn*, *Toot Suite*, *Grand Serenade for an Awful Lot of Winds and Percussion*, and many more.

PDQ Bach (1807-1742?), possibly the most untalented of all eighteenth century composers and certainly the least influential, died without even the momentary effect on the world achieved by such (in comparison) giants as Manfred Dumkopf zu Katzenjammer. How better to end than with the moving epitaph inscribed (before his family's success in having him moved from an unmarked pauper's grave) on his mausoleum?

*Hier liegt ein Mann ganz ohnegleich;  
Im Leibe dick, an Sünden reich.  
Wir haben ihn in das Grab gesteckt,  
Weil es uns dünkt er sei verreckt.*

(Here lies a man with sundry flaws  
And numerous sins upon his head;  
We buried him today because  
As far as we can tell, he's dead.)

*Geoff Jeanes*

**THE LIFE OF BEETHOVEN** by Alan Kendall. Hard covers, 12x9 in, 144 pages. Numerous illustrations, many in full colour. Price £4.50. Published by *The Hamlyn Publishing Group Ltd*, Astronaut House, Hounslow Road, Feltham, Middlesex.

CAST IN a coffee-table mould, this volume is packed with well-reproduced pictures—although some are of rather marginal relevance. However, the text has a slightly staid manner unlikely to grip the casual browser: the book offers a fairly conventional survey of Beethoven's life in six chapters, adding a catalogue of works and a bibliography, but the author often assumes an awareness of the composer's works which hardly accords with the popular presentation. Alan Kendall is also inclined at times to present particular episodes with strings of dates which cannot possibly be of interest to the general reader (legal wranglings over nephew Karl and arrangements for first performance of the *Missa Solemnis* and ninth symphony, for instance).

The author is 'pre-Solomon' on the

Immortal Beloved puzzle, which I suppose is fair enough, but this does raise doubts about his assiduity in research: Maynard Solomon's case for Antonie Brentano was first mooted in 1972. A short digression into musical acoustics on page 31 comes slightly adrift, as it seems to imply that the piano's dynamics arise from its sustaining power rather than from the player's ability to excite the strings differentially by means of varying impact on the keys. But factual errors are otherwise conspicuous by their scarcity, and generally the skeleton of Beethoven's outer life is presented with care—if not much excitement.

Although the final pages contain an interesting essay on the problems posed for music by the Romanticist worship of unbridled creative individualism, a trend which may be traced back to Beethoven, the book as a whole I found rather disappointing. There is a lurking suspicion that the author is not really very sympathetic to his subject, that he simply wrote primarily to satisfy a publisher rather than to offer a valid fresh view of Beethoven. The contradictions and all-too-human limitations of the composer's character are well presented; but despite a final eulogy assisted by quotations from E. M. Forster and Aldous Huxley, one senses little exhilaration in the presence of supreme genius. *John Crabbe*

**FATS WALLER** by Maurice Waller & Anthony Calabrese. 235 pages. Price £5.95. Published by Cassell & Co. Ltd, 35 Red Lion Square, London WC1R 4SG.

FATS WALLER admirers, in their legions, will naturally look to this book for fresh insight into the life-style and genius of this much-loved natural entertainer, fine jazz pianist and composer. In fact, it does not offer much fresh detail to the existing standard book on Waller's life, *Ain't Misbehavin'*, or the other surprisingly few volumes, but it offers it from an important new angle: the viewpoint of Waller's son. In this case he was sometimes less involved with his father's roving activities than others who shared his professional existence, but he does succeed in making a properly human figure out of him. It is written with a warm affection and admiration. Waller's drinking and occasionally unmanageable behaviour is not whitewashed or played down, but presented in a more amiable light; certainly with less desire to make comedy out of the situations. Through its pages we do come to know the beloved Fats with a new perspective; likewise his relationship with other great jazz figures of his period. It is a warm-hearted and readable book written in ordinary human terms and plain English. At the end we feel we know a remarkable person, here most often referred to as Dad, better and more deeply than we did before. It is not simply a reviewer's cliché, in this case, to say that this is a book that all Waller fans ought to possess.

*Peter Gammond*

# Whenever you compare our prices you tell us...

## 'TELETAPE Always Wins'



**Try this one today**

### AIWA AD1800 Dolby + DNL Cassette Deck

**Contact us now for winning prices on the following:**

- SONY HMK55/77
- SONY KV1340
- SONY KV2000
- SONY KV2200
- SONY TCK1A
- SONY TCK4A
- SONY TCK60
- SONY TCK96R
- SONY TCK5
- SONY PST1
- SONY PST20
- SONY TAF4
- SONY ST515
- SONY STR313L
- AIWA AD1800
- AIWA AD6350
- AIWA AD6400
- AIWA AD6900

- AIWA AX7600
- AIWA AP2200
- NATIONAL SG3060
- NATIONAL SG3090
- NATIONAL SG5070
- JVC JAS11G
- JVC JAS22
- JVC QLA2
- JVC QLF4
- JVC KD10
- JVC KD720
- TECHNICS RS631
- TECHNICS RS641
- TECHNICS SU7100
- TECHNICS SL220
- TECHNICS SL230
- SHARP GF6500
- SHARP GF9191

**Exclusive Agents**  
for exciting new Sony Super Hi-Fi range  
(Marble Arch area)

Most quality cassette decks use the Dolby system to reduce tape noise. The Aiwa AD1800 goes a step further — not only is Dolby fitted but also DNL (Dynamic Noise Limiter) which reduces noise on non-Dolby encoded tapes. The use of this double noise reduction system results in a signal to noise ratio of better than 65dB. The same high standards are followed in the tape transport mechanism. The extremely large flywheel (104mm in diameter) works with a hysteresis synchronous motor and SST (Solid Stabilised Transport) System to reduce wow and flutter to an astonishingly low 0.05% WRMS. There are 2 large VU meters plus 2 LED peak indicators and 3-step independent bias and equalisation tape selector which includes variable bias in the LH position.

**Recommended Retail Price £315.00**

**TELETAPE PRICE**  
**£147**

**INC. VAT**  
Delivery by Securicor  
£3 extra

**MAIL ORDER MADE EASY**

Simply telephone your Barclaycard or Access number or send Postal Order, cheque with order. Goods will be despatched (subject to availability) by Securicor within 24 hours. All equipment is brand new fully guaranteed and offered with full after sales service.

Cheerful refund if within 7 days of purchase any item is found to be faulty. We will gladly refund the full purchase price or replace the faulty item. Credit terms for personal shoppers.

**PERSONAL EXPORT** For U.K. visitors at cash and carry tax free prices.

**DIRECT EXPORT** For goods shipped overseas, fully insured, at discount tax free prices. Write for delivery quote.



**AGENTS FOR:**  
ADC, AIWA, AKG, BASF, Ferrograph, JR Loudspeakers, JVC, Koss, Marantz, Maxell, National Panasonic, Ortofon, Quad, Revox B, Shure, SME, Sony, Spendor, Stanton, Tannoy, TDK, Technics, Yamaha, JVC & National VHS Video Recorders.

# TELETAPE

**TELETAPE**  
MARBLE ARCH  
OXFORD STREET  
Bayswater Rd.

33 Edgware Road, W2  
Tel: 01-723 1942/2924

**TELETAPE**  
SHAFTESBURY AVE.  
Circularity  
Shaftesbury Ave.

84/88 Shaftesbury Ave., W1  
Tel: 01-437 1651.

Prices correct at time of going to press but subject to change without notice.

Hugh Ottaway considers

## A NEW 'PETER GRIMES'

**BRITTEN: 'Peter Grimes', Op. 33**  
*Jon Vickers (ten) / Heather Harper (sop) / Jonathan Summers (bar) / Elizabeth Bainbridge (m-sop) / Teresa Cahill (sop) / Anne Pashley (sop) / John Dobson (ten) / Forbes Robinson (bass) / Patricia Payne (con) / John Lanigan (ten) / Thomas Allen (bar) / Richard van Allan (bass) / ROH Chorus and Orchestra, Covent Garden / Davis*

Philips 6769 014 (3 records) (£13.95)

The situation is unique. Never before has a composer's recording of one of his most important works held sole sway for 20 years! And there is more to it than that, for the Pears/Watson/Pease/Brannigan (etc)/Covent Garden Chorus and Orch/Britten *Peter Grimes* (SXL 2150-2) has in the title-role the singer for whom the part was written—a very exceptional singer, too. It follows, surely, that most listeners who really value *Peter Grimes* have a view of the work to some extent conditioned by that one performance and interpretation. Whether it be considered as an extension of the composer's control over his own music, or simply as an example of the power of recording, this is certainly impressive.

No wonder, then, that I find myself compelled to discuss the new *Peter Grimes* against the background of the old. In no meaningful sense is there any question of the new replacing the old: I cannot imagine the Decca version ceasing to be available. What admirers of the work will want to know is how the two compare, both musically and technically. And it may as well be said at once that, technically, Decca's 1959 recording still merits an unqualified **A**—but this is to anticipate.

First, interpretation and performance. The overall conception of the opera is not radically different. How could it be? Nor are there stunning new readings of this or that passage. Differences of emphasis, yes, and differences in pacing—the storm scene (Act I, Scene 2) is less convincingly held together, and the third and fifth interludes, 'Sunday Morning' and 'Moonlight', seem over-deliberate—but there is nothing eccentric in Colin Davis' approach, and the Covent Garden orchestra provides much fine playing.

The producer, Vittorio Negri, seems to favour a more demonstrative emotional impact at moments of crisis, but since nearly all such moments involve Grimes himself, the emotionalism may well be Jon Vickers' more than Negri's. For Vickers gives the impression of being determined to get the utmost dramatic value out of his part. It is the sort of determination that obtrudes. Indeed, the essential contrast in interpretation is in the title-role, and the difference is such that, for many listeners, it is likely to be a matter of Vickers *versus* Pears, rather than of two dissimilar but valid realisations.

It has been suggested that Pears has never given us the complete Grimes. He is the sympathetic intellectual—so runs the argument—who does not really embrace the black violence that is a part of Grimes' nature. If you take that view, then you are several steps closer to Vickers. In sheer range—surface area, that is—his is undeniably a complete Grimes, and his positive projection has

a good deal of magic; but neither depth nor coherence is anything like as self-evident. There is much that seems stylishly operatic, in the pejorative sense, and therefore opportunistic, and some of the lingering head-voice effects suggest an almost narcissistic self-consciousness. Even in the final scene where Grimes is demented and alone, and where this performance, not for the first time, achieves a compelling atmosphere, I find myself doubting the artistic sincerity.

Such doubts are reinforced by two further reservations. Some of Vickers' diction is little short of grotesque: the rolling 'er' at the end of 'harbour' in 'What harbour shelters peace?'—is perhaps the worst example, but there are many such irritants. There is also the trick of reaching up to a note for expressive effect, instead of hitting it squarely. Despite these faults, Vickers is vivid and vocally commanding, though in a way that belongs more to Verdi than to Britten.

In comparative terms, the other parts are unremarkable. Heather Harper is a sympathetic Ellen, Jonathan Summers a satisfying Balstrode, Forbes Robinson a Swallow in the mould of Brannigan—and so on, on familiar lines. The part of the Rector has the same singer, John Lanigan, in both performances.

I find it hard to make a firm assessment of the technical quality. At its best—on much of the last side, for example—the sound has clarity, vividness and a strong presence; but throughout my listening I was distracted repeatedly by re-

ording technique and found much that was destructive of wholeness. In pursuit of the illusion of a stage performance, the producer has used a wide stereo sound stage, but far too much seems to happen at the two extremes, and too little towards the middle. The main weaknesses, however, arise from the separate presences of the various musical 'components', including different parts of the orchestra. The church in which the recording was made last April and May is said to have a particularly rich acoustic—'rather overpowering' is one description—which, given the use of many microphones, presumably goes some way towards accounting for this separateness. When several of the principals are singing together, especially when the chorus is also involved, I am very aware of both a loss of clarity and listening fatigue, the latter, perhaps, arising from 'ambience confusion'—*ie*, the effect of superimposed ambiances. To cite just two examples, the first from the end of side 2, the second from near the beginning of side 6: the round, 'Old Joe has gone fishing' (Act I, Scene 2), and the climax preceding the search for Grimes at the end of Act III, Scene 1. There are also places where musical distortion—musical, not sonic—seems to arise from selective emphasis: one such is the climax of 'Moonlight', which sounds curiously contrived.

If you do prefer Vickers to Pears, then this version may well claim your allegiance. But there are so many ways in which the 1959 recording sounds more convincing. [**A/C**: 1] overall.

### RECORD FAULTS

'Recording' ratings should be taken to refer to recorded quality, but do not take account of individual pressing faults encountered with our test samples. Readers may assume that a certain proportion of such variable faults will occur among commercial pressings.

### PRICES

We do our best to ensure that prices given are correct, but we cannot always guarantee accuracy, since price rises are too frequent and often arrive just after we go to press.

## INFORMATION

### STEREO, MONO, QUADRAPHONIC and STEREO TRANSCRIPTION

Any record reviewed in this magazine may be assumed to be stereophonic unless its number is accompanied by:

Ⓜ (monophonic)

Ⓣ (stereo transcription)

Ⓢ (quadrasonic: stereo compatible).

Ⓡ refers to a UK reissue.

Compatible Ⓢ records are reviewed as 'stereo'.

Cassettes are Dolby unless otherwise stated.

### RECORD RATINGS

Record Ratings are designed to summarise our critics' findings, but should preferably be noted in conjunction with the full reports—and taken as a guide only.

Recording	Very Good	Performance
<b>A</b>	Good	1
<b>B</b>	Moderate	2
<b>C</b>	Poor	3
<b>D</b>		4
<b>H</b>	Historical (pre-LP)	H (or 1, 2, 3, 4 as appropriate)

Occasionally a record may be worthy of special mention, taking it beyond the 'very good' bracket. In such superlative cases a star is added to the letter or figure as appropriate: eg, **B: 1\***, **A\*: 2** or (exceptionally) **A\*: 1\***. © *Hi-Fi News & Record Review*.

Two new releases to honour the 50th birthday of



# BERNARD HAITINK

## A MUSICAL PORTRAIT

Excerpts from the works of sixteen composers played by the London Philharmonic Orchestra and the Concertgebouw Orchestra, Amsterdam

The first in a new series of double albums featuring major Philips artists at the special price of £5.99

Album 6768 093

## BEETHOVEN

Symphonies No. 1 & 5

London Philharmonic Orchestra

Album 9500 067



# FOTRONIX INTERNATIONAL LIMITED

MAIL ORDER: HOME AND EXPORT  
**105-113 LAWRENCE ROAD**  
**LONDON N15 4ET PHONE 01-802-4131**  
*Phone in with ACCESS or BARCLAYCARD*

## CARTRIDGES AND STYLI

GENUINE ARTICLE IN MAKER'S BOX Post 25p.

Cartridges with Styli	Replacement Styli
ADC ZLM .. £55.90	RSZ .. £25.95
ADC XLM III .. £35.50	RSX .. £17.95
ADC VLM III .. £24.50	RSY .. £14.75
AKG P8E .. £57.00	X8S .. £35.00
AKG P8E .. £46.50	X8E .. £28.25
AKG P7E .. £25.70	X7E .. £14.25
Goldring G900E £16.95	D140E .. £8.95
Goldring G900SE II .. £37.95	D140SE .. £11.50
J.V.C. X2 .. £68.00	4DTXI .. £36.50
J.V.C. X1 .. £64.50	4DTZI .. £28.95
J.V.C. Z1 .. £42.00	D20E Super .. £22.95
J.V.C. Z-2E .. £37.50	D20E Mk I or II .. £20.45
Ortofon M20FL Super £49.25	N15E Mk I or II .. £11.85
M20E Super £43.75	NF15E Mk I or II .. £8.95
VMS 20E II .. £29.90	DF1 .. £6.95
F15E II .. £19.25	D81 .. £45.00
FF15E II .. £13.90	D680 .. £24.00
FF10E II .. £7.50	D5100EE .. £17.25
Stanton 881S .. £98.00	D5100E .. £13.50
Stanton 681EEE .. £42.00	D5100E .. £10.95
Stanton 680EE .. £28.00	N44.7 .. £5.20
Stanton 500EE .. £18.75	N44E .. £5.40
Stanton 500E .. £15.95	N55E .. £4.60
Shure M44.7 .. £6.99	N75-6S .. £5.45
Shure M44E .. £7.50	N75B .. £4.20
Shure M55E .. £8.30	N75EJ .. £8.20
Shure M75-6S .. £7.50	N75ED .. £11.75
Shure M75B .. £10.40	N95-EJ .. £9.20
Shure M75EJ .. £12.99	N95ED .. £15.75
Shure M75ED .. £14.90	VN35E .. £16.95
Shure M95EJ .. £13.75	VN45HE .. £26.95
Shure M95ED .. £19.95	Sonus Blue Stylus £37.50
Shure V15 III .. £45.00	
Shure V15 IV .. £64.50	
Sonus Blue .. £66.00	

## MOVING COIL CARTRIDGES

Ortofon MC10 .. £33.50	Ortofon MC30 P.O.A.
Ortofon MC20 .. £53.75	Ultimo 10X .. £49.95
Ortofon SL20E .. £46.75	Ultimo 20A .. £69.95
Ortofon SL20Q .. £68.50	Satin M117G .. £59.95
STM-72 .. £19.75	Satin M18E .. £105.00
Transformer .. £91.25	18E Stylus .. £49.95
MCA76 Pre-amp .. £49.95	Fidelity Research
MC10 with STM-72 .. £49.95	FRI Mk II .. £58.50
MC20 with MCA 76 .. £125.00	FRI Mk III .. £83.75
Entré I .. P.O.A.	FRT3 T/former £65.95
Lentek Pre-Amp .. P.O.A.	FRT4 T/former £126.90
Decca London Export .. £36.00	Decca London Gold .. £54.00

## STYLI FOR OLD MODELS AND FOR 78 RPM

Goldring G800 Series: D110SR, £3.75; D110-E, £6.25; D110-SE, £8.95; Ortofon M15-E Super—D15-E Super, £24.00; Shure VN15-E, £15.95; 78's: Goldring D110 and 120 Standard, £3.50; Shure N44-3 and N75-3, £5.20; N95-3, £5.80; VN78-E, £16.60; ADC R26, £12.25; ADC RXL (XLM II), £11.75; ADC RZL (Super XLM III), £17.75; ADC RVL (VLM II) £10.00.

## A.D.C. SOUND SHAPERS

SS-1, 5 Band .. £56.50	SS-2, 12 Band .. £126.50
Carriage £3.00	

## PICK UP ARMS AND ACCESSORIES

Hadcock GH228 .. £54.00	Disk 22 mat. .. £12.95
Hadcock Unilift .. £9.00	Post 86p.
Spare Headshell .. £4.50	Zarostat Pistol .. £5.95
SME Plate .. £3.20	Decca Sweep Arm .. £5.25
Formula IV Mk III P.O.A.	DeccaRecord Brush .. £5.00
Stax UA 7M .. £128.95	Post £1.00
Stax UA 7CF .. £158.50	Vac-8-Rec II .. £19.95
ADC LMG-1 Headshell .. £4.50	SME 3009 Fd. Hd. .. £51.00
	SME 3009 S.2. .. £56.00

## CASSETTE TAPES

BASF LH SM .. £0.63	£0.82	£1.16
LH Super SM .. £0.96	£1.15	£1.49
Ferro Super LHI .. £0.96	£1.29	£1.69
Cr Oz .. £1.18	£1.40	£2.00
Ferrochrom .. £1.38	£1.84	—
Superchrom .. £1.60	£2.13	—
FUJI FX11 .. £1.10	£1.22	£1.66
MAXELL SLN .. £0.69	£0.92	£1.16
UD .. £0.98	£1.05	£1.19
UDXL I .. £1.38	£1.73	—
UDXL II .. £1.38	£1.73	—
TDK TDK .. £0.63	£0.85	£1.15
AD .. £0.88	£1.23	—
SA .. £1.11	£1.59	—

Postage: 1-5, 50p; 6-10, 65p; 11-30, 85p; 31+, £1.00.  
 TDK Head Demagnetiser.  
 Cassette shaped. Battery powered, LED Checklight Post 25p. £8.99

**QUAD YAMAHA J.V.C. CONNOISSEUR, THORENS CELESTION RICHARD ALLAN**  
 Phone or write for prices and availability.

## HEADPHONES (Post £1.00)

Sennheiser HD400 .. £10.50	Stax SRX3/SRD6 .. £132.00
HD414X .. £16.50	SR5/SRD6 .. £84.75
HD424X .. £23.50	Sigma/SRD6 .. £207.00
HD224X .. £33.50	SR44 .. £58.50
HD420 .. £21.50	Yamaha YH1000 .. £99.95
HD430 .. £27.95	Yamaha HP-1 .. £34.65
Yamaha HP3 .. £19.35	Yamaha HP-2 .. £25.80

## PERSONAL CALLERS ARE WELCOME

Prices quoted are correct at Jan. 1979. Whilst we endeavour to maintain these prices we reserve the right to adjust as necessary without notice. E. & O.E.

# Best of the Month

<b>Orchestral Alwyn</b>	<b>119</b>
<b>Arnold Dances</b>	<b>119</b>
<b>Charming Bach Suites</b>	<b>119</b>
<b>Ashkenazy's Beethoven</b>	<b>121</b>
<b>Donizetti's Borgia</b>	<b>123</b>
<b>Spacious Solti Planets</b>	<b>125</b>
<b>Alfonso el Sabio</b>	<b>129</b>
<b>Bream's Villa-Lobos</b>	<b>133</b>
<b>Vivaldi Sacred Music</b>	<b>133</b>
<b>Wuorinen's Wuorinen</b>	<b>133</b>

**ALWYN: Concerto Grosso 2 in G** □ **'Autumn Legend'** □ **'Lyra Angelica'**  
*Ostian Ellis (hrp) | Geoffrey Browne (cor ang) | LPO | Alwyn*  
**Lyrta SRCS 108 (£4-15)**

Another outstanding contribution from Lyrta! Of the present batch of seven new releases, this and the Malcolm Arnold (SRCS 109—see below) are the ones that I would recommend most confidently to listeners not already 'caught' by twentieth-century English music. Alwyn's neglect by concert-promoters remains a disgrace. It really is extraordinary that so beautiful a work as *Lyra Angelica* (1954) should be allowed to languish. Perhaps one reason is that it does not slip comfortably into any of the fixed categories. Described as a concerto for harp and string orchestra, this is a sequence of four mood pictures prompted by Alwyn's 'intense love of the 17th-century English metaphysical poets', and I tend to hear it as a work for string orchestra and harp—a somewhat different emphasis. This is a lucid, luminous composition with a magic of its own, very direct in its appeal and excellently judged as sheer sound. The other works, too, are thoroughly characteristic: the Concerto Grosso No. 2 is for strings—a worthy companion to the later Sinfonietta (SRCS 85)—and *Autumn Legend* is a short piece for cor anglais and strings prompted by Alwyn's admiration for Dante Gabrieli Rossetti. The composer draws some splendidly committed playing from the LPO, and the recording is likewise eminently starworthy—bright, warm, vivid and spacious with a wonderfully firm but not exaggerated bass. My only (small) reservation concerns the slightly over-reverberant 'halo' in the Concerto Grosso, hence the split rating. Deserves every success. [A\*/A: 1\*] *Hugh Ottaway*

**ARNOLD: Eight English Dances** □ **Four Scottish Dances** □ **Four Cornish Dances**  
*LPO/Arnold*  
**Lyrta SRCS 109 (£4-15)**

This might well prove a best-seller, so appealing is the music and so successful the performance and recording. First, the music itself: here is humour, a warm and wistful poetry, sheer uproariousness, much honest sentiment, and a comprehensive 'course' in effective orchestration. Far from leading to monotony, this bringing together of the 16 dances highlights their variety. In some cases, 'dance' is perhaps a misnomer; 'mood picture' would be more accurate, and the second of the *Cornish Dances*—the one associated with 'the deserted engine houses of the tin and copper mines'—is an elegy capable of haunting the mind for days at a time. Others, too, have a way of persisting, and yet they always come up freshly. The *English Dances* are nearly 30 years old now but show no sign of losing their allure.

Malcolm Arnold is a good conductor, and not only of his own music. These performances of the *English Dances* and the *Scottish Dances* are well worth a star for their sense of character and freedom from exaggeration. One or two of the *Cornish Dances*, notably the third, seem to me not quite so keenly judged. My only reservation about the recording is that here and there the impact in a smallish room may be oppressive, but the overall quality claims a star. Warmth and brightness are skillfully reconciled, both colouring and presence are excellent, and that aspect which is loosely called perspective is vivid without any suggestion of 'cleverness'. [A\*: 1\*/1] *Hugh Ottaway*

**J. S. BACH: Cantatas for the 18th to 26th Sundays after Trinity: BWV 5, 26, 38, 70, 80, 96, 115, 116, 130, 139, 140, 180**  
*Mathis | Schmidt | Schreier | Fischer-Dieskau | Munich Bach Choir and Orch | Richter*  
**DG 2722 030 (6 records) (£19-75)**

Schmieder dated all but two of these cantatas from the post-1730 Leipzig period. Several have not generally been available here before: 96, 115, 116, 139 and 180. All those up to 83 have of course been issued by Telefunken in their 'Complete Cantatas' series; these excepted, there are no strong competitors, apart from a very highly recommended 1969 Ansermet, reissued on Decca 'Eclipse' ECS 790, of 130, coupled with 67, and movements from 101.

Richter's earlier 26 on Archiv 198 402 (with BWV 106) makes a fascinating comparison with this later one. All three movements are considerably faster in the earlier one, especially the magnificent opening choral movement, 'Ah how transitory, how futile is man', which goes off like a rocket. Not all Richter's second thoughts are better ones. This opening movement may have been a shade too fast, but it is certainly now too slow. The subsequent tenor aria, one of Bach's most beautiful solo arias, is greatly improved at the slower pace, and it benefits, too, from a better soloist. The final bass aria, in the later version, is both slower and smoother, Richter having slurred over the paired quaver chords for oboes, despite unequivocal evidence to the contrary in the original MSS and instrumental parts, which are mainly autograph.

If the new BWV 26 is a trifle overweight, this is certainly true of both 140—in which the opening chorus ('Sleepers awake') is taken at a snail's pace—and in the so-called 'Reformation' cantata, BWV 80, an intrinsically ponderous work which needs the most careful handling.

Richter is undoubtedly at his best in the smaller and more romantic pieces, such as 115 and 116—both of which Schweitzer singled out for especial praise—there are many lovely things here: the first and last arias of 115 (notably the cello-flute obbligato of 'Bete, bete aber auch dabei'), and the jaunty opening chorus of 116.

The sound quality is surprisingly variable. In places, *Wacht auf* almost sounds like mono, electronically reprocessed, so close and harsh are the choral voices. On the other hand, 180 (as do many of the others) has breadth, clarity and constant focus. The volume is good value for money, for whatever its shortcomings, at under £1-70 a cantata it is well below the going rate for top issues. [A/C: 1/2] *Peter le Huray*

**J. S. BACH: French Suites (BWV 812-817)**  
*Kenneth Gilbert (hpd)*  
**Harmonia Mundi HMU 438 (2 records) (£6-80)**  
 (Rediffusion)

Gilbert's playing is changing with the years: he still has the occasional moments of rather monotonous and brash playing (I suspect that his concentration lapses occasionally), but he is generally a much more flexible and expressive harpsichordist than he used to be. His recording of the French Suites is less pretty than that of Dreyfuss, less inventive and compelling than Leonhardt's, but it lies somewhere in between; it has moments of great charm and competitive subtlety of its own, however—the *Loure* of Suite 5 should perhaps be faster, but its rhythms have been caught beautifully.

The instrument is a heavily restored Ruckers/Hemsh; it is tuned in a refined Werkmeister temperament, which not only adds charm: it enhances the tonal character of the instrument suitably also. It has been very clearly, if closely, recorded, and seems to me to sound right in itself as an instrument, but to be a little too coloured in tone for the Thuringian French Suites. Why doesn't somebody record these works on the Nurenberg Gesner used by Leonhardt for the *Prelude, Fugue and Allegro* some years ago? Altogether a good production, nevertheless. [A\*: 1] *Stephen Daw*

**BARTOK: 'Bluebeard's Castle', Op. 11**  
*Klara Palankay (m-sop) | Mihaly Szekely (bass) | Budapest Phil | Ferencsik*  
**Hungaroton LPX 11001 (2) (£3-40) (Selecta)**

This is an old, 1956, recording which as far as I know has not been on general release here before. With a more recent stereo version by Ferencsik also on Hungaroton, to say nothing of fine recordings by Kertesz and Boulez, one may be forgiven for wondering why anyone should bother with this. The answer is that this has close links with the 1936 Budapest performances which Bartok attended and supervised, and it consequently carries an imprimatur not shared by its rivals. In itself this may not appear to be very important, but even without it the performance is of considerable merit while the recording is still capable of getting most of the quality across. Mihaly Szekely was in his fifties when this recording was made and the top register of his voice was past its prime, but it was he who sang Bluebeard in that celebrated 1936 revival which was conducted by Sergio Falloni. The flat, unemphatic style was a cause of controversy between the two, Szekely maintaining that this was the true Hungarian tradition, a contention which received Bartok's approval. Klara Palankay sings Judith in the same deadpan style, leaving, as Bartok intended, the orchestra to carry the dramatic inflexions of the plot. Palankay was a leading singer in the Hungarian State Opera immediately after the war and sang the role many times. Ferencsik has also conducted it many times and clearly understands it thoroughly, and the Budapest Philharmonic play ravishingly for him. All told the combination makes for a version of compelling interest of which perhaps the least part is its historical value. [H: 1\*] *Kenneth Dommett*

**BEETHOVEN: Mass in D, Op. 123 'Missa Solemnis'**  
*Geszty | Soffel | Rendall | Widmer | Stuttgart Madrigal choir | Collegium aureum | Gönnerwein*  
**Harmonia Mundi 157-99 668/9 (2 records) (£6-80) (Rediffusion)**

Using a choir of forty, with an orchestra of 36 playing authentic instruments, this production presents the 'Missa Solemnis' as it might have sounded in the composer's lifetime. The sessions were held in a church, not long in reverberation time, but adding a discernible ambient quality.

Not only is it possible to follow the musical threads more easily here, but Beethoven's orchestration sounds strikingly different in places—the opening of the *Sanctus* (organ, bassoons, string basses) or, even more telling, the warlike tympani and horn parts in the *Agnus Dei*. There the pitching is sharply defined, and so is the timbre given by the skins of the drums, quite unlike that yielded by modern orchestral tympani. Not that the recording is always so convincing: the solo violin is much too close in the *Sanctus*, and the four soloists are widely separated and staged near the listener. Legge's marvelously conceived Philharmonia/Klemperer production (Kingsway) has space between one and the musical forces—though it must be said that Hugh Bean's violin sounds steely and bright after the warmer instrument played by Maier.

However, unlike the Harnoncourt Vivaldi Op. 8 set on Telefunken, where authenticity of sound was one factor, there is no comparable concern here to reinterpret the music in a manner that might startle. In fact, this is a consistently 'comfortable' reading, where the solo singers all adopt an 'operatic' style, where the choral direction is less well focused than with the big Philharmonia Chorus (and the engineering suggests no small choir here), and where tempi are much more traditional than the notes with these records suggest. Incidentally, the Harmonia Mundi pricing structure for sets makes this a bargain choice!

Gönnerwein is clearly no 'new broom' conductor, and his performance never overwhelms as Klemperer's did. Compare the two in the craggy instrumental fugato near the end of the work, and it is Klemperer who makes you grasp the inspiration implicit in Beethoven's writing, whether or not the instruments have the wrong tonal shadings. But in its unique way this version is revealing, and musically very pleasing. The pressings are admirably quiet, and although a colleague complained of dimness I did not find this. Some anomalies in the choral balances prevent a star grading, but this is a very beautiful-sounding 'Missa Solemnis'. [A: 1] *Christopher Brung*

**BEETHOVEN: Symphony 1 in C, Op. 21** □ **Symphony 2 in D, Op. 36**  
*RPO | Dorati*  
**DG 'Privilege' 2535 334 (£2-75)**

The music sounds needlessly grim in these recordings: the last to appear in Dorati's Beethoven cycle. As before, the tapes have a grubby background

It takes Nakamichi to release the true exuberance of your music.



Each piece of music you play is a stream of emotion.  
It takes much more than an impressive array of features and numbers to realise their depth and power.

The technology that can is unique to Nakamichi.

Technology of the kind that produced the most advanced and accurate cassette deck in existence.

The 1000 11.

And it takes courage and vision to risk doing the unconventional. To aim to release those subtleties and passions.

Nakamichi risk it.

And succeed.

Write for more information to  
Natural Sound Systems Ltd, 10 Byron Road,  
Wealdstone, Harrow, Middlesex HA3 7TL.

 **Nakamichi**

Products of unusual creativity and competence.



quality, and one wonders if the hall used was too cramping; trumpets appear harsh and strident, the RPO violins and flutes weak. Some close-miking gives a coarsening effect, and given sweeter, cleaner, more distant presentation, Dorati's performances might have seemed more enjoyable. His distinctive staccato manner gives interest to the minuet in the C major symphony—where repeats even include the exposition in the andante (but properly exclude the first line of the minuet, after the trio section). Toscanini's andante, in the NBC version, is less fast, more *cantabile*. Indeed, in those 1949-51 recordings (RCA AT117 ©), there is a striking communication of excitement. The playing of the RPO under Dorati suggests an abstract concern with efficiency, and a rather 'exclusive' relationship between conductor and orchestra. [B/C: 2] *Christopher Breunig*

**BEETHOVEN: Piano Sonata 17 in d, Op. 31: 2** □  
18 in E<sub>b</sub>, Op. 31: 3  
*Vladimir Ashkenazy (pno)*  
Decca SXL6871 (£4-50)

Ashkenazy's account of the 'Tempest' Sonata is the most awesomely comprehensive I have ever heard; it would be difficult to surpass it, either technically or in terms of penetrating insight. He is fascinating in the E-flat in a different way. Ashkenazy does nothing to hide the banality of Beethoven's writing in bar 85, and the hint of a *subito piano* just before the crescendo at 311 thought unnecessary. These are niggles. At 45 one reaches the left-hand semiquavers, and it seemed to me that Ashkenazy reveals the whole opening movement as an essay in bubbling semiquaver figurations, which Beethoven subjects to all kinds of obscuring tricks, metrical, hiding them altogether, writing in *ritardandi* (as early as bar 3). The sonata movement makes new sense—if I understand this pianist's intentions.

In the scherzo Ashkenazy produces a wonderful Schubertian singing line; his accents have that distinctive intensity and Decca's superb cutting secures them admirably. I liked the simplicity of the Minuet, and the lilt in the second section of the Trio. In each sonata all repeats are observed. Two passages must be singled out for their atmosphere of total absorption and freedom from inhibitions: the latter parts of the slow movement from Op. 31: 2, and the scherzo from Op. 31: 3. As I say, Decca's Kingsway Hall recordings preserve the wide dynamic range of the playing, the strenuous attack of Ashkenazy's fortissimos, superlatively well. Yes—the most impressive Beethoven sonata coupling we have had in a decade. [A\*: 1\*] *Christopher Breunig*

**BEETHOVEN: Variations for Piano and Cello on Themes from 'The Magic Flute' / SCHUBERT: 'Arpeggione' Sonata**  
*Robert Bex (vlc) / André Krust (pno)*  
**Harmonia Mundi 'Musique d'Abord' HM534**  
(£2-15) (Rediffusion)

Knowing nothing of either member of this duo, I could approach the record more with hope than anticipation. My hope was amply fulfilled; we have here richly satisfying performances by two artists of the highest accomplishment.

Robert Bex has a pleasing, somewhat reedy tone which occasionally recalls William Pleeth, and a pronounced, rapid vibrato. He gives the impression of being daunted by no difficulty, and of reveling in the flow of his musical line. 'Flow', indeed, is the word which comes most to mind when contemplating his playing. Perhaps, in interpretational terms, there is so much flow that detailed comment is not permitted; though one must admit that the *Arpeggione* invites such treatment.

Beethoven's two sets of variations on themes from *The Magic Flute* (Papageno's *Ein Mädchen oder Weibchen*, from the second act and Pamina and Papageno's *Bei Männern, welche Liebe fühlen* from the first) seem to me pure enchantment. Beethoven loved variations, and few composers have equalled him at it: most of them seem pedestrian by comparison. So here we have two sides of glorious melody, most beautifully performed. What more can one desire?

The answer to that, of course, is 'a recording worthy of the music'. We don't quite get it, but we very nearly do. In the Schubert, the piano seems too reticent, with an ungenerous bass tone. It also sounds as though it is being brought up and then pushed back; but it is difficult to know whether that is by artistic decision or the wiles of the producer. In the Beethoven, the two instruments are more equal, and things go better. All in all a very good recording. Notes in French only. [A/B: 1] *Peter Turner*

**BERKELEY: Six Preludes, Op. 23** □ **Scherzo, Op. 32/2** □ **'Another Spring', Op. 93** □ **Quintet for wind and piano, Op. 90**  
*Francis Loring (bar) / Roger Lord (obo) / Sidney Fell (clt) / Julian Baker (hrn) / Kerry Camden (bsn) / Colin Horsley (pno)*  
Meridian E77017 (£2-99) (Selecta)

This is a further valuable addition to a discography that has expanded steadily in recent years. It is odd, though, that both the *Four Poems of St. Teresa of Avila* and the Trio for violin, horn and piano are at present out of the catalogue. However, the Quintet for wind and piano—for the same combination as Mozart's Quintet, K.452—and the three songs to poems by Walter de la Mare, *Another Spring*, are notable additions. The piano items have been available intermittently, in performances by Colin Horsley, for many years, but the versions given here are newly recorded. The Six Preludes, fine examples of their kind, are both engaging and memorable: nimbly, sensitively played, as always, by Horsley, and well recorded.

The little-known Quintet dates from as recently as 1975. This is a major work, exemplifying most of Berkeley's best qualities. The designation 'for wind and piano', rather than vice versa, is particularly apt for the first and third movements, which are among Berkeley's finest—restrained, concentrated and intensely felt. A pity the wind ensemble is by no means unblemished; otherwise the performance is very pleasing. In the opening movement I found the recording slightly oppressive, but after that some adjustment seems to have been made.

Francis Loring's singing of *Another Spring*, written for Janet Baker, is hardly more than adequate and is so closely recorded that the voice seems unnaturally separated from the piano. Nonetheless, this is a record to be welcomed and is very good value. [A/B: 1/2] *Hugh Ottaway*

**BRAHMS: Symphony 4 in e, Op. 98**  
*Chicago SO / Levine*  
RCA RL12624 (£4-25)

After the deadening hand of Solti in Brahms' Fourth, a superb Chicago version from James Levine—not as well produced as the Decca, but a passionate and energetic reading. Levine's performance is flexible and beautifully detailed, but each of the four movements arches like the flight of an arrow to its true climactic point; the Andante moderato is more flowing than with most conductors, the scherzo brilliantly precise and exciting (with the Poco meno presto convincingly related, and a heroic contribution from the tympanist).

How thrilling it would be to hear orchestral playing of such voltage in the concert-hall. As it is, Thomas Shepard's recording is 'typically American'. At first I thought it a terrible sonic muddle, but records have a disconcerting habit of improving after three or four traversals, sounding cleaner. The bass is powerful and rugged, but the upper registers are compressed, and this is definitely a highly processed master-tape derived from multi-channel sources. [B: 1\*] *Christopher Breunig*

**CHAUSSON: 'Poème de l'Amour et de la Mer', Op. 19\*** / **ELGAR: 'Sea Pictures', Op. 37**  
*Lauris Elms (con) / Sydney SO / Hopkins / \*Pikler*  
RCA GL 40749 (£2-25)

The only other recording credited to Lauris Elms in the current catalogue is the 20-year-old *Peter Grimes* (SXL 2150-2), and there, rightly or wrongly, she is listed as a mezzo-soprano. The present performances were recorded in 1976 and '77, and they reveal a rich contralto voice, warm and round in tone, without plumminess or inflexibility, and well able to cope with the range demanded by Elgar in *Sea Pictures*—just over two octaves, from G below the staff to A above. I noticed one or two oddities of diction, but this is a deeply sympathetic performance, and the Chausson, too, is very well sung and played: an interesting coupling, for the two works were completed within seven years of each other, and there are moments in the Chausson—the opening, for instance—that are very close to Elgar in his more wistful vein.

The recording is a little constricted and some tape-hiss is evident, but there is a commendable wholeness, the balance between voice and orchestra is concert-like and there is a very real sense of being drawn into the space where the music was made. My production copy gives rise to some left-hand-channel distortion in the last number of *Sea Pictures* and the second side 'swishes' throughout. So long as these defects are not typical, very good value and warmly recommended. [A/B: 1] *Hugh Ottaway*

**CHOPIN: Piano Concerto 2 in f** □ **Trois Nouvelles Etudes** □ **Scherzo in b<sub>b</sub>**  
*Emanuel Ax (pno) / Philadelphia / Ormandy*  
RCA RL 12868 (£4-25)

The predominant impression left by Emanuel Ax's account of the concerto is one of a relaxed, even leisurely approach, full of delicate characterisation and unexpected turns of phrase. Touches that will strike some as richly imaginative will sound to others self-conscious or merely fussy—the repeated RH octave Fs at the end of the Finale's principal theme are a case in point, where, instead of observing the *sforzando* above each, Ax introduces a gentle *diminuendo*. I must confess myself torn between admiration for such refinement (passages in the Finale such as the one after bar 261 are saved from the usual sense of note-spinning by a thoughtful, skilfully-controlled *crescendo*) and a sneaking suspicion that what it all lacks is something in sheer animal spirits. While a leisurely tempo for the outer movements need not in itself be a disadvantage, in this case it does heighten an occasional want of spontaneity, especially for a Finale marked *Allegro Vivace*. Without the presence of an orchestra, however, Ax's imagination suddenly takes wing—the B flat minor Scherzo in particular is a model of clarity and proportion, along with a spontaneity not always apparent in the concerto, and the gentle, descending RH chords in the A flat Study positively glow with an inward, luminous quality. Both sides of my copy were marred by a persistent swish, made worse by a low-level cut. More regrettable, however, is the recording quality itself, which is rather dry and lustreless with a shallow, boxy piano sound. Concerto [C: 2], Solo pieces [B/C: 1]. *Andrew Keener*

**CHOPIN: Piano Works**  
*Kenneth van Barthold (1847 Broadwood piano)*  
Argo ZK 59 (£2-85)

A record almost worth its price for Kenneth van Barthold's imaginative, atmospheric sleeve-note alone; in it, he traces this piano's progress from Chopin's London matinées at Mrs. Sartoris' house in June 1848 and at Lord Falmouth's St. James' Square residence a month later to Chopin's departure from London in the November of that year. He expresses fascination with the eerie sensation of practising on the instrument and almost (but not quite) dismisses the idea of the stained keys as being a result of Chopin spitting blood at one such matinée.

Such an exercise as this would be futile if the instrument were in poor shape, or if the interpreter were not a fine musician irrespective of whether or not he was playing on a modern Steinway. There need be no worries on either count here: the piano has been excellently restored by Anthony Chappell, and van Barthold is as engrossing a player as he is a musicologist. Admittedly, held notes do not linger on as long as we expect today, a released loud chord is followed by a sudden silence which is at first disconcerting (this abruptness occasionally stems from the playing itself, as in the silences in the B major Nocturne, Op 32/1), and action noise is audible in the racing figuration of the *Revolutionary Study*. What comes over unmistakably, however, is the often strangely moving sense of immediacy and authority—the rapid, ascending LH scales in the Op. 25/7 Study leave a ghostly haze of resonating strings. An absorbing alternative to—although emphatically not a substitute for—the rounder, brighter-toned modern performances which are, incidentally, sharper by about a semitone than those heard on this 1847 instrument. The recording serves its purpose admirably. [A: 1] *Andrew Keener*

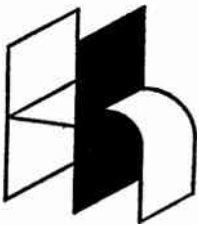
**CHOPIN: Piano Sonata 2 in b<sub>b</sub> / PROKOFIEV: Piano Sonatas 1 in f** □ **4 in c**  
*Ivan Klansky (pno)*  
Supraphon 1 11 2169 (£2-99) (Rediffusion)

Ivan Klansky—a young Czech pianist in his early thirties—here offers some impassioned, occasionally impatient performances—an impression heightened by the omission of the first movement repeat in the Chopin Sonata. Although Klansky's technical prowess is never in doubt, this impulsiveness sometimes makes for rhythmic unsteadiness: the opening of the Chopin takes a moment or two to settle down. Despite his impressive command, however, I do wonder how deeply ingrained within his musical personality some of the more reflective music is: the *piu lento* section of the Chopin *scherzo* is not so much too slow as invested with several expressive hesitations at phrase-ends and double bar lines which make the second-half repeat come as a mild surprise. Compared with Fou Ts'ong's balanced

## GLOSSOP ROAD GOSSIP

- Quad** Electrostatic Loudspeakers and electronics in stock at pre-increase prices. P.S. we have stacked Quads on permanent demonstration.
- Spendor** B.C. 1 in stock and on demonstration.
- Meridian** 101/103/105 all in stock at pre-increase prices. Give the Meridian Loudspeakers a listen.
- Linn Sondek** Guaranteed satisfaction, if you are interested in music or dissatisfied with your system a Linn is a necessity. If it doesn't improve your system, money back guarantee.
- A & R** What more can be said—unbeatable sound a modest cost.
- Celef** Designed and made by an enthusiastic family business for the people who appreciate accurate reproduction. Amongst the best loudspeakers currently available.
- T.V.A. Nytech** What more can be said—give it a listen. Don't believe us—judge for yourself. Simply a superb sound.

All these and many more superb products in stock and on demonstration. We are a small company priding ourselves on customer satisfaction. Your satisfaction is our guarantee.



### AUDIO CENTRE SHEFFIELD

284 Glossop Road  
Sheffield S10 2HS

Telephone: 0742-737893

Export and Professional Dept. 730064

## SPECIAL FROM FRANCIS OF STREATHAM

U.K. ORDERS ONLY Add 35p for P.P. Prices subject to alteration without notice.

ALL PRICES INC. VAT

	C60	C90	C120
● CASSETTES			
Ampex 2020 Studio .. .. .	—	£1-00	—
BASF Super Chrome .. .. .	—	£3-20	—
B LH/SM Super .. .. .	£1-00	£1-35	£1-80
LH/SM .. .. .	£0-60	£0-85	£1-10
Chrome .. .. .	£1-35	£1-65	£2-15
Super Ferri LH/SM .. .. .	£1-05	£1-40	£1-85
Ferrichrome .. .. .	£1-50	£2-00	—
EMI X-100/UD .. .. .	£0-70	£1-00	—
Fuji FX I .. .. .	£1-11	£1-53	—
Fuji FX 2 .. .. .	£1-22	£1-66	—
Fuji FL .. .. .	£0-79	£1-10	£1-51
Hitachi UD (inc. head cleaner) .. .. .	£1-05	£1-35	£1-85
Hitachi EX or ER .. .. .	£1-45	£1-85	—
Hitachi LN (inc. head cleaner) .. .. .	65p	95p	£1-35
Maxell UD (inc. head cleaner) .. .. .	£1-25	£1-40	£1-90
Memorex MRX3 .. .. .	£1-10	£1-45	£1-85
Philips Ferro .. .. .	60p	80p	£1-15
Super Ferro .. .. .	70p	90p	—
Super Ferro I .. .. .	80p	£1-00	—
Chrome .. .. .	£1-20	£1-65	—
Ferrochrome .. .. .	£1-40	£1-80	—
Pyral Hi-Fi .. .. .	55p	80p	£1-00
Maxima .. .. .	88p	£1-20	—
Optima .. .. .	75p	£1-10	—
Super Ferrite .. .. .	£1-35	£1-70	—
Scotch .. .. .	£0-60	£0-90	£0-88
Scotch Classic .. C45, £1-25 .. .. .	£1-30	£2-00	—
Sony Low Noise (library cases) .. .. .	£0-60	£0-90	£1-30
Sony Chrome .. .. .	£1-45	£2-05	—
Sony HF .. .. .	£0-90	£1-25	£1-55
Sony Ferrichrome .. .. .	£1-75	£2-15	—
TDK Dynamic .. C45, £0-55 .. .. .	£0-60	£0-90	£1-10
SA .. .. .	£1-30	£1-75	—
AD .. .. .	C45, £0-85 .. .. .	£0-95	£1-85
Chrome .. .. .	£1-45	£1-95	—

● APPOINTED DEALERS FOR SONY VIDEO

● APPOINTED PIONEER, J.V.C. AND YAMAHA STOCKISTS

● Head Cleaners by Philips, Bib, BASF, TDK, Pyral.

● PHILIPS, SONY, B.A.S.F. AND VHS

● REEL TO REEL  
Appointed stockists for Tandberg, Sony, Philips Akai, Hitachi, Uher, and many others. Mics., Mixers, Accessories.

● HI-FI  
Amplifiers, speakers, motors, pickups and accessories by leading makers, music centres.

● OWN SERVICE DEPARTMENT

● CREDIT FACILITIES

● AMPEX TAPES  
Ser. 2020, 7", 1800', £3-95. Ser. 351, 7", 2400', £2-95. Ser. 361, 7", 3600', £3-75. Ser. 292, 7", 1800', bk. ctd., £1-95.  
● SHAMROCK TAPES (All Polyester)  
7", 1800', £1-50. 7", 2400', £2-20. 5", 900', 75p. 5", 1200', £1-20.  
EMI White Box. 7", 1800', £1-95.  
MEMOREX. 7", 1800', £3-30.

You get a fair deal at a fair price when you buy it from  
**FRANCIS OF STREATHAM 169-173 HIGH RD., LONDON, SW16 6EG**  
1 min. St Leonard's Church Phone: 01-769 0466; 01-769 0192  
**OPEN ALL DAY SATURDAY—CLOSED ALL DAY WEDNESDAY**

# SEE OLIVIA NEWTON-JOHN, ROBIN HOOD & THE SECOND WORLD WAR, FOR 7p

**ALL KINDS OF FILMS** Your kind of film. Any kind of film. Look at the list below.  
Films for Rock fans, films for children and films for adult viewers.

Ain't Misbehavin' (X)  
Confessions of a Sex Kitten (X)  
The Lustful Vicar (X)  
Sex Farm (X)  
Seventeen (X)  
3 Into Sex won't Go (X)  
Arch of Triumph (A)  
Girls for Pleasure (X)  
Sex Shop (X)  
Danish Dentist on the Job (X)  
Escort Girls (X)  
Danish Pillowtalk (X)  
Je T'Aime Moi Non Plus (X)  
Danish Bed & Board (X)  
Without a Stitch (X)  
Bedmania (X)  
Body and Soul (A)  
The Pink Telephone (X)  
Danish Escort Girls (X)  
Angels of the Street (X)  
Tiffany Jones (X)  
Sex Clinic (X)  
Canadian Pacific (A)

The Happy Hooker (X)  
Caught (A)  
The Happy Hooker Goes to Washington (X)  
Guess What We Learned in School Today (X)  
Maid in Sweden (X)  
Little Girl, Big Tease (X)  
Bedroom Mazurka (X)  
Blow Out (X)  
Dearest Love (X)  
Dark Mirror (A)  
The Unfaithful Wife (A)  
Mr Kitten (A)  
A Double Life (A)  
Small Change (A)  
Cries and Whispers (X)  
Claire's Knee (A)  
The Sparrow of Pigalle (AA)  
Love in the Afternoon (AA)  
A Gorgeous Bird Like Me (X)  
A Special Day (AA)  
'67 DAYS' The Living Legend of the Partisans (AA)  
Letter From an Unknown Woman (A)

He Who Shoots First (X)  
They Paid With Bullets (X)  
The Boldest Job in the West (A)  
The Lost Moment (A)  
Three Bullets for a Long Gun (AA)  
For a Few Bullets More (A)  
Charley-One-Eye (A)  
Macbeth (A)  
White Comanche (A)  
Dracula Versus Frankenstein (X)  
City of the Dead (X)  
Horror Express (X)  
Eyes Without a Face (X)  
Night of the Living Dead (X)  
Miracle of the Bells (A)  
Children Shouldn't Play With Dead Things (X)  
Virgin Witch (X)  
Bloodsuckers (X)  
Satan's Slave (X)  
Dead of Night (X)  
The Velvet House (X)  
They Paid With Bullets (X)  
Redneck (X)

Malachi's Cove (A)  
Magnificent Matador (A)  
The Cars That Ate Paris (X)  
Godfather of Hong Kong (X)  
Shanghai Lil (X)  
Lust for Revenge (X)  
Mowhawk (A)  
Day the Earth Caught Fire (X)  
Blood on My Hands (X)  
The No Mercy Man (X)  
Scratch Harry (X)  
Silent Night, Bloody Night (X)  
Death of a Hooker (X)  
Fury on Wheels (X)  
Northville Cemetery Massacre (X)  
The Other Love (A)  
Sunday in the Country (X)  
Restless Breed (A)  
Death of a Snowman (X)  
Find the Lady (AA)  
12 + 1 (A)

The Magic Flute (U)  
The Kingdom in the Clouds (U)  
Men of Sherwood Forest (U)  
Secret Beyond the Door (A)  
Dogs to the Rescue (U)  
Foxhole in Cairo (A)  
Mystery Submarine (U)  
SOS Pacific (A)  
The Alaska Wilderness Family (U)  
Winter Comes Early (U)  
Hallelujah I'm a Tramp (U)  
Hugo and Josef (U)  
Treasure Island  
Aladdin's Lamp  
Rip Van Winkle  
Spectreman  
Sin (X)  
Negatives (X)  
Pressure (AA)  
The Tiger and the Flame (A)  
Melpertius (AA)  
Alpha Beta (A)  
Onibaba (X)

The Intervention movie library comprises over 200 top features.  
From hard rock to softly-shot art movies. From masters of horror, to Grand Masters of chess.  
From war to love.  
And we're expanding so fast that we've probably already added to the list above.  
If you'd like to know all about our cassettes just mail the coupon for full details of our Video Club.  
Whether you want to rent or buy, our Video Club discounts mean that you'll be mad not to find out more.  
After all, 7p doesn't usually buy so much, these days.

**Intervision**

To Intervision Video Ltd  
102 Holland Park Avenue, London W11 4UA.

Please send me full details of your Video Club.  
Today.

Name .....

Address .....

account of the *Funeral March*, Klansky's performance seems to have less grasp on the art of summoning and releasing of tension, although his interpretation of this is far 'straighter' than that of the preceding movements. As might be expected, he is better-suited to the ferocity and motor rhythms of the Prokofiev Sonatas: the one-movement F minor work is treated to a formidable, blazing array of technical mastery and the quirky element of the first movement of no. 4 (with shifts of tonality almost, but not quite as wayward as its successor) is admirably caught. Recording a little wiry, but acceptable. [B/C: 2/3 (Chopin) / 1/2 (Prokofiev)]

Andrew Keener

**CLEMENTI: Symphonies 1-4**  
*Philharmonia / Scimone*  
RCA 'Erato' STU71174 (2 records) (£9.98)

Muzio Clementi was an important figure in 18th-19th century European music; of Swiss-Roman parentage, he was brought by a patron to England as an adolescent, and died here at Evesham at eighty. He was an exceptional pianist, contesting Mozart's playing to the delight of the Viennese; his sonatas were admired by Beethoven, with whom he agreed a large publishing contract; his keyboard pupils included Field, his tutelage works the famous *Gradus ad Parnassum*.

Clementi wrote, or began, almost a dozen symphonies. From the autographs it was possible to reconstruct and edit four complete works—four symphonies which Clementi himself presented in European capitals from 1813-23, and which he polished and revised for the rest of his life, perhaps in response to his friendship with Beethoven; he never presented the works for publication. The Editor, Pietro Spada, contributes an introductory essay for this Erato set of première recordings—made at the Henry Wood Hall last January—which complements the enthusiastic analytical notes by Harry Halbreich.

Halbreich best sums up the essence of these vigorous and profoundly original scores: 'It is as if Clementi had brought with him into the nineteenth century the musical baggage of his youth'. For these are classical symphonies—'Symphonies of Restoration' Spada puts it—each with the traditional minuet/trio, superficially like the music of Haydn, yet tinged with the later colourations found in Mendelssohn, Schumann, even Brahms. The slow movement of No. 3, the 'Great National Symphony', is gradually revealed as an elaborate set of variations on the National Anthem: heard first in retrograde motion, then harmonised by three trombones, when the texture is astonishingly Brahmsian. Clementi also uses inversion, and with an opulent C major tutti finally declares the theme as we recognise it!

These are rich, buoyant works, immediately engaging as conducted by Claudio Scimone. A fine achievement by the Philharmonia too. The recordings have a 'BBC balance'—a very integrated sound that is most satisfying at a fairly generous level. Halbreich suggests that, had he known of them, Toscanini would have made these symphonies his own. I wonder, will any contemporary conductor now take them up? [A: 1] Christopher Breunig

**CORELLI: Concerti Grossi Op. 6, Nos. 5-8**  
*La Petite Bande / Kuijken*  
Harmonia Mundi 065-99 728 (£4.35) (Rediffusion)

This is the second issue in a series of three records to cover Corelli's important Opus 6. Sigiswald Kuijken is billed as Konzertmeister, but he acts here as concertino soloist, a role in which he is joined by Lucy van Dael of Amsterdam; the ripieno band is headed by Alda Stuurup (of Quartetto Esterhazy, Concerto Amsterdam etc.); the remainder of the ensemble is composed of specialists from the Low Countries, with a star-studded cello line and a theorbo/organ continuo entirely appropriate to the music.

The historic instruments bring out the tenderness and the spirit of Corelli well; this is far more the kind of sound that Corelli will have expected than we have elsewhere on disc, and the contrast with St Martin's Academy is mainly to La Petite Bande's advantage in respect of unanimity, accuracy and consistency, too. Recording is good, warm and well-proportioned so that we can hear that Stuurup has used her customary musicianship to evocative effect, that Bob van Asperen is just a little sluggish at the organ, and other details.

I find the soloists just a little too detached and colourless: they lack the spirit and fire of an Alice Harnoncourt (as in Vivaldi) or a Jaap Schroeder (as in Handel Organ Concertos or Boccherini Quartets),

and I am surprised if they consider their slightly negative style to be more authentic for Corelli, or indeed any Italian music. However, this series is, I think, the first really appropriate Corelli we have had on disc; now we need some trios and solos done with the same stylistic sympathy. [A: 1]

Stephen Dav

**DEBUSSY: Pelleas et Melisande—excerpts**  
*Maguenat / Dufranne / Narcon / Nesopoulos / Croiza Orch / Truc*  
Pearl GEMM 145 (€2-50) (recorded in 1928)

There is some fine singing on this record—a nice slice of French operatic history if ever there was one. Hector Dufranne, who created the part of Golaud at the première in 1902, was approaching sixty at the time of this recording, although his voice still possessed a commanding ring, superlative diction—and that rapid, French vibrato that strikes our ears as a little tight and nervous today. Indeed, the diction throughout these excerpts reminds us of how we have since lost in this quarter; words shine strongly through the fifty-year-old recording with a vividness that renders a libretto unnecessary (which is just as well, as Pearl have omitted to supply one). The sense of dramatic confrontation that survives the dated sound is particularly exciting. Golaud's suspicious questioning of Melisande in Act II (Marthe Nesopoulos is a winning, fragile Melisande) is superbly enacted, Claire Croiza's classic account of the Letter Scene is a model of style and vocal refinement, and the Act IV orchestral interlude, depicting Golaud's tortured confusion, is particularly moving—this last instance is largely due to an orchestral sound of remarkable clarity, accurate balancing and firm tone, if, understandably, little richness of timbre. There need be few doubts on this account, for we are two years into the electrical era with this recording. All I would quarrel with are the (presumably unavoidable) heavy swishes on the first two sides of the originals (Forest Scene in Act I), a 78 rpm surface background which is switched on and off rather than being judiciously faded up and down, and some ham-fisted side-joints—rarely does the music (or performance) pose problems at these points. Indispensable for an awareness of the route by which the French operatic school has come. [H: 1/2] Andrew Keener

**DONIZETTI: 'Lucrezia Borgia'**  
*Sutherland / Horne / Aragall / Wixell / London Opera Chorus / National Phil / Bonyng*  
Decca D93D3 (3 records) (£13-50)

Although *Lucrezia Borgia* has not proved to be one of the most favoured of Donizetti's operas and is infrequently heard in the opera house, it remains an important work historically. First heard in Milan in 1833, it marked the establishment of Donizetti, following *Anna Bolena* in 1830, as a leading figure in Italian opera. It was also a first tentative step up, leading opera away from its traditional bel canto role to more dramatic fields—a halfway mark between Rossini and Verdi and very much a model for Verdi's subsequent works. It helps us to appreciate what a remarkable figure Donizetti was; pushing opera in this direction on the one hand; later pointing the way to the lighter fields of operetta with works like *La Fille du Régiment*. It was with *Lucrezia Borgia* that Caballé made her mark; making her New York debut in it in 1965, leading to her Metropolitan debut and her first complete recorded opera set. This fine performance of *Lucrezia Borgia* is not at present in the catalogue, so this new Decca recording fills an important gap. It is a richly satisfying performance in which, in the first instance, Bonyng confirms his skill as an operatic conductor, giving us one of his best and most attentive orchestral accompaniments. The London Opera Chorus also perform most excellently. Joan Sutherland is moving into a new phase of profound excellence and from a purely musical point of view she negotiates this demanding role with real distinction and depth. We have learned to accept her lack of consonants but she sings so movingly that it is the only obstacle to absolute perfection. Marilyn Horne too is in a fine settled vein and the male principals also give her excellent support. It is an ideal and extremely satisfying opera on record. Decca have provided a good Walthamstow Town Hall acoustic and the voices stand out with commendable clarity above a warm orchestral background. [A\*: 1\*] Peter Gammond

**DVORAK: Symphony No. 9 in e, 'From the New World'**  
*Concertgebouw / Davls*  
Philips 9500 911 (£4-50)

I can find no evidence of a previous recording of this symphony by Colin Davis, though I feel sure that he must have done it at some stage in his career. As expected, this is a carefully controlled performance which contrives to give attention to detail while keeping the overall symphonic shape clearly in view. If the sound had been as good this would have been a highly commendable version, but the recording seems to produce a rather distant perspective coupled with a slightly dim tonal balance that gives a distorted impression of the performance. In many respects the sound is very good, but this is qualified by a lack of impact in comparison with Philips' best Concertgebouw recordings. [A/B: 1] Kenneth Dommett

**FIBICH: Symphony No. 2 in E, Op. 38**  
*Brno State PO / Waldhans*  
Supraphon 4 10 2165 (€2-99) (Rediffusion)

Zdenek Fibich (1850-1900) is now largely remembered, if at all, for one popular salon piece, his *Poeme*, though he is currently represented on record by two pieces of chamber music. His orchestral music is not much heard these days and the appearance of his second symphony, which is probably his masterpiece, is welcome. Its four movements are clearly indebted to Dvorak's example, and to the earlier Dvorak particularly, though there is a pretty emphatic reference to Mozart's G minor symphony at one point in the scherzo. The general tone is romantic and rather lightweight though there is evidence of an ability to handle large scale forms even if they do have to be held together somewhat in the manner of César Franck by means of motifs which reappear throughout. The overall impression is of an amiable creature, skilful in his handling of his material but not much given to profundity or serious introspection. The recording was made in Brno in 1976 and is a rather low-keyed affair. This is a pity, for the music would have made a greater impact had it sounded more brilliant and sparkling. As it is the sound is inclined to be boxy and the texture diffused. Without benefit of a score the performance seems confident though not especially compelling. An attractive symphonic byway which would have benefited from a more commanding presentation. [B: 2] Kenneth Dommett

**FINZI: Cello Concerto, Op. 40**  
*Yo Yo Ma (v/c) / RPO / Handley*  
Lyrita SRCS 112 (£4-15)

Finzi's Cello Concerto (1955), his last completed work, is very little known. I suspect that there may well have been only a handful of performances, figuratively if not literally, and also that the one recorded here is probably the best so far. Finely shaped and controlled, yet eloquent and genuinely felt, this is impressive advocacy—as, indeed, is Diana McVeagh's sleeve-note. But I am still not convinced that this large-scale concerto, of which the first movement takes a whole side, is really an extension of Finzi's effective range, rather than an inflated version of things said more tellingly elsewhere. Even in the slow movement, which begins with a Finzi archetype, a lyrical theme of unmistakable cut, there is a suspicion that the ideas are somewhat unnaturally drawn out. There are also moments of great poignancy, shot through with that peculiar insight into the human agony—nostalgia is too easy a word for it—which Finzi could convey so simply and directly and quite without self-consciousness. Whether its mood be grave or happy, what Finzi's music affirms is the heart's integrity. The problem in assessing this concerto is one of creative integrity—or rather, necessity and inevitability: a problem that all who respond to this composer will wish to get to grips with. The recording is generally excellent, if a little overbearing at one or two climaxes. You may encounter tracking difficulties at the end of the first side, but I found these were easily overcome. [A: 1] Hugh Ottaway

**FRANCK: Symphony in d**  
*Czech PO / Danon*  
Supraphon 4 10 2420 (€2-99) (Rediffusion)

How is a conductor to sound convincing (and convinced) in the problematic ending to each movement of this symphony—surely the weakest points in the whole work? Oscar Danon provides no special solutions; his account is, however, thoroughly straightforward and intelligent, and he avoids the frequent pitfall of indulgence in the central *Allegretto* by taking it at a swifter speed than almost any other recording I've heard. The resulting impression is that of a graceful Intermezzo; in any case, Franck surely did not intend the movement to be treated as anything much deeper. Only Danon's bustling

account of the Finale sounds at times a little breathless, and of course, he then has to slow down for the second subject on brass.

Occasionally, the fact that this is an Eastern European ensemble does make itself felt, with especially fruity, vibrato-laden trumpets and trombones as the first movement recapitulation hits us, as well as a rather wobbly first oboe towards the end of the second movement. The recording is lively enough, if a little raw; even so, the notorious Supraphon resonance (Prague House of Artists) is nowadays more successfully tamed than it used to be. [B/C: 2] *Andrew Keener*

#### GESUALDO: Music for Holy Week

*Deller Consort / Deller*  
Harmonia Mundi HM 220, HM 230, HMU 240 (£4-35 each) (Rediffusion)

Carlo Gesualdo, Prince of Venosa, occupies a curious place in music history. Rescued from comparative obscurity in the early twentieth century, largely through the efforts of Peter Heseltine (alias Warlock) who saw his highly chromatic, often tortuous, late works as a pre-figuration of the harmonic language of Wagner and the experimentalism of Mussorgsky, he is now in the process of being restored to his rightful place as an eccentric, but limited example of the dilettante composer. Nevertheless, his late pieces in particular continue to be recorded almost more frequently than any other contemporary composer except Monteverdi and Palestrina, and to this already sizeable corpus the Deller Consort now add three more discs. Two are dedicated to the *Responsoria for the Feria Quinta* and *Feria Sexta* of Holy Week, and the third contains music for the Third Nocturn of Good Friday. Six sides of this music, designed (it should be remembered) for performance during liturgical ceremonies when other things were happening, is rather a specialised taste, and the task is not made any easier by the Consort's performances. The chromatic lines are notoriously difficult to sing, and there are rather a large number of uncomfortable moments when intonation becomes distinctly uncertain. Not only that, the vertical chromaticism, 'harmonically' unconventional but entirely conventional in contrapuntal terms, is invariably textually motivated and needs room in which to speak effectively, and many of the tempi seem too fast for that to happen. The size of the ensemble, eight voices in one of the records and seven in the remaining two, is entirely appropriate since many Italian church choirs of the period would not have been able to muster larger forces, but the use of women's voices on the top line is totally unauthentic. The result is warmly recorded, but it sounds as though questions of tonal balance have been overexposed to the scrutiny of the engineers, and the bass line is sometimes disturbingly unclear. [B: 2] *Iain Fenlon*

#### GLAZUNOV: Piano Music, Vol. 2

*Leslie Howard (pno)*  
Pearl SHE 548 (£3-59)

This is an interesting collection of little-known music, much of which is new to the catalogue. The *Barcarolle* and *Novelette Op. 22*, the *Three Studies Op. 31*, and the *Prelude, Caprice-Impromptu* and *Gavotte Op. 49* are pleasing but more or less predictable Romantic piano writing, but the *Variations on a Finnish Folk-Song Op. 72*, and the *Prelude and Fugue Op. 62* are major works, both of them impressive in different ways. Leslie Howard is a persuasive advocate and, but for the recording, a positive recommendation would certainly be merited. There are two main troubles, one being some very pronounced and persistent pre-echo: the first part of Op. 62 is wellnigh ruined, and the *Variations* are badly affected. The other defect may be a surface fault, but I rather think it is in the recording: a low background noise like someone gently whistling between his teeth. The piano, as such, is well enough recorded, though the quality deteriorates towards the end of each side. Try to hear before buying. [C: 1] *Hugh Ottaway*

#### GOUNOD: 'Faust'—excerpts

*Sass / Korondi / Kovats / Hungarian People's Army Male Choir / Hungarian State Opera House Chorus / Lukacs*

Hungaroton SLPX11712 (£3-40) (Selecta)

There are excellent complete recordings of *Faust* available and to get maximum dramatic effect it should be heard with all its connecting music. Hearing it in well-known snippets as on this disc tends to draw us back to the opinion that *Faust* really

is a very old-fashioned opera with pretty music rather unsuited to its dramatic subject. Not that this matters ultimately if you like its rather Victorian flavour and the attractive sort of drawing-room music that it contains. We are getting slightly less prejudiced about these things anyway, and its Star Folio items have considerable charm and melodic strength. Except in price this recording does not supplant the Decca excerpts (SET431, £4-50) taken from the complete version under Bonyngue where the choral and orchestral work is rather better. The soloists on this record include Sylvia Sass who has already made a fine impression in this country as *Marguerite*, and she is good, and the *Faust* and *Mephistopheles* are both impressive. The recording is of an adequate level and altogether I find this quite a recommendable issue. I rather enjoyed it. [B: 1/2] *Peter Gammond*

**HADLEY: 'The Trees so High'**—Symphonic Ballad □ **'One Morning in Spring'**—Rhapsody  
*Thomas Allen (bar) / Guildford Phil. Choir / NPO / \*LPO / Handley / \*Boult*  
Lyrita SRCS 106 (£4-15)

Patrick Hadley (1899-1973) was a sensitive composer in the English pastoral style, and *The Trees so High* is one of the two works—the other is *The Hills* (SAN 393)—by which those who know his music set most store. Described as a Symphonic Ballad in A minor, this large-scale composition, which takes the greater part of two sides, is problematical in aim, falling between the symphonic and the narrative. At one time Hadley thought of it as a symphony and likened the three continuous orchestral movements to 'independent brooks' that 'flow into one stream' in the choral finale. And yet the whole piece is based on a folk-song tune which gives rise to different thematic ideas as the narrative unfolds. My own first impression is that the long orchestral part is the most rewarding. Despite the 'reminiscences' of other composers—Butterworth more than Vaughan Williams, and to some extent Finzi—Hadley's imagination is well vindicated there, whereas the word-setting seems more commonplace. Although the choral singing is not entirely unblemished, the performance as a whole is impressive. The sound is a little less sharply focused than on most recent Lyrita records, but the quality is still very high. *One Morning in Spring*, a rhapsody for small orchestra, is a miniature written for Vaughan Williams' 70th birthday. Recommended to all confirmed pastoralists and to those interested in formal problems; others might well hesitate. [A: 1] *Hugh Ottaway*

#### HANDEL: Water Music

*Concentus Musculus Wien / Harnoncourt*  
Telefunken AW6.42368 (£4-20) (Selecta)

Just a couple of months after the release of Christopher Hogwood's superb original-instruments *Water Music* (Oiseau-Lyre DSLO 543) comes this Continental competition from Nikolaus Harnoncourt. As might have been expected, Harnoncourt attempts to show the music in a different light: his tempi, for instance, are idiosyncratic, to say the least. Allegros tend to race along and the first of the G minor jigs (played on piccolos) has a solid one-in-the-bar feel which is over twice as fast as Hogwood's reading. Whereas Hogwood arranged the movements into three separate suites, with the Allegro (X) and Hornpipe (XI) played in both F and D, Harnoncourt plays the 20 movements in order. The Viennese players, directed, as usual, from the cello by Harnoncourt, play with their customary superb ensemble, although not double-dotting to any degree, and the horn players (on 1750 natural horns) manage quite a degree of control with Harnoncourt's almost exaggerated dynamics, although their trills in III bray rather too rustically. The oboes, sounding almost shawmish at times, blend very well with the astringent strings (who perhaps let their open strings resound a little too zealously) and the lead oboe, Jürg Schaefflein, provides lyrical adornments to the melodic line where appropriate, and some excellent cadential solos.

The recording is superb, placing the instrumentalists both laterally and with depth in a real acoustic, and images are not at all smeared—the solo violin leading into the hornpipe is set way back behind the speakers and yet retains its narrow width. However, there is an overall nasal quality to the sound, not attributable to the original instruments and hence the qualification of the star rating. Although more realistically recorded, overall, this version loses out to the English recording which makes more of the material and imbues it with a proper sense of occasion. [A\*/B: 1\*/1] *John Atkinson*

#### HAYDN: 'Lo Speziale'

*Magda Kalmar (sop) / Veronika Kincses (sop) / Attila Fulop (ten) / Istvan Rozsos (ten) / Ferenc Liszt CO / Lhele*

Hungaroton SLPX 11926-7 (2 records) (£6-80) (Selecta)

*Lo speziale* ('The Apothecary') was for many years almost the only Haydn opera to enjoy widespread popularity—albeit in an adaptation that borrowed music from other operas, and allowed itself other liberties. Although the authentic score has been available in the Henle edition for twenty years, the work has not often been heard, and this new Hungaroton recording will be gratefully received by all Haydn-lovers, despite the facts that *Lo speziale* (1768) predates Haydn's maximum operatic immersion, and its last act has survived incomplete. Just four characters are involved in this reduced adaptation of a good Goldoni libretto—the apothecary loses his ward to his supposed assistant, despite the efforts of another admirer (a trousers-role—Haydn was short of singers) who has a delightful mock-Turkish aria. There are pleasing and neatly varied arias, good and lively ensembles, pretty touches of word-painting—and a vigorous demonstration ('NB' writes Haydn in the score) of the efficacy of the apothecary's cures for constipation. There is rather a lot of recitative, some of it accompanied; it is done with no feeling for vocal grace, though it is not allowed to drag. The singers do pretty well (three of them have high Cs), with variable command of Italian. The orchestration (only oboes, horns and strings, plus of course harpsichord; and a flute occasionally introduces variety) is masterly, and nicely presented here. The recorded sound is rather thin, even edgy in the overture, but the surfaces give no trouble, and the quality is perfectly acceptable. English (of a sort) is one of the five languages of the notes and complete libretto. [B: 2]

*Peter Branscombe*

**HAYDN: Symphony 100 in G, 'Military'** □  
**Symphony 104 in D, 'London'**  
*Concertgebouw / Davis*  
Philips 9500 510 (£4-50)

A warm welcome to the third in a series of late Haydn symphony recordings from Colin Davis and the Concertgebouw. These two grand works make a very nice coupling (at present there is no direct rival, though both works are well represented in other couplings). Davis' sterling virtues as a Haydn conductor include a sure sense of tempo, a fastidious ear for balancing winds against strings, a wide but not exaggerated dynamic spectrum, and the ability to secure crisp rhythms and clear textures. The performances are full of spirit and delight, unfussy, unhurried yet never dawdling. The recording is forward yet discreet—even when the full orchestra in the 'Military' is required to make a lot of noise, there is no congestion. It must be mentioned, however—rare fault with Philips—that my pressing has quite a lot of clicks and surface noise. Assuming this to be (as it probably is) isolated; confidently recommended. [A: 1] *Peter Branscombe*

#### HINDEMITH: The 7 Kammermusik

*Marla Bergmann (pno) / Wolfgang Hock (vln) / Ulrich Koch (vla, vla d'amore) / Martin Ostertag (vlc) / Martha Schuster (org) / Ensemble 13 Baden-Baden / Reichert*  
Harmonia Mundi 165-99 721-3 (3 records) (£10-20) (Rediffusion)

These words demonstrate Hindemith's remarkable skill as a contrapuntalist. His handling of sometimes several independent melodic lines simultaneously is unequalled by any of his contemporaries, and though the results are not always engaging they are invariably interesting. Interesting too is Hindemith's steady move from the brash experimentalism of Op. 24 No. 1 towards the more conservative idiom he was to develop in the 1930s, though in matters of instrumentation, for example, he remains unconventional—the Violin Concerto, Op. 36 No. 3, being for 2 piccolos, E flat and B flat clarinets, bass clarinet, 2 bassoons, double bassoon, cornet, trombone, bass tuba, viola, cello, bass and drums. This is typical of the unusual tone colours Hindemith produces, and he also treats us to unusual movements such as *Finale*; 1921; Little potpourri; *Signal*; *Variations on a Military March*.

This is the second complete recording, the first being by Concerto Amsterdam on Telefunken, issued in 1973 and now apparently deleted. The new set has some advantages over the old, but not many. The quality of the sound, a most important feature in music so dependent on clarity of texture, falls short of Telefunken's crisp clarity and is occasionally sufficiently obfuscated to defy analysis.

The solo performers tend to sound more secure in the new set, though this is a matter of swings and roundabouts where players excel and fall short in various movements of the same work. Tempi in the Telefunken issue were crisper and in general the playing more alert-sounding, and that issue had the advantage of a useful booklet whereas the Harmonia Mundi release has an admirable insert which unfortunately is entirely in German and likely to prove something of a barrier to the average buyer. Notwithstanding these caveats I would urge readers to sample this set as it is now the only available medium through which this fascinating music can be heard. [B/C: 1+2] *Kenneth Dommett*

**HOLBROOKE: 'The Birds of Rhiannon', Op. 87 / ROOTHAM: Symphony 1 in c**  
LPO | Handley  
Lyrita SRCS 103 (£4-15)

These two forgotten English composers were born in the 1870s, the same decade as Vaughan Williams, Holst, Brian, Bridge and Ireland. *The Birds of Rhiannon*, an orchestral poem associated with his Celtic operas, confirms my prejudices about Holbrooke; it seems to me inflated, bland, sentimental and generally commonplace, and the fact that it is also professionally assured tends, if anything, to emphasize those qualities. The Rootham, which takes substantially more than a side, is quite another matter. Dating from 1932, six years before the composer's death, this Symphony in C minor has plenty of energy and well-directed activity and should hold the interest of any listener predisposed towards a genuinely symphonic impulse. Although obviously the music of an English composer, there are few tangible influences: Vaughan Williams comes to mind here and there, but more in terms of affinity than of 'reminiscence', there is something akin to Bax in his more extravert vein, and in the scherzo, which is probably the best movement, perhaps some affinity with Moeran—and that is about all. Paradoxically, there is no really strong personal identity. By comparison, Moeran's G minor Symphony, despite its exposed influences, seems more individual. But Rootham commands attention through the decisiveness of most of the moves he makes. Only repeated listening can show whether the manner is matched by the substance. This is well worth putting to the test. Played with real conviction by the LPO under Vernon Handley, and very well recorded. [A: 1] *Hugh Ottaway*

**HOLST: 'The Planets'**  
LPO and Choir (women's voices) | Solti  
Decca SET 628 (£4-50)

This is almost the twentieth version currently available. No matter, for in quality of sound it is one of the best; the Kingsway Hall recording offers spaciousness, warmth and excellent colouring, and nowhere is the impact exaggerated or oppressive; one or two momentary oddities of balancing and a touch of pre-echo at the beginning of *Uranus* need not, in my view, preclude a star. The weakness here is that Solti tends to be impatient. *Mars, Jupiter and Uranus* seem to be in a hurry, and neither *Venus* nor *Saturn* has at the outset quite the stillness that is essential. This tendency arouses repeated suspicions of 'outsiderness' and may well account for the occasional blemished chording. In general, though, the playing is all that one expects from the LPO, and Solti does not pull the music about in any way. Some of the things that are often problematical—the ending of *Mars*, for example—are excellently done. The women's voices in *Neptune* sound curiously distraught and unsure, but the fade-out at the end is very well handled—no impatience there. My first choice would still be LSO/Ambrosian Singers/Previn (ASD 3002), which I double-starred in 1974. [A\*: 1] *Hugh Ottaway*

**IRELAND: Piano Trios 1, 2 and 3**  
Yfrah Neaman (vln) | Julian Lloyd Webber (vlc) | Eric Parkin (pno)  
Lyrita SRCS 98 (£4-15)

This new recording of the complete piano trios has one big advantage over the Martin/Hooton/Coxe version of 1964 (Saga, now deleted)—the quality of the sound. But I could wish that the performances, sympathetic though they undoubtedly are, had a little more of the intensity of those earlier ones. Neither of the string players is as decisive or as polished here, and their tone is sometimes a little thin. In the Phantasia Trio in A minor (No. 1), this tendency is emphasised by a recording balance tilted slightly in favour of the piano. There is much to admire in these new performances, and that

of the Trio No. 3, a big work in four movements, is particularly satisfying. Chamber music with piano was a medium to which Ireland was strongly drawn, especially in his earlier years. The Trio No. 3, though dated 1938, started out 25 years before as a work for clarinet, cello and piano. In origin, all three trios belong to the decade 1907-17. Their immediate contemporaries are the early chamber works of Herbert Howells. Both Howells and Ireland preceded Elgar in this field. [A: 1] *Hugh Ottaway*

**KODALY: Piano Music (Complete). Nine Pieces, Op. 3: Meditation on a Theme of Debussy: Valsette: Marosszek Dances** □ **Seven Pieces Op. 11: Children's Dances: 24 Little Canons**  
Kornel Zempleni (pno)  
Hungaroton SLPX 11913-4 (2 records) (£6-80) (Selecta)

Kodaly's contribution to the literature of the piano is very small. All of it is contained in these two records, and, it must be confessed, it is not very important. The earliest pieces, the *Meditation*, *Valsette*, and the two sets of pieces Op. 3 and Op. 11, are clearly indebted to Debussy and are all very much alike in general mood and colour. It is only the *Marosszek Dances*, better known in their orchestral form, which offer any clear idea of what Kodaly might have achieved in his prime if he had chosen to apply himself to writing for the piano. This is a scintillating piece. The last two sets, which occupy side four, are designed for children. Kodaly, like Bartok, wrote much that can be described as educational music, but his, unlike Bartok's, is chiefly noteworthy in the field of chorus and singing exercises. Nothing in these piano pieces suggests the developing of technique that one finds in *Mikrokosmos* or *For Children*, though they are attractive little pieces. Zempleni plays it all with admirable devotion and, in the earliest works, with a strong sense of the Hungarian inflections which temper the Debussyesque surfaces of the music. He is clearly recorded with a reasonably lifelike presence. A limited appeal, I imagine, but of interest to the Kodaly collector. A rival recording by Gyorgy Sandor on Vox gets the music onto one record in what was reported to be an excellent performance spoiled by poor recording. [A: 1] *Kenneth Dommett*

**LISZT: Piano Concertos 1 & 2**  
Kamenikova | Brno State PO | Belohlavek  
Supraphon 1 10 2085 (£2-99) (Rediffusion)

Valentina Kamenikova recently won high praise in the BBC's 'Record Review' for her recording of the Mozart Sonata in A, K.331, and listening to this new record I can understand why. She is an extremely musical pianist who follows the composer's indications faithfully—she never makes a rubato unless one is marked in the score; she has power, an excellent technique and very good lyrical feeling. Born in Odessa, she has lived in Czechoslovakia for some years and is one of their leading pianists today. The orchestra supports her with excellent playing, and the recording is extremely clear, though the percussion, apart from the timpani, are on the backward side acoustically—the famous triangle passages in the scherzo and finale of the first concerto do not stand out quite as much as they should. However, this is a small point in an otherwise excellent record, which I can well recommend as an alternative to the more expensive versions by better-known pianists. [A: 1] *Humphrey Searle*

**MARTINU: Concertino for Piano Trio and String Orchestra** □ **Sinfonietta Giocosa for Piano and Small Orchestra**\*\*  
\*Josef Suk (vln) | Josef Chuchro (vlc) | Jan Panenka (pno) | Czech PO | \*Neumann | \*\*Kosler  
Supraphon 4 10 2198 (2) (£2-99) (Rediffusion)

The *Concertino* seems to be new to record, but the *Sinfonietta* is still available in an alternative version on Supraphon by Stanislav Knor and the Prague SO under Smetacek coupled with Martinu's Fourth Piano Concerto (*Incantation*). The *Concertino* (1933) is among the first of Martinu's mature works that combined depth of feeling with remarkable technical assurance. It is short, lasting about 18 minutes, and is typical of a series of compositions in the concertante style employing more than one solo instrument which engaged Martinu's attention at that time. It receives a vigorous and stylish performance from its three distinguished soloists admirably partnered by the Czech PO under Neumann and provides yet another glimpse at the protean talents of this variable but always interesting composer. The *Sinfon-*

*etta Giocosa* is another concertante work. This dates from 1940 when Martinu was living in Vichy France in very straitened circumstances. One would hardly guess it from the light-hearted, almost jubilant nature of much of the music. Of the two available versions this is, I think, the better, if only because Panenka is a more accomplished and sympathetic pianist than Knor and the Czech PO is a better orchestra than the Prague Symphony. The recording is rather edgy and needs some softening of focus. [B: 1] *Kenneth Dommett*

**MASEK: Partitas in A, E $\flat$ , D for Harpsichord and Wind Sextet** □ **Serenade in E $\flat$**  □ **Works for Glass Harmonica**  
Josef Hala (hpd) | Bruno Hoffmann (glass hrp) | Collegium Musicum Pragense | Vajnar  
Supraphon 1 11 2424 (£2-99) (Rediffusion)

Vaclav Vincenc Masek was born in western Bohemia a year before Mozart, and he died four years after Beethoven. Unlike so many of his contemporaries, he was content (apart from a few foreign appearances) to spend his career in Prague, where he was choirmaster at St Nicholas' Cathedral. He and his wife were both virtuoso performers on the glass harmonica, and he was also a noted keyboard-player, teacher and publisher. It is a delight to have a whole record devoted to his music, and a great treat it will prove to all lovers of the minor masters of the classical era. Bruno Hoffmann, that enthusiastic advocate of the glass harp, perhaps fails to establish any special characteristic in the brief movements that separate the three partitas on side 1, but he persuades the most beguiling and richly varied sounds from his instrument in a set of six variations on the second side. That is followed by the most substantial of the works recorded: a fine, large-scale *Serenata* for pairs of oboes, clarinets, horns and bassoons. Delightful as that piece is, I enjoyed even more the three-movement partitas, in which clever use is made of the contrasting sonorities of concertante harpsichord and pairs of clarinets, horns and bassoons. Gay, tuneful music, with the occasional touch of nobility or elegance to suggest a greater M than Masek. Apart from patches of pre-echo the recording is clean, fresh and neatly balanced. [B: 1/2] *Peter Branscombe*

**MENDELSSOHN: Symphony 1 in c, Op. 11** □ **Overture—Die Heimkehr aus der Fremde, Op. 89**  
Prague SO | Schneider  
Supraphon 1 10 2196 (£2-99) (Rediffusion)

The Swiss conductor Urs Schneider gave his first student concert at the 'shockingly young age of fifteen' (Supraphon): the age at which Mendelssohn wrote his C minor symphony. The work is given a sympathetic performance here, inner parts singing out, the general feeling brisk in accordance with the propulsive nature of much of the writing—although Schneider is slow in the trio, making a longer than average timing for the movement as a whole (Menuetto: allegro). But enjoyment is limited by the muffled quality of this 1975 Prague recording, which tends to bass-heaviness. Review copy rumbly.

The Decca version, the only one we have had that includes a realistic hall ambience, is complete on one side. The recommended HMV collection of Mendelssohn overtures, NPO/Atzmon (ESD7003), offers an alternative version of *Son and Stranger* coupled here—its opening phrases and tiny coda recall Beethoven's second symphony. [B/C: 1] *Christopher Breunig*

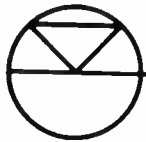
Symphonies 1 & 5—VPO | Dohnanyi—Decca SXL 6818 [A: 1]

**MOZART: 'La Betulia Liberata', K. 118**  
Ileana Cotrubas, Gabriela Fuchs, Margarita Zimmermann (sop) | Hanna Schwarz (m-sop) | Peter Schreier (ten) | Walter Berry (bass) | Salzburg Chamber Choir and Orchestra | Hager  
DG2740 198 (3 records) (£11-00)

When Philips released the first stereo recording of Mozart's early sacred drama *Betulia Liberata* last April it was scarcely to be expected that we should have another within the year, though, knowing that Leopold Hager is engaged each winter in Salzburg in bringing before the public the early dramatic works of Mozart, I suppose one might have reckoned on it appearing before too long. The appearance of this excellently recorded DG version puts the reviewer in a quandary. Negri's version for Philips was first class and his cast of virtually unknown singers made a great impression. The Salzburg performance has an internationally celebrated cast, an excellent and well tried orchestra under a conductor whose explorations of early Mozart are well

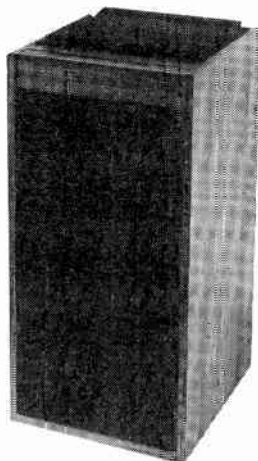
# SUBJECTIVE AUDIO

(Hi Fi Consultants)



DMS LINN  
ISOBARIC

*simply better—together!!*



Now we are SEVEN ??????

For some time, the honest (hence uncommercial) attitude here prevented us from recommending more than just one speaker brand—however since then, the reproduction quality generally obtainable has improved and we are now proud to represent 6 other makes of speaker.

The latest entrant into this privileged clique is the excellent Linn Iso-baric—sometimes jokingly referred to as the Linn Iso-Barbaric... This is certainly the finest *passive* speaker we have yet come across, and whilst it is ruinously expensive, we find it comforting to quote from the immortal lips of the Winged Messenger Paul when he spake thus "One does not assess a Rolls Royce in value for money terms; being the best, it personifies value itself".

SUBJECTIVE AUDIO, as ever, are prepared to relieve you of your purchase made in Tottenham Court Road, or made in error, or probably both and thus render the essential purchase of the Iso-baric less painful.

To this end, we are prepared and happy to discuss exchange values on your existing speakers—Quads, Dalquists, Bose 901's, Yamaha NS1000's, Gales etc. etc., and of course you can use our facilities to compare your existing speakers to the Iso-barics. We feel confident that if you can afford them, you WILL buy them and if you can't, at least you'll know what to aim for. Delivery, installation, leads of your choice and professional competence are provided FREE within 200 miles of London, excluding of course the North Sea... and East Grinstead.

#### Our suppliers

If it's worth buying, we probably sell it.

#### Our Attitude

If it's worth stocking, and we sell it to you, you get a service second to none, home or abroad.

#### Our reputation

You know that already.

#### Our Facilities

Summed up in the fanatical willingness to help attitude.

#### Additionally

Access, cash, cheque—all are readily accepted—NOW

#### SUBJECTIVE AUDIO.

(Hi Fi Consultants)  
6 Windsor Road, Palmers Green,  
London N13, England.

01-886/7289

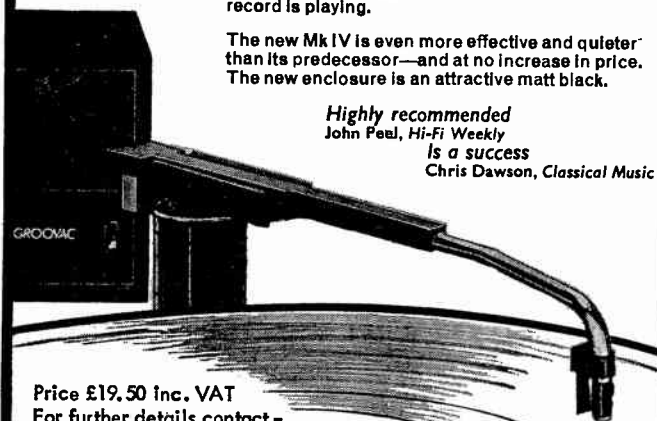
# GROOVAC

vacuum record cleaner  
and anti-static brush

Groovac IV offers complete record and stylus care in one highly efficient unit. It tracks in like a second pick-up arm and operates while your record is playing.

The new Mk IV is even more effective and quieter than its predecessor—and at no increase in price. The new enclosure is an attractive matt black.

*Highly recommended*  
John Peel, *Hi-Fi Weekly*  
*Is a success*  
Chris Dawson, *Classical Music*



Price £19.50 inc. VAT  
For further details contact -

**RI AUDIO**

Kernick Road, Penryn, Cornwall, TR10 9DQ

tel: 0326 72753

## FF1 WALL MOUNTING KIT FOR HI-FI SPEAKERS

Fidelity Fastenings FF1 is a precision made, vibration damped wall fastening for Hi-Fi and Stereo Speakers of up to 50lbs weight each.

Almost undetectable when fitted, the FF1 allows easy adjustment of speaker angle, and the rubber mounting ensures that they do not move accidentally. Speakers can also be quickly and easily lifted off for dusting, cleaning and redecorating.

Available from all good Audio, Hi-Fi and electrical shops at

£6.49

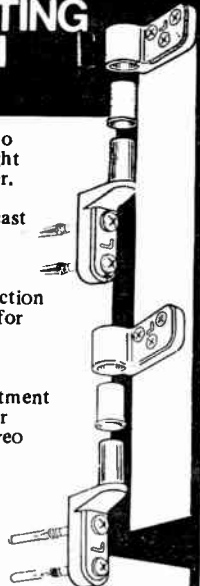
in case of difficulty,  
direct from the  
manufacturer at £6.89  
inc P & P

★ Holds up to 50lbs weight per speaker.

★ Precision cast mounting brackets.

★ Rubber friction mounting for complete stability.

★ Easy adjustment of angle for precise stereo image.



PRECISION AUDIO PRODUCTS  
FROM

*Fidelity Fastenings*

THE  
NUMBER  
BEHIND  
MOST  
LEADING  
MAKES OF  
HI-FI  
SPEAKER  
SYSTEMS.

The Ridgeway, Iver, Buckinghamshire  
Tel: (0753) 654222

represented on record. How then to choose? It is unlikely that the average buyer would want to invest in a second recording of a work which in spite of its overall interest cannot honestly be put in the front rank of the composer's work. There is really not much to choose between the two versions though it may be said that DG's cast is marginally more secure and Peter Schreier and Ileana Cotrubas are in top form as Ozia and Amital. Hanna Schwarz's Judith—the elliptical plot is centred on the biblical story of Judith and Holofernes though Holofernes makes no appearance—is richly sung, her dark mezzo perfectly adapted to this Amazonian role. The continuo is ably managed and the recitatives, of which there are a fair share, are sung with liveliness. The whole performance has a sound sense of style. Recording and balance are well up to DG's usual standard. If you did not buy the Philips issue try this: if you did you may rest content. [A: 1]

Kenneth Dommett

**MOZART: 'Eine Kleine Nachtmusik', K525 □ Divertimento in D, K205**  
*Collegium Aureum*  
**Harmonia Mundi 065-99 698 (£4-35) (Rediffusion)**

The last recording of the attractive little Divertimento K205 appeared in 1974 in the Vienna Mozart Ensemble's series on Decca. It is still not too well represented, being for some reason neglected by performers. This new version of it redresses the balance, profiting as it does from excellent recording, one which, incidentally, permits us for once to hear the *colla parte* stiffening given by the bassoons to the cello line. Collegium Aureum, of course, continue to play on original instruments, a fact which helps to give warmth and a little unusual colour to the Divertimento but which, in my view at least, makes little real difference to the wholly string-instrumented *Eine kleine Nachtmusik* which, nevertheless, receives an attractive performance. Authenticity might perhaps have carried the players into giving us a quintet version of the piece rather than an orchestral one, but this will do very nicely. [A: 1]

Kenneth Dommett

**MOZART: Piano Concerto No. 9 in E<sub>b</sub>, K.271 □ Piano Concerto No. 3 in D, K.40 □ Piano Concerto No. 4 in G, K.41**  
*Karl Engel (pno) | Salzburg Mozarteum | Hager*  
**Telefunken AW 6.42359 (£4-20) (Selecta)**

This further sample of Engels' series of the Mozart piano concertos with the Salzburg Mozarteum and Leopold Hager is very much in the tradition of its forerunners. Their virtues and limitations have been aired fairly consistently in previous issues and there is possibly little value in repeating them here. I happen to like Engels' approach in the main though I realise that his literal response to the texts is not to everyone's taste. Certainly it can occasionally seem old fashioned but in general the absence of special pleading or unwarranted emphasis is refreshing rather than otherwise. There is not a lot he can do with the two pastiches, which are really no more than arrangements by the child Mozart of sonata movements by some of his older contemporaries. The E flat concerto, on the other hand, is a remarkable work, wholly original in every sense of the word. It is interesting to compare Engels' version with Ranki's reviewed elsewhere. Engel tends to rely very much on the music's own ebullience to carry through the two outer movements, while the mysterious Andantino is enhanced by the very considerable technique of the player. Ranki's, on the other hand, is a more youthful and more urgent reading, bubbling over with energy as his performance of the interpolated minuet in the finale shows. Both seem to me to be perfectly valid readings, but Ranki has the advantage of a better coupling, though Engels and Hager win hands down on the recording, which is first class. [A: 1]

Kenneth Dommett

**MOZART: Piano Concerto in A, K488 □ Piano Concerto in C, K467**  
*Jörg Demus (f-pno) | Collegium Aureum*  
**Harmonia Mundi 065-99 628 (£4-35) (Rediffusion)**

BASF released two Mozart piano concertos recorded by the same artists in January 1975. In my review of that issue I compared it unfavourably with a previous recording, again by the same performers, which had given me great pleasure, not least because, for once, the solo part was played as intended on a fortepiano. This latest release seems to be something of a curate's egg, sharing the advantages and disadvantages of its two predecessors. The A major, for example, is decidedly a thing of parts, the balance between soloist and orchestra being far from perfect. Even though the orchestral

instruments are period pieces their sound is decidedly penetrating whereas the keyboard instrument sounds sickly, thin and wiry and unable to hold its own against the orchestral background. The acoustics of the Schloss Kirchheim are very resonant and one is aware of the emptiness of the room. Here a public performance may have helped to mop up some of the reverberation. Curiously the C major concerto sounds much happier, the soloist here being able to balance up his tone and volume much more convincingly with decidedly more musical results. I note that this performance was recorded in 1975 whereas the earlier recording was made round about 1969. Curious that so little seems to have been done to overcome these technical shortcomings. [B/C: 1]

Kenneth Dommett

**MOZART: Concerto in C for Flute and Harp, K.299\* □ MOZART arr. Galway: Concerto in G for Flute, K.622G**  
*James Galway (flt) | Marisa Robles (hrp) | LSO | Mata*  
**RCA RL-25181 (£3-99)**

James Galway's virtuosity and the public acclaim it has quite justifiably received seems to be taking him into strange areas. Why should one feel the need, I wonder, to adapt so subtle a work as Mozart's clarinet concerto to the flute, an instrument whose range and colour, however brilliantly managed, are at almost total variance with Mozart's intentions? The argument that the concerto was originally conceived in G major and for the basset-horn is scarcely a valid one for transposing the existing concerto into G and playing it on the flute. The idea, I feel sure, would not have appealed greatly to the composer, who had no great affection for the instrument, and though the performance is in itself exemplary the result is far removed from the sublimity of the concerto as most of us know and love it. The double concerto for flute and harp is another matter. This is tailor-made for the soloists, a jolly piece of no great pretensions yet of considerable achievement despite the rudimentary harp part. Marisa Robles does it complete justice and is very well balanced against Galway's beautifully poised flute playing, and both are set into the orchestral context in a very satisfactory way. Eduardo Mata is a new conductor to me but he gets a good response from the orchestra. Köchel, I should add, does not list a K.622G. [A: 1]

Kenneth Dommett

**MOZART: Variations on a Dutch Song, K24 □ Allegro in G, K312 □ Minuet in D, K355 □ Adagio in B, K540 □ Sonata in F, K533/494**  
*David Ward (pno)*  
**Meridian E77023 (£2-99) (Selecta)**

As in his earlier recital for Saga (January 1977), David Ward has chosen an interesting selection of Mozart's piano music not commonly espoused by recitalists. I note that I considered some of his playing cautious in that previous issue; so is some of this. Again it is the sonata, a composite work made up of movements composed at different times, which reflects this characteristic most. The result to my ear is somewhat stiff and inflexible. So too are the variations, Mozart's first, a charming exercise in the decoration of a pleasant little tune. I think Kilian sounds better, for his performance is not so earnest and he does not leave us with the impression that he is trying hard to convince us of the merit of the music. The remaining three pieces come off much more successfully, notably the very fine Adagio, one of the greatest of Mozart's minor piano works. If David Ward could relax a little more he would produce a Mozart recital of considerable interest, for, as his sleeve note suggests, he has a keen appreciation of the music he plays. [A: 2]

Kenneth Dommett

**MOZART: String Quartet in D, K421 □ String Quartet in C, K465, 'Dissonance'**  
*Fine Arts Quartet*  
**Saga 5464 (£2-75)**

The Fine Arts Quartet first impinged upon the British public with Saga's excellent, and cheap, set of the Bartok quartets way back in 1963. These are still available. These seem to be their first Mozart offerings though they are not new, having appeared in the catalogue of Saga's American associates at least as far back as 1964. I assume this is the same recording, since it is the same coupling. The recording shows little sign of age except perhaps for a certain lack of bite or the kind of focusing given to the sound in more modern string quartet recordings: this slightly hazy quality is not unpleasant but it is not hi-fi. The performances, to say nothing of the price, are worth the lack of the ultimate in technical excellence, for they are musically intelligent and sympa-

thetic accounts of two of Mozart's greatest quartets. The D minor is infused with a rich melancholy that seems right for it, while the tempi in the C major are carefully judged to give the utmost expression with the minimum of overstatement. All in all, these are highly commendable versions of the two works despite the very severe competition, though it must be said that those looking for the sonically superb must go elsewhere. [B: 1]

Kenneth Dommett

**MOZART: String Quartets Vol. 3 □ Quartet in B<sub>b</sub>, K159 □ Quartet in F, K168 □ Quartet in E<sub>b</sub>, K160 □ Quartet in A, K169**  
**String Quartets Vol. 4 □ Quartet in C, K170 □ Quartet in E<sub>b</sub>, K171 □ Quartet in B<sub>b</sub>, K172 □ Quartet in D, K173**  
*Dimov Quartet of Sofia*  
**Cadenza UACL 10000, UACL 10004 (£2-99 each)**  
 (United Artists)

These are the third and fourth volumes of what is clearly intended to be a full series of all the Mozart quartets. The Dimov Quartet are of Bulgarian origin, and the recordings emanate from the Bulgartone label. The sound is somewhat constricted when compared with the best Western recordings, rather like an early Supraphon, but it is not unacceptable. The balance is reasonable, not giving too much prominence to the leader despite the dominant role the first violin has in many of these quartets. As to the performances, these are very acceptable. Musically speaking these quartets are apprentice works—though what an apprentice—and lack the profound insights of the later works. All the same there are several moments of arresting invention as in all Mozart, and several slow movements of more than rococo sentiment. We are occasionally invited to consider these early quartets through the medium of romanticised performances, but the Dimov Quartet studiously reject such blandishments giving us instead alert, cool and supple interpretations which set the music down clearly and make its points without interference. Some may find their playing slightly too aloof though the clarity of expression grows on one. Those who find it unacceptable will probably respond to the now classic Quartetto Italiano versions, while those who favour something warmer still will almost certainly applaud the recent Amadeus recording of the complete series on DG. [B: 1]

Kenneth Dommett

**PAGANINI: Recital**  
*Igor Oistrakh (vln) | Natalia Zertsalova (pno)*  
**Cadenza UACL 10003 (£2-99) (United Artists)**

This 1973 Melodiya recording has eight of the Op. 1 Caprices with the piano accompaniments composed by Schumann, backed by virtuoso pieces including arrangements by Kreisler and Auer of the *Campagna* finale from the 2nd concerto, and the famous Op. 1: 24 Caprice with Variations. There is also a *Moto perpetuo*—2248 semiquavers at a rate of 13 per second, according to the sleeve. (The note is by Lionel Salter, but the cover typifies American sleeve design at its worst!) Unfortunately, Oistrakh's playing is presented in glaring closeup, with subdued piano accompaniments; the acoustic is dry. Since Oistrakh seems to use a narrow dynamic range, this is an intolerably hard recording—of use only to fellow-violinists for study-reference. It is unlikely to give musical pleasure to the general collector. [C: 1]

Christopher Breunig

**PROKOFIEV: Symphonies 1 and 7**  
*LSO | Previn*  
**HMV ASD 3556 (£4-40)**

These are very acceptable performances, but Previn is in direct competition with Weller conducting the same orchestra four years ago (SXL 6702) and neither the playing nor the interpretation has the same distinction. True, Previn avoids the slightly over-deliberate quality found in the first three movements of Weller's No. 1 ('Classical'), but instead there is occasionally something a little tired, a little flaccid, and the first violins are not always tidy. In No. 7, a work that is wearing better than some of us at first expected, Weller has the advantage of closer control and more finely-pointed playing: a starred performance, this, my overall rating being A: 1\*1. This new recording is likewise of A quality—bright, vivid and immediate—but is a trifle brash compared with the Decca sound, and there are moments when its wholeness is suspect. [A: 1]

Hugh Ottaway

**RAVEL: Gaspard de la Nuit □ Valses nobles et sentimentales □ Ma Mere l'Oye (4 hand arr.)**  
*Emanuel Ax (pno) | Yoko Nozaki (pno)*  
**RCA RL 12530 (£4-25)**



# LBC choose Stanton

For years Stanton's range of professional cartridges has been the choice of hundreds of commercial radio stations in the United States. Now in Britain more and more radio stations are picking Stanton cartridges for their accuracy, and reliability. Stations like Radio Forth, Radio Clyde, Radio Trent and London's LBC.

As LBC is primarily a news station, needtime is very limited. So when LBC broadcast music—and their standards are very high indeed—they are particularly concerned about sound quality.

LBC choose Stanton cartridges because of

their incredibly accurate reproduction qualities and because (to quote LBC's head of maintenance) "they are utterly reliable."

Stanton—the choice of professionals throughout the world—in radio stations, recording companies and record libraries, offer the home audiophile a range of professional cartridges including the 881S Stereohedron, the 681 individually calibrated series, the 680 Reference range and the 500 Broadcast series. Whatever your need, Stanton have the perfect cartridge.

**STANTON—the choice of professionals**

**United Kingdom**—Wilmex Ltd.—Compton House—New Malden, Surrey KT3 4DE—Tel. 01-949 2545

**Belgium-Luxembourg**—ETN, De Greef—Steenweg OP Aisemberg 367—1180 Brussel—Tel. 02/345 39 18  
**Denmark**—Hagen Oleesen—N 7 Strandvej 28—3050 Humlebaek—Tel. (03) 19 14 47  
**Finland**—Cy R. Vikstrom Ltd—Ulvantie 29/4—00350 Helsinki 35—Tel. 451 647  
**France**—Delta Magnetics—41, quai des Martyrs de la Resistance—78700 Conflans—Tel. 972 6981  
**Germany**—Thorens Geratwerk Lahr GmbH—Eichgarten 6—7630 Lahr—Tel. (07821) 7025  
**Greece**—Knotechniki O E—Stou'nara 47—Athens—Tel. 360 6999  
**Holland**—Audioscript BV—Nieuw—Loosdrechtsdijk 107—Loosdrecht—Tel. (02158) 3706  
**Italy**—Societa Italiana Telecomunicazioni Siemens s.p.a.—20149 Milano p. le Zavattari 12—Tel. 4388  
**Norway**—J.M. Feiring A.S.—Nis Hansens vei 7—Oslo 6—Tel. (02) 68 63 60  
**Spain**—Mabel SDAD LTDA—Ripollés, 84—Barcelona—Tel. 235 4000  
**Sweden**—ELFA—Radio & Television AB—S-17 117 Solna, Sweden—Tel. 08/730 07 00  
**Switzerland**—Thorens Franz AG—Hardstrasse 41—5430 Wettingen—Tel. 056 26 28 61

I would like to know more about the choice of professional like LBC. Please send me the Stanton catalogue and stock list if.

Name .....

Address .....

My record deck is a ..... 3 HFN/79

Wilmex Ltd., Compton House, New Malden, Surrey KT3 4DE. Tel. 01-949 2545.





There is a jewel-bright, meticulous approach to the opening of *Ondine* which many will find self-regarding in a way similar to much of Emanuel Ax's Chopin concerto, also reviewed this month. Every note of the syncopated accompaniment pattern is precisely defined, with the result that the rhythm emerges with a clarity unsurpassed on disc. If the result is hardly a shimmer of sound, it is nevertheless the product of great intelligence, finely calculated. And there's the rub, for, beside Gavrillov's incandescent account (ASD 3600, Oct. 1978) this lacks, to my ears at least, many of the risks and much of the excitement of the Russian's performance. Repeated notes in *Scarbo* are superbly accurate (are those clicking sounds the result of fingernails on ivory or of a creaking stool?) but they lack the sheer menace that Gavrillov brings to them. In Ax's hands those quiet, repeated D sharps about two-thirds of the way through *Scarbo* ripple evocatively enough, whereas with Gavrillov they smoulder eerily within the surrounding sonority. There is some particularly melting half-tone in *Valses Nobles et Sentimentales*, but even here there is something literal about those off-beat chords at the opening. By far the most successful part of this disc is the performance of *Ma Mere L'Oye* with Emanuel Ax's wife, Yoko Nozaki: it has a naturalness of expression and a charm not always to be found elsewhere—*Lalderonette* is exquisitely characterised. The recording, if a little hard, is much more truthful than that of the Chopin disc. [A/B: 2]/(Mother Goose): 1] Andrew Keener

**RAWSTHORNE: Piano Concertos 1 and 2**  
Malcolm Binns (pno) | LSO | Braithwaite  
Lyrita SRCS 101 (£4-15)

In the eight years since Rawsthorne's death, interest in his music seems to have fallen off markedly. His current representation on record is the smallest for many years, and particularly striking is the complete absence of the chamber and instrumental works. This new recording of the two piano concertos is Lyrita's second Rawsthorne disc—the other (SRCS 90) gives us the Symphonic Studies and the First Symphony—and it is to be hoped that more will follow. The Concerto No. 2 (1951) used to be played a lot and became almost as popular as the overture *Street Corner*. No. 1, recorded here in its later (1942) full orchestral version, was always valued more highly by the critics than by the public. Its slow movement, a chaconne, is an outstanding achievement, but it is hard to feel that the outer movements, for all their finely-chiseled brilliance, are really on the same level. No. 2 is likewise uneven: what used to be its most popular movement, the finale, now seems the weakest, but there is another truly poignant slow movement and much else that is rewarding. Malcolm Binns shows just the nimble-fingered blend of incisiveness and delicacy that Rawsthorne requires, but this performance of No. 2, particularly in the opening movement, is less taut than that recorded by Denis Matthews/BBC SO/Sargent (SLS 5080). The sound quality falls a little short of Lyrita's usual high standard, but it is only the occasional presence of hard, wiry piano tone that necessitates a split rating. [A/B: 1] Hugh Ottaway

**RODRIGO: Concierto Pastoral** □ *Fantasia para un Gentilhombre* (arr. Galway)  
James Galway (fl) | Philharmonia | Mata  
RCA RL25193 (£4-25)

A slating from London critics has not deterred RCA from recording Rodrigo's *Concierto Pastoral*, written for James Galway in 1978, and premiered last October. The irrepressible flautist provides another of his arrangements as coupling—look for Berg's Violin Concerto and Schubert's Trout Quintet in our April issue!—replacing guitar in *Fantasia* and scoring out other parts.

The objections to the new work are obvious enough. It is almost wholly trite, could have been penned by any professional working in the ambience of the television or film studios. The best theme (opening of the adagio) seems to come, anyway, from Rachmaninov's Symphony 2. 'Tinged with melancholy' the blind composer says of this slow movement; it can't hold a candle to that in *Concierto de Aranjuez*. Still, a lot of listeners don't mind water in their Spanish plonk . . . reminds them of their melancholy package hol. Drizzle, and watching the hotel being built.

But with Kenneth Wilkinson on hand, the engineer best able to balance a soloist in Kingsway Hall, and James Galway seemingly charmed with his new vehicle, the sounds are certainly beautiful. [A: 1 (Oié)] Christopher Breunig

**ALFONSO EL SABIO: Les Cantigas de Santa Maria**

Clemencic Consort  
Harmonia Mundi HM 977-9 (3 records) (£10-20)  
(Rediffusion)

Although, at first sight, this record might show outward signs of being suitable for a long rest on a library shelf somewhere, it turns out to be a vivid and monumental excursion into the music of 13th century Spain. Alfonso the Wise was crowned King of Castile in 1252, and among other things, surrounded himself and his court with troubadours from Spain, France and further afield. He commissioned a compilation of over 400 canticles in honour of the Virgin Mary, and many of the poems were composed either by the King himself, or by the musicians at his court.

This record includes a couple of dozen of them, and the performance of each has been varied. Some are purely instrumental, and the Arabic influence that was obviously felt in a medieval Spanish court is much in evidence. The performances are intensely musical and compelling, and although it's impossible to judge authenticity, this recording certainly sounds convincing. Some of the instrumental readings, like Cantigas 36 and 73, have infectious rhythms, while others reminded me of Moroccan music.

The accompanying booklet is oddly disorganised, and is rather secretive about recording details and choice of instruments. The instruments, as well as the translations of the original Gallician texts, are given in French. The translations are on different pages from the texts, and this necessitates much page-turning to follow the meaning of the songs. The record features someone called Chemirani playing the zarb, but no explanation is given. Those who are into Persian music will realise that the zarb is a cylindrical drum, which, incidentally, Chemirani plays with virtuosity. I was also impressed with counter-tenor Zeger Vandersteene, as well as soprano Pilar Figueras, who is no stranger to Spanish music of this period.

The recording contains some quite surprising sounds, and some beautiful music. It is a fine achievement, and the Clemencic Consort are to be congratulated on this splendid recording. [A\*: 1\*] Colin Evans

**SAINT-SAENS: Carnival of the Animals** □ *Variations on a theme of Beethoven* □ *Polonaise, Op. 77*

Philippe Entremont | Gaby Casadesus (pnos) | Chamber Ensemble | Entremont  
CBS 76735 (£4-39)

Sonically speaking, this *Carnival of the Animals* opens as it means to go on, with the two pianos set up in extreme stereophonic opposition to each other. Such an approach sounds very odd in the rushing scales of *Wild Asses*, which gives the impression that each player is oblivious of the other's presence; indeed, for a second here and there it sounds like an immensely wide, single instrument. That said, the new disc offers a highly exuberant *Carnival* with a real chamber music sense of enjoyment (this is, after all, the form in which the work should be played) and the sound quality itself is very lifelike indeed. At least, the stereo placing is uncannily accurate (the two violins in *Persons with Long Ears* answer each other from half-left and half-right), and it's often rather subtle. Try Michel Arrignon's clarinet as *The Cuckoo* which emerges discreetly 'from the heart of the Woods' indeed. Manipulation of perspective? Perhaps, but the point is nicely made, and to approach this music with the same awe as, say, a Bruckner symphony would be to miss the point. The playing itself is appropriately neat and polished, although Entremont (directing) from the left is occasionally heavier than Gaby Casadesus on the right in the final, mock-ponderous bars of *Pianists*. Especially beautiful is Yo Yo Ma's tender playing of *The Swan*, which makes me look forward to hearing his record of the Finzi Cello Concerto [see p. 723].

A similar sense of fun informs the two-piano music on Side Two (it even gets the better of the players with one or two overzealous *fortissimi*), and here the two instruments are brought closer together. The *Variations* are delightful, well-made pieces (the Theme is the Trio from Beethoven's Op. 31/3 Piano Sonata), and they require great dexterity and a sure sense of timing from the players—both of which they receive here. Particularly engaging are the mock Funeral March and a Fugue which shows that Saint-Saëns was capable of writing in such an academic form with as much sense of

humour as anybody. The rarely-heard Polonaise is really too long by half, but is so good-natured (its keychanges will floor all but the most skilled sight-readers) that this listener forgave it completely. A disc guaranteed to revive even the lowest spirits. [A: 1] Andrew Keener

**SATIE: An Entertainment**

Meriel Dickinson (m-sop) | Peter Dickinson (pno)  
Unicorn RHS 338 (£3-99)

Absolutely captivating. Meriel and Peter Dickinson have been presenting these exotic entertainments (frequently to equally exotic audiences) for some time now, and here we have a generous sample. Part of the success of these recitals, however, is their careful planning—not all of the material is of the night-club satire variety—and while Meriel Dickinson can characterise the wide-eyed, not-so-dumb blonde in *La Diva de l'Empire* along with the best of them, some of the music is of a touching, utter simplicity that floors detailed analysis. The strangely hypnotic *Salut Drapeau!*, inspired by Rosicrucian rituals, is built around a mechanical recurring accompaniment pattern, and, like so much Satie, the Fauréan, chordally-accompanied *Élégie* for lost youth remains, at the close, musically open-ended, leaving a delicate question-mark in the wrong key. Infinity is suggested in a slightly different way in the oddly static *Vexations*, a piano solo arranged over a repeating bass line. Instructed by Satie to be played 840 times by a musician who has achieved a state of 'complete silence and grave immobility', this obviously wry gesture became sadly po-faced some while ago in a complete performance by John Cage and disciples. Mercifully for us (and for the sake of vinyl economics), Peter Dickinson has been given a groove-lock for the final chord—a nice idea, although more closely-packed run-out grooves would have eliminated the nasty pitch instability we have here. A real whiff of the night-club Satie, then, recorded where appropriate in a nicely suggestive acoustic; but much else here will reveal depths and complexities not always appreciated. [A: 1] Andrew Keener

**SCHUBERT: Mass in A<sub>b</sub>, D678**

Koszul | Soffel | Jerusalem | Ahrens | South German  
Madrigal Choir, Stuttgart | Ludwigsberger Festival  
Orch | Gönnerwein

Harmonia Mundi 065-99 735 (£4-35) (Rediffusion)

The A<sub>b</sub> Mass is a work of straightforward praise and exultation in a fairly traditional guise. Much of the time it would be difficult to hazard a guess that it was the work of Schubert in particular, though in detail we find his typical modulations and an occasional melodic fingerprint. It rises to its peak in a finely conceived and effectively written *Gloria*. Although not very often recorded in the past, this newly available disc runs into straight competition with the St. John's College version conducted by George Guest which appeared at the end of 1977 (Argo ZRG 869). There is also a Nonesuch version listed which I have not heard. The present performance is inclined to add to the conventional nature of the piece by being a fairly conventional performance in a totally churchy idiom and ambience. The recording takes a fairly distant view and the soloists, chorus and orchestra tend to be an integrated area of sound. The comparative impression of the Argo recording is of much more detail brought out, the singers more separated and the performance, in general, of a livelier nature. As a choice must be made I must opt for the Argo, which does more to add character to the work; which, as so often happens, is rather hard on this German issue, which would otherwise have been perfectly recommendable as an adequate way of getting to know this very pleasant music. [A/B: 1/2] Peter Gammond

**SCHUBERT: Piano Quintet in A, D667 'Trout'**  
Alfred Brendel (pno) | Cleveland Quartet | James Van  
Demark (bass)

Philips 9500 442 (£4-50)

I sometimes wonder who has least to say about the *Trout* quintet—those who endlessly play it or those who endlessly review it. It is difficult to picture any recording company executives agreeing, at their conclaves, that they really ought to put a new version on the market when there are something like 16 versions available already. But then I suppose they must still sell; and everyone has a right to try their hand at it. Bring together highly professional musicians like Alfred Brendel and the Cleveland Quartet and something good must result; and it is always a pleasure to hear Brendel playing. I hope I am not proving jaded when I say that while there

# B&W DM2/II



## Elegance

“To my eyes the external appearance of the DM2/II conjures up but one word—elegance. Although unquestionably of modern design, it is restrained to a degree and moreover touched with attractive and interesting detail.”

Geoffrey Horn, Gramophone

## Innovators

“... one has come to look forward to new loudspeaker designs from B&W because they have become innovators in their use of materials, in their approach to design for performance, and not least in the style and appearance of their products.”

“All this high technology and design expertise would count for nought if the end result was a loudspeaker with a disappointing sound... it is the way the thing makes music that matters and the DM2/II does make music; beautifully.”

### B&W Loudspeakers



To: **B&W Loudspeakers (UK Sales) Ltd** Meadow Road Worthing West Sussex BN11 2PX  
Please send me full information about the B&W DM2/II loudspeaker system

Name \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

is obviously nothing particularly wrong with this performance and all the notes are naturally in the right places, it seems to have nothing new to offer. On the whole I found it a rather tense and unemotive performance. I have been listening to a lot of Beecham lately and was beginning to get used again to some of the grace and elegance that we used to get in the past. Why do musicians today not try to be more engaging in what they do? This is all so very earnest and hard-hitting. The really winning *Trout* for my money will be relaxed and lyrical and full of old-fashioned charm. This is a very clear and full-bodied recording but I was slightly disturbed by a hint of swishing (or sniffing) throughout; otherwise the instrumental tones are caught with full resonance. In case I am simply suffering from fish poisoning, I will grant it [A: 1].

Peter Gammond

**SCHUBERT: Piano Sonatas Vol. 3: 1 in E, D157 □ 3 in E, D459 □ 6 in e, D566 □ 14 in a, D784 □ 17 in D, D850 □ 21 in B♭, D960**

Walter Klien (pno)

Turnabout TV537121-3 (3 records) (£7-05)

Walter Klien continues his documentation of the Schubert sonatas, providing the collector with an excellent opportunity to buy them all at a reasonable price—just over £1 per sonata. Something, in the nature of a prejudice, suggests that such a body of works recorded wholesale is likely to lack in particular merit, but I have found Klien's performances consistently satisfying. Each work shows the signs of careful preparation and individual attention. An important test-piece is the fine B♭ sonata, written just two months before Schubert died, and one of the most satisfying musically. Klien gives a very fine performance of this, not at all lacking in poetry and depth yet at the same time very clearly defined and flowing with a simple and unaffected rhythm that has a pleasantly ingratiating effect. The sonata in D, with its 'Lilac Time' melody, is also well done; and the Klien approach (I can't help the pun) is very effective on the early and less ambitious sonatas. The piano tone is good; very full but also clean and clear. Anyone wanting to acquire a set of the Schubert sonatas can embark on this bargain edition without fear of purchasing an inferior product. [A: 1]

Peter Gammond

**SCHUMANN: Symphony 2 in C, Op. 61 □ Overture 'Hermann und Dorothea', Op. 136**

Philharmonia | Muti

HMV ASD3648 Ⓢ (£4-40)

Whenever Schumann symphonies come for review I seem to be left with renewed admiration for the superiority of Sawallisch's Dresden cycle, both as performances and recordings—still only available as an EMI boxed set (SLS867). Muti, whose conducting recalls in its energies, and in a kind of detachment, the work of Karajan with the original Philharmonia, is even more polished than Sawallisch in the scherzo from the second symphony; though there is a hint of having to slow for the initial woodwind entries that you do not get with the Chicago SO, under Barenboim. But I did not feel the tempo for the following *Adagio espressivo* was quite flowing enough, and in the introduction to the symphony I did not like the way Muti punches out the tympani accents, before the allegro develops.

For Schumann, a special kind of affinity has to be demonstrated; in the second symphony I don't think Karajan (with his magical oboe player) suggests this—but Barenboim does. He too is on DG; 2530 939. Muti's recording is good, though somewhat diffusely staged. You may be attracted by the unique coupling here. [A/B: 2] Christopher Breunig

**SHOSTAKOVICH: String Quartets 1 and 2**

Fitzwilliam Quartet

Oiseau-lyre DSLO 31 (£4-50)

This completes the Fitzwilliam cycle of Shostakovich string quartets. Among the 15 performances there are many that are very fine indeed, including some that might be regarded as exemplary. It is an impressive achievement, and one can only regret—deplorable is hardly too strong—the loss of quality that arises from the recording style. An exaggerated sound image with inflated dynamics both coarsens the instrumental tone and browbeats the listener. There are some glaring examples in the Quartet No. 2: in the exposition of the first movement there is no distinction between *f* and *ff*, unless the latter brings a very slight increase in searing intensity, and at the beginning of the third movement the cello solo, marked *p espressivo*, seems almost willfully coarsened. However, this is still a commanding account of No. 2, and the performance

can be recommended. That of No. 1 seems rather less successful, for it does not quite find the natural ease and flow of the first and third movements. My choice here would be the version by the Borodin Quartet (SLS 879), but that is available only in the boxed set. The Gabrieli (SDD 453) is also very good. [B: 1]

Hugh Ottaway

**SIBELIUS: Symphony 3 in C, Op. 52\* □ Pelléas et Mélisande—incidental music, Op. 46**

Bournemouth SO | Berglund

HMV ASD3629 (£4-40)\* Ⓢ Dec '78

When EMI issued the box of Sibelius symphonies (including *Kullervo*) conducted by Berglund, the Third was the only work not previously available. For the separate reissue a fresh stereo transfer replaces the original Ⓢ; the sound is both weighty and open. Our first reviewer found the performance tough and authoritative, with Berglund communicating the 'inevitability' of the score to great effect. But I am afraid I thought it dogged and heavy in direction, not at all an attractive version. There is, of course, Colin Davis' superlative reading with the Boston SO, on Philips 9500 142—and surely that is what this music is about?

But if you want the complete concert suite from *Pelléas*, Berglund's is the only recording, since Beecham (SXL30197) omitted movement 2a, 'By the Sea'—a brief but chilling evocation. The two interpretative approaches could hardly be more contrasted, Beecham's bristling manner now perhaps striking some listeners as excessively personal. [A: 1/3]

Christopher Breunig

**STEPAN: Piano Sonatas in A; G; B**

Rudolf Bernalik (pno)

Supraphon 1 11 1836 (£2-99) (Rediffusion)

Josef Antonin Stepan (1728-1797)—William S. Newman spells it Steffan—is another of the myriad Bohemian composers active in the latter half of the 18th century whose work is virtually unknown. Stepan was a pupil of Wagenseil and seems to have been as prolific as many of his contemporaries, with no fewer than 80 compositions for the piano to his credit as well as symphonies, concertos and chamber music. There are about 26 keyboard sonatas of which the Sonata in A is reputedly the 18th, the Sonata in B the 20th and that in G the 26th. They all apparently belong to about 1790-91 and are consequently later than all of Mozart's sonatas and most of Haydn's. The style is an interesting mixture of rococo figuration and the profounder manner of the mature Mozart, even hinting at early Beethoven. The most serious of the three is the unpublished G major work which consists of four movements beginning with an *Andante maestoso* subtitled 'Procession to Mariazell'. The lively finale to the A major bears the curious inscription 'Inglese'. These seem to be the only examples of Stepan's music available to us on record and if they are typical of his general output it would be interesting to hear more, as the music would not disgrace any of the better-known masters. Bernalik has a sensitive touch with perhaps a shade more pedal than is absolutely necessary and he is very well recorded. This *Musica Antiqua Bohemica* series has become a valuable source of information about elusive but worthwhile talents. [A: 1]

Kenneth Dommelt

**TCHAIKOVSKY: Symphony 5 in e, Op. 64**

LPO | Celibidache

Decca ECM 833 Ⓢ (£2-35)

Sergiu Celibidache is an astonishing Rumanian, now 66—immediate-postwar conductor of the Berlin Philharmonic—whose recent visits have transformed the LSO, and London audiences. Insistent upon many preparatory rehearsals, outspoken, Celibidache is opposed to recordings. Anyone who has listened to him will understand this—I would go so far as to say that this LP transfer, from scratchy undated sources, obtrusively joined, will hardly be musically intelligible to anyone who has not seen him. (The performance was listed as a Teldec import last summer.)

Music is something that happens once; sounds that are shaped in an acoustic environment die—they are not for perpetuity. That is what makes a musical experience unique; recordings debase that transforming experience. But Celibidache, for all his principles, is a most sensual conductor in the concert-hall (his *La Mer* was stunningly evocative, last season), expanding the rhythms, opening up textures, pointing details, interpreting freely; by all this he increases our awareness of scores—like all commanding artists, expands our consciousness in a general way.

The traits of his shaping of music are evident here. His timings are expansive: 7' 45" longer than

Mravinsky's, and the changing pulse suggests the period of Furtwängler, or Mengelberg. To many it will seem impossibly stop-go. There is a dream-like consistency about the *andante* cantabile—partly to do with the distant, historic sound-quality, perhaps. Not that that can obscure Celibidache's obvious mastery and warmth of orchestral colour, and discipline, especially in the finale.

This, then, is a rather special release. How many admirers will be principled enough to resist it, though? [H: H]

Christopher Breunig

**TCHAIKOVSKY: Violin Concerto in D, Op. 35 □ Meditation, Op. 42**

Isaac Stern (vln) | National SO | Rostropovich

CBS 76725 (£4-39)

No matter how many times I played this record, I never felt happy about it. It starts promisingly, with a clean open quality, but the first crescendo takes on a harshness that is characteristic: above a certain dynamic level the sound is tightly constricted: and the violin always seems 'apart' from the orchestra. Everything is balanced to Stern's advantage—if that is the word—only in the octave passage in the finale around 190 is he momentarily 'lost', and of course in the big *crescendi* in the first movement, especially, it is unreal to hear with such separateness the soloist's every semiquaver, every hint of a slide. Added to this is the fact that Stern's 'Masterworks' recordings have a huskiness to the tonal quality; in the old Philadelphia recording of the Tchaikovsky concerto, for all its tape-hiss, there was an engaging sweetness to the violin sound that one misses here.

And interpretatively: Stern's manner is now extremely deliberate, and although Rostropovich seems to redress the balance in the last movement with speeds Stern could hardly deviate from, the first movement suffers from the disjunct effect of solo entries that I find excessively self-conscious. Of course, Stern is a very 'powerful' musician: you take notice of his playing, but the flow of the music now suffers. (Amazingly both versions of the first-movement *cadenza* run for 2' 28" yet the 1960 one seems far more agile.)

The wind players of the Washington orchestra are not very eloquent, but generally Rostropovich has prepared the accompaniment admirably. There is not as much scope for illumination here as in the symphonies (EMI), and the producer exaggerates his *pesante* *decrecendo* at the 'Poco meno mosso' markings in the last movement. I also noted an odd change in timbre as the flute begins the rising semiquaver figure 3 after the first-movement *cadenza*, where the part is brought forward. The filler is Glazunov's orchestration of the discarded slow movement. A difficult disc to evaluate. [B/C: 1]

Christopher Breunig

**TELEMANN: Wassermusik**

Prague CO | Björlin

HMV 'Musica Prae Classica' ASD 3631 Ⓢ (£4-40)

Telemann was one of the most prolific composers of an age noted for writers of fertile imagination, or at least a system of patronage which placed a high value on abundant production. This recording contains three of his orchestral suites, a form which he used frequently, and they are good illustrations of the sound craftsmanship for which Telemann was so admired by his contemporaries, including Bach and Handel. Little is known about the origins of any of the works except the first, subtitled 'Hamburger Ebb und Fluss', which was first performed as part of the centenary celebrations of the Admiralty College in Hamburg, and has descriptive nautical subtitles for most of its dance movements. Particularly engaging is the minuet 'The pleasant Zephyr', with its flute descant. The orchestral sound is firm, and intonation good throughout. *Gasconade* in the second suite, with its rapid staccato passages, gives the orchestra a chance to show off its technical polish. Some gestures are made in the direction of authenticity, particularly in the use of double dotting, although there is in general far too little ornamentation, except in the second minuet of the second suite. *Cadential* trills even are not always observed, and rather too large a string section is used, with the inevitable result that compensations have had to be made through microphone placement. [A: 2]

Iain Fenlon

**TELEMANN MUSIC FOR WIND: Sonata in E♭ for oboe, obbligato hpd and continuo □ Sonata in f for bassoon and continuo □ Sonata in c for flute and continuo □ Quartet in d (Musique de Table II)**

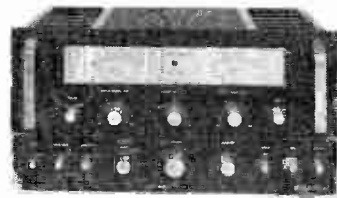
Samuel Baron (fl) | Ronald Roseman (obo) | Arthur

# serendipity in surrey



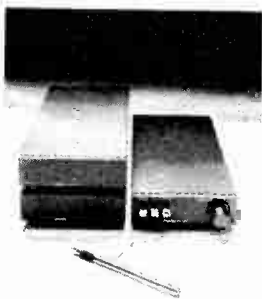
## ACOUSTATS

Full range electrostatic speakers from the USA featuring direct coupling from the in-built amplifiers to the electrostatic plates highly recommended for those wishing to recreate the concert hall listening experience, has stupendous ambience and detail with commendable bass reproduction which is usually lacking in electrostatics. Capable of high sound levels, but requires the right equipment to drive them. Let us show you what they can do. Home demonstrations are a must for these units.



## BEARD AUDIO SYSTEMS

At last! A high quality matching value pre and power amplifier that we can endorse completely. The P500 pre amp has a sensible array of controls with facilities for 2 tape decks while the P500 power amp is capable of driving the most intransigent load without perspiring. The P500 is especially recommended with the acoustat electrostatic loudspeakers.



## MERIDIAN

"Why should I pay £330 for a dinky little amplifier that's got only 35 lousy watts per channel, no filters, no headphones jack, and not even an on-off light. Thus might the acoustically unsophisticated rightly react to the spartan simplicity of the Boothroyd-Stewart Meridian amplifiers. Any such reservations should quickly be dispelled after a short listening spell. It is especially adept at demolishing the pretensions of many highly regarded (and more expensive) muscular oriental amplifiers. 50 and 100 watt versions are also available.



## REVOX

We were standing tall when the representative of Baugh pinned our "Revox B dealership" badge on our heaving bosom. After all, they have been acknowledged as the manufacturers of the finest tape deck ever. Now they are introducing a complete product range that seeks to achieve

the same status for a digital fm tuner (B760) and integrated amplifier (B750) and a radial-tracking turntable that must leave the Japanese gasping with disbelief and envy. 'Nuff said, just hear it all at GHF and draw your own conclusions.



## SOUND LEASE

The Soundlease TVA-1 is the first product from an aspiring pair of designers, Messrs Austen and Michaelson who are convinced that value technology is enjoying a renaissance of popularity. It is of meticulous construction and indeed its only

drawback is its hernia-inducing weight of 5 stone 10. Nominally 50 watts per channel, it is an ideal companion to the Paragon preamplifier which allows you to listen to the music once more and not the equipment.



## PARAGON

Paragon is not too well known in this country since we are the only shop bringing them in from the USA. We don't advertise them heavily since they are in such scarcity, even in the States. If your hearing hasn't been permanently impaired and you can still appreciate the sound of a live orchestra, we are sure you will never want to return to the screeching, edgy, constructed, sterile sound that emanates from transistor phono preamps. Strong stuff, but we believe a listen will convince you. The Paragon system preamp is £450 - while the model 12A is £895.00.

We also recommend an audition of the following high-quality equipment: Linn Sondek LP12 turntable (alas, nothing seems to approach it for quality), ADC carbon fibre arms and Grace G707 arms, cartridges by ADC, AKG, Decca, Grado, Sonus, and Stanton. For the impoverished but discriminating music lover we have the Dual CS502 turntable and for the extremely patient, the Rega Plannar II & III (up to a years wait). We also have the commendable A & R A60 amplifier, the Enigma variations, and Quad 33/405 amplifiers. Also recommended are the Technics and Nakamichi amps and tuners. Among speakers one should hear the Dahlquist, Harbeth, Gale, B & W, and the highly recommended Tangent range. We also recommend the new LQZ speaker cables and Gold-ens signal leads for an improvement in your present equipment.

# GUILDFORD HI-FI

270 HIGH ST, GUILDFORD, SURREY Tel. 71534

Weisberg (bsn) | Timothy Eddy (vlc) | Edward Brewer (hpd)

**Nonesuch H-71352 (£2-49) (WEA)**

Four attractive works, well played on modern instruments, well documented (notes by Alexander Blachly, who has directed some excellent choral records himself for Nonesuch), and well recorded, if not with great immediacy or spread. Possibly all of the solo sonatas would have benefited from a stronger characterisation: as so often in performances of early eighteenth-century music, the Italianate *moto perpetuo* the brisk contrapuntal *alla breve*, the sensuous French *style tendre* and the emotional *affettuoso* are hinted at, yet never quite captured; can it be that good professional performers cannot recognise the differences? Sometimes it sounds as if that is so. Also, I was not strongly convinced by the way in which the final quartet has been disposed; obviously, the aim had been to use the combined skills of all the performers, but Telemann expected two similar instruments (flutes) to accompany either a recorder or a bassoon two octaves lower, with continuo. Even Samuel Baron's controlled, but slightly breathy, tone is hardly right, the oboe has difficulty in playing softly with him in the lowish second-flute range, and the dialogues sound rather curious with this instrumentation.

These, however, are quibbles. Modern wind-players will here find some excellent music, played with much perception and finish. [A/B: 2]

Stephen Daw

**TELEMANN: Suite in A for recorder, strings and continuo** □ **VIVALDI: Concerti F. I. Nos 12 & 100**  
Isaac Stern (vln) | Jean-Pierre Rampal (fl) | Jerusalem Music Center CO  
CBS 76798 (£4-39)

In their original form the Vivaldi Concertos were scored for two violins. It should also be mentioned that the Telemann Suite in A Minor was written for the recorder rather than the modern concert flute. However, when the playing is as excellent as that offered here, one can perhaps overlook these small interpretative differences. Incidentally, the Telemann Suite is in fact in A minor save for the short *Passepied 2* immediately preceding the concluding *Polonaise*. The author of the sleeve note is mistaken when he states that the work is entirely in A. Isaac Stern and Jean-Pierre Rampal form a perfectly matched duo; performances are both rhythmic and vivacious with plenty of fire and enthusiasm. The flute in particular is played with such skill and sensitivity that the casual listener is completely oblivious of the formidable technical difficulties which must be surmounted if an arrangement of this kind is to sound natural and unforced.

Returning to the Suite in A (side 2), this work has long been popular with recorder and flute players alike, who tend to use it as a vehicle to display their virtuosity. Jean-Pierre Rampal's interpretation is commendable for its beautifully ornamented version of the *Air A l'Italian* and the rumbustious and spirited rendition of the *Rejouissance* and final *Polonaise*. Accompaniments provided by the Jerusalem Music Center Chamber Orchestra are crisp and polished.

The recording is well engineered and nicely balanced with a good sense of stereo perspective. The one unfortunate aspect of the production lies in the fact that the harpsichord is not sufficiently audible. Available alternative versions of the Suite in A are those under Harnoncourt on Telefunken AW6.41225, Janigro on Harmonia Mundi HM 1780, and with David Munrow (recorder)/ASM/Marriner, on HMV ASD 3028. [A: 1] Victor McAloon

**VILLA-LOBOS: Twelve Etudes for Guitar** □  
**Suite Populaire Brésilienne**  
Julian Bream (gtr)  
RCA RL12499 (£3-99)

In 1976, Julian Bream was awarded the Villa-Lobos Gold Medal. This record should win him another, for it is certainly among the finest he has made.

The *Twelve Etudes* are pieces of horrifying technical difficulty, and I think that J. B. will be less than totally satisfied with some aspects of his rendering of the first. The points are tiny and can be ignored; after that one can sit back, stunned with admiration. One would need to be a first-line performer even to achieve all the notes of these pieces; but the great thing about Julian Bream is that, unlike some players, he never stops there. Take, for example, the eleventh *étude*, which is the most familiar of them all, and figures in concert recitals. No one I have heard executes it like Bream, who has always grasped the work as a whole before he attempts it, and

relates each part to the rest so that one hears a piece and not a series of related phrases.

This aspect of Bream's art is brought out, perhaps, even more clearly in the *Suite Populaire*, which is earlier than the *Etudes* and much less demanding technically; hence it is heard much more often. But listen to Bream: that infinitely subtle use of *rubato*, dynamic and tone-colour, which transforms these pieces into something different in degree from any equally—perhaps more—technically accomplished version. Listening to this record, the conviction grows that Julian Bream is not only the greatest living guitarist, but one of the great performing artists of our time.

The RCA engineers do not fail him: this is also a splendid recording. It ought not to be difficult to make a good recording of a solo instrument, but it is not always done. It is, here: clean, subtle, and smoothly bloomed. What a lovely, satisfying record this is! [A\*: 1\*] Peter Turner

**VIVALDI: Complete Sacred Music for two choirs and orchestras**  
Marshall | Murray | Collins | Rolfe Johnson | Holl | John Aldis Choir | Jeffery Tate, Alastair Ross (org) | ECO | Negri  
Philips 6700 116 (2 recs) (£8-99)

This set, comprising the *Dixit Dominus* in D RV594, the Introduction in G to the *Dixit* RV636, *Kyrie* RV587, the long setting of *Beatus Vir* RV597, *Lauda Jerusalem* RV609, and *Domine in adiuuandum me* first appeared as part of Volume 10 of Philips' Vivaldi Edition last year. The recordings reviewed here are new, and Philips have decided to release them on their own. A wise decision, for these works, with their often bold changes (the first two chords in the *Kyrie* are G minor and E major), lyrical solo passages, accompaniments which, while sometimes four-square, are never uninteresting, deserve to be much more widely known, and contain much beautiful vocal writing.

Negri, a long-time Vivaldi enthusiast, draws forth lyrical playing from the ECO (on modern instruments and disciplined singing from the choirs, with excellent control of dynamics. The soloists are also excellent. Soprano Margaret Marshall, in particular, is superb with a clear accurate tone—just listen to her phrasing in the introduction to the *Dixit* or the 'Gloria patri' of the *Domine*. She also blends well with the mezzo-soprano Ann Murray, especially in the 'Gloria et divitiae' of the *Beatus*. This piece, incidentally, contains an antiphon, a repeated passage between the movements which, while initially interesting, soon loses its charm—a rare case of misjudgement from the master? The three lower voices also work well together, as in the 'In memoria' from the *Beatus*, where they form a rich dark ensemble.

The recording is rather over-precise but has a rich bloom and is extremely naturally balanced with no spotlighting. A superb set. [A\*/A: 1\*] John Atkinson

**VIVALDI: Violin Concertos Op. 4 Nos. 3 & 8, Op. 12 No. 1** □ **Concerto for 3 Violins P.278**  
Leonid Kogan, Pavel Kogan, Elisaveta Gilels (vlns) | Solists Ensemble of Moscow RSO  
Cadenza UACL 10001 (£2-99) (United Artists)

Having regard for the fact that this recording was made by Melodiya (USSR) in 1971, it sounds surprisingly fresh and lifelike. The performances attain a pleasing level of acceptability and string tone is always secure. Tempi, however, are not always ideal and in particular the first movement of Op. 12 No. 1 seems a little indecisive, thus conveying the impression of some slight rhythmic uncertainty at solo entries.

As with most recordings dating from the first half of this decade there is no pretence at creating anything approaching the original sounds of the baroque period. Nevertheless, the record represents a fairly tasteful introduction to Vivaldi's music. It is well recorded and recommendable. [B: 2] Victor McAloon

**WAGNER: Wesendonk-Lieder** □ 'Dich, teure Halle'; 'Allmächtige Jungfrau' (Tannhäuser) □ 'Mild und leise' (Tristan und Isolde) □ 'Jo-ho hoe!' (Der Fliegende Holländer)  
Sylvia Sass (sop) | The Hungarian State Opera orch. and female chorus | Korodi  
Hungaroton SLXP 11940 (£3-40) (Selecta)

Sylvia Sass won very high praise for her first recital disc eighteen months ago (Verdi and Puccini, on Decca); indeed, since she appeared with the Hungarian State Opera five years ago, when she was only 21, it has become increasingly clear that here was a brilliant and exciting singer, excellently equipped. Her achievement is already remarkable, and

provided she bides her time before assuming in the opera-house some of the roles she has sung excerpts from on disc, she should have a golden future. She reveals here a natural feeling for the Wagner idiom, with firm, unfussy, often outstandingly beautiful singing. Her *mezza voce* in 'Elizabeth's Prayer' is as expressive and rapt as her apostrophe to the Hall of Song is thrilling. The 'Liebestod' is unusually clean; there is an edgy quality here and elsewhere in one or two high notes, though the warmth and sustained power are very impressive. Senta's ballad loses a little impact through the backward placing of the female chorus, though it too is very enjoyable. The *Wesendonk-Lieder* have also given me much pleasure—the delicacy of much of the singing, the sense of power where it is required, more than compensate for some lack of depth in characterisation. Miss Sass is well supported by the Hungarian State Opera Orchestra under Andras Korodi; the recorded quality is good apart from the occasional flaw in balance, and some surface noise. An insert contains texts in German and Hungarian. [B: 1] Peter Branscombe

**WUORINEN: Percussion Symphony**  
New Jersey Percussion Ensemble | Wuorinen  
Nonesuch H-71353 (£2-49) (WEA)

Charles Wuorinen (b. 1938), like other 20th Century composers, is fascinated by the rise of percussion to full equality with other Western instruments while retaining its ancient and non-European flavours. For him this implies the use of percussion as a primary melodic, harmonic and structural force in large-scale works. Hence this *Percussion Symphony* (1976). It is in three large movements (fast-slow-fast) separated by two *Entr'acte* (percussion paraphrases of Dufay's *Vergine bella*; the first using only pitched percussion, the second adding non-pitched instruments). Movement I raises the shades of an earlier percussion masterpiece, Varese's *Ionisation* (1931), and, like it, displays great variety and formal drive. Movement II is the work's longest. Like the preceding *Entr'acte* I, it is lyrical in mood, but expands the *Entr'acte*'s simple dionatonicism into a rich, dense web of sound. *Entr'acte* II reflects this greater complexity and the final Movement III (with Messiaen-like span and sound) combines the rich and the reflective to end serenely.

In his sleeve-note the composer pays tribute to the New Jersey Percussion Ensemble and their director Raymond DesRoche (the work's dedicatee) for their skill and dedication. That tribute is warmly echoed—the performance is remarkable both for its musicianship and its precision, and the recording allows both qualities to radiate. [A\*: 1\*] Benedict Sarnaker

## Collections

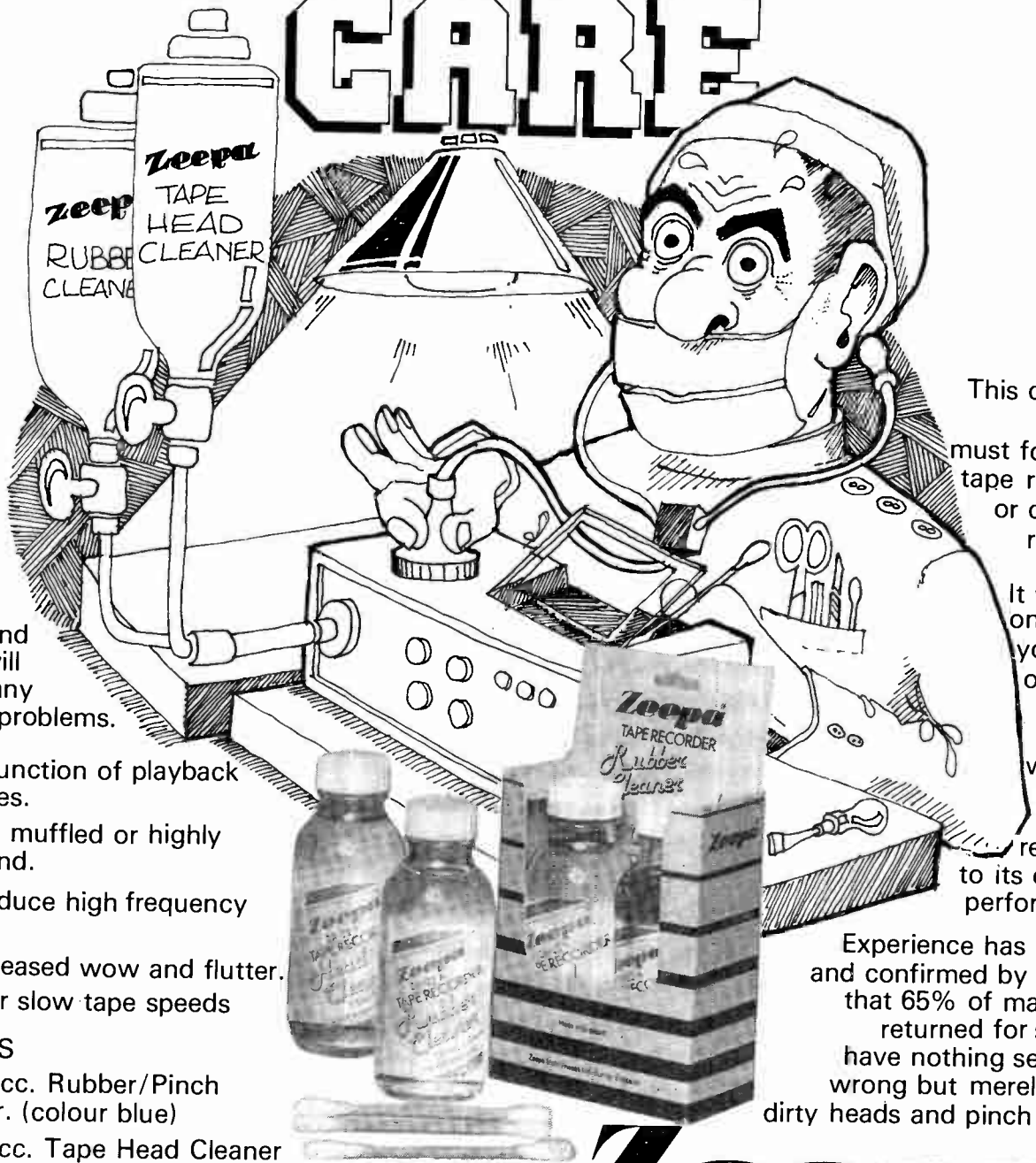
### Vocal

**AMERICAN COLLECTION**  
**HEISS: Songs of Nature\*** / **LANSKY: Cross-works** / **SHIFRIN: In Eius Memoriam**  
\*D'Anna Fortunato (m-sop) | Boston Musica Viva | Pittman

**Nonesuch H-71351 (£2-49) (WEA)**

John Heiss (b. 1938) chose five poems by 19th Century American poets for his *Songs of Nature* (1965-74). Written after the death of one of his parents, it is an emotive grouping of metaphysical poems treated in a heavily expressive way. The music sounds disparate and derivative and the work does not cohere, but individual songs, with their shadowing, Ivesian tread, are impressive. Seymour Shifrin (b. 1926) wrote *In Eius Memoriam* in 1968 after the death of a friend. Within its brief span it concentrates three large sections, each transforming itself into the next. It is effective and shows high craftsmanship. Paul Lansky's *Crossworks* (1974-75) is the most interesting of these three encounters with the musical past. It is a compositional unpicking of the start of the second of Schoenberg's *Five Orchestral Pieces* Op. 16 (the one originally titled *Vergangenheit*). This leads him to a hybrid mixture of Schoenberg and Webern—lacking the former's density of texture and the latter's hyperconcentration. This none-too-hopeful formula works quite well in this piece, with strong contrasts and attractive areas. The performance is good—if leaning strongly

# HI-FI INTENSIVE CARE



Very few people know that a dirty pinch roller and tape heads will cause too many unnecessary problems.

1. Total malfunction of playback record facilities.
2. Produce a muffled or highly distorted sound.
3. Greatly reduce high frequency response.
4. Vastly increased wow and flutter.
5. Increase or slow tape speeds

#### CONTAINS

- 1 bottle of 55cc. Rubber/Pinch Roller Cleaner. (colour blue)
- 1 bottle of 55cc. Tape Head Cleaner

This cleaning Kit is a must for every tape recorder or cassette recorder owner, It will not only save you a lot of repair bills but will also keep your recorder to its original performance.

Experience has told us and confirmed by others, that 65% of machines returned for service have nothing seriously wrong but merely have dirty heads and pinch rollers.

**OPERATE REGULARLY WITH Zeepa®**

Zeepa Instruments Ltd. 15 Richmond Grove, Surbiton, Surrey, England. Tel: 01-399 0966 Telex: 929679

towards efficiency rather than musicianship. [A: 2]  
Benedict Sarnaker

## HUNGARIAN PSALMS Debreceen College Cantus / Berkési Hungaroton SLPX 11973 (£3-40) (Selecta)

The Debreceen College is reputed to be the most illustrious Reformed Church in Hungary and the history of its choir or Cantus goes back over two hundred years. It owes its origin to the mathematician György Maróthi (1715-44) and the first five settings are arrangements by him of compositions by the 16th century Frenchman Claude Goudimel. All the rest are by contemporary Hungarian composers, the oldest being Kodaly, four of whose psalm settings complete the first side. The composers represented on side two, Lajos Vass (b. 1927), Zoltan Gardonyi (b. 1906), Sándor Szokolay (b. 1931), Jenő Adam (b. 1896) and Lajos Bardos (b. 1899) all apparently continue the Kodaly tradition in that their work is generally conservative in idiom and immediately accessible. The dates of composition of the pieces are not given, but one must assume that some at least are recent. As far as one can tell from listening they are very well performed, and the singing throughout is of a high order and is very well recorded. The organ is used in two items, otherwise the music is a *capella* throughout. The Debreceen College Chapel gives a spacious sound, warmly resonant. Those who relish the familiar will be interested to hear that Szokolay's setting of Psalm 134 has more than a family likeness to the favourite hymn *All People That On Earth Do Dwell*. The sleeve, incidentally, says that these are all settings of 'poems by Albert Molnar'. I don't quite know what this means unless Molnar is merely responsible for the Hungarian versions of the psalm texts. As no texts are given one assumes that this is the answer. An attractive collection well worth sampling. [A: 1] Kenneth Dommett

## IN QUIRES AND PLACES . . . No. 28

Christopher Boodle (org) / Belfast Cathedral Choir / Gregory  
Abbey LPB 802 (£3-49) (Selecta)

This is a large choir. In a sleeve-note, Richard Baker describes it as mixed; but if women were included for these recordings, the sound remains very much that of a traditional Anglican choir. The programme is varied—perhaps too much so. It begins with Parry's 'I was glad' and continues through Byrd and Tallis to Stanford and Holst by way of Bryan Kelly, and ends with 'The Londonderry Air' with religious words.

There is some nice singing here, the trebles being excellent; but one gets the feeling that the contemporary dilemma with regard to the direction the liturgy should take reflects upon the style which the choir seeks to create. There is, for example, the *Nunc Dimittis* and *Magnificat* by Bryan Kelly, which employs rather feeble, jazzy rhythms which seem to me wholly inappropriate though the sleeve-note assures us that they make this 'one of the most popular of settings'. Eclecticism, I feel, can be carried to the point where it indicates indecision.

The recording is a very nice one, though on my copy several treble *fortissimi* were a little rough on both pickups I tried. This may be better than what sounds like the obvious interventions of limiters in the Liverpool recording. The general sense of devotion and enthusiasm is very impressive. The proceeds go to the Cathedral Completion Fund. [B: 2] Peter Turner

## THE TALLIS SINGERS English Sacred Music of the 16th Century The Tallis Singers

Cadenza UAEL 10005 (£2-99) (United Artists)

On the heels of the revival of old instruments comes the conviction that the authentic performance of old vocal music also requires its special tone-colour. The Tallis Singers sound distinctively different from either a normal mixed-voice choir or a cathedral-style choir of men and boys. The sopranos who replace the original boy trebles cultivate a finely spun and vibrato-less sound, and the males are stated also to be chosen for a vibrato-less quality. (Numbers are not stated, but I doubt if the total exceeds 20.) Unerringly directed by Peter Phillips, who also supervises the editions used, they show a splendid and thoroughly artistic musicianship.

The repertoire of this record ends with the fairly familiar English church style of Byrd ('O, make thy servant Elizabeth') and Tallis ('O Lord, grant the queen a long life') but goes back to Robert Wylkynson and John Taverner near the beginning of the 16th century. Those who wish to develop an acquaintance with this music will be annoyed that dates are

not properly given, nor a reference to available editions.

Balance and sound-quality of this recording (made in the church of All Hallows, Hampstead) are exemplary. Mr. Phillips' evident belief that this music should be transposed upward from written pitch, so that the sopranos regularly hit high B flat, makes for an occasional predominance of the soprano line so that the full, intricate polyphony of the lower voices is not always clear. (A test is to listen to the Wylkynson *Salve Regina*, in nine 'real' parts, while following the music from the *Musica Britannica* edition of the Eton Choirbook.) But that is a marginal criticism, not sufficient to detract from my gratitude for an admirable record. [A: 1] Arthur Jacobs

## MAGGIE TEYTE: SONG RECITAL

19 songs  
Maggie Teyte (sop) / Rita Mackay (pno) / Unknown orchestra and conductor  
Decca ECM 830 (£3-25)

The first side of this record consists of dubbings from Decca 78 rpm records made in the 1930s. No details are given of the accompanying artists. The second side is given up to a transcription of a broadcast which Dame Maggie made in 1937, and here the accompanist is Rita Mackay. On both sides the sound quality is quite acceptable considering the dates of the original recordings.

Maggie Teyte was inimitable in her singing of French songs and her versions of Fauré's 'Après un rêve' and Hahn's 'Si mes vers avaient des ailes' are models of their kind. When it comes to light opera like 'Tu n'est pas beau, tu n'est pas riche . . . Je t'adore brigand' from *La Perichole* by Offenbach she introduces a rather more voluptuous quality into her voice and sings 'Je t'adore brigand' in an unforgettable manner. The reverse side shows that she was by no means unfamiliar with the traditions of German lieder and she concludes her recital with some fine examples of English songs. Altogether this is a 'must' for vocal enthusiasts. [H: 1] John Freestone

## THANKSGIVING AT LIVERPOOL CATHEDRAL

Liverpool Cathedral Choir / Diocesan Choirs / Ian Tracey (asst. org) / Fanfare Section of Merseyside Police Band / Royal Northern College of Music Brass Ensemble / Rawsthorne  
Abbey LPB 801 (£3-49) (Selecta)

The first side of this record is devoted to the Thanksgiving Service for the completion of the Cathedral, complete with fanfares and 'God Save the Queen'. The second was recorded at a Communion Service held a few days later. The authorities opted for traditional language (thank God) for the dedication, but the Communion is a rather uninteresting Series Three by Noel Rawsthorne. We thus address God as 'thou' on side 1 and 'you' on side 2: a neat summary of a liturgical mess.

One can understand those involved in or present at these occasions wishing ardently to possess so complete a record of a historic event; but from a more general, musical point of view one cannot say that there are great riches here. The principal work during the dedication is a specially-commissioned piece by John Madden, called 'A Song of Creation', which uses special antiphonal effects from the ends of the Cathedral which are not rendered by ordinary stereo. Considering the problems of recording a huge choir, a vast congregation, two organs and brass ensembles, Abbey engineers have done well: there are some inspiring sounds on this disc. Some of the same problems arose also for the conductors, and they, too, did well. But, as with all souvenir records, either you need it or you don't. [B: 2] Peter Turner

## Instrumental

### BASSOON SERENADE

Laurence Perkins (bsn) / Michael Hancock (pno)  
Musica Mancunia MM1501 (£2-95) (Wynd-Up Records, Greengate Lane, Prestwich, Manchester)

Though some of the great composers wrote concertos and other pieces for solo bassoon, we tend to think of that instrument in purely orchestral terms, even forgetting what, for example, Beethoven did for it in his chamber music: things vastly removed from its role as 'the clown of the orchestra'. Laurence Perkins is determined to rescue his instrument from these vestiges of disregard, and to establish it as a recognised soloist.

More power to him; but I cannot feel that this recital is going to do the trick. Was it, for example, a good idea to begin with 'The Bear with a Sore

Head', by Fucik, of 'Entry of the Gladiators' fame? All the music here, though tuneful enough and often charming, with some virtuoso passages, is distinctly reminiscent of the Palm Court; and while I think he was right not to produce a collection of fireworks, it would have been better to include some more strenuous music. The expressive qualities of the instrument are indeed well demonstrated, but the whole recital is on a level which permits the attention to wander.

Nor is the rehabilitation process aided by the quality of the recording, which lacks presence and sparkle in both instruments, and is limited in frequency-range: it is neither unpleasant nor distorted—just rather dull. I am sure that I should have been more enthusiastic about the whole thing had the sound had that realistic bloom which ought to be possible with a duo: there are many better recordings of both piano and bassoon than this one. Laurence Perkins is a fine performer with a rising reputation, and I wish this recital could have been more gripping. [B: 2] Peter Turner

## DIE 12 CELLISTEN DER BERLINER

PHILHARMONIKER, Vol. 1  
EDER: Ritmica, Op. 59: 1 / VILLA-LOBOS:  
Bachianas Brasileiras No. 1 / XENAKIS:  
Windungen / & arrangements of Handy, McCartney & Trad.

12 Cellists of the BPO  
Telefunken AW6.42339 (£4-20) (Selecta)

This is a difficult record to assess. It first came to me as material for the 'Light' column, but it is certainly not light in spite of its appropriation of three short items of popular material. Such a consort of inspirations first strikes the ear with pleasant novelty; eventually it could begin to get a little insistent, if it were not for the ensemble's constant aim for variety. This variety is achieved by managing to make the cello appear unlike a cello—very high register playing, for one thing, that makes it seem as though violins are present. In fact, it sounds remarkably like a string orchestra a lot of the time. As there was only one work for 12 cellos in existence (by Julius Klengel) the ensemble had to adopt material or get new material written. The Villa-Lobos was an obvious starter as this was written for a cello orchestra and was easily adapted. It is a beautiful work, rarely heard for obvious reasons, and is certainly the real highspot of this disc. It is magnificently played, and it is good to have a version available. The Xenakis and Eder works were both written for the ensemble and they naturally go out of their way to achieve novelty. Both are 20th century works but in a Stravinskian style rather than twelve-tonal. They make the instruments sound like a hive of bees a storm, machinery; yet still essentially cellos. It is interesting, disturbing music which fascinates rather than pleases. A nice balance is restored and created by the three light items at the end of the concert; a rousing *Gospel Train*; a really beautiful arrangement of *Yesterday*; a richly romantic view of *St. Louis Blues*. I believe these have already achieved some popularity via TV in Germany.

This is a remarkable, unusual and fascinating record. The sound is full-blooded but I feel that the engineers could still have sorted out the problems better than they have, and gone for real clarity of texture. [A: 1\*1] Peter Gammond

## FULL STOPS

Music by Albinoni-Glazotto, Lemmens, Wagner, Widor, Wills  
Arthur Wills (org)  
Meridian E77014 (£2-99) (Selecta)

This organ 'pops' record includes Glazotto's organ version of the Albinoni *Adagio*, Widor's *Marche Pontificale*, Lemmens' *Storm* (most of which is very quiet, incidentally), *The Ride of the Valkyries* and Wills' own variations on *Amazing Grace*. Dr. Wills' performance is fluent, enthusiastic, indeed exuberant, and his use of the considerable resources of the organ will no doubt enhance the popular appeal of the programme.

Aurally, the result is most impressive, with wall-shaking bass and a wide dynamic range. It is a good example of what can be done with simple techniques, using just one stereo microphone feeding a Nagra recorder, giving excellent clarity with very low noise. Just a shade hard in the top, perhaps. A good buy, if you happen to like the contents. [A: 1] Trevor Attewell

## ITALIAN RECORDER MUSIC OF THE RENAISSANCE

Quadro Hotteterre  
Telefunken AW6.42335 (£4-20) (Selecta)

This latest addition to Quadro Hotteterre's discography differs somewhat from its predecessors in

# SEVENOAKS HI-FI

**NEW**  
demonstration  
room and Sony  
'Super Hi-Fi'  
at Sevenoaks  
Branch

118 LONDON ROAD, SEVENOAKS, KENT TN13 1BA. (0732) 59555  
162 POWIS STREET, WOOLWICH, LONDON S.E.18. 01-855 8016  
34 MOUNT EPHRAIM, TUNBRIDGE WELLS, KENT. (0892) 31543  
Phone our hot lines for really keen prices!

**CONTACT ANY OF OUR 3 BRANCHES  
FOR UP TO DATE INFORMATION**

Prices include VAT.  
Prices correct at time of  
preparation—December 4,  
1978. E & O E

## AMPS & TUNERS

**SONY**  
TA212, TA313, TA515,  
TAF3A, TAF4A, TAF5A,  
etc.,  
S1212L, S1313L, etc.  
**TECHNICS**  
SU7100, SU7300, SU7700,  
ST7300, etc.  
**YAMAHA**  
CA410, CA510, CA710,  
CA810, CT510, CT710, etc.  
**TRIO**  
KA1500II, KA3700,  
KA5700, KA0100, etc.  
KT5300II, KT5500, KT6500,  
etc.  
**PIONEER**  
SA506, SA606, SA706,  
SA8500 II, TX606,  
TX8500 II, etc.  
**J.V.C.**  
JAS10, JAS11G, JAS22,  
JAS44, JVT10L, JTV11G,  
etc.  
**ARMSTRONG**  
621, 623, 624  
**QUAD**  
33, 303, 405, FM3  
Examples of our competitive  
prices  
**YAMAHA**  
CA410 £89.95  
**TRIO**  
KA1500 II £79.95  
KA3700 £79.95  
**PIONEER**  
SA506 P.O.A.  
SA606 P.O.A.  
SA706 P.O.A.  
**J.V.C.**  
JAS11G £79.95  
**ARMSTRONG**  
621 £104.95

## RECEIVERS

**SONY**  
STR212L, STR313L,  
STRV3L, STRV4L, HST49,  
HST89A

**TECHNICS**  
SA100L, SA200L, SA300L,  
SA400, SA500, etc.

**YAMAHA**  
CR420, CR620, CR820,  
CR1020, etc.

**TRIO**  
KR2090, KR2090L,  
KR3090, KR4070, etc.

**PIONEER**  
SX590, SX690, SX790,  
SX890, etc.

**AIWA**  
AX7400, AX7600,  
AF3070, AF3090

**J.V.C.**  
JRS61L, JRS81, JRS201L,  
JRS301, etc.

**B & O**  
1600, 1900, 2200, 2400,  
4400

**ARMSTRONG**  
625, 626  
Examples of our competitive  
prices

**TRIO**  
KR3090 £169.95

**PIONEER**  
SX590 P.O.A.  
SX690 P.O.A.

**AIWA**  
AX7400 £170.95  
AX7600 £229.95  
AF3070 £314.95  
AF3090 £369.95

**J.V.C.**  
JRS61L £113.95  
JRS81 £167.95

**ARMSTRONG**  
625 £165.95  
626 £189.95

## RECORD DECKS

**SONY**  
PST1, PS212, PST20

**TECHNICS**  
SL220, SL230, SL3200,  
SL3300, SL150, SL1500 II,  
SL5200, etc.

**YAMAHA**  
YP211, YP511

**TRIO**  
KU1033B, KD2055, etc.

**PIONEER**  
PL512, PL514, PL516,  
PL518, etc.

**AIWA**  
AP2200, AP2500

**J.V.C.**  
JLA20, QLA2, QLF4, etc.

**B & O**  
1500, 2200, etc.

**THORENS**  
All models  
Examples of our competitive  
prices

**YAMAHA**  
YP211 £70.95  
YP511 £95.95

**TRIO**  
KD1033B £55.95

**PIONEER**  
PL512 P.O.A.  
PL514 P.O.A.  
PL516 P.O.A.

**J.V.C.**  
JLA20 £69.95  
QLA £102.95

**MUSIC CENTRE**  
**SONY**  
HMK 33, HMK 55, HMK 77,  
HMK 80

**AIWA**  
AF5300, AF5600

**B & O**  
4000, etc.

**NAT PAN**  
SG1090L, SG3060L,  
SG5070, SG5090, SG6070

**TOSHIBA**  
SM3350, SM3750, etc.

**HITACHI**  
5D7785, 5DT400, etc.

Examples of our competitive  
prices  
**AIWA**  
AF5300 £369.95  
AF5600 £449.95

**TOSHIBA**  
SM3750 £379.95

**SONY**  
HMK55 £279.95

**CASSETTE & REEL**  
**SONY**  
TC158SD, TCU2, TCK1A,  
TCK4A, TCK5, TCU5,  
TCK60, TCK96R, TC399

**TECHNICS**  
RS615, RS616, RS630,  
RS631, RS641, etc.

**YAMAHA**  
TC511S, TC520, TC1000

**TRIO**  
KX530, KX830, KX1030

**PIONEER**  
CTF500, CTF4040, CTF700,  
CTF1000, RT707

**AIWA**  
AD1250, AD6350, AD6400,  
AD6500, AD6800, etc.

**J.V.C.**  
KD720, KD10, KD25  
KD55, etc.

**TOSHIBA**  
All models  
Examples of our competitive  
prices

**TECHNICS**  
RS615 £99.95

**YAMAHA**  
TC511S £129.95

**TRIO**  
KX530 £139.95

**PIONEER**  
CTF600 P.O.A.  
CTF4040 P.O.A.  
CTF700 P.O.A.  
CTF1000 P.O.A.

**AIWA**  
AD1250 £139.95  
AD6350 £149.95  
AD6400 £189.95

**J.V.C.**  
KD720 £87.95  
KD10 £113.95

**SPEAKERS**  
**SONY**  
SS70, SS2030, etc.

**YAMAHA**  
NS500, NS1000M

**B & O**  
525, S35, S45, etc.

**ARMSTRONG**  
602

**A.R.**  
AR8, etc.

**B & W**  
DM5, DM4, DM7, etc.

**CELESTION**  
Ditton 15XR, 22, 23, 441,  
551, etc.

**CELF**  
Domestic, Monitor,  
Mini Pro, PEI  
I.M.F.  
AL540, etc.  
J.R.  
JR149, Woofer LPA

**K.E.F.**  
Celeste III, Corelli, 104ab,  
Concorde, etc.

**MISSION**  
710, 720, 730

**MONITOR AUDIO**  
MA7, MA6, MA4, etc.

**MORDAUNT SHORT**  
Carnival, Festival, Pageant,  
Signifier

**TANNOY**  
Oxford, Ascot, Dorset,  
Mayfair, etc.

**VIDEOTONE**  
Minimax, D100, etc.

**WHARFEDALE**  
Sholton XP2, Denton XP2,  
Linton XP2, Glendale XP,  
etc.

**RAM**  
Compact, Bookshelf, 100,  
etc.

**CASTLE**  
Richmond Mk II, etc.  
Examples of our competitive  
prices

**ARMSTRONG**  
602 £163.95

**CELESTION**  
15XH £99.95  
22 £139.95  
33 £179.95

**J.R.**  
149 £129.95  
Woofer LPA £169.95

**VIDEOTONE**  
Minimax £49.95

**WHARFEDALE**  
Denton XP2 £49.95  
Linton XP2 £75.95  
Shelton XP2 £62.95  
Glendale XP2 £99.95

**T.V.**  
**SONY**  
KV9000UB, KV1400UB,  
KV1820UB, KV1822UB,  
KV2000UB, KV2200UB,  
TV121, TV511, FX412

**NAT PANASONIC**  
TC381G, TC481R,  
TC2203, TR565G, etc.

**VIDEO**  
Sony Betamax,  
J.V.C. VHS,  
Panasonic VHS,  
Philips VLC

## EXTRA SPECIAL OFFERS ON ALL PIONEER / YAMAHA PRODUCTS

(Please phone for details)

**B & O**  
Gram 1902 £109.00  
Gram 1102 £79.00  
Master 901 £139.00  
1100 £139.00  
3400 £159.00

**LEAK**  
(All per pair)  
3020 £64.95  
3030 £84.95  
3050 £124.95

**SONY**  
PSX7 £119.00  
HMK55 £279.00

**HITACHI**  
SDT7680 £349.00  
SR503L £139.00

**TECHNICS**  
SA5270 £189.00  
SA5370 £219.00  
SL150 £115.00  
RS615 £99.00  
RS630 £127.00

**AIWA**  
AD6550 £199.00  
AD6800 £269.00

**PHILIPS**  
N1700VCR £629.00

**CARTRIDGES & ARMS**  
ADC, Coral, Satin,  
Ortofon, Shure,  
Stanton, SME  
SME, P & P £1-00  
SME 3009 S/2 FH £55.95  
SME 3009 S/3 £89.95

At Sevenoaks Hi-Fi we  
have a superb display of  
top quality, competitively  
priced equipment.

Demonstrations are  
available and our helpful  
staff are always happy to  
offer advice. We can also  
arrange home  
demonstrations and  
installations—just ask for  
details.

**STOCKS**  
Immediate delivery is the  
order of the day on most  
items as we maintain  
large stocks of hi-fi.

Please phone to verify  
price and availability  
before setting out on any  
journey.

**GUARANTEES**  
Full parts and labour  
guarantees on everything

from Sevenoaks Hi-Fi—  
from 1 to 5 years.

**SERVICE DEPT.**  
Our service department  
maintains all equipment  
bought from us. Ask  
about our unique service  
contract.

**OPENING TIMES**  
Sevenoaks & Woolwich:  
Monday—Saturday 9 to 1,  
2 to 5.30 (late night  
Thursday until 7.30).

Tunbridge Wells: Monday  
to Saturday 10 to 5.

All shops closed all day  
Wednesday

**MAIL ORDER**  
(Sevenoaks only)

Hi-fi sent within 48 hours  
(subject to availability) to  
any address in the British  
Isles from our Sevenoaks  
mail order store (not from  
Woolwich or Tunbridge

Wells). Contact us to  
verify price before order-  
ing. Send cheque (or quote  
credit card number) to  
cover cost and carriage.

Everything fully insured  
against loss and damage  
during transit.

Carriage and insurance  
£4.00 per item.

Phone to check our price  
on any items not shown in  
this list.



that some variation in instrumental lineup has been introduced. Each of the individual members of the group gets the chance to shine alone here: Wouté Möller turns in a Ricercar for solo cello in D minor by Domenico Gabrieli (no relation to the Venetians) in which a forced gaiety ultimately descends into melancholy; Bob van Asperen shines on a Toccata in A by the 'other' Scarlatti, Alessandro; while recorder players Kees Boeke and Walter van Hauwe perform Ricercari for treble recorder in G by Virgilliano and tenor recorder in C by Bassani, respectively (the latter, interestingly enough, pitched at  $\dot{a}=460$ ). Nine composers in all (including Frescobaldi, of course) are represented and the rest of the works are performed on two descant recorders ( $\dot{a}=440$ ), cello and harpsichord, the cello often taking much more of an independent rôle in these predominantly early 17th century works than in the baroque repertoire.

The standard of playing is well up to their previous standard and the recording is natural, although instrumental images, the solo cello in particular, are rather wide. There are some real 'lollipops'; particularly appealing is a lighthearted sonata by the almost unknown Brescian violinist Giovanni Fontana [A: 1/1\*] *John Atkinson*

## MUSICA PRAE CLASSICA

**VIVALDI:** Concerto for Oboe in D minor, F VII No. 1 / **ALBINONI:** Concerto for Oboe Op. 7, No. 3 / **TELEMANN:** Concerto for Oboe in F minor / **HUMMEL:** Introduction, Theme and Variations for Oboe and Orchestra Op. 102 / **HANDEL-WOODCOCK:** Concerto in E $\flat$  for oboe

*J. Williams (obo) | Bournemouth Sinfonietta | Wangerhheim*

**HMV 'Musica Prae Classica' ASD 3609 (£4.40)**

This record should do well. The playing is attractive, the programme unhackneyed, the reproduction persuasive. For some listeners, its selling-point could be Hummel's *Introduction, Theme and Variations*, written in Weimar towards the end of his career. Providing a splendid vehicle for a first-rate artist, as John Williams, principal oboe of the Bournemouth SO, unquestionably is, it combines tunefulness, zest, wit and an almost indecent amount of charm. (A Pallard Chamber Orchestra version

came out last year on Erato, but with the virtuoso trumpeter Maurice André as soloist).

On the same side is an Oboe Concerto in E flat, formerly attributed to Handel. I'm not surprised. It is as likely an imitation of the Great Cham's style as ever I heard. Its true and onlie betterer now appears to have been an English Georgian worthy called Robert Woodcock. (Are his other eleven concerti, also published by Walsh, as 'authentic'?)

These two works are ballasted by Vivaldi and Albinoni and by a veritable bonus for a stylish obolst, Telemann's F minor Concerto, which rather overshadows the Italian elements. The excellent John Williams is heard in close-up, but not unduly so, and the Bournemouth Sinfonietta sounds polished, warm-toned and lithe, with a firm, unmuzzy bass line, but not enough harpsichord contribution. These represent, not Harnoncourt-type performances, but rather the best quality, general-purpose brand of Baroque. [A: 2] *Christopher Grier*

## CZECH MUSIC FOR VIOLIN

**DVORAK:** Four Romantic Pieces, Op. 75 / **JANACEK:** Violin Sonata / **SMETANA:** From My Homeland  
*Sergiu Luca (vln) | Paul Schoenfeld (pno)*  
**Nonesuch H-71350 (£2.49) (WEA)**

This is an interesting collection of violin and piano music by the three great Czech composers, none of it overburdened with recordings. There is one recording each of the Dvorak and Janacek but, apart from this new one, none of the Smetana, though Supraphon used to have a version by, I think, Suk and Panenka. This was a fuller version of the piece drawn from the Artia Edition and generally superior to the Peters Edition apparently used in the new recording as there is an attractive middle section in the first piece omitted by Peters and a largish though less important cut in the second. The Janacek Sonata, written in 1914, revised 1921, is the most considerable of the three works and ideally needs to be more impassioned than Luca and Schoenfeld make it. On the whole, though, their account of all this music is a match for their two rivals, and when one considers that Suk is the violinist in the Dvorak, that is saying something. Messiereur on Pantan has a firmer grip on the Janacek, but is less well recorded

and his pianist is not notably superior to the American. On balance this new recording can be confidently recommended, particularly as we are unlikely to receive any more rival versions for some time to come. [A: 1] *Kenneth Dommett*

## Orchestral

### SPANISH COLLECTION

**CHABRIER:** Espana / **FALLA:** El Amor Brujo—Pantomime & Ritual Fire Dance / **RAVEL:** Rapsodie Espagnole / **RIMSKY-KORSAKOV:** Capriccio Espagnol, Op. 34  
*Warsaw Nat. PO | Semkow*  
**Heliodor 2548 029 (£1.75)**

A Pole's idea of a Frenchman's view of Spain: these might have been interesting recordings, but they are crudely unstylish and tedious. The playing is occasionally 'raw', and the recording places the orchestra a long way back; it is also bass-light. As a parody of Boulez's outgrown manner the Ravel might make a sophisticated party piece, but this collection is hardly worthy of the Heliodor catalogue. At full-price DG have an excellent *Rapsodie* (Boston SO/Ozawa) and *Capriccio* (Chicago SO/Barenboim); at bargain price one should look to Ansermet and Argenta for this repertoire (Decca), or Giulini on HMV's SXP label. [C: 4] *Christopher Breunig*

### RUSSIAN COLLECTION

**BALAKIREV:** In Bohemia / **GLINKA:** Kamarinskaya / **RIMSKY-KORSAKOV:** Russian Easter Festival, Op. 36 / **TCHAIKOVSKY:** Marche Slave, Op. 31  
*Brno State PO | Danon*  
**Supraphon 1 10 2104 (£2.99) (Rediffusion)**

Balakirev's rustic symphonic poem is very attractive; when it is not otherwise available it is frustrating to have such matter-of-fact conducting, such crude brass playing. But half of the music here can be had with a choice in degrees of artistry, recording brilliance, and cost. Danon's performances are too insensitive for acceptance, and the stereo image is poorly integrated, with sections of the orchestra compartmentalised, presumably through microphone positioning and remixing techniques. [C: 3/4] *Christopher Breunig*

# Dejà Vu

A reissue roundup conducted by John Atkinson, Christopher Breunig, Peter Gammond, Ivor Humphreys, Geoff Jeanes, David Pickett.

## Orchestral/Symphonies

**A**LTOGETHER more taut and powerful than his VPO recording (the first to include the opening repeat), Erich Kleiber's 1951 *Eroica* symphony, with the Concertgebouw Orchestra, was the standard LP recommendation until Klemperer's **Beethoven** came into fashion. Kleiber's conducting was dynamic, exacting, warming, spontaneously lit; he conveyed the composer's 'divine impatience'. When collectors would surely pay double for a mint LXT, with its cheerful orange label, in the original artwork, why do Decca now make a  $\square$  transfer? ('Eclipse' ECS792, £2.25.) The sound, reproduced as mono, varies from terrible to strangely impressive. [D/C: 1\*]

**Beethoven** in C and c—uniquely coupled, symphonies 1 and 5 from the LPO/Haitink cycle are reissued on Philips 9500 067 (£4.50). Satisfying warmth in No. 1, with all repeats; no finale repeat in No. 5 but nice balance between dramatic tension and clear symphonic exposition. Haitink seems

to see the work complete in his mind's eye, and that comes across. Big hall sound. [A: 1]

An RCA disc of early stereo recordings of **Berlioz** items by Boston SO under Munch gathers together *Roman Carnival*, *Beatrice & Benedict*, *Benvenuto Cellini* and *Corsair* overtures, the 'Queen Mab' scherzo from *Romeo & Juliet*, and 'Royal Hunt & Storm' from *The Trojans* (GL 42696, £2.49). All are of 1960 vintage (except the scherzo, 1969), with fine natural sound marred only by some tape hiss and an occasional feel of restricted dynamics. Splendid performances are propelled forward with vigour, but are full of subtle beauties. An excellent collection. [A/B: 1\*]

An excellent and stimulating collection of **Elgar**'s music from Sir John Barbirolli conducting the Hallé and the New Philharmonia orchestras and the Sinfonia of London respectively in *Falstaff*, *Froissart* and the *Introduction and Allegro for Strings* (HMV 'Concert Classics' SXLP30279, £2.85). Barbirolli is rather more flamboyant and romantic in this music than Elgar himself would have been, or Boult, but the results are very stimulating. Perhaps this is still the best *Falstaff*, really bringing to life the complex programme, so usefully detailed by William McNaught in the sleeve-note. The performance is full of character and colour. The *Introduction and Allegro* is similarly given great warmth and sweep. Slightly exaggerated Elgar but full of enthusiasm and affection for the music. A rich recorded sound to match, slightly congested. [B: 1]

Alternately swaggering and charming, *Milhaud's* delightfully jazzy fantasy *Carnaval d'Aix* is done with panache by Claude Helffer (pno), Frémaux and the Monte Carlo Orchestra (Heliodor 2548 284, £1.75). It was bold of Frémaux to put his orchestra through the

paces of **Britten's** *Young Person's Guide*—and some edits show. But this too sounds like a real performance, no sterile series of takes, and with bold channel separation and an extended range the sound is very exciting. **Turina's** *Danzas Fantasticas* are divided over the sides of this spirited if odd programme. Buy it for the *Milhaud!* [A/A: 1\*]

Elegant, finely wrought and detailed recordings of **Mozart** symphonies 33 and 39 from VPO/Kertesz reappear on Decca 'Eclipse' ECS 823 (£2.35). Kertesz's unerring sense of pace and structure lends a feeling of great purpose and sensibility to these performances and the VPO respond with their seemingly effortless ensemble. The 1963 recordings preserve a warm, clear acoustic with good definition and detail. The mild tape hiss is not unduly disturbing. [B: 1\*]

André Previn's earlier (Apr '66 Kingsway) LSO recording of **Rachmaninov's** symphony 2 in e, with Bernard Walton a memorable clarinettist in the adagio, has slight cuts. Nevertheless it is a deeply sympathetic reading—thrusting and vital, not wallowing, whereas some have found the EMI remake too 'Hollywoodish' in its yearnings. RCA's new transfer (GL12877, £2.49) has less extended bass than formerly, so [B: 1\*].

HMV have boxed their Moscow RSO 'Melodiya' recordings of **Rimsky-Korsakov's** three symphonies (Khaikin/Ivanov/Rozhdestvensky) together with orchestral pieces conducted by Maxim Shostakovich, in recent productions—the *Sinfonietta* Op. 31, *Sadko*, *Fantasia on Serbian Themes*, *Overture on Russian Themes*—and a USSR SO/Svetlanov *Capriccio Espagnol*, also new here (SLS 5150, £9.95). In general, bright, vigorous performances of colourful music not otherwise available, in typical Soviet stereo sound. But don't expect tech-

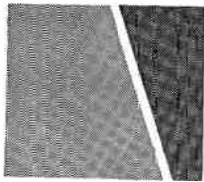
nical quality like RCA's Borodin set with Nat. PO/Tjeknavorian! [B: 1]

Praised for its natural string tone, Previn's LSO version of **Shostakovich's** symphony 5 in D (RCA GL42690, £2.49) shows even today a superior presentation of hall ambience, compared to the recent EMI remake with the Chicago SO. They may have more 'horsepower' (or 'wattage') than the LSO, but with greater delicacy in solos and finer pointing the 1965 account is preferred. [A/A: 1\*]

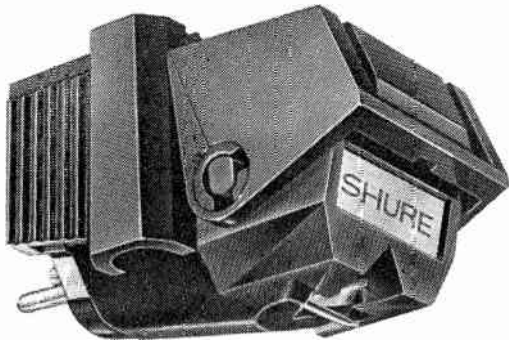
Structural cohesion sacrificed for effects, or penetration to the dramatic core of the work? Igor Markevich's 1962 LSO **Tchaikovsky** *Pathétique* (now 'Festivo' 6570 047, £2.45) divided critics. We incline to the latter view, for this is a fastidious version marred only by the occasional idiosyncrasy—and that readily understood. Markevich has an iron grip on his players, but this does not preclude elegance; his is a powerfully projected reading which some will find clinical, or icily withdrawn. Others will find the articulation of so much detail electrifying. The original producer matched this conductor's analytical approach, and the recording merits a star for consistency, and for the information it imparts. Some loss of natural warmth in the upper strings is reflected in the B grading. A significant reissue—the rest of the cycle is also due out on 'Festivo' this month. [A\*/B: 1\*]

## Concertos etc.

**LARRY ADLER** plays works for 'L' harmonica and orchestra', RCA Gold Seal GL42747 (£2.49), (with Morton Gould Orch. cond. Gould) is a pretty self-explanatory title; the works are by Gershwin, Benjamin, Vaughan Williams, Arnold and Milhaud and nearly all written for Adler (for much of the



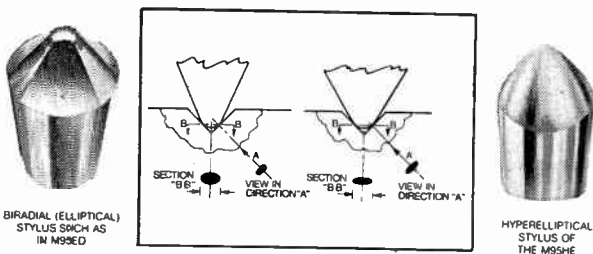
# fact: dramatic freedom from distortion comes to a mid-priced cartridge: the new Shure M95HE...



## an affordable, audible improvement

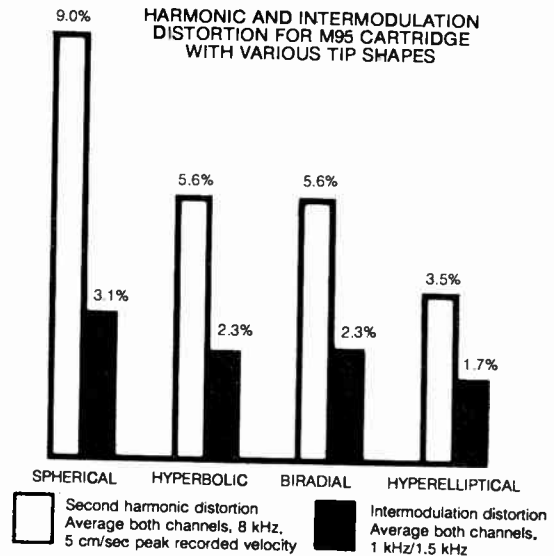
One of the critically acclaimed advances introduced in Shure's incomparable V15 Type IV pickup is its revolutionary and unique distortion-reducing Hyperelliptical stylus. Now, you can enjoy this standard of sound purity in a new, essentially flat frequency response, light tracking, high trackability cartridge that will not tax your budget: the new Shure Model M95HE.

## the Hyperelliptical stylus tip



The Hyperelliptical nude diamond tip configuration represents a significant advance in tip design for stereo sound reproduction. As the figures show, its "footprint" (represented by black oval) is longer and narrower than the traditional Biradial (Elliptical) tip-groove contact area. Because the Hyperelliptical footprint geometry is narrower than both the Biradial and long-contact shapes such as the Hyperbolic, it is pre-eminent for reproduction of the stereo-cut groove.

HARMONIC AND INTERMODULATION DISTORTION FOR M95 CARTRIDGE WITH VARIOUS TIP SHAPES



## a measurable drop in distortion

As a result of the optimized contact area of the Hyperelliptical tip, both harmonic distortion (white bars in graph above) and intermodulation distortion (black bars) are dramatically reduced.

## upgrade your present M95

If you already have a Shure M95 Series Cartridge, you can improve its freedom from distortion right up to the standards of the new M95HE cartridge simply by equipping it with a Model N95HE stylus. The cost is extraordinarily low — yet the difference in sound will be immediately apparent. Takes only seconds to install — requires no tools whatsoever.

## M95HE cartridge & N95HE stylus



Shure Electronics Limited, Eccleston Road, Maidstone ME15 6AU  
 Telephone: Maidstone (0622) 59881

background, see 'Gramophone' p. 109). This is a condensation from two mid '60s albums with the emphasis on the 'classical' side. We do get three interesting Gershwin pieces, though, and the atmospheric Benjamin concerto, which starts and ends with a virtuoso cadenza, is particularly pleasing. The *VW Romance* is probably the most familiar piece but all are worthy of a hearing and, coupled with Adler's mastery of his instrument, this is an album that should appeal to all those with a well-developed bump of curiosity. Recording quality is generally good although the harmonica is close at times compared to the orchestra. [B: 1\*]

A stirring interpretation of **Beethoven's** Piano Concerto 1 comes from Serkin and Philadelphia/Ormandy on CBS 61915 (£2.99). Originally released in 1966, this recording also includes the Op. 119 Bagatelles which are well worth knowing. The very good performances are unfortunately let down by an unnatural sounding recording which has a limited dynamic range (and heavy surface noise). The piano tone is inclined to be shallow with a very wide and imprecise image. [C: 1]

With the Barenboim/Klemperer disc no longer listed separately, Brendel only completes with himself in a **Beethoven Choral Fantasy** (Piano Concerto 2 coupling from the Philips box with LPO/Haitink (and John Alldis' LP Choir) (9500 471, £4.50). The beautiful sound—just a slight opacity—supersedes that on Turnabout; Brendel's playing is thoughtful, buoyant, full of determined masculine bravura as required. [A/A\*: 1\*]

The 1969 recording of **Brahms's** Piano Concerto 2 by Arrau and Haitink with the Concertgebouw is reissued on Philips 'Festivo' 6570 052 (£2.45). The performance is powerful and virile and the recording is immediate, rich and well balanced, and clean. On all counts this is highly recommended. However, there is strong competition from the low price ranges. [A: 1]

1973 recordings of **Haydn Sinfonia concertante** in B $\flat$  (Hob I: 105) and *Violin Concerto* in C (Hob VII: 1) with Collegium Aureum/Maier reappear on Harmonia Mundi 065-99 626 (£4.35). Typically considered yet uncomplicated performances from this marvellous group, who always exhibit an apparently effortless sense of ensemble. Superb, unforced performance of the concerto from Konzertmeister Maier. (The accuracy of his intonation in the many double-stopped passages is staggering.) Clear, detailed (Kirchheim) recording of great depth and warmth. [A: 1\*]

## Chamber/Solo

**DG Privilege 2548 286 (£2.75)** is a re-issue of compelling performances by Sviatoslav Richter, recorded live during his 1962 Italian tour: In fact a re-pressing of SLP138 950, with Nos. 1, 4-6, 8 of **Bach's Well-Tempered Clavier** backed by pieces by **Schubert, Schumann, Rachmaninov, and Prokofiev**. In the *Winterreise*-like Allegretto in c, and the *Abegg Variations* Richter excels, whereas some slow speeds in the Bach are hard to reconcile. Varying degrees of tape-background, and patches of distracting (atmospheric?) coughing. [B: 1\*/1]

Andor Foldes offers coolly appealing readings of four **Beethoven** piano sonatas—*Tempest*, *Pastorale*, Op. 78, and Op. 49: 1—recupled on Hellodor from 1961-2 originals (2548 283, £1.75). Finely controlled playing, as distinctive as on any full-priced disc, and consistently clean true piano-tone. Outstanding value. [A: 1]

From Alfred Brendel's cycle of **Beethoven** piano sonatas, on Philips, comes a coupling of No. 4 in E-flat and—short measure—No. 5 in c, from Op. 10 (9500 506, £4.50). A marvellous cover portrait by Christina Burton. Technical quality impeccable, notably in the shorter sonata. Bold readings: very 'alive'. [A/A\*: 1\*]

'**Dvorak: Piano Works**' (Supraphon 1 11 2131-6, 6 reccs, £17.94, Rediffusion) contains all the composer's acknowledged compositions for piano, many of them far better than they are often believed to be. Affectionately and authoritatively played by Radoslav Kvapil, who actually includes the music in his recitals, the set appeared in separate issues between 1972 and 1976 all apparently still available. The boxed set is a convenience package, but the uncommitted may prefer to sample selected singles. [A/B: 1]

Updated recordings of **Mozart Diverissement** for three Basses horns K539b no. 2 and *Cassation* for winds KV Anhang CA 11 in E $\flat$  reappear in the current Harmonia Mundi revival on HMU 413 (£4.35). Stadler, Kubli and Leuthold produce nicely blended basses timbres and their choice of tempi and approach to phrasing is first-rate. Four members of the Quintette à Vent d'Avignon produce a delightful *Cassation* with excellent ensemble—a generally clear-sighted and unussy account. Recordings good with a mildly resonant acoustic and entirely natural imaging. [B: 1]

Hellodor '**Music for Harp**' (2548 281, £1.75) features Nicanor Zabaleta in Mozart's Concerto for flute and harp, with Zöller/Berlin PO/Märzendorfer (1963); Handel's Concerto Op. 4: 6, and Ravel's *Introduction and allegro*—Paul Kuentz Chamber Orchestra, 1967. Stylish Mozart, but dated sound [C: 1]; later recordings dominated by harpist, otherwise disagreeably flat image. Poor representation of Ravel's calculated textures. [B/C: 2]

Designed to illustrate the possibilities of the natural horn, Telefunken AP 6.42321 (£4.20, Selecta) have assembled a programme of '**Original Instruments**' from previously recorded material. The playing is well in tune and soloist *Hermann Baumann* shows himself to be extremely adept in the execution of lip-trills. However, the selection does not fully demonstrate

the instrument's natural splendour and magnificence. Beethoven's Quintet in E $\flat$  appears to be the least successful item while the Bach, Cantata (BWV 14 & 24) extracts show the horn only in a more or less subordinate role. The recording quality is variable and the price rather high for reissued material. [B/C: 1/3]

## Vocal/Song

To join the splendid 1977 reissue on ZK 30-31 of a similarly-titled 1960s Tallis collection comes 'Byrd from King's' (Argo ZK 53-54, 2 reccs, £5.70), consisting of: Masses for 3 and 4 voices (1963); and Mass for 5 voices/Magnificat & Nunc Dimittis/Ave Verum Corpus (1960). The recordings are on the intimate side as befits this reflective music, and yet the spacious acoustic of the huge building is mutely evident: a beautiful effect. [A: 1\*]

**Mahler's Des Knaben Wunderhorn** songs are performed with spirit and great feeling on CBS 61825 (£2.99) by Christa Ludwig and Walter Berry with NYPO/Bernstein. This is a 1969 recording and faces competition in its price range from Janet Baker & Geraint Evans with Wyn Morris on Decca. The CBS disc contains one extra title ('Ulrich') and this, like the rest, is beautifully sung and played. The recording is basically good but dynamic levels are sometimes slightly false and the high transfer level does occasionally produce distortion in Berry's loud passages. Recommended nevertheless. [B: 1]

On Harmonia Mundi 065-99 (£4.35, Rediffusion) is a 1963 Byzantine-Slavic Ukrainian Rite '**Liturgy of St. John Chrysostom**'. A fine ambient surround is provided by the Abteikirche Knechtsteden, for the excellent Choir of the 'Missions-Priesterseminars der Spiritaner Knechtsteden bei Köln'. A somewhat indistinct Deacon, but splendid flexibility and response by the well-trained singers. [A/B: 1/2]

# Cassettes

Although this section uses the same technical rating system as our disc record sections, readers should be aware that mass production techniques can degrade cassette sound quality between samples, and that the 'recording' ratings given here apply only to our review copies. **KEY:** P—Performance; R—Recording; D—Original review of disc version, when discoverable.

## Peter Gammond

### BOXED SETS

**BEETHOVEN:** The Five Piano Concertos—Weissenberg | Berlin PO | Karajan—HMV TC-SLS5112 (3 cassettes) (£16.95)  
D: 1974/6; Dec '78. R: Smooth but unfocused. P: Bland. [B: 1/3]

**CHARPENTIER:** Leçons de Tenebres—Nelson | Jacobs | Verkinderen | Christie | Kuijken | Junghanel—Harmonia Mundi HM40.1005/6/7 (3) (£10.20)  
R: Rich and clear. P: Profoundly moving. [A\*: 1\*]

### SINGLE CASSETTES

Prices codes:—  
Argo—KZNC/KZRC—£3.99;  
KZCF—£2.75  
CBS—40-61000—£2.99; 40-72000—£4.49  
CRD—CRD—£3.99

Decca—KSXC—£3.99; KJBC—£2.75;  
KPF—£3.99; KECC—£2.35;  
KCSP—£2.35  
EMI—TC-ASD—£4.25; TC-ESD—£2.99  
TC-SXLP—£2.75  
Oiseau-Lyre—KDPC (2)—£4.25;  
KDSL—£3.99  
Philips—7300—£3.99; 7317—£2.45  
Polydor—3300—£4.99; 3335—£2.99  
RCA—RK—£3.50; GK—£2.49  
Saga—CA—£1.75  
Vox—KTVC—£2.35  
Rediffusion—KROY—£2.99; KLG—£1.99

**J. S. BACH:** Passacaglia and Fugue, BWV582 □ Toccata and Fugue, BWV565 □ Fantasia and Fugue, BWV542 □ Fantasia and Fugue, BWV537—Lionel Rogg—Harmonia Mundi HM40.771  
D: from 8/78. R: Full-bodied. P: Skilled and effective. [A: 1]

**J. S. BACH:** Passacaglia BWV582 □ Fantasia, BWV562 □ 6 Chorale Preludes—Wolfgang Rübens (org)—Philips 'Festivo' 7310 069  
D: Mar '79. R: Slightly mushy. P: Moderate. [B: 2]

**BACH:** Organ Favourites (Toccata & fugue in D, BWV565 □ BWV542, 565 & 582)—Fernando Germani (org)—HMV 'Concert Classics' TC-SXLP 30274  
D: 1961; DV Mar '79. R: Clear and spacious. P: Lively and masterful. [A: 1]

**BIZET:** 'Carmen' Suite No. 1 □ 'L'Arlesienne', Suites 1 & 2—French National Radio | RPO | Beecham—HMV 'Concert Classics' TC-SXLP30276  
D: 1960; DV Mar '79. R: Pleasant; slightly congested. P: Beechamesque verve. [B/C: 1\*]

**BRAHMS:** Piano Concerto No. 1—Barenboim | New Philharmonia | Barbirolli—HMV 'Concert Classics' TC-SXLP30283  
D: 1968; DV Mar '79. R: Good. P: Noble and spacious. [A: 1]

**BRAHMS:** Hungarian Dances / **DVORAK:** Slavonic Dances 1 & 8 / **LISZT:** Les Préludes / **SMETANA:** The Moldau—Chicago SO | Barenboim—DG 3301 054  
D: Dec '78. R: Good quality. P: Intense and well-controlled. [A: 1\*]

**BRUCH:** Violin Concerto No. 1 / **MENDELSSOHN:** Violin Concerto—Kim | Bamberg Symphony | Kamu—DG 'Privilege' 3335 294  
D: 1972; DV Dec '78. R: Clear but thin. P: Straightforward. [B/C: 2]

**DOWLAND:** Lute Songs—Deller | Consort of Six | Spencer—Harmonia Mundi HM 40.244  
D: Jan '79. R: Close but very clear. P: Sensitive. [A: 1]

**ELGAR:** Falstaff □ Froissart Overture □ Introduction & Allegro—Hallé | New Philharmonia | Sinfonia of London | Barbirolli—HMV 'Concert Classics' TC-SXLP30279  
D: 1963/6; DV Mar '79. R: Reasonably good. P: Romantic. [B: 1]

**FAURE:** Requiem □ Pavane—Popp | Naimsgern | Ambrosian Singers | Philharmonia | A. Davis—CBS 40-76734  
D: Dec '78. R: Not always clear. P: Effective and moving. [A/B: 1]

**HANDEL:** Duetti e Cantate da Camera—Concerto Vocale—Harmonia Mundi HM 40.1004  
D: Jan '79. R: Crisp and clear. P: Neat and stylish. [A: 1]

**HAYDN:** Cello Concerto in D / **MONN:** Cello Concerto in g—Du Pré | LSO | Barbirolli—HMV 'Concert Classics' TC-SXLP30273

D: 1969; DV Mar '79. R: Warm, cello prominent. P: Affectionate and lively. [A/B: 1\*/1]

**MONTEVERDI:** Ottavio's Lament & Farewell □ Ariadne's Lament / **A. SCARLATTI:** Cantata Pastorale / **D. SCARLATTI:** Salve Regina—Baker (con) | ECO | Leppard—HMV 'Concert Classics' TC-SXLP30280  
D: 1970; DV Mar '79. R: Smooth. P: Beautiful and moving. [A: 1\*/1]

**PURCELL:** 'Dido and Aeneas'—Los Angeles | etc | ECO | Barbirolli—HMV 'Concert Classics' TC-SXLP30275  
D: 1966; DV Feb '79. R: Soft but clear. P: Wholehearted. [A/B: 1]

**ROSSINI:** Overtures: 'Il Barbiere di Siviglia' □ 'Guillaume Tell' □ 'La Gazza Ladra' □ 'La Cenerentola'—Orchestre Philharmonique de Plovdiv | Raytchev—Harmonia Mundi HM 40.466  
D: 1979. R: Slightly veiled and coloured. P: Cool, limp. [B: 2]

**SCHUBERT:** Piano Quintet 'The Trout'—Haebler | Grumiaux Trio | Cazauro—Philips 'Festivo' 7310 115  
D: 1966; DV Jan '79. R: Slightly thin top, cloudy bass. P: Equable, polished, lyrical. [A/B: 1]

**STRAVINSKY:** 'Petrushka' (1947 version)—Concertgebouw | Davis—Philips 7300 653  
D: Dec '78. R: Clean and well-balanced. P: Exciting. [A\*/A: 1\*]

**TCHAIKOVSKY:** Romeo and Juliet □ Francesca da Rimini—LPO | Rostropovich—HMV TC-ASD3567  
D: Oct '78. R: Full-blooded. P: Powerfully dramatic. [A: 1]

**VIUXTEMPS:** Violin Concertos Nos. 4 & 5—Periman | Paris Orchestra | Barenboim—HMV TC-ASD3555  
D: Dec '78. R: Good quality. P: Brilliant. [A: 1\*]

# PLANET HI-FI + VIDEO

**Special display of**

**PIONEER® equipment**

## Amplifiers

ADC S51 Soundshaper	£59-50
ADC S52 Soundshaper	£134-75
ADC SLM2 Meter	£40-00
Armstrong 621	£115-00
Harman/Kardon	P.O.A.
Pioneer SA506	£85-00
Pioneer SA606	£114-00
Pioneer SA706	£147-50
Pioneer SA8500 Mk II	£230-75
Pioneer SA9500 Mk II	£326-00
Quad 33/303/405	P.O.A.
Rotel RA214	£59-50
Rotel RA314	£74-50
Rotel RA414	£94-50
Rotel RA714	£119-50
Rotel RA2020/2030/2040	P.O.A.
Sansui AU17	£73-00
Sansui AU217	£118-00
Sansui AU317	£163-00
Sansui AU517	£265-00
Sansui AU717	£345-00
Spendor DC40	P.O.A.
Yamaha CAS10/710/810/1010/2010	P.O.A.

## Receivers

Aiwa AX7400	£163-00
Aiwa AX7600	£219-00
Aiwa AF3070 Casseiver	£315-00
Aiwa AF3090 Casseiver	£369-00
Aiwa AF5300 Music Centre	£362-00
Aiwa AF5600 Music Centre	£450-00
Akai AA1125	£137-00
Akai AA1135	£157-00
Akai AC3500L Cass./Rec.	£255-00
Armstrong 625 FM	£182-00
Armstrong 626 AM/FM	£208-50
Goodmans Module 90	£133-00
Harman/Kardon	P.O.A.
Pioneer SX590	£132-00
Pioneer SX690	£167-00
Pioneer LX690	£189-00
Pioneer SX790	£211-00
Pioneer SX890	£262-00
Pioneer SX980	£354-00
Pioneer SX1080	£420-00
Pioneer SX1980	£725-00
Rotel RX203	£89-50
Rotel RX203L	£99-50
Rotel RX303	£109-50
Rotel RX403	£119-50
Rotel RX503	£139-75
Rotel RX603	£187-50
Rotel RX803	£229-00
Sansui G301	£155-00
Sansui G401	£175-00
Sansui G6000	£380-00
Tandberg TR2030L/2045/2060L/2080	P.O.A.
Yamaha CR220/420/620/820/1020/2020	P.O.A.

Service is our keynote and has been since we were founded in the 1950's. Expert guidance from qualified staff. We guarantee to provide parts and labour absolutely free of charge for 12 months on any item. We only sell equipment that we consider to be reliable and backed by reputable manufacturers. All prices quoted are for cash or cheques backed by a cheque card. Prices correct at time of preparation, subject to change without notice.



order by phone 01-952 3238

All prices include VAT @ 121%. Please add £3-00 per item towards carriage and insurance (cartridges and styli post 75p).

Demonstrations, Expert Guidance and after sales service.

## Speakers

### SPEAKERS Complete

Celestion UL6 (pair)	£129-75
Celestion UL8 (pair)	£165-75
Celestion Ditton 11 (pair)	£98-75
Celestion Ditton 15XR (pair)	£99-75
Celestion Ditton 22 (pair)	£139-75
Celestion Ditton 33 (pair)	£189-75
Celestion Ditton 442 (pair)	£275-00
Celestion Ditton S51 (pair)	£325-00
Celestion Ditton 662 (pair)	£475-00
Goodmans RB18 (pair)	£58-00
Goodmans RB20 (pair)	£74-00
Goodmans Beta (pair)	£138-00
Goodmans Kappa (pair)	£182-00
Goodmans Sigma (pair)	£255-00
Goodmans Mimi 2 (pair)	£53-00
Harbeth H. L. Monitor Mk 2	P.O.A.
IMF Electronic all models	P.O.A.
Jordan-Watts Janet (pair)	£61-00

Jordan-Watts Juno (pair)	£82-00
Jordan-Watts GT (pair)	£108-00
Jordan-Watts TLS (pair)	£182-00
KEF Celeste III	..
KEF Corelli	..
KEF Calinda	..
KEF Concord III	..
KEF Cantata	..
KEF Model 104AB	..
KEF Model 105	..
JR149 (pair)	£128-50
JR Super Woofer	P.O.A.
Spendor BCI Mk II BC3/SA1	P.O.A.
Tannoy Oxford T12S	P.O.A.
Tannoy Ascot T14S	P.O.A.
Tannoy Chester T16S	P.O.A.
Tannoy Dorset T18S	P.O.A.
Tannoy Mayfair T22S	P.O.A.
Tannoy Berkeley	P.O.A.

Tannoy Arden	P.O.A.
Wharfedale Denton XP2 (pr)	£49-50
Wharfedale Shelton XP2 (pr)	£63-50
Wharfedale Linton XP2 (pr)	£78-50
Wharfedale Glendale XP2 (pr)	£104-00

### SPEAKERS Kits and Units

Jordan-Watts Module	£19-00
Jordan-Watts HF Unit	£9-00
KEF DN22 104AB Convert Kit	P.O.A.
KEF T27	£8-75
KEF B110	£11-25
KEF B200	£12-50
KEF B139	£26-00
KEF DN12 (T27/B110/B139)	£7-50
KEF DN13 (T27/B200)	£5-25

## Tape Decks & Recorders

Aiwa AD1250 Cass./Dol.	£134-00
Aiwa AD6350 Cass./Dol.	£143-00
Aiwa AD6550 Cass./Dol.	£195-00
Aiwa AD6800 Cass./Dol./3H	£299-95
Aiwa AD6980	£269-00
Aiwa AD6900/Cass./Dol./3H	£360-00
Akai 4000DS Mk II Reel	£199-90
Akai 4000 DB Reel/Dol.	P.O.A.
Akai CS702D Mk II Cass./Dol.	£119-00
Akai GXC 706D Cass./Dol	£149-50
Akai GXC709D Cass./Dol.	£179-50
Akai GXC725D Cass./Dol./3H	£250-00
Akai GXC730D Cass./Rev/Dol	£265-00
Akai GXC 750D	£399-00
Harman/Kardon	P.O.A.

Nakamichi	P.O.A.
Pioneer 4040 Cass./Dol.	£115-00
Pioneer 500 Cass./Dol.	£100-00
Pioneer 700 Cass./Dol.	£202-00
Pioneer 900 Cass./Dol.	£299-50
Pioneer 1000 Cass./Dol./3H	£399-00
Pioneer RT707 (Reel)	£405-00
Rotel RD15F Cass./Dol.	£99-50
Sansui SC1110	£139-50
Tandberg TD 20A Reel	P.O.A.
Tandberg TCD320 Cass./Dol.	P.O.A.
Tandberg TCD340A Cass./Dol./3H	P.O.A.
Yamaha TCS20 Cass./Dol.	P.O.A.
Yamaha TC1000 Cass./Dol.	P.O.A.

## Pick-Up Arms, Cartridges & Styli

ADC LMGI Head Shell	£4-50
Formula 4 Mk III	P.O.A.
SME 3009 Improved	£51-00
SME 3009 S2	£55-75
SME 3009 Mk III	£92-00
SME FD200 Damper	£16-50
Cartridges Price Styli	
ADC VLM Mk 3	£24-50 £18-50
ADC XLM Mk 3	£36-00 £22-50
ADC ZLM	£56-50 £32-75
Entre M/C	£92-00
Goldring D110 (Styli for G800)	£3-50
Lentek Pre-Amp	£53-00
Mayware M/C 2C	P.O.A.
Ortofon FFISXE	£10-00 P.O.A.
Ortofon FFISE2	£13-00 P.O.A.
Ortofon F15E2	£19-00 P.O.A.
Ortofon VMS20E	£29-00 P.O.A.
Shure M44/7	£8-00 £6-00
Shure M55/E	£8-50 £7-75
Shure M75/EJ2	£13-25 £10-00
Shure M75/ED2	£15-75 £13-50
Shure M95/ED	£19-75 £17-50
Shure V15/3 (Styli)	£20-50
Shure V15/4	£65-00 £31-50
Shure N75/6 (Styli)	£7-00
Shure N93/E (Styli)	£11-00

## Turntables

ADC Accutrac 4000	£225-00
Aiwa AP2200	£105-00
Aiwa AP2500	£159-00
Garrard	..
SP25 Mk 6/Shure M75-6	£42-00
GT35P sem/auto Strobe/Shure M75ED-II	£84-50
DD130 D/Drive M75ED/2	£89-50
Harman/Kardon	P.O.A.
Linn Sondek LP12	P.O.A.
Pioneer PLS12	£53-00
Pioneer PLS14	£60-00
Pioneer PLS16	£80-00
Pioneer PLS18	£109-00
Pioneer PLS40	£135-00
Pioneer PLC590	£297-00
Pioneer PL630	£245-00
Rotel RPI300	P.O.A.
Rotel RP3300	P.O.A.
Rotel RPS300	P.O.A.
Thorens TDI60BC/Mk II (less arm)	£85-75
Thorens TD 110	£109-50
Thorens TD 11S	£126-00
Thorens TD126BC/Mk III (less arm)	£187-75

## Tuners

Armstrong 623	£129-00
Armstrong 624	£91-00
Harman/Kardon	P.O.A.
Pioneer TX606	£94-75
Pioneer TX8500 Mk II	£186-50
Pioneer TX9500 Mk II	£260-50
Quad FM3	P.O.A.
Rotel RT426	£84-50
Rotel RT726	£99-50
Sansui TU217	£105-00
Sansui TU517	£183-00
Sansui TU717	£202-00
Yamaha CT510/710/810/1010/7000	P.O.A.

## Video

After long and careful evaluation of this medium we now stock the latest Akai home and portable equipment

Akai VHS 3 hour	£650-00
Akai VTS 300 (Portable)	P.O.A.

## Headphones

Akai ASE7	£8-50
Koss HVI	£26-50
Koss HVI/LC	£29-75
Koss K125	£15-50
Koss K135	£18-75
Koss K145	£26-00
Pioneer SE205	£12-50
Pioneer SE305	£19-50
Pioneer Monitor 10	£37-00
Yamaha HP1/HP2/HP3	P.O.A.

88 High St., Edgware, Middlesex, HA8 7HE  
Telephone: 01-952 3238  
Close to the M1 Motorway

OPEN:

9.30 to 6

Mon. to Sat.

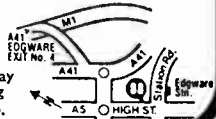
Except

Thursday.

Closed all day

Easy parking

(at rear).



# ROCK



Fred Dellar

THOUGH MOST of the bootlegs emanating from Bob Dylan's Earl's Court and Blackbushe gigs have been of reasonable sound quality (gone, it seems, are the days when boots contained a minimum of music and a surfeit of background noise) **Dylan At Budokan** (CBS/Sony 40AP 1100-1—Import) is doubtlessly the best souvenir of the Zim's 1978 live performances. Recorded at Nippon Budokan, Tokyo, just a couple of months prior to his arrival in Britain—the interim being spent completing the *Street Legal* album—this double-album features Dylan with the same band as that which played the British dates, while the repertoire, with just one or two exceptions, is pretty much the same as that heard at Blackbushe and Earl's Court. Performance-wise, Dylan and Co came on stronger in Britain—the band had been together longer and therefore become more cohesive—but *Budokan* contains a healthy number of choice Zim items, these including a tough, Memphis-like *Maggie's Farm*; the tumble-word, organ-swirl that is *Like A Rolling Stone*; a thoughtful interpretation of *I Shall Be Released*, with Steve Douglas providing some acid sax; a tremendously atmospheric version of *Oh Sister* and a powerhouse assault of *It's Alright Ma*. And though there are some perfunctory run-throughs—the opening *Mr. Tambourine Man* is just about down to cover version standard—**Dylan At Budokan** is, nevertheless, the best legitimate, live Dylan offering currently available. As such, it should be sought and bought, even though it's an expensive item. Most good import shops stock the album (at the time of writing it seems unlikely that British CBS will release *Budokan* here), but anyone experiencing problems can contact Flyover Records, 18 Queen Caroline Street, Hammersmith Broadway, London W.6 (01-748 1595), who specialise in Japanese imports. [A/B: 1\*]

One of the more welcome home releases of recent times has been

**An American Prayer** (Elektra K52111), a collection of self-penned poems and stories read by the late Jim Morrison. Accompanied by some excellently conceived, add-on music provided by the remaining members of The Doors, Morrison's writings edge in at both ends of the scale, being sometimes embarrassingly awful in their schoolboyish desire to shock (as is the case with *Lament For My Cock*) or filled with an appealing mixture of childlike innocence and age-old mysticism, *Ghost Song*, a tale involving the death of a truckload of Indian workers and Morrison's belief that their spirit inhabited his soul, being an example of his more-effective writing. A difficult one to dissect—there are moments when the album revives memories of those dreadful 'freak out' movies;

*Rocking Pneumonia And The Boogie Woogie Flu* (1957) and Jimmy Clanton's *Just A Dream*, a teen queen special in 1958. But it's often the lower echelon cuts that provide more fun—such as Mac (Dr. John) Rebennack's *Storm Warning*, a rugged riff jolted forward by Alvin Taylor's baritone sax attack, or The Supremes' (not the Motown group) *Just For You And I*, pure soda-pop do-wop of the indispensable kind, an item which in its original Ace single form has been changing hands for around \$30 a copy among collectors. And, I guess, it is these self-same collectors who will find most to covet on Carroll's **Ace Story**. Nevertheless, anyone who remembers rock the way she was will find much to wet their lips about on this particular compilation. [C: 1/2]



Phil Manzanera

the type that always included psychedelic happenings, Hollywood hippy dialogue ('*Hey man, dig that crazy joint!*', etc) and the obligatory poetry-reading scene filled with wierdos offering large, rambling chunks of meaningless, verbal overkill—**An American Prayer** still grabs you hard at times, leaves you gasping at Morrison's perfect imagery. A methedrine McKuen then? Perhaps. But those willing to spend just a little time getting involved—preferably via a set of headphones—will find that James Douglas Morrison's belated *Prayer* provides numerous rewards. [A: 1]

Back in the land of the living, that astute old rocker Ted Carroll (of Chiswick Records and Rock On record shop infamy) has recently clinched a deal that provides access to masters cut for the near-legendary Ace Records company of Jackson, Mississippi, the first result of this transaction being **The Ace Story—Volume 1** (Ace CH 11 @), a decidedly tasty, made-in-mono compilation. Included are such one-time chart climbers as Frankie Ford's *Sea Cruise* (1959), Huey 'Piano' Smith's

Following the success of his 801 project, Phil Manzanera can be forgiven if **K-Scope** (Polydor) doesn't quite make it to the upper slopes. The album lacks the unity, the sense of direction and general 'feel' of the 801 releases. Which is to be expected, for while 801 was a working band (if three gigs can said to be 'working'), **K-Scope** finds the ex-Roxy guitarist ringing the changes personnel-wise, pool-picking from such as Simon Phillips, Paul Thompson (drums), John Wetton, Bill MacCormick (bass), Eddie Rayner, Francis Monkman, Dave Skinner (keyboards), Mel Collins (saxes), Simon Ainley (rhythm guitar), Lol Creme (gizmo and backing vocals), Kevin Godley (backing vocals) and Tim Finn (vocals), the superlative Phillips and the equally estimable MacCormick (who also provides some lead vocals) acting as anchor men and appearing on most tracks. The music is, therefore, predictable in its unpredictability. Chrome-plated instrumental skirmishes (*K-Scope* and *N-Shift*) rub shoulders with the reggae-ish *Cuban Crisis* and the more sedate *Gone Flying*, both

songs which could be considered to be of classic 10CC construction (if not production), though, oddly enough, neither features Godley or Creme. At other points (*Remote Control* and *Hot Spot*) the final result doesn't justify the activity involved and Manzanera would appear to be rubbing two musical tree-trunks in order to obtain a lower magnitude spark. However, despite the inclusion of such point-droppers and a sometimes anaemic line in vocals from ex-Split Enz man Finn, **K-Scope** contains a healthy proportion of rewarding listening and is, at the very least, checkworthy. [A: 2]

No doubt about the most enjoyable offering of the month. In this category, Lindisfarne's **Magic in the Air** (Mercury 6641 877 double-album) takes the gold cup, Newcastle Brown sediment an'all. It's *deja-vu* time right enough, with Alan, Jacka, Ray, Si and Rod improving on the live at Newcastle City Hall album they cut in '71 by doing it all again, and doing it right, in December '77. Immaculately recorded by producer Gus Dudgeon and engineer Phil Dunne, everything pans out like a first class studio job—but with an atmosphere that no studio album can ever hope to capture. *Clear White Light*, *Fog On The Tyne*, *Meet Me On The Corner*, *We Can Swing Together*—they still come up bright and shiny even though they're now knocking on for pensionable age. So it's all right, Lady Eleanor—[A: 1], in fact.

At the other end of the scale comes **Public Image Ltd** (Virgin V2114), debut album by Johnny Rotten's new band. It comprises one nine-minute, thump and grind dirge titled *Theme; Religion I and II*, an anti-Catholic poem of dubious virtue; *Public Image*, the band's hit single and easily the best thing on the record; *Annalisa*, a sub-Sex Pistols thrash; *Low Life*, a tirade directed at Malcolm McLaren, which is the only other worthwhile item on the disc; *Attack*, a piece which sounds much like a rhythm section demo transmitted over a radio suffering from undue foreign interference; and *Fodderstompf*, a kind of Potty Time disco cut. On this showing, PIL are as inconsequential as the Pistols were important. Come back Malcom M, all is forgiven. [B: 3/4]

Finally, a mention of **The Best Of Earth, Wind And Fire Vol. I** (CBS 83284), which features an unbeatable array of shake-your-assets goodies from the outfit masterminded by producer Maurice White. *September*, the group's attractive recent chart success, is included, as is *Saturday Nite*, *Singasong*, *Getaway*, *Fantasy* and EW&F's version of *Got To Get You Into My Life*, which was about the only palatable thing on the whole Framppers-Bee Gees' *Sgt Pepper* double. As tasty as a grapefruit in the Gobi. [B: 1\*]

# HI-FI CASSETTE FESTIVAL AT

CROYDON

EDGWARE RD

# SARAYS

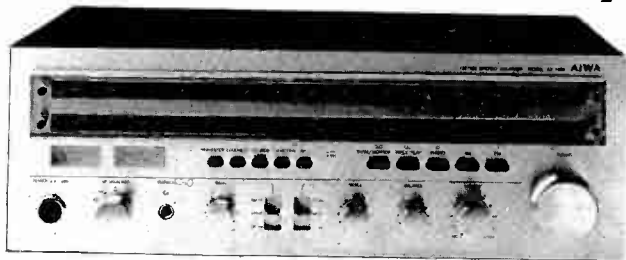
STOKE NEWINGTON

BAKER ST

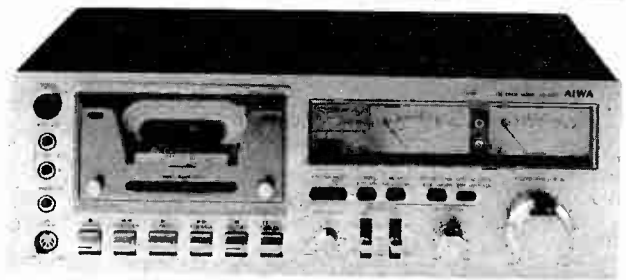
HAMMERSMITH

EXPORT ENQUIRIES WELCOME AT ALL BRANCHES TO SAVE YOU VAT.  
12 MONTHS' FULL GUARANTEE ON PARTS AND LABOUR WITH NOTHING MORE TO PAY.

## BIG REDUCTIONS ON ALL HI-FI, AUDIO, TV and VIDEO



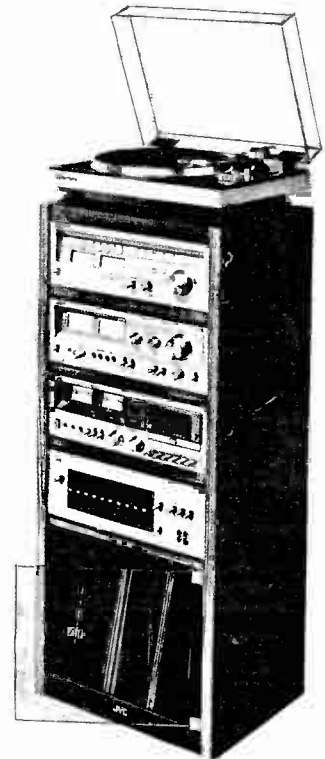
AIWA AX  
7400 RECEIVER



AIWA AD 6550  
CASSETTE DECK



AP 2200 DIRECT  
DRIVE TURNTABLE



JVC SYSTEM E  
HI-FI SYSTEM

## NATIONAL PANASONIC and TECHNICS

Extra big discount on all models of National Panasonic and Technics Hi-Fi, Music Centres, Audio, Television etc.

Consult your nearest branch of SARAYS before making your purchase of National Panasonic or Technics.



43 CHURCH STREET, CROYDON: 681 3344  
272 EDGWARE ROAD, LONDON W.2. 723 5304  
334/336 EDGWARE ROAD, LONDON W.2. 723 0916  
207 BAKER STREET, W.1. 935 5451  
131 KING STREET, LONDON, W.6. 748 4747  
92 STOKE NEWINGTON HIGH STREET, N.16 254 1739  
223 TOTTENHAM COURT ROAD, LONDON W1  
Tel: 01-637 1619

JVC  
SPECIALISTS

Open 9.00 to 6.00 Monday to Saturday. Please phone ---  
Late opening at Edgware Road, and Baker Street on Friday to 7 pm

# JAZZ



Ken Hyder

**WHAT'S FAR OUT** and what's old fashioned is all relative. When Max Roach was drumming with Charlie Parker in the 40s he was part of the avant garde. The avant garde of 40s bebop has become established now, comfortable and familiar. Saxophonist Anthony Braxton is in the mainstream of today's avant garde, and just as Charlie Parker forged his own space to play in and constructed his own set of musical rules, Braxton is creating a new language for his expression. Jazz has moved a long way in the thirty-odd years since Bird turned swing into bebop, and that's what makes **Birth And Rebirth** such a fascinating album, presenting, as it does, Roach and Braxton in dialogue. The idea that this pairing should produce such cohesive music should not come as a surprise, for all the innovators in jazz were clearly influenced by what had gone down before. As they point out in the sleeve note, there's a continuum which links Braxton's music to Parker's, say, and consequently jazz from earlier eras. There are moments when this duo sounds like an updated version of what Roach and Bird might have been up to in the 70s had Bird lived. Braxton has the chops to cut it with Roach on this finely balanced album. He must have had the advantage to a certain extent, being familiar with his own music as well as Roach's. Roach could have almost coasted on his experience if he wanted to—and there are times when the extent of that experience shows—but he didn't. Roach leaps in throughout. He takes chances, and finds himself in areas developed by drummers who came on after him, like Blakey, Elvin Jones and Ed Blackwell. At first hearing it sounds surprising, until you realise that a whole lot of post-bebop drumming can be traced back to Godfather Roach. He plays in a way that's easy to take for granted. It all sounds so effortless. There's no madcap frenetic attempt to set up fast tempos—they sound as natural to

execute as a mid-tempo swing. I've been bemoaning the fact that solid, new and exciting music out of the mainstream of the jazz tradition has been so rare recently. If you've been sharing that feeling, then this album, on Black Saint BSR 0024, is for you. It's one of the best out-and-out new jazz releases I've heard for a long time. You must get it. Projection Records are the distributors. [A/B: 1\*]

**Invitation** by the Joanne Brackeen trio on Freedom FLP 41044 [A/B: 2] isn't exactly what you'd call a heavy musical experience. But you have to prepare yourself for such experiences. Sometimes what you need is a clear, cool, relaxing album to put on at the end of a tiring day. This is such an album. Brackeen is a clean pianist, not without some warmth. Bassist Clint Houston is also dextrous and on top of things, while drummer Billy Hart is one of those drummers who is always there cooking and coaxing. The trio works well together with an engaging lilt. Randy Weston's solo piano album, **Blues To Africa** is also on Freedom, FLP 41014 [A: 2]. This is more robust stuff, and gets down to the meat. The music is more emotional and direct. The African-ness of this American musician at times can remind you of South African pianist Dollar Brand. He succeeds in getting a singing sound out of the keyboard, and at the same time he treats it as a drum. Honest music—no jive. Howard Riley's playing is just as honest, but his approach is very different to either Brackeen or Weston. We're into a more freely improvised scene with **Shaped** on Mosaic GCM 781 [A: 2]. On this solo album he tries to get as much sound out of the piano as possible by playing inside the instrument as well as playing conventionally. That inside job approach is not new, but Riley manages to use it in a way which makes sense, is integrated with the rest of his playing, and avoids the danger of gimmickry. Of the three piano albums here, this is the most cerebral, and there's a cold darkness going through the music which can be menacing.

I still think that jazz funk has played itself out with its slick oversophistication, but as there's so much of it about it would be wrong to ignore it completely.

**Flame** by sax player Ronnie Laws on United Artists UAG 30204 [A\*: 2] outstrips his previous **Fever** album and is just behind the earlier **Pressure Sensitive**. Former Crusader Wayne Henderson is the executive producer, and it shows. The sound is clear and warm. But as with so much of the music in this area, it comes over so programmed. Nevertheless it's a pleasant album to bop along to as you do the washing up. Henderson also lends his producing—and trombone playing—talents to his collaboration with vibist Roy Ayers on **Step Into Our Life**, Polydor 0798 [A\*: 2/3]. It's highly competent, but hardly inspired—more for disco dancing than listening.

I've always found Leroy Jenkins challenging with his abrasive and controlled ugliness. His raw, angry violin playing sets up an edginess which is so severe you never get used to it. At least I don't. It's as if he experiments to find some nasty turn of phrase, then he repeats it again and again as if trying to exorcise an evil spirit. A lot of **The Legend Of Aiglatson** is like that. His sideman, drummer Andrew Cyrille and pianist Anthony Davis, sound sweeter, but they cannot compensate for Jenkins' stance. The trio uses space well, at times allowing the sound of the instruments to cut through clearly, and at other times creating a dense tapestry. It's a great pity that there are no contemporary recordings of the British violinist working in much the same area, Veleroy Spall, for he plays in a similar way but with humour, and more warmth. For too long there's been an assumption that American jazz must be better—because it is American. Most of the time it is, but in this case I'd rather listen to Spall. Having said that, the high spot on this album is a short tribute to Albert Ayler, where Jenkins plays more openly, and more strikingly. It's on Black Saint BSR 0022. [A: 2]

**Enrico Rava Quartet** on ECM 1122 [A\*: 2] is a welcome album from ECM, dispelling, as it does, the idea that emotional music is banned on the label. I suppose there's no way you could make the blood and guts trombone of Roswell Rudd sound anaemic. Both he and trumpeter Rava play a storm, occasionally getting out there. The music sounds loose

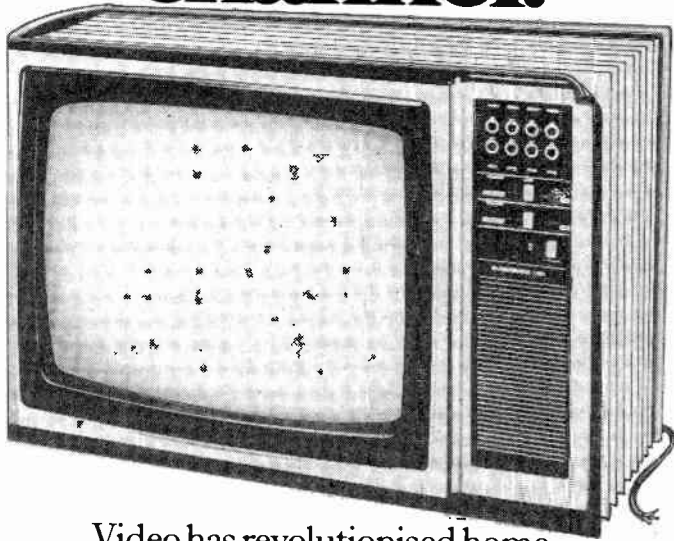
and unpredictable, and draws you towards it. With just bass and drums, the soloists could have found themselves too exposed, but there's imaginative underpinning going on by the other horn while the first one is soloing. The band hangs together well to produce some of the most exciting music I've heard on ECM for some time. As usual it's accompanied by superlative recording.

The impact of the Count Basie band is surely in its swing and dramatic riffing—and that's why I don't like **Count Basie Plays Quincy Jones And Neal Hefti** as much as I thought I might. For the music on this Vogue double album VJD 558 [B: 2] is smoothed out Basie. Much of the punch and attack has been written out of the band's playing in these late fifties sides. The quiet sophistication makes this band sound like a radio big band rather than the monster it was capable of being. A shame.

I must declare an interest, being personally associated with some of the musicians involved in The John Stevens Dance Orchestra. Their **Ah!** on Vinyl VS 111 [B: 2] is an outing in group improvisation. Some people have made the mistake of thinking that when he uses electric instruments—as he does here—John Stevens is dabbling in jazz/rock. On this album, at least, the use of electric instruments is only incidental. Indeed there are few electric bands with an approach to improvisation like this. There are very few solos as such. Instead, what is built up is a dense interlocking of repeated and improvised phrases. I had the feeling, however, that the pieces were a bit long. However, the opening to *Phil* is exquisite.

It takes a bit of courage to record a trumpet and piano duo album. Such exposure can induce lightning chills, but **Once In a While**—it works. Humphrey Lyttelton and Mike Payne have produced a warm and welcoming album of mainstream jazz. The playing is cheery and confident without being cocky, and inspired without being too demanding. Payne's playing in this idiom is fascinating because when I first heard him playing he was hanging out with London's avant garde. But like the man said—if you've got big ears, it's all music. It's on Black Lion BLP 12149. [B: 2]

# Your monthly guide to the 'fourth' channel.



Video has revolutionised home entertainment.

**Television & Home Video**, the new monthly magazine, is right up there on the frontiers of technology, keeping you tuned to every new breakthrough in this fascinating field of home entertainment.

Our March issue features a buyer's guide to video recorders and a run-down on the latest TV games.

You can win an amazing Sinclair Microvision TV, meet ITN's Leonard Parkin and experience the delights of the Benny Hill Extravaganza.

In fact, our only concern is that our first issue may not leave you time enough to watch telly.

March's **Television & Home Video**.

Out now. 50p.

**Television & HOME VIDEO**  
ALINK HOUSE MAGAZINE

THE MAGAZINE THAT READS BETWEEN THE LINES.

*Knightsbridge Audio*

**FREE!** This month we are giving away an Elite magnetic cartridge with every system valued up to £600, or an Elite moving coil with any system valued over £600.

Our suggestion for a reasonably priced turntable is the **ATR/Modified Thorens TD160 Mk II**, which was highly recommended in the latest **Hi Fi Choice** on turntables. The Chassis only costs £100 or we can supply and fit the **Hadcock** for £160, or **Formula 4 Mk II** for £170, or **Mission 774** for £220. **Special Mounting Blocks** and **Turntable Mats** are available as extras. We will fit and align your cartridge **FREE of CHARGE**.

Recommended cartridges are the **Grado F3E** £19.68, **Grado F1** £42.19, **Grado G1** £78.19, **Elite Magnetic** £44.88, **Elite Moving Coil** £99, **Decca Gold** £73.13, **Mayware MC2C P.O.A.**, **EMT** £225 including remounting.

We have found that there is a considerable difference in sound quality between **Head Amplifiers**, and that changing to a more suitable device for your cartridge can make a big improvement. Our suggestion for use with the **Supex**, **EMT** or **Elite** is the **Isleworth** (Rechargeable version) £60, the **Braithwaite** (battery version) £49.50, the **Braithwaite** (mains) £77.62 or the **Elite** £99. Coming soon - the **Mayware Transformer**.

Now in stock, the new two-speed **STD 305M** turntable fitted with a new AC synchronous motor, strengthened and damped sub-chassis, rigid arm mounting base, four-point suspension and rigid plinth system. Excellent sounding if set up properly, £195.

We have the excellent new **Isleworth Power FET** amplifier in stock, 50 watts per channel, mag. and moving coil inputs, two speaker selection, separate double power supply, high quality construction and only £350. Very good sound. Other recommended amplifiers include **Exposure**, **BAS**, **Radford TT100**, **AGI**, **Meridian 105** and **A&R A60**.

Rewiring service. We can rewire your pick-up arm with **Neumann Cable** or make up **Special Leads** to go between pre- and power amps, or head amp. It means a big improvement. Ring for prices. Our recommendation for **Loudspeaker Cables** is **Lucas**, at £1.50 metre. Cut to any length, and it's safe to use with **Naim** amplifiers.

We have loudspeakers by **Harbeth**, **KEF 105**, **Mission**, **Lentek**, **Swallow**, **Dayton Wright**, **Radford**, **Jim Rogers**, **Ramko**, **Stewart**, **Gale**, **B&W** and some new ones coming.

**COMING SOON!** Incredible performance from special rebuilt **Decca** cartridges. **Supplied from stock**. Ring for details and prices.

We can set up your arm, cartridge and turntable very accurately in our on-site workshop. Ring for details.

We can export to anywhere in the world promptly. Write or phone **01-730 2417** or **01-589 9300** or Telex **916301 Honway G** for a quotation.

Our opening times are between 10 a.m. and 7 p.m., including **Saturdays**. **Sunday** and **Evening** demonstrations by prior appointment. **Free advice** given on any sound problem.

**TRY US!**

**KNIGHTSBRIDGE AUDIO**  
**15 HOLBEIN PLACE, LONDON S.W.1**

TEL: 01-589 9300 or 01-730 2417



# folk



Paul Oliver

LAST MONTH I discussed some of the recent issues and reissues of American Folk music which have helped to broaden our knowledge of the diverse forms and styles that have flourished in the United States. There is clearly no lack of interest in the subject in spite of the general indifference displayed by the BBC. To hear blues, for instance, on the radio is better to tune in to a European station. Many continental concerns issue American folk records, and the latest of these is Agram Records. With enthusiasm and imagination Agram have embarked on an ambitious programme which they have initiated with **Brown-Skin Gal: Barbecue Bob** (Agram ab 2001). Handsomely boxed, the record has a large format 80-page booklet replete with discography, biography, photographs, maps and complete lyric transcriptions. Robert Hicks—Barbecue Bob, was the central figure in a school of twelve-string guitar players in Atlanta in the late 'twenties. He was Columbia's biggest-selling blues singer who recorded a wide range of the songs with which he entertained the clients at his barbecue stand. He was a considerable musician, as his playing on the scintillating *Jambooger Blues* shows; whistling guitar slide work accompanying his crying voice. With his brother Charlie he recorded some argumentative duets like the two-part *Darktown Gambler*. Some of his blues were roughish sexual themes, but others, like *Mississippi Heavy Water Blues* were on social subjects, this being on the flood 'high water'. Many of his tunes were unusual, like *Mama You Don't Suit Me*, and the set makes for varied and highly enjoyable listening. Barbecue Bob, who died in 1931 from influenza, aged only 29, is one of my all-time favourites; this album does him justice. [H: 1]

**It Ain't Clean: Charley Jordan** (Agram ab 2002) is devoted to a lesser-known blues

singer, talent scout and boot-legger from Memphis. He was a friend of Peetie Wheatstraw, who accompanied him on several down-home blues like *Workingman's Blues* or *Honey Sucker Blues*. His words were usually interesting but there is a certain same-ness in his work, so that *It Ain't Clean*, with its stomp-time beat, is a welcome pleasure. The set has particular interest in that it includes three good, previously unissued titles from a 1936 session. These items are beautifully clear and *Bad Feeling Blues* is a beauty. A valuable set for the blues collector. [H: 1/2]

The third issue from Agram, on ab 2003, is **Rats Been on my Cheese: Walter Vinson**. He was one of the celebrated group of brothers and relatives who called themselves the Mississippi Sheiks. Though I prefer Vinson in that company he had a certain individuality in his sad singing that comes over strongly on *Things 'Bout Coming My Way*. If *Rats Been on my Cheese* turns out to be a comment on his wife's lover, many of his songs have lyrics directly relating to the Depression years such as the previously unissued *Living in a Strain*. One of the Chatman family accompanies him on most of the titles, but on *Rosa Lee Blues* and other tracks Robert Lee McCoy plays some fine harmonica. Another interesting collection [H: 1/2]. There's more to follow from Agram Records whose address is P.O. Box 42; 2460 AA, Ter Aar, The Netherlands.

While most of Walter Vinson's titles were being made in New Orleans and Chicago in the period 1936-41, some very different sounds were coming out of Texas. **Stompin' at the Honky Tonk** (String STR805) documents Western Swing by white bands from Houston of that period. There's some great fiddling on the Texas Wanderer's *Rackin' it Back* by a largely unidentified group of sidemen from a Cliff Bruner outfit. Bruner himself plays fiddle and sings on *One Sweet Letter from You* with the lazy timing that was the hallmark of fellow Texan Jack Teagarden. Old time dancing styles are recalled in *Rockdale Rag* by the Bar-X Cowboys, but generally the music is up-dated and on *Tulsa Twist* by Dickie McBride and The Village Boys has a Goodmanish form cast in western mould. There's a few blues like a version of *Tin Roof* entitled *Jones Stomp* by the Port Arthur Jubileers, but its jazzy nature and country fiddle-and-electric guitar amalgam is far removed from the spirit of the Agram artists. Just happy, optimistic music by the guys who played their way out of the Depression. [H: 2] The modestly growing catalogue of String Records is uncovering the innocent pleasures of this much-neglected genre. They are distributed by Topic Records.

# LIGHT



Peter Gammond

WRITING this column early in January—my first stint of reviewing for 1979—I am prompted to reflect that 'old acquaintances' will ne'er be forgotten; further, in the present convoluted state of the world, it is just as well that they should not be. It's sheer nostalgia, but we do tend to link songs and music to poignant periods of our existence and looking back has become a pleasant exercise in escapism. To hear Flanagan and Allen sing *Hometown* or *Underneath the arches* (whatever one objectively thinks of their curious delayed action duetting) is to be taken back to those just pre-war days when I was a starry-eyed lad and got nothing but pleasure from my gramophone. I hadn't even thought of reviewing then. I know many will share my pleasure in **The Best of Flanagan & Allen** (EMI Encore ONCR513, £2.85)—16 of their most lasting recordings and a medley. What one does notice, in retrospect, is the excellence of the accompaniments—perhaps not given due credit in our early delight in the singers: [H: 1\*/1]. This new 'Encore' series looks a good thing. **The Best of Stanley Holloway** (EMI Encore ONCM515, £2.85) is another predictable success and takes us back in time a little further even to the homely pleasures of *The Lion and Albert*, *Brahn Boots*, *Runcorn Ferry* and *Pick Up Tha' Musket*—classic lowbrow entertainment that will never be forgotten and which seems to be just as amusing now as it was in its heyday. [H: 1\*/2]

The series also includes those two classic revues—for those who didn't get them at the time or have worn out their old copies—**At The Drop of a Hat** (EMI Encore ONCR 511, £2.85) and **At The Drop of Another Hat** (EMI Encore ONCR 512, £2.85)—the first, I think, much better than the second, but both full of that guileless satire, good humour, wholehearted entertainment—not to mention some first-

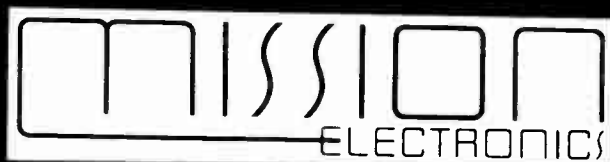
class words and music—that stands for a friendly vein of entertainment before the days when satire turned nasty: [H: 1\*/1]. My final slice of 'genuine' nostalgia this month is made up of **20 Golden Favourites** by Mario Lanza (RCA RL42762, £4.25). Mario Lanza has an enormous following (we are invited on the sleeve to get in touch with The British Mario Lanza Society) so I only timidly mention that I have always found him a bit brash. But, of course, such records are excellent for covering the Romberg-Friml field, mixed in with popular opera and Neapolitana. His voice, heard again, is amazingly like Harry Secombe's (or should that be the other way round?). Now I stand back to avoid the rush of the Mario Lanza fans. [H: 1/2]

There is another kind of nostalgia record, that can either be a great success or a disaster, in which artists of today recreate a sound that they like or which is back in fashion. A highly successful exercise in this direction is called **Ragtime Saxophone** (Relation RR0105, £3.35) in which Leo Van Oostrom on a C melody saxophone and Eddy Van Dijken on piano recreate those lovely lush, virtuosic, slap-tongueing sounds of Trumbauer, early Dorsey and, in particular here, Rudy Wiedoeft from whose pen most of the music came. The purist in me prompts the caution that the 'ragtime' of the title is not strictly accurate. This is the music that came after and from ragtime—in fact the title 'C-Melody Saxophone' would have been sufficient to tell us what to expect. For those who don't know what to expect it is kind of Billy Mayerl, Zez Confrey in saxophone terms; and I found it an absolute delight. Well and aptly recorded too. [A: 1\*]

Another in Grosvenor's excellent series of brass band recordings brings us the Mirlees Works Band mainly conducted by Kenneth Dennison in an album rather obscurely called **Snapshots** (Grosvenor GRS1069, £2.99). This excellent and well-balanced band treat us to a programme of what can fairly be described as good old-fashioned brass band repertoire—Osterling's *Bandology*, Rimmer's *Rule Britannia*, Dennis Wright's *Whitehall march*, the popular Gilbert Vinter *Portuguese Party*—and so on, ending with Ansell's *Plymouth Hoe*. Only one item from *Jesus Christ Superstar* intrudes. Nicely recorded and sensitively played [A: 1]. The Central Band of the RAF always plays sensitively and EMI always record them well. On **Diamonds in the Sky** (EMI Studio Two TWOX1076, £4.40) they present a mixed bag of light classics, TV themes, marches and the prize-winning piece in a Defence Council competition to commemorate the Diamond Jubilee of the RAF *The New Wings Suite*—a real military band test-piece. [A: 1]

# MISSION ACCOMPLISHED

we've established  
a new



**SPEAKERS**  
Sales Base  
in Wales



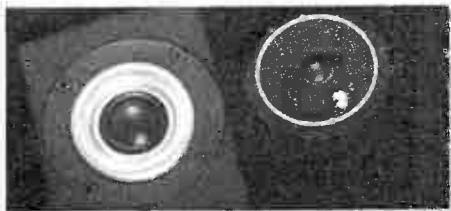
The leading  
specialists in  
S.Wales have now moved to

**The Morgan Arcade**  
The Hayes Cardiff

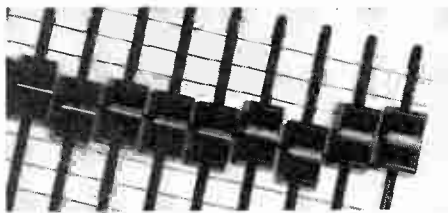
Call in or Ring Cardiff 44011



Stockists of:  
AR . AUDIO MASTER . AIWA . BASF . BAYER . BIB . BOSE . CELESTION  
DECCA special products . FUJI . HIGHGATE . HAYDEN LABS . HADCOCK  
FERROGRAPH . J.B.L. . LUX . KEF . LELSON . LENTEK . MAYWARE  
MAXELL . MICHELL . MICRO SEIKI . MISSION . MONITOR AUDIO  
MORDAUNT-SHORT . NAKAMICHI . NAT-PAN . PIONEER . ORTOFON . PHILLIPS  
QED . T.D.K. . RAM . RICHARD ALLEN . SME . J.E. SUGDEN . QUAD  
TANNOY . TEAC . TECHNICS . TOSHIBA . TRIO . YAMAHA . VIDEOTONE  
WAR . STANTON . STAX . ULTIMO . BOLIVAR . DAHLQUIST  
AUDIO TECHNICA . GALE . SANSUI



# Equipment REVIEWS



## 3 High-Quality Loudspeakers

Reviewed by Trevor Attewell

### ACOUSTIC RESEARCH AR9

#### MANUFACTURER'S SPECIFICATION

Four-way (5 unit) floor-standing enclosed system. **Drive units:** Two 300 mm bass drivers and one 200 mm low mid-range driver, all with acoustic suspensions, one 38 mm semi-horn loaded upper mid-range unit with fluid heat transfer, and one 19 mm tweeter. **Crossover frequencies:** 200, 1200 and 7000 Hz. **Frequency response (DIN):** 18 Hz to 30 kHz ( $-3$  dB at 28 Hz). **Power handling:** 175 W nominal, 275 W max. **Impedance:** 4 ohms nominal. **Sensitivity:** 8 W for 96 dB spl at 1 m (anechoic). **Power handling:** Suitable for use with amplifiers of up to 400 W per channel, clipping for 10% of the time on normal music sources. **Dimensions:** 1340 mm high  $\times$  381 mm wide  $\times$  402 mm deep. **Enclosure volume:** 120 l. **Weight:** 59 kg. **Finish:** Walnut veneer. **Price:** £854 + VAT. **Manufacturers:** Teledyne Acoustic Research, High Street, Houghton Regis, Bedfordshire LU5 5QJ.

AT present this prestigious leader of its range is being imported from the USA, but it is understood that production may subsequently be transferred to this country. It is of unusual construction, being a vertical enclosure of considerable height, with the top rear corner mitred at  $45^\circ$ , and it stands on a  $12\frac{1}{2}$  mm plinth directly on the floor. The lower- and upper-mid units and the tweeter are centrally and vertically aligned in the upper half of the enclosure, and are placed in cut-outs in an acoustic blanket of black felt, 655 mm  $\times$  285 mm  $\times$   $12\frac{1}{2}$  mm thick, which is secured to the front panel by adhesive. Beneath these units is a horizontal row of three 3-position switches, the positions being marked 0,  $-3$  and  $-6$ . The figures (in dB) refer to optional attenuations that may be inserted in the lower-mid-range, the upper-mid-range and the tweeter inputs, respectively.

The front panel is normally concealed, except for a narrow strip at the bottom, by a 19 mm chipboard cover, finished in black nylon jersey material, and secured by four plastic pegs which engage with hollow plastic inserts in the panel.

On each side of the AR9, near the bottom, is one of the bass drivers, covered by an individual wood and fabric grille similar to that on the front, but with both front corners

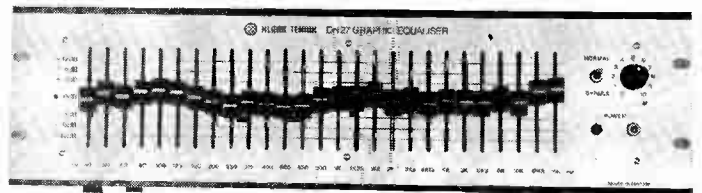
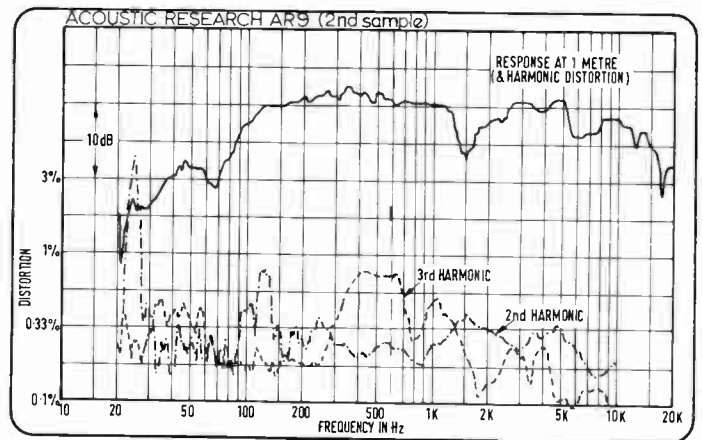
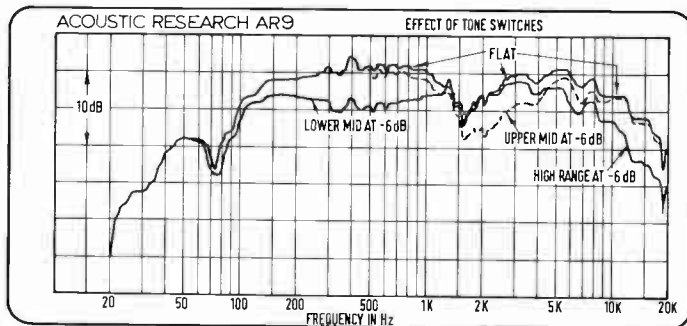
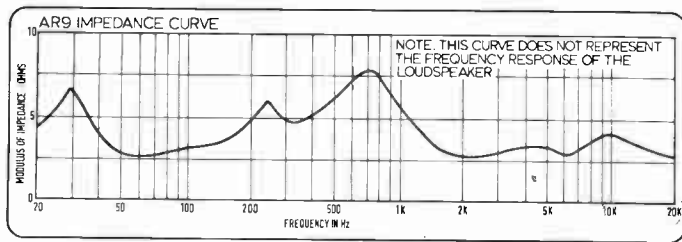


mitred, and a narrow chrome trim on the inside face. The fixing is also by plastic pegs. The back is black, and other woodwork, including the front panel, is finished in walnut veneer. There is a narrow black rebate round the front edges.

Unpacking and handling these loudspeakers is not the world's easiest job, because there is nothing much to get a grip on, and the maker might well consider providing a pair of handles, perhaps of the recessed, folding type. There are no castors, and these would probably not be satisfactory with a tall, narrow construction, anyway, so any movement is best done by tipping the speakers on to one edge, and 'walking' them in the required direction. It isn't too difficult, and should rarely be necessary after installation.

Access to the more interesting half of the cabinet interior is possible by removing one or both of the bass units. To do this it is necessary to pull out the self-adhesive sealing rings of foam which cover the fixing bolts, and, as usual, it must be emphasised that this is not a job for the normal owner. The crossover and response control circuitry is in three parts. On the bottom floor of the cabinet is the bass crossover, and the impressive size of its capacitors and inductors clearly reflects the price paid for designing around a low impedance and a low crossover frequency. Further crossover components are placed on the inside rear face, near the bottom. Both groups are mounted on hard-board, using what appears to be two types of self-curing resin, reinforced with machine screws and 'Spire' type clips for the heavier items. The components are hard-wired, mainly by using the enamelled-copper ends of the coils, with normal flexible wires to the various units. At the rear of the three response switches is a pcb carrying a number of large resistors, which provide the selected attenuation. The general wiring standard is hardly elegant, but is electrically adequate.

The cabinet is of 22 mm high-density chipboard, and the upper portion, above the switches, is well packed with BAF material. The lower-mid-range unit occupies its own cylindrical container, sealed to the front panel. This was not opened, but it undoubtedly contains the usual damping material. Immediately above the two bass units, where the sides would be weakened by the large holes for these units, a single cross-brace has been inserted between the side walls. The general



Equaliser settings needed to equate AR9 with ELS.

constructional standards, and the cabinet finish, are excellent.

Connection is by four terminals, recessed into the rear panel. The top pair is labelled 'upper range' and the bottom pair 'woofers'. As supplied, the two pairs of terminals are paralleled by wires, and connection would normally be to either, leaving the wires in place. The terminals have holes to take 'banana' plugs, but the usual 4 mm type proved to be a rather loose fit, partly because the holes are not very deep, and wires or spades, secured directly under the terminals, may well be preferable. The clear and basic instruction leaflet does not refer to the possibility of making use of these separate inputs, and few buyers are likely to do so.

For best results, especially in the bass, the maker recommends placing the speakers very close to the short wall of a room, spaced about two metres apart, and with the outside woofers at least a metre from the abutting walls. This implies a room in which the short dimension is not much less than five metres. It is probably fair to say that the average British living room is smaller than this. Not only is my own listening room about a metre below the target, but the short walls are rendered unusable by various windows, fixtures such as bookshelves and space needed for drapes. The reasoning behind the suggested placement is that any unit produces an acoustic image in an adjacent wall, just as a lamp gives an optical image in a mirror, the image being a real source, placed as far behind the wall as the first source is in front of it. Interference can take place between the original source and its image, giving a dip in the response, the frequency of which will depend on the spacing between source and wall. AR point out that many LF units in normal loudspeakers give this destructive interference at frequencies within their normal operating range; but the AR9, correctly used, will give a dip due to the woofers at a frequency above the 200 Hz at which the woofers are rolled-off in favour of the lower-mid unit.

Without doubt this theory is correct, and can be made to work; but it must be added that, as usual, there are all sorts of possible

qualifications in some situations. For example, there will not be just one image in the average room, but several, and their magnitudes will depend on the distances involved, and on the reflectivities of the surfaces in which they are formed. Another complication is the phase change introduced by a partially absorbent surface, which is equivalent to a displacement of the image. Fortunately these complications are minimal at low frequencies, where many walls and floors have relatively high reflectivities.

With the foregoing principles in mind, plus actual listening, naturally, the final test position chosen was against a long wall, with a space of just over a metre between the end wall and the woofer nearer to it, and with the whole loudspeaker angled inwards so that its normal radiating axis was at about 45° to the wall. It has been noted in other tests that inward angles of this order, or slightly less, seem best suited to the room acoustics, so that this placement should be a fair approximation to the maker's recommendations.

General listening to sources of all kinds was comfortable and untiring, with a reassuringly large power reserve giving an effortless quality, while the firm, extended bass was particularly liked. There were no obvious vices, but some mid coloration was noted, and this appeared to stem from a little emphasis in this region combined with a lowered upper bass.

The usual detailed comparison against our standard ELS units was then carried out, using only 38 cm/s tapes with Blumlein recordings, mostly featuring personally familiar performers and locations. It was observed that speaking voices had less timbre, while singers lost a little 'body', especially in the upper register. Orchestral brass was slightly 'middy', the upper bass being slightly lower in level, while trumpets tended to appear larger than life, with top notes a bit hard-sounding. Among woodwinds, the clarinet was not quite so rich at its



low end, and hollower towards the top, with some reduction in harmonics, and the oboe was also a little over-bodied. In the string section, the double-bass was generally very similar, and nicely firm on the lowest notes, while the cello tended to be a bit 'plummy'. Violins were less sweet, being fuller in the lower half of their compass and slightly shrill in the upper half. Harpsichord unison (8 ft) stops were a trifle over-full to mid-keyboard, but the bottom end seemed a little weakened. The guitar sounded very similar on both loudspeakers, with a marginal emphasis of plucking sounds by the AR9. Large organs produced some rather complex differences, as expected. In general, low 8 ft manual sounds were a little weaker, as were 4 ft manual stops in the higher notes, but mid-keyboard 8 ft stops were slightly hollow and louder. Lower reeds were less biting, high ones somewhat harder, and compound stops such as the cornet sounded a bit cooler. The pedal stops were well coped with, the deeper bass being firm and more extended than the ELS—even 16 ft pedal woods were handled most creditably.

The effect of the various attenuators was tried, with the highly predictable result that none of the 26 possible ways of modifying the response could be said to produce an overall

improvement for most inputs, even if some of them may have been marginally useful in particular cases. One gathers that it is difficult to sell a loudspeaker in the USA without these additions, which is the presumed reason for their incorporation. AR say that the zero setting should be used for all high-level listening, to prevent overheating of the resistors in the attenuators, and this would be my own recommendation at all levels.

Stereo imaging was very satisfactory, the sound-stage being wide and appearing to be slightly behind the line of the units. Lateral stability was excellent, while vertical movements of the head gave only the small and expected shifts due to interference effects. Ample sound levels were available for ordinary domestic listening, using the Quad 405 amplifier that had been used for the listening tests. For really high levels the output stages of a 200 W amplifier were needed, and it would be reasonable to assume that buyers wishing to listen at such very high levels would use a beefy amplifier anyway.

When the sinewave response at 1 m was measured in the open air by James Moir and Associates, dips were noted in the response at 70 Hz and 1.5 kHz. The lower dip did not seem to be an interference effect, since it persisted when the measuring microphone was moved to other positions, including one on the woofer axis. Third-octave pink-noise tests also confirmed these dips. The makers were contacted, and supplied a replacement pair which gave substantially similar results, shown in the figure. A short listening test also suggested that the second pair differed little from the first. The makers point out that these results do not correlate with measurements made in the USA, which we understand to be non-anechoic responses using a moving microphone technique. At the time of writing this report the problem had not been resolved to either party's satisfaction, and there is therefore a possibility that the batch involved may be untypical in some way. The upper dip is probably not very significant—such features can be partly or wholly due to interference effects. The second and third harmonic distortion curves are also shown, their levels being increased by 20 dB for ease of display. The total distortion is less than 1% at most frequencies—a good result. The bass roll-off shown in the curve is reduced when the loudspeakers are used normally in a room.

The impedance modulus curve shows a well-controlled, but rather low value. The nominal figure of 4 ohms is confirmed, but minimum values below 3 ohms at low and high frequencies suggest that sensible consideration should be given to the choice of amplifier—though, in most cases, there should be no problem.

A check on sensitivity showed that about 5½ V were needed to give a level of 93 dB spl of pink-noise at 1 m in the listening room. This represents a modest power input level even after making due allowance for the lower nominal impedance.

An attempt was made to equalise the AR9 to the ELS with a Klark-Teknik third-octave equaliser Type 27s, using one channel with a mono input. The settings arrived at are shown in the photograph. Lifts near 100 Hz and

above 1.5 kHz appear to correlate to some degree with the measured response, while the reduction in the bass fall-off when the speaker is in a room is also confirmed. Such experiments have obvious pitfalls, discussed in previous reviews (for example, true equalisation can only be approximated in practice), but the results are often interesting, if only as diagnostic pointers.

It is difficult to arrive at a firm conclusion about the AR9 until the present question of sample typicality has been settled. Considering the units actually provided, there are a number of praiseworthy features, including the firm, extended bass, which will appeal to

organ and rock fans alike, the high, comfortable power handling, and the excellent construction, backed by a 5-year guarantee. There is some coloration, and the extent to which this obtrudes must be a personal matter. I would describe the departure from neutrality as noticeable, but not very severe, and perhaps a little disappointing at the price. Both aesthetically and technically the AR9 needs a fairly big room. To be fair in the present circumstances, those shopping in this cost bracket should try to hear some material well-known to them, preferably in their own home, as reproduced by locally available samples.

## SMC AL50 STUDIO

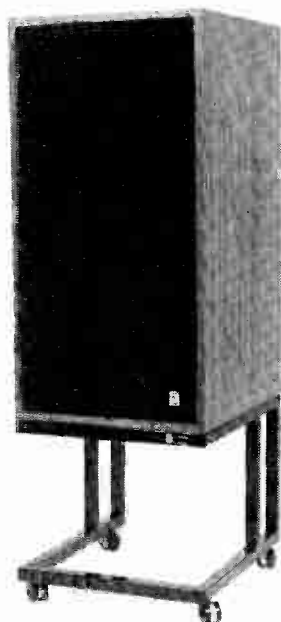
### MANUFACTURER'S SPECIFICATION

Three-way system using a 2-metre acoustic labyrinth, in handed pairs, complete with separable trolley. **Drive units:** KEF B139 bass, Peerless K040 mid-range and Audax HF 12.9 mm tweeter. **Crossover frequencies:** 500 Hz and 4 kHz. **Frequency response:** 25 Hz to 25 kHz (DIN), 35 Hz to 20 kHz ±3 dB. **Impedance:** Not stated. **Power handling:** 60 W (DIN), 120 W peak. **Sensitivity:** 15 W for 96 dB at 1 m. **Maximum output:** 105 dB peak at 1 m. **Suggested amplifier rating:** 25–120 W per channel. **Dimensions:** 737 mm high × 381 mm wide × 432 mm deep. **Stand height:** 340 mm. **Weight:** 34 kg (without stands). **Finish:** Teak and walnut standard, others to order. **Price:** £555 per pair, including T50 trolley and VAT. **Manufacturer:** SMC Loudspeakers, 76 Bedford Road, Kempston, Beds.

**A**LTHOUGH SMC also produce some IB units, they are probably best known for their labyrinth speakers, of which this is the leader. Like many small British concerns, SMC aim at quality, and it is to ensure that the customer hears the AL50 under optimum conditions that a proper mounting trolley is automatically included as part of the purchase.

The cabinet is rectangular, veneered on all sides, top and bottom, with a Tortafleck (speckled) finish on the rear. Removing the fabric-covered 12 mm wood front, using the small pull-tab thoughtfully provided for the purpose, reveals the black-painted unit panel. The piston woofer is placed horizontally near the bottom, with the mid-range and tweeter units close together, in a vertical line slightly displaced from centre. The two matching units are mirror-images. All units are mounted on seals, and the volume behind them is divided by partitions to form the labyrinth, as indicated in the diagram, which is only very roughly to scale. The port is along the top of the panel, with some highly porous Declon foam over the mouth. The crossover has twelve elements, and is fixed inside one side wall near the bottom. The whole of the free volume is loosely packed with BAF.

The Peerless mid-range unit is fully enclosed in its own cylindrical metal chassis, which is heavily damped with mineral wool. Connection to the loudspeaker is by 4 mm sockets in the usual plastic, recessed panel,



## Your Hi-Fi Dealer

LONDON AREA

### CROYDON'S

TAPE RECORDER & HI-FI CENTRE

All leading makes in stock, Hi-Fi equipment, cabinets, etc.

**SPALDING ELECTRICAL LTD.,**

352/354, Lower Addiscombe Road, CROYDON. CRO 7AF

Phone: 01-654. 1231 & 2040

Established 1910

### H. L. SMITH & CO. LTD.

Comprehensive stock of equipment at competitive prices

National Panasonic and Technics

287-9 Edgware Road

London W2 1BE Tel: 01-723 5891

CHESHIRE



## Lost in the Hi-Fi Jungle?

Phone **WILMSLOW 526213** for an expert guide to the territories of:

A & R, AIWA, ARISTON, AUDIOMASTER B & W, CASTLE, CONNOISSEUR, DUAL, DALESFORD, HITACHI, IMF, JR, JVC, KEF, LINN, MICRO SEIKI, MICHELL, MONITOR AUDIO, MARANTZ, OPTONICA, PIONEER, RAM, RÔTEL, ROGERS, SUGDEN, STD, TANGENT, TANNOY, THORENS, TRIO, VIDEOTONE, WHARFEDALE, YAMAHA.

**SWIFT** 5 Swan Street, OF WILMSLOW Wilmslow, Cheshire

EAST SUSSEX

### FOR SOUND SERVICE

Linn, Naim, Meridian, TVA, Revox, Nytech, ECC, Nightingale, Dahlquist, A & R, Neal, Ferrograph, Pioneer, Sansui, Entré, Coral, Dual, Thorens, MA, Celef, Chartwell, Ram, Audiomaster, Sigma, Harbeth, Lentek, HK, Micro, Rega and Castle, Etc.



1. 3 Years parts and labour guaranteed.
2. Late night demos. 6 p.m. to 9 p.m.

### JEFFRIES HI-FI

4 Albert Parade, Green Street, Eastbourne.

Tel: 0323 31336

A quality and service centre of the South-East

## Your Hi-Fi Dealer

HAMPSHIRE

- Comparator demonstrations in three studios
- Open Thursday until 8 pm ■ Direct cut discs
- Approved agents: Aiwa, AKG, AR, B & W, Beyer, Celef, Celestion, DBX, FR, Fons, Gale, Grace, Harbeth, H-K, IMF, JRI49, KEF, Linn-Sondek, Micro-Seiki, Mission, Nakamichi, Neal, Ortofon, Pioneer, QED, QUAD, RAM, Revox 'B', Rogers, Setton, SMC, SME, Spendor, Sony, Stanton, Stax, Sugden, Supex, Tandberg, Tangent, Tannoy, Teac, Technics, Trio, TVA, Yamaha and others.

### Hampshire Audio Ltd

8 & 12 Hursley Road Chandlers Ford Tel: 2827 or 65232

KENT

### Speakers?

For the sound advice of a Musician and professional Engineer consult the specialists:

B&W Chartwell  
ITT JR KEF  
Mordaunt-Short  
Studiocraft  
Tandberg



D. E. HADAWAY & SON LIMITED  
95 & 97 WATLING ST GILLINGHAM  
MEDWAY SO05B  
JOHN HADAWAY, TENG (CEI), FSERT, MAES

OXFORDSHIRE

HENLEY-ON-THAMES

### G. O. MOORHEN

HIGH FIDELITY SPECIALIST

190 READING ROAD, HENLEY. Tel. 4163

Appointed Agent for

Bang & Olufsen, Revox, Tandberg, Sony, Teac, Garrard, K.E.F., Leak, Lowther, Quad, Shure, Spendor, Thorens, Wharfedale etc.

Closed 1 p.m. Saturdays.

SCOTLAND

## Russ Andrews High Fidelity

34 Northumberland Street, Edinburgh 031 557 1672

WEST MIDLANDS

BIRMINGHAM

### FIVE WAYS HIGH FIDELITY

A.R., Armstrong Cambridge, Dual, KEF, LNB, Marantz, Mordaunt-Short, Revox, Spendor, Sansui, Tandberg, Thorens, Trio etc. always on comparator demonstration. Keen prices and good after sales service.

Finance available.

Open: Monday to Saturday 9.15-6.00.

12 ISLINGTON ROW, BIRMINGHAM 15. BIRMINGHAM 021-455 0667

### MILLWARDS

Telephone: 23980

SALOP STREET, WOLVERHAMPTON

FOR SOUND ADVICE

SPECIALISTS IN QUALITY AUDIO AND HI-FI

WE STOCK: ARMSTRONG, SONAB, B & O, SONY, QUAD, MARANTZ, TANDBERG, LEAK, etc.

## Your Hi-Fi Dealer

WEST SUSSEX

The most respected names in hi-fi are here

**BOWERS & WILKINS**

### WORTHING

Littlehampton Road · Tel. Worthing 64141

### SOUNDS SUPREME

Agents for: Yamaha, Lux, Strathearn, JVC, KEF, Monitor Audio, Videotone, Sansui, Trio, Nightingale and many others

136 PORTLAND ROAD,

HOVE, SUSSEX

Telephone: Brighton 723399

YORKSHIRE

Dear Dalesford,

I'm told the 'in' sound is D shaped.

Please tell me more about your Dalesford D speakers.

Name \_\_\_\_\_

Address \_\_\_\_\_

To: Dalesford Loudspeakers Ltd., Calverley, Pudsey, Yorkshire.

## Erricks'

OF BRADFORD

ALL THE BEST BRITISH HI-FI  
2 COMPARATORS-EXCHANGES  
FOTOSONIC HOUSE BRADFORD 22972

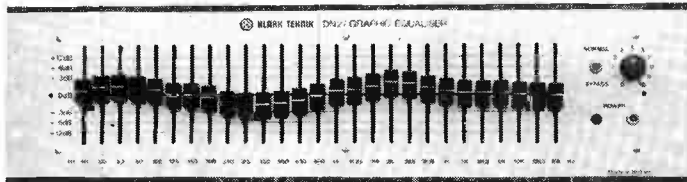
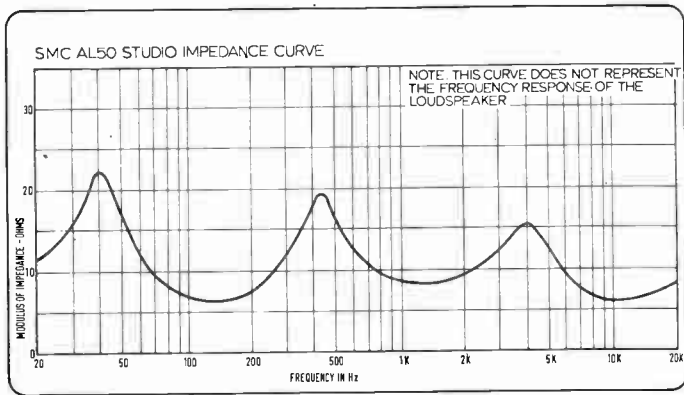
..... Give you a good deal

FOR FULL INFORMATION ON  
ADVERTISING IN  
HI-FI NEWS & RECORD REVIEW

Telephone:

ROGER DENNY, ADVERTISING MANAGER

**01-686 2599**



Equaliser settings needed to equate second sample of AL50 with ELS.

placed fairly low in the back. Also on this panel is a fuse, which protects all units, and a spare is taped to the panel nearby. The finish is excellent throughout, and the cabinet is enormously stiff and 'dead', which is as it should be.

The robust stands are of rectangular-section metal, finished in black cellulose, with vertical bracing struts towards the rear. They rest on twin-wheeled castors and are pleasant in appearance. On the top of each stand are four slightly adhesive, soft pads. After the loudspeaker has been sitting on these for a short time, it sticks enough to allow very easy movement of the whole structure, though without any apparent damage to the finish.

A provisional leaflet supplied with the units recommended placement at least one metre from room corners, and this was done, the speakers being about  $1\frac{1}{2}$  m from the end wall and  $\frac{1}{2}$  m from the side walls. Positioning was not found critical in any way. General listening over a space of some days gave no startling reaction—most sounds seemed quite neutral, and the expected smooth bass extension was certainly present. However, there appeared to be a dimness and recession with sources such as brass and strings, and an overall heaviness of character that had not been expected.

The usual detailed comparison against our standard ELS was then carried out, using mainly 38 cm/s master tapes. In view of the odd recent criticism of this procedure, perhaps it is time to point out once more that the ELS is used as a *transfer* standard to convey some idea of the sound of the loudspeaker under test to the reader with the least possible intrusion of personal subjectivism, and not as an *absolute* standard of perfection. The transfer standard must be well-known, consistent and widely available. It need not be a good, neutral performer, but descriptions are much easier if it is. The ELS has fulfilled all these desiderata for the last 20 years!

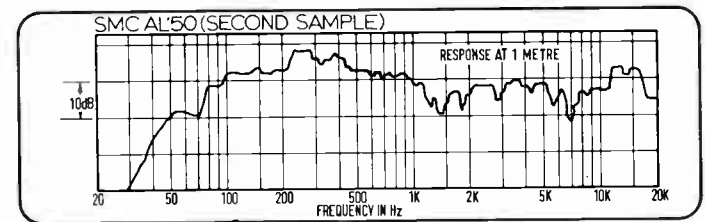
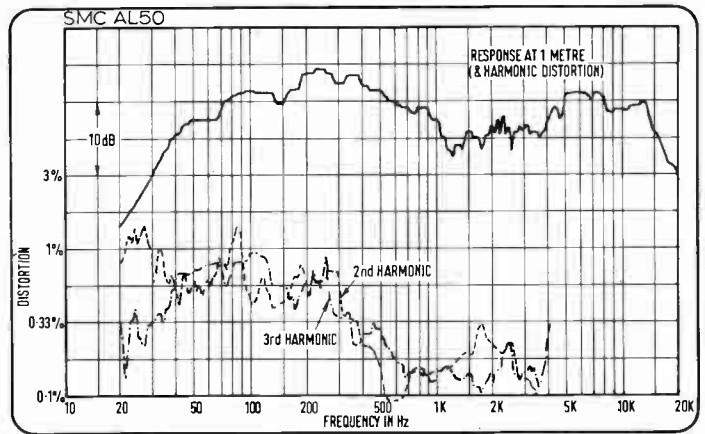
In this case, orchestral instruments had less brightness with the AL50, brass instru-

ments had a reduced edge, trumpets were lowered in level, while the strings showed similar effects, violins being more distant and 'cellos more mellow. Woodwinds were also less open. Guitars were a little heavier and a bit boxy, while the piano seemed to have its lid partly closed, and the harpsichord was less free-sounding. Musical bells were less airy, and most voices had rather more timbre and less bite. Organs were heavier in the 8 ft stops and dimmer at 4 ft pitch, most voices being a trifle duller. The deep bass, however, was tight and very well extended.

The response was measured at 1 m on the tweeter axis in the open air, with sinewave excitation, and the reason for the aural results was immediately apparent—there is a broad hump centred about 250 Hz, followed by a dip between 1 and 5 kHz. The variation was outside specification by a significant factor. The makers were contacted, and stated that both the measurements and the musical performance contradicted all previous experience of this model. Another sample was checked at the factory, where it was found to be within about  $\pm 2$  dB over the greater part of the frequency range, and it was agreed that this one would be tested by James Moir and Associates, who would repeat their test on the first sample at the same time. Regrettably, local weather conditions combined with a need to meet copy dates have made it impossible to include any account of the results in this review, though it may be possible to add a footnote [see *overleaf*—Ed.]

The harmonic distortion curves are lifted by 20 dB, as usual, and show that the 1% level is exceeded only slightly at low frequencies. These curves have been stopped at 4 kHz because the tracking filter decided to go on the blink above this figure. The fault was very obvious, and did not affect any of the other results shown here.

Because of the question mark hanging over the frequency response, there is no point in



reproducing the equaliser settings that were found to improve it greatly. Since there is always a tendency to blame measurements for almost everything otherwise inexplicable, perhaps it should be made quite clear that both the listening tests and the subsequent equalisation experiments firmly supported the general form of the response curve. Nor is this the first time that we have been given a practical answer for those who are convinced that makers invariably send the cream of their production for review!

The impedance modulus shows that the impedance is relatively high over much of the spectrum, with brief minima of 6 ohms at 150 Hz and 10 kHz. Evidently there should be no drive problems here.

Sensitivity tests carried out in the listening room showed that 93 dB spl of pink-noise could be produced at 1 m for an input of  $11\frac{1}{2}$  volts. This is a typical result for a labyrinth system. Using a largish amplifier rated at 200 W peak it was possible to obtain very high sound levels without any problem, and the maximum output specified by the maker is realistic—if not even a trifle conservative. Deliberate overdriving proved that the fuses give adequate protection, though most normal hearers will be looking for their ear-defenders before such levels are reached.

The stereo performance was also good, giving adequate stability over a wide area. The depth was a little restricted, with the orchestra mainly behind the loudspeakers, and one was not at all conscious of the speakers as discrete sources—a very good feature.

For the second time in this group of reviews it is impossible to reach a satisfyingly tidy conclusion. The AL50 is based on well-proven principles, uses respected components and is built to high standards with obvious thought and care. By all the rules it should give an unimpeachable sound quality, and it isn't hard to believe assurances that its

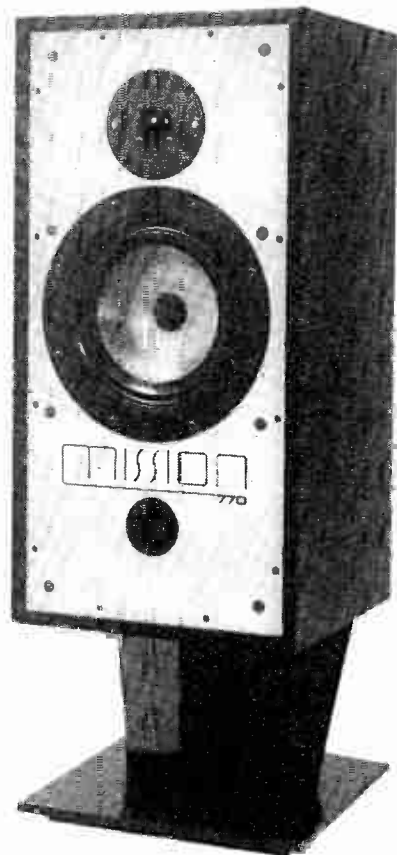
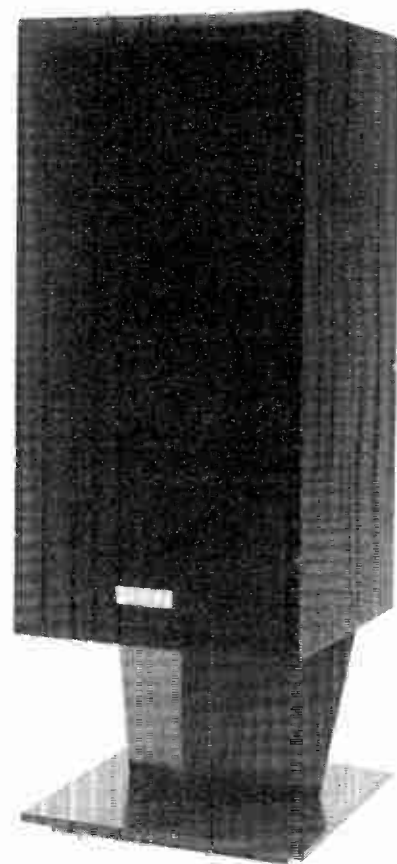
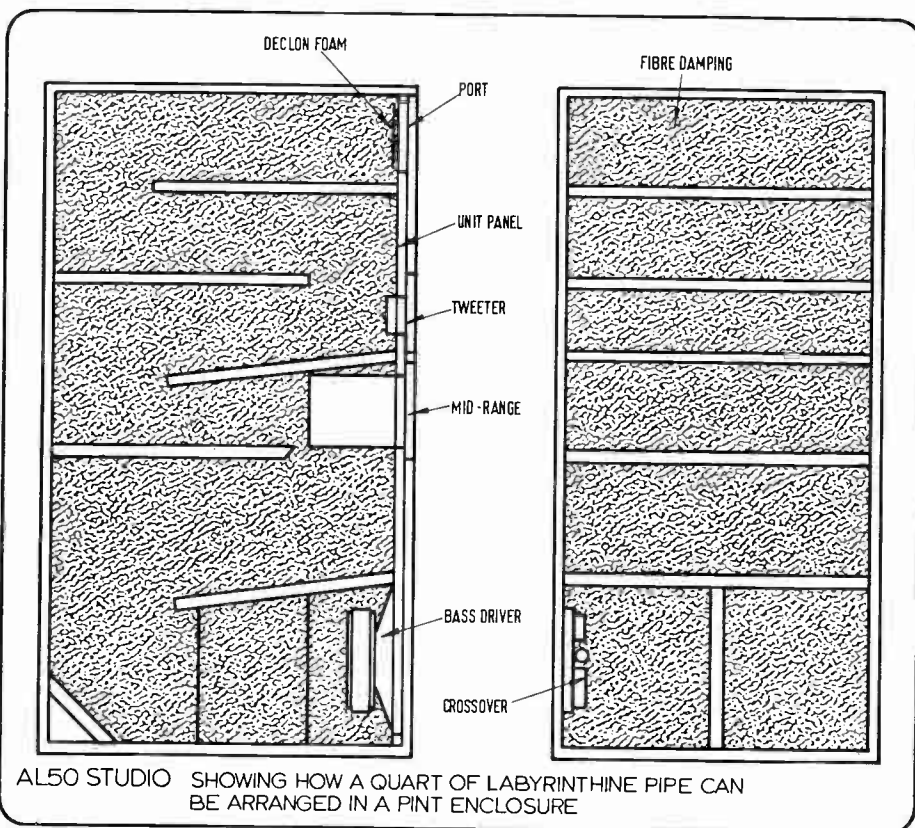
brethren do just that. However, I can only review the actual goods delivered to me, with or without gremlins. On that basis, my own conclusion must be that the sound quality is not commensurate with the price. [But see further note below—Ed.]

#### FOOTNOTE TO SMC REVIEW

The second sample was duly measured, and the curve obtained is shown in the figure. The response is distinctly flatter than that of the previous sample, though still somewhat outside the specification, which is quite a tight one. This speaker was also compared on an A/B basis both with the first one and with our ELS. In the former case, the difference was very noticeable, the second sample being far less 'middy' and 'boxy' than

the first, with a better mid/HF balance, and brighter edges where these should be heard. Compared with the ELS, in a necessarily shortened test, the differences were considerably reduced in magnitude, their actual form resembling fairly closely those already noted in the main text. The equaliser settings obtained for the second sample are shown, and these again tend to confirm the measured response.

Naturally, we should need a more extended test than was actually possible in order to reach a definitive conclusion, but the second sample certainly had a pleasantly acceptable degree of neutrality, and it is my belief that the original pair would have earned an overall recommendation had they been to this standard.



## MISSION 770

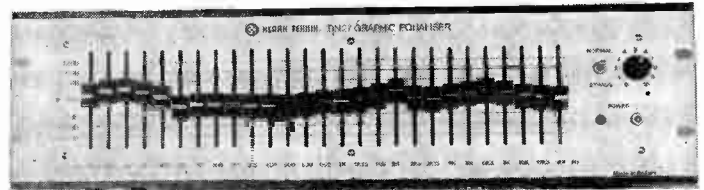
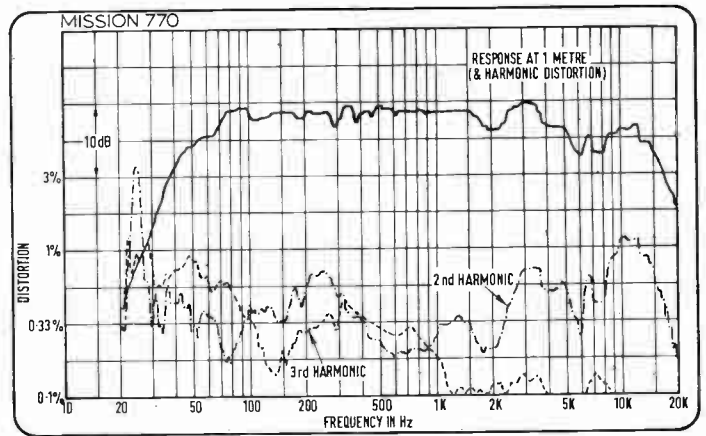
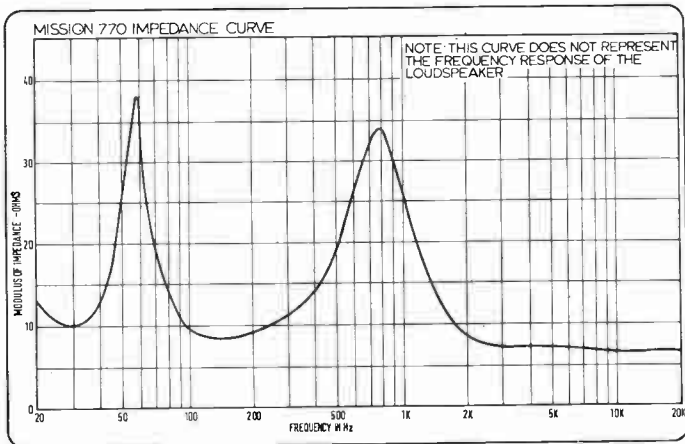
### MANUFACTURER'S SPECIFICATION

Two-way reflex unit, stand mounting. **Drive units:** SEAS 25 mm soft-dome tweeter, 206 mm polypropylene cone mid-range and bass driver. **Crossover frequency:** 2.7 kHz, with 6 and 12 dB/oct. slopes. **Impedance:** 8 ohms nominal. **Sensitivity:** 1 W pink-noise for 84 dB spl at 1 m (anechoic). **Frequency range:** 50 Hz to 20 kHz  $\pm$  3 dB. **Recommended amplifier power:** 35 to 120 W RMS per channel. **Dimensions:** 590 mm high  $\times$  300 mm wide  $\times$  307 mm deep. **Volume:** 38½ l. **Weight:** 12.7 kg. **Finish:** Black standard, Walnut to order. **Price:** £357 inclusive of stands and VAT. **Manufacturer:** Mission Electronics Ltd., PO Box 65, London SW7 1PP.

**M**ISSION is a 25-man company which is a relative newcomer to the loudspeaker market, but which is expanding rapidly with its policy of adequate investment and extensive advertising. The 770 heads a new Series II which will offer a complete system with consecutive numbering, namely, 771 pre-amplifier, 772 power amplifier, 773 moving-coil cartridge, and so on. The object is to offer high quality rather than to manufacture to a restricted price.

The 770 is small and light, and is not much bigger than some bookshelf models. Its rectangular cabinet is of 13 mm high-density chipboard, the samples sent for review being finished in satin black on all surfaces except the unit panel, which is slightly recessed and covered with a silver-grey laminate. The bass





Equaliser settings needed to equate 770 with ELS.

unit is a little high of centre, with the tweeter close above it, and the port (56 mm dia. x 100 mm long) below, all vertically aligned. The port has no acoustic damping. The interior of the box is covered with bituminous panels on the sides, top and bottom, inside which is a lining of 50 mm plastic foam. A very simple crossover is used, and is mounted behind the front panel between the port and the bass driver. Both drivers are set into the panel using sealing rings, and the bass unit is fitted with a hardboard clamp ring, also painted satin black. The panel is normally covered by a black contoured-foam grille which is self-supporting. On the review samples the covers were held by small magnets and steel discs, but these proved insufficiently strong, and all production now uses the more common Velcro fastenings.

Stands were provided ready-assembled for the review speakers, but are normally supplied, packed flat, with the units. This very convenient arrangement is possible because each stand is made from three flat boards, again finished in satin black. One board rests flat on the floor, while the other two are put together to form a 90° 'V' and fixed to the base by screws passed through it from below. The top of the 'V', which points toward the listener, is longer than the bottom, and the rear ends of the 'V' are lower than the front point. The speaker rests on the top, on three tiny pads, and is thereby tilted slightly upwards to bring the tweeter axis more in line with the ears of the average seated listener. The stand height is about 200 mm overall. Quite an ingenious arrangement, which makes the stands cheaper and more convenient to handle, but it must be said that the result was not too firm in use, and problems could arise where there are active kids or frenetic dogs. Fortunately the loudspeakers are very lightweight! The connecting panel is beneath the speakers, and it is easier to connect them before putting them on their stands. This idea does permit very unobtrusive wiring, of course. Connection is by 4 mm sockets or a male 2-pin DIN receptacle. There are also two fuseholders on the panel, one working, the other carrying a spare fuse.

The bass unit was originally bought in from Chartwell, but Mission have acquired the sole license to manufacture these units themselves now that Chartwell have ceased trading, and they have also secured the consulting services of a former key member of

Chartwell's staff. Like many companies, Mission buy their cabinets outside.

Most of us are now so price-battered that we just nod vaguely when informed that Joe Bloggs has spent six month's salary on a mediocre piece of equipment, and our first reaction to anything small that costs less than its weight in platinum is that it must clearly be a load of cobblers. An occasional exception temporarily restores our sense of perspective, and the Mission 770 appears to qualify as one (perhaps the LS3/5a was the really outstanding example).

This was my reaction shortly after the start of the usual general listening tests on the 770. They sounded remarkably clean, without any particular coloration or hangover, and produced bass of a quality that quite belied their size. One was not particularly conscious of the fact that they were below ear level, and positioning within the room was completely non-critical.

When compared in detail with the ELS standards, some small differences did appear, though none was at all obtrusive. Starting with the orchestral strings, violins were fractionally less open and sweet, the cello slightly emphasised in its lower register and the double-bass sounded very similar on both sources. The lower brass instruments had a trifle more body, but the trumpet was practically identical, with both airiness and edge. Woodwinds were also very comparable, the clarinet a little tubbier near the bottom and the oboe perhaps a little less transparent. Guitars had a touch more body, and the harpsichord was a trifle less open in the 4 ft register. Speaking voices were just a bit more full—the chest tone seemed somewhat increased—but singing voices were well matched, with a slight coolness, tending to edginess, at the top of soprano and tenor scales. The piano was also a mite cooler.

Among the organ stops, some 4 ft tones were very slightly exaggerated, the lower manual and upper pedal 8 ft flutes were a

little down in level, while the cornet and sharp mixtures tended to edginess, as also were high-pitch, loud reeds. In the pedal department, the upper 16 ft notes had a touch of cloudiness, the upper bass being marginally exaggerated, while the 770 could not follow the ELS down to the very lowest notes at the same level. My own conclusion after this part of the test was that the overall quality of reproduction from the Mission was very good indeed, and that its general similarity to the ELS was more significant than the occasional differences.

During these tests it was noticed that there was a certain ambience tending to concentrate near the speakers. This may be associated with a fair amount of radiation from the surfaces, and I believe that a further improvement could be gained by using thicker wall material, or providing some internal bracing.

The stereo imaging was outstandingly good, and extended over a surprising area, even close to and behind the units. The power handling was also excellent for such a modest size of enclosure, and it coped with pop music at levels estimated at about 100 dB without making nasty noises except for a slight 'knock' on bass drum impulses, which made the bass cone traverse an alarming path in and out of the cabinet.

The open-air on-axis sinewave response curve at 1 m, by James Moir and Associates shows a very respectable flatness, except at the top end; even so it is within  $\pm 3\frac{1}{2}$  dB from 45 Hz to 15 kHz. The harmonic distortion curves have been raised by 20 dB, and the maximum total distortion is a little over 1% just above 10 kHz. The second harmonic peak at 25 Hz is to be expected, and should not be excited under normal conditions.

As the impedance modulus curve suggests, there are no drive problems with this loudspeaker. The shape of the curve is typical of the arrangement used, and the modulus does





**This is what happens  
every time you play a record.**



**This is what happens  
after you apply Sound Guard.**

# If everybody used Sound Guard,<sup>®</sup> worn out records would be unheard of.

Before Sound Guard record preservative, you destroyed the records you loved, a little at a time every time you played them.

Friction was the culprit.

It's what happens when a hard diamond stylus tracks in soft vinyl grooves.

But now you have the protection your records need. The regular use of Sound Guard record preservative, a by-product of aerospace technology.

Its unique lubricating properties significantly reduce friction and wear. It's so thin, less than 0.000003", that the most delicate modulations aren't disturbed.

And anti-static qualities incorporated in the Sound Guard formula give your records long-lasting anti-static protection to resist the accumulation of dust.

What's more, Sound Guard

preservative can be applied repeatedly without buildup, because it's self limiting.

The fact is, when you use Sound Guard preservative as directed, your record keeps its full fidelity and maintains the same absence of surface noise and harmonic distortion as it did the first time it was played.

Application is easy. Simply spray it on and buff it in.

## Sound Guard<sup>®</sup>

Suggested Retail Price £4.99 inc. VAT.  
Refills available at £3.25 inc. VAT.



Sole UK Distributor: Pyser Ltd., Fircroft Way, Edenbridge, Kent TN8 6HA.  
Telephone: Edenbridge (0732) 864111 (8 lines).

# NUSOUND

ESTABLISHED OVER 20 YEARS

- EXPERT, FRIENDLY ADVICE
- VERY COMPREHENSIVE STOCKS
- 12 MONTHS FREE SERVING

## Britain's most competitive Hi-Fi specialists

PRICES ARE CORRECT AS AT 3/1/79 BUT MAY BE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE. (S/D) = SPECIAL OFFERS, LIMITED SUPPLIES ONLY AVAILABLE AT THESE PRICES

### OVERSEAS VISITORS & DIRECT EXPORT SERVICE

OVER THE COUNTER PERSONAL EXPORT (SAVE V.A.T.) AVAILABLE AT ALL OF OUR BRANCHES • DIRECT EXPORT TO ANY COUNTRY • WRITE, TELEPHONE OR TELEX (ANDROMEDA 8951525) TO OUR KINGS CROSS BRANCH

TUNER AMPLIFIERS (C & I £2.75)	
Aiwa AF3070	£317.95
Aiwa AX7400	£169.95
Aiwa AX7600	£224.95
Akai AA1010 (s/o)	£89.95
Akai AA1125	£139.95
Akai AA1135L	£236.95
Akai AA1450	£279.95
Akai AA1175	£402.95
Akai AA2000	£558.95
Amstrad EX222	£68.95
Amstrad EX333	£94.95
Amstrad 5050	£89.95
Armstrong 625 (T)	£190.95
Armstrong 626 (T)	£219.95
Beomaster 3400 (s/o)	£189.95
Harman Kardon 330C (s/o)	£99.95
Harman Kardon 430 (s/o)	£149.95
Harman Kardon 730 (s/o)	£209.95
Harman Kardon 340, 450, 560	P.O.A.
JVC JRS50 (s/o)	£89.95
JVC JRS300 (s/o)	£229.95
JVC JR-521L, S81, S201L, S301	P.O.A.
Lux R1030, 1040, 1050, 1120	P.O.A.
Marantz 2216B, 2226B/L, 2238B/L, 2252B	P.O.A.
Pioneer SX550 (s/o)	£124.95
Pioneer SX850 (s/o)	£279.95
Pioneer SX990	£130.95
Pioneer SX690	£163.95
Pioneer SX980	£335.95
Pioneer SX1080	£416.95
Pioneer SX1980	£721.95
Rotel RX203	£94.95
Rotel RX203LW	£104.95
Rotel RX303	£114.95
Rotel RX403	£119.95
Rotel RX403LW	£129.95
Rotel RX503	£149.95
Rotel RX603	£249.95
Rotel RX803	£299.95
Rotel RX1203	£499.95
Rotel RX1603	£599.95
Sansui G301	£155.95
Sansui G401	£175.95
Sansui G5000	£281.95
Sony HST89 (s/o)	£199.95
Sony STR212L, 313L, V3L, V4L, HST49, 89A	P.O.A.
Tandberg TR2055 (s/o)	£309.95
Tandberg TR 2075 Mk I (s/o)	£349.95
Technics SA5070 (s/o)	£99.95
Technics SA5270 (s/o)	£159.95
Technics SA100L, 200L, 300L, 400, 500, 600, 700	P.O.A.
Trio KR2600 (s/o)	£79.95
Trio KR2090L	£129.95
Trio KR3090	£161.95
Trio KR4070L	£237.95
Yamaha CR200E (s/o)	£98.95
Yamaha CR220, 420, 620, 820, 1020, 2020	P.O.A.

STEREO AMPLIFIERS (C & I £2.75)	
Akai AM2200 (s/o)	£79.95
Akai AM2250	£84.95
Akai AM2450	£137.95
Amstrad EX220	£52.95
Amstrad EX330	£59.95
Armstrong 621 (T)	£120.95
Harman Kardon A401 (s/o)	£79.95
Harman Kardon HKA402 (s/o)	£179.95

TURNABLES (C & I £2.75)	
Acutrac 4000 F.R.A./P.O.A.	£103.95
Aiwa 2200+Cart.	£103.95



## BANG & OLUFSEN



At our two specialist B & O Centres we have on display, ready for immediate demonstration, the complete range of superb Bang & Olufsen Hi-Fi equipment. Please telephone for our prices, special offers, credit terms, etc.

**CITY:** 228 Bishopsgate, EC2. 01-247 2609  
Mon.-Fri. 9-6 p.m., Sun. 10-2 p.m., Closed Sat.

**WEST END:** 378 Edgware Rd, W2 01-724 1583  
Open Mon.-Sat. 9 a.m.-6 p.m.

Aiwa AP2500—Cart.	£158.95
Akai AP100—Cart.	£75.00
Akai AP206	£96.95
Akai AP306	£128.95
Amstrad Connoisseur BDI Kit	£18.00
BD2/A Assembly	£54.95
BD101—Arm	£45.50
BD101+SAU2 Arm	£61.50
BD101+SAU4 Arm	£78.95
BD103—Arm	£77.00
BD103 Assembly +Arm	£90.50
Compact Plinth Standard Plinth	£22.50
Dual CS604, 621, 721	P.O.A.
Garrard GT55P Mod.+Cart. (s/o)	£76.50
GT20+75ED II	£71.95
GT25+M75ED II	£80.95
SP25 Mk VI W/C	£47.95
GT35+M75ED II	£97.00

Lenco L65 (s/o)	£34.95
Lenco L84 (s/o)	£44.95
Lenco Plynth/Cover for L65 (s/o)	£6.50
Lux PD131 (less arm)	P.O.A.
Lux PD272+arm	P.O.A.
Marantz DD24	P.O.A.
Micro Seiki MB10, MB14, DD24	P.O.A.
Pioneer PL514	£59.95
Pioneer PL516	£80.95
Pioneer PL518	£108.95
Reference F.R.A./P.O.A.	
Revox 8790 Inc. Orto VMS20E	P.O.A.
Rotel RP2300—Cart. (s/o)	£57.50
RP1300+Cart.	£89.95
RP2300+Cart.	£99.95

RP3300+Cart.	£99.95
RP3300	£94.95
RP5300	£109.95
Sony PSX6 (s/o)	£124.95
Sony PST1, X4, T20, 212	P.O.A.
Technics SL150 Mk II, 220, 230, f300 Mk II, 1310 Mk II, 1400 Mk II, 1440 Mk II, 1500 Mk II, 1510 Mk II, 3200, 3300, 5200, 5300	P.O.A.
Thorens TD126BC II (s/o)	£144.95
Thorens TD104, 105, 110, 115, 126 Mk IIC, 126 Mk IIBC, f60	P.O.A.
Mk IIBC	P.O.A.
Trio KD500	£216.95
Trio KD550	£237.95
Trio KD1033B	£56.95
Trio KD2055	£105.95
Trio KD2070	£109.95
Trio KD3070	£145.95
Yamaha YP211, 511	P.O.A.

SPEAKERS (C & I Bookshelf £3.50) (C & I Console £5.00)	
Amstrad f1000	£19.00
Amstrad Acousta 1500	£37.95
Amstrad Acousta 2500	£41.50
AR AR9, 10, 11, 12, 14, 15, 17, 18	P.O.A.
Armstrong 602 (T)	£182.50
B & W DM2111 Stand, DM2111+Plinth, DM4, 5, 6, 7	P.O.A.
Celef Domestic I Imp., II Super, Monitor Improved, Mini Professional SM, PEI	P.O.A.
Celestion UL6, UL8, UL10, Hadleigh Mk II, Ditron II, 15XR, 22, 25, 442, 551, 662	P.O.A.
Goodmans Achro-mat 100 (s/o)	£79.95
Goodmans RB18	£57.50
Goodmans RB20	£72.95
Goodmans RB35	£104.50
Goodmans RB65	£129.95
IMF Super Compact II, Super ALS40 II, Studio TL550 II, TLS80 II, Monitor Mk IV	P.O.A.
Jim Rogers JR149	P.O.A.
Jim Rogers Super Woofer & LPA Unit	P.O.A.
Keesonic F.R.A./P.O.A.	
KEF Calinda, Cantata, Celeste III, Corelli, 104AB, 105	P.O.A.
Leak 3020 (s/o)	£74.95
Leak 3030 (s/o)	£109.95
Leak 3050 (s/o)	£149.95
Leak 3080 (s/o)	£279.95
Marantz 4G, 4 Mk II, 5 Mk II, 6 Mk II, 7 Mk II	P.O.A.
Monitor Audio MA3 II (s/o)	£339.95
Monitor Audio MA4 (s/o)	£172.95
Monitor Audio MA7 (s/o)	£84.95
Monitor Audio MA8 (s/o)	£99.95
Mordant-Short Carnival II, Festival II, Pageant II	P.O.A.
Quad Electrostatic Revox BX350	P.O.A.
Rogers Compact Monitor	P.O.A.
Rogers Export Monitor	P.O.A.
Rogers LS3/5A	P.O.A.
Sony F.R.A./P.O.A.	
Spendor F.R.A./P.O.A.	
Tannoy Devon (s/o)	£244.95
Tannoy Eaton (s/o)	£214.95
Tannoy Ascot, Chester, Dorset, Mayfair, Oxford, HPD295A (Chassis), HPD315A (Chassis), HPD385A (Chassis)	P.O.A.
Arden, Berkeley	P.O.A.
Technics F.R.A.	
Whiteone F.R.A./P.O.A.	
Wharfedale Chevin XP2 (T)	£33.95
Denton XP2 (T)	£50.95
Glendale XP2 (T)	£102.95
Linton XP2 (T)	£77.95
Shelton XP2 (T)	£63.95
Dovedale SP2 (T)	£172.95
Teesdale SP2 (T)	£127.95
E50 (W)	£252.95
E70 (W)	£311.95
Denton 2XP Kit	£26.95
Glendale 3XP Kit	£61.95
Linton 3XP Kit	£41.95

Yamaha NS500, 615, 635, 658, 1000, 1000M	P.O.A.
--	--------

CASSETTE/REEL TO REEL RECORDERS (C & I £2.75)	
Aiwa AD1600B	£179.95
Aiwa AD1250	£148.50
Aiwa AD6350	£148.50
Aiwa AD6400	£184.95
Aiwa AD6550	£215.95
Aiwa AD6800	£314.95
Aiwa AD6900	£366.50
Akai GXC570D (s/o)	£369.95
Akai GXC650D (s/o)	£579.95
Akai GXC740D (s/o)	£219.95
Akai GX215D	£321.95
Akai GXC570D II	£616.95
Akai CS702D Mk II	£118.95
Akai GXC706D	£161.50
Akai GXC709D	£193.50
Akai GXC725D	£246.95
Akai GXC730D	£284.50
Akai GXC750D	£428.95
Akai I722 Mk II	£289.95
Akai 4000DB	£268.95
Akai 4000DS Mk II	£214.50
Harman Kardon HK2000 (s/o)	£199.95
Harman Kardon 1500, 2500	P.O.A.
JVC KD2, 105, 21, 25, 55, 65, S201, 720, CD1635	P.O.A.
Nakamichi F.R.A./P.O.A.	
Neal F.R.A./P.O.A.	
Pioneer CTF500	£96.95
Pioneer CTF700	£194.95
Pioneer CTF1000	£393.95
Pioneer CTF4040	£111.95
Pioneer RT707	£402.95
Revox B77/2T/2T H/Speed	P.O.A.
Revox B77/2T/4T Standard	P.O.A.
Rotel RD15F	£99.95
Sansui SC1100	£120.95
Sansui SC1110	£115.95
Sansui SC2100/10	£200.95
Sony EL7 (s/o)	£374.95
Sony TC1775D (s/o)	£369.95
Sony TC510-2 (s/o)	£415.95
Sony TC520CS (s/o)	£129.95
Sony TCUS, US, KIA, K4A, K5, K60, K96R, 1385D, 150, 1585D, 399, CF520L, TC645	P.O.A.
Tandberg TCD310	£214.95
Teac A100 (s/o)	£104.95
Teac A303 (s/o)	£164.95
Teac A103, 106, 107, 300, 2300D, 2300SX, 3300SX4T, 3300SX2T, 3340S, 4300SX	P.O.A.
Technics RS615 (s/o)	£104.95
Technics RS676 (s/o)	£229.95
Technics RS616, 630USD, 631, 640, 641, 646, 671USD, 673, 676, 686, 1500, 7500	P.O.A.
Trio KX920 (s/o)	£179.95
Trio KX520	£138.95
Trio KX620	£161.95
Uher CR240AV (s/o)	£347.95
Uher CG310 (s/o)	£123.95
Uher G5521 Variocord (s/o)	£215.50
Uher 4000 Reportic (s/o)	£215.50
Uher 4200/4400 Reportic (s/o)	£264.95
Yamaha TC511S (s/o)	£119.95
Yamaha TC520, 800D, 800GL, 1000	P.O.A.



## CUSTOM HI-FI CENTRE



Our High Holborn branch specializes in all the leading 'top of the market' brands and is staffed by extremely knowledgeable and helpful Hi-Fi specialist salesmen. The NUSOUND CUSTOM HI-FI CENTRE is 'the place' for the man who wants the best available in equipment, advice and service.

(Address etc. below OR Telephone 01-242 8354)

DD130 W/C	£98.50
Goldring CK2 Kit (Inc. Arm) (s/o)	£19.95
Goldring G103 (s/o)	£29.95
JVC JLA20, QLA2, QLF4, QLS, QL7, QL70	P.O.A.

PICK-UP ARMS (C & I £1.75)	
Connoisseur SAU2	£16.50
Connoisseur SAU4	£39.50
SME 3009 (FH), (DH), III	P.O.A.

# NUSOUND

## HI-FI CENTRES

**CREDIT TERMS ARE AVAILABLE ON ALL GOODS OVER £50**

**HOLBORN** 376/8 Edgware Road, W2. Tel: 01-242 7401

**EDGWARE RD.** 82 High Holborn, WC1. 01-724 1583

**KINGS CROSS\*** 242/244 Pentonville Road, N1. 01-837 8200

**LEWISHAM** 36 Lewisham High Street, SE13. 01-852 2399

**ILFORD** Pioneer Market, Ilford Lane, Ilford. 01-478 2291

**WALTHAMSTOW** 252 Hoe Street, Walthamstow E17. 01-520 1906

OPENING HOURS: HOLBORN, EDGWARE ROAD Mon-Sat 9-6  
ILFORD, LEWISHAM, KINGS CROSS Mon-Sat 9-6, Thurs 9-1 WALTHAMSTOW Mon-Sat 9-6, Wed 9-1pm

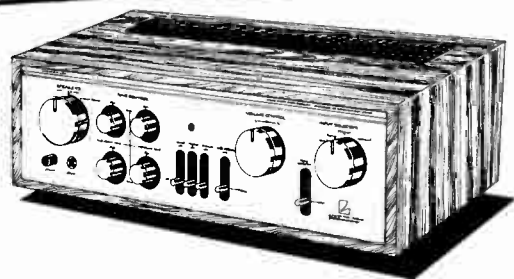


**KINGS CROSS BRANCH FOR ALL MAIL ORDERS**

# NU SOUND

BRITAIN'S MOST  
COMPETITIVE  
HI-FI SPECIALISTS

## SPECIAL OFFERS



### LUX L-31

One of the finest 38 watts RMS per channel Stereo Amplifiers now available at a special NuSound price. Total harmonic distortion no more than 0.05%!! Frequency response 15-50kHz (-1dB). Signal to noise ratio better than 64dB on phono and better than 83dB on Aux. Complete in superb Rosewood cabinet. 17½ in. wide X 6¾ in. high X 8½ in. deep. Very limited stocks only.

MANUFACTURERS RECOMMENDED PRICE £193.00

**OUR PRICE £139.95**

CASH OR TERMS C & I £3.00

### LUX T34 TUNER

The matching Tuner to the L-31 amplifier. F.E.T.'s, 2µ V sensitivity, ceramic filters etc. ensuring superb AM/FM reception. Limited stocks.

MANUFACTURERS RECOMMENDED PRICE £193.50

**OUR PRICE £129.95**

CASH OR TERMS C & I £3.00



### LUX L81

A 45 watts RMS per channel Amplifier of outstanding performance. Frequency response 20Hz to 20,000Hz with no more than 0.05% total harmonic distortion. S/N ratio better than 65dB phono and 80dB Aux. Loudness switches, Tape monitoring etc. Housed in superb Rosewood cabinet. 17½ in. wide X 6¾ in. high X 11½ in. deep.

Few only at this special NuSound bargain price.

MANUFACTURERS RECOMMENDED PRICE £309.37

**OUR PRICE £219.95**

CASH OR TERMS C & I £3.00

### LUX T88V TUNER

The matching tuner to the L-81. Ultra sensitive F.E.T. 4-gang Tuner front end, ceramic filters. Phase locked Loop etc. An AM/FM Tuner of unrivalled reception and performance.

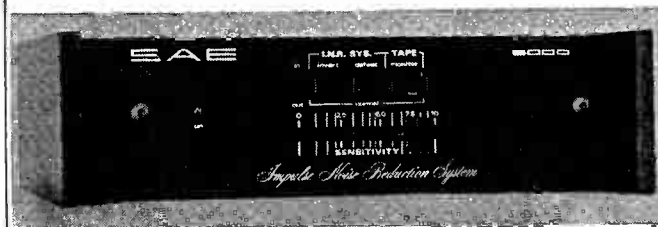
MANUFACTURERS RECOMMENDED PRICE £253.12

**OUR PRICE £169.95**

CASH OR TERMS C & I £3.00



# The SAE 5000 can make this record sound 'good as new'



Ever since the invention of the recorded disc annoying "clicks" and "pops" caused by scratches, static and imperfections have consistently disturbed the listening pleasure of music lovers.

Now, SAE introduces the unique model 5000, an impulse Noise Reduction System which eliminates virtually all those unwanted sounds with no adverse effect on the quality of the recorded material.

This breakthrough in electronic circuitry is so demonstrably effective that the SAE 5000 is destined to become an essential part of any sound system.

The SAE 5000 can improve records you thought were no longer playable... but don't take our word for it. Bring along some of your own records and ask for a demonstration.

## REW Audio Visual Co.

- 114-116 Charing Cross Road, London WC2. Tel.: 01-240 3386/7
- 230 Tottenham Court Road, London W1. Tel.: 01-637 2624/5
- Mail orders and literature from: REW House (Dept HFN), 10-12 High Street, Colliers Wood, London SW19. Tel.: 01-540 9684/5/6

# HIGH FIDELITY MAIL ORDER EXPORT DISCOUNTS

ACCESS/BARCLAY CARD

DEMONSTRATION FACILITIES

## HEADPHONES (P & P 90p)

Koss K6A .. £14.00	Pioneer SE505 .. £36.00
Koss K6ALC .. £16.00	Sansui .. P.O.R.
Koss PRO4AAA .. £36.50	Stax SR5 .. £85.00
Micro Seiki .. P.O.R.	Sennheiser HD414 £15.95
Pioneer SE305 .. £18.00	

## TAPE RECORDERS (P & P £1.95)

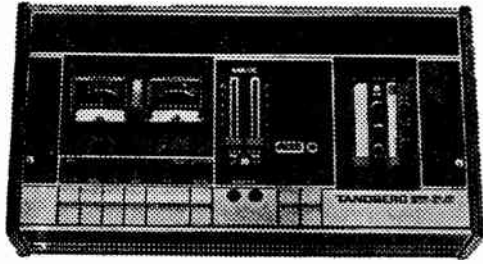
Aiwa AD6500 .. £145.00	Pioneer CTF500 .. £99.00
Aiwa AD1250 .. £135.00	Pioneer CTF400 £112.00
Aiwa AD6550 .. £209.00	Pioneer CTF700 .. £195.00
Aiwa AD6400 .. £185.00	Rotel RD15F .. £99.00
Akai 725D .. £254.00	Revox .. P.O.R.
Akai 1722 .. £207.00	Sansui SC2110 .. £189.00
Akai 706D .. £139.00	Sansui SC1110 .. £119.00
Akai 709D .. £169.00	Sony TC144CS .. P.O.R.
Akai 4000DS .. £199.00	Sony TCK1A .. P.O.R.
Akai 4000DB .. £219.00	Sony TC4A .. P.O.R.
Akai CS702D .. £119.00	Sony TC5 .. P.O.R.
B & O .. P.O.R.	Sony TC399 .. P.O.R.
Dual .. P.O.R.	Sony EL5 .. P.O.R.
Ferragraph .. P.O.R.	Tandberg .. P.O.R.
Harman Kardon .. P.O.R.	Teac .. P.O.R.
JVC KD2 .. £169.00	Technics .. P.O.R.
JVC 1635/2 .. £199.00	Trio WR670 .. £125.00
Nakamichi 600 .. P.O.R.	Yamaha TC511 .. P.O.R.

## TURNTABLES (P & P) £1.95

AR 77XB .. £79.00	Pioneer PL518 .. £108.00
Aiwa AP2200 .. £108.00	Pioneer PL117D .. £89.00
ADC 1500/Q34 .. £66.00	Rotel RP1300 .. £89.00
ADC 1600/Q36 .. £84.00	Rotel RP2300 .. £99.90
ADC 1700/XLW .. £105.00	Rotel RP5300 .. £109.90
Connoisseur .. P.O.R.	Sansui SR222 .. £59.00
BD101 .. £52.00	Sansui SR232 .. £67.00
BD1 Kit .. £17.50	Sansui SR333 .. £133.00
BD2 Chassis .. £36.50	Sony PST1 .. P.O.R.
BD101/SAU4 .. £87.00	Sony PST20 .. P.O.R.
BD2/PC .. £48.50	Sony .. P.O.R.
BD2/A .. £54.95	Technics .. P.O.R.
Dual .. P.O.R.	Thorens TD115 .. £129.00
Garrard .. P.O.R.	Thorens TD110 .. £112.00
GT20 (M75ED) .. £66.00	Thorens TD104 .. £85.00
GT25 (M75ED) .. £72.00	Thorens TD105 .. £99.00
GT35 (M75ED) .. £84.00	Thorens TD126B/C .. £189
SP25 M75/6 .. £42.00	Thorens TD160BC .. £85.00
DDI30/75ED .. £91.00	Transcriptors .. P.O.R.
JVC JLA20 .. £55.00	Trio KD1033 .. £54.00
Marantz .. P.O.R.	Trio KD2055 .. £105.00
Micro Seiki .. P.O.R.	Trio KD2070 .. £105.00
Pioneer PL514 .. £63.00	Yamaha YP511 .. £99.00
Pioneer PL516 .. £82.00	Yamaha YP211 .. £89.00

## CLEARANCE BARGAINS Limited Quantities

Akai AA1125 .. £119.00	Sony TA3650 (s/s) £129.00
Beocentre 1600 (new) .. £221.00	Naim (new) .. P.O.R.
Marantz 2100 .. £39.00	Sansui G3000 .. £135.00
Marantz 2238 .. £185.00	Sansui SR232 .. £59.00
Marantz 5010 .. £129.00	Sansui SR333 .. £116.00
Nakamichi 410/420 (new) .. £384.00	Tandberg TCD330 .. £399.00
Yamaha CA610 (s/s) .. £119.00	Tandberg TR2055 £305.00



TANDBERG\_TCD310 CASSETTE—P.O.R.

## PICK-UP ARMS (P & P 70p)

A/Technica 1005 .. £37.00	Ortofon .. £63.00
Connoisseur .. P.O.R.	SME 3009/S2 .. £52.00
SAU2 .. £16.95	SME 3009/ND .. £48.50
SAU4 .. £41.00	SME Series III .. £95.00
Decca Int'l .. £60.00	SME FD200 .. £20.00
Hadcock .. P.O.R.	

## TUNERS/RECEIVERS (P & P £1.95)

Akai AA1125 .. £129.00	Rotel RT226 .. £64.90
Akai AA1135 .. £176.00	Sansui G3000 .. £145.00
Akai AA1150 .. £289.00	Sansui TU217 .. £105.00
Aiwa AX7600 .. £210.00	Sony ST515L .. P.O.R.
Armstrong 625 .. £182.00	Sony STA3L .. P.O.R.
Armstrong 626 .. £209.00	Sony STRVL .. P.O.R.
Armstrong 623 .. £130.00	Sugden .. P.O.R.
Goodmans .. P.O.R.	Tandberg .. P.O.R.
Harman Kardon .. P.O.R.	Technics, Toshiba P.O.R.
JVC JTV II .. £77.00	Trio KR4070 .. £179.00
Marantz 2238 .. £215.00	Trio KR2090 .. £110.00
Pioneer SX590 .. £133.00	Trio KR2090L .. £120.00
Pioneer SX690 .. £164.00	Trio KR3090 .. £149.00
Pioneer TX606 .. £39.00	Trio KT5300 .. £85.00
Revox A76 .. P.O.R.	Yamaha CR200 .. £110.00
Rogers stockists .. P.O.R.	Yamaha CR420 .. £182.00
Rotel RX303 .. £99.00	Yamaha CR620 .. £239.00
Rotel RX503 .. £149.00	Yamaha CT410 .. £99.00
Rotel RX603 .. £195.00	Yamaha CT610 .. £124.00
Rotel RX403 .. £118.00	

## CARTRIDGES (P & P 70p) STYLI

AKG P8ES .. £59.00	£35.00
AKG P7E .. £26.00	£14.00
Audio Technica AT14SA .. £35.00	—
Audio Technica AT155SA .. £47.00	—
ADC XLM Mk 3 .. £38.00	P.O.R.
ADC VLM Mk 3 .. £27.00	P.O.R.
ADC Q36 Mk 3 .. £18.00	P.O.R.
Decca Gold .. £60.00	P.O.R.
Empire 2000E/III .. £17.00	P.O.R.
Goldring G800 .. £6.75	£3.95
Goldring G850 .. £4.73	£2.95
Goldring G800E .. £10.50	£7.87
Goldring G900SE/2 .. £39.99	£11.71
JVC XI .. £54.00	P.O.R.
Ortofon M20E Super .. £48.00	£23.00
Ortofon FF15E/2 .. £13.90	—
Ortofon VMS20E/2 .. £30.90	—
Ortofon FF15XE .. £10.00	—
Ortofon F15E/2 .. £19.50	—
Pickering V15/AME3 .. £19.00	£16.00
Pickering P/ATE .. £12.00	£6.75
Pickering P/AC .. £8.00	£5.86
Shure M55E .. £9.50	£8.60
Shure M75/B/2 .. £14.95	£7.85
Shure M75G .. £15.85	£9.75
Shure M75ED .. £15.25	£13.95
Shure M95ED .. £19.95	£16.95
Shure M75EJ/2 .. £13.75	£10.10
Shure V15 Mk 3 .. £46.00	£20.95
Shure V15/IV .. £64.00	£34.00
Stanton 681/EEE .. £47.00	£27.50
Stanton 500EE .. £22.00	—
Stanton 680EE .. £30.00	£20.95
Ultimo 20A .. £73.00	P.O.R.
Ultimo 20B .. £92.00	P.O.R.
Ultimo 10A/10X .. £53.00	P.O.R.

## UNIT AUDIO (P & P £2.75)

Akai AC3800L .. £333.00	
Akai AC3500L .. £239.00	
Aiwa AF3070 .. £289.00	
Aiwa AF5300 .. £335.00	
Aiwa AF5090 .. £355.00	
B & O .. P.O.R.	
Garrard GA150 .. £197.00	
Garrard GA200 .. £320.00	
Garrard GA155 .. £249.00	
JVC 45 Dolby .. £212.00	
Toshiba Systems .. P.O.R.	
Rotel RM5010 .. £289.00	
Sanyo .. P.O.R.	
Sony HMK80 .. P.O.R.	
Goodmans .. P.O.R.	
National SG3060 Dolby .. £296.00	

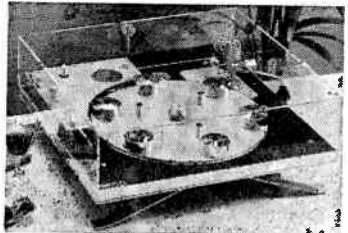
## SPEAKERS & KITS (P & P £1.95 ea.)

Armstrong 602 .. £175.00	KEF T27 .. £8.50
Altec .. P.O.R.	Monitor Audio stockists
Acoustic Research P.O.R.	Rogers BBC .. P.O.R.
B & W .. P.O.R.	Monitor .. P.O.R.
Cambridge Audio P.O.R.	Peerless .. P.O.R.
Celestion .. P.O.R.	Richard Allan Kits
UL6 .. £129.00	Triple 8 .. £52.00
UL8 .. £159.00	Twin .. £34.00
Ditton 33 .. £189.90	Triple .. £64.00
Ditton 44 .. £265.00	S/Triple .. £75.00
Ditton 15XR .. £99.90	Tannoy stockists
Ditton 11 .. £69.90	10" HPD .. £89.00
Ditton 22 .. £138.90	12" HPD .. £102.00
Goodmans .. P.O.R.	15" HPD .. £120.00
IMF Models .. P.O.R.	Wharfedale
Jordan Watts .. P.O.R.	Denton XP2 .. £50.00
Module .. £17.50	Linton XP2 .. £79.00
KEF Corelli .. £145.00	Glendale 3XP .. £102.00
KEF Calinda .. £222.00	Teesdale .. £122.00
KEF 104AB .. £268.00	Wharfedale Kits
Leak 3020 .. P.O.R.	Linton 3XP (pr) .. £45.00
KEF B139 .. £28.00	Glendale 3XP .. £59.00
KEF B200 .. £12.50	Denton 2XP .. £32.00
KEF B110 .. £11.00	

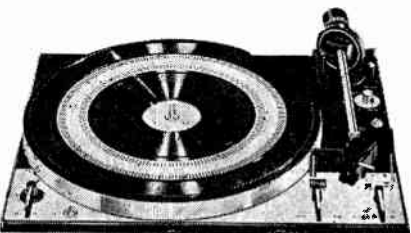
## AMPLIFIERS (P & P £1.95 each)

Akai .. P.O.R.	Rotel RA314 .. £79.00
Armstrong 621 .. £119.00	Rotel RA714 .. £139.90
Cambridge P80 .. P.O.R.	Sony TAF3A .. P.O.R.
JVC JASIIIG .. £83.00	Sony TAF3A .. P.O.R.
Lux .. P.O.R.	Sanyo .. P.O.R.
Marantz .. P.O.R.	Sugden A48/2 .. P.O.R.
Pioneer SA5500/2 .. £68.00	Sansui 117 .. £75.00
Pioneer SA606 .. £112.00	Sansui 217 .. £119.00
Pioneer SA706 .. £145.00	Sansui 317 .. £159.00
Pioneer SA506 .. £84.00	Technics .. P.O.R.
Quad .. P.O.R.	Trio KA3700 .. £74.00
Radford HD250 .. P.O.R.	Trio KA1500/2 .. £77.00
Revox A7B .. P.O.R.	Trio KA6100 .. £159.00
Rogers A75/2 .. P.O.R.	Toshiba SB420 .. £120.00
Rotel RA214 .. £64.90	Yamaha CA510 .. £137.00
Rotel RA414 .. £95.00	

PLEASE INCLUDE POST AND PACKING (send large S.A.E. for brochures and enquiries). ALL PRICES INCLUDE VAT at 122% and are subject to alteration due to Manufacturer's increases. ACCESS/BARCLATCARD ACCEPTED. CREDIT FACILITIES (SAME DAY POSSIBLE) QUAD EQUIPMENT AVAILABLE TO CALLERS ONLY. CLOSED ALL DAY MONDAY



REFERENCE TURNTABLE STOCKISTS



DUAL TURNTABLE STOCKISTS

# M.O'BRIEN

HIGH FIDELITY SPECIALISTS

95 High Street, Wimbledon Village, London, S.W.19

93 Bus route. Open 9-06a.m.—5.30p.m. Tuesday/Saturday. Prices correct at time of going to press and subject to variation.

# 01946 1528

Bring back  
the bass with  
SMC...

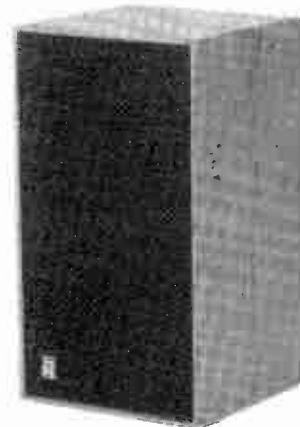
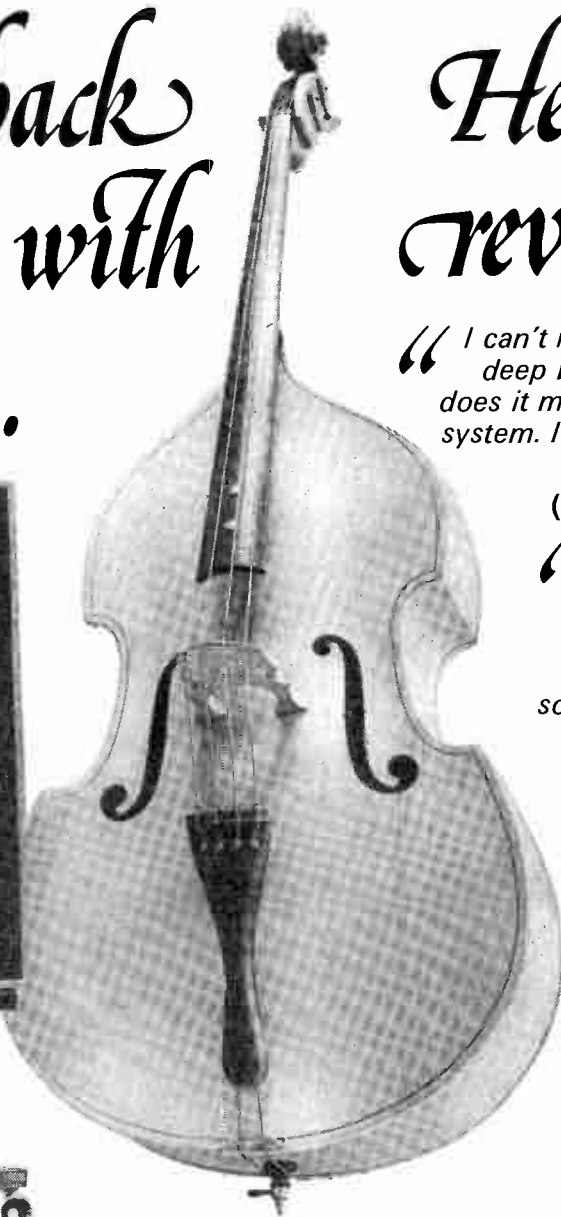
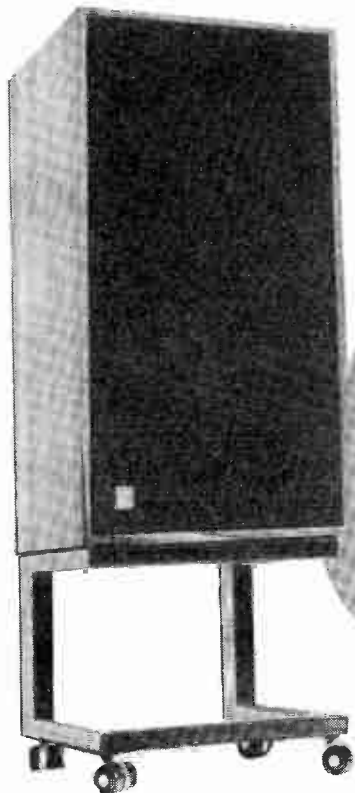
Hear what the  
reviewers say...

“ I can't resist to mention first the very good deep bass . . . it is not overpowering, nor does it mask the general good quality of the system. It certainly produces a usable 35Hz.

AS40 review 'Luister'  
(Netherlands) by J. Kool ”

“ The Super Saturns happily don't perpetuate the notion that low frequency output is unnecessary for the reproduction of music and consequently they allow music some feeling of strength and impact.

Philip Mount Practical  
Hi-Fi Feb 1978 ”



the AS40

the bass

the Super Saturn

And now...  
the Supernova

“ Bass performance seemed a little boomy but careful room positioning removed this tendency giving an overall clean and tight bass performance.

Supernova Review Hi-Fi for  
Pleasure Dec 1978  
by Chris Rogers ”

Other aspects of our designs have also received such comments as "smooth and detailed treble response" "pleasant to the eye" "stereo imaging is outstanding"



"overall standard of construction, finish and design of this speaker is excellent" etc. etc. etc.

Full reprints are available on request.

Natural reproduction of musical sounds has always been the prime object in the design of our loudspeakers. (designed and built in rural England)

Our Dealers are themselves enthusiasts and will be pleased to demonstrate our products in comparison with other leading makes.

SMC  
Loudspeakers

76 Bedford Road  
Kempston Beds  
MK42 8BB  
Tel: 0234 854133



## Check our prices by phone. They may be even cheaper!

All the prices in this advertisement were prepared approximately 6 weeks ago to meet the necessary publication date. This means that owing to our policy of giving the best possible value, for money, some of our prices may be even lower! So please phone your nearest Comet warehouse or shop to check the latest price. You may find that Comet are giving you an even better bargain than before!

Rec. Retail Price  
Comet Price  
Inc. VAT Inc. VAT

Rec. Retail Price  
Comet Price  
Inc. VAT Inc. VAT

### STEREO AMPLIFIERS

<b>AIWA</b>		
AA 8700 2 x 75	352.92	289.90
<b>AKAI</b>		
AM 2250 2 x 25	—	79.90
AM 2450 2 x 45	—	129.90
<b>AMSTRAD</b>		
8000 Mk. 3 2 x 10	42.86	25.90
IC 2000 2 x 25	—	29.90
EX 220 2 x 25	70.13	49.90
EX 330 2 x 35	87.66	61.90
<b>ARMSTRONG</b>		
621 2 x 40	150.00	114.99
<b>MARANTZ</b>		
1050 2 x 25	133.00	93.90
1072 2 x 36	173.00	123.90
1090 2 x 45	205.00	149.90
<b>PIONEER</b>		
SA 506 2 x 25	109.52	84.90
SA 606 2 x 40	148.10	114.90
SA 706 2 x 60	198.25	154.90
<b>ROTEL</b>		
RA 214 2 x 20	90.76	64.50
RA 314 2 x 25	111.74	78.90
RA 414 2 x 35	153.91	109.90
RA 714 2 x 50	195.88	138.90
<b>SANSUI</b>		
AU 117 2 x 15	—	73.90
AU 217 2 x 30	—	113.90
AU 317 2 x 50 D.C. coupled	—	163.90
<b>SOLAVOX</b>		
SA 2020 2 x 20	60.62	46.90
<b>TENSAI</b>		
TA 2030 2 x 23	—	72.90
TA 2045 2 x 35	—	96.90
<b>TRIO</b>		
KA 1500 Mk. II 2 x 30	—	78.90
KA 3700 2 x 25	—	82.90
KA 5700 2 x 40	—	132.90
<b>GARRARD MRM101</b> Hi-Fi music recovery module, this unit is able to 'see' a scratch or noise pulse in an audio signal waveform then electronically delete it giving clean record replay.	130.78	85.90

### TUNERS

<b>AIWA</b>		
AT 9700 Quartz-locked Digital FM	371.59	269.90
<b>AKAI</b>		
2250L MW/LW/FM	—	84.90
<b>AMSTRAD</b>		
3000 Mk. 2	60.36	35.90
EX 202	68.18	46.90
EX303	79.87	56.90
<b>ARMSTRONG</b>		
624 FM	130.00	99.90
623 MW/LW/FM	168.00	129.90
<b>MARANTZ</b>		
2020L	126.00	89.90
2100	160.00	109.90
<b>PIONEER</b>		
TX 606	120.14	94.90
<b>ROTEL</b>		
RT226	90.76	64.90
RT426	125.74	89.90
RT726	139.92	99.90
<b>SANSUI</b>		
TU 217	—	105.90

### Tuners—continued

<b>SOLAVOX</b>		
ST 2002 FM/MW/LW	60.62	45.90
<b>TENSAI</b>		
TT 3045	—	77.90
<b>TRIO</b>		
KT 5300 Mk. II	—	79.90
KT 5500	—	89.90

### CASSEIVERS

### TUNER/AMPLIFIER/CASSETTE COMBINATIONS

<b>AIWA</b>		
AF3070 2 x 30 Dolby cassette	419.84	319.90
AF3090 2 x 40 Dolby cassette	492.04	354.90

### TUNER/AMPLIFIERS

<b>AIWA</b>		
AX7400 2 x 25	222.46	164.90
AX7600 2 x 40	296.52	229.90
<b>AKAI</b>		
AA1125 2 x 25	204.33	129.90
AA1150 2 x 50	408.69	199.94
<b>AMSTRAD</b>		
EX222 2 x 25	101.29	69.90
EX 333 2 x 30	138.80	99.90
<b>ARMSTRONG</b>		
625 FM 2 x 40	237.00	168.90
626 AM/FM 2 x 40	273.00	209.90
<b>MARANTZ</b>		
MR215 2 x 15	143.00	97.90
2225 2 x 25	—	112.94
MR230 2 x 30	215.00	148.90
MR250 2 x 50	—	192.50
2226BL 2 x 26 FM/MW/LW	259.00	194.90
2238B 2 x 38 FM/MW	—	194.94
2238BL 2 x 38 FM/MW/LW	397.00	224.90
2252B 2 x 52	495.00	289.90
<b>PIONEER</b>		
SX550 2 x 20	174.27	99.90
SX590 2 x 20	174.22	139.90
SX750 2 x 50	—	169.90
SX690 2 x 30	218.12	174.90
SX980 2 x 80	473.72	389.90
SX1080 2 x 120	554.95	449.90
<b>ROTEL</b>		
RX 203 2 x 20	132.73	93.90
RX 403 2 x 25	167.99	119.90
RX-503 2 x 35	209.69	149.90
<b>SANSUI</b>		
551 2 x 20	—	89.94
G2000 2 x 16	—	120.50
G3000 2 x 26	—	150.50
<b>SOLAVOX</b>		
SR 2220 2 x 20	82.99	68.90

Rec. Retail Price  
Comet Price  
Inc. VAT Inc. VAT

### Tuner/Amplifiers—continued

<b>TENSAI</b>		
TR 1030 2 x 23	—	104.90
TR 1045 2 x 35	—	132.90
<b>TRIO</b>		
KR 2090 2 x 16	—	99.90
KR 3090 2 x 26	—	169.90

### TURNABLES

<b>AIWA</b>		
AP2200 Direct drive auto return inc. cartridge	138.00	107.90
AP2500 Direct drive auto stop and lift	209.94	164.90
<b>AKAI</b>		
AP100	109.70	69.90
<b>ALBA</b>		
210 inc. mag. cartridge	—	24.90
<b>AMSTRAD</b>		
TP12D belt drive	67.21	34.90
<b>BSR</b>		
182/ADC AC30	—	28.90
<b>CONNOISSEUR</b>		
BD1 kit	—	16.90
BD2	—	38.90
<b>GARRARD</b>		
SP25 Mk.6 belt drive with Shure M75/6/SM	67.50	43.90
GT20 belt-drive Shure M75ED	101.25	64.90
GT25 belt-drive auto stop M75ED	113.91	74.90
GT35 Servo belt-drive auto stop M75ED	137.12	88.90
DD130 Direct drive Shure M75ED	139.22	89.90
<b>MARANTZ</b>		
6025 belt drive	92.00	68.90
6150 direct drive	—	79.94
6170 direct drive	141.00	99.90
<b>PIONEER</b>		
PL512 belt drive	67.33	53.90
PL514 Belt drive auto arm return	79.62	63.50
PL516 F.G. servo belt drive auto arm return	107.31	84.90
PL520 Direct drive	—	109.90
PL518 DC servo direct drive auto return	144.38	113.90
<b>ROTEL</b>		
RP3300 belt drive DC servo motor	132.73	89.94
RP5300 direct drive	153.91	89.94
<b>SANSUI</b>		
SR222P	—	56.90
SR232E auto arm return	—	64.90

### Turntables—continued

<b>STRATHEARN</b>		
STM4 direct drive with fitted magnetic cartridge	—	49.94
<b>TENSAI</b>		
TD860B belt drive with cartridge	—	54.90
TD855D direct drive with cartridge	—	92.50
<b>TRIO</b>		
KD 1033B belt drive	—	54.90

### SPEAKERS

### ALL SPEAKERS ARE PRICED AS PAIRS

<b>AMSTRAD</b>		
ACOUSTRA 1000	26.30	21.90
ACOUSTRA 2500	57.48	41.90
EX 300	87.67	62.90
<b>ARMSTRONG</b>		
602 monitor	220.00	169.90
<b>CELESTION</b>		
Hadleigh	67.82	36.90
Ditton 11	88.75	69.90
Ditton 15 XR	146.70	99.50
UL6	163.90	127.90
Ditton 22	203.50	136.90
UL8	200.98	162.90
Ditton 33	233.27	184.90
Ditton 442	319.57	274.90
Ditton 551	376.07	324.90
<b>GOODMANS</b>		
Mini 2	—	47.90
RB18	—	59.90
RB20	—	74.90
RB35	—	108.90
RB65	—	129.90
Beta	163.55	139.90
Kappa	214.99	184.90
HE2	261.21	222.90
HE1	297.37	249.90
Sigma	305.42	259.90
<b>JR</b>		
149	163.13	129.90
L.P.A. System with 30 watt bass amp. for use with amps 15 to 100 watt. Priced singly	202.50	172.50
<b>MARANTZ</b>		
4G	89.00	57.50
4G3	111.00	79.90
HD440	153.00	99.90
<b>PIONEER</b>		
CS323	65.61	54.90
CS424	127.42	102.90
CS525	151.52	123.90
<b>SANYO</b>		
Hi-Fi II	—	74.90
<b>SOLAVOX</b>		
TK15	36.90	22.90
PR25 Mk. II 2 way	51.05	39.90
PR35 Mk. II 3 way	77.50	59.90
PR45 Mk. II 3 way	102.10	79.90
<b>TENSAI</b>		
TS900U	—	58.50
TS 930	—	74.90
<b>WHARFEDALE</b>		
Chevin XP	49.16	32.90
Denton XP2	73.73	49.90
Shelton XP2	93.96	59.90
Linton XP2	114.17	74.90
Glendale XP2	151.67	102.90
Teesdale SP2	188.15	129.90
Dovedale SP2	255.26	164.90
E50	295.72	262.90
E70	364.82	322.90



I promise you 12 months service, including parts and labour on all goods - without charge. After the initial free 12 month period you can still rely on us to keep your purchases in working order.

Michael Hollingbar  
Chairman

Rec. Retail Comet  
Price Price  
Inc. VAT Inc. VAT

### CARTRIDGES

AUDIO		
TECHNICA AT11E	12.56	9.90
TECHNICA AT13EA	21.94	14.50
GOLDRING		
G800	8.44	4.75
G800E	14.06	7.90
G800 Super E	19.69	10.90
G900E	27.00	19.90
ORTOFON		
FF10E Mk. II	12.50	8.90
FF15E Mk. II	17.00	13.50
VMS 20E Mk. II	36.50	29.90
SHURE		
M55E	14.11	8.50
M75EJ	22.13	12.90
M75ED	25.33	15.00
M95ED	33.99	21.50
V15-Mk. 3	70.21	48.90
V15-Mk. 4	97.47	64.90
STANTON		
500A	18.68	11.90
500 EE	26.16	17.50
680 EE	38.64	26.90
681 EEE	59.96	40.90

### STYLI

AUDIO		
TECHNICA ATS11E (for AT11E)	9.72	6.50
TECHNICA ATN13 (for AT13EA)	16.22	10.50
GOLDRING		
D110 Stylus (G800)	—	2.40
D110E Stylus (G800E)	—	5.25
D110SE Stylus (G800 Super E)	—	7.90
ORTOFON		
N15E Mk. II for FF15E Mk. II	—	8.90
D20E Mk. II for VMS 20E Mk. II	—	19.90
SHURE		
N75/6 Stylus	—	4.90
N75EJ Stylus	—	7.90
N75ED Stylus	—	11.50
N95ED	—	15.50
VN35E Stylus for V15 Mk. III	—	16.90
STANTON		
D5107A for 500A	—	6.90
D5100EE for 500EE	—	10.90
D680 for 680EE	—	14.90
D680EEE for 681EEE	—	19.90

### HEADPHONES

AMSTRAD		
HPS 6A	16.56	11.90
KOSS		
K6	17.66	10.75
K125	19.35	14.50
K6/LC (with volume control)	20.92	14.75
K135	23.91	17.90
PRO-4AA	43.87	22.90
K145	31.78	23.90

Rec. Retail Comet  
Price Price  
Inc. VAT Inc. VAT

### Headphones—continued

PIONEER		
SE205	15.15	12.50
SE305	23.46	18.90
SANSUI		
SS30	—	15.90
SOLAVOX		
300	—	4.90

### PICK-UP ARMS AND HEADS

CONNOISSEUR		
SAU2	20.84	15.90
SME		
S2 head shell	6.75	4.90
CA1 Carry arm	18.56	14.90
FD200 Damper	22.28	17.90
3009 Ser II fixed head shell	73.36	58.90
3009 Ser III	—	99.90

### HI-FI CASSETTE TAPE RECORDERS

AIWA		
AD1250 Dolby	185.66	142.90
AD6350 Dolby	195.80	149.90
AD6400 Dolby	243.44	189.90
AD6550 Dolby	285.33	219.90
AD6800 Dolby	415.80	304.94
AD6900 Dolby	485.00	389.90
AKAI		
CS702D Mk. II Dolby	173.67	114.90
GXC706 Dolby	236.06	159.90
GXC709D Dolby	282.86	189.90
GXC725D Dolby 3 head	361.36	239.94
AMSTRAD		
7050 Dolby	111.04	69.90
CROWN		
CTD 1170 Dolby	—	58.94
DECCA		
DC1100	—	32.50
MARANTZ		
1820 Dolby	147.00	104.90
5000 Dolby	186.00	132.90
5010 Dolby	213.00	159.90
5025 Dolby	320.00	229.90
5030	485.00	349.90
PIONEER		
CTF 500	128.75	102.90
CTF 4040 Dolby	148.20	117.90
CTF 700 Dolby (3 meters)	259.26	204.90
CTF900	385.67	309.90
CTF 1000 Dolby 3 head	524.04	399.90
ROTEL		
RD15F Dolby	139.32	104.90
SANSUI		
SC1110 Dolby	—	117.90
SC2110 Dolby	—	184.90
SANYO		
4028 Dolby	—	84.94
SOLAVOX		
SCD 2060 Dolby	122.90	89.90
SUPERSCOPE		
By MARANTZ CD310D Dolby	136.00	77.90

Rec. Retail Comet  
Price Price  
Inc. VAT Inc. VAT

### Hi-Fi Cassette Tape Recorders— continued

TENSAI		
TFL 805 Dolby	—	84.90
WALTHAM		
W133 Dolby	—	38.90

### HI-FI TAPE RECORDERS

AKAI		
4000 DS Mk. II	314.06	199.90
PHILIPS		
N4504 4-track DNL	—	164.90
PIONEER		
RT707 auto reverse	536.04	409.90

### MICROPHONES

AKAI		
ADM20	—	7.50
AMSTRAD		
DM701 stereo mic. pack (pair)	18.99	13.90
EAGLE		
UD50HL dual impedance Hi/Low	16.82	12.90

### IN CAR HI-FI

PHILIPS		
AC 860 LW/MW/VHF with stereo VHF decoder, push button tuning and VHF interference absorp- tion circuit, plus stereo cassette	248.06	167.90
PIONEER		
KP 88G DOLBY stereo cassette deck and pre- amplifier, with Pioneer GM40 power amplifier 2 x 16 watts RMS	224.04	157.90
AD 305 power booster amplifier 2 x 13.5 watts RMS suitable for use with any stereo radio or cassette unit	68.12	46.90
MOTOROLA		
PS358 2 x 15 watts RMS booster ampli- fier with graphic equaliser	84.36	57.90
PS412 stereo cassette player with built-in 2 x 12 watts ampli- fier, with loudness and filter controls	106.87	74.90
SPEAKERS		
MOTOROLA		
PS052A0 twin unit loud- speakers (pair) 15 watts	31.33	21.90
PS053A0 loudspeakers (pair) 20 watts	39.82	26.90

Rec. Retail Comet  
Price Price  
Inc. VAT Inc. VAT

### HI-FI FURNITURE

AMSTRAD		
SR 302	26.30	19.90
SR 301	29.02	22.90
SCHREIBER self-assembly Hi-Fi housing units in wood finish.		
14/619	38.95	27.90
14/620	42.75	30.90
14/618	64.50	45.90
14/617	64.50	45.90
14/622	74.75	51.90
SOLAVOX		
SR 302B	28.17	19.90

### BLANK TAPES

BASF LH		
C60	—	0.68
C90	—	0.90
C120	—	1.29
BASF SUPER LH1		
C60	—	1.10
C90	—	1.48
C120	—	1.90
BASF CRO2		
C60	—	1.29
C90	—	1.60
C120	—	2.35
LAZER SP. PACK		
C90 five pack with rack	—	1.90
MAXELL		
SLN C60	—	0.69
SLN C90	—	0.89
SLN C120	—	1.10
UD C60	—	1.10
UD C90	—	1.29
UD C120	—	1.70
UDXL1 C60	—	1.45
UDXL1 C90	—	1.80
UDXL2 C60	—	1.45
UDXL2 C90	—	1.80
UD 35 90 (7" 1800')	—	4.00
UD 50 120 (10 1/2" 2500')	—	8.40
UD 35 180 (10 1/2" 3600')	—	8.90

MEMOREX MRX3		
C60	—	0.99
C90	—	1.35
C120	—	1.75
MEMOREX Chrome		
C60	—	1.20
C90	—	1.65
TDK DYNAMIC CASSETTES		
D60	—	0.70
D90	—	0.99
D120	—	1.30
TDK AD CASSETTES		
AD C60	—	0.99
AD C90	—	1.42
AD C120	—	1.90
TDK SUPER AVILYN CASSETTES		
SA C60	—	1.27
SA C90	—	1.80
TDK AUDUA SPOOL TAPE		
L1800	—	3.99
L3600 on metal NAB reel	—	11.60

All offers subject to availability.

# COMET PIONEER®

## System X... Hi-Fi with a racking system

### System X 50 H

#### Stereo Integrated Amplifier SA-506

Delivering 25 watts RMS per channel into 8 ohms from 20-20,000 Hz with no more than 0.08% total harmonic distortion, the SA-506 keeps intermodulation distortion down to 0.08% too. An impressive specification includes IC phono equaliser, twin illuminated power meters, click-stop volume, bass and treble controls, loudness contour and advanced circuitry for low noise.

#### FM/AM Stereo Tuner TX-606

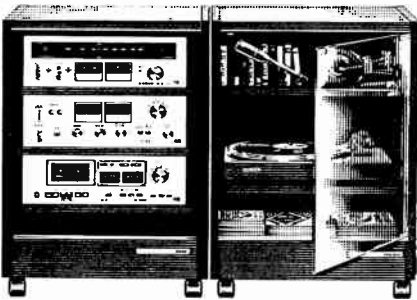
This tuner is high in sensitivity, signal-to-noise ratio and wide band reception. Amongst its many advanced Hi-Fi features are:— FET-equipped FM front end, ceramic filters, IC in FM discriminator, MPX, phase locked loop, 2 large tuning meters, extra-long tuning dial and multi-purpose FM muting/FM mono-auto AM selector switch.

#### Stereo Turntable PL-514X

Belt-driven by a synchronous motor, the PL-514X incorporates an end-of-play/arm-lift/return mechanism. Power-off on return is automatic too — and the quick start facility is synchronised with motor switching so that moving the S-shaped tonearm towards the record on the platter automatically starts rotation. With anti-skating, oil-damped cueing and free-hinged acrylic cover, this turntable keeps wow and flutter down to  $\pm 0.06\%$  (DIN). Comes complete with PC-110 II magnetic cartridge.

#### Stereo Cassette Deck CT-506

Incorporating a pneumatically-damped front loading mechanism, the CT-506's many outstanding features include Dolby, 3-position tape selector, permalloy head, piano key operation and full auto-stop. With Dolby on, signal-to-noise ratio is better than 64 dB.



Rec. Ret. Price £500.63

**Comet Price £399.90 inc. VAT**

Matching glass fronted cabinet and speakers extra.

Matching glass fronted cabinet (OB770 BH)

illustrated above available as an optional extra.

Rec. Ret. Price £51.93

**Comet Price £43.90 inc. VAT**

Recommended speakers for above:

**Pioneer CS 323**

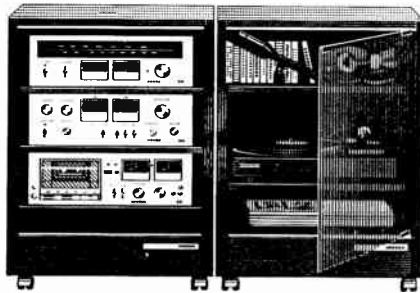
Rec. Ret. Price £65.61

**Comet Price £54.90 inc. VAT**

They look good — they sound superb! Three powerful systems ranging in performance presented by Pioneer.

Each system comprises amplifier, tuner, turntable and cassette deck perfectly matched to ensure peak performance and good looks, and each system is housed in Pioneer's beautiful Hi-Fi furniture, tastefully finished in satin black with chrome look trim to display your hi-fi to the very best advantage and to give you the utmost convenience.

### System X 90 H



#### Stereo Integrated Amplifier SA-706

Total harmonic distortion and intermodulation distortion are as low as 0.04% with the SA-706, an amplifier producing 60 watts RMS per channel into 8 ohms from 20-20,000 Hz. This unit has all the features of the SA-606 — plus phono interference switch, tape duplicate and monitor switches, speakers switch and click stop volume control.

#### FM/AM Stereo Tuner TX-606

Sensitive and efficient, the TX-606 is the common denominator of all three Pioneer systems... a really high performance stereo tuner.

#### Stereo Turntable PL-518X

The direct-drive PL-518X has a built-in DC servo, and the platter (rubber mat included) reaches its regulated speed in less than half a rotation. Its accuracy is reflected in the low wow and flutter figure of  $\pm 0.04\%$  (DIN). Pioneer have also incorporated features like auto-return/quick-start, strobe speed control, S-shaped tonearm, anti-skating and oil-damped cueing. Complete with PC-110 II magnetic cartridge.

#### Stereo Cassette Deck CT-606

As in system X 70, the CT-606 cassette deck was chosen to ensure outstanding high fidelity performance.

Rec. Ret. Price £681.75

**Comet Price £549.90 inc. VAT**

Matching glass fronted cabinet and speakers extra.

Matching glass fronted cabinet (OB770 BH)

illustrated above available as an optional extra.

Rec. Ret. Price £51.93

**Comet Price £43.90 inc. VAT**

Recommended speakers for above:

**Pioneer CS 525**

Rec. Ret. Price £151.52

**Comet Price £123.90 inc. VAT**

### System X 70 H

#### Stereo Integrated Amplifier SA-606

With an output of 40 watts RMS per channel into 8 ohms from 20-20,000 Hz, the SA-606 keeps both total harmonic and intermodulation distortion down to 0.05%. Features include twin power meters with LED peak indicators, discrete twin power supplies for Class A/Class B circuits, IC phono equaliser with outstanding signal-to-noise ratio, and reliable circuitry throughout. Click stop volume control, bass and treble controls, loudness contour switch, tape monitor (stereo) switch - all give you full control.

#### FM/AM Stereo Tuner TX-606

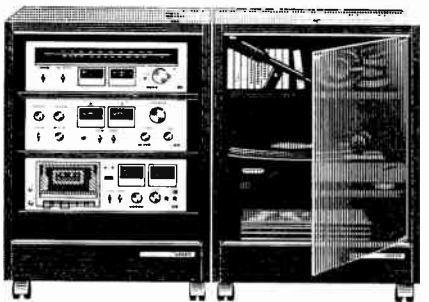
The same sensitive tuner as used in System X 50 — and the perfect complement for the SA-606 amplifier.

#### Stereo Turntable PL-516X

Auto-return/quick-start convenience, reliable mechanism and superb styling are some of the outstanding features of the PL-516X. This belt-driven turntable brings wow and flutter down to  $\pm 0.05\%$  (DIN) — thanks to a high-torque FG servomotor which assures quiet, always constant speed platter rotation. Other features include S-shaped tonearm, anti-skating, oil-damped cueing and an easy-view strobe for high precision speed control. Comes with PC-110 II magnetic cartridge.

#### Stereo Cassette Deck CT-606

This versatile, front-loading Dolby deck incorporates a 3-stage, direct-coupled preamplifier which minimises distortion and widens the dynamic range. In addition to manual bias/EQ switching for FeCr and STD tapes, the CT-606 also offers automatic CrO2 selection. Precision driven by a DC servomotor, this high performance cassette deck has a signal-to-noise performance better than 64dB with Dolby on.



Rec. Ret. Price £610.88

**Comet Price £499.90 inc. VAT**

Matching glass fronted cabinet and speakers extra.

Matching glass fronted cabinet (OB770 BH)

illustrated above available as an optional extra.

Rec. Ret. Price £51.93

**Comet Price £43.90 inc. VAT**

Recommended speakers for above:

**Pioneer CS 424**

Rec. Ret. Price £127.42

**Comet Price £102.90 inc. VAT**

## SA-506 Stereo Integrated Amplifier

Here's an outstanding budget buy from Pioneer — an amplifier delivering 25 watts RMS per channel with no more than 0.08% total harmonic distortion. With a specification including IC phono equaliser, twin illuminated power meters, click-stop volume and tone controls, loudness contour and advanced circuitry for low noise, the Pioneer SA-506 represents high quality engineering without unnecessary frills. The Comet discount brings it well within reach of most pockets.

### SPECIFICATIONS

Continuous power both channels driven at 20 Hz - 20 kHz, 8 Ohms: 2 x 25 W. Total Harmonic Distortion at rated output power 20 Hz - 20 kHz: 0.08%. Frequency response at AUX input: 20 Hz - 40 kHz (± 2 dB), S/N (IHF):

Phono: 76 dB, Tuner, Tape, PB, AUX 92 dB. Loudness contour (at -40 dB position) ± 6 dB (100 Hz). Dimensions: 420(w) x 147(h) x 261(d) mm.



REC. RET. PRICE £109.52 inc. VAT  
**COMET PRICE £84.90 inc. VAT**

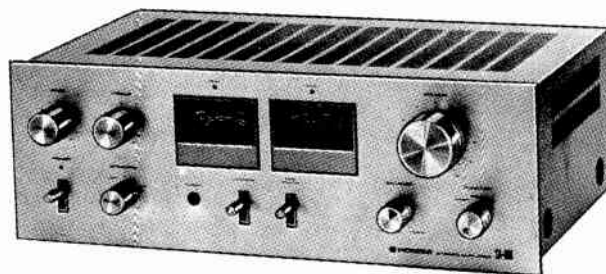
## SA-606 Stereo Amplifier

Peak Hi-Fi quality — this is the goal Pioneer have achieved with the modest-priced SA-606. You get a low distortion output of 40 watts per channel, both channels driven . . . and features including twin power meters with LED peak indicators, discrete twin power supplies for Class-A/Class-B circuits, IC phono equaliser with outstanding signal-to-noise ratio, and reliable circuitry throughout. An impressive performer — and you'll be impressed by the Comet discount price.

### SPECIFICATIONS

Amplifier Section — Continuous Power Output is 40 watts per channel, min. at 8 ohms from 20 hertz to 20,000 hertz with no more than 0.05% total harmonic distortion. Total Harmonic Distortion: (20 Hz to 20,000 Hz, from AUX) No more than 0.05% (continuous rated power output) Frequency response PHONO (RIAA Equalization): 20 to 20,000 Hz ± 0.3dB TUNER, AUX, TAPE PLAY: 20 to 40,000

Hz ± 2dB Tone Control BASS: + 12dB, - 10dB (100Hz) TREBLE: + 10dB, - 10dB (10kHz) Loudness Contour: + 6dB (100Hz) + 3dB (10kHz) (Volume control set at -40dB position) Hum and Noise (1HF, short-circuited A network) PHONO: 78dB TUNER, AUX, TAPE PLAY: 95dB Hum and Noise (DIN: continuous rated power output/50mW) PHONO: 66dB/58dB TUNER, AUX, TAPE PLAY: 85dB/60dB Dimensions: 420(w) x 147(h) x 261(d) mm



REC. RET. PRICE £148.10 inc. VAT  
**COMET PRICE £114.90 inc. VAT**

## SA-706 Stereo Amplifier

With a bigger output of 60 watts per channel, both channels driven, the SA-706 is another amplifier that concentrates on the essential Hi-Fi basics. And this means all the features of the SA-606 — plus phono interference filter switch, tape duplicate and monitor switches, speaker switch and 41 position volume control. Pioneer value-for-money engineering sounds even better at Comets discount price!

### SPECIFICATIONS

Continuous Power Output is 60 watts per channel, min. at 8 ohms from 20 hertz to 20,000 hertz with no more than 0.04% total harmonic distortion. Total Harmonic Distortion: (20Hz to 20,000 Hz, from AUX) No more than 0.04% (continuous rated power output) Frequency Response PHONO (RIAA Equalization): 20 to 20,000 Hz ± 0.2dB TUNER, AUX, TAPE PLAY: 20 to 40,000 Hz ± 2dB Tone Control BASS: +12dB.

-10dB (100 Hz) TREBLE: +10dB, -10dB (10kHz) Loudness Contour: + 6dB (100Hz) (Volume control set at -40dB position) + 3dB (10kHz) Hum and Noise (1HF, short-circuited A network) PHONO: 86dB (Phono Interference Filter SW OFF) TUNER, AUX, TAPE PLAY: 95dB Hum and Noise (DIN: continuous rated power output/50mW) PHONO: 70dB/58dB TUNER, AUX, TAPE PLAY: 85dB/60dB Dimensions: 420(w) x 147(h) x 327(d) mm



REC. RET. PRICE £198.25 inc. VAT  
**COMET PRICE £154.90 inc. VAT**

## TX-606 Stereo Tuner

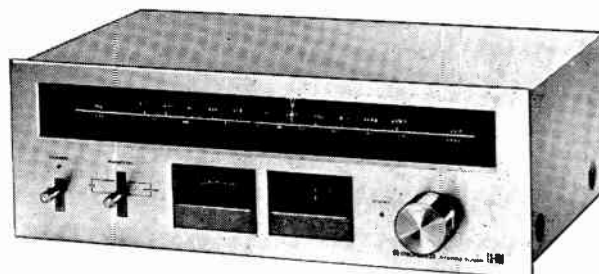
Despite its modest price, the Pioneer TX-606 is a tuner deserving the description "Hi-Fi". A perfect match for the SA-606 and SA-706 amps, this tuner features high sensitivity, signal-to-noise ratio and wide band reception. Amongst its many advanced Hi-Fi features are: FET — equipped FM front end, ceramic filters, IC in FM discriminator, MPX, phase locked loop, 2 large tuning meters, extra-long tuning dial and multi-purpose FM muting/FM mono-auto/AM selector switch.

### SPECIFICATIONS

#### FM SECTION

Sensitivity (DIN): Mono: 1.9µV  
 Stereo: 50µV Signal-to-Noise Ratio (DIN): Mono: 73dB Stereo: 65dB Distortion (at 65dBf) 100Hz: Mono: 0.15%, Stereo: 0.25% 1kHz: Mono: 0.15%, Stereo: 0.25% 6kHz: Mono: 0.15%, Stereo: 0.25% Frequency response: 20 to 15,000 Hz +0.2dB, - 1.0dB Capture Ratio: 1.0dB

Stereo Separation: 40dB (1kHz) 35dB (30 - 15,000Hz) Aerial Input: 300 ohms balanced 75 ohms unbalanced  
 AM SECTION  
 Sensitivity: 300µV/m (1HF, ferrite aerial), 15µV (1HF, external aerial) Selectivity: 30dB Signal-to-Noise Ratio: 50dB Aerial: Built-in ferrite loopstick aerial Dimensions: 420 (w) x 147 (h) x 264 (d) mm



REC. RET. PRICE £120.14 inc. VAT  
**COMET PRICE £94.90 inc. VAT**

# COMET PIONEER®

## CT-F500 Cassette Tape Deck

A REC/PLAY head of "Hard Permalloy", a ferrite erase head, 3-position tape selector, Dolby NR and pneumatically-damped vertical loading door - these are some of the value-for-money features of the CT-F500. A single DC servomotor provides drive stability equal to many 2-motor designs, thanks to separate drive belts to capstan and take-up reel.

### SPECIFICATION

REC/PB Head: 1 x Hard Permalloy, Erasing Head 1 x Ferrite, Frequency Response (REC/PB): Standard/LH tape 40Hz-15kHz, ± 3dB, Chromium Dioxide tape 40Hz, 15kHz,

± 3dB, Ferrichromium Dioxide tape 40Hz-15kHz, ± 3dB, Signal-to-Noise Ratio: Dolby off > 54dB, Dolby on > 64dB. Wow and Flutter: WRMS < 0.05%. Dimensions: 380 (W) x 140 (H) x 261 (D) mm.

Rec. Ret. Price £128.75 inc. VAT **COMET PRICE £102.90 inc. VAT**



## CT-F404 Cassette Tape Deck

This front-loader incorporates many exclusive features found only on Pioneer's more expensive models. There's Dolby IC, 3-position tape selector, LINE/MIC and DIN input selection and full auto-stop. There's the Comet discount price too!

### SPECIFICATION

Heads: "Hard Permalloy", Wow and Flutter: No more than 0.08% (WRMS), Frequency Response: Standard LH tape: 30 to 14,000Hz, (40 to 13,000Hz ± 3dB), Ferrichromium

dioxide tape: 30 to 16,000Hz (40 to 15,000Hz, ± 3dB), Chromium dioxide tape: 30 to 16,000Hz (40 to 15,000Hz, ± 3dB), Signal-to-Noise Ratio: Dolby on, > 62dB. Dimensions: 380 (W) x 150 (H) x 325 (D) mm.

Rec. Ret. Price £148.20 inc. VAT **COMET PRICE £117.90 inc. VAT**



## CT-F700 Cassette Tape Deck

The CT-F700 gives you a unique "Third Meter" which enables you to adjust for dynamic level, bias and peak level without guesswork. You also get a ferrite-solid REC/PLAY head, soft-touch mode buttons, a new vertical-hold tape mounting system, automatic CrO2 tape selection, Dolby, memory stop and EQ selection.

### SPECIFICATION

Heads: "Ferrite Solid", Wow and Flutter: < 0.05% (WRMS), Frequency Response: Chromium dioxide tape: 25 to 17,000Hz

(30 to 16,000Hz, ± 3dB), (40 to 14,000Hz DIN), Signal-to-Noise Ratio: Dolby on, > 64dB. Dimensions: 420 (W) x 187 (H) x 304 (D) mm.

Rec. Ret. Price £259.26 inc. VAT **COMET PRICE £204.90 inc. VAT**



## CT-F900 Cassette Tape Deck

The CT-F900 invites you into the age of microprocessor-programmed audio, with a digitron tube display replacing traditional meters for recording and playback level monitoring. An electronic digital counter permits memory play and repeat and memory stop - and there's even a timer start facility for use with optional electronic timer. With features including Dolby NR switch, chrome tape sensor with automatic bias and equalisation, monitoring for tape and source, and continuously adjustable bias, the Pioneer CT-F900 is the tape deck of tomorrow... available from Comet today.

### SPECIFICATION

REC/PB Head: 1 x Comb. Sendust Alloy Solid, Erasing Head: 1 x Ferrite, Frequency Response (REC/PB): Standard/LH tape 30Hz-15kHz, ± 3dB, Chromium Dioxide tape

30Hz-17kHz, ± 3dB, Ferrichromium Dioxide tape 30Hz-17kHz, ± 3dB, Signal-to-Noise Ratio: Dolby on, > 64dB. Wow and Flutter: WRMS < 0.05%, Dimensions: 420 (W) x 187 (H) x 362 (D) mm.

Rec. Ret. Price £385.67 inc. VAT **COMET PRICE £309.90 inc. VAT**



## CT-F1000 Cassette Tape Deck

Three heads to give you off-the-tape monitoring, 2-motor tape transport, Dolby NR with calibration control, pitch control on playback, MIC/LINE mixing, MPX filter switch and memory STOP/PLAY - the CT-F1000 really puts it all together. Other features include automatic CrO2 tape selection, 2-position bias, 3-position EQ and direct logic controls.

### SPECIFICATION

Heads: "Uni-Crystal Ferrite Solid" recording head/playback head. Wow and Flutter: < 0.05% (WRMS), Frequency Response: Chromium dioxide tape: 20 to

19,000Hz (30 to 17,000Hz, ± 3dB), Signal-to-Noise Ratio: Dolby on, > 64dB (over 5kHz), Dimensions: 420 (W) x 187 (H) x 362 (D) mm.

Rec. Ret. Price £524.04 inc. VAT **COMET PRICE £399.90 inc. VAT**

## Pioneer at Comet's new low prices...

### SX-550 FM/AM Receiver

Outstanding Hi-Fi quality for an outstandingly-low price – this is the Pioneer SX-550 stereo receiver from Comet! With high output of 20 watts per channel RMS at low distortion, the SX-550 includes in its impressive specification: phono equaliser, CR type tone control circuitry, versatile 2-deck tape monitor/dubbing facility, FET and IC equipped FM/AM section with phase-locked-loop IC stereo demodulator, and Pioneer-developed circuit using a special IC and ceramic filters for improved AM performance. See this super receiver at Comet – at a super discount price!

#### SPECIFICATIONS

**Amplifier Section—Continuous Power Output** is 20 watts per channel, min. RMS at 8 ohms. **Total Harmonic Distortion:** (20 to 20,000 Hertz, from AUX). No more than 0.3% (continuous rated power output). No more than 0.07% (10 watts per channel power output, 8 ohms). No more than 0.07% (1 watt per channel power output, 8 ohms). **Input (Sensitivity/Impedance)** PHONO: 2.5mV/50 Kohms. MIC: 7.5mV/50 Kohms. AUX: 150mV/50 Kohms. TAPE PLAY 1: 150mV/50 Kohms. TAPE PLAY 2: 150mV/50 Kohms. TAPE PLAY 2 (DIN connector): 150mV/50 Kohms. **Frequency Response PHONO (RIAA Equalization):**

30 to 15,000Hz.  $\pm 0.3$ dB. AUX. TAPE PLAY: 10 to 60,000Hz.  $+0.5$ dB,  $-1.0$ dB. **FM Tuner Section—Usable Sensitivity:** Mono 11.2dBf (2.0 $\mu$ V) Stereo: 20.0dBf (5.5 $\mu$ V) **Signal-to-Noise Ratio (at 65dBf):** Mono: 70dB, Stereo: 65dB **Frequency Response:** 30 to 15,000Hz  $+0.2$ dB,  $-2.0$ dB **Capture Ratio:** 1.0dB. **Stereo Separation:** 40dB (1kHz), 30dB (30 to 15,000Hz). **AM Tuner Section—Sensitivity:** 300 $\mu$ V/m (IHF, ferrite antenna). 15 $\mu$ V (IHF, ext. antenna). **Selectivity:** 35dB. **Signal-to-Noise Ratio:** 50dB. **Dimensions:** 448(W) x 141 (H) x 307(D)mm.



SX-550

Rec. Ret. Price £174.27 inc. VAT

**Comet Price £99.90** inc. VAT

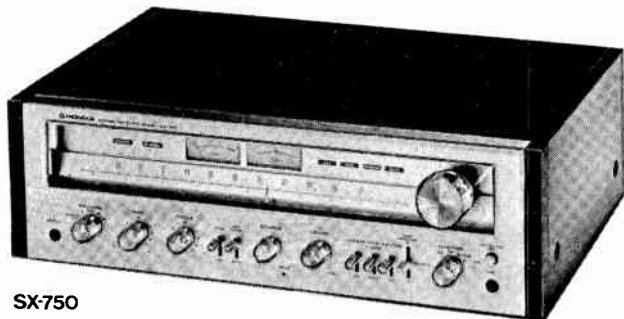
### SX-750 FM/AM Receiver

For an even bigger performance, and just as big value for money, the Pioneer SX-750 is the stereo receiver. Delivering a power output of 50 watts per channel RMS, this receiver is the equal to an integrated amplifier and independent tuner. A host of features include: FM front end using a dual gate MOS type FET and a 4-gang variable capacitor for high sensitivity and selectivity, IC equipped IF section, phase-locked-loop in MPX section, wide dynamic range equaliser, low noise IC in tone control section, loudness contour switch and FM muting.

#### SPECIFICATIONS

**Amplifier Section—Continuous Power Output** is 50 watts per channel, min. RMS at 8 ohms. **Total Harmonic Distortion:** (20 to 20,000 Hertz, from AUX). No more than 0.1% (continuous rated power output). No more than 0.05% (25 watts per channel power output, 8 ohms). No more than 0.05% (1 watt per channel power output, 8 ohms). **Input (Sensitivity/Impedance)** PHONO: 2.5mV/50 Kohms. MIC: 5mV/50 Kohms. AUX: 150mV/50 Kohms. TAPE PLAY 1: 150mV/50 Kohms. TAPE PLAY 2: 150mV/50 Kohms. TAPE PLAY 2 (DIN connector): 150mV/50 Kohms. **Frequency Response PHONO (RIAA Equalization):** 30 to 15,000Hz  $\pm 0.2$ dB. AUX. TAPE PLAY: 10 to 50,000Hz  $+10$ dB  $-1$ dB.

**Hum & Noise (IHF, short-circuited A network, rated power).** PHONO: 70dB. AUX. TAPE PLAY: 90dB **FM Tuner Section—Usable Sensitivity:** Mono: 10.7dBf (1.9 $\mu$ V). Stereo: 19.0dBf (4.9 $\mu$ V). **Signal-to-Noise Ratio (at 65dBf):** Mono: 72dB, Stereo: 67dB. **Frequency Response:** 30 to 15,000Hz  $+0.2$ dB,  $-2.0$ dB. **Capture Ratio:** 1.0dB. **Alternate Channel Selectivity:** 80dB. **Image Response Ratio:** 80dB. **IF Response Ratio:** 100dB. **Stereo Separation:** 40dB (1kHz), 30dB (30 to 15 kHz). **AM Tuner Section—Sensitivity:** 300 $\mu$ V/m (IHF, ferrite antenna). 15 $\mu$ V (IHF, ext. antenna). **Selectivity:** 35dB. **Signal-to-Noise Ratio:** 50dB. **Dimensions:** 480(W) x 149(H) x 371(D)mm.



SX-750

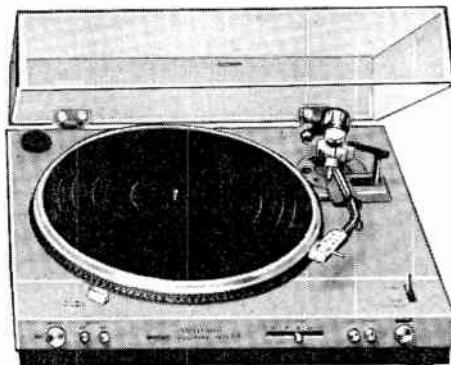
**Comet Price £169.90** inc. VAT

### PL-520

#### Direct Drive Turntable

Here's another super buy from Comet – a dual-motor, direct-drive automatic turntable with front panel controls for ease of operation. You can command every operation without lifting the dust cover – and there's even a cut button and manual selection for versatility. Other high fidelity features include: sensitive S-shaped tonearm, anti-skating device, lateral balancer, oil-damped cueing, separate pitch controls with strobe light and spare headshell/cartridge stand.

Low in wow and flutter and howling characteristics, and high in signal-to-noise ratio, the PL-520 comes at a competitive Comet discount price that brings direct-drive precision within the reach of more pockets.



#### SPECIFICATIONS

##### MOTOR AND TURNTABLE

**Drive System:** Direct-drive System. **Motors:** Brushless DC Servo controlled motor (for platter drive), Warren motor (for automatic functions). **Speeds:** 33 $\frac{1}{3}$  and 45 rpm. **Speed Control Range:** Within  $\pm 2\%$ . **Wow and Flutter:** No more than 0.03% (VRMS). **Signal-to-Noise Ratio:** More than 73dB (DIN B). More than 60dB (JIS). **TONE ARM:** Static-balanced S-shaped pipe arm. **DIMENSIONS:** 460(W) x 171(H) x 395(D)mm. Cartridge recommended for PL-520.

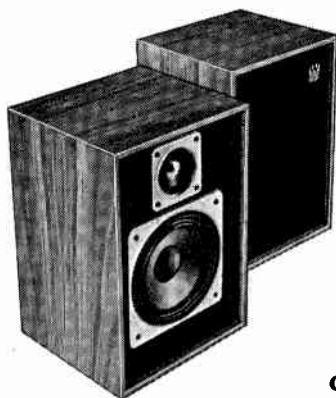
### Comet Price

**£109.90** inc. VAT

## Wharfedale.

### DENTON XP2

With two new drivers to provide a bigger margin of power handling than before, the Denton XP2 has a performance which proves Wharfedale's determination to maintain the company's lead in the budget loudspeaker market. Suitable for amplifiers of 10-30 watts RMS output, the Denton incorporates a new fibrous cone which is terminated in a compliant, highly plasticised PVC surround. This gives the speaker an exceptional acoustic performance.



#### DENTON XP2 SPECIFICATION

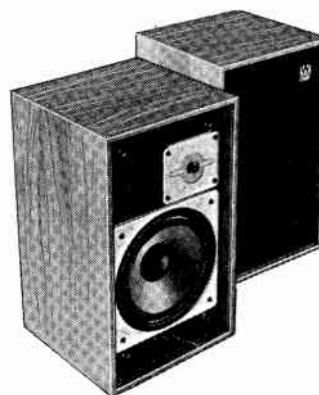
Nominal Enclosure Volume: 12 litres.  
 Frequency Response (-3 dB): 65 Hz to 18 kHz  
 Drive Unit Complement: Bass/mid 1 x 170 mm  
 Treble 1 x 50 mm.  
 Power Handling (to DIN 45573): 25 watts.  
 Suitable Amplifier Matching: 10 to 30 watts  
 r.m.s.  
 Sensitivity for 1 watt input, measured at  
 1 metre: 88 dB S.P.L. (with respect to  $2 \times 10^5$   
 Nm<sup>2</sup>).  
 Nominal Impedance: 6 ohms  
 Crossover Points: 3.5 kHz  
 Dimensions: (H) 355 mm, (W) 246 mm,  
 (D) 222 mm

Rec. Ret. Price £73.73 inc. VAT

COMET PRICE £49.90 inc. VAT

### SHELTON XP2

Meet the Shelton XP2, a newcomer to the Wharfedale range which incorporates a dome tweeter to put it firmly on the peak of the budget market. Power handling is 10-35 watts, and the performance is well in keeping with Wharfedale's impressive international reputation. Behind the attractive grille is speaker engineering dedicated to producing pure, colouration-free sound... a new deep-flared bass unit cone, 70% more metal around the voice coil than on conventional speakers to improve power handling, and a complex 8-element crossover network.



#### SHELTON XP2 SPECIFICATION

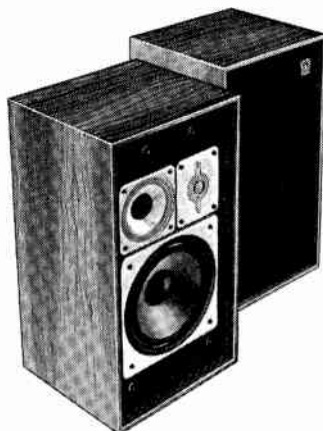
Nominal Enclosure Volume: 15 litres  
 Frequency Response (-3 dB): 63 Hz to 20 kHz  
 Drive Unit Complement: Bass/Mid 1 x 200 mm  
 Treble 1 x 19 mm dome  
 Power Handling (to DIN 45573): 28 watts  
 Suitable Amplifier Matching: 10 to 35 watts  
 r.m.s.  
 Sensitivity for 1 watt input, measured at  
 1 metre: 86 dB S.P.L. (with respect to  $2 \times 10^5$   
 Nm<sup>2</sup>)  
 Nominal Impedance: 6 ohms  
 Crossover points and rates: 3.5 kHz, 12 dB/  
 octave 8 element  
 Dimensions: (H) 412 mm, (W) 246 mm,  
 (D) 240 mm

Rec. Ret. Price £93.96 inc. VAT

COMET PRICE £59.90 inc. VAT

### LINTON XP2

A world-famous model with an improved performance that is destined to make it an even bigger Hi-Fi household word — this is the new Linton XP2. Wharfedale have applied the full weight of their advanced engineering and measurement programme to the new XPs, and the Linton has emerged with a power handling of 10-40 watts, an increase of 5 watts over the previous model. Bass and treble drivers are new, and join the outstandingly-successful mid-range unit proved on the Linton 3XP to complete a 3-way speaker that generates smooth, undistorted sound.



#### LINTON XP2 SPECIFICATION

Nominal Enclosure Volume: 20 litres  
 Frequency Response (-3dB): 60 Hz to 20 kHz  
 Drive Unit Complement: Bass 1 x 200 mm,  
 Mid 1 x 100 mm, Treble 1 x 19 mm  
 Power Handling (to DIN 45573): 35 watts  
 Suitable Amplifier Matching: 10 to 40 watts  
 r.m.s.  
 Sensitivity for 1 watt input measured at  
 1 metre: 87 dB S.P.L. (with respect to  $2 \times 10^5$   
 Nm<sup>2</sup>)  
 Nominal Impedance: 6 ohms  
 Crossover Points and rates: 1 kHz, 4.5 kHz 6 &  
 12 dB/octave 9 element  
 Dimensions: (H) 476 mm, (W) 264 mm,  
 (D) 240 mm

Rec. Ret. Price £114.17 inc. VAT

COMET PRICE £74.90 inc. VAT

### GLENDALE XP2

Wharfedale continue to make you sit up and listen with the new Glendale XP2, a speaker producing a power handling of 15-50 watts, and designed for either floor standing or bookshelf locations. Again, the bass and treble drivers are new — the large 250 mm bass unit being used with acoustic suspension loading to give a -3dB cut off point of 50 Hz. The bass response is superb, and the new Glendale certainly enhances its reputation as a loudspeaker that has proved capable of covering the entire musical spectrum, from classical through to jazz and pop in even the most difficult of acoustic environments. This is a

unit heading a range of loudspeakers bearing advanced development not seen on products costing twice as much or more.



#### GLENDALE XP2 SPECIFICATION

Nominal Enclosure Volume: 31 litres  
 Frequency Response (-3 dB): 50 Hz to 20 kHz  
 Drive Unit Complement: Bass 1 x 250 mm,  
 Mid 1 x 100 mm, Treble 1 x 19 mm dome  
 Power Handling (to DIN 45573): 40 watts  
 Suitable Amplifier Matching: 15 to 50 watts  
 r.m.s.  
 Sensitivity for 1 watt input, measured at  
 1 metre: 86 dB S.P.L. (with respect to  $2 \times 10^5$   
 Nm<sup>2</sup>)  
 Nominal Impedance: 6 ohms  
 Crossover Points and rates: 1.3 kHz, 4.5 kHz  
 6 & 12 dB/octave 11 element  
 Dimensions: (H) 565 mm, (W) 305 mm,  
 (D) 265 mm

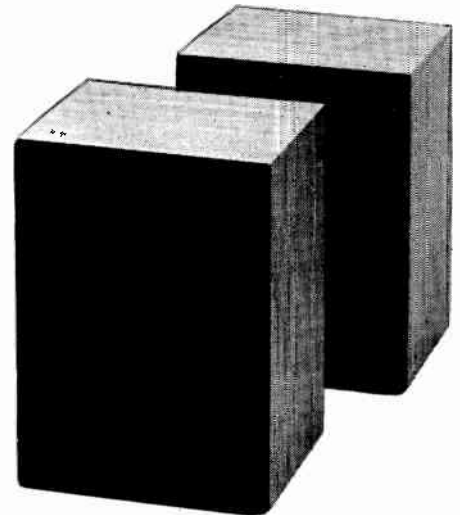
Rec. Ret. Price £151.67 inc. VAT

COMET PRICE £102.90 inc. VAT

# COMET SOLAVOX

## Here's a complete Hi-Fi system . . .

that just has to be one of the best buys ever! It's assembled by our experts from the new Solavox range of high fidelity equipment. There's an amp and matching tuner, a Dolby cassette deck and a pair of superb speakers . . . plus, for good measure, the British-built Strathearn STM4 direct-drive turntable. This is high quality Hi-Fi for an unbelievably-low price! Step into a new world of superb listening with this high fidelity package today.

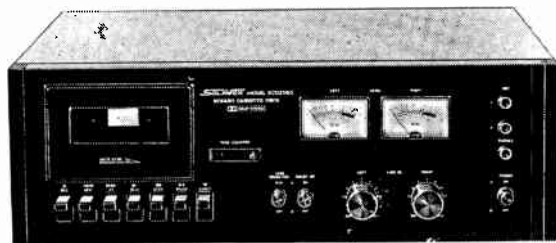


**Speakers  
PR25 MK II**



**Tuner  
ST2002**

**Amplifier  
SA2020**



**Cassette deck SCD2060**



**Turntable  
STM4**

### **SPEAKERS PR25 MK II**

A power handling of 25 watts, plus smooth and sensitive performance right across the audible frequency spectrum — this is what you get from the PR25 MK II. Ideal for the average listening room, the compact cabinet houses a 200 mm bass unit and a 70 mm treble unit.

### **TURNTABLE — STM4**

The direct-driven STM4 achieves standards of accuracy matching turntables that would normally cost much more. The superbly styled cabinet houses an electronic servo-controlled direct drive motor and other features include short straight low-mass pivoted tonearm, built-in anti-skating and viscous-damped cueing. We've included a magnetic cartridge for optimum performance.

### **TUNER — ST2002**

The elegant black anodised front panel of this FM/MW/LW tuner incorporates a full length, easy-to-read scale with weighted flywheel tuning and large signal meter. A host of superbly-engineered Hi-Fi features includes:— switchable AFC, inbuilt multiplex phase locked loop stereo decoder, stereo beacon and stabilised power supply. A perfect match for the SA2020 amplifier!

### **AMPLIFIER — SA2020**

Delivering a full 20 watts RMS per channel of low-distortion power, the SA2020 packs all the features you'd expect from units in a much higher price range. There's a full range of filters including scratch and

rumble, loudness control, mono/stereo switch and provision for an extra pair of speakers. Click action volume and tone controls, and a generous selection of inputs and outputs add to the all-round versatility of this powerful performer. A perfect match in looks and performance for the ST2002 tuner.

### **CASSETTE DECK — SCD2060**

Here's a Dolby front-loading deck that's ideal for stacking with the tuner and amp, and matches in looks too. The key button cassette function controls make operation easy and there's a switch for regular, chrome and ferrichrome tapes. Other features include large VU meters, auto-stop, tape counter, pause, and variable output controls.

## Comet Price for Complete System £272.54



## MR215 AM/FM RECEIVER

Rated at 15 watts RMS per channel into 8 ohms, the MR 215 is engineered to give high quality, low distortion performance combined with needle-sharp AM/FM reception but now at a price which represents incredible value for money. The power amplifier has direct coupled complementary output circuits (DC), and controls include loudness switch, FM muting, speaker selection and tape monitor. In the tuner section Marantz have incorporated ceramic filters and MOSFET components in the RF stage, together with a phase locked loop (PLL) FM demodulator. Other features include 41 detented volume control, 11 detented ganged bass and treble tone controls, speaker protection circuit, and signal strength and FM centre tuning meters.

### SPECIFICATION

#### POWER AMPLIFICATION SECTION

Power Output per Channel DIN 8 Ohms (1 kHz): 26 W. Total Harmonic Distortion at Rated Power Output: 0.15%. PRE-AMPLIFICATION SECTION. Frequency Response Phono (RIAA):  $\pm 10$  dB. Signal-to-Noise Ratio Phono: 72 dB. Aux: 80 dB. Input Sensitivity/Impedance Phono: 2.8mV/47 k Ohms. Aux: 180 mV/20 k Ohms. FM TUNER SECTION (87.5 - 108 MHz). Usable Sensitivity

(40kHz Dev. 98 MHz) Stereo (S/N 46 dB): 50 dB. Alternate Channel Selectivity (98 MHz  $\pm$  300 kHz): 65 dB. Signal-to-Noise Ratio (98 MHz) Weighted Mono: 66 dB. Weighted Stereo: 60 dB. AM/MW TUNER SECTION (525 - 1605 kHz). Usable Sensitivity (26dB S/N 30% Mod. 1 MHz): 30 $\mu$ V. Selectivity (1 MHz  $\pm$  9 kHz): 20 dB. GENERAL. Dimensions: 440 (W) x 137 (H) x 358 (D) mm.

Rec. Ret. Price £143.00 inc. VAT **Comet Price £97.90 inc. VAT**



## MR 230 AM/FM RECEIVER

Delivering 30 watts RMS per channel into 8 ohms, the larger MR 230 has all the features that make the MR 125 such a high quality receiver and brings Marantz into your receiver budget. Despite its bigger punch, distortion is low - thanks to the direct coupled complementary output circuits (DC) in the power amplifier - and the phase locked loop FM multiplex demodulator guarantees perfect stereo detection. Easy adjustments, accurate controls... the Marantz MR 230 has them all.

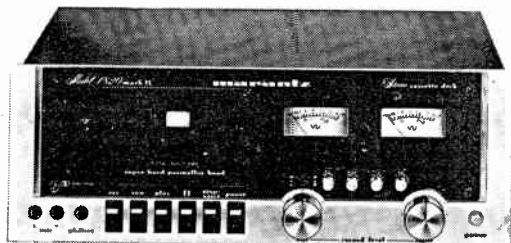
### SPECIFICATION

#### POWER AMPLIFICATION SECTION.

Power Output per Channel DIN 8 Ohms (1 kHz): 48W. Total Harmonic Distortion at Rated Power Output: 0.15%. Damping Factor: 30. PRE-AMPLIFICATION SECTION. Frequency Response Phono (RIAA):  $\pm 1$  dB. Signal-to-Noise Ratio Phono: 72 dB. Aux: 80 dB. Input Sensitivity/Impedance Phono: 2.8mV/47 k Ohms. Aux: 180mV/20 k Ohms. FM TUNER SECTION

(87.5 - 108 MHz). Usable sensitivity (40 kHz Dev. 98 MHz) Stereo (S/N 46 dB): 50 dB. Alternate Channel Selectivity (98 MHz  $\pm$  300 kHz): 65 dB. Signal-to-Noise Ratio (98 MHz) Weighted Mono: 66 dB. Weighted Stereo: 60 dB. AM/MW TUNER SECTION (525 - 1605 kHz). Usable Sensitivity (26 dB S/N 30% Mod. 1 MHz): 30 $\mu$ V. Selectivity (1 MHz  $\pm$  9 kHz): 20 dB. GENERAL. Dimensions: 440 (W) x 137 (H) x 358 (D) mm.

Rec. Ret. Price £215.00 inc. VAT **Comet Price £148.90 inc. VAT**



## 1820 CASSETTE DECK

With the attractively-styled 1820, Marantz have produced the ideal front-loading cassette deck for the home Hi-Fi installation. Driven by a DC servo-controlled motor, this Dolby deck has a host of Hi-Fi features including: superhard permalloy recording/playback head, tape selector switch and big VU meters. A fine example of Marantz engineering at a price which makes this a BEST BUY.

### SPECIFICATION

Tape Drive System: Single Capstan Drive. Track System: Compatible Stereo 4-track, 2 channel. Tape Speed: 1  $\frac{1}{2}$  ips (4.75 cm/sec). Head: Rec. Play Superhard Permalloy, Erase- Ferrite. Motor: DC Servo Controlled Motor - 1. Recording

System: AC Bias. Erasing System: AC Erase. Overall Frequency Response: (Dolby off) CrO2 Tape 20Hz to 15kHz  $\pm$  2.5 dB - 3.5 dB. Total Harmonic Distortion: CrO2 Tape 2.5%. Wow and Flutter (DIN WTD): 0.17%. Dimensions: 416(W) x 146(H) x 244(D) mm.

Rec. Ret. Price £147.00 inc. VAT **Comet Price £104.90 inc. VAT**



## MR 250 AM/FM RECEIVER

With a formidable output of 50 watts RMS per channel into 8 ohms, the MR 250 achieves this extra output without any increase in total harmonic distortion. Marantz sophisticated electronics give excellent performance and superb AM/FM listening, ease of operation and accurate tuning through the Marantz exclusive 'Gyro Touch' flywheel. Tape monitoring circuitry for two tape decks is also included in the impressive specification. Marantz hi-quality at a new break through price.

### SPECIFICATION

#### POWER AMPLIFICATION SECTION.

Power Output per Channel DIN 8 Ohms (1kHz): 64 W. Total Harmonic Distortion at Rated Power Output: 0.15%. Damping Factor: 40. PRE-AMPLIFICATION SECTION. Frequency Response Phono (RIAA):  $\pm 1$  dB. Signal-to-Noise Ratio Phono: 72 dB. Aux: 80 dB. Input Sensitivity/Impedance Phono: 2.8 mV/47k Ohms. Aux: 180mV/20 k Ohms. FM TUNER SECTION

(87.5 - 108 MHz). Usable Sensitivity (40 kHz Dev. 98 MHz) Stereo (S/N 46 dB): 50 dB. Alternate Channel Selectivity (98 MHz  $\pm$  300 kHz): 65 dB. Signal-to-Noise Ratio (98 MHz) Weighted Mono: 66 dB. Weighted Stereo: 60 dB. AM/MW TUNER SECTION (525 - 1605 kHz). Usable Sensitivity (26 dB S/N 30% Mod. 1 MHz): 30 $\mu$ V. Selectivity (1 MHz  $\pm$  9 kHz): 20 dB. GENERAL. Dimensions: 440 (W) x 137 (H) x 358 (D) mm.

**Comet Price £192.50 inc. VAT**

## 2020L AM/FM TUNER

A high performance tuner capable of meeting the high standards of FM broadcasts - this is the Marantz 2020L. The MOSFET components in the FM front end, plus the phase locked loop (PLL) demodulator, give exceptional selectivity as well as optimum FM stereo channel separation. The circuitry is based on ceramic IF filters, and other features include: 3 gang FM tuning capacitor, mono and FM muting switches, signal strength and centre tuning meters.

### SPECIFICATION

FM TUNER SECTION (87.5 - 108 MHz). Usable Sensitivity Stereo S/N 46 dB: 50 $\mu$ V. Alternate Channel Selectivity: 65 dB. Signal-to-Noise Ratio (DIN). Weighted Stereo: 60 dB. Total Harmonic Distortion. Stereo: 0.4%. Frequency Response (30 Hz - 15 kHz):  $\pm 0.2$  - 2.0 dB. Stereo Separation: 42 dB. Channel Balance:

0.5 dB. AM/LW TUNER SECTION (150 - 350 kHz). Usable Sensitivity (26 dB-S/N 30% Mod. 250 kHz): 200 $\mu$ V. Selectivity (250 kHz  $\pm$  9 kHz): 24 dB. Image Rejection (250 kHz): 36 dB. I.F. Rejection (250 kHz): 26 dB. Signal-to-Noise Ratio (250 kHz): 48 dB. Total Harmonic Distortion (250 kHz): 0.6 dB. Dimensions: 416(W) x 146(H) x 240(D) mm.

Rec. Ret. Price £126.00 inc. VAT **Comet Price £89.90 inc. VAT**



# COMET marantz

## 6025 TURNTABLE

This semi-automatic, belt drive turntable features the revolutionary tonearm design used on every Marantz turntable. Tracking error distortion has been lowered by 30% below that of a conventional tonearm. Other features of this perfectly engineered turntable include: AC synchronous motor, bias control and calibrated counterweight, and automatic return/shut-off.

### SPECIFICATION

Drive System: Belt. Drive Motor Type: Synchro. Speed (r.p.m.): 33 $\frac{1}{3}$ , 45. Wow and Flutter: NAB 0.07%, DIN 45 507. 0.09%. Rumble: NAB 60 dB, DIN 65 dB.

Dimensions: 454(W)  $\times$  130(H)  $\times$  354 (D) mm.  
The Ortofon FF10E Mk. II Cartridge is recommended for use with this turntable.



Rec. Ret. Price £92.00 inc. VAT  
COMET Price £68.90 inc. VAT



Rec. Ret. Price £133.00 inc. VAT  
COMET Price £93.90 inc. VAT

## 1050 AMPLIFIER

Delivering 40 watts RMS per channel into 8 ohms, with no more than 0.1% total harmonic distortion, the 1050 provides power to spare for the average-sized listening room. An impressive specification includes: full complementary direct coupled output stage (DC), loudness and mono switches, low filter, 41 stepped detented volume control, detented graphic base and treble tone controls, tape monitor, stereo headphone jack and provision for operating two pairs of speaker systems.

### SPECIFICATION

Power Output per Channel DIN 8 Ohms (1 kHz): 40 W. Total Harmonic Distortion at Rated Power Output: 0.1%. Intermodulation Distortion: 0.1%. Damping Factor 8 Ohms: 45. Sensitivity (at MAIN IN) for Rated Output: 1.5 V

Impedance (at MAIN IN): 36 k Ohms. Frequency Response: 20 Hz - 50 kHz. Signal-to-Noise Ratio (at MAIN IN): 100 dB. Dimensions: 416(W)  $\times$  146(H)  $\times$  300(D) mm.

## 5010 CASSETTE DECK

Another high quality cassette deck from the Marantz range — this time the front-loading 5010. Incorporating Dolby noise reduction, this impressive machine has many features including: professional extended VU meters, super hard permalloy head, 3 position tape EO/bias selector, switchable peak limiter, jacks for stereo microphones and headphones and total shut-off.

### SPECIFICATION

Tape Speed: 1 $\frac{7}{8}$  ips. Wow and Flutter (WRMS): 0.1%. Frequency Response (overall: ref. level — 20 below 0 VU). FECC: 35 Hz — 15 kHz,  $\pm$  3 dB. CrO2: 40 Hz — 14 kHz,  $\pm$  3 dB

Normal: 40 Hz — 13 kHz,  $\pm$  3 dB. Signal-to-Noise Ratio: Playback: 52 dB. Overall, Dolby Off: 50 dB. Overall, Dolby On: 58 dB. Dimensions: 440(W)  $\times$  146(H)  $\times$  290(D) mm.



Rec. Ret Price £213.00 inc. VAT  
COMET Price £159.90 inc. VAT

## HD 440 LOUDSPEAKERS

(Illustrated)

With a power handling capacity (IPM) of 55 watts, these 3 way loudspeakers are ideal for high quality home Hi-Fi systems. Powerful performers despite their compact dimensions, and as low in colouration as they are high in accuracy and tonal definition, new 'diamond' speaker grilles give unique appearance.

### SPECIFICATION

Frequency Response: 40 Hz — 18 kHz. Efficiency (dB SPL/W/m/1 kHz): 87 dB. Power Handling Capacity (IPM): 55 W. Speaker Complement Woofer: 200 mm; Mid-range: 90 mm; Tweeter: 90 mm; Super Tweeter —. Crossover Level: 2/8 kHz. Nominal Impedance: 8 Ohms. Dimensions: 286(W)  $\times$  486(H)  $\times$  216(D) mm.



Rec. Ret. Price £153.00 inc. VAT  
COMET Price £99.90 inc. VAT

## 4G LOUDSPEAKERS

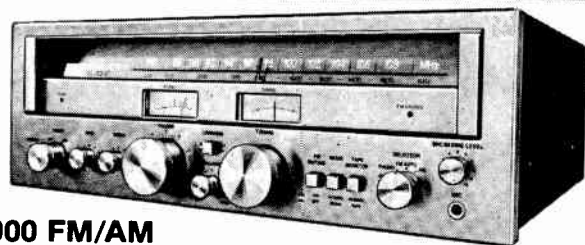
Superbly styled, these compact bookshelf speakers are suitable for use with amplifiers from 10-30 watts. With an all-round performance matching their elegant looks, Marantz 4G loudspeakers are yet another outstanding example of Marantz Hi-Fi technology.

### SPECIFICATION

Nominal Impedance: 8 Ohms. Power Rating: 15 watts continuous (40 watt integrated program material). Sensitivity: 95 dB (1 watt 1 kHz at 0.5 meter). Frequency Response: 40 Hz — 18 kHz  $\pm$  5 dB. Distortion: Less than 0.9%. Dimensions: 19 $\frac{1}{4}$ "(H)  $\times$  11 $\frac{1}{4}$ "(W)  $\times$  8 $\frac{1}{2}$ "(D).

Rec. Ret. Price £89.00 inc. VAT  
COMET Price £57.50 inc. VAT

# COMET Sansui



## G2000 FM/AM STEREO RECEIVER

An impressive model in the Sansui range, with all the functional versatility of Receivers costing much more. The G2000 Stereo Receiver. You'll enjoy clean, clear sound quality with a Stereo output at a comfortable 16 watts per channel RMS both channels driven. Extra large volume controls, advanced equaliser and tuner sections, mic. mixing, plus many other reliable circuitry features add up to good looks, good sound, and, of course, a really good Comet price.

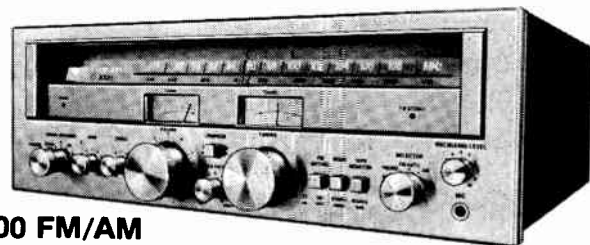
### SPECIFICATIONS

**AUDIO SECTION.** Power Output: Min. RMS, both channels driven, from 20 Hz to 20,000 Hz with no more than 0.15% total harmonic distortion. 16 watts per channel into 8 ohms. Total Harmonic Distortion: Overall (from AUX) less than 0.15% at or below rated min. RMS power output. Load Impedance: 8 ohms. Frequency Response: (at 1 watt) Overall (from AUX) 10 to 50,000 Hz + 1 dB, -2 dB. Hum and Noise: Phono 75dB, AUX 95 dB. Channel Separation (at 1,000 Hz): Phono 50 dB, AUX 50 dB. Input Sensitivity and Impedance (at 1,000 Hz): Phono 2.5mV, 47k ohms,

AUX 150mV, 47k ohms (Phono: Max. input capability more than 190mV RMS at 0.5% distortion).

**FM SECTION.** Tuning Range: 88 to 108 MHz. Sensitivity Stereo: 1.2  $\mu$ V DIN. Signal-to-Noise Ratio Stereo: 68dB. Capture Ratio: 1.3 dB. Stereo Separation: 40dB at 1,000 Hz. Frequency Response Stereo: 30 to 15,000 Hz + 0.2 dB, -1 dB. **AM SECTION.** Sensitivity (Bar antenna): 300  $\mu$ V/m. Selectivity ( $\pm$  10 kHz): 35 dB at 1,000 kHz. Signal-to-Noise Ratio: 46 dB at 1,000kHz. Dimensions: 433mm (17 $\frac{1}{8}$ " W, 153mm (6 $\frac{1}{8}$ " H, 352mm (13 $\frac{7}{8}$ " D).

**COMET PRICE £120.50 inc. VAT**



## G3000 FM/AM STEREO RECEIVER

Designed to make the most of your music the G3000 has a power output of 26 watts per channel, RMS both channels driven, a highly sensitive front end and an improved AM section. The advanced phono equalizer gives accurate and uncoloured performance enabling you to enjoy music even from the most complex, widely undulating record grooves, with the additional facility of mic. mixing. We think you'll agree it's audio engineering at its best.

### SPECIFICATIONS

**AUDIO SECTION.** Power Output: Min. RMS, both channels driven, from 20 Hz to 20,000 Hz, with no more than 0.15% total harmonic distortion. 26 watts per channel into 4 and 8 ohms. Total Harmonic Distortion: Overall (from AUX) less than 0.15% at or below rated min. RMS power output. Load Impedance: 4 and 8 ohms. Frequency Response (at 1 watt): Overall (from AUX) 10 to 50,000 Hz + 1 dB, -2 dB. Hum and Noise: Phono 75 dB, AUX 95 dB. Channel Separation (at 1,000Hz): Phono 50 dB, AUX 50dB. Input Sensitivity and Impedance (at 1,000 Hz): Phono 2.5mV, 47k ohms, AUX

150mV, 47k ohms (Phono: Max. input capability more than 200mV RMS at 0.5% distortion).

**FM SECTION.** Sensitivity Stereo: 1.2  $\mu$ V DIN. Signal-to-Noise Ratio at 65 dBf Stereo: 68 dB. Capture Ratio: 1.3 dB. Alternate Channel Selectivity: 50dB at 4,000 kHz. Stereo Separation: 40 dB at 1,000 Hz. Frequency Response Stereo: 30 to 15,000 Hz + 0.2 dB, -1dB. **AM SECTION.** Sensitivity (Bar antenna): 300  $\mu$ V/m. Selectivity ( $\pm$  10 kHz): 35 dB at 1,000 kHz. Signal-to-Noise Ratio: 46 dB at 1,000 kHz. Dimensions: 433mm (17 $\frac{1}{8}$ " W, 153mm (6 $\frac{1}{8}$ " H, 352mm (13 $\frac{7}{8}$ " D).

**COMET PRICE £150.50 inc. VAT**

## SR222P TURNTABLE



It's smooth, slim, silent and packed with the best of Sansui engineering. Two speed belt drive by a 4-pole synchronous motor, the 222P features a unique motor suspension, one touch power on/speed change and the damped Sshaped tonearm assures perfect lateral balance. All this in a handsome streamline cabinet at a keen Comet price.

### SPECIFICATIONS

Type: Two-speed, belt driven. Speeds: 33 $\frac{1}{3}$ , 45 rpm. Platter: Aluminium alloy die-cast, diameter 300mm (12"). Motor: Four-pole synchronous. Performance. Wow and Flutter: Less than 0.07% (WRMS). Signal-to-Noise Ratio: Better than 54 dB (IEC-B). Rumble: Better than -60 dB (DIN-B). Tonearm:

Statically-balanced S-shaped tubular tonearm with anti-skating device, direct readout tracking force dial, 4-contact plug-in head, lateral balancer. Length: 220mm (8 $\frac{1}{2}$ " pivot to stylus tip. Overhang: 17.5mm ( $\frac{3}{4}$ "). Dimensions: 452mm (17 $\frac{3}{8}$ " W, 139mm (5 $\frac{1}{2}$ ">>) H, 370mm (14 $\frac{5}{8}$ " D).

**COMET PRICE £56.90 inc. VAT**

The Ortofon FF10E Cartridge is recommended for use with this turntable.

Rec. Ret. Price £12.50 inc. VAT **COMET PRICE £8.90 inc. VAT**

## SR232E TURNTABLE



This is a value-for-money turntable that features automatic return/power shut off. Belt driven by a 4-pole synchronous motor, this 2 speed deck includes a high sensitivity S-shaped tonearm with a longer tracking length and a new Sansui howl-suppressing insulator/suspension design, reducing acoustic feedback. Convenient lift and play lever, newly-designed suspension and an elegant slim-line cabinet make the 232E a great buy.

### SPECIFICATIONS

Type: Two-speed, belt-driven, automatic return. Motor: Four-pole synchronous. Platter: Aluminium alloy die-cast, diameter 308mm (12 $\frac{1}{8}$ "). Speeds: 33 $\frac{1}{3}$ , 45 rpm. Performance. Wow and Flutter: Less than 0.07% (WRMS). Signal-to-Noise Ratio: Better than 50 dB (IEC-B). Rumble: Better

than -58 dB (DIN-B). Tonearm: Statically-balanced S-shaped tubular tonearm with anti-skating device, direct readout tracking force dial, 4-contact plug-in head. Length: 215mm (8 $\frac{1}{2}$ ") pivot to stylus tip. Overhang: 10mm ( $\frac{3}{8}$ "). Dimensions: 430mm (16 $\frac{5}{8}$ " W, 145mm (5 $\frac{1}{8}$ " H, 356mm (14" D).

**COMET PRICE £64.90 inc. VAT**

The Ortofon FF15E Mk. II Cartridge is recommended for use with this turntable.

Rec. Ret. Price £17.00 inc. VAT **COMET PRICE £13.50 inc. VAT**

# COMET Sansui

## AU117 STEREO AMPLIFIER

The smallest in the new AU range from Sansui, the AU117 includes advanced power amps, Darlington-arranged power output, and has a healthy power output of 15 watts per channel, min. RMS, with no more than 0.17% total harmonic distortion. A unit that is high on value and performance.



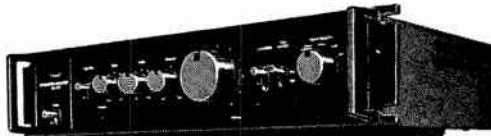
COMET PRICE £73.90 inc. VAT.

### SPECIFICATION

Power Output: Min. RMS both channels driven from 20 to 20,000 Hz, with no more than 0.17% total harmonic distortion. 15 watts per channel into 8 Ohms. Total Harmonic Distortion: Less than 0.17% at or below rated min. RMS power output. Frequency Response (at 1 watt): Overall (from AUX) 10 to 40,000 Hz + 0.5 dB, -2 dB. Channel Separation (at 1,000 Hz): Phono 65 dB, Aux 68 dB. Dimensions: 430(W) × 110(H) × 340(D) mm.

## AU217 STEREO AMPLIFIER

The AU217 delivers 30 watts per channel, min. RMS, both channels driven into 8 ohms with no more than 0.06% total harmonic distortion, it has a low output impedance and features low distortion thanks to a Darlington-arranged power output. There's a precise phono equalizer and accurate RIAA equalization that allows you to enjoy 'unclipped' record reproduction even at full power operation.



COMET PRICE £113.90 inc. VAT

### SPECIFICATION

Power Output: Min. RMS both channels driven from 20 to 20,000 Hz, with no more than 0.06% total harmonic distortion. 30 watts per channel into 8 Ohms. Total Harmonic Distortion: Less than 0.06% at or below rated min. RMS power output. Frequency Response (at 1 watt): Overall (from AUX) 10 to 50,000 Hz + 0.5 dB, -1.5 dB. Channel Separation (at 1,000 Hz): Phono 65 dB, Aux 68 dB. Dimensions: 430(W) × 110(H) × 340(D) mm.

## AU317 STEREO AMPLIFIER

Sansui's new design results in a low-distortion DC coupled high calibre amp that certainly holds its own against many of its much higher priced competitors. Delivering a respectable 50 watts per channel RMS, both channels driven into 8 ohms the AU317 is certainly an amplifier in the highest class.



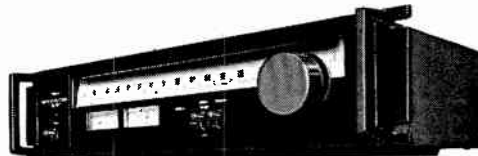
COMET PRICE £163.90 inc. VAT

### SPECIFICATION

Power Output: Min. RMS both channels driven, from 20 to 20,000 Hz, with no more than 0.03% total harmonic distortion. 50 watts per channel into 8 Ohms. Total Harmonic Distortion: Less than 0.03% at or below rated min. RMS power output. Frequency Response (at 1 watt): Overall (from AUX) 5 to 70,000 Hz + 0 dB, -1.8 dB, Power amp in DC to 200,000 Hz + 0 dB, -2.5 dB. Channel Separation (at 1,000 Hz): Phono 65 dB, Aux 73 dB. Dimensions: 430(W) × 110(H) × 340(D) mm.

## TU217 FM/AM STEREO TUNER

The TU217 is top notch Sansui technology at a down to earth Comet price. Features include wide channel separation in FM stereo due to a super-stable phase locked loop multiplex decoder in IC form, ultra low distortion from all stations thanks to the linear-phase IF section, IC quadrature detectors and other perfected circuits widen dynamic range. Altogether Sansui have made Radio Reception smooth, sure and simple.



COMET PRICE £105.90 inc. VAT

### SPECIFICATION

FM SECTION. Sensitivity: Mono 10.6 dBf. (IHF T-100 1.85 uV), Stereo 20 dBf. Signal-to-Noise Ratio (at 65 dBf): Mono 71 dB, Stereo 70 dB. Frequency Response: Stereo 30 to 15,000 Hz + 1 dB, -1dB. Stereo Separation: 40 dB at 1,000 Hz. AM SECTION. Selectivity (± 10 kHz): 35 dB. Signal-to-Noise Ratio: 48 dB. Dimensions: 430(W) × 110(H) × 307(D) mm.

## SC1110 "DIRECT-O-MATIC" CASSETTE DECK

This new "Direct-O-Matic" deck from Sansui puts your tape right up front, not deep inside the chassis, which means better tape handling, more stable transport and easier access for maintenance, and it aids performance too by providing greater stability as the cassette shell is held firmly in place, a hinged cover protects the heads when not in use. Other features include Dolby, Auto Stop, Tape Selector, illuminated tape counter, quick-change mode facility, super-hard permalloy head and large illuminated VU meters.



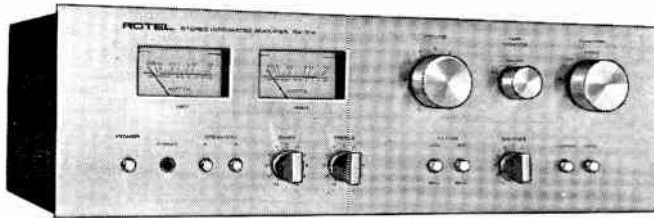
COMET PRICE £117.90 inc. VAT

### SPECIFICATION

Heads: REC/PB (Super Hard Permalloy) ERASE (Ferrite). Motor: Electronically Speed Controlled DC Motor. Wow and Flutter: within 0.08% (WRMS). Frequency Response (Record/Playback) Chromium Tape: 30 — 16,000 Hz. Signal-to-Noise Ratio (Record/Playback) Chromium: 64 dB (with DOLBY) (Above 5 kHz). Bias Frequency: 85 kHz. Dimensions: 430(W) × 160(H) × 302(D) mm.

ALSO AVAILABLE SANSUI SC2110 STEREO CASSETTE DECK.  
COMET PRICE £184.90

## Amplifier RA 314

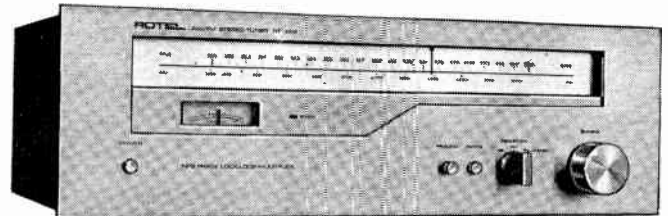


Delivering a power output of 25 watts RMS per channel with total harmonic distortion as low as 0.05% at full power, the RA 314 is an impressive all-round performer. Circuitry is DC coupled, giving improved bass performance, and an important feature is the inclusion of large, quick-response twin power meters which also serve as 'power-on' indicators. Other features include full tape dubbing in both directions, low and high filters, loudness and mono/stereo buttons, and provision for 2 pairs of speakers.

Rec. Ret. Price £111-74

Comet Price £78-90 inc. VAT.

## Tuner RT 426

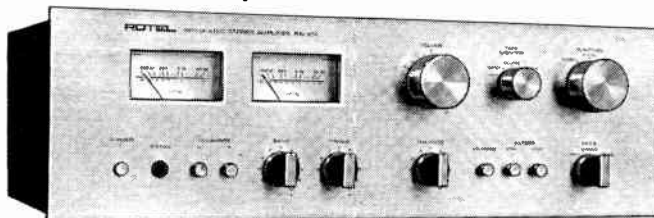


The RT 426 is packed with features to ensure excellent VHF/MW/LW reception. An impressive specification includes NFB phase lock loop MPX to pull in marginal programme signals, and to give long term stability of stereo separation, low drift and low distortion. A single meter serves for both FM tuning and signal strength – and buttons for hi-blend and interstation muting are also provided.

Rec. Ret. Price £125-74

Comet Price £89-90 inc. VAT.

## Amplifier RA 414

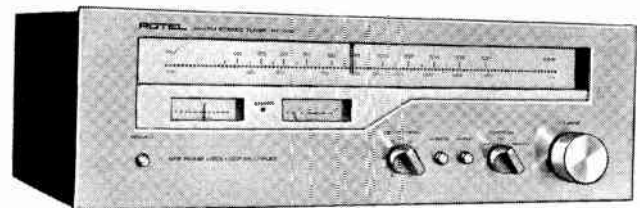


Moving up in performance from the RA 314 is the 35 watts RMS per channel RA 414 – a stereo amplifier sharing the same low distortion qualities and fine specification of the lower power unit. DC coupled circuitry is used with a thick-film power output stage to ensure simplicity of construction and servicing, plus a notable bass performance. An additional feature is a control for mono/stereo and reverse stereo.

Rec. Ret. Price £153-91

Comet Price £109-90 inc. VAT.

## Tuner RT 726

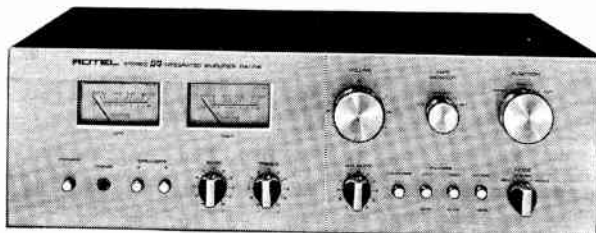


Here's another outstanding unit in this Rotel value-for-money range – an FM/AM tuner that combines pin-sharp reception with elegant styling. Fitted with variable level output control, the RT 726 also incorporates phase lock loop MPX, FM tuning meter, signal strength meter, hi-blend button and interstation muting button.

Rec. Ret. Price £139-92

Comet Price £99-90 inc. VAT.

## Amplifier RA 714

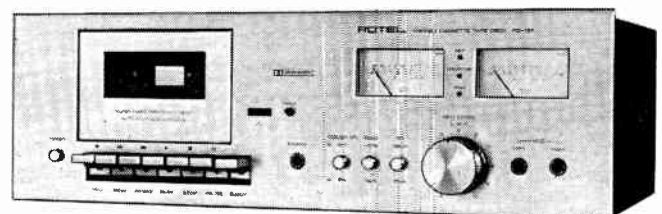


With an impressive output of 50 watts RMS per channel, the RA 714 delivers this power whilst achieving total harmonic and intermodulation distortion figures of only 0.03%. The DC circuitry provides excellent damping to the loudspeakers at low frequencies to give a tight, cleaner-sounding bass. There's a muting button too, and a relay is provided to protect the amplifier against short circuiting of the speaker leads.

Rec. Ret. Price £195-88

Comet Price £138-90 inc. VAT.

## Cassette Deck RD 15F



This Dolby front-loader is high in both looks and performance – and incorporates all the features you need for really high fidelity recording and playback. These include superbard permalloy record/playback head, easy-to-operate keys, big VU meters, peak level beacon, 'record' and 'Dolby-in' warning lights, auto-stop, cue and review. The RD 15F also has three separate bias settings for low noise, chrome and ferrichrome tapes – plus two equalisation settings.

Rec. Ret. Price £139-32

Comet Price £184-90 inc. VAT.

# COMET

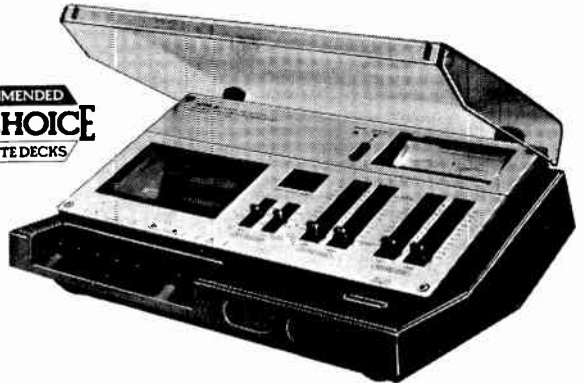
# AIWA®

## AD 1250 CASSETTE DECK

With its advanced ergonomic design and excellent performance it's little wonder that the 1250 was rated as a "Best Buy" in Hi-Fi Choice. The inclined control panel protected by hinged dust cover gives maximum visibility, while leaving the function controls readily to hand. Facilities include: Dolby noise reduction in record and playback, linked to MPX filter for improved FM recording, two separate 3-position controls for bias/equalisation switchable to normal, FeCr or CrO<sub>2</sub>, Cue/Review to help locate your favourite tracks, slider input/output level controls, twin VU meters and peak level light, jacks for headphones and mic; and auto-stop.

Rec. Ret. Price £185.66 inc. VAT  
COMET Price £142.90 inc. VAT

RECOMMENDED  
HI-FI CHOICE  
CASSETTE DECKS



## AD 6350 CASSETTE DECK

The main feature of this versatile front-loader is a user-adjustable fine bias control which ensures the best possible recording results with different brands of LH/normal tape. Another useful feature is a 'Rec-mute' edit facility (incorporating flashing LED muting time indicator) which enables the user to remove unwanted portions of the programme such as dialogue or commercials. The impressive specification also includes: Dolby noise reduction interlocked with MPX filter to prevent interference during FM recording, separate bias/equalisation switches for CrO<sub>2</sub> and FeCr tapes, twin VU meters with two LED peak overload indicators, Cue/review, full auto-stop, timer start and oil-damped cassette ejection.

Rec. Ret. Price £195.80 inc. VAT  
COMET Price £149.90 inc. VAT



### SPECIFICATIONS

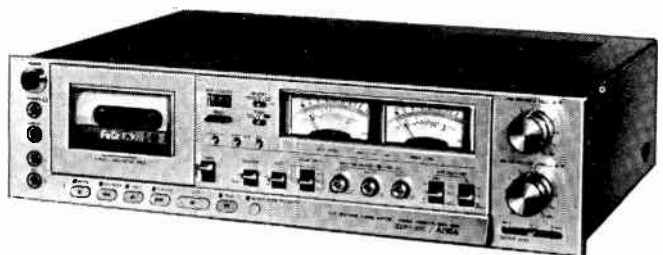
Frequency response (DIN):  
LH tape 30-12.5 kHz,  
CrO<sub>2</sub> tape 30-15 kHz,  
FeCr tape 30-16 kHz.  
S/N ratio: 59 dB DIN (FeCr tape,  
Dolby on).

Wow and flutter: 0.08% WRMS.  
Head: Hardened permalloy.  
Motor: DC servo motor.  
Dimensions: 420(W) × 150(H) ×  
330(D) mm (16<sup>7</sup>/<sub>16</sub>" × 5<sup>15</sup>/<sub>16</sub>"  
× 13").

## AD 6900 CASSETTE DECK

The AD 6900 is a true three-head machine permitting instantaneous off-tape monitoring and flat response tuning (FRTS) for all types of tape. The V-cut combination head incorporates a test facility which enables the user to measure the required bias figure for LH/normal, CrO<sub>2</sub> or FeCr tape, and to adjust the AD 6900 to give the finest optimum recording quality. Full logic controls enable punch-in recording from the play mode without interrupting the tape motion, and incorporate the world's first logic cue/review facility. Visual monitoring of recording and playback levels is performed using twin combined peak/VU meters. Two needles in each meter provide simultaneous display of VU and peak signal strengths, and depression of the peak hold button holds the peak needles in a frozen state so that they then display the maximum level recorded. Other features include: dual Dolby noise reduction circuits with record calibration, 'Rec-mute' edit facility, 38-pulse frequency generated servo motor, mic/line mixing, memory stop/replay, timer start/record and a unique facility for synchronisation with an Aiwa turntable.

Rec. Ret. Price £485.00 inc. VAT  
COMET Price £389.90 inc. VAT



### SPECIFICATIONS

Frequency response: (DIN 45500):  
LH tape 25-15 kHz,  
CrO<sub>2</sub> tape 25-18 kHz,  
FeCr tape 25-19 kHz.  
S/N ratio (DIN 45500): 66 dB  
(Dolby on, FeCr tape).  
Wow and flutter: 0.04% WRMS  
(0.1% DIN).  
Heads: Rec/Pb: V-cut ferrite guard

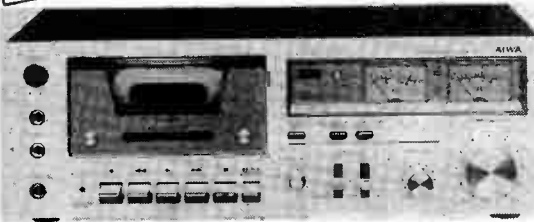
combination head. Erase: Double  
gap ferrite head.  
Motors: 38-pulse frequency  
generated servo motor × 1  
Electronically controlled, 2-speed  
DC servo motor × 1.  
Dimensions: 450(W) × 120(H) ×  
327(D) mm. (17<sup>3</sup>/<sub>16</sub>" × 4<sup>3</sup>/<sub>16</sub>" ×  
12<sup>15</sup>/<sub>16</sub>".



**Cassette Deck  
month at**

# HERTS HI FI

**Fantastic  
Special  
Offers on  
Cassette  
Decks**



Aiwa AD1250 .. ..	£135.00	Hitachi D2360 .. ..	£83.00
Aiwa AD6300 .. ..	£130.00	Hitachi TR2040D .. ..	£89.00
Aiwa AD6350 .. ..	£145.00	<i>New Models</i>	
Aiwa AD6400 .. ..	£177.00	Hitachi D580 .. ..	£186.00
Aiwa AD6550 .. ..	£208.00	Hitachi D560 .. ..	£152.00
Aiwa AD6800 .. ..	£259.00		
Aiwa AD6900 .. ..	£340.00	Pioneer CTF4040 .. ..	£110.00
Aiwa 6500 .. ..	£188.00	Pioneer CTF500 .. ..	£99.50
Akai GXC750D .. ..	£359.90	Pioneer CTF700 .. ..	£207.00
Akai GXC706D .. ..	£139.90	Pioneer CTF9191 .. ..	£220.00
Akai GXC709D .. ..	£169.90	Sansui SC1100 (silver) .. ..	£126.90
Hitachi D220 .. ..	£85.00	Sansui SC1100 (black) .. ..	£119.90
Hitachi D580 .. ..	£189.00	Sansui SC1120 .. ..	£119.90
Hitachi D555 .. ..	£151.00	Toshiba PC3110 .. ..	£59.50
Hitachi D850 .. ..	£199.00	Toshiba PC3060 .. ..	£111.00
Hitachi D900 .. ..	£254.00	Toshiba PC4020 .. ..	£95.00
Hitachi D2310 .. ..	£49.00	Toshiba PC4030 .. ..	£103.00

## Rack Systems



Pioneer X50H .. ..	£399.00
Pioneer X50V .. ..	£429.00
Pioneer X70H .. ..	£489.00
Pioneer X70V .. ..	£519.00
Pioneer X90H .. ..	£547.00
Pioneer X90V .. ..	£578.00

*All above prices exclude Loudspeakers.  
Special Offer prices available for  
matching speakers.*

Toshiba 220 (excl. speakers)	£450.00
Toshiba 225 .. ..	£490.00
Toshiba 230 .. ..	£450.00
Toshiba 330 (excl. speakers)	£520.00
Toshiba 335 (excl. speakers)	£485.00
Toshiba 420 (excl. speakers)	£615.00

## Top Quality Tape at Super Low Prices!

SCOTCH	BASF	CrO <sub>2</sub>	
Master I	LH Sup. SM	C60	£1.29
C60 £1.30	C60 98p	C90	£1.59
C90 £1.50	C90 £1.29	Ferrochrom	
Master II	C120 £1.70	C60	£1.45
C60 £1.55	LH SM	C90	£1.89
C90 £1.85	C60 62p	LH Sup LH1	
Master III	C90 80p	C60	95p
C60 £1.65	C120 £1.10	C90	£1.85
C90 £1.99			

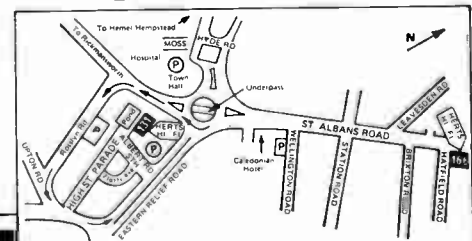
### VIDEOTAPE

TDK VHS	3M Scotch	PHILIPS
Video Tape	Betamax	VC60/
2 Hour £9.90	Video Tape	LVC130
3 Hour £11.90	L250 £6.65	£15.50
	L500 £8.85	

**131 The Parade, High Street, Watford WD1 1NA.  
166 St. Albans Road, Watford WD2 4AS.**

Tel: Watford (STD Code 0923, or London Area 92) 34644

EXPORT SALES—EXPORTATIONS—EXPORT VERKAUFE—VIENTAS EXPORTADAS—EXPORTAZIONI



# H E R T S H I F T

Open 9.15-1, 2-5.30 Mon. to Sat. Shut:  
Wed. Cheques with £50 cheque cards  
only accepted for counter sales, with  
only one cheque per transaction.  
Cheques accepted for Mail Orders.  
**BARCLAYCARD, ACCESS CARD**  
accepted for normal prices.  
P.O.A.—Price on application  
Sp. off.—Special offer price for cash  
P.P.T.B.A.—P & P to be advised

**ALL PRICES INCLUDE VAT AT 12½%**  
All prices correct at time of preparation and  
subject to alteration without notice. E&OE

## MAIL ORDER SERVICE

● **TAPE RECORDERS (P/P £3-50)**  
Akai 4000DB .. £276.90  
Akai 4000DS Mk 2 .. £219.90  
Tandberg 1521, 1021X, 1041X TD20A P.O.A.  
Revox A77 range from .. £447.00

● **CASSETTE RECORDERS (P/P £2-50)**  
Aiwa AD1250 .. £135.00  
Aiwa AD6300 .. £135.00  
Aiwa AD6350 .. £145.00  
Aiwa AD6400 .. £177.00  
Aiwa AD6550 (Sp. off.) .. £199.00  
Aiwa AD6600 .. £265.00  
Aiwa AD6800 (Sp. off.) .. £269.00  
Aiwa AD6900 .. £353.00  
Akai CS702D Mk 2 .. £119.90  
Akai CS707D (Sp. off.) .. £135.00  
Akai GXC310D (Sp. off.) .. £134.00  
Akai GXC325D (Sp. off.) .. £130.00  
Akai GXC570D/2 (Sp. off.) .. £485.00  
Akai GXC730D\* .. £292.90  
Akai GXC730D\* .. £292.90  
Akai GXC709D (Sp. off.) .. £359.90  
Akai GXC750D (Sp. off.) .. £139.90  
Akai GXC706D (Sp. off.) .. £169.00  
Harman Kardon HK2000 (Sp. off.) .. £92.90  
Hitachi D220 (Sp. off.) .. £116.00  
Hitachi D550 (Sp. off.) .. £160.00  
Hitachi D555 Auto Reverse .. £220.00  
Hitachi D850 .. £271.00  
Hitachi D900 .. £55.00  
Hitachi D2310 (Sp. off.) .. £85.00  
Hitachi D2360 (Sp. off.) .. £118.00  
JVC KD10 .. £115.00  
JVC KD21 .. £85.00  
JVC KD720B .. £139.90  
Marantz 5010B .. £89.90  
National Technics RS612US .. £110.00  
Pioneer CT4040 (Sp. off.) .. £99.50  
Pioneer CT500 .. £207.00  
Pioneer CT700 .. £399.00  
Pioneer CT71000 .. £215.00  
Pioneer CT79191 (Sp. off.) .. £308.50  
Pye 9154 DNL (Sp. off.) .. £51.50  
Pye 9148 DNL (Sp. off.) .. £94.50  
Rotel RD15F .. £99.90  
Sansui SC1100 (Silver) .. £119.90  
Sansui SC1110 (Black) .. £121.50  
Sansui SC1120 .. £145.00  
Sansui SC2000 .. £105.00  
Sharp RT1155H .. £79.50  
Sharp RT3151 Timer .. £159.50  
Toshiba PC3110 (Sp. off.) .. £76.00  
Toshiba PC3030 .. £109.00  
Toshiba PC3060 (Sp. off.) .. £95.00  
Toshiba PC4020 (Sp. off.) .. £99.00  
Toshiba PC4030 (Sp. off.) .. £125.50  
Toshiba PC4360 .. £129.00  
Toshiba PC5060 (Sp. off.) .. £299.00  
Toshiba PC6030 .. £299.00

● **MICS., ACCESSORIES (P/P £1-00)**  
ADC SLM2 .. £40.50  
ADC SSI .. £60.00  
ADC S52 Sound shaper (P/P £2-50) .. £135.00  
Aiwa CM2000A Stereo .. £23.00  
Akai ADM20 (Sp. off.) .. £6.50  
Akai ADM40 .. £9.50  
Akai ADM80 .. £10.25  
Akai ACM100 Electret Cardioid .. £24.50  
Akai ACM50 Electret Cardioid .. £9.75  
Beyer M818LM .. £62.00  
Ferrograph Demagnetiser D2 .. £11.00  
Garrard MRM101 Mk 2 .. £80.00  
Harman Kardon HS2 Stand (pair) .. £18.50  
Harman Kardon TS4 Stand (pair) .. £18.50  
Monitor Audio C3F Cable 5m .. £7.50  
Monitor Audio Stylift .. £5.50  
Monitor Audio Sound Cable 5m .. £7.70  
Monitor Audio Sound Cable 10m .. £14.00  
Neal 101 Resolver Mk 2 .. £17.50  
Sansui AX Mixer .. £165.00  
Sennheiser MD722LM and MZA12 .. £9.90  
Zerosat Pistol (add £1.00 P/P) .. £6.50

● **KITS, LOUSPEAKERS, DRIVE UNITS (P/P on application)**  
Celestion HF1300 8- and 15-ohm .. £8.00  
Celestion HF200 .. £9.20  
Coles 400IG .. £6.30  
Decca London Ribbon Tweeter .. £40.00  
KEF KK3 (add P/P £5.00) .. £120.00  
KEF B139, DN12, B110, T27 .. £199.50  
P/P Free\* (Per Pair) .. £10.75  
KEF B110 SPI003 .. £10.75

KEF B139 SPI044 .. £24.75  
KEF B200 SPI014 .. £11.75  
KEF DN12 SPI004 .. £7.00  
KEF DN12 SPI106 .. £4.75  
KEF DN13 SPI017 .. £5.00  
KEF DN22 pair (104AB Crossover) .. £34.00  
KEF T27 SPI032 .. £8.40  
Micro Seiki Shock Absorbers MSBI .. £9.50  
Tannoy HPD315A (pair) .. £200.00  
Tannoy HPD385A (pair) (Sp. off.) .. £220.00  
Wharfedale Denton 2XP Kit (pair) (Sp. off.) .. £19.90  
Wharfedale Glendale XP Kit (pair) .. £56.00  
Wharfedale Linton 3XP Kit (pair) .. £41.00

● **TUNERS (P/P £2-50)**  
Aiwa AT9700 .. £240.00  
Akai AT2200 .. £101.00  
Akai AT2250L .. £86.75  
Akai AT2450L .. £138.00  
Armstrong 623 .. £134.00  
Armstrong 624 .. £104.00  
Harrison ST210 Remote Control .. P.O.A.  
Hitachi FT300 (Sp. off.) .. £65.00  
JVC JTV10L, JTV11G, JTV22 .. P.O.A.  
Marantz 2100 .. £99.00  
Pioneer TX606 .. £93.50  
Pioneer TX5500 Mk 2 .. £74.00  
Pioneer TX9500 Mk 2 .. £260.00  
Quad FM3 .. £109.00  
Rogers T75 (Series 2) .. From Stock  
Rotel RT426 .. £84.90  
Rotel RT726 .. £99.90  
Rotel RT226 .. £59.90  
Sansui TU217 .. £109.00  
Sansui TU517 .. £181.00  
Sansui TU717 .. £199.90  
Toshiba ST220 (Sp. off.) .. £68.00  
Toshiba ST420 (Sp. off.) .. £111.00

● **STEREO AMPLIFIERS (P/P £2-50)**  
Akai AM2600 .. £240.50  
Akai AM2250 .. £86.75  
Akai AM2450 .. £143.00  
Aiwa AA8700 .. £267.00  
Armstrong 621 Teak .. £120.00  
Harrison S200 .. P.O.A.  
Hitachi HMA7500 Mosfet .. £356.00  
JVC JAS10, JAS11G, JAS22, JAS81, .. P.O.A.  
Marantz 1030 (Sp. off.) .. £68.50  
Marantz 1040 (Sp. off.) .. £76.00  
National Panasonic SU2300 (Sp. off.) .. £59.00  
Pioneer SA5300 (Sp. off.) .. £59.00  
Pioneer SA7500 Mk 2 .. £142.00  
Pioneer SA8500 Mk 2 .. £234.00  
Pioneer SA506 .. £85.50  
Pioneer SA606 .. £115.50  
Pioneer SA706 .. £149.90  
Quad 33/303, 33/405 .. From Stock  
Rogers A75 (Series 2) .. P.O.A.  
Rotel RA214 .. £59.90  
Rotel RA312 .. £64.50  
Rotel RA412 (Sp. off.) .. £79.90  
Rotel RA314 .. £74.90  
Rotel RA414 .. £94.90  
Rotel RA714 .. £119.90  
Rotel RA810 (Sp. off.) .. £100.00  
Rotel RA413 (Sp. off.) .. £89.90  
Sansui AU117 (Sp. off.) .. £73.90  
Sansui AU217 (Sp. off.) .. £113.90  
Sansui AU317 (Sp. off.) .. £154.00  
Sansui AU517 .. £265.00  
Sansui AU717 .. £312.00  
Sansui AU11000 (Sp. off.) .. £365.00  
Toshiba SB220 (Sp. off.) .. £79.00  
Toshiba SB620 .. £215.50  
Toshiba SB820 .. £305.50

● **TUNER-AMPLIFIERS (P/P £3-50)**  
Aiwa AX7400 .. £163.00  
Aiwa AX7500 (Sp. off.) .. £149.50  
Aiwa AX7600 .. £225.00  
Akai AA1010 (Sp. off.) .. £95.00  
Akai AA1020 (Sp. off.)\* .. £127.50  
Akai AA1125\* .. £143.90  
Akai AA1135 .. £176.90  
Akai AA1150 (Sp. off.) .. £216.00  
Akai AA1135L .. £243.90  
Armstrong 625 .. £185.00  
Armstrong 626 Long wave .. £218.00  
Goodmans Module 1-30 .. £165.00  
Goodmans Module 90 (Sp. off.) .. £135.00  
Harman Kardon HK670 .. P.O.A.  
Harman Kardon HK230E (Sp. off.) .. £79.00  
Hitachi HA250L (Sp. off.) .. £85.00  
Hitachi SR302 (Sp. off.) .. £95.00  
Hitachi SR303L Long wave .. £127.50  
Hitachi SR502 (Sp. off.) .. £119.00  
JVC JRS611, 81, 201L, 301, 401, 501 .. P.O.A.  
JVC JRS201E .. £225.00  
Marantz 2226B .. £169.90  
Marantz 2216 (Sp. off.) .. £111.00  
Marantz 2238B (Sp. off.) .. £197.00  
Marantz Superscope R1220 .. £56.75  
Marantz Superscope R1262 .. £114.00  
Marantz Superscope 1270 .. £105.00  
Pioneer LX690 .. £191.90  
Pioneer SX690 .. £135.90  
Pioneer SX890 .. £169.90  
Pioneer SX980 .. £272.00  
Pioneer SX790 .. £219.00  
Pioneer SX980 .. £369.90

Pioneer SX550 (Sp. off.) .. £120.00  
Pioneer SX750 (Sp. off.) .. £229.50  
Rotel RX7707 (Sp. off.) Long wave .. £162.50  
Rotel RX203 .. £89.90  
Rotel RX303 .. £109.90  
Rotel RX403 .. £119.90  
Rotel RX503 .. £148.90  
Rotel RX603 (Sp. off.) .. £249.90  
Rotel RX803 .. £299.90  
Sansui S050 (Sp. off.) .. £135.00  
Sansui 9090 (P.P.T.B.A.) (Sp. off.) .. £365.00  
Sansui G301 (Sp. off.) .. £129.90  
Sansui G401 .. £175.00  
Sansui G2000 .. £129.90  
Sansui G3000 (Sp. off.) .. £135.00  
Sansui 331L (Long wave) .. £95.00  
Tandberg TR220, TR2055, TR2040, TR2030L, TR2045, TR2080, TR2075, TR2025FM, L & MB .. P.O.A.  
Toshiba SA220L Long wave (Sp. off.) .. £86.00  
Toshiba SA320L Long wave (Sp. off.) .. £111.00  
Toshiba SA420 (Sp. off.) .. £150.00  
Toshiba SA620 (Sp. off.) .. £245.00

● **STEREO SYSTEMS & PACKAGES (P/P on appl.) (Some exclude spkrs.)**  
Aiwa AF3090 Cassette Receiver .. £359.00  
Aiwa AF3060 .. £232.00  
Aiwa AF5300+Speakers .. £385.00  
Aiwa AF5600 .. £449.00  
Akai AC3500 (Sp. off.) Limited stock .. £249.00  
Ecco ZU4L, ZU5J, ZU5G, ZU7 (Sp. off.) .. £135.00  
Garrard GA150 (Sp. off.) .. £199.00  
Goodmans MCD100 (Sp. off.) .. £287.50  
Goodmans MCD100 Mk 2+MC35 .. £399.00  
Goodmans 4000 Casseiver+speakers .. £285.00  
Hacker GAR600 .. £160.00  
Hacker MC600DS (Sp. off.) .. £250.00  
Hitachi SDT400 .. £352.50  
Hitachi SDD7820 .. £245.50  
Hitachi SDD7840 .. £253.00  
Hitachi SDD7765 (Sp. off.) .. £278.00  
Hitachi SDD7675 (Sp. off.) .. £319.00  
Hitachi SDD7680R (Sp. off.) .. £386.50  
Hitachi SDD7785 (Sp. off.) .. £352.50  
Hitachi SDD7710 (Sp. off.) .. £187.00  
JVC 1845 excl. Spkrs (Sp. off.) .. £199.00  
JVC MF45FL Dolby B .. P.O.A.  
JVC MF47 Dolby B .. P.O.A.  
Pioneer X50H Rack System .. £400.00  
Pioneer X50V Rack System .. £431.00  
Pioneer X70H Rack System .. £490.00  
Pioneer X70V Rack System .. £520.00  
Pioneer 90H Rack System .. £547.00  
Pioneer X90V Rack System .. £578.00  
National Panasonic S80L Rack System (Sp. off.) .. £299.50  
National Panasonic SG5070L .. £368.00  
National Panasonic SG6070L .. £599.00  
National Panasonic SG70 Cassette Receiver .. £220.00  
National Panasonic SG1090L .. £240.00  
National Panasonic SG2080LD .. £360.00  
National Panasonic SG2080L .. £333.00  
National Panasonic SG3060L .. £285.00  
National Panasonic SG3090 .. £378.00  
Sansui G301 System A\* .. £399.00  
Sansui AU217 System B\* .. £496.00  
Sharp SG220 and LS220 .. £186.50  
Sharp SG400 excl. Spkrs .. £242.00  
Sharp SG450 excl. Spkrs .. £295.00  
Toshiba SM2700 .. £175.00  
Toshiba SM2900 (Sp. off.) .. £183.00  
Toshiba SM3100 (Sp. off.) .. £223.00  
Toshiba SM3150 (Sp. off.) .. £225.00  
Toshiba SM3600 (Sp. off.) .. £299.00  
Toshiba SM3750 .. £395.00  
Toshiba SM3350 .. £296.00  
Toshiba SM2950 .. £265.00  
Toshiba SM3650 .. £389.00  
Toshiba 220\* Rack System (ex. spkrs) .. £450.00  
Toshiba 225\* Rack System .. £490.00  
Toshiba 230\* Rack System .. £450.00  
Toshiba 330\* Rack System (ex. spkrs) .. £520.00  
Toshiba 335\* Rack System (ex. spkrs) .. £485.00  
Toshiba 420\* Rack System (ex. spkrs) .. £615.00

● **LOUDSPEAKER SYSTEMS (All prices per pair (P/P on application))**  
Achromat Beta .. £139.90  
Achromat Cappa .. £184.90  
Achromat Sigma .. £259.90  
Armstrong 602 (J2 stand extra) .. £175.00  
B & W DM2A, DM4, DM5, DM6, DM7, DM2 Mk 2 .. P.O.A.  
Castle Richmond Teak Mk 2 .. £74.00  
Castle Kendal Mk 2 .. £108.00  
Castle Conway Mk 1 (Sp. off.) .. £138.00  
Celestion 442, 551, 662 .. P.O.A.  
Celestion Ditton II .. £69.90  
Celestion Ditton 15XR .. £99.90  
Celestion Ditton 22 .. £139.90  
Celestion Ditton 25 .. £259.90  
Celestion Ditton 33 .. £189.90  
Celestion Ditton 66 .. £39.90  
Celestion Hadleigh 2 .. £39.90

Celestion UL6 .. £129.90  
Celestion UL8 .. £166.90  
Celestion 442 .. £275.00  
Celestion 551 .. £325.00  
Celestion 662 .. £475.00  
Chartwell PM100, PM200, PM400, PM450, LD3/5A .. P.O.A.  
Dalesford D (Sp. off.) .. £99.90  
Goodmans RB18 .. £57.50  
Goodmans RB20 .. £73.50  
Goodmans HE1 .. £249.90  
Goodmans HE2 .. £229.90  
Goodmans RB35 .. £105.00  
Goodmans RB65 .. £126.00  
JRI49 (various finishes to order) .. £124.50  
KEF Cantata\* .. £390.00  
KEF Calinda\* .. £218.00  
KEF Corelli\* .. £140.00  
KEF Reference 104 (Sp. off.) .. £215.00  
KEF Reference 104AB\* .. £261.00  
KEF Reference 105\* .. £645.00  
KEF Celeste III .. £89.00  
KEF Concorde 3 .. £159.90  
Leak 3020\* (Sp. off.) .. £74.90  
Leak 3030\* (Sp. off.) .. £109.90  
Leak 3050\* (Sp. off.) .. £149.90  
Leak 3080\* (Sp. off.) .. £219.90  
Marantz 4G (Sp. off.) .. £61.00  
Marantz 5G (Sp. off.) .. £98.90  
Monitor Audio MA3 Mk 2\* .. £350.00  
Monitor Audio MA4\* .. £175.00  
Monitor Audio MA5 Mk 2\* (Sp. off.) .. £125.00  
Monitor Audio MA6\* .. £130.00  
Monitor Audio MA7\* .. £79.95  
Monitor Audio MA8\* .. £110.00  
Monitor Audio Mini Monitor (Sp. off.) .. £85.00  
Mordaunt Short Carnival, Festival Pageant Series 2 Signifer Teak/Walnut .. P.O.A.  
Quad Electrostatic .. From Stock  
Rogers Export-Monitor and Stands .. P.O.A.  
Rogers LS3/5A Teak and Walnut .. P.O.A.  
Rogers Compact Monitor .. P.O.A.  
Sansui E203 .. £54.00  
Spendor BC1 Mk 2, BC2, BC3 and Mini Monitor SA1, various finishes .. P.O.A.  
Tannoy Arden .. £399.00  
Tannoy Berkeley .. £355.00  
Tannoy Cheviot P/P Free\* (Sp. off.) .. £250.00  
Tannoy Devon .. £240.00  
Tannoy Eaton .. £210.00  
Tannoy Oxford, Chester, Ascot, Dorset, Mayfair .. P.O.A.  
Videotone Minimax 2 (add P/P £3-50) .. £46.00  
Vidotone D100 (add P/P £3-50) .. £37.50  
Wharfedale E30 .. P.O.A.  
Wharfedale E50\* .. £269.90  
Wharfedale E70\* .. £331.00  
Wharfedale Dovedale SP .. £140.00  
Wharfedale Linton 3XP (Sp. off.) .. £63.00  
Wharfedale Teesdale SP2 Walnut .. £125.00  
Wharfedale Dovedale SP2 .. £159.90  
Wharfedale Denton XP2 .. £49.50  
Wharfedale Shelton XP2 .. £63.50  
Wharfedale Linton XP2 .. £76.95  
Wharfedale Glendale XP2 .. £103.95

● **STEREO HEADPHONES (P/P £1-25)**  
Akai ASE7 .. £8.50  
Akai ASE11 .. £12.50  
Akai ASE22+Volume control .. £14.00  
AKG K240 (Sp. off.) .. £35.00  
Aiwa HR30 (Sp. off.) .. £14.75  
Beyer ET1000 .. £102.00  
Beyer DT200/K100-7 .. £35.00  
Beyer DT204 .. £66.00  
Beyer DT220 .. £24.00  
Beyer DT440 .. £24.00  
Beyer DT441 .. £30.25  
Goodmans OHPIO (Sp. off.) .. £18.90  
Koss ESP10 .. £222.00  
Koss HV1A .. £27.50  
Koss HV1LC .. £31.00  
Koss HV2 (Sp. off.) .. £15.00  
Koss K6A .. £14.90  
Koss K6ALC .. £17.90  
Koss K6LC (Sp. off.) .. £14.50  
Koss K6LCQ Quadraphone .. £49.00  
Koss K125 .. £15.90  
Koss K135 .. £19.25  
Koss K145 .. £25.50  
Koss Phase 2 .. £37.50  
Koss Phase 2+2 excl. record for Mail Orders .. £87.00  
Koss Pro 4A .. £25.00  
Koss Pro 4 Triple A .. £39.00  
Koss Technician 2 .. £35.50  
Koss Technician VFR .. £39.50  
Leak 3000 .. £35.30  
Micro Seiki MX1 Electret .. £56.00  
Pioneer Monitor 10 .. £34.25  
Pioneer SE205 .. £11.25  
Pioneer SE305 .. £17.50  
Pioneer SE500 .. £36.25  
Pioneer SE505 .. £31.50  
Pioneer SE700 .. £37.50  
Pioneer SEQ404 Quadraphonic .. £23.50  
Sansui SS30 .. £16.00  
Sansui SS60 .. £27.50  
Sennheiser HD224X .. £32.50  
Sennheiser HD400 .. £10.50



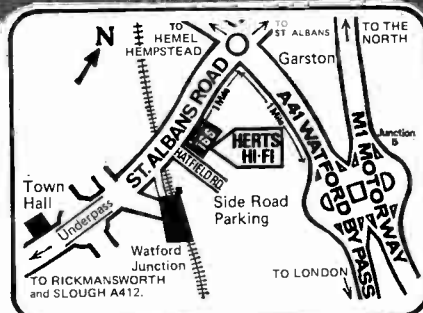
Sound technical advice by qualified staff

BARCLAYCARD



You may telephone your order quoting Access or Barclaycard No.

ACCESS CARD



# SAVE EVEN MORE By Purchasing a Complete System

- Sennheiser HD414X .. £17-00
- Sennheiser HD424X .. £23-50
- Sennheiser HD420 .. £22-90
- Sennheiser HD430 .. £29-90
- Sennheiser Unipolar 2000 .. £89-90
- Stax SR5/SRD6SB Electrostatic .. £88-75
- Stax SR4 Electret .. £68-50
- Stax SRX3/SRD6SB .. £140-00
- Stax Sigma+SRD6SB .. £217-00

- **TURNTABLES (P/P £3-00) AND ARMS (P/P £1-25)**
- ADC LMF1 .. £60-00
  - ADC LMF2 .. £66-00
  - ADC LMG-1 Headshell .. £5-00
  - ADC LMH Shell .. £6-50
  - Audio Technica AT1005 Mk 2 (Sp. off.) .. £25-00
  - BSR BDS80 chassis .. £25-00
  - BSR BDS95 chassis .. £27-50
  - BSR MP60 chassis .. £18-50
  - Decca International arm .. £54-00
  - Garrard SB25 Mk 6 chassis .. £27-50
  - Hadcock GH28 and Unilift p/p free .. £60-00
  - Reference Fluid Arm .. P.O.A.
  - SME S2 Headshell .. £5-75
  - SME 3009 S/2 Det. Head .. £56-00
  - SME 3009 Fixed Head .. £51-00
  - SME Series 3 .. £99-90
  - SME Damper FD200 (P/P £1 extra) .. £16-75
  - SME CAI Series 3 Spare Arm/Shell .. £15-00
  - Sugden BD1 Chassis Kit .. £16-00
  - Sugden BD1 Module Kit .. £43-00
  - Sugden BD1 Chassis .. £19-00
  - Sugden BD2 & SAU2 Chassis (Sp. off.) .. £31-00
  - Sugden BD2A and SAU2 Chassis .. £39-90
  - Sugden SAU2 .. £15-50
  - Sugden SAU4 .. £37-50

- **TURNTABLE PACKAGES (P/P on application)**
- ADC Accurac 4000 (Sp. off.) .. £225-00
  - ADC 1500FG & QLM3/4/3 .. £69-50
  - ADC-1600DD & QLM3/3 .. £89-00
  - ADC 1700DD Quartz & XLM/3 .. £110-00
  - Aiwa AP2200 and Cartridge .. £99-90
  - Aiwa AP2500 .. £158-50
  - Akai AP100 (Sp. off.) .. £59-90
  - Akai AP101 .. £76-90
  - Akai AP206 .. £99-90
  - Akai AP306 .. £127-90
  - Akai AP306 .. £105-00
  - Akai AP006 (Sp. off.) .. £29-90
  - BSR BDS80 Mod. ex. Cart. (Sp. off.) .. £35-00
  - BSR BDS95 Module ex. Cart. .. £23-00
  - BSR MP60 Module ex. Cart. (Sp. off.) .. £50-00
  - Garrard 865B Mk 2 (Sp. off.) .. £69-90
  - Garrard DD75 M75EDT2 (Sp. off.) .. £87-00
  - Garrard DD130 & M75ED2 .. £39-50
  - Garrard SP25 M6 Module & Cart. .. £59-00
  - Garrard GT20 and M75EDT2 .. £67-00
  - Garrard GT25 & M75EDT2 (Sp. off.) .. £79-90
  - Garrard GT35 & M75EDT2 (Sp. off.) .. £79-90
  - Harman Kardon ST7 (Sp. off.) .. £255-00
  - Hitachi PS38 Direct Drive (Sp. off.) .. £79-90
  - Hitachi PS48 Direct Drive (Sp. off.) .. £99-90
  - Hitachi PS58 Direct Drive (Sp. off.) .. £125-00
  - Hitachi H550Q (Sp. off.) .. £129-90
  - Hitachi H5350 Direct Drive .. £95-50
  - Hitachi H5350 Direct Drive .. £61-50
  - JVC JLA20 (Sp. off.) .. P.O.A.
  - JVC QLA2, QLF4 .. £65-00
  - Marantz 6100W (Sp. off.) .. £85-00
  - Marantz 6150 Direct Drive .. £85-00
  - Micro Seiki MB10 and FF15E Mk 2 .. £71-00
  - Micro Seiki MB10 .. £88-50
  - Micro Seiki DD20 .. £125-00
  - Monitor Audio ET500 excl. arm .. £57-50
  - National Panasonic SL19+cart. .. £76-50
  - Philips GA312 (Sp. off.) .. £71-95
  - Pioneer PL514 & Ortofon FI5E/2 .. £59-50
  - Pioneer PL514 .. £79-90
  - Pioneer PL518 .. £109-00
  - Pioneer PL518 .. £148-50
  - Pioneer PL520 .. £155-00
  - Pioneer PL530 (Sp. off.) .. £181-50
  - Pioneer PL550 (Sp. off.) .. £54-00
  - Pioneer PL117R (Sp. off.) .. £79-90
  - Pioneer PL55X Direct Drive (Sp. off.) .. £120-00
  - Rotel RP900 (Sp. off.) .. £49-90
  - Rotel RP300 with Arm (Sp. off.) .. £110-00
  - Rotel RP3300 .. £79-90
  - Rotel RP5300 Direct Drive .. £92-95

- Sansui SR222 Mk 2 .. £57-50
- Sansui SR232E .. £64-00
- Sansui SR525 Direct Drive (Sp. off.) .. £94-50
- Sansui FR1080P (Sp. off.) .. £59-00
- Sansui SR333E Direct Drive .. £133-00
- Sansui SR838E .. £218-50
- Sugden BD101 and SAU2 .. £58-50
- Sugden BD101 and SAU4 .. £75-00
- Sugden BD101 excl. arm .. £43-50
- Sugden BD2 and arm, black .. £37-00
- Sugden BD2 P and C and SAU2 (Sp. off.) .. £49-50
- Sugden BD103 and Arm .. £85-00
- Sugden BD103 excl. Arm .. £73-50
- Sugden BD103 & SAU4 .. £115-00
- Sugden BD2A P and C and SAU2 (Sp. off.) .. £55-00
- Thorens TD104 .. £85-00
- Thorens TD105 .. £102-00
- Thorens TD110 (Manual) .. £110-00
- Thorens TD115 (Automatic) .. £127-00
- Thorens TD126 Mk 3/BC .. £188-00
- Thorens TD126 Mk 3/C .. £229-00
- Thorens TD125/2AB (Sp. off.) .. £135-00
- Thorens TD126C Mk 2 (Sp. off.) .. £169-00
- Thorens TD160BC Mk 2 .. £85-00
- Thorens TD160BC/SME 3009 Fixed (Sp. off.) .. £132-00
- Toshiba SR220, SR225, SR335, SR370, SRA230, SR330, SR430 .. P.O.A.

- **CARTRIDGES (P/P £1-00)**
- ADC XLM Mk 3 .. £36-00
  - ADC XLM Super, Case and Headshell .. £33-00
  - ADC VLM Mk 3 .. £24-50
  - ADC ZLM .. £59-50
  - AKG P6E .. £17-00
  - AKG P7E .. £25-50
  - AKG P8E .. £45-50
  - AKG P8ES .. £56-00
  - Decca Deram Con. L. Blue .. £6-00
  - Decca London Mk 5 Export .. £36-00
  - Decca London Export Gold .. £54-00
  - Decca London Maroon .. £41-00
  - Decca London Blue .. £32-50
  - Empire 999REX .. £5-50
  - Empire 2000E .. £8-50
  - Empire 2000E/2 .. £13-90
  - Empire 2000E/3 .. £14-75
  - Empire 2000T .. £28-50
  - Empire 2000Z .. £48-50
  - Goldring G800 .. £4-75
  - Goldring G800E .. £7-75
  - Goldring G900SE Mk 2 .. £36-50
  - Goldring D110 Stylus .. £3-00
  - Goldring D110E Stylus .. £5-75
  - Lentek Pre-amp Din or Phono .. £56-00
  - Lentek Entre .. £98-00
  - Ortofon FF10E .. £9-50
  - Ortofon MC10 .. £33-50
  - Ortofon FI5 Mk 2 .. £15-25
  - Ortofon FI5E Mk 2 .. £19-90
  - Ortofon FF15E Mk 2 .. £13-50
  - Ortofon M20E Super .. £42-00
  - Ortofon M20FL Super .. £47-50
  - Ortofon VMS20E/2 CAP210 .. £29-90
  - Ortofon MC20 and STM72 .. £78-00
  - Ortofon SL20E (Sp. off.) .. £49-00
  - Ortofon MC20 .. £61-50
  - Ortofon MC10 & STM72 .. £55-00
  - Ortofon MC20 & MCA76 .. £119-00
  - Satin M117G (Sp. off.) .. £57-75
  - Shure M44E (Sp. off.) .. £7-60
  - Shure M55E (Sp. off.) .. £8-55
  - Shure M75-6S (Sp. off.) .. £7-60
  - Shure M75B Type 2 (Sp. off.) .. £10-70
  - Shure M75ED Type 2 (Sp. off.) .. £15-75
  - Shure M75EJ Type 2 (Sp. off.) .. £13-30
  - Shure M95ED (Sp. off.) .. £19-95
  - Shure M95EJ (Sp. off.) .. £13-80
  - Shure V15 Type 3 .. £52-00
  - Shure V15 Type 4 .. £65-00
  - Sonus Blue .. £66-00
  - Stanton 500A .. £13-90
  - Stanton 500EE .. £19-90
  - Stanton 680EE .. £29-90

- Stanton 681EEE .. £45-00
  - Stanton 881S .. £78-00
  - Ultimo 20A .. £74-00
  - Ultimo 10X .. £48-50
  - UAD Pre-amp .. £36-50
- **PORTABLE RADIOS AND RADIO CASSETTES (P/P Free)**
- Aiwa TPR903 .. £109-00
  - Aiwa TPR910 .. £121-50
  - Aiwa TPR940 .. £143-00
  - Aiwa TPR950 .. £189-00
  - Hacker RP70 Ranger (Sp. off.) .. £21-00
  - Hacker RP78 Aviemore (Sp. off.) .. £39-00
  - Hacker SP80 Stereo .. £114-00
  - Roberts R606MB .. £49-00
  - Roberts RM20 .. £26-50
  - Roberts RM30 .. £42-00
  - Roberts RM50 .. £61-00
  - Roberts RT22 .. P.O.A.
  - Roberts Rambler .. £22-50
- **VIDEO TAPE FOR PHILIPS VHS, BETAMAX & U-MATIC MACHINES (P/P 65p)**
- Akai VHST60 (1 hour) .. £7-90
  - Akai VHST120 (2 hours) .. £11-10
  - Akai VHST180 (3 hours) .. £13-50
  - Philips LVC60 .. £11-00
  - Philips LVC90 .. £13-00
  - Philips LVC120 .. £14-75
  - Philips LVC150 .. £16-75

- Scotch VC30 .. £14-00
- Scotch VC45 .. £18-50
- Scotch VC60 .. £22-00
- Scotch UCA30 .. £14-50
- Scotch UCA60 .. £20-50

- Scotch Betamax L250 .. £7-80
- Scotch Betamax L500 .. £10-80
- TDK VHS E60 .. £7-90
- TDK EI20 .. £10-50
- TDK VHS EI80 .. £13-00

**SANSUI 331L SYSTEM**

Sansui 331L Receiver with L.V.V. Sansui SR222B Turntable Shure M75ED Cartridge Pair Wharfedale Shelton XP2 Speakers

**Special offer £210**

**SANSUI GX3000 SYSTEM**

Sansui GX3000 Receiver Sansui SR222 Mk 2 Turntable Ortofon FF15E Cartridge Pair KEF Celeste III Speakers

**Special offer £269**

**HARMAN KARDON 330C SYSTEM**

Harman Kardon 330C Receiver Micro Seiki MB10 Turntable & Cartridge Pair Mordaunt Short Carnival Speakers

**Special offer £239**

**HARMAN KARDON 330C SYSTEM**

Harman Kardon 330C Receiver Micro Seiki MB10 Turntable inc. Magnetic Cartridge Pair Tannoy T125 Oxford Speakers

**SPECIAL OFFER £299.90**

**SANSUI 5050 SYSTEM**

Sansui 5050 Receiver Sansui SR222P Turntable Ortofon FF15E/2 Cartridge Pair KEF Celeste Speakers

**Special offer £267**

**TOSHIBA SA220 SYSTEM**

SA220L Receiver; SRA230 Turntable + Cartridge; SS2200 Speakers; PC3100 Cassette Deck; HR710 Stereo Headphones; SMA2 Stand, 2 Microphones 1.3 C60 Cassettes; 1 Record

**SPECIAL OFFER £275-50**

**TOSHIBA 335 RACK SYSTEM**

Toshiba SRF335 Turntable and Cartridge Toshiba ST335 Tuner Toshiba SY335 & C38F Control and Main Amplifier Toshiba PC335 Cassette Deck AR 335 Rack with record storage Pair Mordaunt Short Speakers

**Special offer £585**

**ROTEL RX503 SYSTEM**

Rotel RX503 Receiver Rotel RP5300 Direct Drive Turntable Shure M95ED Cartridge Pair Celestion Ditton 15XR Speakers

**Special offer £335**

**PIONEER SA706 SYSTEM**

Pioneer SA706 Amplifier Pioneer PL514 Turntable Shure M95ED Cartridge Pair Celestion Ditton 22 Speakers

**Special offer £355**

**PIONEER SX650 SYSTEM**

Pioneer SX650 Receiver Pioneer PL514 Turntable Shure M95ED Cartridge Pair Celestion Ditton 15XR Speakers

**Special offer £355** or with Pioneer CTF4040 Cassette Deck for £107 extra

**AIWA AX7500 SYSTEM**

Aiwa AX7500 Receiver Aiwa AP2200 Turntable Pair Monitor Audio MA6 Speakers

**Special offer £375** Or with Aiwa AD6300 Cassette Deck for £129 extra

**ARMSTRONG 626 SYSTEM**

Armstrong 626 Receiver Garrard DD75 Module Turntable Shure M75ED Cartridge Pair Armstrong 602 Speakers

**Special offer £408**

**AIWA AF3090 SYSTEM**

Aiwa AF3090 Cassette Receiver Pair Celestion Ditton 22 Speakers

**Special offer £459** Or with Aiwa AP2200 Turntable + Cartridge for £95 extra

**AIWA AX7600 SYSTEM**

Aiwa AX7600 Receiver Aiwa AP2500 Turntable Stanton 680EE Cartridge Pair Mordaunt Short Pageant 2 Speakers

**Special offer £499** Or with Aiwa AD6300 Cassette Deck for £129 extra

**DIRECT CUT DISCS**

Sheffield LAB1, 2, £8-95  
Sheffield LAB3, 4, 5, 6, £9-95  
Umbrella DD1, 2, £9-00  
Umbrella DD3, 5, 6, 7, 9, £10-00  
Umbrella DD4, £13-00  
The Great American Gram GADD1010, 1020, 1030, Eastwind EW10001, 10002, 10003, Philips PD10001, 10002, 10003. All £10-00 each—send for list.

**END OF LINE SALE (Special Offers)**

- Akai CS30D, £65-00
- Akai CS33D, £70-00
- Akai GXC38, £110-00
- Akai GXC38D, £99-00
- Akai GX46D, £115-00
- Harman Kardon ST7, £255-00
- Hitachi SR3400, £72-00
- Hitachi ST2650, £154-00
- Hitachi SD2520, £81-00

\* Post and Packing Free UK Mainland only EFFICIENT MAIL ORDER SERVICE ALL PRICES INCLUDE VAT AT 12½%

PRICES SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

### RECEIVERS/TUNER AMPS

**Akai**  
AA1010 .. £89-95  
AA1125 .. P.O.A.  
AA1135 .. P.O.A.  
AA1150 .. P.O.A.  
AA1135L .. P.O.A.

**Amstrad**  
5050 .. £87-95

**Harman Kardon**  
330C .. £116-50

**JVC**  
JRS600 .. £335-00

**Marantz**  
2238BL .. P.O.A.  
2226BL .. P.O.A.  
1515L .. P.O.A.  
1530L .. P.O.A.  
1550L .. P.O.A.  
2226 .. P.O.A.  
2238B .. P.O.A.  
2252B .. P.O.A.  
2265B .. P.O.A.  
2285B .. P.O.A.

**Pioneer**  
SX450 .. P.O.A.  
SX590 .. P.O.A.  
SX690 .. P.O.A.  
SX850 .. P.O.A.

**Rotel**  
RX303 .. P.O.A.  
RX403 .. P.O.A.  
RX503 .. P.O.A.  
RX603 .. P.O.A.  
RX1603 .. P.O.A.

**Sansui**  
S2000 .. P.O.A.  
S3000 .. P.O.A.  
6060 .. P.O.A.  
8080 .. P.O.A.  
QRX9001 .. P.O.A.

**Sony** .. P.O.A.

**Technics** .. P.O.A.

**Yamaha** Full range

**Sansui**  
AU117 .. P.O.A.  
AU217 .. P.O.A.  
AU317 .. P.O.A.  
AU517 .. P.O.A.  
AU717 .. P.O.A.  
**Sony** .. P.O.A.

**Toshiba**  
SB220 .. £80-10  
SB420 .. £132-41

**Technics** .. P.O.A.

**Yamaha** Full range

**Denon** .. P.O.A.

### TUNERS

**Akai**  
AT2250 .. P.O.A.  
AT2450 .. P.O.A.  
AT2600 .. P.O.A.

**Amstrad** .. P.O.A.

**JVC**  
JTV11G .. P.O.A.  
JTV22 .. P.O.A.  
JTV77 .. P.O.A.

**Marantz**  
2100 .. P.O.A.  
2100L .. P.O.A.  
2120 .. P.O.A.

**Nakamichi** .. P.O.A.

**Pioneer**  
TX9500/II .. P.O.A.  
TX606 .. P.O.A.

**Rotel**  
RT226 .. P.O.A.  
RT425 .. £74-95  
RT925 .. £157-95  
RT1024 .. P.O.A.

**Sansui**  
TU217 .. P.O.A.  
TU517 .. P.O.A.  
TU717 .. P.O.A.  
TU9900 .. P.O.A.

**Yamaha** Full range

**Denon** .. P.O.A.

### TURNTABLES

**Akai**  
AP100 .. P.O.A.  
AP101 .. P.O.A.

**Aiwa** .. P.O.A.

**Sony** .. P.O.A.

**Technics**  
SL1900 .. P.O.A.  
SL1800 .. P.O.A.  
SL1700 .. P.O.A.  
SL1600 .. P.O.A.  
SL230 .. P.O.A.  
SL220 .. P.O.A.  
SL5200 .. P.O.A.  
SL5300 .. P.O.A.  
SL1500/10 II .. P.O.A.  
SL1400/10 II .. P.O.A.  
SL1300/10 II .. P.O.A.

**Toshiba**  
ST220 .. £51-95  
ST420 .. £72-95

**JVC** .. P.O.A.

**Marantz**  
6150 .. P.O.A.  
6025 .. P.O.A.  
6170 .. P.O.A.  
6270Q .. P.O.A.

**Micro Seiki** .. P.O.A.

**Pioneer**  
PL115D .. P.O.A.  
PL514 .. P.O.A.  
PL516 .. P.O.A.  
PL518 .. P.O.A.  
PL520 .. P.O.A.  
PL530 .. P.O.A.  
PL550 .. P.O.A.

**Rotel**  
RP2300 .. P.O.A.  
RP3300 .. P.O.A.  
RP1300 .. P.O.A.

**Sansui**  
FR5080 .. £135-00  
SR333 .. P.O.A.  
SA222 II .. P.O.A.

**Sony** .. P.O.A.

**Thorens**  
TD110C .. P.O.A.  
TD160BC/II .. P.O.A.  
TD115 .. P.O.A.  
TD126C/II .. £175-00  
TD1261/II/C .. P.O.A.  
TD1261/II/BC .. P.O.A.

**Yamaha** Full range

**Denon** .. P.O.A.

### CARTRIDGES

**SME**  
3009/III .. £92-95  
3009 S2 .. £56-50  
3009 non DT .. £51-50  
Shell 2S .. £4-90  
FD200 .. £18-25

**Empire** .. P.O.A.

**Ortofon** .. P.O.A.

**Denon** .. P.O.A.

**Shure**  
M75EJ/II .. £13-66  
M75ED/II .. £14-99  
M95EJ/II .. £16-93  
M95ED/II .. £19-95  
V15/III .. £50-75  
V15/IV .. £66-50

### SPEAKERS

#### (PAIRS)

**A.R.**  
AR9 .. P.O.A.  
AR10 pi .. P.O.A.  
AR18 .. P.O.A.  
AR14 .. P.O.A.  
AR12 .. P.O.A.  
AR11 .. P.O.A.  
AR17 .. P.O.A.  
AR15 .. P.O.A.

**Celestion**  
D11 .. £71-43  
D15XR .. £99-95  
D22 .. £145-61  
D33 .. £187-76  
D44 .. £224-56  
D25 .. £259-61  
D66 .. P.O.A.  
UL6, 8, 10 .. P.O.A.

**JBL** .. P.O.A.

**KLH**  
CB8 .. £109-95  
CB10 .. £169-95  
CL3 .. £220-00

**Leak**  
3020 .. £85-00  
3030 .. P.O.A.  
3050 .. P.O.A.  
3080 .. P.O.A.

**Monitor Audio** F.R.A.

**Marantz**  
4G Mk II .. P.O.A.  
5G Mk II .. P.O.A.  
6G Mk II .. P.O.A.  
7G Mk II .. P.O.A.  
HD440 .. P.O.A.  
HD550 .. P.O.A.  
HD660 .. P.O.A.  
HD770 .. P.O.A.  
HD880 .. P.O.A.  
4G .. £58-00

**Tannoy**  
Oxford .. P.O.A.  
Ascot .. P.O.A.

**Chester** .. P.O.A.  
**Dorset** .. P.O.A.  
**Mayfair** .. P.O.A.

**Technics** .. P.O.A.

**Wharfedale**  
Chevin XP2 .. £33-64  
Denton XP2 .. £50-45  
Shelton XP2 .. £64-30  
Linton XP2 .. £75-10  
Glen XP2 .. £103-78  
Dove SP2 .. £174-65  
Teesdale SP2 .. £128-72  
E50 .. P.O.A.  
E70 .. P.O.A.

**Yamaha** Full range

### CASSETTE DECKS

**Akai**  
CS702D II .. P.O.A.  
GXC706D .. P.O.A.  
GXC709D .. P.O.A.  
GXC725D .. P.O.A.  
GXC730D .. P.O.A.  
GXC750D .. P.O.A.

**Aiwa** .. F.R.A.

**Amstrad** .. P.O.A.

**JVC** .. P.O.A.

**Marantz**  
5010 .. P.O.A.  
5025 .. P.O.A.

**Nakamichi** .. P.O.A.

**Pioneer**  
CTF4040 .. P.O.A.  
CTF700 .. P.O.A.  
CTF9191 .. P.O.A.  
CTF1000 .. P.O.A.  
CTF900 .. P.O.A.

**Rotel**  
RD30F .. £145-95  
RD10F .. £90-95

**Sansui**  
SC1100/1110 .. P.O.A.  
SC2100/2110 .. P.O.A.  
SC3100/3110 .. P.O.A.  
SC5100/5110 .. P.O.A.

**Sanyo** .. P.O.A.

**Sony** .. P.O.A.

**Teac** .. P.O.A.

**Technics** .. P.O.A.

**Yamaha** Full range

### REEL TO REEL DECKS

**Akai**  
4000DS/II .. P.O.A.  
4000DB .. P.O.A.

**Sony** .. P.O.A.

**Technics** .. P.O.A.

**Pioneer RT707** P.O.A.

**Teac**  
A2300SD .. P.O.A.

### MUSIC CENTRES

**Aiwa** .. P.O.A.

**Akai**  
AC3800L .. P.O.A.

**JVC** .. P.O.A.

**National** .. P.O.A.

**Hitachi** .. P.O.A.

**Sanyo** .. P.O.A.

**Sony** .. P.O.A.

### VIDEO CASSETTE RECORDERS

**Sony, National, JVC**  
Please call for inquiries

**American Express**  
**Access - Barclaycard**

*Credit facilities available*

**WE HAVE A LARGE SHOWROOM;  
YOU ARE WELCOME TO  
COME AND BROWSE  
AROUND**



FOR BEST PRICES & SERVICES

EALING T.V. & HI-FI

or

Goodwins

THE Hi-Fi, TV & VIDEO SPECIALISTS

Telephone: 579 3718 or 567 8703 or 579 4258

Telephone: 888 0077

SONY®

Bang & Olufsen

National Technics

AIWA®

Yamaha

JVC

AMPLIFIERS

Akai AM2200, AM2400 Akai AM2600, AM2800 Armstrong 621 Hitachi HA250, HA300 Hitachi HA330, HA610 JVC JAS10, JAS11G JVC JAS22, JAS44 Lecson AC1, APIX Lecson AP3, FM1 National SU2300, SU2400 Pioneer SA606, SA706 Pioneer SA706, SA8500/II Quad 33, 303, 405 Radford ZD50, ZD250 Revox A78, A722 Revox A740, B750 Sansui AU217, AU317 Sugden A48 Sony TA212, 313, S15 Sony TAF3A, TAF4A Technics SU7100, SU7300 Technics SU7700, SU8080 Yamaha CA410, CA510 Yamaha CA810, CA1010

TURNTABLES

Ariston RD11E Beogram 2200, 1S00 Beogram 4002, 4004 Connoisseur BD1, 2 & 3 Fons CQ30 Hitachi PS38, PSS8 JVC JLA20, QLA2 Linn-Sondek LP12 Michell Reference Hydraulic Electronic Pioneer PLS14, S16 Pioneer PLS18, PLS50 Revox Direct Drive Sansui SR222P, SR232P Sony PST1, PS212 Sony PST20, PSX4 Technics SL220, SL230 Technics SL150, SL1500/II Technics SL1400/II, SL1300/II Transcriptions Skeleton, Round-table Yamaha YP-211, YP-511

CASSETTE DECKS

Aiwa AD1250, AD6300 Aiwa AD6550, AD6800 Akai CS34D, CS702D Akai GXCT09D National RS612 Nakamichi DT550, DT600 Beocord I900, 5000 Hitachi D220, D550 JVC KD10, KD21 JVC KD25, KD55 Pioneer CTF500, 4040 Sansui SC1110, SC2110 Sony TCU2, TCK1A, TCK4A

Sony TCK5, TCU5, TCK96R Tandberg TCD320, 340A Technics RS615, RS630 Technics RS631, 641, 615 Technics RS678, 686 Yamaha TC511S, TC800GL

TAPE DECKS & RECORDERS

Akai 4000DS/II, GX215D Grundig TK547, TK747 Revox A77, B77 Sony TC399, TC645 Tandberg TD20A Technics RS1500

TUNERS

Akai AT2200, AT2400 Armstrong 623, 624 Hitachi FT340, FT440 JVC JTV10L, JTV11G Lecson FM1 National ST2300, ST2400 Quad FM3 Revox A76, A720, B760 Sansui TU217, TU717 Sony ST212L, ST313L Sony ST515L, STA3L Technics ST7300, ST3500 Technics ST8080, ST9600 Yamaha CT410, CT610 Yamaha CT810, CT1010

RECEIVERS

Akai AA1010, AA1020 Aiwa AF3060, 3090 Aiwa AX7400, AX7500 Armstrong 625, 626 Beomaster 1500, 1900 Beomaster 2200, 2400 Beomaster 4400 Hitachi SR303L, SR503L JVC JRS61L, JRS81 National RE7860, SG25Q Pioneer SX450, SX550 Sansui G2000, G3000 Sony STR11L, STR2800 Sony STR3800, STR4800 Sony STR212L, 313L Sony STRV3L, STRV4L Tandberg TR2080, TR2060L Tandberg TR2045, TR2030L Technics SA100L, SA200L Technics SA400, SA500 Yamaha CR200E, CR620 Yamaha CR820, Yamaha CR420 etc.

SPEAKER SYSTEMS

Acoustic Research AR18, AR17, AR15, AR14 Beovox S25, S35 Beovox S75, M70, M75, M100 Bose 301, 501, 601, 901/III Celestion Ditton 15XR, 11, 22

Celestion Ditton 33, 44, 25, 66 Celestion UL6, UL8, UL10 Chartwell PM100, PM200 IMF Compact II, Super-Compact IMF ALS40, TLL50, TLL80/II

JRI49, Super Woofer Jordan-Watts Jumbo, Janet Jordan-Watts Jupiter TLS JBL L19, L40, L110 Lecson LBI, SPI, HLI Monitor Audio MA8, MA7 Monitor Audio MAS, MA4 Mordaunt-Short Pageants Mordaunt-Short Festivals, Carnivals

Quad Electrostatics Revox AX2/2, AX3/3 Rogers LS3/SA, Export Monitots Sony G3, GS, G7 Spondor BCI, BC2, BC3 Technics SBF1, SBF2, SBF3 Wharfedale Linton, Glendale Wharfedale Teesdale, Dovedale Wharfedale E50, E70 Yamaha NS1000M

MUSIC CENTRES

Aiwa AF5050, AF5090 Akai AC3800L Beocentre 2800, 3300 Beocentre 4000, 4600 Hitachi SDT300, SDT400 Hitachi SDT7820, 7765 Hitachi SDT7680, 7785 JVC MF55LS, MF47L National SG1030, SG1090 National SGS070, 5090 National SG3090LD, 6070 Sony HMK30, HMK80 Sony HMK55, HMK77 Tandberg TR220GC

SPEAKER CHASSIS

KEF T27, B110 KEF B200, B139 Lowther PM6, PM7 Tannoy 10', 12', 15'

PICK-UP ARMS

Formula 4 Arm Hadcock GH228 SME 3009/II, 3009/S2 SME 3009/III

OTHERS

Decca Record Brush Decca Record Cleaner Earc Watts Parastat Zerostat BIB accessories etc.

TO: EALING T.V. & Hi-Fi (Dept HFN) THE PADDOCKS, POPES LANE, LONDON W5.

Please supply prices on the following:

.....

.....

NAME.....

ADDRESS.....

(Please enclose stamped, addressed envelope)

EALING: OPEN Monday to Saturday, 9.30 a.m.-6.00 p.m. CLOSED ALL DAY WEDNESDAY Nearest tube station: South Ealing—Piccadilly line.

TO: GOODWINS (Dept HFN) 7 THE BROADWAY, HIGH ROAD, WOOD GREEN, LONDON N22.

Please supply prices on the following:

.....

.....

NAME.....

ADDRESS.....

(Please enclose stamped, addressed envelope)

GOODWINS: OPEN Tuesday to Saturday, 9.00 a.m.-5.30 p.m. CLOSED ALL DAY MONDAY Nearest tube station: Wood Green—Piccadilly line.



# McONOMY hi-fi

## MARANTZ 1820

Front loading  
Dolby Stereo  
Cassette Deck



Rec. Price  
£147.00 **£104.90**

## MARANTZ MR215

AM/FM  
Stereo  
Receiver.  
15 watts  
RMS per  
channel output.



Rec. Price  
£143.00 **£97.90**

## MARANTZ MR230

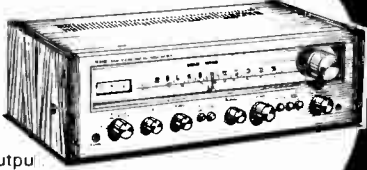
AM/FM  
Stereo  
Receiver.  
30 watts  
RMS per  
channel output.



Rec. Price  
£215.00 **£148.90**

## PIONEER SX 550

AM/FM  
Stereo  
Receiver.  
20 watts  
RMS per  
channel output.



Rec. Price  
£174.27 **£99.90**

## PIONEER CTF 500

Front loading  
Dolby Stereo  
Cassette Deck



Rec. Price  
£128.75 **£102.90**

## STEREO AMPLIFIERS

	REC. PRICE	OUR PRICE
AIWA AA 8700 2 x 75	352.92	289.90
AKAI AM 2250 2 x 25	—	79.90
AKAI AM 2450 2 x 45	—	129.90
AMSTRAO 8000 Mk. 3 2 x 10	42.86	25.90
AMSTRAO IC 2000 2 x 25	—	29.90
AMSTRAO EX 220 2 x 25	70.13	49.90
AMSTRAO EX 330 2 x 35	87.66	61.90
ARMSTRONG 621 2 x 40	150.00	114.99
MARANTZ 1050 2 x 25	133.00	93.90
MARANTZ 1072 2 x 36	173.00	123.90
MARANTZ 1090 2 x 45	205.00	149.90
PIONEER SA 506 2 x 25	109.52	84.90
PIONEER SA 606 2 x 40	148.10	114.90
PIONEER SA 706 2 x 60	198.25	154.90
ROTEL RA 214 2 x 20	90.76	64.50
ROTEL RA 314 2 x 25	111.74	78.90
ROTEL RA 414 2 x 35	153.91	109.90
ROTEL RA 714 2 x 50	195.88	138.90
SANSUI AU 117 2 x 15	—	73.90
SANSUI AU 217 2 x 30	—	113.90
SANSUI AU 317 2 x 50 DC coupled	—	163.90
SOLAVOX SA2020 2 x 20	60.62	46.90
TENSAI TA 2030 2 x 23	—	72.90
TENSAI TA 2045 2 x 35	—	96.90
TRIO KA 1500 Mk. II 2 x 30	—	78.90
TRIO KA 3700 2 x 25	—	82.90
TRIO KA 5700 2 x 40	—	132.90
GARRARD MRM101 Hi-Fi Music recovery module, this unit is able to 'see' a scratch or noise pulse in an audio signal waveform then electronically delete it giving clean record replay	130.78	85.90

## CASSEIVERS

Tuner/Amplifier/Cassette Combinations	REC. PRICE	OUR PRICE
AIWA AF3070 x 30 Dolby cassette	419.84	319.90
AIWA AF3090 2 x 40 Dolby cassette	492.04	354.90

## TUNER/AMPLIFIERS

AIWA AX7400 2 x 25	222.46	164.90
AIWA AX7600 2 x 40	296.52	229.90
AKAI AA1125 2 x 25	204.33	129.90
AKAI AA1150 2 x 50	408.69	199.94
AMSTRAO EX222 2 x 25	101.29	69.90
AMSTRAO EX333 2 x 30	138.80	99.90
ARMSTRONG 625 FM 2 x 40	237.00	168.90
ARMSTRONG 626 AM/FM 2 x 40	273.00	209.90
MARANTZ MR 215 2 x 15	143.00	97.90
MARANTZ 2225 2 x 25	—	112.94
MARANTZ MR 230 2 x 30	215.00	148.90
MARANTZ MR250 2 x 50	—	192.50
MARANTZ 2226BL 2 x 26 FM/MW/LW	259.00	194.90
MARANTZ 2238B 2 x 38 FM/MW	—	194.94
MARANTZ 2238BL 2 x 38 FM/MW/LW	397.00	224.90
MARANTZ 2252B 2 x 52	495.00	289.90

## Tuner/Amplifiers - cont.

	REC. PRICE	OUR PRICE
PIONEER SX 550 2 x 20	174.27	99.90
PIONEER SX 590 2 x 20	174.22	139.90
PIONEER SX 750 2 x 50	—	169.90
PIONEER SX 690 2 x 30	218.12	174.90
PIONEER SX 980 2 x 80	473.72	389.90
PIONEER SX 1080 2 x 120	554.95	449.90
ROTEL RX 203 2 x 20	132.73	93.90
ROTEL RX 403 2 x 25	167.99	119.90
ROTEL RX 503 2 x 35	209.69	149.90
SANSUI 551 2 x 20	—	89.94
SANSUI G2000 2 x 16	—	120.50
SANSUI G3000 2 x 26	—	150.50
SOLAVOX SR 2220 2 x 20	82.99	68.90
TENSAI TR 1030 2 x 23	—	104.90
TENSAI TR 1045 2 x 35	—	132.90
TRIO KR 2090 2 x 16	—	99.90
TRIO KR 3090 2 x 26	—	169.90

## TUNERS

AIWA AT 9700 Quartz-locked digital FM	371.59	269.90
AKAI 2250L MW/LW/FM	—	84.90
AMSTRAO 3000 Mk. II	60.36	35.90
AMSTRAO EX 202	68.18	46.90
AMSTRAO EX 303	79.87	56.90
ARMSTRONG 624 FM	130.00	99.90
ARMSTRONG 623 MW/LW/FM	168.00	129.90
MARANTZ 2020L	126.00	89.90
MARANTZ 2100	160.00	109.90
PIONEER TX 606	120.14	94.90
ROTEL RT226	90.76	64.90
ROTEL RT426	125.74	89.90
ROTEL RT726	139.92	99.90
SANSUI TU 217	—	105.90
SOLAVOX ST 2802 FM/MW/LW	60.62	45.90
TENSAI TT 3045	—	77.90
TRIO KT 5300 Mk. II	—	79.90
TRIO KT 5500	—	89.90

## TURNTABLES

AIWA AP2200 Direct drive auto return inc. cartridge	138.00	107.90
AIWA AP2500 Direct drive auto stop and lift	209.94	164.90
AKAI AP100	109.70	69.90
ALBA 210 inc. magnetic cartridge	—	24.90
AMSTRAO TP120 belt drive	67.21	34.90
BSR 182/ADC AC30	—	28.90
CONNOISSEUR B01 kit	—	16.90
CONNOISSEUR B02	—	38.90
GARRARD SP25 Mk. 6 belt-drive with Shure M75/6/SM	67.50	43.90
GARRARD GT20 belt-drive Shure M75ED	101.25	64.90
GARRARD GT25 belt-drive auto stop M75ED	113.91	74.90
GARRARD GT35 servo belt-drive auto stop M75ED	137.12	88.90

## Super Service — The McOnomy Way ...

● CREDIT TERMS AVAILABLE ● ALL OUR PRICES INCLUDE VAT!

- **GUARANTEE** — 12 months guarantee covering parts and labour on all products.
- **DELIVERY SERVICE** — up to 25 miles for a small charge.
- **AFTER SALES SERVICE** — fully equipped service departments always at your disposal.
- **BRAND NAMES** — products sold by McOnomy bear the name (and carry the reputation) of well-known manufacturers.
- **DISPLAY** — all products in McOnomy stores are clearly displayed in comfortable surroundings.
- **LATE OPENING** — 9.00 a.m. — 8.00 p.m. Weekdays 5.30 p.m. Saturdays — *Scottish Branches also open Sunday 10.00 a.m. — 5.30 p.m.* Personal callers welcome at all branches.



All offers subject to availability

# Super Savers

## Turntables - continued

	REC. PRICE	OUR PRICE
GARRARD DD130 Direct drive	—	89.90
Shure M75ED	139.22	68.90
MARANTZ 6025 belt-drive	92.00	79.94
MARANTZ 6150 Direct drive	—	99.90
MARANTZ 6170 Direct drive	141.00	53.90
PIONEER PL512 belt-drive	67.33	—
PIONEER PL514 belt-drive auto arm	—	63.50
return	79.62	—
PIONEER PL516 F.G. servo belt-drive	—	84.90
auto arm return	107.31	109.90
PIONEER PL520 Direct drive	—	—
PIONEER PL518 DC servo Direct drive	—	113.90
auto return	144.38	89.94
ROTEL RP3300 belt-drive DC servo motor	132.73	89.94
ROTEL RP5300 Direct drive	153.91	56.90
SANSUI SR222P	—	64.90
SANSUI SR232E Auto arm return	—	—
STRATHEARN STM4 Direct drive with	—	49.94
fitted magnetic cartridge	—	54.90
TENSAI T0860B belt-drive with cartridge	—	92.50
TENSAI T0850 Direct drive with cartridge	—	54.90
TRID KD 1033B belt-drive	—	—

## SPEAKERS

ALL SPEAKERS ARE PRICED AS PAIRS

AMSTRAD ACOUSTRA 1000	26.30	21.90
AMSTRAD ACOUSTRA 2500	57.48	41.90
AMSTRAD EX 300	87.67	62.90
ARMSTRONG 602 monitor	220.00	169.90
CELESTION Hadleigh	67.82	36.90
CELESTION Ditton 11	88.75	69.90
CELESTION Ditton 15 XR	146.70	99.50
CELESTION UL6	163.90	127.90
CELESTION Ditton 22	203.50	136.90
CELESTION UL8	200.98	162.90
CELESTION Ditton 33	233.27	184.90
CELESTION Ditton 442	319.57	274.90
CELESTION Ditton 551	376.07	324.90
GODDMANS Mini 2	—	47.90
GODDMANS RB18	—	59.90
GODDMANS RB20	—	74.90
GODDMANS RB35	—	108.90
GODDMANS RB65	—	129.90
GODDMANS Beta	163.55	139.90
GODDMANS Kappa	214.99	184.90
GODDMANS HE2	261.21	222.90
GODDMANS HE1	297.37	249.90
GODDMANS Sigma	305.42	259.90
JR 149	163.13	129.90
JR L.P.A. System with 30 watt bass amp.	—	—
for use with amps 15 to 100 watt	—	—
priced singly	202.50	172.50
MARANTZ 4G	89.00	57.50
MARANTZ 4G3	111.00	79.90
MARANTZ HD440	153.00	99.90
PIONEER CS 323	65.61	54.90
PIONEER CS 424	127.42	102.90

## Speakers-continued

	REC. PRICE	OUR PRICE
PIONEER CS 525	151.52	123.90
SANYO Hi-Fi II	—	74.90
SOLAVOX TK15	36.90	22.90
SOLAVOX PR25 Mk. 2 2 way	51.05	39.90
SOLAVOX PR35 Mk. 2 3 way	77.50	59.90
SOLAVOX PR45 Mk. 2 3 way	102.10	79.90
TENSAI TS 900U	—	58.50
TENSAI TS 930	—	74.90
WHARFEDALE Chevin XP	49.16	32.90
WHARFEDALE Denton XP2	73.73	49.90
WHARFEDALE Shelton XP2	93.96	59.90
WHARFEDALE Linton XP2	114.17	74.90
WHARFEDALE Glendale XP2	151.67	102.90
WHARFEDALE Teesdale SP2	189.15	129.90
WHARFEDALE Dovedale SP2	255.26	164.90
WHARFEDALE E50	295.72	262.90
WHARFEDALE E70	364.82	322.90

## CASSETTE RECORDERS

AIWA AD1250 Dolby	185.66	142.90
AIWA AD6350 Dolby	195.80	149.90
AIWA AD6400 Dolby	243.44	189.90
AIWA AD6550 Dolby	285.33	219.90
AIWA AD6800 Dolby	415.80	304.94
AIWA AD6900 Dolby	485.00	389.90
AKAI CS7020 Mk. II Dolby	173.67	114.90
AKAI GXC706 Dolby	236.06	159.90
AKAI GXC709D Dolby	282.86	189.90
AKAI GXC7250 Dolby 3 head	361.36	239.94
AMSTRAD 7050 Dolby	111.04	69.90
CROWN CTD 1170 Dolby	—	58.94
DECCA DC1100	—	32.50
MARANTZ 1820 Dolby	147.00	104.90
MARANTZ 5000 Dolby	186.00	132.90
MARANTZ 5010 Dolby	213.00	159.90
MARANTZ 5025 Dolby	320.00	229.90
MARANTZ 5030	485.00	349.90
PIONEER CTF 500	128.75	102.90
PIONEER CTF 4040 Dolby	148.20	117.90
PIONEER CTF 700 Dolby (3 meters)	259.26	204.90
PIONEER CTF 900	385.67	309.90
PIONEER CTF 1000 Dolby 3 head	524.04	399.90
ROTEL RD15F Dolby	139.32	104.90
SANSUI SC1110 Dolby	—	117.90
SANSUI SC2110 Dolby	—	184.90
SANYO 4028 Dolby	—	84.94
SOLAVOX SC0 2060 Dolby	122.90	89.90
SUPERSCOPE by MARANTZ CD3100 Dolby	136.00	77.90
TENSAI TFL 805 Dolby	—	84.90
WALTHAM W133 Dolby	—	38.90

## TAPE RECORDERS

AKAI 4000 DS Mk. II	314.06	199.90
PHILIPS N4504 4-track DNL	—	164.90
PIONEER RT707 auto reverse	536.04	409.90

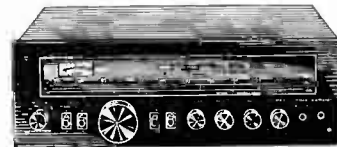
## SOLAVOX SA2020



Stereo Amplifier 20 watts RMS per channel

Rec. Price £60.62 **£46.90**

## SOLAVOX SR2220



FM/MW/LW Stereo Receiver,  
20 watts RMS per channel output.

Rec. Price £82.99 **£68.90**

## SOLAVOX SCD2060



Front loading  
Dolby Stereo  
Cassette Deck

Rec. Price £122.90 **£89.90**

## PIONEER SX 750



AM/FM  
Stereo  
Receiver.  
50 watts  
RMS per  
channel  
output.

**£169.90**

## PIONEER PL 520



Dual motor,  
direct drive, automatic  
turntable.

**£109.90**

PERSONAL CALLERS ARE WELCOME AT ALL BRANCHES

Open 9.00 am - 8.00 pm Weekdays, 9.00 am - 5.30 pm Saturdays.  
Scottish Branches also open Sundays 10.00 am - 5.30 pm.

CARDIFF	52 North Road, Cardiff	Tel: 0222 394016
CLEVEDON	4-9 Kimberley Road, (off Strode Road), Clevedon	Tel: 0272 876041
EDINBURGH	Annandale St. Lane, Edinburgh	Tel: 031-557 1004
GLASGOW	Anderston Cross Centre, Argyle Street, Glasgow	Tel: 041-204 2355
HULL	Status City, Clough Road, Hull	Tel: 0482 442134
LEICESTER	Rutland Centre, Yeoman Street, Leicester	Tel: 0533 536741
NEWHAVEN	Avis Way, Newhaven	Tel: 07912 5081

Customers unable to call at their local branch can phone their order and pay our driver on delivery.

**For details of Mail Order see overleaf**



# McONOMY hi-fi



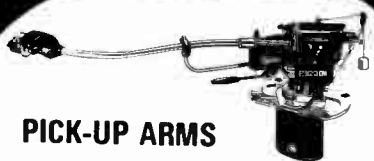
## HEADPHONES

	REC. PRICE	OUR PRICE
AMSTRAD HPS 6A	16.56	11.90
KOSS K6	17.66	10.75
KOSS K6/LC	20.92	14.75
KOSS PRO-4AA	43.87	22.90
PIONEER SE205	15.15	12.50
PIONEER SE305	23.46	18.90
SOLAVOX 300	—	4.90

## CARTRIDGES



Audio Technica AT11E	12.56	9.90
Audio Technica AT13EA	21.94	14.50
Goldring G800	8.44	4.75
Ortofon FF10E Mk. II	12.50	8.90
Ortofon FF15E Mk. II	17.00	13.50
Shure M55E	14.11	8.50
Shure M75EJ	22.13	12.90
Shure M75ED	25.33	15.00
Shure M95ED	33.99	21.50
Shure V15 Mk. III	70.21	48.90
Stanton 500A	18.68	11.90
Stanton 500 EE	26.16	17.50



## PICK-UP ARMS

CONNOISSEUR SAU2	20.84	15.90
SME S2 head shell	6.75	4.90
SME CA1 Carry arm	18.56	14.90
SME FD200 Damper	22.28	17.90
SME 3009 Ser II fixed head shell	73.36	58.90
SME 3009 Ser III	—	99.90



## MICROPHONES

AKAI ADM 20	—	7.50
AMSTRAD DM 701 Pack (pair)	18.99	13.90
EAGLE UD50 HL	16.82	12.90

## CUT PRICE CASSETTES

BASF LH	OUR PRICE
C60	0.68
C90	0.90
C120	1.29

BASF SUPER LH1	OUR PRICE
C60	1.10
C90	1.48
C120	1.90

BASF CRO2	OUR PRICE
C60	1.29
C90	1.60
C120	2.35

MAXELL	OUR PRICE
SLN C60	0.69
SLN C90	0.89
SLN C120	1.10
UD C60	1.10
UD C90	1.29
UD C120	1.70
UDXLI C60	1.45
UDXLI C90	1.80

**LAZER SP PACK**  
C90 five pack with storage rack  
£1.90

MEMOREX CHROME	OUR PRICE
C60	1.20
C90	1.65

MEMOREX MRX 3	OUR PRICE
C60	0.99
C90	1.35
C120	1.75

TDK	OUR PRICE
DC60	0.70
DC90	0.99
DC120	1.30
ADC60	0.99
ADC90	1.42
ADC120	1.90
SAC60	1.27
SAC90	1.80

Now you can afford to buy the best quality tapes for your cassette deck. The very best... for a price you'd normally pay for tapes that are not in the same Hi-Fi class. You've checked our prices so if there isn't a McONOMY branch near you, we'll mail your order to you **FREE**, irrespective of quantity. With top brand names at these prices, can you afford *not* to buy the best?

Send your order or phone Leicester Mail Order Department 0533 536741 and quote your Access or Barclay Card number.

## McONOMY mail order

### BY MAIL

List your requirements, and enclose cheque or postal order (including the appropriate delivery charges) made payable to 'McONOMY'. ACCESS or BARCLAYCARD holders can purchase by including their card number and marking the order 'ACCESS/BARCLAYCARD'.

Postage and Packing (per item). Cart-ridges 30p; Headphones 75p; Pick-up Arms 75p; Headshells 30p; Microphones 75p.

### CREDIT BY 'PHONE

Simply phone Leicester 0533 536741, ask for Credit Mail Order stating your Access or Barclaycard number with your order — and we handle the rest!

### SECURICOR DELIVERY

Any stock item will be delivered by Securicor (add £4.00 for this service) within 72 hours from receipt of order. All goods are fully insured against loss or damage whilst in transit.

### CREDIT TOO!

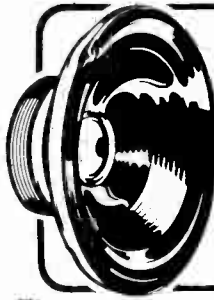
On McONOMY Discount Prices (available on mainland England, Scotland and Wales).

Orders with a total value exceeding £60 can now be purchased on Credit at McONOMY discount prices over 8, 12, 24 and 30 months. Send your requirements to our Mail Order Department at Leicester, marked 'Credit Mail Order' — and an application form together with details of our repayment terms will be sent to you by return of post without obligation.



**MAIL ORDERS TO BE SENT TO THIS ADDRESS:-**

**McONOMY MAIL ORDER**  
Rutland Centre, Yeoman Street,  
Leicester L11



# WILMSLOW AUDIO

The firm for Speakers

## HI-FI DRIVE UNITS



Audax HD12.9 D25	£6.00
Audax HD20S14	£9.45
Audax HD11 P25EBC	£11.98
Audax HD13 D34H	£12.00
Audax HD20 BZ514	£9.45
Baker Superb	£22.50
Castle BRS/DD	£12.35
Chartwell CE205 8" bass, matched pairs only, pair	£59.90
Coles 4001	£6.25
Coles 3000	£6.25
Celestion HF130011	£8.25
Celestion HF2000	£9.95
Dalesford D20/105 4"	£10.95
Dalesford D30/110 5"	£10.95
Dalesford D50 153 6 1/2"	£11.95
Dalesford D50/200 8"	£11.95
Dalesford D70/250 10"	£24.95
Dalesford D100/310 12"	£34.95
Dalesford D10 tweeter	£8.25
Decca London	£41.25
Decca CO/1000/8	£8.95
Decca DK30	£27.50
EMI 14A/770 14" x 9"	£16.95
EMI 8" x 5" d/c 10 watt	£3.95
EMI Type 350 4 ohm	£9.25
Isophon KK10/8	£8.25
Isophon KK8/8	£7.50
Jordan Watts Module	£17.95
Jordan 50 mm unit	£22.50
Jordan CB Crossover	£22.50
KEF T27	£8.50
KEF B110	£10.95
KEF B200	£11.95
KEF B139	£24.95
KEF DN13	£4.95
KEF DN12	£7.25
KEF DN22 pair	£36.00
Lowther PM6	£49.95
Lowther PM6 Mk I	£52.00
Lowther PM7	£86.50
Peerless KO10DT	£8.95
Peerless DT10HFC	£9.75
Peerless KO40MRF	£11.75
Radford BD2511	£26.95
Radford MD9	£14.50
Radford MD6	£17.95
Radford FN8/FN831	£19.95
Richard Allan CG8T	£9.95
Richard Allan CG12T Super	£22.45
Richard Allan HP8B	£15.50
Richard Allan LP8B	£10.35
Richard Allan HPI2B	£25.25
Richard Allan DT20	£7.25
Richard Allan DT30	£7.45
Seas HO86	£8.75
Shackman Electrostatic c/w polar network and x/o pair	£99.95
Shackman units, pair	£112.00
Tannoy HPD 295A	£91.50
Tannoy HPD 315A	£102.95
Tannoy HPD 385A	£119.55

## PA GROUP & DISCO UNITS



Baker Group 25	£13.00
Baker Group 35	£14.50
Baker Group 50/12	£21.00
Baker Group 50/15	£33.00
Celestion G12M	£13.50
Celestion G12H	£17.95
Celestion G18C	£39.95
Celestion Powercell 12"/100	£43.95
Celestion Powercell 15"/100	£48.95
Celestion Powercell 15"/125	£49.95
Celestion Powercell 15M	£47.50
Celestion G12/75 (alum. dome)	£22.50
Celestion G12/75 (d/cone)	£24.50
Celestion G12M/50 (cambric edge)	£16.95
Celestion G15/100 (alum. dome)	£32.50
Celestion MH1000	£13.50
Fane Pop 40	£10.95
Fane Pop 50H	£12.50
Fane Pop 75	£16.95
Fane Pop 65	£19.95
Fane Pop 80	£21.95
Fane Pop 100	£35.95
Fane Guitar 80L	£19.75
Fane Guitar 80B	£19.95
Fane Disco 80	£21.50
Fane PA80	£19.50
Fane Bass 85	£29.95
Fane Crescendo 12A	£42.95
Fane Crescendo 12B	£44.95
Fane Crescendo 15/100	£54.95
Fane Crescendo 15/125	£64.95
Fane Crescendo 18	£75.95
Fane 920 II Horn	£45.95
Fane HPX1/HPX2	£2.50
Fane J44 horn	£6.50
Fane J104 horn	£13.75
Fane J73 horn	£9.75
Goodmans 8PA	£4.25
Goodmans 12P	£19.75
Goodmans 12PD	£22.50
Goodmans 12PG	£21.25
Goodmans 18P	£45.50
Goodmans 50HX	£20.50
Motorola Piezo Horn	£8.50
Richard Allan HD8T	£14.50
Richard Allan HD10T	£15.75
Richard Allan HD12T	£20.95
Richard Allan HD15	£36.95
Richard Allan HD15T	£37.95

## WILMSLOW AUDIO

KITS FOR MAGAZINE DESIGNS etc.

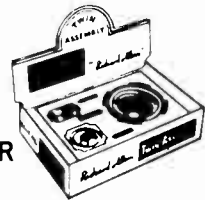


KITS INCLUDE DRIVE UNITS, CROSS-OVERS, BAF/LONG FIBRE WOOL, ETC., FOR PAIR OF SPEAKERS. CARRIAGE £3.50.

PRACTICAL HI-FI & AUDIO PRO9-TL (Rogers) £118.00  
Felt panels for PRO9-TL £5.50 + £1.50 p & p  
HI-FI ANSWERS MONITOR (Rogers) £129.00  
HI-FI NEWS STATE OF THE ART (Atkinson) £161.00  
HI-FI NEWS MINILINK (ATKINSON) £43.00  
HI-FI FOR PLEASURE COMPACT MONITOR (Colloms) £106.50 (carr. £5)  
POPULAR HI-FI MINI MONITOR (Colloms) £63.00  
POPULAR HI-FI Round Sound (Stephens) including complete cabinet kit £68.00  
POPULAR HI-FI (Jordan) £91.00  
PRACTICAL HI-FI & AUDIO BSC3 (Rogers) £60.00  
PRACTICAL HI-FI & AUDIO MONITOR (Giles) £119.00  
PRACTICAL HI-FI & AUDIO TRIANGLE (Giles) £86.00  
PRACTICAL HI-FI MINI TRIANGLE (Giles) £99.00  
HI-FI NEWS TABOR (Jones) £59.75  
HI-FI NEWS TABOR (with H4 bass units) £65.00  
WIRELESS WORLD T.L./KEF (Bailey) £112.00  
WIRELESS WORLD T.L./RADFORD (Bailey) £154.00  
SMART BADGES FREE WITH ALL ABOVE KITS (TO GIVE THAT PROFESSIONAL TOUCH TO YOUR DIY Spkr's!)

SEND 3x7p STAMPS FOR REPRINTS/CONSTRUCTION DETAILS OF ANY OF THE ABOVE DESIGNS.

## SPEAKER KITS



PRICES PER PAIR — CARRIAGE £2.50

Dalesford System 1	£52.90
Dalesford System 2	£55.75
Dalesford System 3	£101.73
Dalesford System 4	£108.00
Dalesford System 5	£139.00
Dalesford System 6	£93.00
Eagle SK210	£15.00
Eagle SK215	£29.00
Eagle SK320	£37.00
Eagle SK325	£67.00
Eagle SK335	£91.00
Goodmans DIN 20	£31.50
Goodmans Mezzo Twinkit	£51.95
KEF kit I	£59.50
KEF kit III (carriage £5)	£119.95
Lowther PM6 kit	£103.00
Lowther PM6 Mk I kit	£108.00
Peerless 1060	£71.95
Peerless 1070	£122.00
Peerless 1120	£139.00
Peerless 2050	£49.95
Peerless 2060	£65.95
Radford Studio 90	£154.00
Radford monitor 180	£208.00
Radford Studio 270	£275.00
Radford Studio 360	£390.00
RamKit 50 (makes Ram 100)	£69.95
Richard Allan Tango Twin	£43.50
Richard Allan Maramba TR8	£61.50
Richard Allan Charisma TR12	£90.00
Richard Allan Super Triple	£73.00
Richard Allan RA8	£46.50
Richard Allan RA82	£74.00
Richard Allan RA82L	£79.95
Seas Mini	£17.90
Seas 203	£35.50
Seas 302	£43.90
Seas 303	£73.90
Seas 503	£111.90
Wharfedale Denton 2XP	£26.95
Wharfedale Linton 3XP	£41.95
Wharfedale Glendale 3XP	£56.95

### Carriage and Insurance

TWEETERS/CROSSOVERS 40p each	
SPEAKERS UP TO 10" 75p each	
SPEAKERS 12" £1.50 each	
SPEAKERS 15" £2.50 each	
SPEAKERS 18" £3.50 each	
SPEAKER KITS £2.50 pair	
MAG. DESIGN KITS £3.50 pair	

All prices correct at 1/11/79

Everything in stock for the SPEAKER CONSTRUCTOR!  
BAF, LONG FIBRE WOOL  
FOAM, CROSSOVERS  
FELT PANELS, COMPONENTS  
ETC.

LARGE SELECTION OF GRILLE FABRICS  
(Send 15p in stamps for fabric samples)

**SWIFT**  
OF WILMSLOW  
The firm for Hi-Fi  
5 Swan Street.  
Wilmslow, Cheshire.

Send 15p stamp for free 38 page catalogue 'Choosing a Speaker'

Telephone: Speakers, Mail Order and Export:  
0625 529599 Hi-Fi: 0625 526213

Lightning service on telephoned credit card orders!

**WILMSLOW AUDIO**  
The firm for Speakers  
Swan Works, Bank Square,  
Wilmslow, Cheshire.

# Cavendish - Britains leading Hi Fi and Cassette Centre

Major stockists of Aiwa, Akai, Amstrad, Celestion, Castle, Ferguson, Goodmans, Hitachi, JVC, Leak, Nakamichi, National, Philips, Pioneer, Rotel, Sanyo, Sony, Sharp, Sansui, Technics, Teac, Tandberg, Toshiba Trio, Wharfedale, & Yamaha


### AMPLIFIERS

**Our Price £47.95**



**Amstrad EX 226**  
Quality Hi-Fi at a low price with this 25W output stereo amplifier giving a full range of filters and bars, treble and balance controls have click position potentiometers

**Our price £83.95**



**Pioneer SA-506**  
Latest stereo integrated amplifier with power output of 25W per channel, min. RMS at 8 ohms, from 20 Hz to 20 kHz with no more than 0.08% THD and IMD.

### AMPLIFIERS

Amstrad EX220	47.95
Eagle A7600	109.95
Hitachi HA330/250/5300	POA
Pioneer SA606	113.95
Rotel RA314/414/714	POA
Sansui AU217	109.95
Sanyo DCA 1001	84.95
Sony TA313	POA
Teac AS30	94.94
Tnshiba SH42N/SB620	POA
Technics SU7300/7700/7100	POA
Trio KA5700	119.95
Yamaha CA410/710/510	POA
New range from JVC JAS 11G JAS 22 & JAS 44 JAS 55/JAS 77	

### MUSIC CENTRES

**Our Price £369.95**



**AIWA AF-5300K**  
New model high quality 4 band Music Centre with facility for 6 FM stations to be pre-set. Also Dolby cassette deck with normal/CrO2/FeCr tape facility and belt drive auto, turntable. Complete with speakers.

**Our price £382.95**



**Goodmans MCD 100 Mark II**  
with improved turntable, High performance stereo FM/AM/LM/S waveband music centre featuring a 35w per channel amp, stereo FM tuner with frequency selectors, Dolby cassette deck and belt drive turntable fitted with S-shaped tone arm


**Our Price £274.95**



**Sharp SG 400** A top quality model with LW/MW/SW/FM/ FM, M.P.K. Stereo receiver with 5 F.M. pre-set buttons; stereo Dolby cassette deck with auto CrO2/normal tape selections, mech. pause & auto stop; belt drive turntable. 25w per channel.

### RECEIVERS

**Our Price £159.95**



**Goodmans MOOULE 130** Top performance AM/FM stereo receiver - 65W per channel into 4 ohms, five pre-sets on FM, five two-octave slider tone controls, full range of inputs.

**Our Price £164.95**



**Aiwa AX-7400**  
High performance 30W output FM/AM Stereo Receiver. Features include effective muting circuitry, high-cut filter, phase locked loop circuit on FM for low distortion.

### RECEIVERS

Aiwa AX7400/7600	POA
Amstrad 5050	85.95
Amstrad 222	67.95
Eagle 7200	86.95
Hitachi SR303	POA
JVC JRS 61/81/201	POA
Marantz 2228 8L	179.95
Marantz 2238	209.95
Pioneer SX590	133.95
Rotel RX303/403/503/203	POA
Sansui G2000	119.95
Sanyo 2100	98.95
Technics Complete Range	
Toshiba SA735	151.95
Toshiba SA320/SA520	POA
Trio 4070	179.95
Yamaha CR820/420/620	POA

**Our Price £399.95**



**Hitachi 7785**  
True Hi-Fi Music Centre with SW/MW/LW/FM stereo receiver with 6 pre-tuned controls and AFC. Turntable with auto return and stroboscopic. Dolby cassette deck with ferric/chrome/normal tape facility.


We are DOLBY Music Centre Specialists call and see our range

Akai AC3800L	POA
Aiwa 5600	449.95
Ferguson 3971	164.95
Ferguson 3920	199.95
Ferguson 3922	299.95
Goodmans MCD 100	359.95
Hitachi ST 7675	POA
Hitachi ST 7680R	339.95
Hitachi 7765	POA
Hitachi SDT 300	POA
Hitachi SDT/400	POA
JVC MF47	POA
JVC MF33	POA
National 1090	POA

National 5070	POA
National 5090/3060	POA
National 5070	POA
Sanyo 4580	POA
Sharp 450	329.95
Sharp SG500	479.95
Sony HMK 55/8	POA
Sanyo 4001	259.95
Sony HMK 80	POA
Sony HMK 77/778	POA
Toshiba 3350/3650	POA
Toshiba SM3600/3750	POA

### SPEAKERS

**Our Price £76.95**



**Wharfedale Linton XP2**  
Successor to the famous Linton 3XP, this unit has an improved Hi-Frequency unit, a power rating of 35W and suitable for amplifiers of between 4-8 ohms

**Our Price £72.95**




**Goodmans RB20**  
Superb true Hi-Fi speakers to suit amplifiers rated at 10-50W undistorted music power

### SPEAKERS

AR 18/17/15	POA
Castle Richmond II	74.95
Celestion UL6/8/10	POA
Celestion Ditton 22	137.95
Celestion Ditton 15XR	99.95
JVC SK 500	POA
JBL 19/40/50	POA
KEF Complete range	
Marantz 46	56.95
Marantz 40(III)	74.95
Monitor Audio MA7	87.95
Mordaunt Short Range	POA
Tannoy/K/LH Complete range	
Technics SX1/2/3	POA
Videotone Minimax	48.95
Wharf ESSD/ESTO	POA
Wharf Dovedale SP2	174.95

### DOLBY DECKS

**Our price £99.95**



**PIONEER CT-F 500**  
Just released! latest front loading Dolby Cassette Deck from Pioneer with full auto stop, pneumatically damped loading door, permalloy play head and ferrite erase head, W&F of only 0.17%.

**Our Price £59.95**



**Sanyo RD 4080G**  
Tremendous value top loading Dolby cassette deck. Specification includes normal/CrO2 tape facility, twin VU meters, pause, tape counter and W&F of only 0.12%.

**Our Price £179.95**



**Sharp RT-3151E**  
Hear the sounds of the '80's with this NEW Microprocessor Dolby Cassette Deck featuring auto programme locating device, LCD quartz clock/timer, memory counter, second display counter, full auto stop & many other features.

### TURNTABLES

**Our Price £109.95**



**JVC QL-A2**  
Beautiful Quartz-locked auto return turntable with core-less DC servomotor, & W&F of only 0.025%. A S/N ratio of only 72dB, and finished to complement any system.

**Our Price £71.95**




**Pioneer PL-514** New Model.  
2 speed belt-drive turntable with W&F of only 0.055%, static-balance S shaped tonearm.

### TURNTABLES

Aiwa AP2200	POA
Garrard SP25 V1	38.95
Garrard GT35	82.95
Garrard DD130	87.95
Hitachi HT 550 QL353 QL	POA
JVC QLA2/QL5/QLF4	POA
Marantz 6170	96.95
Pioneer 516	81.95
Sansui SR836	189.95
Sony 1020	69.95
Sony PST 21/27	POA
Technics SL220/230/3200/3300	POA
Technics 5200/5300	POA
Toshiba 330	POA
Toshiba SR255	78.95
Trio KO 1033	54.95

**Our Price £144.95**



**Aiwa AD-6350K**  
New front loading Dolby cassette deck with bias fine control. 2 point peak indicators, rec. mute switch, cue/review, auto stop, a W&F of only 0.08%.

Amstrad 7060	83.95
Amstrad 7070	99.95
Aiwa 1250/6880/6400	POA
Aiwa 6550	POA
Aiwa AD6900	POA
Akai 706D	159.95
Hitachi D220	92.95
Hitachi D550/D555	POA
JVC KD10/25/55/65	POA
Marantz 5010	139.95
Nakamichi 600	POA
Pioneer CTF 1000	399.95
Sanyo 4028	79.95

Technics 631/641	POA
Sharp 1157	104.95
Technics 646	POA
Technics RS630/615	
Teac A103	115.95
Teac A106	139.95
Toshiba PC 2300	144.95
Hitachi D900/850	POA
Pioneer 700	199.95
Sansui SC2100	195.95
Sansui SC1100	129.95
Yamaha 520	POA

### STEREO TUNERS

Amstrad EX303	51.95
Amstrad EX202	45.95
Hitachi ET340	POA
JVC JTV22/27	POA
JVC JTV 10/JTV 11G1	POA
Marantz 2100	126.95
Pioneer TX606	93.95
Rotel R426	POA
Rotel RT226	56.95
Sony ST212	POA

Sony ST515	POA
Technics ST8080-5500	POA
Toshiba ST1420	POA
Toshiba ST2220	POA
Trio 5500	79.95
Yamaha CT 310/710-510	POA

Amstrad EX303	51.95
Amstrad EX202	45.95
Hitachi ET340	POA
JVC JTV22/27	POA
JVC JTV 10/JTV 11G1	POA
Marantz 2100	126.95
Pioneer TX606	93.95
Rotel R426	POA
Rotel RT226	56.95
Sony ST212	POA

**See and hear the NEW SONY Hi-Fi range in stock NOW!**

### How to order

ORDERING BY MAIL. To Order by mail state the goods required and enclose cheque, postal orders or give your ACCESS or BARCLAYCARD number (if sending cash please use a registered envelope). Please see P & P charges below. Mail order to: 279/283 WHITECHAPEL RD., LONDON E1. If paying by ACCESS or BARCLAYCARD you may phone in your order for prompt delivery. SECURICOR DELIVERY Guaranteed prompt delivery. Add £4 to order. POST & PACKING Add the following for P & P Amps, Tuner Amps, Stereo Tuners, Turntables, Cassette Players, Dolby Decks In Car add £1.50 Music Centres & speakers add £4 Securicor £4. Carriage add 50p.

## Cavendish Sales

CASSETTE CENTRE

317 WHITECHAPEL RD., LONDON E1  
HI-FI CENTRE  
279/283 WHITECHAPEL RD., LONDON E1  
CASSETTE CENTRE  
Right next door to Whitechapel Underground Station  
Tel: 01-247 3453 24 Hour Answering Service  
Open 9am-6pm Mon-Sat

The prices in these advertisements were finalised on 3/1/79. Please check prices and availability at time of purchase.

Compare our prices and stock Ring HOT LINE 01 247 1154 for prices and availability

Compare our prices and stock Ring HOT LINE 01 247 1154 for prices and availability

Compare our prices and stock Ring HOT LINE 01 247 1154 for prices and availability



**\* OVER 1000 MODELS IN STOCK**  
**\* BIGGEST DISCOUNTS**  
**\* TEST ON OUR COMPARATORS**  
**\* ESTABLISHED OVER 50 YEARS**

**RADIO CASSETTES**

**Our Price £64.95**



**Hitachi 5320** Quality LW/MW/FM/SW Cassette radio, 2 way speaker system, cue & review facility variable monitor, auto stop & tape counter.

**Our Price £64.95**



**Sharp GF 3700E** Superb performance radio/cassette recorder with APSS. LW/MW/FM. Built-in mike, sleep counter and timer. Battery condition indicator.

**Our Price £67.95**



**Sony TC-525** Hi-Fi performance stereo cassette recorder featuring stereo playback through amplifier or mono through its own speaker, plus cue & review, Sony Variable Monitor System, pause & tape counter.

**Our Price £136.95**



**Crown CSC 656L** High sensitivity MW/LW/SW/VHF Stereo radio/cassette recorder with LCD quartz digital clock, auto recording to a preset time, two way speaker system, cue & review & auto shut off.

**Our Price £179.95**



**Sharp 9191E** Magnificent Battery/mains Stereo cassette recorder with FM/FM stereo/SW/MW/LW, Auto Programme Search System, twin VU meters, cue/review, FW/SW aerial.

**Our Price £109.95**



**JVC RC 717 L,LB** Terrific stereo radio cassette recorder with 2.5 w per channel output, flexible mikes, sleep timer, built-in cue & review facilities

**IN-CAR**

**Our Price £149.95**



**Philips AC 860** Superb 3 band radio/cassette player with 1AC LW/MW/FM stereo radio, six station P/B selection with auto switchover, 2 x 5w output.

**Our Price £39.95**



**Harry Moss 330** Highly compact Car Cassette Stereo Player with AUTO REVERSE allowing continuous play, plus fast forward & rewind, light touch eject push button, will fit any car, truck, boat or plane.

**Our Price £82.95**



**Amstrad EX900** Executive Stereo 3 wave band car radio cassette. Fast forward and rewind, auto reverse and interference absorption circuit. Also Amstrad 9030 £52.95 and Amstrad 9020 £41.95

**Our Price £76.95**



**Radiomobile 408** Top value stereo car cassette tape player with MW/LW/FM stereo radio, interference rejection circuit, fast forward/rewind, & WBF of less than 0.3 - 5W output per channel.

**Our Price £86.95**



**Aiwa 2040** New Super Hi-Fi auto reverse cassette car stereo with FM stereo AM radio 5w per channel output. Auto or manual reverse cassette mechanism and with interference suppression circuit.

**Our Price £34.95** plus FREE speaker worth £7.95



**Sanyo 4020** Versatile 'under dash' stereo cassette player. Feature p/buttons for play, forward and eject and rotary controls for volume, balance and tone. Has auto stop and produces 4w per channel.

**Battery Mains/Radios**

Akai 370	POA
Ferguson 3T11	46.95
Ferguson 3283	42.95
Hitachi 5300	36.95
ITT RC2500	55.95
ITT 'Tiny'	39.95
JVC RC 222	45.95
JVC 324	POA
Marantz 1053	36.95
National 554/553	POA
National 533/301	POA
National 539	POA
Nordmende Globecorder	145.95
Philips AR554	79.95

Sanyo 2560	36.95
Sanyo 2441	62.95
Sharp 1754	36.95
Sharp 2600	54.95
Sharp 6500	79.95
Sony 210	65.95
Toshiba 6410	POA

**Battery Mains**

Aiwa 772	POA
Crown CTR 375	30.95
Ferguson 3T07	21.95
Ferguson 247/295	POA
Hitachi 36 'Mini'	POA
ITT SL 58	27.95
ITT ST 65	38.95
National 309	POA
Philips 2210	21.95
Philips 2213	29.95
Sanyo 2522	28.95
Sanyo 2610	22.95
Sony TC 63	29.95

**Stereo Recorders/ Battery Mains**

ITT 720	59.95
JVC KD2	POA
JVC 1635	POA
Sony TC 525	69.95
Sony TC 158	156.95
Technics 646	POA

**Stereo Playback**

Aiwa 1050	34.95
Audioline 420	51.95
Hitachi CS320	POA
Hitachi CS370	POA
Harry Moss 330	39.95
Javelin 4103	45.95
National 1131	36.95
National CX5000	POA
Philips AC060	41.95
Pioneer KP212	POA
Pye 2271	27.95
Roadstar RS1550	96.95
Roadstar RS1400	40.95
Roadstar RS1500FP	59.95
Sanyo 4020	34.95
Sony 406	49.95
Sony TC 17	57.95

**Stereo & Stereo Radio**

*Aiwa 2040	86.95
*Audioline 415	84.95
*Audioline 416	109.95
*Audioline 417	103.95
*Audioline 418	109.95
*Blaupunkt Marburg	174.95
*Claron PE685A	124.95
*Eagle MC 7700	86.95
*Eagle MC 7560	79.95
*Hitachi CSK501	POA
*Hitachi CS 2240	POA
*Hitachi CS 329 A/R	POA
*Hitachi 238	POA
*Javelin RS 2750	99.95
*National CO 7300	POA
*Pioneer KP9300	POA
*Pye 2300	69.95
*Philips AC 860	149.95
*Sanyo 4320	66.95
*Sanyo 6067	99.95
*Sony TC 28	86.95
*Sony TC 34	99.95
*Sharp 5750	86.95
*Sharp 5801	POA
*Sharp 5800	POA
*Sharp 5850	POA
*Pioneer KP6300	POA
*Radiomobile 316	109.95

**Stereo & Radio**

Amstrad 9020	41.95
Bluespot Hamburg	99.95
Harry Moss 333	43.95
Hitachi CSW277	POA
National 440	POA
Philips AE260	59.95
Sanyo 4305	56.95
Sony 6045	62.95
Sony TC 24 FL	59.95


**Car Radio**

Blaupunkt Nurnburg	54.95
Harry Moss 331	22.95
Hitachi WM865	POA
Pioneer GX3300	POA
Philips 361	27.95
Philips 7H3	48.95
Radiomobile 1160	27.95
Radiomobile 1170	33.95
Sharp 947	30.95
Selmar CRS3	12.95

THE ABOVE ARE WITH OUR FREE CONVERTIBLE SPEAKERS

Cavendish introduce you to four Hi Fi Systems All complete with Matching Racks

**CAVENDISH SYSTEM RS1 CAVENDISH SYSTEM RS 26**

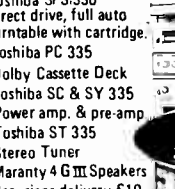


**Our Price £319.95**

Garrard SP25 III Turntable  
 Amstrad EX330 Amplifier  
 \*Amstrad EY303 Stereo Tuner  
 \*Amstrad 7060 Dolby Cassette Deck  
 \*Amstrad EX 450 Speakers

Complete with all leads and cartridge. Securicor delivery £8

**CAVENDISH SYSTEM RS11 CAVENDISH SYSTEM RS5**



**Our Price £509.95**

Toshiba SPS-330 Direct drive, full auto turntable with cartridge.  
 \*Toshiba PC 335 Dolby Cassette Deck  
 Toshiba SC & SY 335 Power amp. & pre-amp  
 Toshiba ST 335 Stereo Tuner  
 Marantz 4 G III Speakers  
 Securicor delivery £10


Complete with matching rack and all leads.

**Our Price £419.95**

JVC JLA 20 turntable (with ZIS Cartridge)  
 JVC JAS 11G stereo amplifier  
 JVC JTV 11G stereo tuner  
 JVC KD10 stereo cassette deck  
 Goodmans RB 20 speakers  
 Complete with matching rack and all leads.  
 Securicor delivery £10

**VIDEO CASSETTE CENTRE**

Pay a visit to London's Top Video Centre for the most competitive prices. Test on comparator Akai, Ferguson, JVC, National, Philips, Sony, Betamax & Toshiba. Buy now ready to record all your favourite programmes.



VIDEO TAPE IN STOCK  
 VHS 180 AT ONLY £12.95  
 LVC 150 AT ONLY £14.95

FREE delivery and installation within 20 miles of East London.

**Stereo Radio Cassette Battery Mains**

Aiwa 903	99.95	Sanyo 4515	198.95
Aiwa 950	POA	Sanyo 9970	125.95
Akai A1480	156.95	Sharp 9151	175.95
Crown CSC626	112.95	Sharp 9090	159.95
Hitachi 8080	POA	Sony 520	POA
Hitachi 8015	POA	Sony CF 570	159.95
JVC 838	POA	Sony CF 580	179.95
JVC 727/828	POA	Superscope 4003	154.95
JVC 717	109.95	Toshiba 8600	POA
JVC 626/838	POA	Toshiba 8510	POA
National 4150/4350	POA		
Philips AR774	117.95		

**CARTRIDGES**

ADC XLMIII	36.95
ADC VLMIII	24.50
ADC 2LM	56.95
ADC OLM36II	16.95
Shure 75ED	13.50
Shure 75EJ	12.50
Shure 95ED	18.95
Shure VI5 IV	64.95
Shure M55E	8.50
Shure V15	46.95
Ortofon M20FL	POA
Ortofon VMS20E	27.45

**HEADPHONES**

Datofon M20E	POA
Datofon F15E	18.45
Datofon FF15E	12.95
Audio Technica	POA
AT 10	5.95
AT 11	7.45
AT 12	18.75
AT 14	26.95
AT 15	38.95
AT 20	43.95
Stanton 500A	14.95
Stanton 500EE	20.75
Stanton 680EE	32.95
Stanton 681EE	47.95

Akai AS 620	13.95
Akai AS 622	15.95
Amstrad HP 56A	12.95
Pioneer SE 505	36.95
Pioneer SE 205	12.95
Pioneer SE 300	18.95
Sennheiser HD 414X	15.95
Sennheiser HD 424X	22.95
Sennheiser H 224	31.95
Sony DR 9A	13.95
Yamaha HP1/HP2/HP3	POA

Save on cassette tapes and video tapes

90 Superbuys	9.95	Philips LVC60	9.95	Philips LVC50	9.95	JVC VHS120	1.95
Philips 80p	1.95	LVC120	1.95	JVC VH 30	5.95	VHS180	14.95
Agfa Super Col	1.95	LVC150	14.95	VH 760	7.95	4 in 50p post & packing	
Maxell LN F1 00p	1.95	Agfa 130	19.95				

**Cavendish Sales**  
 CASSETTE CENTRE

# DELTA (HOUNSLOW) LTD

## Huge stocks - Huge discounts

MAIL ORDER INFORMATION  
AND PRICES

LARGEST SHOWROOM IN LONDON

TELEPHONE 01-572 2285  
(3 LINES)

### AMPLIFIERS

JVC JAS 10 ..	P.O.A.
JVC JAS 11G ..	P.O.A.
JVC JAS 22 ..	P.O.A.
JVC JAS 44 ..	P.O.A.
Marantz 1030 ..	£73-00
Marantz 1040 ..	£87-00
Pioneer SA506 ..	£81-00
Pioneer SA606 ..	£109-00
Pioneer SA706 ..	£145-00
Quad ..	P.O.A.
Sony TA73 ..	£51-00
Sony TA5650 ..	£149-00
Trio KA5500 ..	£149-00
Yamaha ..	P.O.A.

### TUNERS

JVC JTV10 ..	£53-00
JVC JTV 10L ..	P.O.A.
JVC JTV 11G ..	P.O.A.
Quad FM3 ..	P.O.A.
Sony ST 73 ..	£49-00
Sony ST11 ..	£71-00
Sony ST3950 ..	£109-00
Sony ST5950 ..	£195-00
Technics ..	P.O.A.
Yamaha ..	P.O.A.

### TUNER AMPLIFIERS

Aiwa AX7400 ..	£163-00
Aiwa AX7600 ..	£219-00
Armstrong 625 ..	£177-00
Armstrong 626 ..	£199-00
JVC JRS 61L ..	P.O.A.
JVC JRS 201L ..	P.O.A.
JVC JRS 6001 ..	£295-00
Marantz 2225 ..	£159-00
Marantz 2230 ..	£195-00
Marantz 2238 ..	£249-00
Pioneer SX550 ..	£129-00
Sony 1800 ..	£95-00
Sony 4800 ..	£189-00
Tandberg 1055 ..	£199-00
Tandberg 2025FM ..	£209-00
Tandberg 2025L ..	£225-00
Tandberg 2025MB ..	£249-00
Tandberg 2075 ..	£399-00
Technics 5070 ..	£95-00
Toshiba SA 220L ..	£75-00
Toshiba SA420L ..	£129-00
Yamaha CR1000II ..	£350-00

### TURNTABLES

Connoisseur BDI Kit ..	£17-00
Dual 601—V15 III ..	£219-00
JVC JLA20 ..	P.O.A.
JVC JLF50 ..	£119-00
JVC QL7 ..	£167-00
Pioneer PL512 ..	£53-00
Pioneer PL514 ..	£59-00
Pioneer PL117 ..	£69-00
Sony PSX4 ..	£89-00
Sony PSX6 ..	£139-00
Sony PSX7 ..	£159-00
Sony 6750 ..	£159-00
Toshiba 370 ..	£109-00
Thorens TD 160II BC ..	£79-00
Thorens TD126 II BC ..	£169-00
Trio 1033 ..	P.O.A.
Trio 2055 ..	P.O.A.
Technics SL220 ..	P.O.A.
Technics SL230 ..	P.O.A.
Technics SL3200 ..	P.O.A.
Technics SL5200 ..	P.O.A.
Yamaha ..	P.O.A.

### TAPE DECKS

Pioneer ..	P.O.A.
Sony TC399 ..	P.O.A.
Sony TC645 ..	P.O.A.
Revox B77 ..	P.O.A.
Tandberg 20A ..	P.O.A.
Technics ..	P.O.A.

### CASSETTE DECKS

Aiwa 1250 ..	£133-00
Aiwa 6350 ..	£147-00
Aiwa 6400 ..	£179-00
Aiwa 6900 ..	P.O.A.
JVC KD720 ..	P.O.A.

## ALSO



ACCUPHASE AKAI

ARMSTRONG

AR BOSE

CELESTION CELEF

DUAL

FERROGRAPH

HARMAN KARDON

HITACHI

IMF JBL JVC LECSON

MARANTZ

MONITOR AUDIO

NAKAMICHI NATIONAL

NEAL ORTOPHON

QUAD RICHARD ALLAN

REVOX ROGERS

ROTEL SANSUI

SANYO SONY

SONEX BLUE SHARP

SHURE SME

STUDIOCRAFT SUPPEX

TANDBERG TANNOY

TDK TEAK TECHNICS

TOSHIBA TRIO

VIDEOTONE YAMAHA

JVC KD10 ..	P.O.A.
Nakamichi ..	P.O.A.
Pioneer CTF4040 ..	£107-00
Pioneer CTF900 ..	£227-00
Pioneer CTF1000 ..	£367-00
Sanyo 5050 ..	£85-00
Sony TCK1A ..	P.O.A.
Sony TCU2 ..	P.O.A.
Sony TCK60 ..	P.O.A.
Sony TCK96R ..	P.O.A.
Technics 615 ..	P.O.A.
Technics 631 ..	P.O.A.
Teac A140 ..	£89-00
Teac A360 ..	£149-00
Teac A420 ..	£195-00
Tandberg TCD 320 ..	P.O.A.
Toshiba ..	P.O.A.
Yamaha TC511 ..	P.O.A.

### SPEAKER SYSTEMS

(PAIR)

AR 18 ..	£79-00
Celestion Ditton 15XR ..	£97-00
Celestion Ditton 22 ..	P.O.A.
Clestion Ditton 22 Celef ..	P.O.A.
Goodmans RB35 ..	P.O.A.
Goodmans RB65 ..	P.O.A.
I.M.F. TLS 80 II ..	P.O.A.
JR 149 ..	P.O.A.
Full JVC Range ..	P.O.A.
Monitor Audio MA4 II ..	£180-00
Monitor Audio MA5 II ..	£135-00
Monitor Audio MA6 ..	£135-00
Monitor Audio MA7 ..	£90-00
Pioneer Range ..	P.O.A.
Tannoy ..	P.O.A.

Technics ..	P.O.A.
Videotone Minimax 2 ..	£44-00
Wharfedale Chevin ..	P.O.A.
Wharfedale Linton XP2 ..	P.O.A.
Wharfedale Glendale XP2 ..	P.O.A.

### MUSIC CENTRES

Aiwa 5300 ..	P.O.A.
Garrard GA150 ..	£209-00
Hitachi ..	P.O.A.
JVC 33L ..	P.O.A.
JVC MF 47L ..	P.O.A.
National 1030L ..	P.O.A.
National 5090 ..	P.O.A.
National 6070 ..	P.O.A.
Sharp Range ..	P.O.A.
Sony HMK11 ..	P.O.A.
Sony HMK33 ..	P.O.A.
Sony HMP 70 ..	£239-00
Toshiba SM2700 ..	P.O.A.
Toshiba 3100 ..	P.O.A.
Toshiba 3650 ..	P.O.A.
Toshiba 3750 ..	P.O.A.

### HEADPHONES

JVC Full Range ..	P.O.A.
Koss ..	P.O.A.
Sennheiser ..	P.O.A.
Yamaha HP3 ..	P.O.A.
Yamaha HPI ..	P.O.A.

## RING FOR BEST PRICES ON MAKES AND MODELS NOT GIVEN HERE

EXPORT WELCOME

ALL PRICES INCLUDE VAT

ALSO  
Video; Colour and Mono-  
chrome Televisions; Noise  
Reduction Units; Head-  
phones; Pick-up Arms;  
Cartridges; Radio-cassettes;  
Radio/cassettes; In-car  
leads and plugs.

Prices are subject to  
change without any notice  
and subject to availability.  
All prices correct 22/9/78.

# DELTA (HOUNSLOW) LTD

50 BELL RD., HOUNSLOW, MIDDLESEX. TEL: 01-572 2285  
OPEN MON.-SAT. 9-6 CLOSED WED. HALF DAY.

# Classified Advertisements

Advertisements for this section must be pre-paid. The rate is 13p per word (private), minimum £2.60. Box Nos. 45p extra. Trade rates 16p per word, minimum £3.00. Copy and remittance for advertisements in **APRIL** issue must reach these offices by **1st March** addressed to: The Advertisement Manager, Hi-Fi News & Record Review, Link House, Dingwall Avenue, Croydon CR9 2TA. **NOTE:** Advertisement copy must be clearly printed in block capitals or typewritten.

Replies to Box Nos. should be addressed to the Advertisement Manager, Hi-Fi News & Record Review, Link House, Dingwall Avenue, Croydon CR9 2TA, and the Box No. quoted on the outside of the envelope. The district after Box No. indicates its locality.

**Sex Discrimination Act 1975.** No job advertisement which indicates or can reasonably be understood as indicating an intention to discriminate on grounds of sex (e.g. by inviting applications only from males or only from females) may be accepted, unless

- (1) the job is for the purpose of a private householder or
- (2) it is in a business employing less than six persons or

(3) it is otherwise excepted from the requirements of the Sex Discrimination Act.

A statement must be made at the time the advertisement is placed saying which of the exceptions in the Act is considered to apply.

The attention of advertisers is drawn to "The Business Advertisements (Disclosure) Order 1977", which requires that, from 1st January 1978, all advertisements by persons who seek to sell goods in the course of business must make that fact clear. From the above date, consumers therefore should know whether an advertisement relates to a sale by a trader or a private seller.

## FOR SALE—private

Radford Studio (Transmission Line) 4 unit speakers. Pair. Teak finish in excellent condition, £200 o.n.o. Tel.: Burton on Trent 703860 after 6 p.m. C.

V15/3 with SME series 2/light weight head, 12 in charm. £50 complete. Tel.: Burton on Trent 703860 after 6 p.m. C.

Soundcraftsman Graphic Equalizer, £95. One Goodmans Module 80 receiver, £40. One Entre-1 moving coil cartridge with Lentic head amp, 4 hour's use, £85. One Stanton 881S stereo cartridge, 1 hour's use, £50. Two pairs of Stax SRX3 headphones with SRD6Sb Energizer, 2 hours' use, £150. Tel.: Mr. John Cawthorne, Benefield 314. C.

Philips N4504 reel recorder, new with cover and N6310 stereo phones. Reluctant sale. Complete for £165. Tel.: 021 308 4764, evenings. C.

Pair IMF RSPM IV Professional monitor speakers complete with stands, mint, as new, with boxes, £595. Lesson AC1 preamp, £170. Pair IMF super compacts, £95. All items in immaculate condition. Offers/demonstrations welcome evenings/weekends. Tel.: Wellingborough 226376. C.

Thorens TD125 turntable, SME 300911 (Imp) arm with FD200 damping unit and Shure V15/IV cartridge in walnut finished plinth with smoked perspex lid, VGC, cartridge almost unused, £175 o.n.o., complete but may separate. Fisher 500T stereo tuner/amp complete with transformer and walnut finished cabinet, £90 o.n.o. Box No. 2623, c/o Hi-Fi News. C.

Technics Rsisoos two-track tape machine, domestic use only, boxed, eighteen months old, also empty spool, four reels of tape, head demagnetiser, NAB adaptors and leads, sensible offers required, Howard 01-670 2374, 5 p.m.-7 p.m., evenings. C.

IMF Monitor TLS 80, walnut, immaculate, £380 o.v.n.o., buyer collects. Ferrograph Super Seven, series 75, model 7522 DH Dolby, speeds 15, 7½, 3½ i.p.s. ½ track 10+10 W power amps, mint, inc. large selection tapes, many 10½ in. metal spools+two Sony NAB adaptors, £390 o.v.n.o. Both genuine reason for sale. Tel.: Amersham (02403) 21370 evenings and weekends. C.

Quad 22 valve control unit, 211 power amplifiers, mono FM tuner, instruction booklets, overhauled by manufacturer 1979, £125. Tel.: Malvern 61000. C.

SME 3009/II fixed headshell, £30. Shure V15/III with spare stylus, £20. Ortofon VMS 20EII only 5 months old with CAP210, £20. All as new in makers boxes. Tel.: New Oakley 850899 (Fife, Scotland). C.

Shure V15 Mk III cartridge, only reason for sale have acquired Mk IV. £20. Mason. Tel.: Burgh Heath 58279. C.

Technics SL150 turntable, SME arm, ADC headshell, FD200 fluid damper, 9 months old, as new, £120, o.n.o. Tel.: 021-453 3823. C.

Linn/Grace/Supex/UAD MCP1, mint condition, offers to 24365046 L/cpl Bonwick, 12 AD REGT WKSH, BFPO 20. Equipment in Harlow, Essex. C.

Revox B760 digital synthesizer FM tuner, 3 months old, approx. 20 hours use from new, impeccable condition. Offers over £600. Box No. 2622, c/o Hi-Fi News. C.

Beyer ET1000 electrostatic headset and power unit, £90. As new. K. Richardson, 4 Astley Crescent, Freckleton, Nr. Preston, Lancs. Tel.: Freckleton 633/466. C.

Garrard 401 transcription turntable with SME 3009 (long-arm), Shure V15/II, mounted on motor-board 17½ in. x 15 in., £75. One pair B & W DM3 loudspeakers (teak) with plinths, £100. TV sound monitor UHF chassis (Motion Electronics), little used, £45. All equipment in excellent condition, enquiries after 6 p.m. Tel.: Rochdale (0706) 45822. C.

Pioneer tuner/amp SX939 75+75 W output, £275. Pioneer speakers CS911 6-way 150 W capacity, £300 pair. Garrard DD75 deck, £50. Complete; £600. Offers, Brighton 0273 697186. C.

Technics SU3500/ST3500 Fons CQ30/SME DET/M95ED/F15E, JR149 speakers, JVC KD21B cassette deck, housing cabinets, other accessories, cost over £830 total. Accept £570. Box No. 2625, c/o Hi-Fi News. C.

Rega Planar 2 turntable with Hadcock GH228 super tone arm, £125. Stanton 681 EEE cartridge, £25. All as new. Tel.: 994 7634. C.

Luxman CL32 preamp, unused, £350. Reason for sale, no power amp. Contact D. Lo, 103 Connaught Road, Roath, Cardiff, Glam. C.

Pair Wharfedale sand filled baffle speakers, SFB 3 (Walnut) original units, appearance near mint, £50. Box No. 2624, c/o Hi-Fi News. C.

Yamaha CR400 receiver, excellent, £100. Sony TC 206 SD excellent, £100 o.n.o. Mr. Lamphire, 48 Crayford Road, London, N7. C.

Bang & Olufsen 3000 tuner amplifier, immaculate condition, £200. Similar to model 4400. Pair Radford auditorium speakers, excellent quality, £250. Tel.: Rich, Bishops Cleeve 3333 ext. 2669. C.

Thorens TD110 integrated turntable unit and Ortofon M20E cartridge, little used, £125, or sensible offers (will separate). Tel.: 021-308 3135 evenings. C.

Trio 9100 amplifier, £265. 7300 tuner, £125. UAD pre-preamp, £25, as new. Goodman, 25 Church Road, Bunstead, Isle of Wight. C.

Walnut cabinet containing Garrard 301, SME 3009/II (detachable) Ortofon FF15E, Leak Variscope/ST20, plus pair Castle Richmond speakers, £160. SME 3009/II improved (fixed) FD200 ADC XLMI, £50 o.n.o. Offers for pair Avantic DL7-35 valve amps, recently rebuilt using modern low-noise components. Wanted, pair Leak TL50+amps. Newcastle upon Tyne 642264. C.

Radford SC24/SPA50 50 w.p.c. stereo transistor amplifier and Ferrograph SMFI tuner, £200 o.n.o., or will split. Hodgetts, 01-603 3377 ext. 6363 office hours. C.

Ferrograph Series 7, mark two 4-track (704) in wooden case, perfect condition, £250 o.n.o. Tel.: 01-907 7567 (evenings etc.). C.

B & W DM2 loudspeakers (matched pair) plinths, £125. Sendor BC1 with stands, £175. Wanted, LS3/5A and JR subwoofer. Tel.: Clevedon 874024 (Avon). C.

Michealson & Austin TVA I valve amplifier, as new, £350, 6 months old, superb sound, Sonus Blue £35, buyer collects. Tel.: Lynton 74044. C.

Pair Lowther Acousta speakers PM7 drive units, immaculate, £150. Stretton, Rochdale (0706) 56606. C.

Shure V15/III, excellent condition, original packing, £25 o.n.o. Tel.: Calne (Wilts) 813959. C.

Philips D.N.L. N6720, excellent, £30, o.v.n.o. Sinclair Stereo 60, £7. Wanted Quad FM3 tuner. Redwood, 45a Lulworth Avenue, Poole, Dorset. C.

Yamaha NS1000 loudspeakers, domestic version, ebony finish with stands, less than 2 months old. Today's price £999, accept £650, no offers. Tel.: Dewsbury (0924) 467548 after 6 p.m. C.

Perfect B & W DM3 speakers, Rosewood, £110 pair. Eumig 3-head cassette deck, off-tape monitoring, touch controls etc., never used, £375, inc. remote control. ADC 2LM, perfect, £45. Tel.: 01-458 6271. C.

**Build your own P.A., Group and Disco Speakers**, by R. F. C. Stephens. Save money with this practical guide. Plans for 17 different designs. Line source, I.B., Horn and Reflex types, for 8"-18" drive units. £3.95 post free (\$8 overseas).

**The Infra-Bass Loudspeaker** by G. Holliman. Full constructional details for versions using 15", 12" and 10" drive units. £2.95 post free (\$6 overseas).

**The Dalesford Speaker Book**, by R. F. C. Stephens. This book is a must for the keen home constructor. Latest technology DIY designs. Plans for I.B., and Reflex designs for 10-100 watts. Also unusual centre-bass system. £2.20 post free (\$5 overseas).

## VAN KAREN PUBLISHING

5 Swan Street, Wilmslow, Cheshire.

Oh what a giveaway, the exceptional Cambridge P50 and T55 amp and tuner, Sony TC 366 reel deck, £195. Owner buying BMW. Will deliver London/Bristol. D. Gethyn-Jones, (0272) 292494. C.

Thorens TD124/II arm plinth cover, two headshells cartridges, Hi-Fi News, 1971-1978, Gramophone, 1971-1974, 48 various Hi-Fi journals. Offers, s.a.e. details, Clough, 12 Queensway, Melbourne, Derby. C.

Papst Capstan Motor for tape recorder, brand new, 7½" and 3½", very high quality, bargain, £15. Tel.: 01-360 6885. C.

Koss PRO4AA stereo headphones, little used, £20. Geoff Jeanes, this magazine, ext. 241. C.

Linn LP12, Grace G707, £220; Dual 701/V15LM, £100; Microacoustics 530 cartridge, £75; Design Acoustics D6 (6 unit) speakers, £180. Tel.: Whitby 810 768. C.

Videosonic PD4 (Dolby B), £100; SAE 5000 (click eliminator), £100; Revox 736HS, £100; Revox 736 4-track, £65; Quad II + 2 + 22 + LW/MW/SW tuner, £120; AKG C24 + power supply + control box, £200; AKG CK9 'gun' capsule, £75; AKG 10A 4-channel mic, power supply, £50; Calrec CP1022 2-channel mic, power supply, £40; Cathedral 4-channel limiter, £175. Offers. Tel.: 0422 76161. C.

## FOR SALE—trade

Sugden, Ortofon, Quad, Monitor Audio, A.R., etc. Demonstrations/service, Holdings, 39/41 Mincing Lane, Blackburn BB2 2AF. Tel.: 59595/6 (0245). X.

A.D. period hi-fi cabinets are individually made to your requirements. Send rough sketch of cabinet you have in mind, with your phone number. We will quote a price if we are able to help, or visit our workshop. Village Workshop, 14A Vickers Road, London NWS 4NL. Tel.: 01-267 8504. X.

Don't buy a cartridge until you have got our price, cartridges by: ADC, AKG, Coral, Decca, Empire, Grado, Shure and Sonus, SME Series 2 and 3 pickup arms. Tel.: (0262) 78802, 9am-9pm Monday to Saturday; or write to Aljes Cartridges, 12 Market Place, Bridlington, YO16 4QJ, Mail order only. Export enquiries welcome. X.

Clearance Sale: Linsley-Hood 75 watt power amp modules, fit Powertran standard chassis, basic module £10.50, module with BDY56 power transistors £13.50. Linsley-Hood amplifiers constructed and repaired. Prices inclusive, details free. I. G. Bowman (Dept. HFN/RR), 59 Fowey Avenue, Torquay, S. Devon. C.

Sale of Hi-Fi Stereo equipment, for details telephone Aston Audio, Northwich (Cheshire) 79902. C.

## CROSSOVER WITH FALCON

Your guarantee of high quality Crossover Networks and Components, available direct or from your specialist supplier. We also stock most units by: KEF, SonAudax, Peerless, Coles, Celestion, Daleford, etc. Send large S.A.E. (9½p stamp) for price list PL11 (Overseas \$1 bill).

### FALCON ELECTRONICS

Mail Orders and Callers:  
Tabor House, Mulbarton, Norfolk NR14 8JT  
Telephone: 0508-78272

Callers only:  
26 Station Road, Bexhill-on-Sea, Sussex  
TN40 1RG. Telephone: 0424-219950 or 04243 4932

## SERVICING

Hi-Fi cassette tape recorders. Repairs by expert engineers. NuSound. See advertisement, page 146. X.

Audio repairs by electronics engineer, 30 years experience, extensive facilities enabling equipment restoration etc. Quality valued equipment included. Personal service. Location: Woodford, Essex. Tel.: 01-504 5467. X.

Audio and radio servicing, design, modification, installation, etc., will travel. Tel.: R. Lucas, Tadworth (Surrey) 2703. X.

## STUDIO FACILITIES

Fanfare Records. Tape-disc pressings, demos, masters, studio/mobile. Neumann disc cutter. S.a.e. brochure. 1 Broomfield Close, Rydes Hill, Guildford. Tel.: 0482-61684. X.

COUNTY RECORDING SERVICE. Stereo and mono masters and lacquer discs from your tapes on our Scully Lathe. Tel.: Bracknell 54935. London Road, Binsfield, Bracknell, Berkshire. X.

Warren Recordings (members A.P.R.S.). Tape-Disc demos-discs, pressings, cassettes. Studio and mobile. 59 Hendale Avenue, London NW4 4LP. Tel.: 01-203 0306. X.

J. & B. Recordings. Disc cutting service. Demos, pressings from your tapes. Tape copying and editing—stereo/mono. S.a.e., 14 Willows Avenue, Morden, Surrey. Tel.: 01-648 9952. X.

Your tapes to disc. Mono or stereo cutting. Vinylite pressings, sleeve/labels. Top professional quality. S.a.e. for photo leaflet. Deroy Records, 'Eastwood', Cove, Dunbartonshire, Scotland. X.

Ellie Jay Records announce new price reductions for the manufacture of records and sleeves. Fast reliable service for quantities from 100 to 100,000. Tel.: 01-908 2735. X.

Sound news production. Britain's oldest full-time tape disc cassette transfer service. Direct transfers, pressing for private and for trade. Fund raising advisory service for Societies, Choirs, Bands. Ferrograph, Grundig, Philips, Revox equipment promptly serviced. 18 Blenheim Road, London W.4. Tel.: 01-995 1661. C.

Elstree Mobile Recording Studios. \* High speed cassette copies \* a mobile recording service on location \* everything from recording to the finished sleeved record/cassette. Tel.: Alan Fish, 01-953 9021/6921. F.

Disc Cutting. Masters and Demos. Pressings. Cassettes. Mobile Recording Studio. Free Brochure. TAM Studio, 13a Hamilton Way, London, N3. Tel.: 01-346 0033. X.

## DO-IT-YOURSELFERS LOUDSPEAKER SUNDRIES

**GRILLE FABRICS GALORE!!**  
**TOP QUALITY WADDINGS**  
**PURE WOOL FIBRES**  
**ACOUSTICALLY-TRANSPARENT**  
**BLACK FOAM PADDING**  
Fabric Samples, 12p (Stamps)

**NICHOLS ACOUSTICAL FITMENTS**  
**BUBWITH, SELBY, N. YORKS.**  
Telephone 0757 85-206

## WANTED

Wanted urgently, all good quality stereo hi-fi equipment, top cash offers, collection arranged. Sound Exchange, 296 High Street, Sutton, Surrey. Tel.: 01-643 6420; or 33 Dartmouth Road, Forest Hill, London SE23. Tel.: 01-699 5577. C.

Philips RH691 stereo tuner, good condition essential, please reply Box No. 2616, c/o Hi-Fi News. L.

## BADGER SOUND SERVICES LIMITED



### PROFESSIONAL STANDARDS FOR THE AMATEUR SPEAKER BUILDER

We deal only in components for High Fidelity speakers and do not handle Group, Disco, P.A., Radio/T.V. or general purpose drive units, nor do we offer non-specific crossover networks. Specialists in the supply of components to the do-it-yourself speaker builder, our experience, our technical expertise and the excellence of our standards have been recognised by the Audio Press in this country and abroad. Our prices for Sonaudax, Celestion, Coles, Falcon, Isophon, Kef, Lowther, Peerless, and Tannoy, as well as crossovers, components and materials for magazine projects and manufacturers' designs are highly competitive, but we see no point in publishing a list of prices which are constantly changing, and which are not much use without technical data.

Although primarily concerned for the home constructor, we supply components to some of the most respected manufacturers of commercial speaker systems.

Stockists of Nytech, Edinburgh Wireless Co., Nightingale, Quad, Dual, Cambridge, Harman Kardon and the good cartridges and arms.

### EXPORTS WELCOME

Speaker constructor's catalogue with designs, 30p or a dollar bill.

PRO 9TL construction book and full drawings, 60p post free (overseas, £1.25 air mail).

Callers welcome 9-5 Tues. to Sat. 24-hour, 7-day phone-answering service, including ACCESS orders.

**BADGER SOUND SERVICES LTD.,**  
46 Wood Street, Lytham St. Annes,  
Lancs. FY8 1QG  
Phone (STD 0253) 729247  
(Closed Mondays)

Vortexion WVB5 or WVB6, or Ferrograph 4-track Series 6. State price, condition and location, advertiser lives in North London. Box No. 2619 c/o Hi-Fi News. C.

Akai CR83D or GXR82D wanted. Mr. Norstebo, Robert-Koch-Str. 38/503, D-34. Göttingen. C.

Wanted original or photo copies of Linn Sondek turntable maker's setting up instructions, also wish to buy home built KEF kit three, concertos. State price required. Box No. 2626 c/o Hi-Fi News. C.

Black Strathern SM2000, must be in v.g.c. with all packing etc. preferably in local area. Tel.: Münster (Sheppey) 874350.

## IN SEARCH OF PERFECTION?

When it comes to HI-FI everyone wants perfection in sound and looks. Choice too is important. And that's why perfectionists everywhere call at Taylor's. We have the choice, the best names, service and advice. If that sounds perfect to you — Good, we'll see you soon.

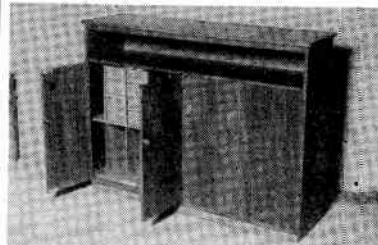
TECHNICS · HARMAN KARDON · QUAD & ELS SPEAKERS · RADFORD · MICRO SEIKI · THORENS · ORTOFON · GRADO · AKG · DECCA · MICRO ACOUSTICS · REVOX · TEAC · SMC · KEF · TANNOY · GRIFFIN · KLH.

W.J. TAYLOR (MUSIC) LTD.  
126-130 HAWTHORN RD.  
KINGSTANDING,  
BIRMINGHAM B44 8QA.

**021-382 1312**



The sign of the small family firm where personal service to customers still counts.



Our most popular model for records/cassettes/hi-fi equipment: 48" 2DN.

Whatever your requirements we can make a cabinet to suit, in wood or melamine.

For all details

Send two 9½p stamps for brochure to: Dept. HFN/2/79  
ECC 4 Brunswick Drive, Harrogate, Yorkshire.

Chilton 100S tape recorder, 1-track, with or without power amplifiers, Mk 3 model preferred but earlier models considered. Tel.: 01-462 1021 (Bromley). C.

## WILMSLOW AUDIO

### THE FIRM FOR SPEAKERS



For the best prices and largest stocks in the country see our advertisement on page 183.

## FRIENDSHIP

Singles Holidays/Houseparties, friendship introductions. Free details—Christian Friendship Fellowship, Dept. B86, Edenthorpe, Doncaster (S.A.E.) C.

## OPPORTUNITIES IN SCOTLAND

Keen on hi-fi or cameras? Come and sell your hobby at elena mae.

As a company continuing to expand throughout Scotland, Elena Mae have opportunities available for salesmen/women in a number of towns including Edinburgh, Glasgow and Dundee.

We would like to hear from you if you already have sales experience of, or a hobby interest in, audio, hi-fi, video or photography.

At Elena Mae we stock a wide range of the finest equipment available to-day and reward our staff with a good basic salary plus commission, a free pension and life assurance scheme, a staff discount and free film processing scheme, a 5 day week and 3 weeks holiday per annum increasing with service. We operate a D.I.T.B. award winning staff training scheme and can offer good promotion prospects where appropriate. We back up the work of our sales staff with our own equipment servicing and film processing divisions.

If you'd like to consider working with us, write now to Martin Payne, Elena Mae Ltd., 33 Commercial Street, Dundee or have an informal discussion with him by telephoning Dundee (0382) 22551.



Scotland's leading Photographic and Audio Dealers.

## EXCHANGES

Looking for a person having a videorecorder (VHS type) of his own to exchange some videocassettes of TV programmes between England and France, Daniel Hantai, 140 rue du Temple, 75003 Paris. Tel.: (1) 271 82 87. C.

THESE PRICES WILL MAKE YOU FEEL DISHONEST!

ALL ITEMS ORIGINAL IN MAKERS BOXES Cartridge (with Stylus) P/P+30p

Styli P/P+20p

### ORTOFON

SL20E ..	£46-50
MC20 ..	£58-90
SL20Q ..	£69-42
STM72 Transformer ..	£20-90
M20FL ..	£54-90
M20E Super ..	£47-90
VMS20E/II ..	£29-90
F15/II ..	£20-90
FF15E/II ..	£13-90
MCA76 ..	£98-90

### ORTOFON

D15E Super ..	£24-12
D20FL ..	£30-89
D20E Super ..	£24-28
D20E/II ..	£21-83
N15E/II ..	£12-35
NF15E/II ..	£9-47

### ARMS/HEADSHELLS

(Arms—80p P/P)	
(Headshells—40p P/P)	
SME 3009 Fixed ..	£53-43
SME 3009 Det. ..	£58-40
SME Series III ..	£98-24
SME FD200 ..	£17-15

### STANTON

681EEE ..	£44-32
680EE ..	£28-45
500E ..	£16-53
881S ..	£79-22
500EE ..	£19-26

### PHILIPS

GP400/II ..	£6-79
GP401/II ..	£13-89
GP412VE ..	£20-10
GP422/II ..	£30-37

### EMPIRE

2000 ..	£7-77
2000E ..	£8-50
2000E/II ..	£12-16
2000E/III ..	£13-90
2000E/IV ..	£14-75
2000Z ..	£48-50

### AKG

P8ES ..	£38-91
X6R ..	£7-06
X6E ..	£10-09
X7E ..	£15-65
X8E ..	£31-30

### SHURE

N44E ..	£5-88
N55E ..	£7-20
N75/6 ..	£6-06
N75B ..	£6-77
N75E ..	£9-09
N75EJ ..	£13-02
N95E ..	£10-14
N95ED ..	£17-47
VN35E ..	£16-90
VN15E ..	£16-60
VN78E ..	£16-62
N91ED ..	£13-89

### RECORD CLEANERS ETC.

+40p P/P	
Micell Sweep Arm ..	£4-30
Vac-O-Rec Mk2 ..	£19-70
Bib 3000 ..	£6-80
Nagaoka Roller ..	£6-95
Disc Washer ..	£6-20
Decca Record Brush ..	£5-35
Decca Cleaning Arm ..	£5-25
Zeepa Gold Nibs ..	£3-60
DSK 22 Anti-static Mat ..	£13-00
Zeepa Demagnetiser ..	£7-95
Direct Designs Anti-Static Mat ..	£2-35

### GOLDRING

G800 ..	£4-95
G850 ..	£4-50
G800H ..	£4-95
G820 ..	£7-20
G820E ..	£10-23
G820SE ..	£18-56
G900SE ..	£37-00

### GOLDRING

G800 ..	£3-38
G850 ..	£3-38
G800H ..	£3-38
G820 ..	£3-38
G820E ..	£6-41
G820SE ..	£11-50
G900SE ..	£15-27

### ACCESS

### BARCLAYCARD

A1 Cartridges & Styli Discounts Ltd

Telephone 01-580 9111/2 (24-hour Telephone Answer)

Callers Welcome at 12/14 Whitfield Street, London, W.1 (Lower Ground Floor) between 11.00 a.m.—4.00 p.m. (Monday-Friday). Near Gough Street.



The firm for Speakers

## BEST FOR AUDAX

HD12.9D25 tweeter 8 ohm ..	£6-00
HD10D25AV tweeter 8 ohm ..	£6-00
HD13D34 tweeter 8 ohm ..	£6-98
HD13D34H tweeter 8 ohm ..	£12-50
TW97G tweeter 4 ohm ..	£2-95
HD13D37 dome midrange 8 ohm ..	£11-50
HP11P25TC 4 1/2" twin cone 8 ohm ..	£5-56
HD11P25 4 1/2" single cone 8 ohm ..	£5-56
HIF13E 5" 10 watt 8 ohm ..	£5-25
HD17B25H 6 1/2" 20 watt 8 ohm ..	£10-95
HD17B37 6 1/2" 40 watt 8 ohm ..	£13-10
HD20B25J4 8" 35 watt 8 ohm ..	£9-45
HD20B25H4 8" 35 watt 8 ohm ..	£11-98
HD21B37 8" 40 watt 8 ohm ..	£15-75
HIF21E 8" 15 watt 8 ohm ..	£6-95
TIA24BR 10" 10 watt 3 ohm ..	£2-75
HD24S45 10" 70 watt 8 ohm ..	£16-25

Post & packing: tweeters, 40p each; other units, 75p each.

KITS FOR MAGAZINE DESIGNS EMPLOYING AUDAX DRIVE UNITS:

## HIFI NEWS TABOR (JONES)

2 HD20B25J4, 2 HD12.9D25, 2 assembled crossovers, BAF wadding, Laminated bituminous felt panels, reflex tubes, recessed connection panels, T-nuts and bolts.

£51-95 carriage £3-50

AS ABOVE BUT WITH HD20B25H4 UNITS IN LIEU OF HD20B25J4

£55-00 carriage £3-50

## HIFI ANSWERS JULY '78 (JONES)

2 HD17B25H, 2 HD12.9D25, BAF wadding, Laminated bituminous felt panels, 2 assembled crossovers, recessed connection panels.

£50-00 carriage £3-50

SMART BADGE FREE WITH ABOVE KITS (TO GIVE THAT PROFESSIONAL TOUCH TO D.I.Y. SPEAKERS!)

ALL PRICES INCLUDE VAT

Everything in stock for the speaker constructor! BAF, long fibre wool, foam, felt panels, crossovers and components. Large selection of grille fabrics—send 15p stamps for grille fabric samples.

Send 15p stamps for FREE 38-page catalogue "CHOOSING A SPEAKER". Telephone: 0625 529599.



The firm for Speakers

Swan Works, Bank Square, Wilmslow, Cheshire. Tel: 0625-529599.



Lightning service on

telephoned credit card orders!

**ARE YOU REALLY INTERESTED IN HI-FI?**

If you are knowledgeable, and keen, and would like to sell HI-FI, - RADIO and T.V. we would like to talk to you.

Telephone **680-8718.**  
**ROBINSONS OF CROYDON.**

**SITUATIONS VACANT**

Turn your interest into profit by working for local radio, BBC, overseas stations, record companies, music publishers, concert promoters, etc. Set up your own record company, join a radio consortium. All this and 600+ company addresses in "Music and Radio Index", £2.00. Dept. 26, R.S. Productions, Hamilton House, Staverton, S. Devon. C.

**LET US TURN YOUR HI-FI ON with our DIGITAL TIMER**

- Can be set to turn ON and OFF once a day at any time.
- Can be set to repeat everyday if desired.
- Very accurate—can be set to the nearest minute—unlike conventional timers.
- Can switch appliances 1 kW—the biggest hi-fi, T.V., electric blankets, heaters, lights, etc.
- Housed in high quality teak veneered cabinet, size 7" x 5" x 2" approx.
- UK made—fully guaranteed.
- Very good value—all inclusive price, £29.95.

Please send £29.95 or s.a.e. for further details to:

**AKR PRODUCTS,**  
**24 CRANBOURNE STREET,**  
**LONDON WC2H 7AA**  
Mail order only

Attach this advertisement to your order or fetch it with you to claim these **ULTRA SPECIAL DISCOUNTS**

**CARTRIDGES & STYL**

Cut out this discount coupon ad to buy at these 'ultra-special' prices (Errors and price changes excepted).

CARTRIDGES		STYL	
Shure M3D	£5-45	ADC RXL	£15-75
Shure M44-7	£6-40	ADC RVL	£12-95
Shure M44E	£7-45	ADC RSZ	£24-25
Shure M55E	£8-25	ADC RSX	£16-75
Shure M75-6S	£7-30	ADC RSV	£14-65
Shure M75B/II	£9-95	ADC RSQ36	£11-45
Shure M75ED/II	£14-45	ADC RSQ34	£9-75
Shure M75EJ/II	£13-05	ADC RSQ32	£8-45
Shure M75G/II	£15-75	ADC RSQ30	£7-15
Shure M95ED	£17-95	ADC Headshell	£4-25
Shure M95EJ	£12-35	Shure N3D	£3-90
Shure M24H	£26-35	Shure N44-3	£5-45
Shure V15 III	£43-50	Shure N44-7	£5-15
Shure V15 IV	£41-25	Shure N44E	£5-35
Shure M91E	£16-50	Shure N55E	£6-50
Shure M91ED	£15-30	Shure N75-6	£5-10
Shure M93E	£11-75	Shure N75-3	£6-55
Stanton 500A	£13-45	" N75B Mk. II	£6-15
Stanton 500E	£15-45	" N75E Mk. II	£11-60
Stanton 500EE	£17-85	" N75J Mk. II	£8-15
Stanton 680EE	£25-75	" N75G Mk. II	£8-50
Stanton 681EEE	£39-75	Shure N95-3	£6-10
ADC ZLM	£53-95	Shure N95ED	£14-95
" XLM Mk III	£34-50	Shure N95EJ	£9-10
" VLM Mk. III	£24-45	Shure VN35E	£15-95
" QLM36 Mk. III	£16-85	Shure VN15E	£15-75
" QLM34 Mk. III	£10-30	Shure VN78E	£15-75
" QLM32 Mk. III	£9-35	Stanton DS107A	£8-00
" QLM30 Mk. III	£8-45	Stanton DS100E	£10-75
Empire 2000E	£8-45	" DS100EE	£13-90

Add P&P 25p ALL MAIL TO: ESTUARY AUDIO, DEPT. AC/ST, 1 HIGHBURY STATION, HIGHBURY CORNER, LONDON N5 (607 0644) CALLERS WELCOME

**ESTUARY AUDIO**  
MANSIONS AVE. 30 COLEMAN ST. LONDON EC2 (606 4102)  
LEICESTER SQUARE STN Ticket Hall Cranbourn St. Exit (439 9210)  
LEEDS: 1: 62 WELLINGTON ST. (off City Square) (444 692)  
MANCHESTER: VICTORIA STATION APPROACH. (832 4592)  
THE TAPE SPECIALISTS  
BRISTOL: 29 DENMARK STREET Hippodrome (29 0900)  
BIRMINGHAM: BULL RING SUBWAY (near St. Station exit) (643 1766)  
LEIGH - GM - SEA: 113 RECTORY GROVE (0702 712861)

**ADC SPECIALISTS ADC**

1700. DD/Quartz/XLM	.. .. .	P.O.A.
1600. DD/QLM36 Mk III	.. .. .	P.O.A.
1500. FG/QLM34 Mk III	.. .. .	P.O.A.
SS2. Equaliser	.. .. .	P.O.A.
LMF2. P.U. Arm	.. .. .	P.O.A.
LMG1. Headshell	.. .. .	P.O.A.
ZLM Cartridge	.. .. .	P.O.A.
XLM Mk III Cartridge	.. .. .	P.O.A.

\*Please telephone us, ask for Mr. Colin, you will find our prices very competitive. All ADC cartridges and styli available. Send large SAE for leaflets.

**LYRICHORD SALES, PIERCING HILL, THEYDON BOIS, EPPING, ESSEX.**  
Telephone: 037-881 2612.

**ADVERTISERS' INDEX**

ADC Loudspeakers	.. .. .	32, 33	Harman Kardon	.. .. .	50	Radford International	.. .. .	68
AKG Vienna	.. .. .	51	Hayden	.. .. .	22, 48	Rank Akai	.. .. .	62, 63
Armstrong	.. .. .	90	Heinitz, T.	.. .. .	30	Rank Wharfedale	.. .. .	8, 9, 11
Astra Aerials	.. .. .	88	Herts	.. .. .	175, 176, 177	Reading Cassettes	.. .. .	4
Audio Centre	.. .. .	122	Hi-Fi Care	.. .. .	96	Research Instruments	.. .. .	126
Audiomaster	.. .. .	44	Hi-Fi Choice	.. .. .	36	Revox	.. .. .	46
Audio Pro	.. .. .	20	Highgate Acoustics	.. .. .	58, 92	REW	.. .. .	17, 54, 55, 88, 140
Audio Services	.. .. .	24	Hitachi	.. .. .	43	Richard Allan Radio	.. .. .	26
Audio T	.. .. .	60	Houliden	.. .. .	148	Rogers	.. .. .	25
Azat	.. .. .	178	IMF	.. .. .	122	Rola Celestion	.. .. .	104
BASF	.. .. .	38, 39	Intervision	.. .. .	49	Ross	.. .. .	10
B & W Loudspeakers	.. .. .	130	ITT	.. .. .	6, 7	Sansui	.. .. .	26, 27
Bang & Olufsen	.. .. .	102	JBL	.. .. .	23	Saray	.. .. .	142
BIB IMR	.. .. .	88, 94	JR Loudspeakers	.. .. .	100	Scottish Hi-Fi Dealers	.. .. .	41
Boothroyd Stuart	.. .. .	78	K.E.F.	.. .. .	47	Sevenoaks Hi-Fi	.. .. .	136
Broadaker	.. .. .	20	K.J. Leisure Sound	.. .. .	14, 15, 37	Sharps	.. .. .	112
Castle Acoustics	.. .. .	86	Knightsbridge Audio	.. .. .	144	Shure	.. .. .	138
Cavendish	.. .. .	184, 185	Koss	.. .. .	18	SME	.. .. .	159
Celef	.. .. .	29	McConomy	.. .. .	180, 181, 182	Soundguard	.. .. .	45
Chew & Osborne	.. .. .	98	Milty Products	.. .. .	IBC	Sound Lease Services	.. .. .	145
Comet	.. .. .	160, 161, 162, 163, 164, 165, 167, 168, 169, 170, 171, 172, 173, 174	Mitsubishi	.. .. .	56	Stanton	.. .. .	30
Delta Hounslow	.. .. .	186	Monitor Audio	.. .. .	5	Subjective Audio	.. .. .	128
EMI Tape	.. .. .	106	Monitor Sound	.. .. .	24	Sugden, A. R.	.. .. .	96, 126, 34
Ealing TV	.. .. .	179	Mordaunt Short	.. .. .	70	Tangent Acoustical	.. .. .	74
Emberworths	.. .. .	28	Natural Sound	.. .. .	80, OBC	TDK	.. .. .	31
EPS	.. .. .	94	NuSound	.. .. .	156, 157	Teletape	.. .. .	116
Estuary	.. .. .	130	O'Brien	.. .. .	158	Toptape	.. .. .	40
Fidelity Fastenings	.. .. .	126	Ortofon	.. .. .	19	Trio	.. .. .	108
Fotronic	.. .. .	118	Phonogram	.. .. .	118	TV & Home Video	.. .. .	144
Francis of Streatham	.. .. .	122	Pickering	.. .. .	76	Unilet	.. .. .	114
Gale	.. .. .	154	Pickups & Cartridges	.. .. .	154	Watts	.. .. .	84
Goldring	.. .. .	35	Planet	.. .. .	140	Wilmslow	.. .. .	66
Goodman's Loudspeakers	.. .. .	52, 53	Pye	.. .. .	12, 13	Wilmslow	.. .. .	183
Gratisspool	.. .. .	132	Quad	.. .. .	21	Zeepra	.. .. .	134
Guildford Hi-Fi	.. .. .	16, 17	Radford Hi-Fi	.. .. .	42	Zerostat	.. .. .	72
Hardman Radio	.. .. .	34						
Hampshire Audio	.. .. .							

Published by Link House Magazines (Croydon) Ltd on behalf of the proprietors Link House Publications Limited, Robert Rogers House, New Orchard, Poole, Dorset BH15 1LU. Printed by John Wright & Sons Limited, at The Stonebridge Press, Bath Road, Bristol, England.

# Introducing...

# Permostat

## the first ever permanent anti-static record preservative

### Is there static on my records?

Inevitably. Today's PVC gramophone record pressings are generally highly insulated and as such, are most susceptible to electrostatic charging, particularly by frictional contact.

### How does static occur?

The contact of two dissimilar materials is liable to cause an exchange of electrical charge. Thus when an insulating record is removed from its sleeve, subjected to cleaning by a pad or brush or is in contact with a stylus, the record surface is inevitably left in a highly charged state.

### What are the effects of static?

Not unlike a common magnet attracting iron particles, static scavenges and draws dust particles onto the record surface where they can be pushed along the grooves, creating various degrees of distortion. A highly charged record surface could cause micro discharging, uneven cartridge attraction and alteration of the stylus tracking force, resulting in wow and flutter, distortion and record/stylus wear.

### Why is Permostat so special?

Permostat is no ordinary anti-static device, but a unique and specially formulated fluid, which when applied to a record totally and permanently eliminates static.

### How permanent is permanent?

It is claimed that playing a record one hundred times corresponds to the normally expected use of a given record by a consumer. This is also the number of plays used by record companies for evaluating their products.

Tests prove that Permostat eliminates static for at least one hundred continuous plays.

### Are there any adverse effects?

Laboratory tests confirm no detectable change in sound quality, surface noise, frequency response and fidelity.

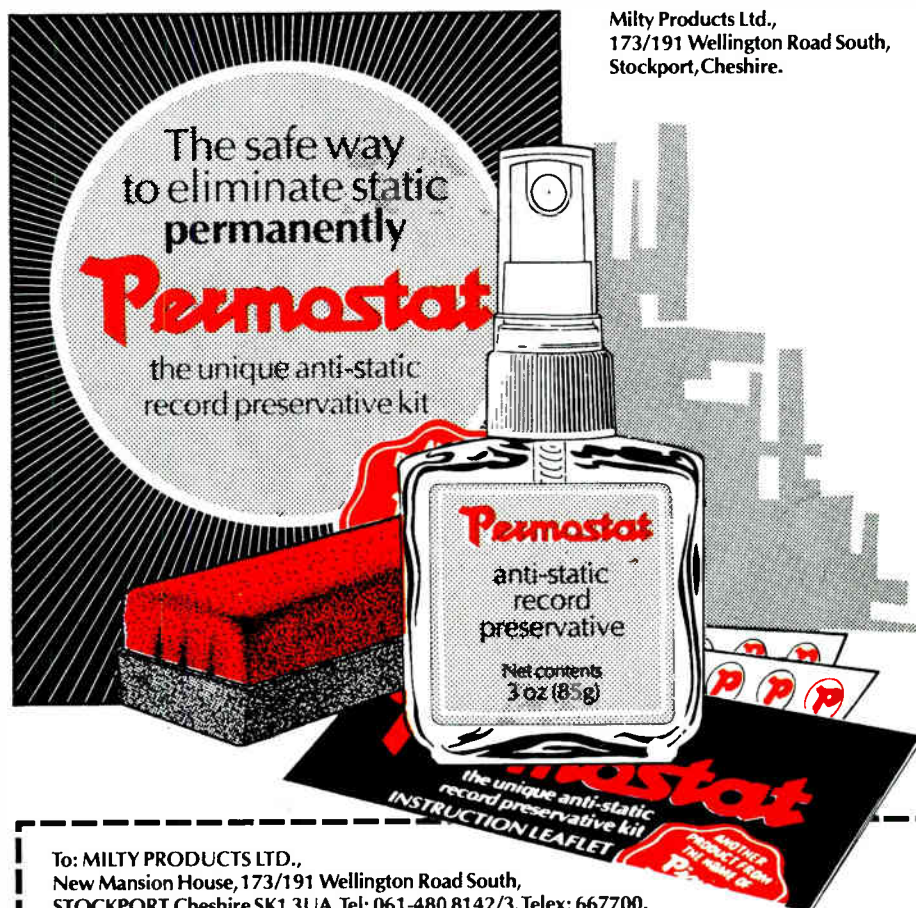
### Who produces Permostat?

Permostat has been researched, developed and produced by the British firm, Milty Products, a leader in the field of record care and maintenance, whose Pixall record cleaner has already won the coveted Japanese Grand Prix award.

### Where can I buy Permostat?

You'll find Permostat in all good hi-fi, audio, record and department stores. However, if you have any difficulty in obtaining Permostat, please fill in the coupon below.

Milty Products Ltd.,  
173/191 Wellington Road South,  
Stockport, Cheshire.



To: MILTY PRODUCTS LTD.,  
New Mansion House, 173/191 Wellington Road South,  
STOCKPORT, Cheshire SK1 3UA. Tel: 061-480 8142/3. Telex: 667700.  
Regd. in England No. 379854

Name

Address

Postcode

(BLOCK CAPITALS PLEASE)  
Prices only applicable to the U.K.

Please supply (state quantity required)  
\_\_\_ Permostat Kit(s) @ £4.65 inc. VAT  
P & P add 30p  
\_\_\_ Permostat refill @ £3.15 inc. VAT  
P & P add 20p

I enclose Cheque/P.O. value  **HNRR1**

£   
(Please do not send postage stamps)



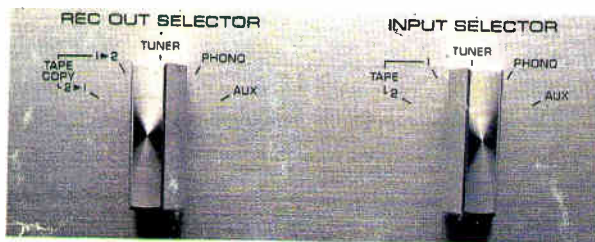
# A simple explanation for the success of our best-selling receiver.

It's simple enough to build a better receiver when you really know how. And Yamaha do.

Our CR620 has been carefully put together to bring you pure natural sound at up to 50 watts power. With less than 0.05% harmonic distortion.

A pretty good start. And it gets even better.

Alongside the input selector for instance, there's a record out selector. A special device that



lets you listen to one source while recording another. So you can play your favourite LP and record the radio simultaneously. Or let a friend make tapes while you tune in to the radio.

Very sociable.

Even more sociable, we've included two stereo headphone jacks. So you can share your listening with someone close to you.

And take a second look at the signal strength meter. It doesn't just indicate precise



FM tuning. It doubles to indicate signal strength as well.

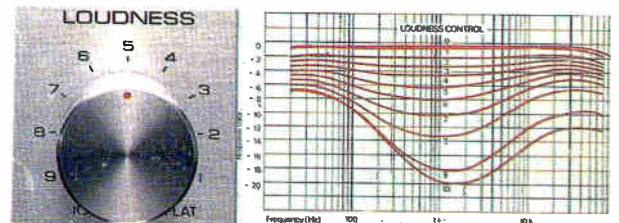
The CR620 incorporates Yamaha's continuously variable loudness control too. So whatever the volume, you're sure of constant tonal



balance. With no loss of bass or treble.

There's lots more. Full tone controls, high and low filters, connections for two pairs of speakers, and a highly praised control panel.

But maybe the real secret is this. The



CR620 includes all these special features in a most reasonable price.

So lots of people who thought they couldn't afford Yamaha are very pleased to find they can.

# Yamaha. Yes.

IF YOU WOULD LIKE FURTHER INFORMATION ON THE FULL RANGE OF YAMAHA PRODUCTS, SEND FOR OUR FREE 32 PAGE COLOUR BOOK TO:  
NATURAL SOUND SYSTEMS LTD, 10 BYRON ROAD, WEALDSTONE, HARROW, MIDDX. HA3 7TL. 01-863 8622.